Giuseppe Nacci , M.D.

Thousand Plants against Cancer without Chemo-Therapy

May 2010
650 pages

EVIDENCE BASED MEDICINE:
2,050 official scientific publications
2,100 various bibliographical references

From:
"Mille Piante per guarire dal Cancro senza Chemio" book –on line

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If the people let the goverment decide what foods they eat and what medicines they take, their bodies will soon be in as sorry a state as the souls who live under tyranny.

Thomas Jefferson

Unless we put medical freedom into the Constitution, the time will come when medicine will organize into an undercover dictatorship.
To restrict the art of healing to one class of men and deny equal privileges to others will constitute the Bastille of medical science.
All such laws are un-American and despotic and have no place in a republic. The Constitution of this republic should make special privilege for medical freedom as well as religious freedom.

Benjamin Rush, M.D.
(George Washington's personal physician and signer of the Declaration of Independence)

The Two Presidents…..

From People,
With People,
For People

Abramo Lincoln

Yes, We can

Barack Hussein Obama

DEDICATION…….

…Dr Max Gerson dedicated his life to the mastery of this scourge of cancer and all should honor his great work…

The Honorable United States Senator Claude Pepper (D-Florida)

..... Cancer is not cured with surgical instruments, but with a vegetarian diet and medicinal herbs…

Hippocrate of Kos

Let your food be your medicine and your medicine be your food….

Hippocrates of Cos

…Very often the simple truth is absolutely not believed ;
You can recover from Cancer but not from Chemotherapy:
Out of FIFTY people suffering from cancer who decide to undergo CHEMOTHERAPY, only ONE will be still alive after only FIVE years from the first Chemotherapy cycle….

the Author

….E Noi dovrem, ahimè, morir….

Morir….

Dilegua o Notte…

…Tramontate Stelle…

…Tramontate Stelle…

All'Alba vincerò…

…vincerò…

vincerò !

Luciano Pavarotti

http://it.youtube.com/watch?v=VATmgtmR5o4

Article No. 11 of the of Declaration of human and civic rights (France, 1789):
"*The free communication of ideas and opinions is one of the most precious rights of the man: any citizen may therefore speak, write and publish freely*".

Article No. 19 of the Universal Declaration of Human Rights (UNO, 1948):
"*Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers*".

Article No. 2 of the Italian Constitution:
"*Everyone has the right to freely express thoughts in speech, writing and by other communication. The press may not be controlled by authorization and submitted to censorship*".

Article No. 11 of the EU Charter of Rights (2000):
"*Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers*".

Medical ethics and freedom to consciously choose a therapy (article No. 32 of the Italian Constitution):

"*The Republic protects individual health as a basic right and in the public interest; it provides free medical care to the poor.*
Nobody may be forcefully submitted to medical treatment except as regulated by law. That law may in no case violate the limits imposed by the respect for the human being".

Note: Scientific references:
In this book the plants are identified by their Latin names – according to the modern scientific classification (see Chapter 20) – and 2,050 official scientific publications are quoted (out of 2,100 various bibliographical references (see Chapter 21), useful to in-depth studies, which confirm the various arguments indicated here.

Thousand Plants against Cancer
without Chemo-Therapy
Ed. 2010

INDEX

ALLEGATEDs

INTRODUCTION

From: "The *Gerson therapy. The amazing juicing programme for cancer and other illnesses*", by Charlotte Gerson and Morton Walker, Thorsons ed.

"During a three-day period, July 1 to 3, 1946, the United States Senate took testimony from nationally known cancer researchers relating to U.S. Senate Bill 1875, also referred to as the "*Pepper-Neely anticancer proposal*". In this bill, Senators Pepper and Neely recommended the appropriation of $ 100 million from the U.S. government's budget for cancer researchers to find a cure for cancer once and for all.

After his two Washington, D.C.-based investigators, a physician and an attorney, reported back to Senator Claude Pepper (D-Florida) that Dr. Max Gerson did, indeed, have a successful treatment for cancer for the first time in history, the United States Senate invited a medical doctor to demonstrate his specific therapeutic approach for curing cancer. Accordingly, Dr. Gerson brought five of his cured cancer patients and the records of five more for presentation before the Pepper-Neely anticancer subcommittee of the Senate Committee on Foreign Relations of the Seventy-ninth Congress.

The impressive testimony of this anticancer specialist and his patients caused Senator Pepper to call a press conference for bringing information about the Gerson Therapy before the media. However, massive numbers of lobbyist for the immensely wealthy *Pharmaceutical Manufacturers' Association* (PMA), the *American Medical Association* (AMA), and the *American Cancer Society* (ACS) prevailed on reporters to ignore the Gerson press conference and attend a cocktail party instead where free food would be served and libations would be flowing. The only reporter who preferred to hear the Gerson presentation was *American Broad-casting Corporation* newscaster Raymond Gram Swing. During World War II, Mr. Swing had been a famous war correspondent on a par with Edward R. Murrow. He attended and took copious notes at the Senate press conference for use in his East Coast 600 P.M. ABC network broadcast of Wednesday, July 3, 1946. Here is what Raymond Gram Swing broadcast then throughout the United States:

…"I hope I have my values right if, instead of talking tonight about the agreement reached on Trieste by the Foreign Minister in Paris, or the continuing crisis of the OPA in Washington , or President Truman's signing of the Hobbs antiracketeering bill, I talk about a remarkable hearing before a Senate Subcommittee in Washington yesterday on cancer and the need for cancer research in new fields.
A bill is before Congress, the Pepper-Neely bill, to appropriate a hundred million dollars for cancer research with something like the zeal and bigness with which it went for the release of atomic energy, turning the job over to the scientists with resources generous enough to solve the problem.

This alone would make a good theme for a broadcast, just an example of the use a great democracy can make of its intelligence and wealth. But the subject has been made peculiarly gripping by unprecedented happenings yesterday before the subcommittee which is holding hearings on this bill, and of which Senator Pepper is chairman.
He invited a witness, a refugee scientist, now a resident of New York, Dr. Max Gerson, and Dr. Gerson placed on the stand, in quick succession, five patients. They were chosen to represent the principal prevailing types of cancer, and in each instance they showed that the Gerson treatment had had what is conservatively called "favourable effect on the course of the disease". That in itself is remarkable, but it is the more so because Dr. Gerson's treatment consists mainly of a diet which he has evolved after a lifetime of research and experimentation. To say that Dr. Gerson has been curing cancer by a dietary treatment is medically impermissible, for the reason that there must be five years without recurrence before such a statement is allowed. Dr. Gerson has cured tuberculosis and other illnesses with his diet, but in the U.S.A. he has only been working on cancer for four and a half years…..
Yet anything that offers even a possibility of treating successfully at least some of the four hundred thousand existing cancer cases in this country is stirring news, no matter how conservatively it is formulated. There would be non Pepper-Neely bill to appropriate a hundred million dollars for cancer research if the existing research were coping with the need.

…I have spoken about this carefully and abstractly, which underplays some of the shock and delight of the experience yesterday at the hearing of the Pepper Committee. It is one thing to talk about chemistry and diet and vitamins and other factors in medical science. It is another to see, as the Committee yesterday saw, a seventeen-year-old girl, who had a tumour at the base of the brain, which was inoperable, and which had paralyzed her. Yesterday, she walked without assistance to the witness chair, and told clearly about her case and her treatment.

There was a sturdy man, who had been a sergeant in the army. He had had a malignant tumour, also at the base of the brain, which had been operated on but needed deep X-ray treatment, and this he could not receive because of the danger to the brain. Yesterday he was the picture of health as he testifield, and quite naturally he was proud of his remarkable recovery.

There was a woman who had had cancer of the breast which spread. Yesterday she was well, and testified with poise and confidence.

A few cases showing such improvement cannot, of themselves, affect the outlook of the medical profession. But they are attested facts and not flukes, and as such they have to be accounted for. And there are many, many more cases which could have been cited.

It would seem to be the business of medical research to leap on such facts and carry every hopeful indication to a final conclusion….
So the advocates for the Pepper-Neely bill can argue that, unless we learn now how to deal successfully with cancer, many millions of persons now living in this country are condemned to die from cancer. A hundred million dollars is little more than a token payment for America to make, in order to avert such a sweep of death, and they can then point to the Gerson dietary approach as a most promising field of research….

Dr. Gerson was an eminent if controversial figure in pre-Hitler Germany. He was bound to be controversial because he was challenging established practice in treating tuberculosis by diet. He has been assistant to Foerster, the great neurologist of Breslau, and for years assistant to Sauerbruch, one of the great physicians on the Continent. The Sauerbruch-Gerson diet for skin tuberculosis is well-known to European medicine, and the account of it is part of accepted medical literature. Dr. Gerson told the Pepper Committee that he had first come upon his dietary theory in trying to cure himself of migraine headaches. Later he treated others, among them a man with skin tuberculosis as well. Dr. Gerson was an acknowledged dietary autority in Weimar Germany, and was responsible for the German army of his time being placed on dehydrated, rather than canned food…..

Raymond Gram Swing continued with his network radio broadcast and brought in some additional news too. After he ended, the telephone switchboard lit up at the American Broadeasting Corporation in New York City. People called in from all over the nation to learn about the Gerson Therapy. But other, darker, more powerful commercial and political forces had been listening as well.
The executive directors of pharmaceutical companies producing cytotoxic agents (Chemo-therapy) for cancer treatment – members of the PMA – threatened to cancel

all radio advertising contracts for their drugs sold over the counter, an annual loss in revenue for ABC amounting to tens of millions of dollars. Within two weeks of that fateful radio broadcast which apprised people of a potential cure for cancer, after thirty years at the same job Raymond Gram Swing was fired his position as a newscaster for the ABC network.

You might also wish to know what happened to the Senate's 227-page Pepper-Neely anticancer bill of 1946-Document No. 89471. By efforts of the lobbyists working with four senators who were also medical doctors, the bill was defeated. Today, Document No. 89471 is stored in boxes and gathers dust in the archives of the U.S. Government Printing Office.

Three questions you may understandably raise are:

1) Why didn't the U.S. Senate over half a century ago adopt the anticancer budgetary measure that came before it?

2) Wasn't the prevention of or treatment for Americans coming down with cancer vital enough ?

3) Why weren't anticancer experts requested to at least test the Gerson Therapy back then when senators were presented with the opportunity ?

The case of the “LAETRILE” (Vitamin B17)

Partially tract from “*A Commonweal Working Paper*”, by Vivekan Don Flint and Michael Lerner
Research Assistance: Melanie Smith, October, 1997,

The most enduring legacy of the meteoric rise of Laetrile to a place of preeminence among unconventional therapies for cancer during the 1970s may well be sociological and political, rather then medical in nature. Laetrile spawned a popular movement for freedom of choice in health care decisions spanning the ideological spectrum that probably has not been seen in this country since the time of Harry Hoxsey. Though it had been in use for at least 25 years as a therapy for cancer, it is estimated that at any given time during the mid-1970s, 70,000 people were using Laetrile as a cancer treatment, for pain control or as a preventive measure.([1421])

In the debate over broader philosophical and political issues, the critical question for cancer patients, whether or not Laetrile is an effective therapy for cancer, was largely overshadowed, though clearly Laetrile has not lived up to the expectations of many of its most ardent advocates.

According to journalist Michael Culbert, D.Sc., founding member of the Laetrile advocacy group Committee for Freedom of Choice in Cancer Therapy, Inc.:

I decided very early that the issue was neither scientific nor medical but political. And that issue was--is--simple: What right does the state have, or should it have, to intervene in the medical decisions between a patient and his doctor, particularly if that patient is dying of a "terminal" disease for which there is no known, or guaranteed cure? ([1422])

Ralph Moss, a key figure in the Laetrile controversy in the 1970s, has been a leading critic of the cancer orthodoxy, as well as the political and economic forces he believes drive it, since leaving his position as Assistant Director of Public Affairs at Memorial Sloan-Kettering Cancer Center (MSKCC) in 1977. Moss was fired for aligning himself publicly with a group of MSKCC employees who believed the public was being given inaccurate information on the outcome of animal studies of Laetrile's effectiveness. Moss provides a detailed account of the Laetrile controversy and his experience at MSKCC in his book *The Cancer Industry*. Moss states the medical issue this way:

”*Laetrilists are not just advocating a single substance but, like the advocates of other unorthodox therapies, are proposing a new kind of treatment for the patient's body and mind*”.

There is apparently an irreconcilable difference between laetrilists and orthodox doctors in how they understand cancer.

Since the time of John Hunter (1728-1793), orthodox physicians have tended to see cancer as a localized disease that, as Hunter said, "only produces local effects." Such a disease would therefore be curable through localized means--for example, removing the growth through surgery.
...Experiments in this century, and particularly in the past thirty years, have suggested that the body has natural immune mechanisms against cancer analogous to those that function in microbial infections. The corollary of this view is that cancer can be controlled by enhancing the body's normal immune functions, which orthodox methods tend to destroy. ([1420])

The typical "metabolic therapy" often advocated by proponents of Laetrile includes megadoses of vitamins A and C, minerals such as selenium, and enzymes, particularly pancreatic enzymes. And, in order to free these enzymes to act upon cancer cells, practitioners often recommend limiting intake of animal protein. Alcohol, coffee, soft drinks and processed foods may also be proscribed.([1423])

The early 1970s saw growing numbers of patients seeking out Laetrile as a cancer therapy and it was during this time that the Laetrile became the focus of a large-scale political movement, as well. In June 1972, John Richardson, M.D., an Albany, California physician whose used Laetrile in his rapidly-expanding practice, was arrested for violating state laws intended to curtail its use. Richardson was a member of the conservative John Birch Society, and its membership rallied around the issue. The three trials of Richardson galvanized a national movement for freedom of choice in medical therapies, and the original Committee for Freedom of Choice in Medical Therapy, Inc. ballooned into a nationwide movement in all 50 states with a membership estimated at 20,000 to 50,000 members. ([1424])
In July 1973, Dean Burke, while still working with the NCI, wrote to Congressman Robert A. Roe that Laetrile had been successful in NCI directed studies using the Lewis mouse lung cancer model while the agency consistently denied its efficacy ([1425]).

1975 was a pivotal year in the controversy over Laetrile. In that year a U.S. District Court judge barred the FDA from

preventing patients from securing their own supplies of Laetrile from foreign sources. Later that same year, federal officials conducted a crackdown on the importation of Laetrile into this country. Sixteen people, including Robert Bradford, now affiliated with the American Biologics clinic in Tijuana, were arrested or indicted on charges of smuggling Laetrile from Mexico. The principles were eventually found guilty in a lengthy trial, though no prison time was meted out ([1426]).

The OTA also summarized the efforts by the NCI in the mid-1970s to obtain documented evidence of objective responses to Laetrile using an approach designed to collect information from individuals or practitioners who felt they had used Laetrile successfully in the treatment of cancer. The intention was not to determine rates of success, but rather to collect evidence of antitumor affect. The NCI sent nearly half a million letters to physicians, other health professionals and to pro-Laetrile groups asking for documented case histories of patients who had shown objective responses to Laetrile, with or without metabolic treatment, with a treatment period of at least 30 days, with a period of at least 30 days prior where no conventional treatment had been used.

Two hundred thirty patients responded with claims of objective response using Laetrile. Ninety-three of these gave permission for release of their medical records, and for 26 of these insufficient information was provided for review purposes. The final review was based on the remaining 67 cases. In an effort to avoid bias, twenty-six case histories of patients with similar cancers who received only conventional therapies were added to the Laetrile cases. Summaries of the course of the disease without information about the therapy used were prepared for each patient and presented to a panel of 12 oncologists from outside the NCI. A group consensus was reached for each case after a discussion of the individuals reviews.

The panel determined that there were two complete remissions, four partial remissions and nine cases of stable disease. Thirty-five cases were of no value since they did not meet the original criteria for inclusion, and 11 had insufficient data upon which to judge responses. Despite the attempts to blind the panelists regarding Laetrile use, a higher than expected proportion answered correctly when asked to guess which patients had used Laetrile. Interestingly, the consensus for the six Laetrile-treated patients who were determined to have had partial or complete responses and for the three determined to have had increased disease-free survival, was that they had received conventional chemotherapy.

In their discussion of the review, the authors point out that the relatively small number of case submissions and loss of cases due to incomplete information left only a small number of evaluatable cases. Further:

The patients treated with Laetrile were almost always given concomitant metabolic therapy...as well as general supportive-care measures such as improved diet, psychologic support and the unmeasurable ingredient of hope. This fact makes it difficult to attribute any tumor response to Laetrile alone ([1427]).
http://www.mednat.org/cancro/ELLISON_1427.pdf

Following this case review, the NCI sponsored phase I and II clinical trials, which were carried out at the Mayo Clinic. The phase I study gathered information about dosage and toxicity ([1428]) in preparation for the phase II study.

One hundred seventy-eight patients with advanced cancers were treated with amygdalin according to a regimen designed to resemble "*current Laetrile practice*," which included a special diet and vitamin supplements. A subgroup of 14 patients with colorectal cancer was given a high-dose regimen of amygdalin and supplements resembling high-dose regimens used by some metabolic practitioners (http://fiocco59.altervista.org/nacci/Moertel%201982.pdf) ([1256])

All patients had disease for which no conventional therapy was available, though none were bedridden and all could eat normally. About a third of the patients had had no chemotherapy whatsoever, significant because of the claims of many practitioners that metabolic therapies are more effective in patients whose immune systems have not been damaged by chemotherapy.

The amygdalin, prepared from apricot pits by the NCI, was administered intravenously for 21 days, followed by continuous oral administration which was terminated with progression of the disease or severe clinical deterioration. Three patients were taken off the regimen because of high blood levels of cyanide.

One of the 175 evaluable patients demonstrated a partial response (at least a 50 percent decrease in the size of the lesion); this response was transient, however. By the end of the three-week course of intravenous amygdalin, more than half of the patients demonstrated measurable disease progression. By seven months, all patients had progressive disease. Median survival for the entire group was 4.8 months, a result similar to that of the 14 high-dose patients. The researchers found little evidence of symptom relief. Toxicities were generally mild when patients adhered to treatment schedules.

The authors concluded that the survival times of the patients appeared to be consistent with survival times of patients "*receiving inactive treatment or no treatment*"([1256]). The OTA report notes that this comparison was not entirely valid, since the trial did not include a randomized control group and was not designed to determine if amygdalin caused moderate increases in lifespan or improvements in well-being or pain control ([1429]).

Laetrile supporters predictably criticized the study, claiming the material used was not Laetrile but a "*degraded product.*"([1430]). The OTA Report counters that the Laetrile used was prepared according to one of several popular formulations in use at the time and that the regimen did correspond to current Laetrile practice ([1431]). American Biologics, then a California company with ties to the Committee for Freedom of Choice in Cancer Therapy, had offered to provide free Laetrile for the study and when the government refused the offer, the Committee unsuccessfully tried to block the trial, believing the test substance was not pure amygdalin, but a form that would not release cyanide ([1432]). According to Culbert:

The "Laetrile clinical trial"...wound up being in essence a US government sponsored test of an uncertain Laetrile product whose application was in the hands of doctors and scientists known to be or assumed to be hostile to Laetrile, whose patients were anonymous, and the test results of which, being coded, could not be individually released or cross-checked. Worse, the patients accepted for entry into the program were variously described as "terminal" or beyond hope of cure by conventional means, yet not at the "final stage."

The government [released] data on the test before the trial results were published as a kind of slide presentation...A Committee observer at the event was able to photograph a slide which showed that a significant number of test patients had remained "stable" while on the injectable part of a program whose oral protocol, we had every reason to believe, was not strongly adhered to (and parts of which, as in suggested vitamin A levels) seemed not to have been followed at all. ([1432])

The results of the trial published in the New England Journal of Medicine showed Laetrile to be ineffective as a cancer treatment, but Culbert and other Laetrile advocates believed the trial raised more questions than it answered:

[D]epending on how the numbers were read, either a small majority or a large plurality of patients remained "stable" while on the injectable part of the program, and only advanced into further disease after the 21 days of injections ceased. It later surfaced "anecdotally" that at least one patient was urged not to continue on the program (claiming he had "done too well"). As a corollary, a preliminary test found amygdalin not to be toxic, at least in the ranges suggested for therapeutic use.([1432])

And, according to Richard Walters, Dr. James Cason of the University of California, Berkeley, analyzed the compound used in the Mayo Clinic study using infrared spectrophotometry and determined that it did not contain amygdalin at all ([1433]).

And in a charge often leveled at efforts to evaluate alternative therapies, opponents of the trial pointed out that 66 percent of the patients had received chemotherapy which they believed had severely damaged their immune systems and compromised their ability to respond to Laetrile.

Though it continues to be used at several clinics in Mexico and by practitioners in the states where it is legal, in the minds of many, the Mayo Clinic trial was the final word on Laetrile. But for Laetrile advocates, the scientific questions largely still unresolved, and there remains what seems to some to be abundant anecdotal evidence for the effectiveness of Laetrile. According to Culbert:

There were too many doctors stepping forward with case histories...too many dissident scientists claiming there was some merit in the notion of anti-cancer efficacy from glycosidic compounds, and far, far too many "anecdotes" from patients treated in Mexico or even within the USA to be able to claim the apricot kernel extract was totally without value...

[N]otable failures of Laetrile therapy got plenty of press attention, particularly if the failures came from the growing caseloads of Drs. Contreras and Richardson. Such negatives were indeed reported in gruesome detail--yet it was only an occasional journalist who dared contrast failures on vincristine, 5 FU, adriamycin, radiation and surgery, since somehow a failure on an orthodox modality was somehow less a failure than one on unorthodox therapy ([1434]).

In the political effort that had been spearheaded by the *Committee for Freedom of Choice in Cancer Therapies*, between 1976 and 1981, bills decriminalizing Laetrile or legalizing it outright were approved in 24 states. Bills passed twice in

New York, but were vetoed each time. Such laws remain in 20 states ([1435]). According to Culbert:

The Committee stuck to a single sweeping principle--that the issue was not so much freedom for Laetrile as it was freedom of informed consent in cancer therapy in general, for physician and patient...One observer after another joined the conceptual battle and usually remained clear on the separation of the issues of freedom of choice in medicine vs. the efficacy of Laetrile: by what stroke of logic or presumed vested interest does the state have the right to intervene in life-and-death decisions between a physician and a patient, particularly when the patient is said to be "terminal," as with cancer? ([1436])

Today, it is illegal to use Laetrile in states that do not have laws specifically allowing it. In 1977, a U.S. District Court judge ruled that the FDA had acted illegally in seizing shipments of Laetrile, and he enjoined the FDA from further seizures; that injunction was overturned in 1979. In a separate decision, a judge set up a system under which a patient could get Laetrile for personal use if a physician signed an affidavit that the individual was terminally ill, but his system was voided in 1987. As a result of these decisions, it is illegal to transport Laetrile across state lines or into the United States, even with a physician's prescription.

Federal District Judge Luther Bohanon who established the affidavit system for Laetrile in 1977 offered his considered view of the controversy:

Advocates of Laetrile's use in cancer treatment include many highly educated and prominent doctors and scientists whose familiarity and practical experience with the substance vastly exceeds that of their detractors. To deem such advocacy "quackery" distorts the serious issues posed by Laetrile's prominence and requires disregarding considerable expertise mustered on the drug's behalf.

While the record reveals an impressive consensus among the nation's large medical and cancer-fighting institutions as to Laetrile's ineffectualness, a disconcerting dearth of experience with the substance by such detractors is revealed...

The current debate is fierce. The issue appears largely unresolved as to Laetrile's true effectiveness, in large part because FDA has prevented adequate testing on humans....

It is only when the substance is openly used, and its results carefully observed and fully reported that this controversy will be resolved. ([1437])

The Metabolic Therapy

"Metabolic Therapy" indicates a whole range of medical therapies based on the idea that many diseases are essentially caused by a deficiency in vitamins.

The estimated number of vitamins is over 30,000 and only a small part was thoroughly studied. In some "alternative" private hospitals (SEE ATTACHMENTS N. 3 of this E-Book) many chronic-degenerative diseases are treated with this therapy: cancer, leukaemias, AIDS, Type 2 diabetes mellitus, Alzheimer's disease, Parkinson's disease, Multiple Sclerosis, Amyotrophic Lateral Sclerosis, autoimmune diseases, allergies, food intolerances, osteoporosis, etc. In the Metabolic Therapy high doses of vitamin are given not only orally but also intravenously, such as in the case of cancer (Laetrile, Elemene, vitamin C, etc…)

Vitamin "**Laetrile**" intravenously:
Morrone J.: Chemotherapy of inoperable Cancer. Preliminary report of 10 cases treated with Laetrile, Exp. Med. Surg., 20, pages: 299-308, 1962 (SEE chapter 7 of this E-Book).
Integral Text: http://www.mednat.org/cancro/morrone.pdf

Vitamin "**Elemene**" intravenously:
Tan P.: Clinical study on treatment of 40 cases of malignant brain tumor by Elemene emulsion injection Chin. J. Integ. Trad. Western Med, 20, pages: 645-648 (SEE Text in English and Chinese: http://www.mednat.org/cancro/cancro_cervello.pdf

Neoplastons intravenously (for apoptosis of cancer), http://www.burzynskiclinic.com/ph/clinical-trials.html

Also in Italy this kind of Medicine has recently established itself thanks to the great commitment and genius of late doctor **Valsè Pantellini**, who introduced the use of vitamin C together with potassium bicarbonate and obtained very good results in more than 5,000 clinical cases.

Thanks to Father **Romano Zago's** impassioned work, also the use of Aloe has recently obtained remarkable results in Italy. The plant is quite rich in vitamins which stimulate the immune system or induce the apoptosis.

Other plants with the same mechanism of attack on tumours are those of the Canadian formula ESSIAC, which came in the limelight in Italy thanks to different authors.

Nowadays the Metabolic Therapy includes a number of variants, each of them named after the doctor who used it.
Substantially, however, they can all be defined Gerson-like therapies, in remembrance of the great doctor **Max Gerson** ((749, 750, 1360-1362, 1348, 1349, 1411), the first to understand the extreme importance for Medicine to retrive the past classical values of correct nutrition, considered not only as a preventive measure against diseases, but also as real *therapeutic method* for the treatment of 20th century's main chronic-degenerative diseases. After 2,500 years he thus revived concepts and thoughts that had already been developed by the great Greek doctor Hippocrates of Cos, the founder of Western Medicine.

These metabolic therapies are very similar to one another and – according to the author of this paper – all based on the following 10 basic principles, at least as far as the treatment of malignant tumours is concerned.

First principle

Malignant tumours (cancer, sarcomas, leukaemias, lymphomas) are caused by serious genetic mutations of the cell's DNA (chromosome aberrations). For this reason, the first cause of malignant tumours can be identified as chronic deficiencies in vitamins (their lack does not enable the body to repair the genetic damage or to induce apoptosis in affected cells), so that the treatment of these tumours must be based on the intake of high doses of vitamins to produce the spontaneous suicide (apoptosis) of tumour cells. Some of these vitamins can also be taken intravenously to increase their accumulation on tumours. The percentage of their accumulation on tumours can indeed be assessed on the basis of pharmacokinetic predictive calculations in line with the "tracer theory" of nuclear medicine and/or functional magnetic resonance imaging ([1753])

Note 1: Chromosome aberrations allow correct diagnosis of certain types of lymphomas and leukaemias, clearly and univocally differentiating them from infective diseases which are quite similar to them, such as infectious mononucleosis (see chapter 17 of this E-Book)

Note 2: It is absolutely contraindicated to administer CHEMO-THERAPY to patients suffering from cancer, leukaemias, sarcomas or lymphomas, as it destroys immune defences of the body and organs themselves. Under no circumstances should this therapy be used because it does not make sense to poison the body of a patient who is already seriously ill. Besides, the Hippocratic oath itself forbids to give poison to patients.

Second principle:

The keystone for the "metabolic" treatment of cancer and other malignant tumours is based first of all on the following principle: **depriving the tumour of whatever feeds it** . The treatment must substantially be based on removing proteins from an onocological patient's diet, i.e. removing at least one of the essential amino acids (Leucine, Valine, Isoleucine, Lysine, Methionine, Tryptophan, Threonine, Phenylanine, Histidine) that are needed to synthesize new proteins (and consequently, new cells), because the intake of proteins would also enable tumour cell replication. For example, a paper published in 2006 showed once again that removing even one essential amino acid only is enough to block cell replication ([1738]). In this work, a decision was taken to measure the level of "total proteins" in the bloodstream. If a hypoproteic diet is implemented correctly, these levels should be very low compared to normal, accettable ranges – ideally between 6.0 and 6.6 grams/100 millilitres of blood. It would then be up to the doctor in charge of the case to decide whether these levels should be pushed below the 6.0 limit. Since most foods containing all 9 essential amino acids (meat, eggs, yeast, sprouts, milk and milk derivatives) also contain vitamin B 12 (which is also necessary for cell proliferation), it was also deemed useful to measure its levels as an indirect indicator of the patient's compliance with the hypoproteic diet. With respect to the prescribed dietary treatment, patients were considered to be compliant if they managed to keep very low vitamin B 12 levels, i.e. below 150-200 picograms/millilitre of blood. Out of about 40 clinical cases observed by the autor since 2002, no patient has shown values below 100 picograms/millilitre of blood, most probably because the liver itself is a major supplier of vitamin B 12 if this is not part of the diet – even over periods of more than 4-5 years (as shown in medical-scientific literature).

Third principle

The keystone for the "metabolic" treatment of cancer and other malignant tumours is based on a second principle as well: **giving the tumour what kills it (but without damaging the patient)**. This principle is primarily based on the use of great amounts of natural vitamins with a view to taking advantage of their ability to induce the *apoptosis* of tumours cells and, secondarily, on the fact that natural vitamins also induce a block in tumour cell replication; furthermore, they also lead to the anti-angiogenesis of neoplastic capillaries, they prevent cancer cells from producing PIF (*Proteolisis Inducing Factor*) and they stop the growth of tumour cells.

Note : in order to exploit their ability to induce the apoptosis of tumour cells, SEE chapter 6 of this E-Book or http://www.mednat.org/cancro/TERZO%20CONGRESSO%20_Roccamorice.pdf)

Fourth principle

Immune response against the tumour. All these therapies use phyto-therapeutic systems (Aloe, ESSIAC, Graviola, Mistletoe) or other systems (e.g., lipopolysaccharides) to trigger leukocytes against tumour cells (SEE chapter 9 of this E-Book).

Metabolic therapies consider fever as a form of patients' natural hyperthermia, which – similarly to the well-known hospital *radiotherapy HYPERTHERMIA* induced by hospital equipment – causes the spontaneous necrosis of tumour cells, as neoplastic masses are poorly vascularized and therefore particularly vulnerable to the hyperthermic effects of the fever itself. The blood values that are routinely checked in patients are, consequently, the total amount of Leukocytes, the percentage of Lymphocytes (which must exceed at least 35-40%) and the Erytrocyte Sedimentation Rate (ESR), which must exceed at least 12 millimetres/first hour.

The immune response is guided by Lymphocytes T *gamma delta*, cytotoxic Lymphocytes T, Killer and Natural Killer Lymphocytes: these are outright guiding systems for a complete immune response of the patient against the tumour (starting the immune cascade). A number of scientific papers have been published on the subject ([32, 61, 132, 198, 319, 373, 406, 418]) ; in particular, on brain cancers ([180, 351, 368]); on breast cancers ([11,82]); on colon cancer ([394]); on leukaemia ([67]) ; on liver cancers ([374]); on kindney cancers ([350]); on lung cancers ([419,500]) ; on malignant melanoma ([9,126]). However, it has been shown that negative stress tends to curtail the immune response ([591-594, 1696]).

Fifth principle

Liver detoxification through vitamins with hepatoprotective activity and enemas of *Coffea arabica* and/or *Matricaria camomilla*. Vitamins must be able to provide for the elimination of toxic substances, which are purified by the liver through the bile (choleretic and cholagogic activity), without toxins being re-absorbed by the intestine (laxative vitamins). Their use is extremely important as it allows for the rapid elimination of the toxins released by tumour masses (which are inflamed and therefore larger as a result of the immune response), thus reducing the pain deriving from the tumour masses themselves. The liver plays a major role in the above-mentioned metabolic therapy. Liver transaminases SGOT and SGPT, Gamma GT and Total bilirubin were adopted as indirect indicators of the liver's depurative activities. The enemas of *Coffea arabica* and/or *Matricaria camomilla* are important for the Gerson metod and must be carried out every day. Of equal importance are the hepatoprotective vitamins contained in *Silybum marianum*, *Taraxacum officinale*, *Smilax aspera*, *Cynara scolymus*, *Salvia officinalis*, *Agropyrum repens*, *Hyssopus officinalis* and *Matricaria camomilla*, intake of which must never be discontinued.

Sixth principle

The metabolic therapy counters intestine DYS-BIOSIS. This therapy helps prevent the risk of disrupting the normal intestinal bacterial flora (saprophyte bacterial flora), which is responsible for the fundamental assimilation of the natural vitamins contained in vegetable foods (fruit, vegetables, cereals, legumes). As a result, it is also based on the use of intestinal milk enzymes, with a view to re-establishing the SYM-BIOSIS between human body and saprophyte germs and obtaining a good nutritional balance with vitamin assimilation.

Seventh principle

Maintaining Glycemia at low levels and avoiding glycemic peaks. Glucose is needed by tumour cells to obtain energy and replicate their DNA. In metabolic therapies, very complex dietary protocols are studied, although they all share similar approaches: frequent but small meals with hypoglycemic foods. Some doctors, above all outside Italy, also give insulin to their patients, even

when the latter do not suffer from diabetes. In the study at hand no insulin was given, but the blood values of Glucose or Glycated haemoglobin were frequently analysed.

Eighth principle
Use of proteolytic enzymes. The use of proteolytic enzymes has been deemed beneficial by several authors. It is aimed to inducing greater absorption of natural vitamins at the gastroenteric level and greater immune responses against the patients' tumour masses, as shown primarily by the Gerson Foundation ([749, 750, 1348, 1349, 1360-1362, 1411]).

Ninth principle
Use of specific unsaturated fatty acids instead of saturated ones. Unsaturated fatty acids (Omega-3 in particular) appear to improve the functionality of cell walls, thus allowing natural vitamins to easily penetrate diseased cells and induce apoptosis and other related actions, including greater absorption of glucose in patients' cells and subsequent lower glycemic values in the bloodstream. Their effects are, however, much broader and multi-faceted, as evidenced by Pardini ([1647]) and Noguchi ([1654]).
The alpha-linolenic acid (vitamin F), for instance, is a cis-polyunsaturated fatty acid that is contained in linseed cold-pressed oil: it is transformed into EPA and DHA (Omega-3 fatty acids) and is quite effective against malignant tumours, as shown by Pardini ([1647]); moreover, Noguchi has proved that Omega-3 fatty acids, unlike Omega-6 fatty acids, help reduce tumour masses, although Omega-6 fatty acids are unsaturated fatty acids, too ([1654]).

Tenth principle
Sodium/Potassium balance. The use of Potassium and Magnesium plays a vital role. In particular, the use of Potassium has already been discussed by several authors ([1348, 1349, 1411]) who followed Gerson's studies. The behaviour of human cells resembles more that of granules in a Potassium-Sodium Exchange than that of simple water pockets. In this context, Magnesium, Germanium ([269]), Selenium, Iodine and Silicium are fundamental minerals, too. Conversely, the smallest possible amount of Sodium must be taken ([749, 750, 1348, 1349, 1360-1362, 1411]).

NOTE: the Metabolic Therapy is NOT Complementary or Alternative Medicine but simply Evidence Based Medicine. In particular, it is NON-Pharmaceutical Medicine, as it is free from the commercial interests of chemo-pharmaceutical Drug Multinationals.

Case histories

Very interesting is the comparison between the "METABOLIC THERAPY" and modern antitumour therapies, which are all based on Chemotherapy, Radiotherapy and Surgery.

As far as **Gerson** or Gerson-like therapies are concerned, a few useful LINKS are listed here below.

Today the Gerson therapy is recognized by the American government. It is perhaps the most known therapy, above all in America (http://www.gerson.org). Famous is the scientific study conducted in 1995 on 153 patients suffering from malignant melanoma, which demonstrated percentages of remission much higher than those obtained with conventional therapies (40% of surviving patients as against 6% with Chemotherapy). www.gerson-research.org/docs/HildenbrandGLG-1996-1/index.html

Here are some data regarding other doctors who adopted Gerson-like techniques.

Binzel E.P.: "Alive and Well". In 1994, professor Binzel published the results obtained by treating his patients between 1974 and 1991. Out of 180 patients suffering from primary cancer (not metastasized and circumscribed to one single organ or tissue), 131 were still alive in 1991, when the report was published. In that year, 58 patients had been followed for 2-4 years, whereas 80 for 5-18 years. Out of the 42 patients who died in 1991, 23 died of cancer, 12 of "unrelated causes" and 7 of "unknown causes". Among patients with metastasization, 32 out of 108 died of cancer, 6 of "unrelated causes" and 9 of "unknown causes". Out of the 61 patients who were still alive in 1991, 30 had been followed for 2-4 years, 31 for 5-18 years.
http://www.mednat.org/cancro/ALIVE_AND_WELL.pdf

Also the late German doctor Hans Nieper gathered data about approximately 1,000 cases (http://www.mwt.net/~drbrewer).

Doctor Catherine Kousmine is also well renowned.
She studied many other diseases, above all Multiple Sclerosis, and documented more than 600 cases. Kousmine, Catherine: http://www.kousmine.com/serv02.htm;
http://www.kousmine.com/services.htm

The great Russian doctor TH. Inosmettzeff worked at the Tsar's court and in 1844 documented his first two cases of patients with cancer who were cured by using Laetrile (vitamin B17). His work is available in German at: http://www.mednat.org/cancro/inosmetzeff.pdf

On the Laetrile, SEE also Rossi and Guidetti (1966) with150 clinical cases : http://fiocco59.altervista.org/vitamina_b_17.htm

Other doctors who applied Gerson-like therapies:

Alvarez , MD **http://stellamarisclinic.com** http://www.nfam.org/treatment/clinicstella.html
Andrade, Gustavo MD. http://www.bajaonline.com/dr-andrade/programs.htm
Beals, Paul **M.D.**
Brodie, Douglas MD **http://www.drbrodie.com/cancermanagement.htm**
Bormann, Carolyn , MD Europa Institute of Integrated Medicine ;
http://www.arrowheadhealthworks.com/cancer.htm.
Bradford, Robert, MD **http://www.americanbiologics.com**
Burzynski, Stanislaw R. M.D. www.cancermed.com
Callebout, Etienne, M.D. London, England
Castillo Ramos , MD http://www.drcastillo.com/
Dorman, MD http://www.paracelsusclinic.com/
Edelson, Stephen M.D. **http://www.edelsoncenter.com/**
Forror, Kenneth M.D. http://www.lfmc.net/
Forsythe, James M.D. http://thecrew2.reno.powernet.net/virtual/drforsythe.com/index.php.
Gonzales, Nicholas James (http://www.dr-gonzalez.com/maver_article.htm ; http://www.dr-gonzalez.com/)
Guidetti Ettore , MD. http://fiocco59.altervista.org/vitamina_b_17.htm
Hoffer Abram, M.D. CANADA, http://www.islandnet.com/~hoffer
Hopper Douglas http://www.yourowndoctor.com/aboutus.asp?site=2092&doc=2092,
Howard Straus, M.D. http://www.gerson.org

Inosmetzeff http://www.mednat.org/cancro/inosmetzeff.pdf ; http://www.mednat.org/cancro/inosmetzeff2.pdf
Issels Joseph. MD, Germany (
Keller, Helmut Stella Maris Clinic in Mexico.
Kroiss, Thomas, M.D. in Vienna, Austria http://www.kroisscancercenter.com/
Manner Harold, MD, Harold Manner Center
Nagourney, Robert M.D**.** http://www.rationaltherapeutics.com/
Pauling Linus http://www.paulingtherapy.com/
Pesic, Milan M.D. (Germany)
Privitera, James M.D http://www.nutriscreen.com/
Revici, Emanuel M.D., Revici Life Science Center,
Richardson, John "*Laetrile case Histories; the Richardson Cancer Clinic Experience*" (http://www.realityzone.com/lcm.html)
Rizov, Vladimir M.D., www.newvitality.com
Rodriguez, Rodrigo M.D. http://www.ibchospital.com/
Rossi Domenico M.D., http://fiocco59.altervista.org/vitamina_b_17.htm
Roundtree, Robert M.D., Robert C. Roundtree, M.D.,
Rowen, Robert M.D. http://www.doctorrowen.com
Rubio, Geronimo MD **http://www.ami-health.com/**
http://www.cancure.org/american_metabolic.htm.
Schachter, Michael B. M.D. **http://www.mbschachter.com**
Stoff, Jesse M.D., Immune Therapies International (ITI).
Tasca, Marco M.D., http://www.mednat.org/cancro/tasca.pdf)
Taylor, Lawrence, MD Lawrence H. Taylor, M.D.,
Waisbren, Burton, M.D. www.waisbrenclinic.com
Watayo, Takaho, M.D. Tokyo
Yoshihiko, Hoshino, M.D. Tokyo

Although this high-dose vitamin therapy is based on specific scientific and medical knowledge, it has been relegated to the field of "alternative" therapies owing to the commercial interests of chemo-pharmaceutical lobbying groups: the question raised by the use of *Laetrile* for cancer treatment in the '70s in the USA is an example of that (SEE chapter 7 of this E-Book).

The European Commission (Internal Market, Tourism and Consumer Protection sections of the European Union) has recently presented a proposal of a directive concerning vitamin integrators, natural and nutritional products in the European Union (SEE chapter 1 of this E-Book).

The European Commission essentially wants to:

1) limit strictly maximum doses of vitamin and mineral allowed in integrators (article 5 of the proposal for directive);

2) eliminate from the market all sources of vitamins and minerals which are not contained in a restricted list of "allowed chemical substances";

3) eliminate herbal products from free marketization in Europe, with the obligation to be registered as "herbal traditional medical products" (proposal of the Commission for a directive concerning herbal traditional medicines – 3th draft, May 2001);

4) prohibit information about preventive and curative properties of vitamins and herbs, by declaring this information illegal if connected in any way with a product.

For information about these 4 points, see:
http://www.alliance-natural-health.org;http://curezone.com/forums/m.asp;
http://curezone.com/forums/m.asp?f=237;http://curezone.com/forums/m.asp?f=237&i=597;
http://www.healthchoice.org.uk, http://www.healthchoice.org.uk

Author's proposals concerning the MetabolicTherapy

The Civil Society should understand that if the METABOLIC THERAPY – here shortly summarized – were really accepted and promoted, it would bring considerable advantages in the health service.

A programme consisting of 4 points is here proposed:

1) Acceptation of the above-mentioned 12 principles, considering, however, some necessary "flexible" uses of specific methods applied by single doctors or groups of doctors, which – in any case – are based on right diet and foster a real Italian Organic Farming, in order to make this therapy little expensive and affordable for every Italian family.

2) Request to the European Government to prohibit every kind of GMO food cultivation or importation, which causes the failure of Metabolic Therapies in the treatment of chronic-degenerative diseases such as malignant tumours (Cancer, Leukemias, etc…), benign tumours and other diseases affecting a vast share of the Italian population (Adult diabetes, Alzheimer's disease, Multiple Sclerosis, cardiovascular diseases, hypertension, autoimmune diseases, etc…)

3) Request to the European Government to control and defend the national territory against the criminal abuse of illegal and toxic dumps which – by poisoning soil and water – will hinder us from 1) feeding population with clean organic food and water 2) curing chronic-degenerative diseases (see principle no. 3).

4) Public or private Histological Diagnosis Centres should be able to regularly research and identify GMO transgenic Retroviruses (or at least some of them, such as the S35 CaMV Promoter - Cauliflower Mosaic Virus - in human neoplasias which were surgically removed from patients only recently, as GMOs pose a serious threat to our health (SEE chapter 8 of this E-Book).

In this way they could possibly prove that GMO Multinationals are directly responsible for the onset of human tumours among the Italian population. Note: these transgenic retroviruses must be differentiable from "natural" ones (SEE chapter 2.22 of this E-Book)

Therefore it is necessary to have the exact genetic code of all GMO retroviral promoters which are obtained in the laboratory and then patented in order to allow for GMO food marketing. Consequently, a legal assessment against any kind of industrial secrecy concerning GMOs is needed. The term "commercially confidential" used on some documents is a way of not letting people know about them. This goes against the recommendations of the Aarhus Convention, which is an agreement of the United Nations Economic Commission for Europe linking the environment to human rights.

Chapter 1 : Food

The food which we eat should be understood in its biochemical components. From these components we achieve our ability to defend our health, and therefore, to live as long as possible without disease, in good psycho-physical condition. In this sense, chronic-degenerative diseases such as arthrosis, osteoporosis, autoimmune diseases, tumours, heart diseases, diabetes, and neurological deficits (Alzheimer's, Parkinsonisms, Multiple Sclerosis, etc…) would be controlled more effectively.

Food is divided as:
1) Carbohydrates
2) Proteins
3) Fats and/or Oils
4) Vitamins

Chapter 1.a: CARBOHYDRATES

Carbohydrates are important because they give us CALORIES, the energy we need to live. Pasta, rice, bread, potatoes, and beans, are broken down into simple sugars (GLUCOSE), which will be later used by our cells to be chemically "burned" to obtain the chemical energy that is necessary for cell functionality. The daily requirement for an adult weighing 70 kilograms is about 2,000-2,500 Kilocalories.
Note: for athletes, energy requirements can reach about 4,000-4,500 Kilocalories per day. In severe situations, such as for severe burns, they are significantly higher: about 6,000 Kilocalories per day.

There are ready-made commercial sugars as well (white sugar, brown sugar, chocolate, glucose, mannose, ribose, galactose, etc.), or natural food that is especially caloric, such as bananas, honey, kakis, plums, pumpkins.

Very few people know that fruit itself (not vegetables) can give as many Kilocalories as a dish of pasta, rice, bread, potatoes, or even of milk, dairy products, meat, eggs, fish, etc, that is to say, food that is actually high in PROTEIN content.

Indeed, fruit can give the following Kilocalories:
1 litre of well-whisked fresh fruit(^) (grapes and/or berries) gives about **800-900** Kilocalories, that equals:
750 cc milk (*),
or: 70 grams cheese (*),
or: 650 grams meat (*),
or: 800-900 grams fish (*),
or: 10 eggs (*)….

There are also other types of fresh fruit that are rich in energy, although in smaller amounts:
1 litre organic apple juice corresponds to **500** Kilocalories
1 litre organic cherry juice corresponds to **450** Kilocalories
1 litre organic pear juice corresponds to **420** Kilocalories
1 litre organic orange juice corresponds to **400** Kilocalories

(^) FRUIT is usually known as a great source of *VITAMINS* (SEE below).
(*) MEAT, FISH, EGGS, MILK and dairy products (CHEESE, BUTTER, YOGHURT, MOZZARELLA CHEESE) are known especially as sources of *PROTEINS* (SEE below), rather than sources of energy (Kilocalories)

Table 1 shows various types of food according to the amount of Kilocalories they give (from the most caloric to the least caloric).

We need to know that ALL types of foods are important for their CALORIES, however for PROTEINS, FATS (or OILS), and VITAMINS as well.

Note: women especially are obsessed by consuming "too many" CALORIES that make them gain weight… However, CARBOHYDRATES are not responsible for weight gain, as we will see later. PROTEINS are the true cause for extra weight.

Table 1: Kilocalories per 100 grams of food

Food	**Kilocalories per 100 grams of food**
Mixed Seed Oil	900
Olive Oil (*Olea europaea*)	900
Sesame Oil (*Sesamum indicum*)	900
Grape Seed Oil (*Vitis vinifera*)	900
Lemon Oil (*Citrus limonum*)	900
Corn Oil (*Zea mays*)	900
Sunflower Oil (*Helianthus annuus*)	900
Bananas (*Musa sapientum*)	660
Dried Walnuts (*Juglans regia*)	660
Dried Nuts (*Corylus avellana*)	625
Roasted peanuts (*Arachis hypogaea*)	597
Dried Pumpkin Seeds (*Cucurbita maxima*)	585
Walnuts (*Juglans regia*)	582
Raw peanuts (*Arachis hypogaea*)	571
Crisps (inadvisable)	568
Pine nuts	567
Sweet almonds (*Prunus amygdalus*)	542
Roasted/Fried Pork Fat (still under assessment)	523
Pasta with Citron (*Cedrus medica*)	486
Bread-sticks (sugar free)	433
White Wheat (*Triticum sativum*)	416
Rusks (sugar free)	410
Dry biscuits (sugar free)	409
White Pizza	408
Wholemeal Crackers (sugar free)	403
Dried Lupins without pod (*Lupinus albus*)	402
Oat flakes (inadvisable)	395
Finger Biscuits (sugar free)	392
Oat Flour	388
Grated bread (without yeast)	387
Sweet Chestnut Flour (*Castanea vesca* o *sativa*)	371
Japanese Rice Flour (*Oryza sativa*)	370
Wholemeal Rusks (sugar free)	369
Focaccia	369
Pastries with Egg Cream	368
Rice Cream (raw) (*Oryza sativa*)	366
Wholemeal Corn Wheat (non GM)	365
Cornflakes (inadvisable)	364
Gluten Pasta	363
Rice (*Oryza sativa*)	363
Rice Flour (*Oryza sativa*)	363
Tapioca, Cassava (*Manihot utilissima*)	363
Pearl-Barley (*Hordeum vulgare*)	363
Double-cooked Bread (without yeast)	361
Barley Wheat (*Hordeum vulgare*)	360
Gluten Semolina Pasta	358
Dried Stockfish	358
Pasta	356
Wholemeal Corn (*Zea Mays*)	355
Wholemeal Pasta	350
“Genovese” Focaccia	350
Potato Flour	349
Dried Sweet Chestnuts (*Castanea vesca* o *sativa*)	349
Coconut (*Cocos lucifera*)	346
Peeled Dried Broad Beans (*Vicia faba*)	343
Hard Flour	343
Soft Flour	343

Cracotte Biscuit	336
Dried Chickpea (*Cicer arietinum*)	334
Wholemeal Japanese Rice (*Oryza sativa*)	334
White Pizza (bought in a pizzeria)	329
Japanese Rice Cream (cooked) (*Oryza sativa*)	329
Dried Lentils (*Ervum lens*)	325
Whole Wheat Flour (*Triticum*)	321
White Pizza (bought at a baker's)	319
Soft wheat (*Triticum vulgare*)	319
Hard Wheat (*Triticum durum*)	314
Semolina	314
Dates (*Phoenix dactylifera*)	313
Dried Beans (*Phaseolus vulgaris*)	311
Puff Pastry	309
Dried Peas (*Pisum sativum*)	306
Dehydrated Mushroom Soup (inadvisable)	304
Honey	303
Oil Bread Rolls	302
Dehydrated Asparagus Soup	301
Tortellini Pasta	301
Dehydrated Vegetable Soup	298
Bread (without yeast) with Potatoes	296
Prepacked Almond Toffee	295
Soft Wheat Bread (50 grams)	290
Dried Figs (*Ficus carica*)	288
Raisins (*Vitis vinifera*)	283
Dehydrated Pea Soup (*Pisum sativum*)	281
Oven-roasted Figs with Almonds	277
Hard Wheat Bread (100 grams)	276
Hard Wheat Bread (50 grams)	267
Pastry with Egg Cream and Liqueur	266
Pickled Eel	259
Tuna (drained from oil)	258
Pizza with Tomato Sauce	247
Whole Meal Bread (without yeast)	243
Rye Bread (without Yeast)	241
Sea Eel	237
Black Olives (*Olea europea*)	234
Salted Herring	218
Anchovies in Oil	206
Wheat Bran	206
Pickled Herring	199
Precooked Frozen Fish Sticks	191
Chestnuts (*Castanea vesca* o *sativa*)	189
Pickled Mackerel	177
Mackerel	168
Apricots in Syrup (*Prunus armeniaca*)	155
Dried Plums (*Prunus spinosa*)	152
Green Olives (*Olea europea*)	142
Carp	140
Frozen Precooked Cod	139
Orange Ice-lolly	137
Lamb Thymus	131
Sardine	129
Grey Mullet	127
Mullet	123
Dried Salted Cod	122
Pears or Cherries in Syrup	116
Lupins (bitter taste removed) (*Lupinus albus*)	114

Beans (*Phaseolus vulgaris*)	104
Dried Salted Cod Fillets	104
Frozen Precooked Rice with Seafood	103
Pickled Tuna (drained)	103
Dentex	100
Tomato Sauce (*Solanum lycopersicum*)	96
Anchovies	96
Soaked Dried Salted Cod	95
Soaked Stockfish	92
Sweet Potatoes	91
Frozen Gilthead	90
Frozen Grouper	86
Lobster	86
Trout	86
Sole	86
Potatoes (*Solanum tuberosum*)	85
Peaches in Syrup (*Prunus persica*)	85
Sweetcorn (*Zea mays*)	83
Bass	82
Rhombus	81
Frozen Sole	81
Smooth Dogfish	80
Luce	80
Apple Jam Tart (*Malus communis*)	79
Mussels	77
Tench	76
Peas (*Pisum sativum*)	76
Frozen Cod	75
Atlantic Cod	72
Clam	72
Cuttle-fish	72
Mandarin (*Citrus deliciosa*)	72
Cod	72
Shrimps	71
Oyster	69
Skate	68
Squid	68
Snails	67
New Potatoes	67
Black Grapes Juice (*Vitis vinifera*)	66
Kaki (*Diospyros kaki*)	65
Frog	64
Black Grapes (*Vitis vinifera*)	61
Natural Apricot Juice (*Prunus armeniaca*)	59
Octopus	57
Natural Fruit Juice	56
Clementines	53
Indian Fig Opuntia (*Opuntia ficus indica*)	53
Kiwi (*Actinidia chinensis*)	52
Frozen Precooked Pasta with Beans	51
Natural Peach Juice (*Prunus persica*)	50
Figs (*Ficus carica*)	47
Apples (*Malus communis*)	45
Plums (*Prunus spinosa*)	42
Pears (*Pyrus communis*)	41
Sour Cherries	41
Garlic (*Allium sativum*)	41
Cherries (*Prunus avium*)	38
Spring Onions	38

Brussel Sprout (*Brassica oleracea bullata aut gemmifera*)	37
Broad Bean (*Vicia faba*)	37
Wild asparagus (*Asparagus officinalis, adscendens, racemosus*).	35
Raspberries (*Rubus idaeus*)	34
Oranges (*Citrus aurantium*)	34
Quinces (*Cydonia oblonga*)	34
Melon (*Cucumis melo*)	33
Natural Orange Juice (*Citrus aurantium*)	33
Carrots (*Daucus carota*)	33
Black Truffle	31
Sweet Soda	31
Spinachs (*Spinacia oleracea*)	30
Field Asparagus (*Asparagus officinalis, adscendens, racemosus*).	29
Leek (*Allium porrum*)	29
Apricots (*Prunus armeniaca*)	28
Medlar Fruits	28
Peaches (*Prunus persica*)	27
Strawberries (*Fragaria vesca*)	27
Broccoli (*Brassica oleracea botrytis aut italica*)	27
Grapefruit (*Citrus decumano, paradisi*)	26
Onions (*Allium cepa*)	26
Cauliflower (*Brassica oleracea botrytis*)	25
Green Cabbage	24
Hothouse Asparagus (*Asparagus officinalis, adscendens, racemosus*)	24
Knob Celery (*Apium graveolens rapaceum*)	23
Artichokes (*Cynara scolymus*)	22
Winter Melon (*Cucumis melo*)	22
Sweet Peppers	22
Turnip Broccoli	22
Turnip Leaves (*Brassica rapa*)	22
Peeled Tomatoes (in a tin) + liquid	21
Celery (*Apium graveolens dulce*)	20
Parsley (*Apium petroselinum*)	20
Red Cabbage	20
Beetroot (*Beta vulgaris cruenta*)	20
Cabbage Letture	19
Green Head Cabbage (*Brassica oleracea capitata*)	19
Lettuce (*Lactuca sativa*)	19
Ripe Tomatoes	19
Yellow Pumpkin	18
Turnip (*Brassica rapa*)	18
Green Beans	17
Common Chicory (*Cichorium intybus*)	17
Garden Cress (*Lepidium sativum*)	17
Chard (*Beta vulgaris cycla*)	17
Tomatoes for Salad	17
Endive (*Chicorium endivia latifolium*)	16
Aubergines (*Solanum melongena*)	15
Watermelon (*Citrullus vulgaris*)	15
Cutting Lettuce	14
Cucumbers (*Cucumis sativus*)	14
Green Root Chicory (*Cichorium intybus*)	14
Red Root Chicory (*Cichorium intybus*)	13
Cutting Chicory (*Cichorium intybus*)	12
Pumpkin Flowers	12

Zucchini (*Cucurbita pepo*)	11
Mushrooms (INADVISABLE)	11
Lemon (*Citrus limonum*)	11
Radish (*Raphanus sativus parvus*)	11
Chicory (*Cichorium intybus*)	10
Thistles (*Cynara cardunculus*)	10
Fennel (*Foeniculum vulgare dulce*)	9
Lemon Juice (*Citrus limonum*)	6

Chapter.1.b: PROTEINS

PROTEINS are made of approximately 20 amino acids. Nine amino acids out of these 20 are called ESSENTIAL AMINO ACIDS; since our body is not capable of synthesizing them it needs to assimilate them from food. These ESSENTIAL AMINO ACIDS are **Valine, Isoleucine, Leucine, Lysine, Methionine, Histidine, Tryptophan, Phenylalanine,** and **Threonine (Arginine** in children).

Without the external supply of these NINE ESSENTIAL AMINO ACIDS from food, the body is not capable of building these PROTEINS.

The 9 ESSENTIAL AMINO ACIDS must be present in cells all together at the same time to interact with the biological systems controlling the production of the various required PROTEINS, in the time span of about one hour.
If one of the essential amino acids is not present, cells will not be able to build the required PROTEINS. Therefore, the remaining 8 ESSENTIAL AMINO ACIDS will be used as a source of energy (Kilocalories).

With PROTEINS, every cell in the human body is replaced by a new one, in a period of eleven months. Indeed, PROTEINS are used to build new cells and tissues, and to repair body organs.

We can find the 9 essential amino acids in MEAT, FISH, EGGS, MILK and dairy products (CHEESE, BUTTER, YOGHURT, MOZZARELLA CHEESE).

Fruit and Vegetables contain few of the essential amino acids.
Cereals and legumes contain up to 7-8 essential amino acids, but the complete range of 9 essential amino acids is never contained in any of them.

Usually, cereals do not contain Lysine, and legumes do not contain Methionine.

However, if we eat LEGUMES and CEREALS in a time span of about one hour, we will give our body all 9 essential amino acids. Besides, cooking traditions all over the world have always associated cereals to legumes as a sort of "*meat for the poor*".
In the Eastern countries rice, a CEREAL, was consumed with soybean, a LEGUME.
In the Western countries wheat, a CEREAL, was consumed with bean or peas, that is LEGUMES.

Cereals: WHEAT (soft or hard), RICE, SWEETCORN, SPELT, BARLEY, MILLET, OAT, RYE, SORB, KAMUT, QUINOA, AMARANTH.

Legumes: BROAD BEANS, PEAS, BEANS, CHICKPEAS, SOYBEANS, LENTILS, CLOVER, FENUGREEK, GOAT'S RUE, LUCERNE, CAROB.

Thus, PROTEINS are of vital importance for sustenance.

Without PROTEINS, children cannot grow up and develop properly. That's why, in mammals, evolution invented MILK, a sort of "LIQUID MEAT": a newborn calf can become a steer in very few months, just by drinking milk from the cow…

However reptiles, amphibians, birds and fish invented EGGS as a source of PROTEINS, that are essential for their young to develop as embryos as well. EGGS are a supply of PROTEINS ready for use.

Many people still believe that PROTEINS have to be eaten every day in great quantity (at least 60 grams per day).

This is not true: many patients manage to heal from very severe forms of chronic-degenerative diseases just by completely suspending the supply of all 9 essential amino acids for many months, obviously under the supervision of a doctor, in order not to have severe forms of protein malnutrition due to lack of food (see for example blood tests searching for "Total Proteins", "Albuminemia", "Pre-albuminemia", etc...).

Indeed, apart from forms of life such as fish, reptiles and birds, that still use EGGS, it has been shown that PROTEINS (MILK) are only constantly needed in young mammals. This explains why *all* mammals *suckle* their offspring until weaning, after which they stop feeding them with milk.

No MAMMALS feed on MILK after weaning, apart from humans. It is strange that humans still use cow's, goat's or other mammals' MILK even at an adult stage, when they do not need it any more.

At the moment, many doctors, including the writer of this book, believe that MILK and dairy products are a source of diseases if eaten by adults, or at least they cause damage to the biochemistry of our cells.
This is because MILK is a rich source of PROTEINS.
Similarly, they believe that the continuous daily supply of PROTEINS, although from different types of food (EGGS, MEAT, FISH) causes damage to our health.

In fact, doctors usually agree that, in adults, eating very few proteins or even avoiding having all 9 essential amino acids (from which our body can build PROTEINS in about one hour), is linked to the absence of chronic-degenerative diseases, and therefore to a longer life expectancy.

It is still thought in Universities that the minimum daily requirement for adults is 60 grams of PROTEINS for an individual weighing 70 kg, when, actually, the "security" daily dose is significantly lower (10-20 grams of PROTEINS or less).

When the gut needs to metabolize great quantities of proteinic food, it needs to use its *mineral storage* to counterbalance the *acidic pH* caused by eating too many PROTEINS (meat, milk, cheese, butter, eggs...).

When pH is HIGH, that is greater than seven, the solution is *basic* (that is NOT ACIDIC, "caustic", that is, giving a burning sensation to the external urinary duct mucosae).
When pH is NEUTRAL, that is, equal to seven, the solution is neutral (that is, NOT ACIDIC, NOT BASIC).
When pH is LOW, that is, less than seven, the solution is *acidic* (that is, NOT BASIC, "caustic", that is, giving a burning sensation to the external urinary duct mucosae).

When pH is low, that is acidic, our body will lose its alkalizing minerals while trying to restore the right biochemical balance (*buffer system*)….

One of the most efficient *buffer systems* is that of *buffer ammonia*.

Kidneys start producing *ammonia*, an alkaline substance (that is, not acidic), that significantly increases the pH of excrements still in the intestines that will later become faeces.
Urine will noticeably have a strong smell of *ammonia*, and urination could even be painful, because of the caustic nature (highly basic pH) of the urine that is being eliminated.
It is suggested to drink some acidulous fruit juice (blueberry, orange, lemon juice, etc…) that will bring the solution back to normal and eliminate the pain.
A strong smell of *ammonia* in urine could mean that our body is running out of alkalizing minerals. Of course, our body can find other stocks of alkalizing minerals such as calcium, sodium and *magnesium*, but by doing so these precious minerals will be taken from bones, later causing damage and causing, in the long term, arthrosis and osteoporosis.
In turn, producing too much ammonia will cause in the long term a gradual but irreversible kidney *chronic failure* (demonstrated by the presence of proteins in urine).

If our body does not have enough calcium and magnesium, it will take the required amounts of these minerals from bones, to guarantee adequate levels in blood. Then, our body will try and make up for this lack of calcium and magnesium by creating bony deposits that reduce movement and limit activities (arthrosis, arthritis). Magnesium and vitamin D (obtained thanks to sun exposure) are the safest solution to avoid such diseases. Restoring the biochemical conditions of the complex system in a young adult can take only a few months; on the contrary, in an elderly adult more than a year might be needed before pH (for example, salivary pH) goes back to being slightly alkaline.

Intestinal DISBIOSIS

The worst effect of eating too many proteins is intestinal DISBIOSIS, that is, the alteration of the normal gut flora (*saprotrophic* gut flora), that is responsible for the fundamental processes in the assimilation of nutrition (natural vitamins) contained in fruit, vegetables, cereals, and legumes.
The loss of these “good germs” is due to eating too many proteins, rich in essential amino acids (all nine of them), in vitamin B12, and in glucose (simple sugar) that are freely available in the intestine.

Glucose, and the presence of All Nine Essential Amino Acids, are the necessary source to develop the “bad” gut flora, that is, the one that causes putrefaction.

The human intestine has a volume of about 6 litres and an enormous surface of about 400-600 square metres. From the throat to the anus, there are 150 very important lymphatic centres, where white blood cells (lymphocytes) maintain immune defences. This area is called intestinal lumen, it is very rich in “good” and “bad” germs, and it can be considered to be the most dangerous and crucial area of our body.
In fact, the two lungs have a much more limited total surface (just 80 square metres). In an adult, the skin has a surface of no more than 2 square metres…
This immense intestinal surface, then, marks the difference between a healthy condition and disease.
In vegetarians, 20-40% of fecal mass is made of “good” germs (enterobacteria, or *symbiotic* or *saprotrophic* germs).
These germs, however, are present in all individuals in the higher part of the intestines (first and second part of the small intestine: duodenum and jejunum).
These germs belong to over 400 species. The following are among the most important: *Bifidobacterium bifidum*, *Lactobacillus acidophilus*, *Lactobacillus bulgaricus*, *Lactobacillus lactis*, *Lactobacillus rhamnosus*; others: *Edwardsiella*, *Citrobacter*, *Providencia*, *Arizona*, *Escherichia coli*, *Enterobacter*, *Serratia*, *Klebsiella*, *Pseudomonas*, *Shigella*, *Vibrio*, *Proteus*, etc…

Some subspecies of these germs are pathogenic (*Vibrio colerae, Shigella dissenteriae, Pseudomonas aeruginosa*).
All these germs are aerobic. That means that they need oxygen to survive. They are the cause of the SYMBIOSIS between human body and germs that allows a good nutritional balance for assimilation of vitamins by the human body in exchange for an ideal habitat for these germs' proliferation.
These bacteria are not damaged by a vegetarian diet, even though fruit, vegetables and spices are rich in *germicidal*, *fungicide* and *parasiticidal* substances (e.g.: *Allicin*, contained in garlic, onions, leek, radish….). In turn, these germs greatly help the body to digest, and therefore, to assimilate the thousands of natural vitamins contained in vegetarian food.

In the first part of the intestine, fecal mass contains about 1 million germs per 1 gram of excrement mass. While fecal mass travels through the gut, its percentage of "good" germs (*symbiotic* or *saprotrophic* germs) increases, sometimes reaching 10 million germs per 1 gram of faeces.

In the lower part of the intestine (colon), however, colonies of germs that are completely different from the "good" ones start forming. These are the *putrefaction* germs: they can survive even without oxygen (*Bacteroides*, *Pepto-streptococcus*, etc…).
The quantity of these germs present in fecal mass increases dramatically, reaching 1 billion to 100 billion "bad" germs per gram of fecal mass.

These "bad" germs should only exist in the final part of the intestine, but unfortunately some incorrect eating habits help these germs in "going up" the intestine, reaching areas where they should not proliferate, such as for instance *Helicobacter pylori* that causes gastritis and gastric ulcer in the stomach.
The abnormal proliferation of these "bad" germs takes place when we eat too many proteins and too much glucose, which gives them nutrition.
Milk, cheese and other dairy products are responsible for this as well. *Casein*, contained in milk and dairy products, helps reducing the amount of oxygen in the intestine, thanks to its ability of "gluing" the intestine's walls together (thus reducing dramatically the intestinal volume available for the assimilation of natural vitamins).
The importance of "bad" germs becomes the cause of diseases in the fact that they replace the"good" germs (*symbiotic* or *saprotrophic* germs).
Thus, the human body cannot assimilate the precious natural vitamins properly.
The presence of putrefaction germs then paves the way for fungi (candida), that in turn pave the way for intestinal parasites (worms).
The presence of intestinal parasites (worms) is very common, although it is greatly underestimated. Laboratory tests searching for these parasites in faeces are not reliable. On the contrary, an easy-to-obtain blood value is the percentage of EOSINOPHILS in the *Hematocrit*.

Food intolerances, allergies (including asthma) and the majority (maybe all) of autoimmune diseases are, or could be caused (etiopathogenesis) by the presence of parasites (worms) in the intestine.
In ASTHMA, allergies and food intolerances, the percentage of EOSINOPHILS is higher than 2%. This value is a limit that should never be trespassed.
In allergies we find Immunoglobulin E (IgE), that on the contrary is not present in food intolerances.

Asthma, allergies and food intolerances

In contrast with many allergologists, the author thinks that both food intolerance and allergies (including asthma) can be explained in the same way: *immune unbalance caused by intestinal disbiosis.*
However, for these patients it is necessary to eat proteins at least weekly. Once a week they can have fish, organic meat or organic eggs. This will avoid dangerous anaphylactic shocks, in case of incorrect or missing "food rules" in the first phase, when patients start following a vegetarian diet. This is true especially for vitamin F, that needs to be taken regularly to avoid allergic reactions.
On the contrary, milk and dairy products should not be eaten for a long time.
As far as white sugar, brown sugar and yeasts (bread, pizza, beer) are concerned, they should not be consumed for a long time.
As far as GM soybean and GM sweetcorn are concerned, they should be forbidden by the law (see further).

Autoimmune diseases

There are many very well known and studied autoimmune diseases, which Official Medicine can do nothing about, apart from administrating cortison and other "symptomatic" drugs, which only treat the disease's *symptom*, without treating its *cause*. The following is a short list of the most common autoimmune diseases.

Central Nervous System: Multiple Sclerosis (?); Myasthenia gravis.
Eyes: phacoanaphylactic uveitis, sympathetic ophtalmia.
Salivary glands: Sjögren's syndrome.
Thyroid: Hyperthyroidism (Graves-Basedow disease); Hypothyroidism (Hashimoto's chronic thyroiditis);
Parathyroid glands: Hypoparathyroidism.
Lungs: Pulmonary fibrosis of various autoimmune diseases, or allergic alveolitis of various origin (probably primitive pulmonary fibrosis, Hamman-Rich syndrome).
Heart: Endomyocardial fibrosis.
Stomach: atrophic chronic gastritis with pernicious anemia.
Pancreas : Type 1 Diabetes Mellitus, or juvenile diabetes.
Liver: some forms of biliary cirrhosis.
Intestine: Coeliac disease, Whipple's disease, protein losing enteropathy, Crohn's disease, granulomatose colitis (Crohn's colon disease), hemorrhagic rectal colitis.
Adrenal glands: primitive adrenal gland atrophy.
Kidneys and lungs: Goodpasture's syndrome, chronic proliferative glomerulonephritis.
Testicles: male sterility.
Joints: Rheumatic disorder, Rheoumatoid polyarthritis, ankylosing spondylitis.
Collagen: Systemic Lupus Erythematosus (SLE); polyarthritis nodosa, dermatopolymyositis, scleroderma, mixed connectivitis, sarcoidosis (suspect, probably coming from herpesvirus).
Skin: pemphigus and similar diseases.
Blood: autoimmune hemolytic anemia, idiopathic thrombocytopenic purpura.

Note 1: past long-term therapy with cortison can affect therapy for these diseases in a negative way, as reported in texts about *gersonian-therapy* or similar therapies ([749]).

Note 2: therapy for *Myasthenia gravis* must be followed by specialists, as some life saving drugs are needed: the patient indeed constantly risks medical emergency.

Malignant tumours

Tumours such as cancer, sarcoma, lymphoma and leukaemia can arise faster if the immune defences are lower (SEE Chapter 9) and if at the same time natural vitamins that could eliminate old cells are lacking (SEE Chapter 6 and Chapter 7).

Other diseases

Other diseases (about which the author prefers not to express an opinion at the moment) could be caused by the presence of parasites, even only in part. These diseases were pointed out by some German studies in the 1920s and 1930s, and refer to neurological or psychiatric diseases. At the moment the validity of those studies cannot be judged, even though it is possible that the neurotoxins produced by intestinal parasites (worms) could actually affect the Central Nervous System.

Altered impermeability of intestinal walls

Another reason why it is so easy for *putrefaction germs* to pave the way for *fungi* and subsequently *parasites* (worms), causing lower immune defences, is an altered permeability of the intestinal walls for putrefaction toxins. This happens if vitamin F is chronically absent in food, as stated by Doctor Katherine Kousmine many decades ago.

Taken from: Katherine Kousmine: *Save your bodies!*

"…If we go back and look at the history of our industrial society, and the changes it has brought about in nutrition, we can see a huge mistake: the importance given to industrial fat substances, whether solid or liquid, artificial or inert.
These are industrial fat substances that cannot repair cells, nor can they ensure normal structure and impermeability to the tissues of our body, while this happens with natural fat substances, whether noble or essential, that are of vital importance for us.
Since the normal tissue impermeability is lost, it is easier to be attacked by toxins, infections or allergies. Immune defences are taken over and the immune balance is broken. But vitamin F (*cis-cis linolenic acid*) ensures the right impermeability of cell membranes and especially intestinal cell membranes, and makes up the main constituent thanks to which our body synthesizes anti-inflammatory prostaglandin PGE1.
Eliminating these disturbing industrial fat substances and substituting them with oils rich in vitamin F (that are biologically active, as they are cold-worked) could restore the normal tissue impermeability and so the correct production of PGE1. In this way, the normal immune balance would be restored, no matter what the symptoms of this balance's alteration are. This is easy to observe in patients. Of course, restoring will be faster if no type of fat substance is present: fat substances increase the need for vitamin F and thus they increase its lack as well…"

Chapter 1.c: FATS and OILS ("*Fatty acids*")

Looking at Table 1 (Chapter 1.a) you will notice that oils are extremely rich as a source of energy (900 Kilocalories per 100 grams olive oil, sunflower oil, flax oil, grape seed oil, corn oil, etc). Fats are very rich in energy as well.

Chemically speaking, both can be considered to be "*fatty acids*".

There are "essential" oils and fats that contain vitamins (vitamin E, vitamin F, etc…). They are called "essential" because our body is not able to synthesize them.
However, in the modern world we talk a lot about severe health problems linked to a diet rich in fats and oils. Actually, the problem needs to be further explained.

Chemically speaking, fats and oils contain three types of "*fatty acids*":
Saturated fatty acids (dangerous for health);
monounsaturated fatty acids (not dangerous for health, can contain vitamins);
polyunsaturated fatty acids (not dangerous for health, can contain vitamins).

Saturated fats, or "bad" fats, are present in most animal fats, in margarine and in fats used in pastry shops. GM food has been recently suspected to contain them as well ([1207]).

Saturated fatty acids, or "bad" fats, cause very severe alterations to cell membranes. They replace vitamin F ("good" fatty acids), and cause severe forms of cell wall impermeability for many substances like glucose (that might cause Type 2 Diabetes), apoptotic vitamins (that might cause cancer and tumours in general), and other substances that are vital for cells, such as vitamin C (that might cause heart attack, strokes etc).

On the contrary, unsaturated fats ("*good fats*") are made of *cis-cis* fatty acids, that are typically contained in cold-worked vegetable oils.
Unsaturated fats (vegetable oils) are present in many plant seeds (SEE Table 2), and in some animals, such as some fat fish that live in cold waters (salmons, herrings).
Fatty acids are vital for muscle cells to produce energy for them during physical activity and to relax them ([1208]).
Furthermore, "good" fatty acids control blood coagulation ([1209]).
They also influence the release of CCK, a hormone that tells our brain that we ate enough and that we should stop eating ([1210]).
They contribute to maintaining conduction speed in motor and sensory nerves as well ([1211]).
They can keep our skin healthy ([1212]).
They reduce high blood pressure ([1213]).
They reduce lung cancer (Pardini R.S.: *Nutritional Intervention with Omega-3 Fatty Acids in a case of Malignant Fibrous Histiocytoma of the Lungs*, Nutrition and Cancer 2005, 52 (2) , pp.: 121-129

It is useful to give a bit more detail about the vitamins contained in these oils.

Alpha-Lipoic Acid

Alpha-lipoic acid is an essential fatty acid that contains organic sulphur (as it is organic, that is, linked to biological molecules, it is not toxic). It directly helps making brain, muscle and skeleton energy available during physical activity ([1208]), controlling diabetes as well ([1214]).

Alpha-Linolenic Acid

Alpha-linolenic acid is a cis polyunsaturated fatty acid present in cold-worked flax seed oil. It is transformed into EPA and DHA (Omega 3 fats), that are difficult to find in food.

Table 2: percentage of vitamins contained in oils

	Flax Seeds	**Pumpkin Seeds**	**Soyabean (NO GM)**	**Sunflower (NO GM)**	**Walnuts (NO GM)**	**Rice (NO GM)**
Omega-6 Linolenic Acid	15	45	42	65	50	65
Omega-3 Linolenic Acid	54	15	11		5	
Monounsaturated fats	22	32	32	24	29	24
Saturated fats	9	8	15	11	16	11
Value	Excellent omega 3	Excellent for vitamin E	Good	Excellent	Good	Good if organic, cold-worked

	Safflower	**Grape Seed**	**Sweetcorn (NO GM)**	**Extravirgin Olive**	**Sesame**	**Rapeseed (NO GM)**
Omega-6 Linolenic Acid	70	72	54	9	45	30
Omega-3 Linolenic Acid				1		
Monounsaturated fats	18	16	29	74	45	50
Saturated fats	12	12	17	16	13	10
Vitamin E in mg	34	?	14	12	1,5	11
Value	Good	Good	Inadvisable for Multiple Sclerosis	Excellent for vitamin E	Good	Good if does not contain erucic acid

	Almonds	**Peanuts (NO GM)**	**Palm**	**Palmist**	**Coconut**	
Omega-6 Linolenic Acid	17	29	9	2	4	
Omega-3 Linolenic Acid	68	56	44			
Monounsaturated fats	15	15	48	18	8	
Saturated fats		19	19	80	88	
Value	Advisable	Inadvisable	Negative	Negative	Negative	

Chapter 1.d: VITAMINS

We eat food because we are hungry and, instinctively, we prefer a certain type of food rather than another one.
The SMELL and TASTE of what we eat are important themselves, but very often we underestimate them because of visual appearance. A beautiful apple will look better than another one for us, but then we will notice that the beautiful, shiny and colourful apple is totally TASTELESS.

Then, what is “TASTE”?
Essentially, “TASTE” is the I.D. of the food we are eating, and it often tells us which and how many “vitamins” are contained in it. If food is warmed up, cooked or left for a long time, it will lose its “vitamins”.

The amount of “vitamins” varies from 15,000 to 30,000. Vitamins are the basis of our health.
The human race has always been tormented by diseases in the past. History calls some of them “incurable diseases”; in fact, they were defeated by simple vitamins.

I will name here the GREAT “incurable” diseases:
Scurvy (variable death rate, defeated by vitamin C);
Pellagra (death rate 97%, defeated by Niacin or vitamin B3);
Pernicious anemia (death rate 99%, defeated by vitamin B12 and folic acid);
Beriberi (death rate 99%, defeated by Thiamine or vitamin B1).

If we consider cancer a chronic-degenerative metabolic disease, cancer itself could be defeated by using great quantities of natural vitamins, among which the most important would be vitamin B17 (SEE Chapter 7).

30,000 lost VITAMINS...

Just as for monkeys, millions of years ago the human race lost the capability of synthesizing many vital substances that could be found in fresh fruit and vegetables in African forests. These substances are essential for life and are nowadays called “vitamins”: they are dozens of thousands, and most of them are still being studied…

The human species is similar to apes but it is different from a phylogenetic point of view, as the number of chromosomes is different (46 and 48 respectively: this would exclude direct descent). Moreover, for millions of years both populations of hominids lived near a source of fresh water and ate almost exclusively raw vegetables, fresh and dried fruit, wholemeal seeds, fish, and small quantities of meat ([1288]). If we consider all this, we can theorize that human biochemistry, too, has lost the intracellular mechanisms that were typical of prosimians and their most phylogenetically similar ancestors. Thus, humans ended up losing the ability to synthesize complex anti-oxidant enzyme chains that are typical of DNA repair systems.

From an evolutionary point of view, losing their ability to synthesize key-enzymes for intracellular repair processes was an advantage. Indeed, it allowed saving enzymes for synthesis and for biochemical energy: nature made thousands of anti-oxidant and intracellular repair substances available in food, substances that we now call "vitamins".....

Thus, this explains why prosimians themselves had already lost the ability to synthesize vitamin C several millions of years earlier: they would find vitamin C in their usual food, that is fresh fruit growing on trees in forest. This change took place before they evolved into transition animal species and finally into today's monkeys. Therefore, it is reasonable to think that this change took place in the species today's mankind descends from, too.

Note: on a DNA level, man and chimpanzee are twin species, as if their evolutionary division took place about 5 billion years ago, during Eocene; on the contrary, on an anatomical-morphological level they pertain to very different species, as if their division took place about 12-15 billions years ago. So, in evolutionary terms, today's human DNA should have been quite different from the present-day chimpanzee, following the long process of evolution of about 12-15 billion years, according to the requirements of slow and casual genetic changes that are necessary to determine the deep change in anatomy and morphology that differentiates the human race from chimpanzees. On the contrary, the DNA of humans and chimps is identical. So the ten great genetic changes in human DNA are interesting because they differentiated humans from chimps and allowed the evolutionary leap towards men. The combination of casual events of these ten important genetic changes in human DNA are still being studied. What Mangiarotti ([1287]) reported in medical literature about this paradox of evolution is then very interesting. SEE Allegated 27

A simple tomato (*Solanum lycopersicum*), just picked from a plant in soil which is absolutely devoid of any toxic substances, can contain as many as 10,000 natural different chemical substances (phyto-chemicals), each of which is a vitamin, a co-enzymatic factor, an anti-oxidant, etc ....
This is therefore true also for green leaf vegetables, fruit, vegetables, tubers, etc ...
But, after only a week in a fridge, green leaf vegetables lose about 25% of their ascorbic acid, and after a further week 80%. After only 3 hours in a fridge a fruit salad has practically lost all its nutritive value.
Therefore, a cancer patient absolutely must eat *fresh vegetables, fresh fruit, fresh tubers and fresh green leaf vegetables*, that is, all products which are 'in season', and in good condition. Otherwise, as an alternative, frozen vegetables can be used, which are infinitely preferable to those coming from forced cultivation in greenhouses, which produce modest amounts of anti-oxidant active factors.
Choosing fresh products is therefore the basic rule to follow, but it alone is not sufficient for the aims described in this study .....
It is necessary to choose another source of food for cancer patients (providing they are NOT undergoing chemotherapy, but are undergoing immune-therapy as described in this study): these patients must, in fact, be fed with food which is absolutely devoid of any pesticides, herbicides, glues, waxes, laquers, anti-budding liquid, ethylene oxide and others.
Furthermore, many patients and their families do not remember or do not know when the various vegetables are in season.

The use of fertilizers prevents plants from absorbing important minerals, such as Selenium, from the soil. Fruit is picked before it is ripe, and is then put in cold storage.
In this way the most important principle is lost, by which the fruit reaches its maximum vitamin potential as it ripens fully on the branches of the trees. Finally, it must be remembered that the majority of co-enzymatic factors contained in fruit are to be found just under the skin, which in most cases is lost because the fruit is peeled.
Furthermore the widespread use of nitrogen fertilizers, used to increase the production of vegetables, leads to an increase in the nitrogen content in the vegetables. We then have the serious problem of vegetables which have a high nitrogen content, which if they are not preserved in the correct way or if they are not eaten shortly after being picked, will produce Nitrates and Nitrites inside the vegetable, with potential toxic and immune-depressive consequences especially for cancer patients who are undergoing Immune-Therapy, as described in this study.

Finally it must be remembered that environmental pollution has caused an increase in heavy metals in agricultural land in Europe; everywhere there are metals such as Nickel, Lead, Chrome and Cadmium. The presence of these chemical agents mean that plants and fruit absorb much more water compared to those grown in non-polluted areas: this explains the change in flavor, smell and even consistency of the fruit itself, a fact easily noted by anyone. Subsequent chemical analysis in the laboratory shows there is an effective loss of nutritional value in fruit, green leaf vegetables and vegetables before they have even been picked. In Europe these losses are serious, estimated at about 50%-70% for established components such as vitamin B6 in green beans, Vitamin C in spinach or strawberries (a loss that rises to 90% in bananas imported from abroad). Moreover, in over 200 studies, the relationship between the reduced consumption of fruit and fresh vegetables and cancer has been highlighted ([624]) http://www.mednat.org/alimentazione/Nacci_vitamine%2023.pdf ; http://www.mednat.org/alimentazione/Nacci_vitamine%2024.pdf , and the particular protective role of Vitamin E has been stressed: vice versa, isolated supplementation of single vitamins, particularly if they are synthetic, has sometimes shown paradoxical results, with a relative increase in the incidence of tumors: complete and natural food is really the best source of vitamins and of other active principles for a normal diet, and, especially, for the anti-oxidative diet for cancer patients as will be discussed hereafter.

The author therefore maintains that mankind is actually lacking a large percentage of about 13,000 estimated forms of chemical complexes present in the principle nutrients existing in nature, and to a large extent found together in fresh vegetables, fresh fruit, seeds, and shellfish (mussels, clams and oysters).
Of these, the substances known and considered essential for the human diet in the normal university courses of Medicine and Surgery, Pharmacy, Chemistry and Biology (vitamins, pro-vitamins, enzymatic co-factors, essential oils, essential amino acids and mineral salts), do not exceed the figure of 0.5% of the whole number of phyto-chemical substances indicated above, of about 13,000.
It is therefore time to reconsider our “food safety” with regard to "vitamins".
Furthermore if one takes into account the high turnover of the necessary enzymatic processes, one arrives at the conclusion that eating fresh vegetables and/or fresh fruit only twice a day is just not enough, particularly for a cancer patient, because the anti-oxidative defenses of the white blood cells and of other healthy cells cannot remain without vital co-enzymatic factors.
This can be easily proved, for example, by measuring the ratio of 8-hydroxy-deoxyguanosine in each cancer patient undergoing therapy at home.

VITAMINS (In alpahabetic order):

Aminoacid NOT found in proteins: Mimosine

Anthraquinones: Aloctin A, Aloctin B (Barbaloin), Emodin, and OTHER;

Ascorbic acid (vitamin C)

B group : B1 (Thiamine), B2 , B3 (Niacin), B4 , B5, B6, B7, B8 (Biotin) B9 (Folic acid) , B10, B11, B12, B13, B14, B15, B16, B17 (Amigdalin), ….and OTHER….
Note: "Laetrile" acronym for "LAEvomandeloniTRILE-glucoside") as Amygdalin: Laetrile has two molecules of glucose, Amygdalin has more. Indeed, the chemical structure of Laetrile is D-1 mandelonitrile–beta-glucuronide, while for Amygdalin it is D-mandelonitrile-bi-glucoside.

Carotenoids: a family of pigments with at least six-hundred members, as Axerophthol palmitate, alpha and beta Carotene, trans-Retinoic acid, Lycopene, Lutein, Canta-xantine, Cripto-xantine, Zea-xantine, ….and OTHER …

E group: This liposoluble substance consists of a group of various components, called *Tocopherols*. Seven of these exist in nature; *alpha-Tocopherol, beta-Tocopherol, gamma- Tocopherol, delta-Tocopherol, epsilon-Tocopherol, zeta-Tocopheros* and *eta-Tocopherol.*

F group: polyunsaturated fatty acids : arachidonic acid, Linoleic cis-cis natural acid (vitamin F1) as: alpha-lipoic acid, alpha-linolenic acid, ….and OTHER…..

Flavonoids is a group of more 4.000 polyphenolic compounds. These compounds possess a common phenyl-benzopyrone structure (C6-C3-C6) , and they are categorized according to the saturation level and opening of the central pyran ring, mainly into seven main groups: Flavonones, Flavanols, Flavones, Flavonols, Flavanonols, and Isoflavones.
Es.: Acacetin, Apigenin, Baicalein, Baicalin, Bilabetol, Biochanin A, Campherol, Catechin, Chrysin, Citrin, Daidzein, Diosmin, Epicatechin, Epigallocatechin, Epigallocatechin-3-gallate, Equol, Eriodictyol, Fisetin, Formononetin, Galangin, Gallocatechin, Genistein, Genistin, Ginketol, Gitogenin, Glycitein, Hesperidin, Hyperoxide, Isoamnetin, Isoginketol, Kampherol, Liquiritin, Luteolin, Morin, Munetone, Myricetin, Naringenin, Naringin, Nobiletin, Pychnogenol, Quercetin, Robinetin, Ruscogenin, Rutin, Silydiamin, Silymarin, Silychristin, Tangeretin, Taxifolin, Wogonin , and OTHER

Indole glucosinolates : as Indol-3-carbinol, and OTHER (Brassica vegetables); conversion to isothiocyanates

Isoprenoides : Abscisic acid, Acorenone, Alloaromadendrene, Aromadendrene, Bergamotene, Bisabolene, Borneol, Bornyl acetate, Isoborneol, Cadinene, Camphene, Caranol, Carene, Carvacrol, Carvone, Pinocarvone, Caryophyllene, Cedrine, Cineole, Cinnamaldehyde, Cinnamate, Citral, Cyclocitral,, Citronellal, Citronellyl acetate or butyrate or propionate, Copaene, Cresol, Cubebene, Cymene, Damascenone, Elemene, Estragol, Eugenol, Farnesene, Fencone, Geraniol, Germacrene, Hotrienol, Humulene, Ionol, Ionone, Isopinocamphone, Isopulegol, Limonane, Linalool, Longifolene, Mentol, Neomenthol, Menthone, Isomenthone, Murolene, Myrcenol, Myrcene, Myrtenol, Neral, Nerol, Nerolidol, Nootkatone, Ocimene, Ocimenol, Perillaldehyde, Phellandrene, Pinene, Pinocamphone, Piperitol, Piperitone, Pristane, Pulegone, Sabinene, Sabinol, Santalol, Selinadiene, Selinene, Sinensal, Styrene, Terpinene, Terpineol, Terpinolene, Thymol, Tricyclene, Vanillin, Valencene, Verbenone, Vitispirane, …and OTHER…

Lecithins : as Alexin B, ….and OTHER

Minerals (organic) : organic Boron, organic Calcium, organic Chromium, organic Germanium, Organic Iodine, organic Iron, organic Magnesium, organic Manganese, organic Molybdenum, organic Selenium, organic Silicium, organic Vanadium, organic Zinc, …. and OTHER….

Note:
allyl Sulfur (an organo-Sulfur compound) (*)
Diallyl sulfide [DAS], (an organo-Sulfur compound) (*)
Diallyl disulfide [DADS], (an organo-Sulfur compound) (*)
Diallyl trisulfide [DATS], (an organo-Sulfur compound) (*)

(*) which are decomposition products of Allicin

Germanium sesquioxide
Manganese Superoxide Dismutasis (SOD),
Selenium derivatives (sodium Selenite, Seleno-DL-Methionine, Se-methyl-selenocysteine)

Oxindole alkaloids: Pteropodin, Specrofillin, Hystopteropodin, Uncaria F, Isomitrofillin, …and OTHER…..

Saponins : Ginsenoides, Saikosaponin D, ….and OTHER….

Stilbenes: is a group of polyhenols : Resveratrol, …. and OTHER….

Styryl-lactones : Altholactone, Goniothalamin, ….and OTHER….

Tannins: is a group of polyhenols; tannins are divided into 2 chemically distinct groups:

1) the condensed tannins (Proanthocyanidin)
2) the hydrolysable tannins (as hydrolysable Ellagitannins, such as Woodfordin C (macrocyclic ellagitannin dimmer), Oenothein B, Camellin B, …..and OTHER…..

NOTE: Anthocyanins: Peonidine-3-glucoside, Cyanidin-3-glucoside , ….and OTHER….

Terpenes: Alisol B acetate, Atractylon, Atractylenolides, Betulinic acid, Bisabolol, Boswellic acid, Carnosic acid, Ferutidin, Ferutinin, Myristicin, Oleanolic acid, Parthenolide, Pomolic acid, Tymoquinone, …and OTHER…

Vanillys-phenols : is a group of polyhenols; share structural similarities possessing both the vanillyl (4-hydroxy 3-methoxyphenyl) moiety and the ketone functional group in their structure; Paradols, Gingerols, Yakuchinone B, Curcumin (diferuloyl methane), Capsaicin (homo-vanillic acid derivative : 8 methyl-N-Vanillyl-6-nonenamide),…and OTHER….:

….and OTHER….

Chap 1.2: *"Herb-Therapy must not be prohibited"*

The *European Commission* (the *Internal Market, Tourism and European Community Consumers Council*) has proposed a directive on vitamin integrators, natural and nutritional products in the European Union.
The *European Commission* basically intends to:

1) strictly limit the maximum dosages of vitamins and minerals allowed in integrators (article 5 of the proposed directive);
2) eliminate from the market all the sources of vitamins and minerals which are not mentioned in a limited list of "permitted chemical substances" (SEE second attachment to the proposed directive);
3) eliminate herbal products from free sale in Europe, and oblige them to be registered as "traditional herbal medical products" (the Commission's proposed directive on traditional herbal medical products - 3rd draft, May 2001);
4) prohibit all information on preventive and curative properties of vitamins and minerals, considering such information illegal if in any way related to a product.

The agreement will be an incentive for what seems to be the Commission's plan to eliminate *Phyto-Therapy's therapeutic alternatives* to therapies based on chemically synthesized medicines.
This Project of the *European Commission* aims to favor those who are making a profit from the main illnesses of deficiency which are now widely spread across the western countries (cancer, cardio-vascular diseases, diabetes, "american" obesity, hyper-tension, Alzheimer's, Parkinson's disease, Acquired Immuno-Deficiency Syndromes, etc…) that is to say those companies which make their profits from illnesses, instead of health: in other words, the major chemical and pharmaceutical industries.

Cancer, which was not very common until 100 years ago, is nowadays perhaps the main source of profit compared to other illnesses. The continuous increase in cancer is a clear confirmation of the fact that the Cartel of the *Pharmaceutical Multinationals* is far from keeping its promise, that is to improve everyone's health: not only has the Cartel not gradually eliminated illnesses as it had promised, but the actions and products of the Cartel itself have sometimes been the direct cause of the tremendous increase in illnesses with which we are presently faced.

Nowadays many doctors opt for "alternative" treatment techniques, based on the assumption that it is exactly the deficiency of thousands of vitamins that causes serious illnesses such as cancer, and other deficiency diseases. But these doctors are daily exposed to harassing attacks.

It can therefore be maintained that the *Pharmaceutical Multinationals* act through international institutions such as the *European Commission* and the *Codex Alimentarius* (a branch of the *United Nations Food and Agricultural Organization*), to pursue their more or less illicit money-making activities: for example, they have established the RDAs (*Recommended Daily Allowances*), also known as PRI's (*Population Reference Intakes*), an acronym which indicates the quantities of vitamins and minerals, that is, the quantities of nutriments that are absolutely scurvy and *beriberi*. But the recommended quantities are not sufficient, nor have they ever been thought of for the prevention of the deficiency diseases mentioned above (cancer, cardio-vascular diseases, diabetes, "american" obesity, hyper-tension, Alzheimer's, Parkinson's disease, Acquired Immuno-Deficiency Syndromes, etc…), that is, to guarantee good health by enforcing the organism's defenses. Nevertheless, the European Commission's proposal for a directive on vitamin integrators contemplates "maximum levels of dosage to be determined according to an analysis of risks, carried

out with scientific methods, taking into account the contribution of vitamins and minerals from other nutriments…", and also the "*Population Reference Intake*", according to the declarations of commissioner David Byrne.

This book intends to ask the following questions:

1) Why do they want to protect us from the obviously inexistent dangers of alimentary integrators, when millions of people die every year because of the well-known "side effects" of chemical and pharmaceutical medicines?
2) Why will the "scientific evaluation" of the dangers said to be hidden in these innocuous biological substances be carried out by the same scientists that are responsible for having introduced on the market highly toxic medicines that kill millions of people every year?

The answer could be the following: the directive proposed by the *European Commission* has been formulated on the suggestions of the *Pharmaceutical Cartel*, and it is the last attempt to eliminate the growing competition of biological substances provided by natural and nutritious products including alimentary integrators, consisting of over 13.000 essential vitamin principles.

Scientific literature is full of studies that prove the benefits for health and the preventive properties of vitamins, minerals and other substances with biological activity found in alimentary integrators. An adequate supply of vitamins and other substances with biological activity could prevent millions of deaths every year, and cure many illnesses currently considered incurable, such as cancer and many other pathologies (to be published in future on this site).

Therefore this book says:

NO to the *European Commission's* proposed directive on integrators, especially in its present restrictive draft;

NO to the restriction on maximum dosages of integrators which have not been proved to be the cause of real, not imaginary, health problems;

NO to the costly "pharmaceutical evaluation" of natural biological products intended to eliminate from the market all substances which have not been approved;

NO to the need for the "demonstration of non-toxicity" of these natural biological products, which often requires experiments on animals;

NO to the registration of all natural products based on herbs as "medical product" or as "herb-based traditional medicine";

NO to the prohibition of the publication and distribution of scientific information, even if connected to specific products, regarding the effects of natural substances with biological activity.
It declares that the important role of natural substances and nutrients with biological activity contained in alimentary integrators in maintaining good health and preventing illnesses should be recognized, and should receive the consideration it deserves in any legislation which sets itself the goal of regulating the sale and distribution of these products.

It declares every citizen's freedom of choice in matters of health.

Europe First To Ban Supplements
From INTERNET: http://curezone.com/forums/m.asp

In August 2005 everything in Europe is about to change due to the EU *Food Supplements Directive* (FSD). Banned items will include natural vitamins such as mixed tocopherols (natural vitamin E), carotenoids and B-12 methylcobalamin, all forms of Sulphur, Boron, Vanadium, Silicon and most trace elements, the most readily absorbed and safest forms of Calcium, Magnesium, Zinc, Selenium, Chromium and Molybdenum. It will severely limit the doses of vitamins and will remove all high-dose products from the market. It will include future restrictions on nutrients such as fatty acids, amino acids, enzymes, probiotics, phytonutrients, etc.

The directive will dramatically limit future innovation in the supplements industry, and seriously impact retail outlets, complementary practitioners and consumers who choose to take responsibility for their own health and let food be their medicine.

Here, again, is where it affects us: the draconian EU Directive goes far beyond denying most Europeans access to safe nutritional supplements; it is about to be used as the blueprint for establishing international dietary supplement laws at *Codex*, which our government in its questionable wisdom has made us part of. Codex will outlaw or severely restrict virtually everything millions of us have grown accustomed to using safely every day. National borders don't mean much anymore; we are witnessing the rapid unification of the world into a new global government with Europe at the helm. When the *World Trade Organization* (WTO) was given teeth to enforce international trade laws in the early 1990s, all WTO member nations agreed to harmonize their trade laws to new international laws so every nation operates by the same set of standards. Since then, every single ruling that the WTO has made has gone against the environment, against the public health, against consumer rights, against labor rights, and against human rights. Although activists protested against the WTO, most people were unaware that it would eventually lead to an incremental attack on all of our food supplements around the world. Most supplement companies have simply gone along with the advice from their pharmaceutically dominated trade associations.

Germany, the largest pharmaceutical manufacturing nation on earth, currently dominates the EU which hosts the *Codex Committee on Nutrition and Foods For Special Dietary Use*, and is leading the charge to railroad our dietary supplement laws into international harmonization. The European Union is the blueprint by which our would-be rulers intend to form a global totalitarian state. What they're doing with the EU is their first project; they're trying to make and control similar regional trading blocks all over the world. For example, they're trying to create the *Free Trade Area of the Americas* (FTAA) through which they're trying to harmonize the laws between Canada, the U.S., Mexico, and Central and South America.

The *Alliance for Natural Health* (ANH), a consumer advocacy group based in Britain, was recently granted the green light to challenge the *Food Supplements Directive* at the last minute; however, very rarely has a EU Directive ever been overturned and in this case, it would be a historic event considering the pharmaceutical interests backing its implementation. Resources are very scarce but they've got to keep the lawsuit going to overturn the Directive before it's too late. They've hired a top legal staff and they are girded for battle in a EU Court. With the EU expanding by ten more nations in early 2004 to a combined total of twenty-five member nations, and with heavy pressure to finalize a *Codex* vitamin standard, the situation is critical. If the FSD is not overturned now, with Europe's ever-expanding power it's very possible that there will be enough countries onboard to overrule the protests of the few countries at *Codex*, where many parts of the FSD will be used when new international vitamin laws are codified. Once a *Codex* vitamin law is finalized, it will

supercede any member country's supplement laws. The only way for a country to truly protect its vital interest on this and other matters is to get out of the U.N. and the WTO entirely, a 'best case' scenario that nobody realistically sees happening.

In the 21st century we live under siege. There are concerns about pesticides, herbicides, antibiotics, GM,mobile phones, microwaves, amalgam fillings, falling sperm counts, mad cows, MMR - even milk. Farmed salmon is a Trojan horse for carcinogens. Obesity and diabetes are on the march. There is a mass of documentation on all this. So what is the European Commission's big idea? 'Let's clamp down on vitamins and minerals.'

In order to prevent a sinister one-world government from mining people as the resource, usurping our natural freedoms and dictating our moves, we must pony up and donate to the ANH so they can make a decent legal presentation; if we don't do it for ourselves, how about our grandchildren and the rest of society? Go online to www.alliance-natural-health.org and make a donation. Or suffer.
---Duncan Crow---

http://www.alliance-natural-health.org
(Duncan Crow, Wholistic Consultant. Canada)
http://curezone.com/forums/m.asp
http://curezone.com/forums/m.asp?f=237
http://curezone.com/forums/m.asp?f=237&i=597

www.db.europarl.eu.int/ep6/owa/p_meps.short_list

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Chapter 2: The ideal diet for cancer therapy

Basically, the ideal diet is rich in in-season fresh fruit vegetables (from 10 to 15 portions a day for each); in particular, as regards vegetables, the following daily plan should be followed:

1) Bulbs: *Allium sativum* (garlic), *Allium cepa* (onion), etc...

2) Florets: *Brassica oleracea italica* (broccoli), *Brassica oleracea botrytis* (cauliflower, etc..)

3) Vegetable fruits: *Solanum lycopersicum* (tomato [only small ones]), *Cucurbita pepo* (zucchini/courgettes, etc...) ...[NOT *pumpkin* (sugar beets)].

4) Vegetable leaves: *Spinacia oleracea* (spinach), *Lactuca sativa* (lettuce), etc...)

5) Vegetable roots: (*Daucus carota* (carrot), *Pastinaca sativa* (parsnip), etc...[NOT *Beta vulgaris* (sugar beets)].

6) cereals (SEE later) [NOT *Zea mays* (sweet corn, maize) it's a GMO risk; NOT *Oryza sativa* (rice) for GMO risk;

7) Tubers: *Solanum tuberosum* (potatoes), *Brassica rapa* (turnip), etc...) [NOT *Solanum tuberosum* for GMO risk].

8) Vegetable stems: *Asparagus officinalis* (asparagus), *Apium graveolens* (celery), etc... [Do NOT eat raw *Asparagus officinalis* and/or *Apium graveolens*].

Chap. 2.2.: Food combinations (cereals + legumes)

It is also important not to eat pasta (*Triticum durum*, *vulgare*, *spelta*) or Sweetcorn *(Zea mays*), or rice (*Oryza sativa*), or bread together with pulses, because doing so there is an integration of the 9 essential amino-acids (the 8 contained in the cereals + the 8 contained in the pulses), with a nutritional effect similar to the one obtained by eating meat (SEE chapter 1.b: Proteins)
ALL the essential amino acids are: Valine, Isoleucin, Leucin, Lysine, Methionine, Histidine, Tryptophane, Phenylalanine, Treonine.

LEGUMES contain a lot of energy, and, potentially, a lot of proteins. They contain a lot of proteins only together with food containing the missing amino acid (usually Methionine).

Note: *Hippophae rhamnoides* (Olivello spinoso) is rich of Lysine, as LEGUMES.
Amaranthus hypochondriacus (amaranth) is rich of Lysine, as LEGUMES
Secale cereale (rye, used in Gerson-Therapy) is rich of Lysine, as LEGUMES

Chap. 2.3.: The dangers of GM food

Thus, those that are dangerous for health are only GM legumes, as they have ALL nine essential amino acids, as we already know for alfalfa ([745,967]), for GM soya, GM peas, ([1011, 2006]), for GM clover ([1066]), and GM beans. People must know what happens if they use these as food, because the result is a nutrition full of proteins, and not only of energy. This is particularly important for people who have chronic-degenerative diseases (cancer, diabetes, arthrosis, osteoporosis, cardio-vascular diseases, obesity, etc). The hidden protein intake can nullify nutritional therapies based on avoiding proteins (they are based on totally eliminating MILK, MEAT, EGGS, FISH and YEATS from the diet).

The problem is similar also for GM CEREALS, that were recently introduced in our nutrition. They contain the missing amino acid, usually Lysine.

At the moment, there are three GM cereals being produced and sold in the United States and in the rest of the world: SWEETCORN, RICE, and WHEAT.

Although many patients are very careful about food labels, at the moment we cannot exclude the following facts, based on failed therapy in some cases where the diet was correct:

1) Rice sold in Europe presumably contains Lysine in good quantities, as opposed to organic rice. It also seems that some rice brands sold in Europe also contain the pesticide toxin *Bacillus thuringiensis* (SEE below).

2) Some brands of GM sweetcorn have already been officially introduced in Europe, but we don't know whether they were enriched with all essential amino acids or not, nor how they were modified. It seems that they were modified introducing *Bacillus thuringiensis*, a pesticide toxic substance.

3) At least one fifth of Italian PASTA is made with wheat coming from abroad, usually from America ("*Panorama" magazine*, 2004-2005): no-one can exclude that American flower contains ALL 9 ESSENTIAL AMINO ACIDS.

It would be interesting to study the pasta imported from America to check the presence of:
a) ALL 9 ESSENTIAL AMINO ACIDS, by comparison with certified organic wheat (organic wheat contains little or no Lysine).
b) Transgenic toxins (*Bacillus thuringiensis*).
c) Transgenic viruses (SEE chap. 8), that are often used to make GM vegetables.

The problem of WHEAT: the author expresses particular concern about wheat (*Triticum durum*), from which in Italy today we get both pasta and bread: patients suffering from cancer need a lot of energy (at least 2,000 kcal/per day) provided that it comes from food with no Vitamin B 12 and without *ALL 9 Essential Amino Acids*. That is NO animal product: Pasta, together with rice, is (or was) the most suitable food for this. They have already started growing new varieties of wheat in the USA, of the GM variety, the characteristics are not yet known. However it is feared that they may have been enriched with Lysine as in American potatoes, American maize, and American rice.

For this reason, the author expresses serious doubts on the introduction of cereals, pulses and other genetically modified vegetables (often not even declared as such) onto the market that could contain

ALL the ESSENTIAL AMINO ACIDS (9), thus effectively rendering Cancer no longer curable as described in the present study.
For example, it has been possible to trace from bibliographical data that the potato (previously considered a cure for tumors), is today absolutely counter-indicated, because the synthesis gene of Lysine has been inserted into it ([689]). This is an essential amino acid that the potato did not have, and a gene obtained from *Amaranthus hypocondriacus* (amaranth, tumbleweed) which is well known to be rich in this essential amino acid. The very same Lysine ([685]) has been introduced into a local variety of potato in Israel, since 1992. In 1997, in the United States, human Casein was introduced into a North American variety of potato, thus making it complete with all the essential amino acids ([687]).
In 1998 *Bacillus thuringiensis* was transferred to potatoes by means of GMO technology, and these were fed to mice ([1589]) : the intestinal cells of these mice showed degeneration phenomena and lesions in the microvillus on the surface of the intestinal space; hyperplasia was present in half of the cells and of several nuclei; the thin basal plate of the intestine was damaged in various places; several damaged microvilli appeared with fragments containing endoplasmic reticulum; the *Paneth cells* had a high degree of activation and contained a high number of secretory granules. [note from the author of this site: the resulting picture reminded one, at least to some extent, of ileitis from rays, or "*Baserga syndrome*", well known in the Marshall islands in 1954, where many civilians were exposed to food contaminated by radionuclides of alpha and beta emissions, coming from the fallout of nuclear explosions].
The genetic threat from this experimentation is very little debated with regard to its real problem ([689]).

If the patient manages not to destroy all of his/her own reserves of proteins in muscles, maintaining an energetic physical program, with long walks and exercise suitable to maintain good muscle tone throughout the patient's whole active muscular structure, then the organism will begin to look for protein reserves which are not essential, such as fatty tissue and above all, the neo plastic tissues themselves.

But particular attention must also be paid to other transgenic variants (GM) of plants used for food, which, according to the author, can no longer be used in a cure against cancer, because such plants usually come from abroad and furthermore have been prepared in laboratories in American, Canadian or Japanese industries and are therefore suspected of being carriers of transgenic viruses (with a risk of transgenic diseases); of lacking the important vitamins needed to fight tumors and perhaps of being carriers of substances which inhibit apoptosis in diseased cells (SEE below). It is because of this that the author expresses serious concern about the introduction on the market of cereals, pulses and other genetically modified vegetables (often NOT declared) which could contain ALL the ESSENTIAL AMINO ACIDS (Valine, Isoleucin, Leucin, Lysine, Methionine, Histidine, Tryptophane, Phenylalanine, Treonine) thus effectively rendering cancer no longer curable using the treatment described in this work, a work which in its ideals links up to the old therapy of Dr. Gerson, extending it to many other curative plants such as *Aloe arborescens*, for example.

The author of this study thus maintains that if GMO are liberalized, there will be the most serious environmental disaster ever seen, because there will no longer be any possibility of curing cancer with Gerson's diet, or with other food programs as described in this study, which alone were able to cure between 70% and 90% of patients, provided that there was no Chemo-Therapy ([749,750,969]).

Chap. 2.4.: The importance of oils

Oils must be produced by cold pressing olives, and must not be refined.
Large use of Italian *extra virgin olive* oil, and oil of flax seeds (*Linum usitatissimum*).
The latter must never be used for frying, but must be used only raw. Ideally, this is true also for olive oil, because of the vitamins it contains. True *extra virgin olive* oil is hard to find, because it is often adulterated. For example, it is notorious that, at temperatures below zero degrees Celsius, only true *extra virgin olive* oil completely freezes, while the adulterated one containing remains usually freezes in little inhomogeneous spheres. Despite this, it is still being sold as "*extra virgin oil*".

Cold pressed flax seed oil is very important because of vitamin F, which is not present in extra virgin olive oil. The latter contains vitamin E, which is not present in cold pressed flax seed oil. To understand the importance of these two oils, further on you can find a short medical explanation about the vital importance of these two vitamins.

Chap. 2.5.: Spices, grass used in cooking but also in medicine

The following are useful spices (some of them carry out a specific anti-neoplastic function on an immuno-stimulating and/or apoptotic basis):

Anethum graveolens or *Peucedanum graveolens* (dill),
Hibiscus abelmoschus or *Abelmoscythus moschatus* (rosemallow),
Angelica archangelica,
Pimenta racemosa (Pimenta),
Stirax officinalis (benzoin),
Dryobalanops aromatica (borneole),
Aniba roseadora (Bois de Rose),
Melaleuca alternifolia (Tea tree)
Melaleuca leucodendron or *minor* (Cajeput),
Melaleuca quinquenervia or *viridiflora* (Niaouli),
Cymbopogon nardus or *citratus* (cymbopogon),
Foeniculum vulgare or *sativum* (fennel),
Lavandula officinalis or *angustifolia* (lavender),
Lavandula stoechas (French lavender),
Myrtus communis (myrtle),
Pinus mugo (mugo pine),
Pinus sylvestris (scots pine),
Salvia sclarea, *Santalum album* (sandal wood),
Satureja montana or *hortensis* (savory),
Lippia citriodora (verbena),
Cananga odorata (Ylang-Ylang),
Viola odorata (sweet violet),
Pimpinella anisum (anise),
Ocimum sanctum or *tenuiflorum* (basil),
Cinnamomum zeylanicum (cinnamon),
Elettaria cardamomum (cardamom),
Eugenia caryophyllata or *Caryophyllus aromaticus* (cloves),
Coriandrum sativum (coriander),
Carum carvi (cumin),
Carum nigrum or *Nigella sativa* (black cumin),
Curcuma longa (curcuma),
Artemisia dracunculus (tarragon),
Melissa officinalis (lemon balm),

Mentha species (mint),
Origanum vulgare (oregano),
Majorana hortensis (marjoram),
Capsicum frutescens, fasciculatum or *annum* (cayenne pepper, paprika),
Cochlearia armoracia (radish),
Rosmarinus officinalis (rosemary),
Salvia officinalis (sage),
Schinus molle (Brazilian peppertree),
Sinapsis arvensis or *alba* (mustard),
Thymus vulgaris (thyme),
Crocus sativus (saffron),
Piper nigrum (black pepper),
Zingiber officinalis (ginger).

Chap. 2.6: The Pulses

Pulses are allowed:

Medicago sativa (alfalfa, lucerne),
Glycine maxima (soya),
Cicer arietinum (chick peas),
Phaseolus vulgaris (beans),
Vicia faba (broad beans),
Lens esculenta (lentils),
Pisum sativum (peas),
Fagopyrum esculentum (buckwheat or black wheat),
Ceratonia siliqua (carob),
Colutea arborescens (Erba vescicaria),
Trigonella foenum graecum (fenugreek),
Galega officinalis (galega),
Lotus corniculatus (five-finger),
Glycirrhiza glabra (sweet root),
Lupinus albus (lupin),
Melilotus officinalis (yellow melilot),
Trifolium pratense, rubeus (clover),
Anthyllis alpestris or *vulneraria* (kidney-vetch, lady's-finger).

GM pulses are dangerous (ALL 9 ESSENTIAL AMINO ACIDS :Valin, Isoleucin, Leucin, Lysin, Methionin, Arginin, Tryphtophan, Phenylalanine, Treonine Hystidine)
NOT use of *Glycine maxima* (it's GM);
NOT use of *Pisum sativum* (GMO risk,[1011]);
NOT use of *Medicago sativa* (GMO risk);
NOT use of *Phaseolus vulgaris* (GMO risk)].

Chap. 2.7.: Dried fruit

Dried fruit is forbidden to cancer patients because it contains a lot of ESSENTIAL AMINOACIDS

Corylus avellana (hazelnuts)
Olea europaea (olives); note: particularly rich in DHEA, useful against aging
Pinus pinea (pine nuts)
Castanea sativa (sweet chestnuts)
Juglans regia (walnuts)
Arachis hypogaea (peanuts)
Pistacia vera (pistachios);
Prunus amygdalus (almonds);

Note: be careful with seeds of bitter almonds (*Prunus amygdalus*), because they contain a lot of vitamin B17. This makes 2-3 bitter seeds lethal for a child, and 12-15 lethal for an adult weighing 70 kg. On the other side, they are extremely effective on cancer (SEE chapter 7).

Chap.2.8.: breakfast, Lunch and dinner

Chap.2.8.a: Useful breakfast in the morning

The human body starts to purify itself at about 4 in the morning, and completes this cycle shortly before 11 in the morning. During this extremely delicate stage, as it has to eliminate all the toxic substances that were absorbed in the previous 24 hours (food, air, water, skin contact), it must be fed with great quantities of natural vitamins in order to help the detoxification of these poisons by cells, and the resulting expulsion of toxins from the body.

The expulsion of toxins from the body (the quantity of expelled toxins) indicates how much intoxication is in the body, and how much the body is able to discharge them.
Urine should not smell of ammonia.
Faeces should not have a bad smell, they should be soft, of bronze colour, and they should float in water.

Skin (the third discharging organ after urine and faeces) releases sweat in the morning, from armpits, from the groin and from feet, that should be washed at night and in the morning.
In the morning the tongue is often covered by the classic whitish film of mucus.

Thus, it is wrong to give the body too much proteic food, or food that is potentially rich in toxins: on the contrary, it is better to help it to purify from toxins that are not going to be eliminated before 11 in the morning.
Only at about 12 or 1 o'clock the body will be ready to be fed again with CARBOHYDRATES, the primary source of calories (pasta, bread, legumes, potatoes) or even with PROTEINS (meat, fish, eggs, milk and dairy products)

For this reason, in the morning one must eat fresh fruit, tea made with detoxifying grass, and vegetable juice: e.g., fruit juice, Chinese green tea (*Camellia sinensis*), Breuss juice, etc…
Apple cider vinegar is interesting. People who have a delicate stomach should drink it with a glass of water (obviously chlorine-free and fluorine-free water). The apples it is made with must be of excellent quality and fermented in sessile oak barrels for at least six months.

Chap. 2.8.b.: During the morning

During the morning, on an empty stomach, it is a good habit to drink fresh vegetable or fruit juices, bought in “organic food shops” or in local public markets that only sell organic products, especially if it is not possible to make fresh fruit or vegetable shakes for work reasons.

Chap. 2.8.c: When you cook vegetables

When you cook vegetables, you should not cook them for too long, because cooking them for too long destroys the vitamins that are essential for the diet we are talking about. Thus, vegetables can be steamed, cooked in the oven or tossed in a pan, but they should not be boiled in water, unless it is a soup (vitamins and mineral salts stay in the water).
If you do not have fresh vegetables, frozen vegetables are preferable to vegetables in cans.
Moreover, it is a good eating habit for the patient to drink fresh vegetable juices and fruit juices, together with the consumption of fruit and vegetable shakes.
If vegetables are cooked, one should take the precaution of not cooking them too much, because excessive cooking destroys the vitamin principles which are essential to the anti-neoplastic therapy described here: therefore, vegetables may be steamed, cooked in the oven or tossed in a pan, but not boiled in water, apart from soups (because the vitamins and minerals remain in the water).
If fresh vegetables are not available, frozen ones are preferable to tinned ones.

Chap.2.8.d.: Pickled vegetables

Pickled vegetables are prohibited, because they are salty, and they contain cancerogenous components due to the high concentration of nitrous elements which, once ingested, may form nitrosamines, which are strong cancerogenous substances.

Chap.2.8.e.: Exotic fruit

Exotic fruit, or more in general fruit and vegetables coming from areas of the world with little hygienic or health control, can be the means for infection by infectious diseases, sometimes in severe forms (cholera, salmonellosis, etc…) caused by dirty water (sewage) used to irrigate the ground.
Attention must be paid to fruit and vegetables which have been treated with chlorine, because it destroys vitamin E and other active principles.

Chap.2.8.f.: Drinking water

It is best to take a litre of water from the tap and boil it for 20 minutes without a lid (in that way allowing the chlorine to evaporate). Then it should be filtered through a gauze, eliminating all the residues, and put in a thermos flask. Drink it hot during the day.

Chap.2.8.g.: Lunch and/or dinner: The importance of cereals

It is extremely important that cereals are wholemeal cereals.
Of course, flour is the basic form to have them as pasta, bread, or polenta. Wheat is the most widespread cereal. Gluten is contained in its seeds in an ideal proportion, and it makes it particularly suitable for rising and bread-making. There are two varieties of wheat: hard wheat (*Triticum durum*) and soft wheat (*Triticum aestivum* or *vulgare*). The percentage of amino acids contained is about 13% (*Triticum vulgare*) and 12,5% (*Triticum durum*), but all 9 essential amino acids are never present together. With the introduction of milling by steel wheels, that took the place of traditional grindstones, the large-scale production of white flour started. This flour is refined, and has kept its energetic value, but not its nutritious value (vitamins), as it does not have the outer layers of the grain (bran) nor the wheat germ (vitamin E).

What happens is that very often companies try to add bran to white flour again, but the product obtained cannot be compared to true wholemeal flour: the true semolina has indeed a quite uniform amber colour, compared to these mixtures that are easy to recognize (characteristic inhomogeneous look with brown parts that are darker or whiter).

Other cereals: rice (amino acids: 6%), millet (amino acids: 11%), barley (amino acids: 11%), oat (amino acids: 12%), sweetcorn (amino acids: 9.5%), rye (amino acids: 16%), amaranth (amino acids: 16%), emmer wheat (amino acids: 12%). The 9 ESSENTIAL AMINO ACIDS are NEVER present together.

Common buckwheat (*Fagopyrum esculentum*) is not a cereal, but something different. It is particularly rich in lysine (as LEGUMES) and tryptophan, and the amino acid percentage is about 11%. It contains a lot of Iron, Magnesium and group B vitamins, vitamin B17 included. It must not be eaten with cereals because ALL 9 ESSENTIAL AMINO ACIDS could be found together.

Hippophae rhamnoides (Olivello spinoso) is rich of Lysine, as LEGUMES.

Emmer wheat (*Triticum spelta*) does not have a high glycemic curve, contrary to other cereals, so it can be used for people who need to avoid high glycemic peaks, such as for cancer or diabetes patients.

Amaranth and rye are cereals. They have a high percentage of amino acids (16%), and they also contain lysine, an essential amino acid that is almost absent in other cereals. Therefore the risk is to sum up all 9 essential amino acids in case amaranth is eaten together with other cereals (e.g.: bread).

Secale cereale (rye) and *Amaranthus hypochondriacus* (amaranth) are too rich in Lisin.

Note: wholemeal pasta (emmer wheat, kamut, barley etc..), as it is wholemeal, releases starch, so, contrary to pasta made with hard wheat, it has to be carefully drained.
The taste is stronger than the one of white pasta, to the point that, if you don’t want to lose the substances that you drain, you can keep them apart for an evening vegetable soup, for example cooking some vegetables in bit of water with half bouillon cube, and mixing them with the drained water, until you get a cream. Many food substances are sold that try to integrate nutrition with a large part of these cereals. You should choose wholemeal flour, without added substances.

Chap.2.9.: Fish

Pay attention to farmed fish because the feed comes from unsafe sources (for example - butchered animals): according to the author small-sized and salt-water fish should be chosen, possibly belonging to species that tend to accumulate only small quantities of polluting substances (for example: anchovies, needle-fish, skullcaps, pilchards, sardines, mackerel, etc...).
Tuna, however, is considered to be a valid nutrient for neoplastic patients as well.
Fish should be eaten only after the immunity cascade has begun, with a noticeable dimensional decrease in the tumour mass, given the possibility that the essential amino-acids found in fish could be assimilated by the tumour cells as well.

Chap.2.10.: Sugars

You will notice the absolute exclusion of sugars, apart from fructose. This depends on the facts that the latter has a low glycemic index. Indeed, it works differently from other sugars (glucose, saccharose, mannose, etc..) as it is absorbed slowly by the intestine. From blood it passes directly to the liver, where it is converted into hepatic glycogen.

This avoids a dangerous hematic hyperglycemia, that, even though it can be transitory, can be dangerous for patients with cancer or diabetes.

Chap.2.11.: Salt

Ordinary table salt (sodium chloride) is the cause of ESSENTIAL HYPERTENSION in more than 95% of cases. Only in 4-5% of cases it is due to diseases, usually kidney diseases.
In private foreign "health" clinics, where the most common and frequent chronic-degenerative diseases are treated with mega-vitaminic therapies, it was shown that, even if salt is removed from the patients' diet, they can continue eliminating 6 to 8 grams of sodium per day through the urine for more than a week from the beginning of diet therapy before going back to a normal arterial pressure.

Chap.2.12.: Toxic or dangerous food

1) Sweetcorn (*Zea mays*): unfortunately it is a lost product, as it has a high transgenic pollution risk. Transgenic sweetcorn is dangerous both because of "*Bacillus thuringiensis*" (SEE below) and added lysine ([982]) and/or tryptophane.
2) Soya: it has a high trangenic risk, just like all of its byproducts, for example Tofu (soya "cheese").
3) Aspartame: induces cancer ([1602]). http://www.ehponline.org/docs/2007/10271/abstract.html
4) Margarine : its SATURATED fatty acids block the action of vitamin F.
5) Hydrogenated vegetable fats: they damage cell walls and hinder the action of vitamin F.
6) GM salmon : it contains transgenic viruses (SEE chapter 8 about transgenic viruses).
7) Peas: transgenic risk ([1011, 2006]).
8) Beans : trasngenic risk.
9) Peanuts (*Arachis hypogaea*): high amino acids content (26%) and very often genetically modified.
10) Coconut (*Cocos nucifera*) and palm oil: they contain saturated fats.

Chap.2.13.: Food that is dangerous for health if consumed often:

Meat (it contains all 9 essential amino acids and vitamin B12),
Ham, (it contains all 9 essential amino acids and vitamin B12),
Eggs, (they contain all 9 essential amino acids and vitamin B12),
Milk, (it contains all 9 essential amino acids and vitamin B12),
Cheese, (it contains all 9 essential amino acids and vitamin B12)
Liver (it contains all 9 essential amino acids and too much vitamin B12),
Potatoes-GMO (if transgenic, they contain all 9 essential amino acids)
Jam,
Margarine,
Pickles (nitrous compounds),
Pollen of bee (it contains too many proteins and all 9 essential amino acids),
BHA (E320),
BHT (E231),
Polyphosfates (E450),
Ammonium chloride (E510),
Acesulphane potassium (E950),
Aspartame (E951),
cyclamic acid (E952),
Saccharine (E954),
Hydrogenated vegetable fats,
Yoghurt, (it contains all 9 essential amino acids and vitamin B12)
Glycine maxima (soya) : it contains too many proteins and all 9 essential amino-acids,
Tofu (soya "cheese"),
Whey,
Algae (some contain too many proteins and vitamin B12),
Brewers' yeast (it contains too much folic acid),
Muesli (glicemic curve),
GM Salmon (transgenic virus),
Raisins,
Molasses,
Sugar beets,
Butter, (it contains all 9 essential aminoacids and vitamin B12)
Lard,
Tallow,
Vitamin integrators (both synthetic and natural, if containing PABA, folic acid, vitamin B12),
SAM (S-Adenosilmethionine),
Carnitin (2 essential aminoacids: Lysin and Methionin),
Green Barley of *Hordeum volgare* (Vitamin B12, folic acid, Lysin, Methionin)
Arachis hypogaea (peanuts) for high protein content (26%) and transgenic risk,
Coconut (*Cocos nucifera*)
Palm oil (saturated fats),
Tropical fruit such as *Musa sapientum*, *acuminata*, *paradisiaca* (bananas),
Ananas sativus (pineapples), etc... (highly polluted by pesticides and deprived of many vitamins by the premature picking and the long period of travel).

Chap.2.14.: The problem of bread

Bread baked with stone-milled, organic wholemeal cereals is good for health (vitamin F). Industrial bread with chemical yeasts must be eliminated from the diet, because it often contains pork lard, and it seems that it is often enriched with North-American flour (transgenic danger).

Chap.2.15.: The GMO dangerous (SEE also below in another pages)

The foods which could, in the future, become extremely dangerous, even though they are not actually counter-indicated in the therapy described in this work are the following:

- slow ripening and/or virus-resistant tomatoes;
- slow ripening cauliflowers ([968])
- slow ripening broccoli
- slow ripening strawberries which are resistant to cold and frost
- peas which are sweeter
- rice enriched with vitamin A, and ALL the essential amino acids.
- seven foreign grape varieties which have come from other high quality grapes: *Cabernet Sauvignon, Shiraz, Chardonnay, Riesling, Sauvignon Blanc, Chenin Blanc* e *Muscat Gord Blanco* ([737])
- seedless and/or virus-resistant melons
- baby carrots
- virus-resistant lettuces
- insect-resistant rice
- insect-resistant beans
- The manipulation and irreversible genetic modification of the very important oil from the seeds of the Brassicaceae ([806]), which have anti-cancer properties.

Note: the *Zea mais*
Its stems provided a particular phtyto-therapeutic compound useful against various deficiency diseases. Now, because of genetic manipulation (GMO), the gene *Bacillus thuringiensis*, has been introduced, giving rise to grave concern for the risks to the health of mankind deriving from this toxin.
With regard to *Bacillus thuringiensis* different scientific studies have already shown its pathogenic effect in experiments with animals and on the human cell line of normal lymphocytes.
But there have been various studies, over a period of time, on *Bacillus thuingiensis*: in 1978 a French study (Rev.Can. Biol. 1978 June; 127-130) showed damage by *Bacillus thuringiensis* on kidney cells for doses of 0.1 mg of toxin per millimeter, and a little more for human diploid and heteroploid cells (about 1 mg of toxin per millimeter); it was not possible to protect these cells from this toxin in any way.
In 1998, subcutaneous injections of *Bacillus thuringiensis* in mice with a low immunocompetence, caused serious pulmonary superinfections (J.Clin. Microbiol. 1998 July, 36(7): 2138-9), and the same French author repeated the experiment using intranasal suspensions of the same spores of *Bacillus thuringiensis* with equal results on animals (FEMS Immun.;. Med. Microbiol. 1999 May; 24(1); 43-7).
In 2000, it was shown that the toxin acted in a toxic way not only on diseased cells of the tumoral type (as happens, moreover, with many toxic substances, SEE Chemo-therapy) but also, unfortunately, the toxin *Bacillus thuringiensis* acted in a toxic way on normal human lymphocytes too, traditionally the human cells which are most sensitive to poisonous substances introduced into human organisms, and what is more, at doses inferior to those that are considered toxic for tumoral human cells (J. Appl. Micobiol. 2000 July, 89(1): 16-23).
According to the author, all these studies could signify a direct depleting effect of *Bacillus thuringiensis* on the lymphocytic line, that is to say a serious indication of a possible anti-immunitary effect of *Bacillus thuringiensis* in man. This renders GMO foods, which are enriched with *Bacillus thuringiensis*, extremely dangerous, because they would inhibit the anti-neoplastic immunitary response in patients treated with Phyto-therapy (Aloe, Essiac, the Gerson diet, the Breuss diet, Chinese and Indian medicine ....), and in reference to other diseases, *Bacillus thuringiensis*, because of its inhibiting action on the defense system could be capable of seriously worsening the condition of patients affected by Acquired Immune Deficiency Syndrome (AIDS); vice versa it could introduce immunitary imbalances in healthy people causing allergies and food intolerances, or, unfortunately, induce auto-immune diseases, and probably, even tumors.
Finally, seeing the effect on healthy lymphocytes, on intestinal and kidney cells, particular attention must also be paid to the teratogenic risk to human foetuses and embryos in pregnant women.
The toxin-producing gene of the bacteria Bacillus thurigiensis, for instance, is commonly engineered into crops to provide them with a built-in insecticide. However, the toxin produced is known to resist degradation by binding itself to small soil particles whilst continuing its toxic activity. The long term impact of this toxin on soil organisms and soil fertility is unknown ([1499]).

Chap.2.16.: Domestic pollution

Many toxic substances are nowadays being sold without any type of control: *impoverished uranium* (since 1999), *sodium lauryl sulphate* (SLS), *propilenic glycol*, *diethanolamine* (DEA), *cocamide* DEA, *luramide* DEA, Fluorides (*sodium fluoride* and *hexafluorosilicic acid*), *Dioxin*, *Alum*, *Fluorocarbons*, *Formaldehyde*, mineral oil and/or *petroleum jelly*, etc…

"Impoverished" Uranium (and Plutonium) : SEE http://www.llrc.org/aldermastrept.pdf ; http://web.ead.anl.gov/uranium/uses/index.cfm ; http://www.newswithviews.com/Howenstine/james29.htm),

Below you will find some information about these toxic substances (taken from Phillip Day's book: "*Cancer: if you want life, prepare the truth*", Credence Publications)

Dioxin: it is a cancerogenous byproduct of the procedure used to make foam in soaps like shampoo, toothpaste, and to bleach paper in paper factories. Plastic bottles treated with dioxin can transfer it to the food they contain. It is demonstrated that dioxin can cause cancer 500,000 times more than DDT. ([1207]).

Alum : Medicines containing alum must not be taken; when eating, cutlery containing aluminum should not be used, because this substance de-activates various phyto-complexes, including vitamin E.
NB: the danger of aluminum can be easily demonstrated by taking an aluminum bowl (or covered with tin foil inside), filling it with water and melting some sodium bicarbonate inside: when the aluminum comes into contact with an alkaline substance such as the bicarbonate, it melts and forms a gas: it can therefore be presumed that aluminum causes some kind of poisoning, characterized by a gastro-intestinal inflammation because of the hydroxide in the aluminum, and possibly by a hepatic and renal degeneration.

Fluorocarbons: they are gases or liquids that have no colour, they are not flammable, they can cause irritations in the upper and middle respiratory organs. They are usually contained in hair spray.

Formaldehyde: it is a toxic gas, with no color, irritating and cancerogenous. It is used with water as a disinfectant or a preservative. It is found in many cosmetic products and common nail products.
Mineral oil and/or petroleum jelly: they are used in baby oils. They derive from petroleum, that is notoriously cancerogenous.

Diethanolamine (DEA), *Cocamide* DEA, *Luramide* DEA : they are liquids without colour, or crystalline alcohol, used as a solvent, emulsionant and cleanser (inhibiting agent). DEA works as an emollient in emollient lotions or as wettener in other personal care products. If it is present in products containing nitrates, a chemical reaction takes place and nitrosamines are produced, which are potentially cancerogenous. Even though some previous studies seemed to show that DEA was not cancerogenous, more recent studies show that DEA does have the capability of provoking cancer, even in nitrate-free formulations ([1208]). DEA can also irritate the skin and mucous membranes. Other types of ethanolamines that must be avoided are *Triethanolamines* (TEA) and *Monoethanolamines* (MEA).

Fluorides (*sodium fluoride* and *hexafluorosilicic acid*): fluorides used in drinking water are noxious, they are not biodegradable and they pollute the environment. They are officially classified as "contaminating" by the *US Environmental Protection Agency*. Such substances are industrial waste, residuals of phosphate-based fertilizer production (Note by Dr. G. Nacci: the latter are suspected to be responsible for the seaweed overproduction in the Adriatic sea during the summer)

that are taken in by industrial pollution depurators and then sent to water pipes. Hexafluorosilicic acid, that is, the mostly used additive for fluorization, contains other noxious substances, including lead, beryllium, mercury, cadmium, arsenic and radionuclides ([1209]). The noxious action of fluorides is summed up in a clear statement by Dr. Dean Burk of the *National Cancer Institute*: "*Fluoride causes more deaths due to cancer and causes cancer quicker than any other chemical substance*". Fluoride is an electronegative element, it is extremely volatile, and it is never found isolated in nature, and so it quickly combines itself to other elements. Fluorides were used as toxic gases during the First World War, and at the moment sodium fluoride is used as poison against mice. However it is also used in toothpaste for its alleged action against cavities.
In October 1994, the medical journal "*Journal of the American Medical Association*" published an editorial saying: "*…the use of drinking water containing a minimum quantity of fluoride (1.2 to 3 parts per million) could cause dysfunctions to bone development just like osteosclerosis, spondilosis and osteoporosis, and also goiter*" ([1210]). In May 1992, Dr. William Marcus, the scientific consultant in charge and toxicologic head of the *US Environmental Protection Agency*, was fired after publishing his explicit statements about the scary risks linked to fluorides.
Finally, in 1990-1991 fluoride was officially declared as a cause for cancer in animals and humans ([1211]). Dr. Burk of N.C.I. said indeed: "*We conclude that artificial fluorization seems to cause or induce at least 20-30 more deaths for 100,000 people that were exposed to it for at least 15-20 years…"* (www.thewinds.org/archive/medical/fluoride01-98.htm).

However, it is incredible to think that today fluorization of water pipes and toothpaste is allowed, and furthermore the aim of the US government is to make it mandatory for water pipes in 75% of American cities in the next few years ([1209]).

This is what medical scientific literature says ([1212]):
1)Fluoride accumulates in the body just like lead, causing long-term damage
2)Fluoride is more noxious than lead, and slightly less noxious than arsenic (Clinical Toxicology, 1984)
3)Medical research shows that hip breaking occurs 20-40% more often in communities where fluorization is applied ([1212]).

On 8 December 1993 the *American Medical Association* (AMA) published an article called "*Study links fluoride to rare bone cancer*". This study also showed that hip breaking occurred more often (27% more) in women and 41% more in men, in American cities with fluorization ([1213-1219]).

Chap. 2.17.: the problem of the labels of food wrappings

Food must be of a good quality, possibly bought from organic food farms, or at least free of any dangerous chemical additives:

Sulphuric anhydride (E220),
Potassium nitrite (E249),
Sodium nitrite (E250),
Sodium nitrate (251),
Potassium nitrate (252),
Erythorbic acid (E315),
Butyl hydroquinone (E319),
BHA (E230),
BHT (E231),
Polyphosphates (E450),
Monoglycerides and dyglycerides of fatty acids (E471),
Esters of mono and dyglycerides of fatty acids (E472),
Esters of saccharides of fatty acids (473),
HC1 (E507),
KC1 (E508),
CaCl (E509),
Ammonium chloride (E510),
MgCl (E511),
Acesulphane potassium (E950),
Aspartame (E951),
cyclamic acid (E952),
Saccharine (E954),
The “natural” aromatic herbs (synthetic, in actual fact), artificial aromatic herbs, flavour enhancers or added sugars.

It is, therefore, important to properly understand and interpret the indications on the labels of food wrappings.

Chapter 2.18: *Conventional* agriculture (*or chemical* agriculture, or *industrial* agriculture)

The purpose of modern agriculture is the maximum yield for the farmer, regardless of the quality of the food obtained. He therefore has no qualms whatsoever about using chemical substances which are completely extraneous to the plant's biological cycle, with devastating consequences for the biological balance of the land which is subjected to these intense treatments.
Substances such as pesticides or herbicides leave residues in the food, causing the growth of tumors. Only in Italy, in 1985 about 10 kg of pesticides per hectare were used...
A partial list of pesticides which are known or suspected of inducing tumors in man are the following ([675]) :
Acephate (*Orthene*),
acido arsenico,
acido metilarsonico,
Acifluorfen (*Blazer*),
Alachlor (*Lasso*),
Amitraz (*Baam*),
Arseniato di Calcio,
Arseniato di Piombo,
Arseniato di Rame,
Arseniato di Sodio,
Arsenito di Sodio, (*Asulam*),
Azinfos-metile (*Guthion*),
Benomil (*Benlate*),
Captafol (*Difolatan*), *Captan*,
Cipermetrina (*Ammo*, *Cymbush*),
Ciromazina (*Larvadex*),
Clordimeform (*Galecron*),
Clorobenzilato, *Clortalonil* (*Bravo*),
Daminozide (*Alar*),
Diallato,
Diclofop-metile (*Hoelon*),
Dicofol (*Keltane*),
Ethalfluralin (*Sonalan*),
Folpet, Fosetyl A (*Ailette*),
Glifosato (*Roundup* o *Rodeo*),
Idrazina maleica,
Lindano, Linuron (*Lorox*),
Mancozeb, Maneb,
Methomyl (*Dual*),
Metiltiofanato,
Metiram,
Metoalaclor (*Dual*),
O-fenilfenol, Oryzalin (*Surflan*),
Ossido di etilene,
Oxadiazon (*Ronstar*),
Paraquat (*Gramoxone*),
Parathion, PCNB,
Permetrin (*Ambush*, *Pounce*),
Pronamide (*Kerb*),
Terbutrin,
Tetraclorvinfos,
Thiodicarb (*Larvin*),
Toxafene,
Trifluralin (*Treflan*),
Zineb.

This production technique produces not only poisoned food, but also food which is lacking in vitamin principles, co-enzymatic factors and essential minerals: it is not simply by chance that nowadays even bakers need to enrich their flours, too poor in gluten, with North-American flours... (transgenic risk.…).

Intensive cultivation, the forced selection of varieties which have been made use of precociously and excessively and the destruction of the biological system controlling insects and parasites (hedges, crop varieties, birds, predators) make it necessary to treat orchards with insecticides and anti-cryptogamic substances many times in the course of the year...
The substances which are used nowadays are of a "systemic" kind: in other words, they are sprayed on the leaves and, through these, they are absorbed and carried with the lymph, impregnating the whole plant, including the fruit.
Therefore, there is no point in trying to modify the pollution of fruit by simply washing it under tap water (often containing chlorine).
In this way, perhaps, it is possible to eliminate the substances with which the fruits are polished, the purpose of which is to slow down the gas exchanges between the fruit and the environment after picking, thus preventing the ripening process taking place too rapidly, with a consequent precocious shriveling of the fruit. But the really resolute choice is to eat fruit which has been cultivated with biological systems, or deriving from integrated productions.
In Europe, the best countries for this new kind of agriculture are Holland and Spain.

Chapter 2.19 : Organic farming and small-scale retail trade

Organic farming is a complex system, based on the conservation of the soil's fertility, the use of techniques with a low impact on the environment, the conservation of genetic, agronomic and, as far as possible, natural diversity.
In organic farming chemical substances such as fertilizers, herbicides, anti-cryptogamic substances, insecticides or pesticides are never used.
The crops are defended, first and foremost, in a preventive way, selecting species which show hardiness towards illnesses, and intervening with appropriate cultivation techniques (the rotation of crops, the planting of hedges and trees able to give shelter to natural predators and to serve as a physical barrier against possible external polluting agents and the mixing of different crops and seedlings, etc...).
Fertilizers are strictly of natural origin, for example manure, appropriately composted, the use of mown grasses and green manure, that is, the incorporation into the soil of plants, such as clover and charlock, which have been previously planted and picked.
Another interesting aspect is the use of plants (exotic ones as well) which possess anti-parasite or even insecticide qualities such as *Acorus calamus, Tribulus terrestris, Azadirachta indica* and many more (NB: a list of Asian, African, Australian and American plants appropriate for such purposes is being analyzed).
When necessary, intervention for the defense of the crops is done with natural substances of vegetable origin, particular animals (predators), or minerals which are expressly allowed and/or authorized by the E.E.C.(E.E.C.=*Comunità Economica Europea*) Regulations, such as, for example, extracts of *Azadirachta indica* predator insects, pulverized rock, copper, sulphur, in this way obtaining the correction of the vital bio-chemical components present in the soil, or even its defense against cryptogams and other infestations.
The common definition of "*Organic Product*" is not correct: the E.E.C. Regulation No. 2092 of 1991, and over thirty modifications and integrations that followed, establish that what is "organic" is not the product, but the agricultural method used for its production. Therefore, there is no "organic" apple or "organic" fruit juice, but an apple from "organic farming" or a fruit juice from "organic farming".
"Organic farming" products cannot contain *Genetically Modified Organisms* (GMO), nor can they have been subjected to sterilizing treatments with radiation.
If additives are necessary, they must be chosen from the ones that the E.E.C. Regulation expressly authorizes (some raising agents, some acidity correctors, some emulsifiers, but no coloring agents, preservatives or flavor enhancers). At least 70% of ingredients must be of organic produce; the remaining ones must be among the those that are expressly authorized by the E.E.C. Regulation (algae, sugar beet, rice starch, cola nuts, etc....) and reference to the biological method is allowed only in the list of ingredients.
Only if at least 95% of the ingredients derive from organic farming is the reference to the biological method allowed in the selling name (organic farming apricot jam, organic farming pasta, etc...). In this case as well the possible components which are not of biological origin will have to be included with those that the Regulation authorizes, but it will not be necessary to indicate in detail the biological origin in the list of the ingredients.
Before its products may be considered biological, a farm must undergo a period of "changeover", during which the land will be detoxified from the treatments of chemical agriculture (conventional agriculture) to which it was previously subjected; the length of time of the changeover is determined for each single case by the controlling authority. To be put on the market as "in conversion", a product must have been cultivated in the full respect of all provisions for a period of time no shorter than 12 months before planting.

Author's considerations of Organic Farming

The "changeover" of the land is certainly the most critical aspect for the setting up of real "Organic Farming" in Italy.
In countries like Holland, the land is prepared on the basis of the following parameters:

1) land is chosen from those that have just been taken away from the sea for the building of new dams.
2) intensive changeover cultivation is followed for at least 3 years using particular plants, the purpose of which is to eliminate salt and other substances present on the seabed.
3) greenhouses and pure water with purified external air are used.
4) the State controls the quality of the land only after at least 3 years of "changeover".

Therefore, to start organic farming in Italy, where farmers have carried on poisoning the land for at least 50 years with pesticides, herbicides, anti-cryptogamic and other toxic substances, is going to be extremely difficult.
The author has therefore proceeded to initiate a series of studies for the chemical and radioactive decontamination of the land, with the intention of elaborating a proposal on this subject: in fact, there are about 1,500 chemical products which are variously used (in particular the active principles of pesticides); the many chemical polluting factors present in the river waters that are used for the irrigation of the land, and even rainwater, are a cause of environmental pollution.

Phyto-decontamination:
According to the author, what could therefore be done is to institute some Organic Farming Consortiums and situate them in the lands which have been decontaminated with the appropriate plants such as *Arundo donax, Heliantus annuus,* the latter being particularly effective even against radionuclides like Caesium 137 and Strontium 90 in Chernobyl ([676, 677]) *Zea mays, Fagopyrum esculentum, Iris pseudo-acorus, Typha latifolia,* etc...(Perhaps, against the Uranium in ex Yugoslavia..)

Thus, the return to a capillary distribution of fruit and vegetable products, based on the trust existing between producers of fruit and vegetables, the owners of shops, both big and small, including supermarket chains, and regular customers, would be the best guarantee with regards to “organic” products, irrespective of the more or less valid certifications of the "organic" product's goodness. This could reopen the market to a positive and conscious competition between big and small European companies interested in revaluing agricultural lands which are still being subjected to overexploitation in the cultivation techniques used; these can no longer be considered "modern" in a scientific sense, on the basis of current knowledge in human biochemistry (cancer causing) and in the environmental biology of flora and fauna.

For the Renaissance of organic agriculture in Europa

Thus, it is necessary to keep the seeds of the short but great worldwide agricultural tradition, born from agricultural traditions, the result of ages of traditions in peasant civilization. But, if the countryside is less and less populated, if little family-run agricultural companies give up to few huge companies that cultivate GM products, if the only market solution is that of the great organized distribution, then there is no hope for the biodiversity of organic agriculture, the direct descendant of thousands of agricultural human civilizations, because the great distribution of food products itself has been the main cause of its disappearance.
In order for biodiversity to come back, in order for the old varieties of fruit, vegetables, cereals and

legumes to be cultivated again, it is necessary to create the bases for a Renaissance of the worldwide peasant culture, that was born from the work and the fusion of millenary world cultures. This new base will give a huge economic help to organic agriculture by selling directly (without intermediaries) farm products, coming directly from the hands of the farmer to the hands of the patients and their families.
Small covered markets will have to be built, where the LAW can check whether the prices for organic products are fair. The prices will then be decided respecting the prices of similar products sold in nearby places, thus avoiding speculation, and sold above a certain price, in order to help farmers continuing their organic production, because this will mean respecting a "fair price" for the farmer.

This model represents the close future; it is the present for many companies in Europe, and it causes a series of positive effects on the economy of the countryside.
It is thus important to connect peasants to people living in cities, using free lists of organic food companies, that are able to sell their products directly (INTERNET), that is "local food", or a "map of local food".

Christmas 2005: Crisis of the organic market in the USA

(Extracted from Just Food, 20th December 2005)

According to *Organic Monitor*, most sectors in Organic Farming are facing a lack of raw products, which is hindering the market development: a shortage of biological products is leading American companies to search for raw material abroad. The amounts of imported FRUIT, VEGETABLES, CEREALS, LEGUMES and OFFICINAL HERBS are increasing.

In the international trade, American importations are increasing steadily: importations in the USA are estimated to be over 1-2 billion Euro-dollar, as against 100-200,000 Euro-Dollar of exportations of American products.

The shortage of organic products is causing economic problems: almost all sectors in Organic Agriculture are in crisis. Many American retailers had empty shelves during the year. For example, on the market of organic FRUIT juices, one of leading company is going out of the market because there is a lack of organic FRUIT in the USA and importations from abroad have prohibitive costs.

Organic Monitor estimates that 80% of actual production of organic juice will disappear from the American market because of the withdrawal of this USA company.

Chapter 2.20

The latest deception: *Marker Assisted Selection* (MAS). When genetic deception returns to farmers' fields through HYBRID plants

Large biotechnology (i.e. GMO) firms such as *Monsanto, Syngenta, Bayer, Pioneer,* etc. argued for years that GMOs represented a scientific and technical revolution in agriculture and that this revolution was the only efficient and economical way to feed a growing population in a smaller and smaller world. Independent scientists and other authoritative figures have often presented factual data showing that these statements are completely unfounded.

Recently, the above-mentioned multinationals have been using another form of deception which is known as *Marker Assisted Selection* (MAS). It is a complex method used to significantly accelerate traditional selection processes without modifying them genetically as in the case of GMO seeds. So far there is no harm. In this way, it is possible to select plant varieties with better characteristics for a particular environment.

In the Netherlands, the new technique allowed to develop a new variety of Lettuce which is resistant to a particular aphid and, in India, one of Millet resistant to drought and mildew. Furthermore, *Syngenta* created a NON-GMO variety of wheat which is more resistant to fusarium fungus.

This form of "assisted selection", which was developed in the large laboratories of those biotech firms and aims at putting the so-called "*Marker Assisted Selection*" on the world market as an alternative to GMOs, hides however a great deception: the plants produced are all "HYBRID", i.e. sterile.

They can produce higher yields compared to natural plants but farmers cannot sow them again in their field.

Besides, before the recent advent of GMOs on the market, "hybrid" plants had become more and more diffused for some decades.

The following is a brief analysis of what happened, drawn from Laura Silici's "*OGM: Le verità sconosciute di una strategia di conquista*" ("*GMO: The hidden truth of a strategy of conquest"*), Editori Riuniti, via Alberico II, 22 – 00193, Rome.

That hybrid varieties are also a source of wealth for the "Seed Industry" does not surprise. These plants differ from normal ones not because they produce more – as advertised for decades – but because they reduce the yields of the next generation.
The expression "hybrid varieties" hides therefore a double deception: first of all, they are not "varieties", and secondly, being "hybrid" is not a peculiar characteristic of them. The selector uses the selection-cloning method: the result is not a hybrid variety but a number of clones, and the variety is substituted with the best clones.
On the basis of Mendel's laws, discovered in 1900, the American biologist George Shull noted that it is possible to clone maize "haphazardly", i.e. using the isolation mechanism. In his first major paper, Shull explained the cloning-selection principle without revealing its method. He stated that he had solved the main problem of the selector, namely "having the original pedigree". In his

second major paper, "*Il metodo delle linee pure nella selezione del mais*" (January 1909), Shull explained his invention. The title suggests that he actually settled the issue of maize cloning.
On the basis of Mendel's segregation, he proposed to apply successive self-fertilizations to multiply a "pure line" (homozygote) which – like autogamous plants – keeps its individual characteristics, provided that it is cultivated separately. Pure lines are significantly weakened by self-fertilization and so they cannot be used directly by farmers. Only after crossing pure lines two by two, the sorter produces normal plants which have recovered their vigour. Then, as many copies as needed can be obtained from these plants through cloning, given that their parents are known. At this point there is nothing left to do but isolate the best clone.
However, this method has an insurmountable practical difficulty: it is blind. Self-fertilizations produce a really great amount of lines and an even greater amount of clones. Since the lines are very weakened but can produce excellent clones anyway, the selection can only take place among these. Why clone maize, then?
Because the sorter is obviously interested in a plant which does not keep its original features from a generation to another: in the field the clone loses the characteristics which brought farmers to sow it. In other words, maize undergoes a process which was studied by Darwin in 1876, known as consanguineous depression. The closer the relationship between crossed individuals, the more this mechanism affects the variety produced by cross fertilization. In this way the selector forces farmers to sow clones – genetically identical plants – and induces them to transform their fields into self-fertilization machines (in the laboratory, the self-fertilization process consists in associating male flowers with female flowers and in carrying the mature pollen from the former to the latter. Self-fertilization is the most extreme form of consanguinity: the following generation is so compromised by consanguineous depression that harvested wheat cannot actually be sown. Then this dispossession had to be disguised as an improvement. Genetics and geneticists made every effort to attain that objective for more than a century.
The isolation technique needs cloned plants, which are simply hybrids of whatever plant of maize. It can be said that hybridism – common to all plants of maize – is the distinguishing feature of the clone substituting the variety. The misrepresentation of facts consists in arguing endlessly about the genetic mysteries of hybridism as if they were linked to the cloning-selection technique. It was even said that "…knowing the genetic processes of heterosis was not essential for improving maize" (Coors, Cymmit, 1997).
Thus, on the one hand the selector uses self-fertilization to sterilize maize, on the other hand the geneticists believe and make people believe that they are using its hybridism – the contrary of consanguineous depression – in order to improve it. In their own words: "the contrary of the consanguineous depression is known as hybrid vigour or heterosis" (Falconer, 1981, page 230).
For more than a century, geneticists have been trying – naturally without success – to explain the mysteries of hybridism, as on the occasion of the Cymmit symposium (*International Center for Wheat and Maize Improvement*) which took place in Mexico City in 1997, sponsored by the genetic-industrial complex (*Monsanto*, *Novartis*, *Pioneer*, *Asgrow*, *Dekalb*, *Cargill*, *Plant Genetics System*) and its political supporters (*The World Bank, USA Department of Agriculture, USAID and Rockefeller Foundation*).
Fifteen kilograms of clone seeds – an amount necessary for a hectare of land – cost about 150 euros in France, i.e. the same price as 16 or 18 quintals of maize seeds. A quintal of hybrid seeds costs about 1,000 euros, that is 100 times more than the price of the maize grains which would be used as seeds the following year, if only farmers could sow them.
That is the revolution of maize "hybrid" varieties and the aim of scientific debates: distorting dispossession and then explaining it as an improvement. Genetics acts again as an ideology rather than a science. (Richard Lewontin: "*The doctrine of DNA, Biology as ideology, Penguin Books"*).
Nowadays, clones are five times more productive than varieties cultivated during the years after the Second World War. To understand what is happening, it is enough to follow the logic of the cloning-selection technology without thinking in terms of hybrids and hybridization. The

misrepresentation consists in attributing the improvement not to selection but to hybrids. First of all, selectors isolate some clones – obviously better than those of unselected varieties – and then attribute the success of the selection process to hybridism.
Back in 1910, E. Funk proved that it was possible to improve wheat through selection. This was confirmed by recent results: "*…as a matter of fact, several properly conducted long-term studies for the improvement of cereals produced genetic benefits which were greater or equal to the average of 60 kg wheat per acre and per year registered with hybrid seeds*" (Coors, Cymmit, 1997, page 170).
The following is a summary of the main characteristics of the misrepresentation of facts:

1) Dispossession of living beings: hybridization is a dispossession.

2) Misrepresentation of scientific facts: science and some scientists, in particular genetics and some geneticists, have an ideological function, i.e. passing the dispossession off as an improvement. Backward scientific knowledge compared to current advanced technology (genetics really took its first steps in 1914, when Shull postulated hybridism properties using the concept of "heterosis") allows to legitimate a genetic theory whose credibility is due only to the economic power of its inventors.

3) Self-celebration of hybridism properties: in the name of this genetic theory (with the benefits of hybridism or "heterosis"), in February 1992 the US Secretary for Agriculture, Henry Cantwell Wallace, decided that hybridization would be the only method used to improve maize. He took this decision on the advice of his son, Henry Agard Wallace, who selected and produced maize seeds, would become Secretary for Agriculture during Roosevelt's administration in 1933 and would found Pioneer in 1926 – the largest cement multinational today. Wallace was impressed by the new genetic science and by its prospects in the field of manipulation of living beings. In 1946 he compared the power of heterosis to that of the atomic bomb. Conventional selectors which had doubts about the properties of hybrids were ignored and replaced with hybrid corn breeders, all direct or indirect followers of East and initiated into the scientific esotericism of hybridism. Varieties traditionally cultivated by farmers were abandoned in their genetic state around 1910. About fifteen years had to pass for genetic theory to be accepted. Around 1935, captif clones proved to be normally better than "free" varieties.
Please note: Pioneer, founded in 1926 with a capital of $7,600, was bought by the chemist *DuPont* for about 10 billion dollars in 1999. The worth of each invested dollar increased by 1,500,000 times over 73 years. The capital of the selector multiplies only if plants are not allowed to multiply in the farmer's field.

4) The socialization of dispossession costs: in 1992 the US government launched a research programme with generous support and close coordination. It was an innovation in the field of agronomic research, which up to that moment had been neglected. In 1936, about one hundred public breeders conducted scientific studies (Jenkins, 1936) and some individual selectors carefully followed their results.

5) The inexplicable theory of heterosis: thanks to the success of hybrid varieties, the deceit was complete and the misrepresentation worked properly. The "lysenkist" followers succeeded in imposing "hybrid varieties". Rightly so: the government had defended the public interest. So heterosis came to mean millions of tons maize more. How could it happen? As far as the "breeders" are concerned, their task was to make this dispossession technique triumph and not to challenge the decision. Through selection they succeeded in improving maize in spite of – and not because of – the choice of hybridization. Certainly, they would not dispute the initial decision after achieving the success.

6) Impotent awareness of victims: American farmers were the only ones who suspected manipulation of facts: they were the victims of this. They called the revolutionary maize “mule maize”. As a matter of fact, the mule is known to be sterile. But public breeders had made this “mule maize” better than conventional varieties, so that there was nothing left to do but buy their seeds every year.

From: “*OGM: le verità sconosciute di una strategia di conquista*” (*GMO: The hidden truth of a strategy of conquest*), Laura Silici, Editori Riuniti, via Alberico II, 22 – 00193, Rome.

Chap.2.21.: From hybrid plants to GMO TERMINATOR plants

Today, hybrid plants have been surpassed by biotechnology applied to GMOs: completely sterile plants, i.e. unable to reproduce, have been created. In October 2005, this kind of biotechnology, known as “TERMINATOR”, obtained its first patent in Canada. This fact poses a grave threat because of the possible negative effects on diet. This issue will be discussed at the sixth point of the next paragraph : “*The threat of Genetically Modified* “.

Chap.2.22.: The Threat of Genetically Modified Organisms

Cancer is a degenerative disease caused by a lack of vitamins and poisoning from chemical substances present in food. One can estimate the number of vitamins and pro-vitamin substances present in natural plants commonly used as food by humans, as more than 13,000 – 15,000 types. The introduction into modern agriculture of Genetically Modified Organisms (GMOs) is an unjustified and dangerous alteration of what Evolution has produced in plants over hundreds of millions of years: plants on which the subsequent biochemical evolution of superior complex animal organisms has been based, culminating with the advent of mammals in the last 65 million years and then with the arrival of Man. Therefore the delicate biochemical balance of the human race depends on plant species remaining integral, just as evolution created them, because the health of every one of us is based on the biochemical human cell, and this depends, through the complexity of the DNA, on the use of thousands of vitamins and of the herbal-chemical compounds present in nature.

GMOs

To get maximum agricultural production today we resort to changing the genetic patrimony of natural plants, with the aim of changing their structure and making them sterile (thus farmers have to buy new seeds every year), patenting the transformation induced and re-selling the product all over the world. Furthermore it can be affirmed that there is a substantial equivalence between the genetically modified product (GMO) and that obtained by selecting genetic characteristics (that is by means of naturally crossbreeding plants as has been done by man over the course of thousands of years). This eighth declaration says however that this ‘substantial equivalence’, cannot be sustained, because the natural crossbreeding of plants uses natural seeds of the same species, while genetic manipulation (GMO) crosses all barriers, and introduces genes from other types of vegetable species or even bacteria, viruses and animal genes. In fact the majority of genes used in genetic

engineering come from living species which have never been a part of the human food chain and actually come from DNA not of plants but of animals, bacteria or viruses and/or transgenic retroviruses.

As a doctor qualified in nuclear medicine the author has had the opportunity to study the effects of ionizing radiation on complex organisms for years. It is his personal view that plants, too, are complex organisms, they are the fruit of hundreds of millions of years of biological evolution: every genetic modification caused in plants by man (with radiation such as Chernobyl, or with viruses such as presently used in GMO), however small that modification is, will cause damage, irreparable damage which often cannot be seen, because man only knows a limited number of safe vitamins and pro-vitamin substances. However, there are tens of thousands of vitamins and other substances present in plants, and it is these which are responsible for the correct working of the biochemical human complex and the human genome (DNA).

8 immediate threats can therefore be identified.

FIRST POINT: ***The impoverishment of vitamin and pro-vitamin complexes in the plants***

The impoverishment of vitamin and pro-vitamin complexes no longer present in food, with the consequent increase in degenerative and deficient diseases such as Cancer (see the seventh and the ninth declarations). The deliberate attempt to deactivate the natural substances contained in the plants is very serious: in this way fresh fruit and vegetables – greatly impoverished of many vitamins – can be carried over long distances and long periods of time because their oxidation does not take place. These vitamins are able to enter into complex enzymatic mechanisms of DNA mammals, inducing the apoptosis (suicide) phenomenon in these mammal cells if diseased through infection or other illnesses (such as cancer). This vitamin impoverishment will ensure commercial profits and represents a serious act of deliberate damage inflicted on the Ecosystem by means of GMOs.

It's heavy the possible disappearance of anti-cancer vitamins, that induce apoptosis (suicide) of the tumors (Anthocyanin, Flavonoids ([1122]), Polyphenols ([1123]), sesquiterpene lactone Parthenolide ([701]), penta-acetyl Geniposide ([1061]), Camelliin B ([698]), beta-Cryptoxantin ([1063]), Hesperidin ([1063]), Emodin ([247,333,715]), ursolic acid ([700]), allyl Sulfur ([694,696]), Eriodictoyol ([693]), hibiscus protocatechin acid ([692]), Indoles ([809]), Isothiocyanates ([809]), Resverarol ([695]), Elemene ([690]), Acutiaporberine ([711]), Capsaicin ([719]), Wagonin ([713]), Fisetin ([713]), carnosic acid ([1062]), Germanium sesquioxide ([269]), epigallocatechin Gallate ([173,1124]), Axerophthol palmitate, alpha and beta Carotene, trans-Retinoic acid, Tocopherols, Limonene ([693]), Cynaropicrin, Lycopene ([633,1359]), Proanthocyanidin, Damnacanthal ([1043]), Baicalin ([718]), Baicalein ([718]), hydrocinnamic acid ([693]), sesquiterpenoids as Atractylon ([704]), as Atractylenolides I, II, III ([704]), gelsemium alkaloids ([699]), tartary buckwheat flavonoid ([1064]), Sinigrin, ferulic acid, ellagic acid, cumarinic acid, …)

SEE: http://www.erbeofficinali/dati/nacci/allpdf.php

The disappearance of these natural anti-cancer vitamins is a grave threat.

In Chapter 5 ***("Plants which make Cancers suicide")*** many vitamins and plants which induce apoptosis (cancer suicide) are listed. Moreover, scientific references about modifications made by GMO Multinationals are reported. This disappearance may happen also because of accidental GMO modifications of plants: for example, *Pueraria species* is rich in Anthocyanins, i.e. a substances able to induce tumour apoptosis. But in case of GMO *Pueraria* (accidentally genetically modified), its content of Anthocyanins is dramatically decreased by 40%.

SEE PDF allegated: Joung JY.: *An overexpression of chalcone reductase of Pueraria montana var. lobata alters biosynthesis of anthocyanin and 5'-deoxyflavonoids in transgenic tobacco,* Biochem Biophys Res. Commun 2003, 303, pp.: 326-331 http://www.mednat.org/alimentazione/PUERARIA.pdf)

The 2005 study by Woitsch and Romer ([1740]) also reveals that GMO plants lose their capacities to produce vitamins, although they wew created in the laboratory for that purpose, if put out of laboratories, i.e. in the real environmental conditions of climate stress (temperature change between day and night, wind, sun's ultraviolet rays, etc….). This is essentially due to the complete ignorance

of Science about the complex biochemical repair mechanisms that plants must activate in conditions of environmental stress of different origin, differently from natural plants, which have evolved for about 500 millions years and are naturally and spontaneously able to produce a number of vitamins – most of which still unknown – in order to protect themselves from the environmental stress caused by ultraviolet rays, the temperature range between day and night, viral, bacterial, fungal infections, etc…. (http://www.mednat.org/alimentazione/Nacci_Vitamins_in_GMO_Plants.pdf)

In addition to the possible disappearance of anti-cancer vitamins that induce apoptosis (suicide) of tumors there is the elimination of seeds from GMO fruits. The importance of seeds as anti-cancer factors resides principally in the fact that they contain vitamin B17.
But it is extremely serious that the big GMO seed Companies are putting onto the world agricultural market the same fruits but without seeds, in particolare: *Cucumis melo*, *Citrus limonum*, *Citrullus vulgaris*, *Solanum lycopersicum*, *Vitis vinifera*.
The deliberate attempt on the part of companies producing GMO to deactivate this precious natural mechanism contained in plants is very serious. This is a deliberate act of damage inflicted on the ecosystem by Agro-industrial Multinationals GMO.

SECOND POINT: ***genetic mutation of plants and the subsequent alteration of human biochemistry***

Because of the introduction of foreign genes (for example from animals, bacteria, viruses and retroviruses) into the DNA of plants, an alteration in the normal genomic sequence of the plant occurs, with the appearance of new proteins and/or the loss of other proteins of a genomic sequence.

Therefore new substances similar to natural vitamins have appeared, but which actually have enzymatic and biochemical characteristics different to natural ones, and therefore introduce changes in their component of biochemical activity on the human genome, once they have been introduced through food.

There is therefore the potential risk of new diseases of an "artificial" type, caused by the genetic manipulation (GMO) of vegetable organisms, genetically polluted by new vitamin-like molecules with inductive effects on the human DNA and on its complex biochemistry which are totally unknown, but probably heralding serious damage given the extreme complexity and hence vulnerability of the human DNA.

For example, the only test on a long-term basis (24 months) carried out by an Italian research group demonstrated that GMOs may modify some internal organs. Feeding mice with the famous maize *Roundup Ready* changed the structure and the functioning of their liver, pancreas and testicles cells. (Malatesta M.: *Fine structural analyses of pancreatic acinar cell nuclei from mice fed on GM soybean*. Eur. J. Histochem., 47: 385-388, 2003; http://www.mednat.org/alimentazione/Malatesta.pdf) ([1579-83]),

A second study was conducted by Pusztai: he found out that mice fed with transgenic potatoes showed damage to organs, thickening of the small intestine and scarce brain development. Potatoes were genetically modified in order to contain lectin, which makes plants resistant to pesticides. (Pusztai: *Effect of diets containing genetically modified potatoes expressing Galanthus nivalis lectin on rat small intestine*, The Lancet Vol. 354, October 16, 1999) (http://www.mednat.org/alimentazione/Pusztai.pdf), SEE: Pusztai ([1578, 1588]) (http://www.gmwatch.org/p1temp.asp?pid=66&page=1);

A third study was carried out by Prescott, who analysed GMO peas (Prescott: *Transgenic expression of bean-amylase inhibitor in peas results in altered structure and immunogenicity*, J. Agric. Food Chem., 53, (23), pages: 9023-9030, 2005. http://www.mednat.org/alimentazione/Prescott.pdf.

A fourth study was conducted by a team led by Dr. Irina Ermakova in Russia, a biologist of the *Institute of Higher Nervous Activity and Neurophysiology of the Russian Academy of Sciences* (RAS) in Moscow.
This study carried out by the *Russian Research Agency* suggests that a diet based on genetically modified food can cause damage to progeny. It was presented by the National *Association for Genetic Security* (NAGS) at a symposium on genetic modifications, which was organized by the *American Academy of Environmental Medicine* and took place on 10th October 2005. During the tests, the Russian scientist added GMO soya to the food given to female rats two weeks before the conception and during the feeding. In the control group, female rats did not receive any GMO. There were three groups with each a different diet: the control group did not receive soya, the second one received GMO soya and the third one received conventional soya, i.e. NOT GMO. Scientists counted births and deaths of the animals undergoing this test. Three weeks after the birth, dead animals were counted. The following was observed: conventional and GMO soya do not influence the number of rats born of each mother. However, the number of dead animals was radically different after three weeks. The results showed that conventional soya, i.e. NOT GMO, does not influence the death percentage negatively, whereas GMO soya makes it increase in a ratio of one to 8 births. Furthermore, 30% of the newborn mice in the group fed with GMO soya weighed 20 grams less than normal. These results are particularly worrying as rats' morphology and biochemical structure are very similar to human beings' ones
http://eco-irina-ermakova.narod.ru/eng/index.htm
Ermakova ([1584]), *Food Standards Agency News* ([1585]).

A fifth study, which was commissioned by the *Austrian Ministry for Agriculture and Health* and carried out by Dr Jurgen Zentek, professor of *Veterinary Medicine* at Vienna University and leader of the project, demonstrated that mice fed with GMO corn gave birth to a reduced litter already at the third or the fourth generations, differently from the mice fed with normal corn.

THIRD POINT: ***the failure of an anti-cancer diet***

As has already been demonstrated by Gerson ([749,750,969]) and other authors, many substances contained only in fruit and biologically grown raw vegetables are able to induce the immune cascade against tumors, detoxification and the particular phenomenon of apoptosis (suicide) of diseased cells making it unnecessary to do difficult and expensive research. Let us take the case of 153 patients suffering from the worst form of cancer known (Melanoma), who followed the anti-cancer diet of Dr. Gerson ([749,750,969]) : after 5 years the percentage of recovery varied from 70-90% (if the tumor was localized) to 40-70% (if the tumor had metastasized), provided the patients had not previously undergone chemotherapy. On the contrary, with chemotherapy the percentage of recovery from Melanoma cancer after 5 years is 6% ([969]) or zero ([1340]).
Note: in the latter source ([1340] http://www.mednat.org/cancro/MORGAN.PDF), based on about 250,000 American and Australian patients, this zero survival value is confirmed even in the case of pancreas cancer, sarcoma, womb cancer, prostate cancer, bladder cancer, kidney cancer and multiple myeloma, going up to 1% in case of stomach and colon cancer, about 2% in case of breast or lung cancer, 3-5% in case of rectum cancer, 4-5% in case of brain cancer, 5% in case of esophagus cancer, 9% in case of ovary cancer, 10% in case of NON-Hodgkin lymphoma, 12% in case of cervical cancer, about 40% in case of testicular cancer and Hodgkin lymphoma… ([1340])

The explanation of the effectiveness of these vegetarian diets lies in the fact that patients do not consume food containing all the potential factors which promote cell growth, in particular they do not simultaneously consume the 9 essential amino acids (Valin, Isoleucin, Leucin, Lisin, Metionin, Hystidine, Tryphtophan, Phenylalanine, Treonine), nucleic acids (DNA, RNA), vitamin B12, folic acid and also para-aminobenzoic acid [PABA].Once the foods which contained all of these were of

animal origin (meat, fish, eggs, milk, cheese, butter…): both Gerson and other authors (including Chinese and Indian medicine) forbade the consumption of these foods for at least a year. A vegetarian diet, based on fruit and vegetables, cereals and pulses, was, thus, the winning diet. These foods are rich in protein and thus their use in cancer therapy by Gerson and other Western, Chinese and Indian schools of natural medicine might seem surprising. But the reason for their use is that no cereal and no vegetable contained by itself the 9 essential amino acids. These foods, however, if consumed together at the same meal determined the assimilation of the 9 amino acids. Therefore it is absolutely forbidden to eat together pasta (or polenta, or bread [even if unleavened] or rice),with pulses, because there would be the integration of the 9 essential amino acids (8 contained in cereals + 8 contained in pulses) with a similar nutritional effect as that obtained from meat (after all once a plate of pasta and beans was called … "poor man's meat").

Today, however, because of the introduction on the market of cereals, legumes and other vegetables which have been genetically modified (GMO), many of these foods contain ALL the essential amino acids ([1065] Day P.R.: *Genetic modification of plants: significant issues and hurdles success*, Am.J.Clin.Nutr., 63(4), pp.: 651S-656S, 1996 http://www.mednat.org/alimentazione/DAY.pdf), effectively rendering cancer NO LONGER curable in the way it is described in this study and according to the therapy of Gerson ([749,750,969]) and many other authors.

FOURTH POINT: ***diseases induced by transgenic viruses***

The transgenic viruses with which genetically modified organisms (GMO) are created today enter into the DNA of the plant, modifying it in a way which is unknown to us.

These viruses are supposed to lie dormant but there is nothing to prevent them from reactivating themselves in a manner similar to the well known RNA tumour viruses (Oncornaviruses) or DNA tumour viruses (both inducers of leukaemias, sarcomas, carcinomas, gliomas...).

These viruses can also be the carriers of new diseases or diseases similar to syndromes whose dynamics are unfortunately very little understood (AIDS, Mad Cow Disease, etc…), and whose origin is still very vague (perhaps transgenic viruses?).

There is ample bibliography on viruses used in GMOs.

It is well known that CaMV (*Cauliflower Mosaic Virus*) is used today in the replication of retroviruses introduced in the plants by GMO multinationals in order to modify their DNA (GMO plants).
This virus is active both in angiosperms and gymnosperms, i.e. in all plants.

This virus is used by GMO multinationals to modify genetically plants because it contains particular *promoters*, which are "motors" which drive genetic activation.

CaMV has two *promoters*: **19S and 35S.**
Of these two the **35S** promoter is most frequently used by multinationals.

The **35S promoter** is a DNA sequence of about 400 bases (units of genetic sequence of four different molecules: Adenine, Cytosine, Guanine or Thymine).

The CaMV promoter is preferred above other potential promoters used by GMO multinationals to modify plants because it is not influenced by the different conditions of vegetable cell tissue types and thus it can act.
Unfortunately it is able to penetrate and replicate in animal cells, including mammalian and human cells, as demonstrated by Vlasak in a study published in 2003. Vlasak J.: *Comparison of hCMV immediate early and CaMV 35S promoters in both plant and human cells*, Journal of Biotechnology No. 103, pages: 197-202, 2003) http://www.dirittolibertadicura.org/images/OGM/vlasak.pdf
http://www.mednat.org/alimentazione/vlasak.pdf

These artificial pararetroviruses are created and used by multinationals to modify the DNA of plants. They are similar to *retroviruses* already present in nature, such as: HIV retrovirus of AIDS, HUMAN LEUKAEMIA retrovirus, Hepatitis B retrovirus (Bonneville: *Retrovirus, Viroids and RNA recombination*, RNA Genetics, Vol. 11, pages: 23-42, 1988).

According to scientific literature, CaMV is closely related to the virus of human hepatitis B and AIDS. (Doolitte: Quart.Rev.Biol. 64, 2, 1989) ; (Xiong and Eickbush, *Origin and evolution of retroelements based upon their riverse transcriptase sequences* EMBO Journal 9, pp. 3353, 1990
http://www.mednat.org/alimentazione/EMBO%20JOURNAL%201990.pdf)

Using CaMV in plants eaten by humans and/or animals can be very dangerous and hazardous because of the GENETIC RECOMBINATION of DNA chromosomes in the plants. This can lead to the recombination of the 35S promoter itself with the DNA of the person or animal that has eaten fruit, vegetables, pasta or GMO soya containing these pararetroviruses.

Through GENETIC RECOMBINATION, the viruses can also include cell genes present in the animal that has previously eaten that GMO plant. These can reach the man who has eaten that animal causing totally unknown genetic effects.

One the most likely consequences is the outbreak of **cancers** and **leukaemias**.

Genetic modifications to progeny can be another consequence.
In these cases, the DNA system would be disrupted as happens in the case of exposure to ionizing radiations.

However, differently from ionizing radiations, there would be also the risk of new infectious diseases.

NEW INFECTIOUS DISEASES: it has been demonstrated that the CaMV genes incorporated into the plant (canola) chromosomes recombine with infecting viruses to produce new, much more virulent diseases.

This experimental model concerning the safety of transgenic plants containing viral genes such as CaMV was presented by GAL in a study published in 1992: Gal S.: *Agroinfection of transgenic plants leads to viable Cauliflower Mosaic Virus by intermolecular recombination*, Virology, No.187, pages: 525-533, 1992 http://www.dirittolibertadicura.org/images/OGM/gal.pdf ; http://www.mednat.org/alimentazione/Gal.pdf

About recombination between CaMV and viruses involving the promoter see also Vaden's paper published in 1990:

Ray Vaden: *Recombination sites in Cauliflower Mosaic Virus DNAs; implications for Mechanisms of recombination*, Virology, No.177, pages: 717-726, 1990 http://www.dirittolibertadicura.org/images/OGM/ray%20vaden%20.pdf
http://www.mednat.org/alimentazione/Ray%20Vaden%20.pdf

Other scientific studies demonstrated that recombination of these retroviruses may take place either between DNA and DNA or RNA and RNA, thus creating new viral infections (Mol.Plant-Microbe Interactions 5, 48, 1992).

Similar related experiments suggest that altered plants may cause deadly diseases, as shown by Greene in 1994:
Greene A.E.: *Recombination between viral RNA and transgenic plant transcripts*, Science, Vol. 263, 11 march 1994
http://www.dirittolibertadicura.org/images/OGM/greene.pdf ; http://www.mednat.org/alimentazione/Greene.pdf

Very dangerous viral DNA chains produced by normal RNA viruses are frequently propagated in the vegetable environment (GMO plants) using the CaMV 35S promoter to drive the production of RNA viruses which otherwise could not propagate in the plant DNA. From here they could pass to the animal DNA (man included) or in the bacteria or viruses DNA. Boyer J.C.: *Infectious transcripts and cDNA clones of RNA Viruses*, Virology, No. 198, pages: 415-426, 1994 http://www.dirittolibertadicura.org/images/OGM/boyer.pdf; http://www.mednat.org/alimentazione/Boyer.pdf

In conclusion: promoters recombine with the infecting viruses to produce virulent new diseases.

CaMV viruses and its promoters **19S** and **35S** may incorporate genes from the host plant or animal or bacterium DNA – or even from a DNA virus – creating virulent new diseases.

In case of a DNA virus, CaMV can recombine with insect DNA viruses, thus propagating in the insect cells.
(Zuidema D.: J.Gen.Vir. 71, pages 312, 1990) http://www.mednat.org/alimentazione/zuidema.pdf

As a consequence, it is likely that by eating tomatoes genetically modified with CaMV (recombined for example with hepatitis B viruses) a large number of people could create a SUPERVIRUS able to propagate in plants commonly used as food and in insects – such as mosquitoes – and then reach the man.
Allison R.F.: *Recombination in plants expressing viral transgenes*, Seminars in Virology, Vol. 7, pages: 417-422, 1996
http://www.dirittolibertadicura.org/images/OGM/allison.pdf; http://www.mednat.org/alimentazione/Allison.pdf

Wintermantel W.M.: *Isolation of recombinant viruses between Culiflower Mosaic Virus and a viral gene in transgenic plants under conditions of moderate selection pressure*, Virology, No. 223, pages: 156-164, 1996
http://www.dirittolibertadicura.org/images/OGM/wintermantel.pdf
http://www.mednat.org/alimentazione/Wintermantel.pdf

Latham J.: *GM Gene Flow (B): Horizontal gene transfer of viral inserts from GM plants to viruses*, Technical paper, February 2004

J.T.Dessens: *Cauliflower mosaic virus 35S promoter-controlled DNA copies of cowpea mosaic virus RNAs are infectious on plants*, Journal of General Virology, No.74, pages: 889-892, 1993
http://www.mednat.org/alimentazione/dessens.pdf

Steinbrecher R.A.: *The CaMV 35S Promoter Government and Corporate Scientific incompetence: failure to assess the safety of GMO crops*, Econexus Briefing, December 2002

Mae Wan Ho: *The CAMV 35S Promoter fragmentation hotspot confirmed, and it is active in animals*, Microbial Ecology in Health and Disease 2000, 12, págs: 189 ; http://www.mednat.org/alimentazione/MaeWanHo1.pdf

Mae Wan Ho: *Cauliflower Mosaic Viral Promoter – a recipe for disaster*, Microbial Ecology in Health and Disease 1999, 11, pp: 194-197 ; http://www.mednat.org/alimentazione/MaeWanHo2.pdf

FIFTH POINT: *intoxication by poisons synthesized from transgenic plants*.

Chronic poisoning of foods caused by the toxic substances in insecticides which are used on plants to make them resistant to parasites as *Bacillus touringiensis* ([789-793]), with the consequent increase in cancer, miscarriages, genetic mutations in descendants, Acquired Immunodeficiency Syndrome, degenerative diseases and diseases caused by toxic substances, etc.

In Italia, il gruppo di ricerca dell'Istituto Nazionale di Ricerca per la Nutrizione e gli Alimenti guidato dalla dott.ssa Mengheri ([1750]) http://www.mednat.org/alimentazione/Finamore.pdf) ha effettuato uno Studio di valutazione degli effetti del mais MON810 sul sistema immunitario, sia intestinale che periferico, dei topi, con particolare riguardo alle implicazioni legate allo sviluppo e all'età anziana. Infatti è noto che durante lo sviluppo e la vecchiaia il sistema immunitario può rispondere con minore efficienza agli stimoli esterni rispetto a quanto accade in un adulto sano. I risultati dopo 30 e 90 giorni di alimentazione provano che, al contrario di quanto accade con il mais naturale, con il MON810 si sono verificate alcune alterazioni.
Queste alterazioni sono risultate più marcate, e quindi più gravi, proprio a carico dei topi durante lo sviluppo e nell'invecchiamento. Inoltre, dall'analisi proteomica è risultato che nel mais MON810 la regolazione di ben 43 proteine ha subito modifiche rispetto al mais normale, e che tra queste risulta presente una nuova versione della proteina gamma-zeina….

Teerje Traavak, direttore del *Norwegian Institute of Gene Ecology*, nel 2004 affermò di aver documentato il primo caso di seri effetti nocivi alla salute umana causati da piante OGM, in particolare dovute a intossicazione dal polline del mais OGM arricchito con *Bacillus Thuringiensis* , colpiti da disturbi respiratori ed eruzioni cutanee. Gli esami del sangue, condotti su 39 contadini filippini, avrebbero infatti dimostrato anticorpi contro la tossina del *Bacillus Thuringiensis*. Ma

la cosa più inquietante di questo preziosissimo lavoro del prof. Traavak fu poi quello di aver trovato il Promoter 35S cioè il para-retrovirus impiegato per introdurre nel mais OGM il gene del *Bacillus Thuringiensis*, addirittura nelle stesse cellule umane dei contadini, con dimostrata quindi sua pericolosità di indurre modificazioni genetiche nel DNA umano, e quindi tumori maligni, confermando quindi i lavori precedenti di Vlasak del 2003. (L'ESPRESSO, 9 APRILE 2004)

Interessante anche il recente lavoro ([2003]) uscito in Francia di Joel Spiroux de Vendomois, che ha dimostrato la cito-tossicità epato-renale di tre varietà di mais transgenico (NK 603, MON 810, MON 863)
http://www.mednat.org/alimentazione/OGM_mais_studio_franc.pdf .

SIXTH POINT: ***danger of worldwide famine due to TERMINATOR technology*****.**
Passing to natural "indigenous" species of wheat, rice, sweet corn, potatoes, legumes, because vegetables themselves cannot reproduce themselves the normal way due to TERMINATOR technology; this is caused by cross pollination, and it also causes irreversibly the loss of natural vegetables that are nowadays used as food by humans, as vegetables will be polluted by the transgenic genes coming from transgenically cultivated areas (GM) where TERMINATOR technology is used.
Therefore there is a potential menace of global famine in the future, something that cannot be controlled, as the world will not have sufficient quantities of wheat, rice, sweet corn, legumes, the way they are in nature, or anyway not of the TERMINATOR kind.

SEVENTH POINT : ***transgenic pollution of natural plants***
The transmission to 'native' natural species of artificial toxic substances as *Bacillus touringiensis* ([789-793]) by means of cross pollination, with a potential threat also to the plants and herbs used today in herbal remedies, because the latter will also become polluted by the transgenic genes coming from the agricultural areas devoted to transgenic cultivation (GMO).

EIGHTH POINT: ***the irreversible disappearance of natural plants***
The gradual and irreversible disappearance of biological diversity, that is of the normal, natural flora. Transgenic cultivation will pose a serious threat to those areas which are rich in biodiversity (natural genomes); the transgenic flow which will go from modified plants to natural plants will be inevitable when the numerical ratio between areas cultivated with artificial plants exceeds the areas of natural plants, thus causing the irreversible loss of a great part of the natural genetic patrimony of all the plants existing in the world: at present there are about 442,000 species already classified out of an estimated total of 600,000 – 800,000 species.

In short:
Numerous plants have already disappeared during the last few years because farmers have abandoned natural plants in favor of adopting artificial plants, that is, genetically modified plants, because they are uniform in their genome and they give a high production (but are poor in vitamins). They are intrinsically sick (because they are incapable of surviving without pesticides), they are made sterile for economic reasons, and finally they are genetically manipulated to make them resistant to insects and other animals because they themselves are capable of producing poisons, that is, toxic substances which are eaten by farmyard animals and so passed on to man.
Even in the forests genetic variety is threatened today by the loss of habitat, not only caused by incorrect deforestation practices, but also by the contamination of the genetic patrimony (which has adapted to local situations) by hybrids created by large seed Companies which produce GMOs.

Chap.2.23.: Allert G.M.O.:
The USA are passing a law that legalizes the contamination of crops with genetically modified organisms (GMO). Source: Friends of the Earth International **(DECEMBER 2004)**

The FDA is about to publish what can certainly be considered the law that legalizes the contamination of food with transgenic substances. The policy recently adopted by this governmental entity sets scandalously rough guidelines for a company to deliberately follow and thereby obtain from the FDA itself the approval and acceptance to use transgenic substances that are still in the experimental phase.

This superficial and inadequate procedure supplies companies with legal protection in case of contamination and guarantees the authorisation of their own experimental seeds that are therefore immediately introduced into the food chain. What's worse, as over two-thirds of OGM under experimental cultivation in the USA contain genes whose specific characteristics are considered of "confidential nature", at present there is no way of getting to known more about what they contain. Consequently, for the very fact that laboratories cannot obtain this essential information, they are unable to trace their presence in foodstuffs on the market, with obvious serious repercussions on the activity of all those firms and companies who are constantly striving to avoid the contamination phenomena.

Chap.2.24.: RUSSIA, *GM Food Dangers Directly Affect Biological Descendants and Future Generations*, of Robin Good, MasterNewMedia.org 1 November 2005.

A breakthrough study from a national Russian research agency suggests that a diet with genetically-modified (GM) soy may indeed affect newborns of parents maintaining a GM-based food diet.

According to the study reported by Russian federal news agency *Regnum News Agency*, GM foods can affect "the posterity of humans and animals".

This is the first research that determined clear dependence between eating genetically modified soy and the posterity of living creatures.

The study that included this information was presented on Oct. 10 at a symposium on genetic modification, a program organized by the *National Association for Genetic Security* (NAGS). The study has been conducted by a team of researchers led by Irina Ermakova, Doctor of Biology, at the Institute of *Higher Nervous Activity and Neurophysiology* of the *Russian Academy of Sciences* (RAS).

During the experiment, doctor Ermakova added GM soy flour to the food of female rats two weeks before conception, during conception and nursing. In the control group were the rat females that were not added anything to their food.

"For the study, the scientists used GM soy flour in a diet for female rats two weeks before and during conception, and after birth.
Three groups of rats were assigned a different diet each: a control group received no soy, the second group received GM soy flour, and the third group received conventional soy flour. The scientists counted birth and death after the offerings.
Three weeks after birth, the death rate of the baby rats was counted for each group.
It was found that both the conventional soy and the GM soy did not affect the number of baby rats each mother produced.
However, the death rates of baby rats in three weeks after birth were drastically different.
The death rates for the control, the group raised by mothers on a GM soy diet, and the group raised by mothers on a conventional soy diet were 6,8 percent, 55,6 percent and 9 percent respectively.
The results indicate that conventional soy did not have a negative effect on the death rate, while a GM soy diet increased the death rate by a factor of eight.
Also, 30 percent of the babies in the GM soy group had an abnormal weight of less than 20 grams…".

The morphology and biochemical structures of rats are very similar to those of humans, and this makes the results we obtained very disturbing"

Irina Ermakova, told the NAGS press office

SEE: Ermakova IV, "*Genetically modified soy leads to the decrease of weight and high mortality of rat pups of the first generation", preliminary studies*. EcosInform 2006, 1, 4-9 (in Russian). Full paper : Ermakova IV, *Genetics and ecology, in: Actual problems of science*, Moscow , 2005, pp.53-59 (in Russian).

Chap. 2.25.: GMO–Terminator: the new threat

From ETC Group, 13 June 2007

Today ETC Group reports on a new crop of genetic engineering technologies that are being promoted as a biosafety solution to the unwanted spread of transgenes from GM crops, trees and pharmaceutical-producing plants. In practice, these technologies, if commercialized, will allow the multinational seed industry to tighten its grasp on proprietary seeds and to restrict the rights of farmers.
The 28-page Communique begins with an examination of the European Union's "Transcontainer" project, which is developing GM crops and trees for Europe that could be "biologically contained" through "reversible transgenic sterility". The three-year project, which is part of the EU's Sixth Framework Programme, supports the goal of "co-existence"- the controversial idea that GM crops and non-GM crops can peacefully co-exist – and it aims to promote public acceptance of GM crops.

"*We've always known that Terminator technology is simply too lucrative for the seed industry to abandon*," says ETC Group's Hope Shand, "*but it's outrageous that the European Union is using public funds to develop genetic seed sterilization*".

Shand adds, "The EU-funded Transcontainer project is especially disturbing in light of the European Parliament's strong anti-Terminator stance only last year." The European Parliament passed a resolution in March 2006 urging European delegates meeting at the CBD (*United Nations Convention on Biological Diversity*) in Curitiba, Brazil to uphold the de facto moratorium on Terminator. At the meeting governments unanimously re-affirmed and strengthened the moratorium, which recommends against the field-testing or commercialization of seeds that have been genetically engineered to produce sterile seeds at harvest. The United Nations uses the term GURTs (genetic use restriction technology) to refer to TERMINATOR.

Apologists for the Transcontainer project argue that its aim is not to restrict seed use but to contain transgenes, and that the technology under development differs from Terminator because the seed's sterility will be "reverible", so that seed fertility can be recovered – most likely through the application of a chemical. Hope Shand counters, "*A scenario in which farmers would have to pay for a chemical to restore seed viability creates a new perpetual monopoly for the seed industry. Even if these "Zombie seeds" are not being designed with the intent to restrict seed use, the reality is that farmers will end up having to pay for the privilege of restoring seed fertility every year. Zombie seeds are no more acceptable than suicide seeds – there is simply no such thing as a safe and acceptable form of Terminator*" , adds Shand.

ETC's report also examines new research on gene excision technologies (i.e., molecular methods to snip out transgenes at some point in a plant's life). Dubbed Exorcist by ETC Group, the technology is a strategy for both ciocontainment and for restricting access to proprietary germplasm. In theory, DNA-excision could be designed to occur at any stage during the plant's development – before the GM plant flowers and produces pollen, for example, or before it becomes food. The excision process can be triggered by an external environmental or chemical stimulus, or excision can be designed to occur automatically at a particular stage in the plant's life. ETC's Kathy Jo Wetter explains, "*In its current state, Exorcist is far from a failsafe biocontainment strategy – it won't work 100% of the time – but even if Exorcist can't fully contain transgenes, it could still function as a biological method to enforce patents by restricting access to proprietary traits*."

Finally, ETC Group's Communique examines "extreme" biocontainment methods – molecular methods involving "conditionally lethal genes" capable of terminating plants and their transgenic DNA in the event that other containment strategies fail.
The idea is that a "Pull-the-Plug" plant could be killed by triggering the lethal gene – by the application of an external chemical, for example – taking the GM train down with it. If the lethal gene is not triggered, the plant lives and can pass on its foreign genes to the next generation. Ostensibly, these pull-the- plug plants are being developed as a back-up strategy for last-resort biological containment.

"*There's also a more sinister possibility*", suggests ETC's Silvia Ribeiro, "*that companies could pull the plug on plants they believe are being grown without the proper licensing agreements. We've already seen biotech companies resort to nasty companies could threaten to trigger the lethal gene or they could simply apply the chemical trigger to get positive or negative confirmation when they suspect the farmer of patient infringement*".

Ribeiro concludes : " *Zombie seeds, Exorcist seeds and Pull-the-Plug plants: these are all defective technologies that won't prevent the unwanted spread of transgenes from GM crops. But if governments can be convinced that biological containment of GMOs is possible using one of these new technique – or a combination of them – it will open the floodgates to new markets for biotech plants, particularly GM crops and trees grown for biofuels. The result will be more heavily subsidized multinational companies and drastically increased risk of transgenic contamination*".

Governments meeting in Rome at the FAO's *Commission on Genetic Resources for Food and Agriculture* are today considering a "code of conduct" on biotechnology.
"If anyone needs more evidence of the urgent need for a biotech code of conduct, Zombie seeds and suicide seeds are it", says Pat Mooney of ETC Group.

Civil society organizations convening in Berlin next week (June 18-21) at the Second European Forum on Sustainable Rural Development should consider requesting that the European

Commission cease funding for Zombie seed research, particularly because of its dangerous implications for 1,4 billion people who depend on farm-saved seeds.

ETC Group's report concludes with recommendations related to these "dual use" GURTs – new genetic modification techniques designed to contain transgenes and restrict access to proprietary germplasm. The CBD's scientific advisory body (SBSTTA) meeting in Paris, France, 2-6 July 2007 should recommend that governments meeting at the 9th Conference of the Parties to the CBD (Bonn, Germany, 19-30 May 2008) strengthen the United Nations' moratorium on Terminator by recommending a ban on the technology.

Chap. 2.26.:
How the European Union destroys the European Agriculture

Extracted from "*Salute e Diritti*", "*Health and Rights*", 2004, No. 1;
Quarterly review about COMILVA FEDERATION,
i.e. Coordinamento del Movimento Italiano per la libertà dalle Vaccinazioni
(*Coordination of the Italian Movement for Free Choice from Vaccinations*).

An attempt to make small producers die – to big producers' advantage – and agricultural production decrease

We are witnessing the attempt to make small producers die and make the agricultural production decrease through laws regulating fruit and vegetable markets and a premium policy aimed at favouring little productive woods and giving premiums regardless of production (for example premiums for those who once cultivated fields fit for seed); through obstacles to direct sale producer-consumer; through obstacles to production for private consumption; through disappearance of the simplest, least expensive and maybe most effective phytopharmacons; through protection of predators of insect-eating birds and – excessively– animals harmful to agriculture; through a lack of interest for a scheduled biological fight against phytophagouses, which could be effective and less expensive; through no reforestation of deforested mountains and no intelligent programmes against fires; through no cultivation of very productive and valuable tree species; through spread – even though not wanted – of strange diseases whose responsible organisms are basically the same cultivated in the laboratories of biological war.

Chap. 2.27.: Effects of European rules concerning the size of fruit and vegetable markets on agricultural production

In Brussels, around the *European Commission* – the government of Europe – there are 3,000 "pressure lobbies" with 10,000 people. These lobbies have a great influence on decisions in important sectors, such as economic policy, agriculture, etc… Thus we can understand some European recommendations aimed at promoting the commerce of low-quality food products: poor-quality chocolate, pasta and bread; the ban on cooking pizza in wood-burning ovens; mozzarella produced exclusively with powdered milk; authorization to grow GMO viticulture; milk quotas; bananas which must be longer than a certain length so that African short bananas cannot be sold and American long bananas – belonging to Multinationals – can be imported; aubergines which must exceed a certain length so that cooking filled aubergines – for this plate short aubergines are necessary – could be no longer possible; apricots with a minimum diameter of 30 mm; asparaguses with a length ranging from 12 to 27 cm; artichokes with a diameter over 6 cm, the bitterness test for lupines, which is really a complex process. For melons it is necessary to measure the percentages of weight and diameter of the biggest as against the smallest contained in the same package. As far as peas are concerned, the persecution continues by banning those from pods with less than 5 seeds; moreover, seed pods are analysed manually in order to know by the feel whether they are full. The question is: can food quality be measured in centimetres? Should everything which does not follow the above-mentioned rules be thrown away even though it has excellent taste and nutritional value?

The above-discussed rules would:

1) put out of market small producers who merchandise on their own and haven't any graders and sensors to know – for example – how many peas there are in a seed pod;
2) because of high waste, decrease the price that canning industries have to pay for raw products, to the detriment of innocent farmers and without any benefits for consumers;
3) decrease the production of fresh products – so the amounts of vitamin and minerals in foods – thus increasing their price;
4) urge producers to pump water and chemical fertilizers into products in order to respect established limits, obtaining vegetables and fruit which are less preservable as they contain much water and little dried substance, little tasty because water dilutes the taste, and modified in their composition as chemical fertilizers affect the soil equilibrium causing unforeseen chemical reactions. Without knowing, consumers would pay more for the same weight, thus buying more water;
5) increase the profits of Multinationals which produce chemical fertilizers;
6) weaken the trees because of chemical fertilizers and make them die prematurely;
7) increase the number of pesticides as higher amount of water in fruit and vegetables make them more susceptible to parasites;
8) increase the profits of Multinationals which produce fertilizers and pesticides;
9) allow trees to be replaced in advance with others which are "protected by patent" (GMO), thus forcing producers to sell products to a certain wholesaler. In this way all the production would be in the hands of few wholesalers who could impose their price controls on producers and consumers and prescribe their production rules and the use of pesticides and chemical fertilizers.

Chap. 2.28.: Brussels bureaucracy authorizes parasitical revenues

Who sowed wheat between 2000 and 2002 is entitled to receive a yearly income of 450 euros from 2004 to 2013 for every hectare, regardless of the type of crop, even if the land is left barren. This kind of policy aims at favouring some big landowners who always cultivated wheat between 2000 and 2002 in order to benefit from EU premiums, thus not caring about the right agricultural practice according to which a crop cannot be planted on the same soil for two consecutive years (in this case the repetition occurred three times). In 1999 the *European Commission* should have established that wheat premiums would be given for the same soil only on alternate years. Furthermore premiums given only to arable crops cause a decrease in the surface cultivated with vegetables, fruit and wine in order to obtain premiums. i.e. sure money. As far as premiums are concerned, it occurred that in a short time some land owners obtained financial support to uproot their vineyards and then to plant them again.

It would be simpler to eliminate taxes on agriculture instead of giving financial support. In this way the double bureaucracy – paying taxes and receiving Aids – would be eliminated (it seems that Aids are higher than taxes). So European bureaucrats and national bureaucrats could not favour their own friends and control agricultural sector depending on the interests of the world ‘s owners.

Chap. 2.29.: Obstacles in the way of the Direct Sale from Producers to Consumers

Direct marketing from farmers to consumers should be permitted and favoured in order to decrease consumer prices and at same time increase farmer incomes. Obviously small farmers would be the most concerned.
But unfortunately the law excludes right them as it provides that farmers must be registered – through an onerous registration – with the *Chamber of Commerce*. Farmers with an income lower than 5 million lire cannot register. Moreover the mayor’s authorization or a statement are needed, as well as, according to the cases, a permit issued by the *Local Health Unit* stating the appropriateness of venues to be used for sale (*Terra e Vita, No. 19/2002*); in addition to that, farmers should have scales enabling them to reset weight after measuring the tare and have them checked by the *Chamber of Commerce* in charge of the territory on a three-yearly basis (*Terra e Vita, No. 9, 2001*); in certain cases a social insurance card might be required. As far as olive oil is concerned, small producers are practically excluded from the direct sale. The new law provides that olive oil must be bottled, labelled and packed in containers holding no more than 5 litres. Oil cannot be sold loose. As regards wine, the bureaucratic fulfilments are monstrous (*Terra e Vita, No. 35/2004*).
Is the farmer free at least to breed some animals for his own consumption?
No, he is not. He is not even allowed to do that. Who has more than 10 birds – geese, ducks, chickens, turkeys, etc. – if they are not ornamental animals must have the mayor’s authorization and communicate the possession of these animals to the *Local Health Unit*, even though the activity is carried out in a place isolated from the world. If you want to breed a kid you must have all necessary authorizations, statements, registers and every kind of papers. Moreover, if the animal dies you must bring it to the incinerator and spend much money, even though it would be easier to bury it. If you want to slaughter a lamb – besides registering it in a special register within 20 days from its birth and making its ears punched so that it can have a label like a parcel – you are not allowed to do that on your own; you must bring it to a slaughterhouse where you will pay for operations that you could do

alone. It is clear that everything is against small farmers who are not even allowed to produce for their own consumption. Only big farmers are free to produce, above all in those countries considered suitable by the World's owners, where there is no bureaucracy; in Italy and Europe we are allowed to produce only "bolts". For this reason French farmers violently protest as well as Italian breeders, who are oppressed by milk quotas. The whole agricultural sector is suffering.

Chap. 2.30: The Non-GMO Project

Regrettably, there is a long-standing practice of "*Don't ask. Don't tell*" in the natural products industry regarding genetically engineered derived food and ingredients. Most commonly, inquiries are deflected by simply saying that GMOs are "not allowed in the USDA organic program" even though no one is testing or doing anything to avoid them.

Eden, however, is and has been doing everything necessary to avoid them since 1993.

Recently, the Non-GMO Project (The Project) was created by industry members from all of its sectors in the USA and Canada. Eden Foods being one. The Project aims to provide consumers and makers a 3rd party non-GMO verification program through all levels of the supply chain, thus providing verified non-GMO alternatives to the consumer. Eden Foods is enthusiastic in support of the Project and has great hope that it will become a much-needed filter that knowledgeable people require.

Eden Foods, its president Michael Potter, is one of eleven governing members of the Non-GMO Project's board of directors that has been involved in initiating, funding, and writing standards for the Non-GMO Project, a non-profit organization to develop and verify consistent standards for food produced without genetic engineering or recombinant DNA technologies. The Non-GMO Project is North America's first independent non-GMO verification utilizing on-site facility audits, document and systems reviews, and DNA PCR (Poliymerase Chain Reaction) testing of all inputs at risk for GMO contamination.

The Project aims to continuously improve elimination of GMO contamination along the supply chain by encouraging suppliers of Non-GMO seed, to pffering information concerning companies that have enrolled their food in the Non-GMO Product Verification Program.

As of today Eden enrolled 79 foods that have all been verified as compliant with the Non-GMO Project Standard.

View List of Verified Eden Foods

View Non-GMO Project Certificate of Compliance

To learn more about the Non-GMO Project visit:

www.nongmoproject.org

twitter.com/nongmoproject

Chapter 3 :
Anti-oxidative nutrition

The simplest way to obtain these natural phyto-chemicals is through nutrition (SEE chap. 1). A daily diet should be based on 8-10 servings of fresh, biologically grown vegetables, well washed (at least four times), fresh fruit, seeds, green leaf vegetables and tubers. The choice of foods is very important, they must be guaranteed to have been grown free of any anti-parasite solutions and/or pesticides, given the widespread pollution of the environment existing in Europe today.

Supplementing such a diet with fruit and vegetable juice concentrates improves the immune defense system. The cyto-toxicity of the *Natural killers* can increase from 25 to 100 times, with significant increases even in Interleukine 2, Interleukine 6 and a proliferation of the T cells ([630]).
Furthermore, the same addition of fruit and vegetable juice concentrates reduces the oxidative damage to the DNA of the peripheral lymphocytes by about 60% ([631]).

Of the common carotenoids contained in food, beta-Carotene, alpha-Carotene, Lycopene, Lutein, Zeaxantine and Cantaxantine have demonstrated a potent anti-oxidative, immune-modulating action and the possibility of influencing the genetic expression, improving the ratios of intercellular connection bond ([635]). http://www.mednat.org/alimentazione/Nacci_vitamine%209.pdf

The carontenoids Lutein and Zeaxantine, which are found mainly in dark green leaf vegetables (e.g. spinach), have also proved to be effective.

Table 5:
Hematic values to be searched for, according to the anti-oxidative levels present in cancer patients with an Immune Cascade under way:

Total Tocopherol
Alpha-Tocopherol
Gamma-Tocopherol
Total carotenoids
Lipidic profile
Glutathione
Pholates
Vitamin B12
Lipidic peroxides (e.g. Malondialdeide)
Urinary levels of 8-hydroxic-Deoxiguanosine
Anti-oxidant reserve capacity of the hematic serum

High levels of natural anti-oxidants such as carotenoids, tocopherols and ascorbic acid have been studied, to test eventual positive changes in the pathologic progress of serious illnesses such as cancer. The long term practical studies have almost always shown that single nutrients like beta-Carotene have disappointing results, because the anti-oxidants are effective only when combined and taken in a wide spectrum (at least 13,000 vitamin principles and co-enzymatic factors of different types). Thus, the respective levels of carotenoids and of Tocopherol in human plasma have been measured, following the integration into the diet of commercial extracts of fruit and vegetables. Then, the effectiveness of this integration in modifying the oxidizing processes was

established, measuring the levels of the lipidic peroxides present in the hepatic serum: 15 healthy adults took these commercial extracts twice a day, at mealtimes, for 28 days; samples of plasma and serum were taken before the start of the study, and at day 7, 14 and 28.

After 28 days, the anti-oxidative levels in the blood, especially Lycopene, increased to a significant extent:
Beta-Carotene: + 510%
Alpha-Carotene: + 119%
Lutein/Zeaxantine: + 44%
Lycopene: + 2046%
Alpha-Tocopherol: + 58%
Retinol: + 14%

On the contrary, the level of lipidic peroxides in the blood serum decreased by 4 times after 7 days, stopping at a level of -75%. The decrease in the level of lipidic peroxides coincides with an increase in the carotenoids and alpha-Tocopherol, as a logical consequence of the functional improvement of the defense mechanisms against oxidation.
Similarly, gamma-Tocopherol also showed a drop in the hematic concentration (-38%), because of the continuous oxidative stress by the normal flora bacteria; this anti-oxidative process guaranteed by gamma-Tocopherol is due to the liver and the bio-availability in the diet of alpha-Tocopherol. When the latter is present in adequate amounts, gamma-Tocopherol is "consumed" in particular parts of the body such as the intestine, thus showing a slight but continuous level of low concentration. Vice versa, when there is a lack of alpha-Tocopherol, the liver tends to save the consumption of gamma-Tocopherol, thus raising the hematic levels of the latter ([636]).

Another experiment ([638]) which integrated commercial extracts of fruit and vegetables into the diet of 16 adults, showed the following values of plasmatic concentration after the seventh day of therapy:
1) beta-Carotene: increased to stable hematic concentrations of 0.5 microMols/liter
2) vitamin C: increased to about 3 times as much, reaching stable hematic concentrations of 60 microMols/liter
3) vitamin E: increased up to stable hematic concentrations of 3 microMols/liter
4) malondialdeide plasmatic level, considered a general peroxidation indicator, decreased by about 40%.

In another experiment ([638]), which integrated commercial extracts of fruit and vegetables into the diet, after 3 months of supplementing the diet with 18 milligrams a day of beta-Carotene, 900 milligrams of vitamin C and 200 milligrams of alpha-Tocopherol, the plasmatic concentrations increased respectively by:
Beta-Carotene: + 500%
Vitamin C: + 55%
Alpha-Tocopherol: + 27%

An integrated diet
Eight-ten portions a day of fresh fruit and vegetables is a strict regime to follow both for the patient and the family, because it implies a continuous feeding program, but it must be followed, perhaps in small portions.

The author considers that it is necessary, for an anti-oxidative effect, to integrate fresh vegetables (fruit, vegetables, green leaf vegetables and tubers) with the products already listed in chapter 1.

Chap. 3.a.: Retinoids and Carotenoids:

Axerophthol palmitate, Beta Carotene and Trans-Retinoic Acid

There is an extensive bibliography on the anti-tumoral action of Vitamin A

([1,3,10,13,14,17,18,23,24,28,34,35,36,45,56,69,73,76,92,93,94,100,106,111,120,121,129,131,137,138,165,187,200,202,203,208,209,212,213,214,216,218,222,235,255,256,257,263,264,265,266,280,282,286,287,288,298,303,304,305,307,313,315,322,324,325,326,334,338,340,341,347,348,352,354,362,363,365,382,383,385,390,398,402,404,405,409,410,420,425,426,427,445,446,447,448,454,457,461,463,468,469,470,471,473,477,488,493,508,512]).

In particular the combined use of Retinoids in the proper proportions (beta-Carotene: retinol = 4 : 1), establishes a synergism which is higher than the sum of the single components.

According to the author it would be better to use the juice of *Daucus carota* (carrot) made from raw and biologically grown carrots, rather than the synthetic pharmaceutical vitamin products based on Vitamin A.

Anti-tumoral action in general
Vitamin A and retinoids have an anti neoplastic action, shown both in vivo and in vitro, in various tumors: basilomas, scaly carcinomas, melanomes, skin cancers, fungoid mycosis, acute promyelocyte leucemia, ovarian cancer, breast cancer, lung cancer, cancer of the bladder and follicular carcinomas of the thyroid.

Preventative action
Anti-tumoral action has been amply shown indirectly, that is with a preventative purpose. Various studies have, in fact, shown that low plasmatic levels of beta-Carotene, vitamin C and vitamin E are connected to an increase in the incidence of lung cancer.

Direct action at a receptor level
Only beta RAR (retinoic acid receptor) seems to be involved.
More specifically, vitamin A (and its derivatives) acts by binding with specific receptors. In this way it can both inhibit the proteic synthesis of DNA and RNA, and also perform an anti-promotion action to determine the return of a cellular differentiation. Furthermore its ability to inhibit oncogenes should be noted.

Apoptosis induction (SEE chap.6.a)
Apoptosis means the activation of specific endonucleases which break up the DNA, acting at a level of nucleosomic sites that make up the primary structural unit of the nuclear cromatine of the cell. Vitamin A and retinoids in general can induce apoptosis in neoplastic cells, by activating intracellular proteolytic enzymes, called caspase 2 and caspase 3, which provoke deterioration through proteolysis by a transcription factor, called Spl.
If this basal cellular transcription is altered, death is caused by Apoptosis.
In prostate cancer the retinoids intervene by reducing the level of the bcl 2 gene, whose function is to protect the cells from death by Apoptosis.
Carotenoids induced apoptosis in prostate cancer ([1366])
http://www.erbeofficinali.org/dati/nacci/studi/carotenoidi%20sono%20fattori%20attivi%20contro%20il%20cancro%20della%20prostata.pdf

Inhibition of the cellular cycle
The retinoids block the passage of the cell from phase G1 to phase S (reducing the activity of a protein, called cycline D1): this passage, if not blocked, would lead the cell to mytosis.

Reduction of phosphorilation
Retinoids intervene in cancer causing a reduction in phosphorilation of the pRb, thus increasing survival; this protein is active in suppressing cellular growth.

Synergetic interaction with interferons
A second mechanism, apart from the proteic-enzymatic one, can be traced back to the intervention of interferons which, like retinoids, act as anti-proliferative factors. In practice, acting synergetically, they induce the expression of proteins capable of inhibiting neoplastic cellular proliferation.

The intake of natural carotenoids from food
There is very little evidence to show that carotenoids taken in from food can increase the levels of vitamin A: an extra portion a day of green leaf vegetables is not able to increase the hematic level of vitamin A; on the contrary, a mixed diet of foods particularly rich in beta-Carotene will give a significant increase in vitamin A present in the blood. ([627]).
If you oblige healthy individuals to eat carrots (270g), broccoli (600g) or tomato juice (180g) it does not establish any significant changes in the hematic levels of the carotenoids: you only find an extremely wide variation (even up to 3-4 times) in the efficiency of gastro-intestinal absorption of the carotenoids and therefore in their subsequent bio-availability at a hematic level ([628])

Association of vitamin A with vitamin E
In an experimental model of a cellular membrane the possibility of a positive interaction between anti-oxidant liposollubles such as beta-Carotene and alpha-Tocopherol has been investigated; the result showed that there exists a synergetic action between beta-Carotene and alpha-Tocopherol together which inhibits the processes of lipidic peroxidization compared with when they are used alone ([629]).
Optimal values of anti-oxidants in normal individuals
Vitamin C: >50 microMols/Liter
Vitamin E: >30 microMols/Liter
Vitamin A: >2.2 microMols/Liter
Beta-Carotene: >0.4 microMols/Liter

The difference between synthetic vitamins and natural vitamins
The difference between synthetic vitamins and natural ones can be easily exemplified by the experimental case of synthetic beta-Carotene (made up entirely of isomeric trans-beta-Carotene), and of natural beta-Carotene (made up of both isomeric trans-beta-Carotene and isomeric cis-beta-Carotene): the study showed a strong discrimination between the two isomers, with a serious decrease (impoverishment) induced at the level of Lycopene present in the LDLs (...).

Conversion factors of vitamin A
Vitamin A is expressed in Retinol Equivalents (R.E.)

1 R.E. is equal to:
= 1 microgram of all the trans-retinols
= 6 micrograms of all the trans-beta-Carotenes
= 12 micrograms of other active carotenoids
= 3.33 I.U.a (International unit of vitamin A)
= 10 I.U.c. (International unit of provitamin A from carotenoids)

1 International unit (I.U.a.) of vitamin A is equal to:
= 0.3 R.E.
= 3 I.U.c.
= 1.8 micrograms of all trans-beta-Carotenes
= 3.6 micrograms of other active carotenoids

1 International unit (I.U.c.) of provitamin A from carotenoids is equal to:
= 0.6 micrograms of all trans-beta-carotenes
= 0.1 R.E.
= 0.33 I.U.a.
= 0.1 micrograms of all trans-retinols
= 1.2 micrograms of other active carotenoids

Chapter 3.b: *Camellia sinensis* (green tea)

There is a large bibliography on this plant, known in China since ancient times ([4,5102,123,135,155,173,217,224,274,309,1123,11124,1186])

Basically we get a dry extract from this plant which is used as an infusion: decaffeinated green tea (less than 0.02% caffeine), with a high content of polyphenols titrated in EGCG (EpiGallo-Catechin-Gallate); heavy metals present in irrelevant quantities (As<0.5 ppm, Pb<0.8 ppm, Cd<0.1 ppm, Hg <0.55 ppm).
The principle action of green tea can be attributed to the polyphenolic catechins, powerful anti-oxidants that neutralize free radicals.
The catechins contained in tea can neutralise carcogenic agents such as nitrosamine and aphlatoxine present in the intestine, in the liver and in the lungs, and can impede the activation of carcinogens.
Studies on EGCG, as can be inferred from the bibliography reported, have basically shown:

a) Anti-oxidant activity and scavenging of the free radicals (similar to vitamin C and E)
b) Stimulation of the detoxification systems, selective induction and modification of the metabolic enzymes, with a consequent greater formation and excretion of metabolites, the result of a detoxification process of the organism by oncogenic agents.
c) Inhibition of the factors that activate and develop the tumor, reducing the cellular repetition rate.
d) Ability to induce selective apoptosis for the neoplastic cells alone; the latter has so far been proved, in man, in acute myeloid leukaemia ([1186]), skin cancer cells and in prostate carcinomas.
e) Ability to stop abnormal cellular growth, acting at the level of growth receptor factors, as has been shown up to now in skin cancers; in this case it seems as if the EGCG block the transduction signal paths associated to growth factors.
f) Inhibitor of gelatinase , responsible for angiogenesis.
g) Inhibitor of telomerasis.

It is a platelet anti-aggregator: as such, its action manifests itself by inhibiting the formation of Thromboxane A2 (with a mechanism similar to that of Aspirin) and of another aggregating agent called PAF (*Platelet Activating Factor*).
This is because Thromboxane is also the cause of a reduction in the vascular spaces of the arteries, the inhibition of this can forestall ischemic phenomena at cardiac level.
It performs a protective action for the kidneys, and in particular suppresses the production of methyl-Guanidine (a uremic toxin).
N.B.: Green tea must not be fermented; boil it for no more than 3-5 minutes. Take it early in the morning; it can be drunk in the afternoon too, but not after the early afternoon (15.00-16.00 p.m.).

Chap. 3.c.: Vitamin C

There is also an extensive bibliography on the anti-tumoral action of vitamin C ([25,33,47,54,83,91,122,129,181,197,202,218,244,246,270,299,311,335,339,367,404,405,414,415,416,489,496,510,511])

The pioneers of this oncological therapy were Pauling, who received the Nobel Prize for Chemistry, and the Italian Pantellini.

Ascorbic acid is mainly known for its ability to reduce metallic ions in various enzymatic processes and above all for its ability to act as an anti-oxidant agent, thus able to remove free radicals, reducing the damage caused at a genome level.

Furthermore it may be able to block the formation of nitrose at a gastro-intestinal level, as well as carrying out a preventative action on the formation of adenomatose polyps.

Even though ascorbic acid is well known for its collagene forming action, and the well known effect of scurvy in cases of reduction or absence of this acid in the diet, this vitamin is also important, alongside vitamins A and E as a first class anti-tumoral agent.

It reinforces the intercellular bond and forestalls the destructive action of the hyalurons produced by many neoplastic cells.

Above all, vitamin C stimulates the *Natural killer* lymphocytes, it supports the macrophagic activity, the chemio-tactical mobility of the white corpuscles, the production of antibodies and the response of the T cytotoxic lymphocytes to the antigenes.

Cameron found very low plasmatic levels of vitamin C in cancer patients (0.26 mg/100 mL) compared to normal plasmatic values ([54]).

In other studies, 154 cancer patients, undergoing analysis, were found to have low levels of vitamin C not only in their plasma (0.31 mg/100 mL), but also in their leucocytes (15.9 mg/10 E+8), with a positive correlation (r = 0.42) between these two values; in particular the authors attributed the alteration in the immune response to the tumor, especially of the phagocytosis, to the low concentration of vitamin C in the white blood corpuscles.

Already in 1974 Goetz had shown that vitamin C, in vitro, was capable of stimulating the motility and the chemiotaxis of neutrophiles.

The doses advised in literature for anti-neoplastic therapy are about 3-10 grams a day, reaching even 40 grams daily, because the vitamin is not toxic, at high doses it only has a laxative effect.
It would be better to take it by eating fresh fruit, but it is difficult to reach such high doses of the vitamin in this way.

According to the author, integrating fresh fruit (kiwi, oranges, lemons and grapefruit) with the juice of raw carrots and tomatoes, *Rosa canina* (dog rose, wild rose) to reach a daily dosage of at least 5-8 grams of natural vitamin C, avoiding however, the use of pharmaceutically prepared vitamin C tablets.

Natural vitamin C, rich in its metabolites and other components called bioflavenoids (Citrin, Hesperidin, Campherol, Galangine, Isoamnetin, Rutine, Hyperoxide, Quercitin, Pychnogenol, etc)

is more powerful and efficient, and furthermore is devoid of unpleasant gastric effects which are the result of high doses of synthetic vitamin C.
Natural vitamin C is moreover, characterized by a significant reduction in the formation of Calcium oxalate in the kidneys, as opposed to synthetic vitamin C. It is also easier for the intestine to absorb and has greater bio-availability, above all through its most important metabolites such as tronic acid, lixonic acid, xilonic acid etc.
This bio-availability has a critical importance in the immune defense system because the white blood cells tend to absorb *Natural* vitamin C 4 times more than they absorb synthetic vitamin C.

Recently, *Myrciaria paraensis* (camu-camu) has appeared on the European market. It is a small exotic fruit, similar to a small orange, but it contains 50 times more *natural* vitamin C than *Citrus aurantium* (orange), and it could therefore provide the daily dosage, of at least 3 grams, of vitamin C.

Also *Malpighia punicifolia* (acerola), a cherry from the Antilles, is very rich in vitamin C, containing 50 to 100 times more than citrus fruits.

Natural vitamin C is therefore efficient because it is naturally associated to the bioflavenoids (Citrin, Hesperidin, Campherol, Galangine, Isoamnetin, Rutine, Hyperoxide, Quercetine, Quercitine, Pychnogenol, etc..) and other molecules, in plants often characterized by an immune stimulating activity (*Echinacea purpurea, Plantago major, Capsicum frutescens)...*
N.B. According to the author, with very high therapeutic doses (>8-10 grams a day), Magnesium (e.g. Dolomite) must also be taken to avoid the risk of kidney stones.

Here enclosed scientific papers extracted from Catherine Kousmine ("*Save your body*", page 129, "*Effects of C vitamin on our body according to Linus Pauling*, edition Tecniche Nuove):

"…an intake of 1500 milligrams of ascorbic acid by mouth determines a concentration of 1.5 milligrams of C vitamin for each 100 millilitres of blood. By increasing the intake, the concentration suddenly increases up to 2.5 milligrams and then goes back to 1.5 millilitres for each 100 millilitres blood. There are enzymes which help the conversion of most ascorbates into useful oxidation products. If the intake remains high, the body increases the amount of enzymes useful to the conversion; otherwise, if the ascorbic acid dose is suddenly reduced for some days, an excess of conversion enzymes and then a too law level of vitamin C in the blood occur. This means a number of disorders, as for example a higher sensibility to infections. The adaptation to a lower proportion takes place by reducing the number of conversion enzymes: it is necessary to gradually decrease the dose of vitamin C. By taking 100 milligrams a day and in presence of a plasmatic level of 1 milligram for every 100 millilitres blood, urines do not contain ascorbic acid because it is reabsorbed by renal tubules. If the intake is higher than 100 milligrams, i.e. 1-2 grams a day, 25% go in urines and the rest is kept by the body. Healthy people, who lack in vitamin C for some months, have to take 2-4 grams in order to eliminate them through urines. In case of cancer patients, who are used to take high doses of ascorbic acid, an interruption of some days requires an intake of 50 grams (fifty grams) of vitamin C so that this one can be found in urines".

Chapter 3.d: Vitamin D

There is a good bibliography on the anti-tumoral action of vitamin D ([28,157,160,188,208,209,231,240,246,254,302,323,479,489])

Natural vitamin D, contained in some plants, is however preferable to the synthetic type, because the latter is about 10 times more capable of binding with Magnesium, taking it away from the organism, thus causing all the damage that the loss of this incurs (osteoporosis, kidney stones).
Vitamin D induces the inhibition of neoplastic cellular growth: this has been shown in vitro in neoplastic cellular lines; especially of the hematopoietic system, of the CNS, of the prostate; the colon, the ovaries and the breasts.
This action is thought to be expressed at various levels, in particular:

a) by means of apoptosis induction, through the activation of p21, that is, the inhibitor of the kinase proteins;
b) the inhibition of neoplastic cellular growth, which would be blocked in the G1 phase because of the action of the IGF1 inhibitor;
c) by means of cellular differentiation.

Vitamin D conversion factors
Vitamin D is expressed in Calciferol micrograms
1 microgram of Calciferol is equal to 40 I.U. of vitamin D.

Chapter 3.e: Vitamin E (alpha-Tocopherol)

There is also an extensive bibliography on the anti-tumoral action of vitamin E ([6,19,20,30,45,91,95,112,125,129,142,165,167,190,202,228,229,246,261,280,332,404,405,452,494])

This liposoluble substance consists of a group of various components, called Tocopherols. Seven of these exist in nature; *alpha, beta, gamma, delta, epsilon, zeta* and *eta.*
Alpha-Tocopherol has an anti-oxidant effect on the lipidic membranes in synergy with Melatonine, carrying out a preventative action on the peroxidization of the cellular membrane induced by ionizing radiation and by chemical carcinogenes.
Vitamin E also carries out an anti-oxidative action in a wider sense, acting as a 'scavenger' of the free radicals, similar to vitamin C.
It performs a stimulating activity on the immune system; it induces cellular differentiation; it inhibits, in a selective way, cellular growth intervening at DNA and RNA synthesis level.
Various studies have shown its ability to induce apoptosis in cellular lines of breast carcinomas and lymphoma B.
It is inactivated by Iron, therefore it is essential that any medicines based on Iron are not taken at the same time as vitamin E, but at a distance of at least 10-12 hours.
Aluminum, which is often present in pharmaceutical products, also deactivates vitamin E.
The uncooked oil of *Triticum sativum* (wheat germ; note: has vitamin B12) contains about twice as much vitamin E as the uncooked oil from the seeds of *Helianthus annuus* (sunflower) and the latter contains about five times as much as uncooked olive oil. Furthermore all these seeds are rich in essential unsaturated fats, an important part of the diet for cancer patients.
In anti-neoplastic therapy much is being discussed about: the raw seeds of *Helianthus annuus* (which the author personally considers useful in therapy), wheat shoots (the author is not in favor), *Saccharomyces cerevisiae* (yeast, of which the author is not in favor), and the shoots of soya lecithin (of dubious use and the author is against their use because of the transgenic risk).
The use of synthetic vitamins to supplement natural vitamins in oncologic therapy is still a controversial issue. The author maintains, however, that the natural vitamins are by far preferable to industrially produced ones: *Dracontium loretense,* for example, which is considered one of the best plants for its specific anti-oxidant potential, is of superior quality in its anti-oxidant ability compared to synthetic vitamin E ([566]).
As an already extracted *natural* product, together with or without other vitamins, vitamin E must be given in addition to high quantities of raw seeds of *Helianthus annuus* (also containing vitamin A, all the vitamin B compounds, vitamin D, Manganese, Zinc and Magnesium) and of high quantities of raw *Triticum sativum* (which is rich in the precious alpha-lipoic acid): both are also very rich in vitamin B6 (pyridoxin), the latter is important for the immune system, but it is difficult to find in other compatible foods for a suitable diet for cancer patients. Pyridoxin, in fact, is contained especially in *Saccharomyces cerevisiae,* the latter is a food which the author does not regard favorably for an anti-neoplastic diet, because it contains high quantities of folic acid.
Natural Octacosanol, extracted from the oil of *Triticum sativum,* has a synergetic action with vitamin E, but it is, in any case, better to consume it with all the uncooked oil of *Triticum sativum* and/or *Triticum sativum* itself rather than taking it already extracted, as a pharmaceutical product (because it loses its active principles).
Vitamin E is particularly efficient in combination with Selenium, which is contained in *Aloe species, Solanum lycopersicum* (tomatoes), *Equisetum species, Allium cepa* (onions).
There is also an extensive bibliography on Selenium
([79,108,112,129,133,136,143,156,228,229,276,338,339,364,367,404,405,407,443,452,458,501,510,511])
Both vitamin E and Selenium are in their turn synergetic with Zinc in inhibiting the production of inflammatory prostoglandins and leukotrienes.

Vitamin E conversion factors
Vitamin E is expressed in milligrams of tocopheral equivalents (T.E.)
1 milligram of Tocopherol is equal to:
= 1 milligram of D-alpha Tocopherol
= 2 milligrams of D-beta Tocopherol
= 5 milligrams of D-gamma Tocopherol

GMO multinationals are modifying the contents of Tocopherols

Nowadays, the different amounts of Tocopherols contained in the plants are being deliberately modified. For example, scientific papers published the first researches on modification of Soya seeds and other plants, such as Maize and Rice, which have the aim to reduce delta-Tocopherol from 20% to less than 2% and to increase alpha-Tocopherol up to more than 95% ([1388]). Although it is known that alpha-tocopherol is very important for the human health (250 milligrams are equivalent to 400 I.U. of vitamin E), some people arrogated to themselves the right to dramatically reduce the amounts of delta-tocopherol and beta-tocopherol in Soya, Maize and Rice ([1388]), considering them useless for human health and without taking into consideration the medical data, which demonstrated the importance of all tocopherols in the human diet (alfa, beta, gamma, delta, epsilon, theta). Since these vitamin E subgroups have a varied tissue distribution, the presence of these lipid antioxidants in the different mammalian biological tissues is probably guaranteed by different mechanisms ([1411, 1412]).

Furthermore, the plants themselves absolutely need their own tocopherols in order to survive oxidative stress of both ultraviolet rays and sunlight. Scientific papers demonstrated that the thylakoid membrane –bound ascorbate peroxidase (t-APX) is a limiting factor in the antioxidant system of all chloroplasts under the oxidative stress induced by ultraviolet rays ([1389]). It was demonstrated that GMO potatoes lacking in this substance die in short time because of the effects of ultraviolet rays. So, as also demonstrated by another study ([1390]), the t-APX depends on the tocopherols. The German research shows that the reduction of Tocopherols contained in the Thylakoid membrane is a limiting factor for the plant defence reaction against the oxidative stress. Furthermore, it was proved that the enzyme geranylgeranyl reductase (ChlP) is the most sensible system to the light stress: its reduction in GMO plants is accompanied by a reduction of tocopherols and chlorophyll. Therefore, Tocopherols are essential because they allow plants to perform their normal functions without being damaged by photo-oxidative stress (light). In particular, all 4 main tocopherols are essential to plants. A poor production of all 4 main tocopherols has devastating effects on GMO plants, as well demonstrated in case of tested GMO potatoes ([1391]). Finally, it was demonstrated that biological damage observed both in case of GMO Maize and GMO potatoes was caused by a genetic mutation which brought about the loss of the four above mentioned tocopherols.

Chapter 3.f: vitamin F

(Partially extracted from "Catherine Kousmine: "*Salvate il vostro corpo*", Tecniche Nuove, second edition pages 223-233)

"Vitamins of group F are substances – i.e. polyunsaturated fatty acids – which have two or three bond double valences and are defined as "essential" because they are essential to the body. But this one is not able to synthesize them naturally. They are linoleic or linolenic acids, of a number of isomers exist. This group also includes arachidonic acid, which has four double valence bonds and plays a very important role in the brain functioning and structures. Human body can obtain it from the linoleic acid, which can be taken only by eating some particular foods.
The linoleic acid becomes integrated with the membrane structures assuring them a normal permeability. It is the raw material for the synthesis of other polyunsaturated fatty acids, as well of prostaglandins, lecithins, myelin, nerve sheaths, etc. and plays a crucial role for the immune equilibrium.
Therefore, biologically active vitamins F are of extreme importance and all developed societies are affected by deficiency in these vitamins. Daily requirement of vitamin F was calculated to be 10-20 grams (contained for example in one or two and a half spoons of cold-pressed sunflower oil), which is usually not fulfilled (Schweigart).
Polyunsaturated fatty acids concentrate in sunflower seeds, linseeds, sesame, cottonseeds, poppy-seeds, sundrops, etc., which contain great amounts. So the oil obtained from their seeds contains only a percentage ranging from 2% to 8%.
Grass is rich in vitamin F but, although a cow daily consumes about 300 grams, bacteria contained in the animal rumen destruct a great part of it. So cow milk results to be three times poorer in these vitamins compared to the mother's milk.
After the Second World War, around the '50s, a certain number of apparently different diseases affected younger and younger people more and more frequently (autoimmune diseases, cancers, allergies…).
During those years a rather abnormal situation arose: on the one hand the permanent currency depreciation had caused an increase of the price of foodstuffs, on the other hand the price of oils was reduced. Naturally, nobody wondered why this happened. This decrease in oil price was a positive factor for the family budget.
But what really happened? During the war, foodstuffs were rationed because the supply of food with a right calorific value – above all that of fats – was insufficient. In order to increase the supply of fatty substances and to put them into the market, some technicians carried out the hot-extraction of greater amounts of oil from the available oil seeds (at temperatures ranging from 160° to 200° C). So the oil obtained was refined and it lost its original flavour and taste; it resulted to be extremely practical, unalterable and heat-stable, chemically unchangeable under the effects of heating, air oxygen and light. These factors usually adulterate the cold-pressed oil, thus making it rancid. Since the yield doubled, the price went down.
People usually consider oil as accessory food which supplies calories and then energy through burning inside the body. However, ongoing scientific progress is more and more worried about the catastrophic consequences of such an evolution for our health. Polyunsaturated fatty acids are fragile substances which easily turn into more stable isomers at particularly high temperatures, during the extraction or food preparation. There are some anomalous intestinal bacteria which can cause this transformation. Cis-cis COOH groups- which are biologically active- become completely inactive cis-trans COOH groups in the above mentioned particular conditions, through the molecular fragments rotation at the level of double bonds (H. Sinclair).

Linoleic cis-cis natural acid (vitamin F1) performs numerous functions in our body. It becomes part of the cell membranes and it assures them the normal impermeability, thus protecting our body from attacks of external world. A deficiency in vitamin F causes a loss of water through evaporation which immediately determines a raging thirst. This type of phenomenon can be easily demonstrated in rats. If a rat with nutrition deficiency is put under a bell glass, this one immediately steams up, which does not take place if the rat is properly fed. Children lacking in vitamin F are really thirsty, they suck damp cloths and continuously drink tap water. Through an intake of vitamin F, the situation gets back to normal.

The deficiency in vitamin F manifests itself in school age children thorough common infections which tend to be recurring or chronic. A healthy and naturally fed organism is absolutely able to get over these infections, such as recurrent colds, permanent sinusitises (both in winter and in summer), allergies of the skin (eczema, urticaria) or of respiratory tract (hay cold, bronchial asthma), which usually affect different organs. In order to treat these infections traditional medicine resorts to antibiotics, antihistamines and cortisone, which bring temporary relief without solving the real cause.

Another warning signal is given by the skin, which undergoes a change; the deficiency in vitamin F – biologically active – makes the skin very dry, beginning from feet, legs and then to all body. The skin becomes rough and flakes off in particles so small as to seem flour and when the woman takes off her nylon stockings, she is literally enveloped in a "dust" cloud. These signs and clinical symptoms are steady in my patients affected by severe diseases. Their skin seems to be 10 or even 20 years older.

Therefore, I suggest that you check the condition of your skin, which has to be smooth and silky, soft to the feel, as healthy skins, regardless of the age. If you notice that your skin easily flakes off or is wrinkled, it means that something does not work properly. You should know that Nature sends you a precious warning: your body is not satisfied of how you treat it. Clearly, you nourish the skin with unnecessary fatty substances (maybe artificial) or with oils containing inactive vitamin F or with oils naturally lacking in it. You should eliminate these inappropriate substances by replacing them with cold-pressed sunlight oil, which is rich in vitamin F. This one should be used to prepare salads, wholemeal cereal soups or steamed and then mashed potatoes; in short time, your skin will be normal again, as well your digestive mucosa, which is really important because of its extension and its numerous functions. If the digestive mucosa is not properly stretched, it covers a surface of 40 m2, otherwise if it is correctly stretched – including its smallest folds and villosities – can cover a total surface from 400 to 600 m2. It is an extraordinary thin mucosa, which is coated with a single cellular layer usually of 2 hundredth of millimetre; since it is very fragile, it reforms completely every 2 days. Being very similar to the skin, it easily flakes off and therefore a sufficient amount of vitamin F should be taken. Otherwise, it becomes too permeable and protects no longer from toxic substances periodically present in the intestinal cavities. If these substances are too many, they can be no more neutralized by the liver and the ganglion lymphaticums, thus poisoning the body. The first symptom of such a severe alteration is diffused and persistent fatigue, which can be seen as a prelude to different chronic diseases affecting more than one third of the population, i.e. cancer, evolutionary chronic polyarthritis, sclerose en plaques or another autoimmune diseases, according to constitution of people.
If the deficiency in vitamin F is chronic, vascular diseases (arteriosclerosis, phlebitis and thrombosis, myocardial infarction), chronic hepatic and digestive disorders (diarrhoea or more frequently costiveness), a lowering of the body resistance to viruses and bacteria, tumours, etc. can appear.
The cholesterol – precious raw material from which the body synthesizes vitamin D, sex and adrenal hormones, forms very soluble Salts with polyunsaturated fatty acids. In the absence of polyunsaturated fatty acids, the cholesterol ties itself with saturated fatty acids, thus forming little soluble salts which create yellow deposits in the skin, vessels and mucosas (xanthelasmas) and calculuses in the biliary vesicle. This happens very often in people consuming excessive amounts of fats and fewer oils.

Vitamin F performs another essential function: acting as raw material for the production of prostaglandins, which are important vital substances regulating the metabolism of each cell. Prostaglandins (whose etymological derivation is not correct because the prostate contains very few of them) are biologically active and important substances, present in each cell and originated from polyunsaturated fatty acids. They were isolated by von Euler in 1935 and nowadays some of them can be synthesized. They regulate the metabolism and are released from phospholipids of cell membranes, which incorporate their precursors.
Nowadays, 14 prostaglandins are known. They are originated from unsaturated fatty acids, whose chain centre, between 9 and 13 carbons, forms a ring of 5 carbon atoms. They differ from each other in the number and the position of the doubled bonds (2-5) and of some rare O and OH groups on the chain.
The discover of prostaglandins allowed to understand numerous symptoms due to a lack of vitamin F, their low specificity, the extraordinary health improvements obtained through the replacement of saturated fats with cold-pressed unsaturated oils. I said “replacement” and not “addition” not at random, because in case of food containing too many saturated fatty substances, such as butter, the intake of vitamin F causes only a slight improvement, sometimes useless. Every kind of alteration of the cell membrane causes the release of prostaglandins, which provide local protection and nourishment and regulate the penetration of hormones – which are put into the bloodstream by endocrine glands- into the cells (according to their needs). They were defined as “cell hormones” because they play a significant role in regulating intercellular chemical processes.
Prostaglandins are active already in presence of an amount of a milligram thousandth. Even a minimum alteration of their structure can modify their action, which is different in the various organs and animal species and can be reversed. Locally they are very active and once introduced in the plasma they live 1-3 minutes on average, after that half of them become inactive; they are produced very fast and die soon; for this reason are not used much in the pharmaceutical sector.

The following is an example of prostaglandin PGE1 activity: an abnormal blood clot, known as thrombus, can form in a vessel if firstly the cells, called platelet, agglutinate. PGE1 prevents this agglutination. Nowadays thrombosis (or formation of a thrombus) is considered as a very frequent – and sometimes dangerous – postoperative complication, because the clot can move and then obstruct vital vessels (embolism). This kind of disorder could be caused by a lack of PGE1 due to a deficiency in biologically active polyunsaturated fatty acids. In order to prevent thrombosis, anticoagulant drugs are usually prescribed, but they can provoke severe haemorrhages. Therefore, it is always necessary to keep under medical control the blood circulation. At the experimental stage, it was demonstrated that in mice thrombosis can be prevented with a diet rich in linoleic acid or the intake of PGE1 (Owien, Hellem e Odegaard).

At the experimental stage, increasing the amount of linoleic acid in the diet (2 millilitres linseed oil every day) allowed to lower the platelet adhesiveness, thus avoiding thrombosis. Consequently, the type of fatty substances can significantly contribute to the outbreak of similar diseases. During more than 30 years of profession, among my patients, whose diet had been corrected for more than two months by decreasing saturated fatty substances and adding

cold-pressed oils rich in vitamin F, there were no cases of postoperative thrombosis without resorting to anticoagulants.
As said before, prostaglandin – which prevents thrombosis – originates from linoleic acid; but there is one type of prostaglandin deriving from arachidonic acid with the opposite function. If it is not impossible to prevent a coagulation in a vessel, however in case of haemorrhage it is necessary to cause the aggregation of thrombocytes, thus allowing the formation of the blood clot. In order to do that, prostaglandin PGE2 is used.
Prostaglandin biological activities are various and numerous: they regulate the activity of the smooth musculature and glands; they activate the water and electrolyte secretion in the intestine by stimulating its motility; but if they are produced in excessive amounts they can cause diarrhoea; they stimulate the secretion of adrenal hormones (aldosterone and cortisone) influencing the activity of the hypophysis and affecting the metabolism regulation of water and mineral salts. It was supposed that the arterial hypertension originates from a deficiency in prostaglandin. A nerve stimulus is due to the prostaglandins produced by brain and spinal marrow. The spinal marrow contributes to the transmission of the nerve impulse. Prostaglandins are also necessary for the procreation as they help the spermatozoon to enter the ovule; the sperm is normally rich in prostaglandins and has 13 different species of them. It was noticed a lack of prostaglandins in 8% of male sterility cases. Furthermore, it was supposed that during the childbirth contractions are caused by a release of prostaglandins, which are more numerous in amniotic fluid in that particular moment. Whereas during menstrual periods, the amount of these substances increases in the blood circulation.
Taking prostaglandins can cause violent inflammations with high temperature.
Anti-inflammatory drugs, such as the Aspirin, stop the synthesis of some prostaglandins and influence negatively the activity of the others, by opposing to the stimulating effects on the sensible pain receptors (PGE2). Some tests carried out on rats demonstrated that taking prostaglandins prevents the gastric ulcer caused by high doses of cortisone. I can say that patients with a high percentage of linoleic acid never had this kind of complication, despite cortisone treatments over an extended period of time.
By increasing or decreasing intercellular metabolic processes and by regulating intercellular nucleotide synthesis (AMP and cyclic GMPs), prostaglandins play a significant role in the processes of biological regulation performing different and specific functions in the various mechanisms of cell self-defence. A prostaglandin insufficient production, caused by an insufficient intake of raw material allowing the synthesis, determines a lowering of vital resistance and disorders of different origin, in particular those affecting the body immunity.
Currently, the common diet is really deficient in biologically active linoleic acid, i.e. the raw material of prostaglandins. In particular in the European countries it is too rich in calories, 30%-45% of which derive from saturated animal fats. In men vitamin F requirement is significantly increased, being proportional to the amounts of calories and fatty substances consumed. A normal subject reacts to the intake of fatty substances with an overproduction of lecithin and an increase of this one in the blood and in the bile. Moreover, each molecule of lecithin includes one or two polyunsaturated fatty acids.
Some people hope that synthesis of longer-living prostaglandin could treat the different diseases in a more effective and "natural" way. We could ask ourselves whether Nature gave these extraordinary regulators such a great variety, short life and numerous cell functions in order to fulfil specific needs and whether the synthesis of longer-living synthesised substances involving all cells – both cells which need it and cells which do not – would not cause a number of unwanted side effects.
Isn't so more reasonable and then wiser supplying a proper intake of raw material in the form of natural linoleic acid, allowing it to perform directly such a delicate synthesis?
As above underlined, there are two types of prostaglandins: one is known as PGE1, which derives from cis-cis linoleic acid and has anti-inflammatory properties, the other one is known as PGE2, which derives from arachidonic acid and contributes to the inflammatory processes.
Our health needs a perfect equilibrium between these two prostaglandins. Recent studies demonstrated that cis-cis linoleic acid has to undergo different chemical modifications to become PGE1. The first modification regards the production of gamma-linoleic fatty acid. In the first stage the linoleic acid molecule gained an extra double valence, passing from two to three. It is a very difficult chemical transformation, which absolutely needs a specific enzyme (delta-6-desaturase), vitamin B6, Magnesium, Zinc and vitamin B3. The following transformations into di-homo-gamma linolenic acid with 20 carbon atoms (helped by vitamin C) and then into PGE1 prostaglandin take place more easily.
If the first reaction occurs in advanced age, it takes place with some difficulties, determining malaise and fatigue and in some cases actual diseases. Similar alterations can take place also when one is young, if the body lacks in cis-cis linoleic acid, i.e. the raw material essential to the prostaglandin production; moreover, using more and more industrial fatty substances can determine these alterations. In nature linoleic acid exists only in the form of cis-cis; its isomer, i.e. cis-trans-linoleic acid, is produced by man. Currently, fatty substances, which are on the market and are manipulated by industries, contain no longer the cis-cis group, which was replaced by cis-trans group. This one is not able to transform into PGE1 and blocks the present cis-cis group, thus increasing its deficiency.
The above mentioned alterations or disorders can also occur because of a lack of the transformation enzyme (delta-6-desaturase), or vitamin B6, Magnesium or Zinc.
In this way, a deficiency in B6 vitamin can cause diseases similar to those caused by a lack of vitamin F.
Once gamma-linoleic acid is produced, the different transformations can take place, thus producing di-homo-gamma-linolenic acid, and then PGE1, in presence of vitamin C and vitamin B3.

It could be useful to give doses of prepared gamma-linoleic acid – which is very rare in nature – to old people or people suffering from particular diseases (for example, ectopics). It is possible to obtain it from the seeds of two plants: Oenothera biennis and Borrago officinalis.
Oenothera biennis seeds oil contains 7-9% of gamma-linoleic acid, whereas Borrago officinalis seeds oil contains 23%.
The capability of body cells to produce prostaglandin PGE1 in a normal way and according to the needs is an essential factor for our body equilibrium and health because the PGE1 regulates the normal functioning of the immune systems, which otherwise are insufficient and aberrant. PGE1 prevents every kind of pathologic inflammation physiologically. In case of an excess of PGE2prostaglandin, which contributes to inflammatory processes and results to be dangerous, corticosteroids and anti-inflammatory drugs stop the overproduction; unfortunately, these drugs stop at the same time PGE1 production, making the recovery impossible.
That's why they have to be considered as simple palliatives.
PGE1 controls the blood circulation, prevents arterial hypertension, heart disorders and arteriosclerosis.
Coronary diseases alarmingly increased during this century. This is due to the development of techniques of food cultivation, refining and preservation, which impoverish our diet by eliminating Magnesium, vitamins B6, F and E. The greater consume of fatty substances and the use of vegetable fats, such as Margarine or hot-pressed and refined oils, gave epidemic proportions to these diseases, which affect also young people. Carcinogenic cells abundantly produce PGE2 but not PGE1; in cell cultures, human cells can become malignant through irradiation or carcinogenic chemical substances, losing their capability to transform cis-cis linoleic acid into gamma-linoleic acid and to form PGE1.

In case of a patient affected by cancer, it is very useful to take gamma-linoleic acid. This one strengthens the beneficial action of vitamin C.
There are different defence lines of our body against carcinogenic toxic substances: the first one is the intestinal mucosa, the second one is the liver and the third one is the cell membrane, which protects the cell itself from the penetration of carcinogenic toxic agents.
PGE1 prostaglandin is the most powerful defence agent against cancer. Recently, it has been discovered a prostaglandin which derives from gamma-linoleic acid and is able to stimulate immune system's T lymphocytes.
Vitamin F – biologically active – is therefore extremely important for our body; we know that it is found in all oil seeds and in cold-pressed oils, above all in sunflower, linseed and wheat germ oils, which do not require added solvents.
Nut oil has to be heated to at least 40° C, which should not endanger the presence of vitamin F but remains a risk factor.
Olive oil is instead poor in vitamin F (2-8%), whereas the other oils are richer (50-70%). Safflower seeds, which are very hardy, have to be pressed more strongly, at a temperature ranging from 58° to 60° C during the oil extraction. This temperature range represents the limit above which the biological properties of vitamin F disappear.

Beneficial effects of Oenothera biennis oil are numerous and polyvalent: it alleviates premenstrual pains and regulates menstrual periods; if associated with Zinc, it can be effective against acne; finally, it has positive effects in case of Sjögren syndrome. Behind the nape and along vertebral column, our body has a special fatty brown tissue, whose cells are particularly rich in mitochondria and produce heat. Moreover, by protecting from cold and through an internal combustion, these cells destroy excess calories. If the individual is obese, this tissue does not work properly, but an intake of gamma-linoleic acid stimulates through prostaglandins the mitochondria of fatty tissue, determining a gradual normalization of the weight without resorting to severe diets.
It was observed that patients with diabetes – who follow a diet rich in polyunsaturated acids – suffer from fewer eye and heart complications.
The two functions of cis-cis linoleic acid are different and equally necessary for the human health: it guarantees the normal permeability of cell membranes and tegumentary tissues; on the other side, it is the raw material for the production of PGE1.
Gamma-linoleic acid – which is the precursory of PGE1 and originates from cis-cis linoleic acid – cannot replace cis-cis linoleic acid in the performing the first above mentioned function; the following case clearly demonstrates it.

Note of the author (Doctor Giuseppe Nacci):

Vitamin F could make cell walls more permeable to vitamins, equally to what is supposed in case of glucose in order to prevent diabetes.
Basically, it is supposed that the low percentage of people suffering from cancer before the Second World War – together with the low percentage of diabetic patients – could be correlated to the limited presence of saturated fatty acids in the diet and to the great availability of polyunsaturated fatty acids contained in cold-pressed oils.
Nowadays, however, the reintroduction of cold-pressed linseed or sunflower oils is NOT a sufficient sign of food safety. Unfortunately, the introduction of cultivations of GMO flax (Genetically Modified Organism) in the open country of the USA, even close to the border of Canada (the major world producer of biological linseed cold-pressed oil), represents severe and unjustified obstacles and damage to this therapy, not only with regard to diabetes and cancers treatments, but also to other chronic-degenerative diseases.

Chap. 3.g : Organic Germanium Ge 132

There is an ample bibliography about this substance ([107, 110, 119, 139, 174, 193, 237, 249, 269, 336, 357, 386, 399, 440, 441, 460, 476]). SEE in PDF: Mainwaring MG: *Complete remission of pulmonary spindle cell carcinoma after treatment with oral germanium sesquioxide*, Chest, 117, pp. 591-593, 2000; Chest, 117, pp. 307-308, 2000
http://www.erbeofficinali.org/dati/nacci/studi/Germanium%20132%20un%20caso%20clinico%20di%20cancro%20polmonare.pdf

Organic and inorganic forms of Germanium

In its inorganic from Germanium is present in the soil, rocks and coal, together with other minerals from which it can be extracted and transformed industrially into organic Germanium. For any therapy, only very pure organic Germanium should be used. The heavy metals (Pb, As, Hg, Cd) should be almost absent, and if they are present should only be in well defined and negligible quantities (<0,1ppm); moreover there must be no traces of Germanium oxide (GeO_2). Inorganic Germanium is toxic for the kidney cells.

Natural organic Germanium

Organic Germanium is found naturally in *Allium sativum, Allium cepa, Panax ginseng, Pfaffia paniculata*
Note : Organic Germanium is found naturally in some oriental mushrooms: *Ganoderma lucidum, Grifola frondosa,* ([62,63,64,65,68,70,182,191,192,219,220,230,250,253,293,294,295,431,432,433,434,439).])
but this are dangerous (vit.B12, essential amino acids).

The immune stimulating properties of organic Germanium

The most important property manifests itself in the stimulation of the immune system. Especially with regard to the *Natural killers*, the increase in cytolytic ability already begins from the second day, reaching its peak on the fourth day, finally exhausting itself a week from the last administration; an increase of 30% can be seen in the cytolysis, compared to control groups treated with a placebo. Studies on the anti-cancer effect of Germanium have also shown the role it plays in activating the T lymphocytes, the macrophages, the lymphokines and *Gamma interferon*: Germanium stimulates the T lymphocytes to produce lymphokine, MIF (Migration Inhibition Factor), MAF (Macrophage Activation Factor), chemotactic factors, CSF (Colony Stimulating Factors) and lymphotoxins. The subsequent Immune Cascade also establishes an activation of the macrophages which take part in the lysis of the cancer cells in an effective ratio of 1:1, like cytotoxic T lymphocytes, *Natural killers* and *Killers.* On the other hand no activation of the granulocytes has been shown, but the more difficult capacity for anti-cancer activation is known, which requires a strength ratio of 40:1 between the granulocytes and the cancer cells.

Anti-oxidant property of organic Germanium

The specific action of Germanium 132 is on a biochemical level, since it renders oxygen available for the cells, with the important implications therefore for different human pathologies including cancer. Among these are a large number of degenerative pathologies, pathologies of the metabolism

or caused by some deficiency. In particular, its biochemical characteristic is that it acts as a semi-conductor in the transport processes of the electrons inside the cells, thus allowing the formation of ATP with the final production of non toxic molecular substances (water). Its anti-oxidant action against cysteine is also important.
Cell respiration refers to the catabolic processes by means of which the nutritive substances, glucose for example, are broken up inside the cells, releasing energy which is then used to form Adenosine-Tri-Phosphate (ATP, cell energy). With organic Germanium an exothermic reaction takes place, which supplies oxygen and hydrogen to the individual cells of the organism. The stable and continuous flow of oxygen and hydrogen to all parts of the organism facilitates and strengthens oxidation and reduction inside the cells: oxidation takes place either with the acquisition of oxygen or with the loss of hydrogen.
Any reaction which creates energy inside a cell is an oxidant reaction.
Oxidation can happen in two ways:

1) the combination of oxygen with other elements
2) the removal of hydrogen atoms from the compounds.

Basically, oxidation of nutritive substances is the gradual removal of pairs of hydrogen atoms from the support molecules, because when the pairs of hydrogen atoms are removed, they take with them their electron pairs. In this way oxidation of glucose in Krebs' cycle occurs with the gradual removal of hydrogen atoms.
Where a substance loses electrons, becoming oxidated and losing energy, there is another substance which acquires them, thus becoming reduced, that is to say, acquiring energy.
The hydrogen atoms which are removed are sent to the electron transport chain, which converts the energy taken from the oxygen, to transport the electrons along the whole length of the chain.
In the end the hydrogen atoms which are removed combine with the molecular oxygen (creating water), and the resulting energy is freed as ATP, and thus available for the cells.
The immune cells, such as the very delicate lymphocytes, thus acquire an energy capacity which enables them to do their work even in a hypoxic environment such as cancer tissue, famously characterized by High Interstitial Fluid Pressure (H.-I.F.P. see: see: Jain R.K.: *Barrier to Drug Delivery in Solid Tumors*, Scientific American, Science, July,1994). Vice versa the cancer cells, which have become oxidated both because of the removal of hydrogen and also by the endocell molecular reaction with oxygen, both induced by the presence of organic Germanium, as a result are more exposed to the phenomena of apoptosis and pseudo-apoptosis, being poor in enzymatic complexes which would perform an endo-nuclear repair of their own DNA, which on the contrary are characteristic of normal cells which have not been degenerated by cancer.

Anti-ischemic properties of organic Germanium

It acts as an electro-nutrient in hypoxic states, which are frequent in chronic degenerative pathologies, such as cardio-vascular or neuro-vascular pathologies or those of the metabolism in general. Organic Germanium stimulates the ability to increase the availability of oxygen for the cells and helps eliminate unpaired electrons. This makes it particularly invaluable in cases of acute ischemia (miocardic infarct, strokes and asphyxiation by carbon monoxide).

Modifications of the biochemical and functional parameters of the organism induced by organic Germanium

The catalytic effects on the use of oxygen are seen in the renormalization of the biochemical and functional parameters of the organism in a time-frame of between 4 to 6 weeks:

1) Regularization of the partial pressure of carbon dioxide in the blood.
2) Regularization of the values of hematic glucose, above all in diabetic patients.
3) Reduction of the triglycerides.
4) Regularization of total cholesterol with an increase in the ratio of HDL/LDL.
5) Normalization of bilirubin.
6) Normalization of uric acid.
7) Regularization Na / K, Ca / Mg.
8) Increase in haemoglobin.
9) Lymphocite rebalance in chronic infectious diseases. (HIV/AIDS).
10) Protection from oxidative damage induced on the DNA by ionizing radiation.

Anti-amyloidosis property of organic Germanium

Amyloidosis is often induced by Chemo-Therapy or radio-therapy. Germanium protects against the accumulation of amyloid substances, a process which is generated by a protein imbalance in the catabolism and often associated with chronic inflammatory conditions.

Analgesic property of organic Germanium

Organic Germanium has analgesic effects, acting as a neuro-modulator. This happens through the inhibition of enzymes (peptidase such as Aminopeptidase, Carboxypeptidase, dipeptidil-Aminopeptidase and dipeptidil-Carboxypeptidase [also known as Enkefalinase B and D]) which downgrade the endorphins.

N.B.: since it is difficult to find natural organic Germanium, and it is very expensive, the following proposal could be useful: to use inorganic Germanium (which is much less expensive than organic Germanium) in the cultivation of plants with a great capacity for trace-mineral *uptake*. According to the author the cultivation of *Equisetum arvense, Medicago sativa, Rosmarinus officinalis* and *Aloe arborescens* could be particularly useful.

Chapter 3.h: Garlic (*Allium sativum*)

From INTERNET: Herbal Therapies for Cancer, by Vivekan Don Flint and Michael Lerner, Research Assistance: Melanie Smith, October 1997.
(NON reported in Italian version of commercial Book “Diventa Medico di te stesso !”)

Traditionally, garlic has been used to control dysentery and parasites and for detoxification, fever and stomach aches.([1075])

There is no data in the National Toxicity Program on garlic ([1074]), but the ancient Chinese classified garlic as a moderately toxic herb because high doses can lead to stomach upset and intestinal gas ([1075]). In 1983, Caporaso reported that the maximum tolerable dose of fresh aqueous garlic extract was 25 ml and that greater amounts caused severe burning sensations in the esophagus and stomach, as well as vomiting ([1076]).

In a review of the research on garlic by Judith Dausch and Daniel Nixon in a 1990 issue of Preventive Medicine, they note that there have been hundreds of animal and human studies since the 1930s on the potential benefits of garlic or its active ingredients. Since the 1970s, most research has focused on its antibacterial activity, lipid-lowering effects, antiplatelet aggregation effects, drug metabolizing properties and its anti-carcinogenic actions. They conclude that "evidence suggests a potential role for garlic or its components in several areas including prevention or control of cardiovascular disorders, treatment of viral and fungal conditions and prevention and treatment of certain cancers."([1075]). According to a 1995 survey, garlic is the second most popular segment of the over the counter market for herbs ([1077]).

As of September 1996, the Office of Alternative Medicine (OAM) had identified 250 citations in the medical literature for garlic, of which 171 pertained to cancer. Of the 89 studies they reviewed, ten were carried out with human subjects, 61 were animal studies and ten were in vitro studies. All of the human studies the OAM evaluated were studies of garlic as preventive for cancer and showed mixed results, with Chinese studies generally showing positive results for the cancers examined and Western studies showing no association.

It was first believed by researchers that the single beneficial element in garlic was allicin, the compound formed when the bulb is crushed. Allicin is an unstable compound that is strongly antibacterial and mainly responsible for garlic's characteristic odor. But in addition to allicin, researchers have discovered 32 other sulfur compounds in garlic, along with 17 amino acids, Germanium, Calcium, Selenium, Copper, Iron, Potassium, Magnesium, Zinc, and small amounts of vitamins A, B1 and C. The main active components in garlic seem to be the various sulfur compounds, including Allicin, Allixin, diallyl Disulfide, diallyl Trisulfide and thioallyl amino acids, as well as other compounds formed during cooking and food preparation.([1075])

Dausch and Nixon report that, with regards to cancer research, the majority of human studies have been epidemiological in nature. Others have been in vitro or animals studies of the possible role of garlic in the prevention of cancer. According to Dausch and Nixon:

One possible beneficial effect of garlic or its components may be their ability to enhance the body's mechanism for eliminating exogenous substances including carcinogens. In some studies garlic has been shown to have a stimulating effect on certain enzymes that are known to be involved in removing toxic substances. Antihepatotoxic [liver detoxifying] activity of garlic sulfur components have been described in vitro and vivo ([1074]).

This capacity to enhance liver detoxification could potentially be of great interest to cancer patients who are undergoing chemotherapy for cancer, since the it is the liver that functions to eliminate the toxic chemotherapy from the body.

Li and colleagues at the Strang-Cornell Cancer Research Laboratory describe the research on garlic in a 1995 article in Oncology Reports:

...Based on experimental and epidemiological evidences garlic could be classified as an anti-carcinogen. The specific phase(s) of the carcinogenic process, i.e., initiation, promotion, or progression at which garlic or its constituents may exert its biological effect, however, remains to be determined in many cases...

Sources and mode of extraction of specific constituents from garlic showed an inhibitory effect on the production of DNA adducts initiated by chemical carcinogens on mammary cell DNA. Postulates to explain the anti-carcinogenic effect of garlic constituents have been proposed and these range from bio-inactivation of carcinogens, induction of free radical scavenging mechanisms, enhanced detoxification involving the glutathione pathway, and more recently, it has been suggested the cancer cells may be growth arrested in the G1-G0 phase of the cell cycle...([1078])

Describing their 1991 research on one of the active components of garlic, Maurya and Singh conclude:

Diallyl sulfide [DAS], an organosulfur compound identified as the flavor component in garlic, has been shown to inhibit chemically-induced neoplasia of forestomach and lung in mice. Even though the exact mechanism(s) of anti-neoplastic activity of DAS is not known, several independent studies suggest that this effect may, at least in part, be due to the elevation of glutathione-S-transferase [detoxification] activity ([1079]).

Although most research with garlic and cancer has focused on prevention, intriguing evidence exists concerning the potential for garlic as an adjunct to therapy for existing cancers. According to Boik, "theoretically, garlic may inhibit cancer by a variety of mechanisms, including reduced angiogenesis, reduced platelet aggregation, and increased fibrinolysis (discussed below)" ([1180]).

Dutch researchers found that compounds in garlic inhibit endothelial umbilical cell proliferation in vivo, an indication that they might also inhibit tumor angiogenic activity, which also involves the rapid proliferation of endothelial cells.
The antiangiogenic effect of thiols, compounds found in garlic, may be related to their ability to inhibit free-radical production by macrophages. Macrophages are found in great numbers in solid tumors, and can comprise 10 to 30 percent of the cells in a tumor. Under the low-oxygen conditions found in the interiors of solid tumors, macrophages secrete large amounts of angiogenesis factors, perhaps because of the stimuli are similar to those found in situations where wound healing is required ([1182]). According to Koch:

We showed previously that thiol-containing compounds inhibited the production of macrophage-mediated angiogenic activity. Since thiol containing compounds may act on macrophages by affecting activation and inhibiting the production of oxygen free-radicals, we studied the effects of oxygen free-radical scavengers on production of angiogenic activity...We conclude that oxygen free-radical scavengers are potent inhibitors of the production of macrophage-mediated angiogenic activity ([1083]).

Compounds found in garlic might also influence angiogenesis through their effects on the process

of fibrinolysis, or the breaking down of fibrin. Fibrin is the protein material that comprises the essential portion of blood clots and is formed as a result of the process of inflammation. The area around tumors is commonly inflamed and a provisional stroma, or support structure, composed of fibrin forms around the tumor. According to Boik, the formation of this fibrin stroma may be the most important single precondition for tumor angiogenesis to occur. Boik cites research showing that the removal of this fibrin through the process of fibrinolysis terminates angiogenesis. He also speculates that by increasing fibrinolysis, the periphery of the tumor may be exposed to greater immune attack ([1084]).

A number of human studies have been carried out on the fibrinolytic properties of garlic that might have a bearing on some forms of cardiovascular disease. Some of these studies also indicate potential benefit to people with cancer.

Italian researcher Legnani and colleagues found the following responses to garlic ingestion (900 mg daily of dried powder) in a study of 12 healthy subjects in a randomized, double-blind, placebo controlled study on fibrinolysis and platelet aggregation:

Total euglobulin fibrinolytic activity...[was] significantly higher 4 and 6 hours after garlic...ingestion, and no differences were recorded between treatments. After 14 days of treatment, t-PA [tissue plasminogen activator, the principle mediator of fibrinolysis] activity was significantly higher after garlic...Platelet aggregation...was significantly inhibited 2 and 4 hours after garlic ingestion; platelet aggregation values were also significantly lower after 7 and 14 days of garlic treatment ([1085]).

Arora also assessed the fibrinolysis-enhancing properties of garlic in patients with ischemic heart disease and in healthy control subjects. Though blood fibrinolytic activity was enhanced, the peak activity occurred at the 4th week of garlic therapy but was not sustained despite its continuous use and returned to about the pre-garlic values at the 12th week. Garlic withdrawal did not cause any further change in blood fibrinolytic activity ([1086]).

Another study in humans, this one a placebo-controlled double-blind study by Kiesewetter and colleagues, demonstrated a significant decrease in thrombocyte aggregation through the administration of 800 mg of garlic daily powder over a period of four weeks. Plasma viscosity was also shown to decrease ([1087]). Both effects lessen the likelihood of tumor cell arrest at potential metastatic sites.

Feng and colleagues found that diallyl trisulfide (DATS) at high levels had an inhibitory effect on T cell activation, but at appropriate concentrations augmented the activation of T lymphocytes, immune cells that might play a role in the immune response to cancer. In addition:

DATS can antagonize the inhibition of tumor-derived immunosuppressive factors produced by S180 cells and Ehrlich ascitic cancer cells on the activation of T cells, and reduce the inhibitory rate significantly...When macrophages were pretreated with DATS for 24 hours, the cytotoxicity of macrophages to three tumor cell lines was significantly higher than that in corresponding control group...These results indicate that DATS can augment the activation of T cells and enhance the anti-tumor function of macrophages, suggesting that DATS may be potentially useful in tumor therapy ([1088]).

Evidence also exists of a direct anticancer effect with garlic. An in vitro study by Xie examined the effect of garlic oil on the DNA content of the cancer cell cycle using flow cytometric analysis:

This technique may measure DNA content of 5000 cells per second and traces the dynamic changes in the cell proliferation cycle and offers a hint for designing clinical treatment protocol, monitor prognosis and elucidate the mechanisms of antitumor drugs. The authors' previous studies showed significant effect of garlic oil on prolongation of life expectancy and inhibition of tumor growth in mice. Using FCM [flow cytometric analysis] the authors analyzed the effect of garlic oil on cell cycle in S180 tumor cells, 2-6 hours after single administration or multiple administration. The number of cells in S phase rapidly decreased, in G1 phase increased. This suggests garlic oil may blockade cells...progress from G1 phase to S phase and result in accumulation of cells in G1 phase and directly inhibit the synthesis of DNA and the cell cycle ([1089]).

A second study by Xie and colleagues on the effect of Kang ai-bao II on cancer cells using confocal laser scanning microscopy found that this garlic preparation had a destructive effect on DNA and RNA of cancer cells ([1090]).

Dausch and Nixon describe a 1985 Chinese study by Xiyu that compared the cytoxic effects of fresh garlic, diallyl trisulfide, 5-FU, mitomycin and cis-DDP on human gastric cancer cells in vitro. Mitomycin exerted the strongest effect, but fresh garlic also had a marked killing effect. Diallyl trisulfide was stronger than 5-FU against this gastric cell line ([1091]).

Li and colleagues also demonstrated an antiproliferative effect with aged garlic (AGE) and two of its allyl constituents in a human breast carcinoma model. They determined that "aged garlic extract demonstrated substantial inhibitory effect on the cancer cell lines; these AGE treated cells had substantially lowered growth rate than that of the cells treated with each compound alone"([1092]).

In a 1993 study published in Oncology, Hiromitsu Takeyama and colleagues examined the effect of an amino acid compound derived from garlic, S allyl cysteine, or SAC on nine human melanoma cell line in vitro. They found that growth was inhibited in all melanoma cell lines, while it was not inhibited in three lymphoblastoid cell lines. The researchers also found that morphological changes were induced in the melanoma cells by SAC and that the cells appeared more differentiated and possibly had reverted to a less malignant state ([1093]).

In another study examining the effect of garlic constituents on a melanoma cell line in culture, David Hoon and colleagues at the UCLA Medical Center found that an extract of aged garlic significantly inhibited the growth a the melanoma cells and "appeared to be a more potent or an equivalent inducer of differentiation of melanoma compared to some known cytokines and agents...The modulatory effect on cell growth and differentiation by [garlic extract] may have potential benefit for prevention and control of melanoma progression in humans ([1094]).

Similarly, in a 1993 study using canine mammary tumor cells in vitro, Sundaram and Milner found that three water soluble constituents of garlic did not significantly inhibit cell growth, while two oil-soluble compounds, diallyl sulfide and diallyl disulfide, did significantly inhibit growth and a third, diallyl trisulfide, resulted in cell death ([1095]).

Dausch and Nixon also summarize numerous in vivo studies with mice demonstrating immunomodulatory and anticancer effects:

** In a 1964 study, Kimura and Yamamoto described the effects of garlic extracts on a transplanted ascites sarcoma in rats. When injected interperitoneally, the extract inhibited tumor cell proliferation by producing irregularities in chromosomes during cell division* ([1096]);

** In a 1967 study, Fujiwara and Natata found that when mice were injected twice at a seven-day*

interval with a suspension of Ehrlich ascites tumor cells pretreated with garlic extract, they developed a strong immunity to the same type of tumor cells. They attributed this acquired immunity to the interaction of allicin with tumor cell proteins ([1097]).

** In a 1973 study, Nakata treated a variety of tumor cell types in mice with fresh garlic extract. Tumor development was found to be reversed in mice injected with Ehrlich ascites tumor and Yoshida sarcoma cells that were preincubated with garlic solution* ([1098])

** In a 1981 study, Cheng and Tung tested numerous compounds in Sarcoma 180 tumor-bearing mice and found that multiple intratumoral injections of allicin or allithiamine resulted in significant tumor inhibition* ([1099]);

** In a 1981 study, Dhillon found a substance purified from garlic effective in inhibiting the growth of two Morris hepatomas in rats* ([1100]);

** In a 1982 study, Criss compared the effectiveness in inhibiting Morris hepatoma 3924A in rats by dietary administration versus subcutaneous injection of garlic extract. Subcutaneous injection lowered tumor growth by 30-50 percent compared to 10 to 25 percent by dietary administration* ([1101]) ;

** In a 1983 study, Choy found a 42 to 59 percent inhibitory effect by the oral administration of a garlic suspension on the growth of Ehrlich ascites tumors in the peritoneal cavities of tumor-inoculated mice. Survival time was increased significantly by the administration of garlic* ([1102]);

** In a 1986 study, Lau and Marsh studied the immunotherapy effects of garlic extract and other agents on transplanted transitional cell carcinoma in mice. Intralesional administration was found to be much more effective in inhibiting growth than the intraperitoneal route. Also, five intralesional treatments of garlic extract to the bladders of mice with transplanted transitional cell carcinoma resulted in inhibition of tumor growth as well as the production of macrophages and lymphocytes, leading to the destruction of tumor cells. It was theorized the result was due to enhanced production of lymphokines, such as tumor necrosis factor, that could result in increased natural killer cell activity* ([1103]).

In a follow-up study, Marsh confirmed that garlic administered intravesically (into the bladder) was a more effective immunotherapy for transitional cell carcinoma than was BCG:

Intravesical immunotherapy with bacillus Calmette-Guerin (BCG), Corynebacterium parvum (CP), keyhole limpet hemocyanin (KLH), and an extract of Allium sativum (AS) was studied in mice transplanted intravesically with mouse bladder tumor cells (MBT-2)...Immunotherapy with BCG (2 X 10(6) CFU), CP (250 micrograms), KLH (50 micrograms), or AS (25 mg) was administered directly into the bladder via urethral catheter on day 1, day 6, or days 1 and 6. On day 21 the bladders and spleens were excised and weighed, and the bladders were examined macroscopically and microscopically for evidence of tumor. The results of the study showed that two treatments given one and six days after tumor transplant yielded the lowest tumor incidence and that CP and AS appeared equally effective or even slightly more effective than BCG in this model. These results suggest that clinical evaluation of CP or AS may be worthwhile ([1104]).

The efficacy of garlic with bladder cancer in vivo was also evaluated by Donald Lamm at West Virginia University using an extract of aged garlic. The researchers ranomized 72 mice into six groups and inoculated each with a transitional cell carcinoma line:

Tumor incidence was significantly reduced in the groups which received AGE [aged garlic extract]...relative to Saline controls. All doses of AGE significantly reduced tumor volume when compared to the Saline control. There was no statistical difference between the group receiving...garlic extract and the BCG control group. The highly beneficial reduction in tumor growth with AGE immunotherapy suggests that AGE will prove to be a highly effective form of immunotherapy for the treatment of transitional cell carcinoma of the bladder ([1105]).

In an Indian study, Unnikrishnan and Kuttan examined the antitumor activity of extracts of eight commonly used spices in India in mice transplanted intraperitoneally with Ehrlich ascites tumor:

Oral administration of extracts of black pepper, asafoetida, pippali and garlic could increase the percentage of life span in these mice by 64.7%, 52.9%, 47% and 41.1%, respectively...Garlic extract and asafoetida extracts also inhibited two stage chemical carcinogenesis induced by 7,12 dimethyl benzanthracene and croton oil on mice skin with significant reduction in papilloma formation. These results indicate the potential use of spices as anti-cancer agents as well as anti-tumor promoters ([1106]).

Several studies indicate that garlic enhance the effectiveness of some chemotherapies or inhibit the mutagenic effect of chemotherapeutic drugs on normal cells. Pan and colleagues in 1988 examined the cytotoxic effects of allyl trisulfide when combined with three chemotherapeutic agents on a moderately differentiated human gastric adenocarcinoma cell line:

The inhibitory effects of [allyl trisulfide], MMC [mitomycin] alone or combined on MGC [human gastric adenocarcinoma] tumor in nude mice were observed...The in vitro test of combinations of two drugs showed that [allyl trisulfide] plus MMC or 5 FU plus DDP had markedly synergistic effect on MGC cells...The inhibition test on the growth of MGC tumor in nude mice indicated that the inhibition rates of [allyl trisulfide], MMC alone or combined were 58.3%, 86.3% and 84.3%. The systemic toxic effect of MMC alone was severe, whereas [allyl trisulfide] alone or MMC plus [allyl trisulfide] showed mild toxicity. For this reason, [allyl trisulfide] plus MMC is recommended for clinical trials on poorly differentiated gastric cancer ([1107]).

Using a thioallyl derived from garlic, Yellin and his colleagues examined the relationship between glutathione metabolism and sensitivity to chemotherapeutic agents such as cisplatin. They used a battery of cell lines derived from previously untreated head and neck squamous cell carcinomas:

An inverse relationship between GSH [glutathione] levels and cisplatin sensitivity was identified...Cells were treated with S-allyl cysteine (SAC), a thioallyl derivative isolated from garlic (Allium sativum)...Pretreatment with SAC to lower cellular glutathione levels followed by exposure to cisplatin significantly enhanced the cytotoxic effects of cisplatin, while SAC alone had no effect on cell growth ([1108]).

In this study, while the garlic derivative used demonstrated no anticancer activity itself, it did enhance the effects of cisplatin. Another intriguing implication of this study was that the presence of the antioxidant glutathione in some way inhibited the sensitivity to cisplatin, evidence that antioxidant supplementation might not be useful for patients using some chemotherapies.

In another study indicating garlic's potential usefulness as an adjunct to chemotherapies, Chinese researchers Zhao and Huang screened vegetables for possible inhibition of mutagenicity caused by antineoplastic drugs:

We found that 7 out of 11 kinds of commonly eaten vegetables had the ability to inhibit mutagenicity

caused by chemical drugs such as Mitomycin C, Bleomycinia, Fluorouracil, Cis-Diaminodichloroplatinum, Arabinosylcytosin and mustargen. They were garlic, green Chinese onion, onion, garlic bulb, tomato, cucumber and water radish...We believe that our results can be helpful in the preparation of cancer patients' diet, who are receiving chemotherapy and in the prevention of cancer ([1109]).

Dausch and Nixon cite several studies that examine the mutagenic potential of garlic. Substances that are mutagenic promote mutations, or permanent changes in the DNA in the body's cells. Some mutations can potentially lead to cancer. Garlic has been reported to be mutagenic in several species of bacteria, but two studies with mice demonstrated no mutagenic effects. In fact, another study with mice cited by Dausch and Nixon showed that diallyl sulfide was among the most effective agents in inhibiting chemically-induced nuclear aberrations.

However, a more recent study by M. Takada published in the Japanese Journal of Cancer Research shows a possible cancer-promoting effect by some organosulfur compounds found in garlic and onions:

Four organosulfur compounds from garlic and onions were examined for modifying effects...on neoplasia of the liver in male F344 rats...Isothiocyanic acid isobutyl ester (IAIE), dipropyl trisulfide (DPT), and allyl mercapton (AM) exerted enhancing effects on their development, while dimethyl trisulfide also tended to increase them...These results suggest that IAIE, DPT, and AM promote rat hepatocarcinogenesis and their promoting effect might be caused by increased cell proliferation with increased polyamine biosynthesis. In evaluating relationships between diet and cancer, it is thus appropriate to consider not only a possible protective role of garlic and onions, but also enhancing effects ([1110]).

The research with garlic seems to indicate it may have promise as an adjunctive therapy for cancer because of direct anticancer effect, immune stimulation and also possible inhibition of metastases. However, research is unclear on how a patient might best use garlic.

Garlic researcher Robert Lin, Ph.D. advises consumers to beware that manufacturers wishing to give the impression that allicin is the main active component in garlic may fortify their products with this readily made compound. According to Lin:

Allicin is a transient and highly unstable compound which is produced when garlic's cellular structures are ruptured due to cutting and crushing...Once allicin is formed, it decomposes rapidly and is mostly lost within one day. Since allicin has a germicidal power when added to cultured micro-organisms, some garlic products have been promoted as drugs for treating infectious diseases. The truth is that almost all cooked garlic and garlic products (including so-called garlic supplements) contain insignificant amounts of allicin. Further, there is no compelling evidence showing that allicin is the active compound in the body ([1111]).

Sundaram and Milner concluded in their study which showed diallyl disulfide inhibited proliferation of canine mammary tumor cells:

Essential oils of garlic are known to contain approximately 60% DADS ...It is impossible at this point to extrapolate the quantity of garlic or its oil that would need to be consumed by human beings to potentially reduce the growth of neoplastic tissue. Nevertheless, intakes of 20 grams per day have been reported in some areas of the world. This intake has been correlated with a reduction in the incidence of stomach cancers ([1112]).

And Legnani found significant effects on fibrinolysis and platelet aggregation the following responses to garlic ingestion in humans at a level of 900 mg daily of dried powder and Kiesewetter found a clinical effect in humans at a level of 800 mg per day.

Studies have also employed various garlic derivatives, both oil soluble and water soluble, and, in animal studies, used both oral administration and injection. These studies seem to indicate that injection is a more effective route of administration, though at least three studies did show life extension in animals given garlic orally. Further, studies by Marsh and Lamm seem to indicate that garlic extracts given intravesically in mice may be significantly more useful as an immunotherapy for transitional cell carcinoma of the bladder than BCG, while the studies by Takeyama and Hoon indicate the potential for garlic to inhibit the growth of melanoma.

A caveat for cancer patients interested in the use of garlic as an adjunct to therapy is research by Pruthi showing that, due to the instability of numerous sulfur compounds, the application of heat above 60 degrees centigrade can cause not only the pungency, but possibly also the medicinal properties of garlic to be lost ([1113]). However, a cold-aged extract from Japanese whole-clove garlic has been developed that allows for the conversion of some of the active components to be converted in less irritating compounds which also have less odor ([1114]).

Richard Grossman, a New York-based authority on herbal medicine, recommends Kyolic brand garlic for patients interested in an aged garlic product which is less pungent than fresh whole garlic.

Chapter 3.i.: *Silybum marianum or Carduus marianus* (milk thistle)

There is already some bibliography on this plant ([598-605]). It belongs to the Asteraceae family, it originated and is common in the countries of the Mediterranean basin and the Middle East, particularly in uncultivated, sunny spots. The pharmaceutical preparation is by means of a dry extraction, taken from the flowertops and the seeds, nebulized and titrated in a solution of Silimarine min. 1.0%.
The principle components are the flavonolignans, which are isolated in the form of a mixture of condensation products called Silimarine, which represents from 1.5 to 3% of the drug. Furthermore, there are also present notable quantities of lipids (mainly poly-unsaturated) as well as moderate quantities of Beta-sitosterol, Silibinine, Isolibinine and Silichristina.
Silimarine mainly performs a protective action on the liver.
In fact it is able to protect the hepatocyte from various toxic substances, such as for example Phallodine, carbon Tetrachloride, Galactosamine, Thioacetamide etc.
In the case of Phallodine, the protective effect of Silimarine is to be attributed to the competitive block of the Phallodine link to the receptors situated on the surface of the hepatocyte membrane. In this way the Phallodine is prevented from penetrating to the inside of the hepatocyte; *Silybum marianum* is also able to stimulate the formation of new hepatocytes more quickly than the phallodine is able to destroy them.
This indicates that it may be able to stimulate proteic synthesis in the hepatocytes.
Silimarine also has a stabilizing effect on the hepatocyte membrane and on the internal membranes of the cytoplasmatic organelles, which can probably be attributed to its action of inhibiting lipidic peroxidation, as a consequence of its ability to capture the free radicals. Silimarine's ability to stabilize the membrane can therefore be traced to its ability to inhibit the *turn-over* of the phospholipidic components of the hepatocyte membranes, and its ability to reduce to a considerable extent the speed of the exchange process of the bases on the membrane level. It would therefore seem that inhibiting this system produces a stabilization of the membrane metabolism. This leads, in the final analysis, to an inhibition in the formation of lipoperoxides.
Silimarine induces a considerable decrease in the transaminases, in GT gamma, in lactic-dehydrogenases (LDH) and in bilirubin, in patients with hepatopathy caused by viral hepatitis (types A, B and C) and ethylic hepatitis (through the reduction of aldehyde thanks to the stimulation of dehydrogenase-alcohol).
It is also able to protect the liver when it is damaged, induced both iatrogenically and by toxic substances such as insecticides, antiparasites or by agents inadvertently introduced into the food chain such as Falloid Amanita.
Its antioxidative action can also be attributed in part to its proven ability to increase the hepatic levels of Glutathione, by means of a mechanism which is so far unknown.
Its action of decreasing total cholesterol and the triglicerides must be highlighted, attributable, in part, to a better activation of the hepatic metabolism, with consequent optimal use of the lipidic pool by the hepatocyte.
The recommended daily dosage is between 600 mg and 1,200 mg, taken in two doses, preferably between meals.
It must be highlighted that it reduces insulin resistance in chronic hepatitis, with a consequent decrease in glycemia and glycosuria. It also accelerates protein biosynthesis and accelerates cellular regeneration. It inhibits the production of leukotrienes carrying out an anti-inflammatory action and, in part, an anti-allergic action too. Because of the presence of a moderate amount of Tyramine some authors advise administering it with a certain degree of caution in the case of hypertension.
Because of its Tyramine content, it could also interfere with anti-MAO medicines, which in any case it is no longer advisable to prescribe in pharmacological therapy.

Chapter 3.l: Lycopene

Lycopene is one of the principle carotenoids, and it is found almost exclusively in tomatoes (*Solanum lycopersicum)*, representing about 50% of all the plasmatic carotenoids.
Among all the carotenoids, Lycopene has the highest anti-oxidant ability known ([625,626]); its performance compared with phytochemical derivatives of exotic plants, or little-known plants, is still being evaluated.
Another property of Lycopene is its strong presence respectively in the testicles, the suprarenal glands and the prostate. The reason is not known: however it is suspected that if it is deficient, this can be at the root of specific pathologies such as tumors. Thus, an inverse marked connection between the level of Lycopene and tumors in the prostate area (and in the gastric and pancreatic areas too) has been observed, and therefore there has been the suggestion to look for the concentration of Lycopene in the blood, which should be very low in patients with tumors (similar to what has already been shown by Cameron with regard to vitamin C [SEE chap.3.c]).
The amounts of Lycopene present in plasma and in the skin are comparable with those of beta-Carotene. When the skin is under oxidative stress from ultraviolet radiation, a larger amount of Lycopene is destroyed compared to beta-Carotene, suggesting, therefore, a role for Lycopene as an anti-oxidative factor.
Lycopene, which is contained above all in tomatoes, is particularly efficient in prostate carcinomas ([633,1359]) In this work, researchers from the University of Illinois, Chicago, studied men who consumed tomato sauce-based dishes (30 mg/day of Lycopene) for three weeks preceding a radical prostatectomy. They dicovered that after the dietary intervention, serum and prostate Lycopene concentrations were significantly increased. In addition, compared with pre-intervention levels, leukocyte oxidative DNA damage was significantly reduced and prostate tissue oxidative damage was also lower in the Lycopene group than the control group
([1359]): Longwer Chen: *Oxidative DNA damage in prostate cancer Patients consuming tomato sauce-based entrees as a whole-food intervention*, Journal of the National Cancer Institute Vol. 93, No. 24, pp.. 1872-1879, 2001
http://www.erbeofficinali.org/dati/nacci/studi/licopene%20(pomodoro)%20induce%20il%20PSA%20nel%20CANCRO%20della%20PROSTATA.pdf

Chapter 3.m: organic acids

Organic acids, which are among the thousands of co-enzymatic factors contained above all in citrus fruits, grapes, apples, pears, bilberries, blackberries and other fruits of the forest, have a particular protective role.
The Malic acid, Citric acid, Tartaric acid and Tannic acid present in variable proportions, and therefore responsible for the different flavors that the fruit has, play a particular role in the maintenance of the health of mankind.
Contrary to what people think, these acids, once they have been absorbed by the intestine and passed into the blood supply, do not have an acidifying effect, but an alkalizing effect. In fact, since they are "weak acids", they degrade easily in the presence of oxygen, thus producing carbonic acid. The latter combines with sodium and above all with potassium to form carbonates and bicarbonates. Together, these newly formed molecules are called "alkaline reserve", and it makes up that resource which the organism uses to neutralize acids of different origin which form inside it during the course of many pathological illnesses such as cancer.

Fruits of the forest, citrus fruits, apples and pears are therefore absolutely necessary for the organism, especially if it is ill, and they should be always eaten uncooked and fresh.

NOTE : all rich of vitamin B 17 (SEE chap. 7)

Chapter 3.n: Hippocrates Soup

For one person use a 4-quart pot, assemble the following vegetables, then cover with distilled water: 1 medium celery knob (or 3 to 4 stalks of celery), 1 medium parsley root (if available), garlic, 2 small leeks (if not available, replace with 2 medium onions), 1,5 Ibs tomatoes or more, 2 medium onions, and a little parsley.

Do not peel any of these special soup vegetables; just wash and scrub them well and cut them coarsely; simmer them slowly for 2 hours, then put them through a food mill in small portions; only fibers should be left. Vary the amount of water used for cooking according to taste and desired consistency. Keep well covered in refrigerator no longer than 2 days. Warm up as much as needed each time.

Chapter 3.o: Organic Zinc

Zinc acts as a membrane stabiliser, and also as a thymic factor ([581]). It is therefore important for the production of T lymphocytes. With low Zinc content, the working of the fagocytes, cell immunity, antibody immunity and the whole Immune Cascade is reduced ([582]).Working together with vitamin E, it inhibits the production of inflammatory prostoglandins and leucotriens.

It is also a component of Superoxide Dismutasis (SOD) and takes part in over 200 known enzymatic reactions, of which many are anti-oxidative and repair DNA.

Organic Zinc is necessary for Laetrile therapy (vitamin B17).

Zinc is found in *Aloe arborescens*, in oysters, herrings, the seeds of *Cucurbita maxima* or *moscata* (pumpkin), or in *Cucurbita pepo* (courgettes), in wholewheat cereals.
It counteracts Copper (which is often toxic for the organism, and found in dried fruit), Zinc reduces its absorption.

Zinc is found in Spices [*Anethum graveolens* (dill), *Pimpinella anisum* (anise), *Ocimum sanctum* or *tenuiflorum* (basil), *Cinnamomum zeylanicum* (cinnamon), *Elettaria cardamomum* (cardamom), *Eugenia caryophyllata* or *Caryophyllus aromaticus* (cloves), *Coriandrum sativum* (coriander), *Carum carvi* (cumin), *Carum nigrum* or *Nigella sativa* (black cumin), *Curcuma longa* (turmeric), *Artemisia dracunculus* (tarragon), *Melissa officinalis* (balm-mint), *Mentha species* (mint), *Myristica fragrans* (nutmeg), *Origanum vulgare* (oregano), *Majorana hortensis* (marjoram), *Capsicum frutescens, fasciculatum* aut *annum* (cayenne pepper, paprika), *Cochlearia armoracia* (radish), *Rosmarinus officinalis* (rosemary), *Salvia officinalis* (sage), *Schinus molle* (Brazilian peppertree), *Sinapsis arvensis* or *alba* (mustard), *Thymus vulgaris* (time), *Crocus sativus* (saffron), *Piper nigrum* (black pepper), and *Zingiber officinalis* (ginger)].

An adult should take about 20 milligrams of *organic* Zinc a day, much more in the case of cancer patients for Laetrile and/or B 17 therapy.

Chapter 3.p: Honey

Currently the honeys commercially available are different and they can be summed up thus ([614]), while it remains true that no potential anti-neoplastic activity has been noted on an apoptotic basis (or an immune-stimulating one) due to the flowers from which the honey comes; what is more, some of the honeys could contain excessive amounts of glucose, so it becomes dangerous to take them (evaluation of risk/benefit with the amount taken of the effective active principle).

It is therefore useful to list the best-known honeys which are produced from one flower:
(Taken from "*Honey, a miracle of nature, curative properties, uses and recipes with honey, pollen and Royal jelly*"(*Miele, un miracolo della natura, proprietà curative, usi e rimedi con miele, polline e pappa reale*, Demetra S.R.L. March 1997 edition, 3712 Bussolengo, VR, pp. 21-24).

1) *Fir honey* (*Abies*): a very dark color, almost black, very aromatic, with a pleasant flavor. It is considered an excellent antiseptic for the lungs, and the respiratory system (bronchitis, tracheitis, rhinitis and influenza), able to produce anti-pyretic, expectorant and spasmolytic effects.
2) *Acacia honey*: a clear color, amber, transparent, a sweet smell, a delicate flavor and a liquid aspect. It is particularly indicated for infants and children, particularly if they have inflammation of the mucous membranes of the respiratory and gastro-intestinal systems, provided that it isn't pasteurized. It is rich in levulose making it very tolerable for diabetics, in small doses. It also has a mild laxative effect.
N.B. According to the author levulose is compatible, in small doses, for neoplastic patients too.
3) *Orange honey* (*Citrus aurantium*): a clear color, perfumed, a pleasant flavor. It has anti-spasmodic and sedative attributes which make it advisable in cases of nervousness, anxiety and insomnia: It has cicatrizant power and is indicated in the treatment of ulcers.
4) *Hawthorn honey* (*Crataegus oxyacantha* or *monogyna*): a slight amber color, a sweet and pleasant flavor, perfumed, a slight granular aspect. It is called " the honey of heart patients", because it is prescribed in cases of hypertension, palpitations, *Angina pectoris*, arteriosclerosis, spasms and convulsions. It is also indicated for insomnia. It is thought to have an anti-cancer action.
5) *Chestnut Honey* (*Castanea vesca or sativa*): there are both nectar and honeydew types, it is a dark brown color, varying from a light nut color to a dark almost black nut color, it has a strong, bitter smell and the flavor is bitter, often with a sticky consistency. It is particularly rich in mineral salts. It is known for its sudorific, expectorant and stimulant properties. It is prescribed for anemia, tiredness and for people overweight.
6) *Colza honey:* a pale, orange color, not much smell, a bland flavor, average granulation, quick crystallization. It does not have a good reputation and is mainly used in the food industry.
7) *Arbutus berry honey* (*Arbutus unedo*): a characteristic of the Mediterranean scrub, it has a white or grey-green color and a penetrating smell, it has a very bitter flavor and a thick consistency. It is an astringent, a diuretic, an antiseptic for the urinary passages and anti-asthmatic.
8) *Lucerne/Alfalfa honey* (*Medicago sativa*): an intense yellow color. It has anti-spasmodic, diuretic, laxative, tonic and energetic properties.
9) *Heather honey*: there are different types of heather honey. Generally their color varies from clear amber to dark red, a semi-liquid consistency, a particular flavor and a strong smell. It is rich in mineral salts and has diuretic and anti-rheumatic properties. It is a disinfectant for the urinary passages and a restorative. Its effectiveness against gout has been proved.
10) *Eucalyptus honey* (*Eucalyptus globulus*): the color varies between clear and grey-brown, it has a particularly aromatic flavor and fine granulation. It is one of the richest honeys in enzymes. It is known for its anti-asthmatic, anti-catarrh, and anti-spasmodic properties. It is an emollient, a cough soother, an antiseptic for the respiratory tracts, the urinary passages and the intestine. It is effective against urinary cystitis. It is also used as a vermifuge and a cicatrizant for mouth sores.

11) *Strawberry honey* (*Fragaria vesca*):a light rosy nut color. It has anti-rheumatic, digestive and diuretic properties. It is particularly indicated for those who suffer from kidney stones.
12) *Sunflower honey* (*Helianthus annuus*): an intense yellow color. It has diuretic, stimulant, exudative and (particularly in children) anti-pyretic properties.
13) *Lavender honey* (*Lavandula officinalis*) a white color, with a pleasant and perfumed smell, a delicate flavor, an oily consistency. It can be used for external use for burns, insect bites and infected sores; it is in fact an excellent antiseptic, recommended in cases of infectious diseases. It is also a diuretic, vermifuge and good for insomnia.
14) *Rosemary honey* (*Rosmarinus officinalis*): it has an almost solid consistency and is very grainy, it is from white to pale gold in color, a pleasant smell and a delicate flavor. It is the best honey for those who have hepatic problems: it helps the decongestion of the liver, the regression of jaundice and it helps an insufficient liver to work well, in short it helps against all the infectious diseases of this organ such as viral hepatitis. It is a good overall stimulant, and is prescribed in cases of tiredness, it is excellent for the stomach and the intestine, fighting flatulence, fermentations and colitis.
15) *Sulla/French Honeysuckle honey*: a clear color, almost white, fine crystallization, it has a delicate flavor. It has laxative, diuretic, tonic and depurative properties. It is an excellent honey for culinary use because it does not alter the flavor of the foods it is added to.
16) *Lime honey* (*Tilia tomentosa, cordata, argentea*): a pasty consistency, the color varies from light yellow to light green and brown in the case of honeydew, it has a strong smell: It has calming and anti-spasmodic properties, it is therefore recommended in cases of nervousness and insomnia.
17) *Thyme honey* (*Tymus vulgaris*): a dark amber color, a strong smell and flavor, irregular crystallization: It is considered a powerful, general antiseptic for use in case of danger from infectious diseases, but also as a disinfectant for the bronchioles and the intestine. It has also been used for inflammation of the uterus.

Chapter 3.q: other anti-oxidative phyto-medicines

There are numerous plants which can be used: their association is complex and goes beyond the aim of this study. Basically, having to protect the patient particularly from the free radicals due to the inflammatory processes induced respectively by Immune-Therapy (SEE chap. 9), external Radio-Therapy and Hyperthermia, it is necessary to list the following phyto-medicines considered essential to follow the multi-factor treatment well which is described in this book, since they have no immune-depletory action and, on the contrary, they have a considerable anti-edemigene ability.

They are:

1) *Achillea millefolium* (yarrow): it contains an essential oil, similar to that of *Matricaria chamomilla*, containing Azulene and some types of lactones, which have an anti-inflammatory action.
2) The bark of *Aesculus hippocastanum* (horse-chestnut): rich in coumarin derivatives and bioflavonoids, it increases the resistance of the capillaries, decreasing their permeability, with an anti-inflammatory and anti-endemigene effect.
3) The bulb of *Allium sativum*: rich in Germanium 132 and Allyle Sulphur, it stimulates the production of Glutathione Peroxidase. It is hypoglycemic, hypocholesterilizing, antiseptic, hypotensive and a vessel-dilator on the peripheral circuit; its anti-bacterial and anti-fungal action is considerable against *Staphylococcus aureaus, E coli, Candida albicans, Shighella sonnei* and *Salmonella tiphy*; it increases the fibrinlithic activity and it is a good platelet anti-aggregant.
4) *Aloe arborescens* mixed with good quality biologically produced honey (SEE chap. 9.b): it is hypoglycemic, hypocholesterilizing, antiseptic and radio-protective.
5) *Ammi visnaga*: its fruit is currently under evaluation, to study the slight side effects (nausea and vomiting) and the possible serious effects; it acts on the arteries; it is also known for its marked spasmolytic action on the pulmonary bronchioles in cases of asthma.
6) *Arnica montana*: its internal use is being evaluated, like *Bellis perennis* (both are used only externally), because it could cause hematuria and damage to the tubular ephithelium; it can cause an increase in the transminases and in gamma GT.
7) *Bellis perennis* (daisy): its internal use is being evaluated, like *Arnica montana* (both are used only externally); because it could cause hematuria and damage to the tubular ephithelium; it can cause an increase in the transminases and in gamma GT.
8) The ripe fruit of *Capsicum frutescens* or *fasciculatum* (red pepper, cayenne pepper) and/or *Capsicum annum* (paprika): they contain Capsaicine, Capsicine, Oleoresine, Capsantine, Quercitine, Esperidine, Eridietrine, vitamins C, PP, E, A, malonic acid and citroflavonoids. They have an anti-oxidant, antibiotic, and painkilling effect; in small doses they have proved useful in cases of gastritis, hemorrhoids, chronic catarrh of both the pharynx and the tube and chronic earache.
9) *Chrysantellum americanum*: contains both flavonoids and saponines, it increases the tone in the veins and decreases the permeability of the capillaries.
10) *Chyonatus virginica* (the fresh bark of the roots): it contains the glycoside chionantine, similar to saponine; it protects the liver and is perhaps effective against diabetes.
11) *Collinsonia canadensis* or *Pareira brava*; a saponic glycoside, it is being evaluated for therapy of inflammatory processes in the small pelvis, cystitis, cystopyelitis, urethritis, hypertrophy of the prostate, and diathesis for kidney stones. It helps circulation in the small pelvic area and helps problems caused by stagnation in the whole pelvic area.

12) The dried stalk and flower stems of *Crocus sativus* (saffron): under evaluation; its etheric oil contains Terpene, Crocine, and Picrocrocine; it is anti-hemorrhaging and anti-inflammatory. The stems would seem to have an anti-tumoral action.
13) The juice of raw and biologically grown *Daucus carota* (carrot): very rich in vitamins A,C and E.
14) *Dracontium loretense*: it is considered one of the best plants for its specific anti-oxidant powers, and certainly regarded as superior to synthetic vitamin E ([566]).
15) The fruit of *Embelia ribes*: anti-helminthic, especially against ascarids and tapeworms; it has an anti-bacterial action; embeline reduces lipo-peroxidation in the liver, the intestine and the kidneys, increasing the levels of anti-oxidative endogene enzymes; embeline potassium, contained in the fruit, has an analgesic activity; it also has a laxative, carminative and diuretic action.
16) *Eucalyptus globosus*: effective for acute inflammatory processes.
17) *Eucalyptus officinalis*: effective for inflammation of the eyes and pharyngitis.
18) Extract of *Ginkgo biloba*: it is rich in flavonoids, flavones and leuco-anthocyans; some bisflavonoids (Ginketol, Isoginketol, Bilabetol) act on the cellular membranes and stabilize them; ginkolide blocks lipidic peroxidation and the formation of free radicals; it also inhibits the platelet activation factor (PAF), thus reducing the risk of thrombosis. N.B. it is counter indicated in subjects with coagulation disturbances; it is inadvisable to use it in combination with platelet anti-aggregants. It is effective against Amiotrophic Lateral Sclerosis ([722]). The fruits of the plant are, however, toxic.
19) *Glycyrrrhiza glabra* (liquorice): its roots and its rhyzome contain anti-inflammatory substances. If it is taken for more than 20 days, however, it may cause hypertension.
20) *Hamamelis virginiana* (amamelide, witch-hazel): it is particularly rich in flavenoids, phenolic acid, colline and mineral salts; it is an excellent venous vessel-constrictor, it decreases capillary permeability and increases the resistance of the vessel walls, reabsorbing the edemas.
21) *Harpagophytum procumbens* (devil's claw): only the secondary tuberized roots should be used; like *aloe arborescens* it has a good anti-inflammatory action without any side effects of the FANS or especially of the cortisones (which are immune depressors); it has no toxicity and has a good analgesic effect. It should always be taken on a full stomach and is unadvisable for pregnant women or children under the age of twelve.
22) The dried flowers of *Hibiscus sabdariffa*: used empirically for phlebopathies of various natures; apoptosis on leukaemia ([692]), SEE chap. 6.
23) *Hydrocotile asiatica*: it contains asiatic acid, madecassic acid, Asiaticoside, Madecassoside, tannins, phytosterols, resins and mineral salts: a universal cicatrizant; it prevents ulcers and venous dystrophy.
24) The spores of *Lycopodium clavatum*: they contain oil with Hexadecanic, miristic and licopodic acid; beta-Sisterol and bi-hydrocoffeic acid. N.B. it also contains Aluminum.
25) *Medicago sativa* (alfalfa, lucerne): useful because it contains vitamin K; it is also a radio-protector ([588]), and an antibiotic against salmonella ([589]). Note: has Lysine.
26) *Melilotus officinalis* (yellow melilot): it has an anti-edema action due to the coumarins and the flavonoids which are able to reduce venous and lymphatic stagnation.
27) *Momordica charantia* (African watermelon): the juices of its fruit have proved to be particularly effective as an anti-oxidative; alpha-momocharine, a glycoprotein isolated from its seeds, inhibits the growth of some tumoral lines: furthermore this molecule increases the tumoricide effect of the macrophages of mice on mastocimal murine cells. Its fruit is effective against leucemia in humans ([639]).
28) *Myrciaria paraensis* (kamu kamu): an exotic fruit which contains 50 to 100 times more vitamin C than *Citrus aurantium.*
29) *Myrica cerifera*: it protects the liver and is also thought to have an immune stimulating action.

30) *Myristica fragrans* (nutmeg): the dried seeds are gastro-protective, also effective against gastro-duodenitis and gastro-enteritis.
31) The fresh stalks of *Myrillocactus geometrizans*: a vessel protector, empiric studies have shown that it has a high ability to aid post-infarction coronary and myocardia recovery, and can possibly reactivate the arterial circuit in other areas: it is being evaluated for possible side effects.
32) *Myrrhis odorata* (myrrh, sweet cicely): vessel-protecting properties on both the capillaries and the veins.
33) *Nepeta cataria*: the whole plant, useful for acute inflammatory processes.
34) *Okoubaka aubrevillei*: the wood and the dried, pulverized bark; it has a detoxifying effect with a protective action on the air passages; it would seem to be effective against toxoplasmosis: suspected enzymatic pancreatic-like action.
35) The leaves of *Perilla ocymoides*: in Japanese literature ([610]) it has been proposed as an anti-oxidative together with 72 other plants considered; it is effective against uric diatesis and hyper-uricemia.
36) The roots of *Picrorrhiza kurroa*: it protects the liver and is also effective in cases of previous metabolic-toxic damage or of chronic hepatic illnesses; it is immune-stimulating, anti-viral and anti-helminthic.
37) The dried wood of *Quassia amara*: it contains quassin and neoquassin, it is a useful protector of the liver in hepatopathies, cholangitis and stagnant veins.
38) The leaves of *Ribes nigrum*: it contains more than 500 different types of flavenoids with a considerable anti-oxidative effect. It must, however, be used with caution on patients with hypertension, because of its DOCA-like action. It has the same counter indications as the use of cortisonics. It is also a potent diuretic; it eliminates uric acid; it has anti-inflammatory properties and is therefore indicated together with *Harpagophytum procumbens.*
39) The dried branches and the leaves of *Rhododendron campylocarpum* or *aureum* or *chrysanthum* (rhododenron, alpine rhododendron): Andromedotoxin, Ericolin, glycoside Rhododendrin; it is anti-inflammatory and anti-rheumatic.
40) The roots of *Ruscus aculeatus* (holly, butcher's broom and wild asparagus): a potent vessel-constrictor, anti-inflammatory and anti-edemigene.
41) The bark of *Salix alba*: like *Filipendula ulmaria* and *Aloe arborescens* it contains salicylates.
42) The flowers of *Sambucus nigra*: it is one of the best anti-phlogistic plants existing in nature. It is prescribed for respiratory and urinary inflammations; it is anti-oxidative, diuretic, daiphoretic, a soothing hypertensive, a laxative and anti-neuralgic; it is also suspected of having an immune-stimulating action; it is being evaluated for leukaemia.
43) The fresh, ripe berries of *Serenoa repens* (dwarf palm): they contain antranilic acid, tanning substances and Carotene. They are effective in cases of prostate hypertrophy, cystitis, epididimitis and prostatitis; it is being evaluated for carcinomas of the prostate.
44) *Spiraea ulmaria* or *Filipendula ulmaria* (olmaria): like *Salix alba* and *Aloe arborescens* it contains salicylates, and thus has an anti-inflammatory action.
45) *Symphytum officinale* (comfrey): used empirically for bruises, trombophlebitis; it is the only vegetable rich in vitamin B12, it is therefore inadvisable.
46) The leaves of *Vaccinium myrtillus* (bilberry): it improves the venous circle because it is rich in bioflavenoids. N.B. the juice of its berries have an important antiseptic action on the urinary passages because they contain hippuric acid.
47) The berries of *Vaccinum vitis idaea* (red bilberry): they contain more than 500 different types of flavenoids with considerable effects such as anti-oxidative, vessel-protective, anti-inflammatory; in particular it seems able to induce apoptosis in some forms of tumor.
48) The ripe fruit of *Vitex agnus castus*: it is still being evaluated for possible side effects.
49) The leaves, seeds and juice of *Vitis vinifera* (black grape): it is rich in tannins and anthocyans; the latter protect from the oxidant substances acting on the venous walls.

50) In 1989, in Japan, 72 plants were tested as protective factors against the effects of ionizing radiation: 16 of them, in the following order, showed high anti-oxidative capacities: *Rosa canina* (fruit), *Aloe arborescens*, *Citrus leiocarpa* (exocarp), *Schizonepeta*, *Evodia rutaecarpa* (fruit), *Bupleurum chinese* (roots), *Cornus sanguinea* (fruit), *Perilla ocymoides* (herb), *Anemarrhena* (rhyzome), *Mentha piperata* (herb), *Trapaeolum maius* (fruit), *Angelica dahurica* (roots), *Sinomenus* (rhyzome), *Ephedra vulgaris* (herb), *Acer nikoense* (bark), *Forsythia* (fruit) ([610]).
51) The xantofilins (Lutein, Zeaxantin) have an anti-oxidative activity, interrupting the peroxidation reactions of the phospholipidic membranes ([634]).
52) Others: Copper and Manganese, obtainable from various *natural* sources, are useful for the activity of the anti-oxidant enzyme SOD and for the Immune Cascade complex. Copper, in particular, in a ferrooxidasic activity can be considered synergetic with Iron itself: the best ratio between Iron and Copper must be about 1:12, going up to as much as 24:12 in infections, and this explains the strengthening of the immune defenses exerted by the assimilation of both copper and Iron.

Chapter 4
Phyto medicines with anti-infection activity

The immune system at a gastro-intestinal level is the most developed because of the antigenic load the organism is exposed to: the cutaneous surface is only 2 square meters, that of the lungs is 80 square meters whilst that of the gastro-intestinal area is 300 square meters.
The gastro-intestinal immune system, being highly developed, justifies the action of many phyto-therapies administered orally to induce a specific immune stimulation towards particular natural antigens such as lecitins for example (SEE chapter 4.f).

Disturbances in the gastro-intestinal tract, especially if they are induced and sustained by parasites or fungi, have a strong negative affect on the immune defense system of the human organism.
The causes of this serious alteration in the capacity of the human immune defense system are manifold , beginning with disbiosis, characterized by the replacement of normal aerobe bacteria by aerobe pathogens and finally by anaerobes and fungi, opening the way to potential super-infections of a parasitic type, causing the worst form of disbiosis (granulocytosis based on eosinophilics).
Gastro-intestinal disbiosis is therefore a serious alteration of the normal intestinal bacterial flora, which leads to a gradual alteration in the intestinal mucus tissue (above all in the colon) and therefore of the lymphocytes present in the mesenteric lymph nodes, in the Peyer plates, in the lamina itself etc….
This alteration in the normal intestinal flora causes not only a gradual alteration of the working of the lymphatic tissue present in the intestinal mucus, but also a gradual block of the immune-lymph structure located at some distance away, which can perhaps be correlated even with different pathologies such as ulcerous colitis, Crohn's disease, an immune imbalance and hepatopathy.
In particular it is suspected that a great number of food allergies are traceable to serious forms of intestinal disbiosis.
Given that intestinal parasitosis is the most common cause of the most serious disbiosis, the foods can be divided into three groups:

1) Foods which do not cause intestinal disbiosis: cereals and their derivatives.
2) Foods which cause intestinal disbiosis. Milk and its derivatives (above all cheese), eggs, cakes, jellies, sugars (with the exception of fructose, honey, the juice of *Acer campestris* (Canadian maple)*;* GMO foods which have already shown a depletory action on the lymphocytes such as insecticide maize for example ([788-792]) and, most probably, other GMO foods of the same type based on *Bacillus thuringiensis.*
3) Foods which prevent intestinal disbiosis: acidic foods, above all apple vinegar.

There are pharmacological therapies which can seriously compromise the gastro-intestinal immune defense thus starting a disbiosis: The most serious is Chemo-Therapy (even in mini doses), followed by cortisones and synthesized antibiotics.
Other factors, of less importance, are psychological stress, ovulation inhibitors, mercury poisoning (from amalgam in dental fillings), preservatives, colorants, irradiated food or food cooked in a microwave oven and a deficiency in natural symbionts (lactobacillus).

The risk of infection from parasites is very often undervalued, because it is considered of low incidence rate in the high food standard of daily life. In reality the risk is high and raw vegetables must be washed at least 4 times (avoiding, however, water with chlorine because of the relative problems of vitamin deficiency).

Raw vegetables in our diet are of prime importance, but if the vegetables are not washed, the risk of infection is real.
Fish and shellfish are also a complex problem; they should only be bought from recognized fishmongers. Fresh fish should always be put on ice and kept on ice.

Parasitosis from foods is very common in the third world, and particular attention should be paid to food (vegetables, fruit, fish etc..) coming from those countries which have poor hygiene.
In many countries in the third world little attention is paid to the type of water used to irrigate the soil, very often the water has been recently mixed with "sewage water", "black water", polluted water from the cesspits of the local communities.

This problem is also connected with the question of pesticides, chlorine and other toxic compounds used in high quantities in the third world to increase production for export, to the detriment of vitamins and oligo-elements of organic agriculture.
Very often, safe levels of pesticides and fertilizers are exceeded, thus rendering the food toxic because of chemical pollution.
In this way the food obtained (fruit and vegetables in particular) is seriously deficient in vitamins and vitamin co-factors (SEE chapters 3 and 9) and, on the contrary, is contaminated with chemical poisons.

Phyto-therapies with a known anti-parasitic and anti-mycotic action

1) *Aegle marmelos* (India): it acts on *Candida albicans*
2) *Artemisia cina*: effective against ascarids.
3) *Azadirachta indica* (India) effective against intestinal worms
4) *Bambusa arundinacea* (India): effective against intestinal parasites: N.B. it is suspected of having an apoptosis and pseudo-apoptosis action on some types of tumor.
5) *Berberis aristata*: effective against malarial fever, the extracts of this plant are thought to be more effective than quinine, because it does not provoke cardiac depression and/or damage to hearing. It is also a hepatic-protector and helps the spleen.
6) *Boerhaavia diffusa* (India): its roots have anti-heminthic properties (also a diuretic, laxative and expectorant effect).
7) *Butea frondosa* (India): effective against *Ascaris lumbricoides* and *Toxocara canis*.
8) The seeds of *Curcubita pepo* (courgettes): an anti-parasitic activity (N.B: also very rich in Zinc).
9) The fruit of *Embelia ribes*: anti-helminthic, effective particularly against ascarids and tapeworm; it has an anti-bacterial action. Embeline reduces lipo-peroxidation in the liver, the intestines and the kidneys, increasing the levels of endogene anti-oxidative enzymes. Potassium embelate, contained in the fruit, shows an analgesic activity, it is also known for its laxative, carminative and diuretic action.
10) *Cuminum cyminum*: its dried, mature fruit has anti-fungi and anti-microbe activity.
11) The rhizome of *Curcuma longa*: turmeric ("the saffron of the Indies or the poor") is anti-helminthic and an immune stimulant; it also has pronounced anti-inflammatory activities, it is an hepatic protector from carbon tetra-chloride.
12) *Ficus religiosa* (the bark of its branches): an anti-protozoal against *Entamoeba histolytica,* it has an anti-helminthic activity against *Ascarida galli.*
13) The bark of *Holarrhena antidysenterica*: anti-inflammatory, anti-pyretic, an immune stimulant. The alkaloid Conessine is effective against dysentery caused by *Entamoeba histolytica,* it is lethal against protozoa, and to a limited extent against *Trichomas hominis*. Narconessine, isoconnesine and kurchine are currently being studied: recently two new

alkaloids have been identified: Holacine and Holacimine (with a suspected apoptosis action on the cancer).

14) The alcoholic extract from the leaves of *Asparagus racemosus* also inhibit the growth of *Entomoeba histolytica* (N.B: it also has an anti-tumor effect in vitro against human skin carcinomas and carcinomas of the nasopharynx ([700,752]).
15) *Inula racemosa*: an anti-fungi activity comparable to Nistatine, but not as good as Amphotericine B. It also has anti-inflammatory, anti-pyretic and anti-spasmodic activities.
16) *Inula helenium*: a European variant of the Indian one; currently being evaluated for the same purposes.
17) *Picrorrhiza kurroa*: anti-helminthic.
18) *Tribulus terrestris*: anti helminthic and an immune stimulant; induce apotosis on osteosarcoma (it has Diosmin [[1134]]).
19) *Acido caprilico*: a fatty acid which is extracted from coconuts and palm oil; it dissolves the cell membrane of *Candida albicans* and of other fungi. It is absorbed well by the intestine, and distributes itself evenly in the colon, where the colonization of *Candida albicans* is more common.
20) *Metil sulfonilmethane*: a sulphur based compound, it is present in most foods, but is easily degradable in cooking. It has proved effective against some parasitic forms (*Giardia intestinalis, Tricomonas vaginalsi*): It also acts as an anti-oxidative.

The following help in anti-parasitic treatment: *Brassica oleracea, Var capitata, Cynara scolymus* (an anti-oxidant, hepatic protector and diuretic), *Matricaria chamomilla, Sida cordifolia, Ocimum basilicum, sanctum* or *tenuiflorum,* and another….

Milk enzymes are also very useful such as *L. acidophilus*, cultivated in the juice of vegetables without lactose and milk derivatives or preparations which are not milk derivatives, these, too, must be without sugar except fructose (e.g. *Milk Free Acidophilus Long Life ®, NutraMaxidophilus®,* etc).
Note 1: they should be taken between meals.
Note 2: the possible addition of FOS needs to be evaluated (a possible glycemic *uptake* on the part of the tumors has not been noted), in view of a possible alternative to the systematic use of antibiotics to cure recurring infections in cancer patients whose immune system is compromised (SEE 'antibiotics', infra).
Note 3: also *Avena sativa*, rich in vitamins B1, B2, B6 and Inositol, helps the development of intestinal bacterial flora, and is therefore able, by means of controlling the fermenting processes at an intestinal level, to reduce an excessive production of intestinal gases.
Note 4: in inflammations of the intestine, of bacterial origin, vegetable carbon exercises an absorbing effect on intestinal bacterial pathogens.

Antibiotics

The use of antibiotics could be necessary in the treatment of patients who are immune-depressed from Chemo-Therapy, even if, as was pointed out in chapter 2, any form of Chemo-Therapy should be rejected, since it is irremediably depletory and invalidating to the immune defense system of the patient himself, as well as for all the other reasons cited in chapter 2.

Note: Cortisone, too, should not be used under any circumstances, except in situations which cannot be treated by anti-inflammatory (FANS) or anti-inflammatory phyto-therapy medicines (SEE chapter 14). Cortisone could be useful in cases of cerebral tumor.

With regard to phyto-medicines used as antibiotics the following are worthy of mention:

Ailantus glandulosa is currently being studied, with its fresh shoots, its flowers (potential honey) and its bark; an anti-tumor activity cannot be excluded a priori, given that its effectiveness on pathologies of neck and tonsil lymph nodes is well-known.

Alchornea castanefolia has proved effective against varieties of *Staphylococcus aureus, E. coli,* and *Aspergillum niger* which have become resistant to penicillin G.

Aloe arborescens or *vera,* for use as an antibiotic, should also be considered ([12, 58, 140, 162, 163, 262,486]). Many plants have been shown to have an antibiotic action: one particular one is the essential oil of *Melaleuca alternifolia,* which is particularly effective against bacteria and fungi.

Allium sativum, rich in Germanium 132 and in Allile sulphide, has a marked antibacterial activity against *Staphylococcus aureus, E. coli, Shigella sonnei* and *Salmonella tiphy,* it has proved useful against *Meningococcus*; it has an anti-fungi action against *Candida albicans,* it also stimulates the production of glutatione peroxidase.

The roots of *Aralia racemosa* ease the expectoration of mucus from the respiratory tracts, above all if the cough persists at night: It is also suspected of having anti-tumor potential.

The roots of *Arctium lappa* cut in the first year of growth, in autumn, or in the second year, in spring, before it flowers, have an antibiotic action (coffee acid).

The essential oil of *Azadirachta indica* is a good antibiotic against *Staphylococcus aureus,* and *E. coli;* (it is effective against all types of intestinal worms, SEE parasitosis).

Chimaphila umbellata has proven effective against cystitis, chronic cystopyelitis, uric acid and hypertrophy of the prostate. It is suspected of having an anti-cancer action on breast tumors.

Centaurea cyanus is effective against styes.

Cetraria islandica or *Lichen islandicus* has an anti-bacteria and anti-viral activity because of the mucilaginous substances it contains. It also has a gastro-protective ability. On the other hand, because of two of the components (Lichenine and Isolichenine) which lead, in hydrolysis water, to the formation of Galactose, it is counter indicated in the feeding of cancer patients, except in minimum quantities.

Phyllanthus niruri inhibits *polmerase DNA* in hepatitis B.

Primula veris or *officinalis* is effective as an expectorant and a painkiller for bronchitis.

Sida cordifolia strengthens the immune defenses; it is an anti-mycotic, anti-bacterial, anti-viral and anti-helminthic. It does, however, contain Ephedrine, a toxic substance, which is particularly dangerous for heart patients or with hypertension. It should be administered only in doses which a doctor considers safe for the patient.

Terminalia belerica also has an anti-bacterial action.

Terminalia chebula is useful against urinary and eye infections; it also contains Anthraquinone.

Tinospora cordifolia can be compared to Gentamicine in peritonitis caused by *E. coli.*

The berries of *Vaccinium myrtillus* have an important antiseptic action on the urinary tract because of their juice which contain hypuric acid. This inhibits the adhesion of germs to the tissue of the urinary apparatus. What is more the high vitamin C content causes acidification in the urine.

Other plants with an antibiotic action are *Cuminum cyminum* (this also has an anti-fungi action), *Cyperus rotondus, Picrorrhiza kurroa* (viral hepatitis), *Piper longum* (anti-bacteria, hepato-protector), *Tephorosia purpurea* (viral hepatitis), *Tribulus terrestris, Terminalia belerica,* the leaves of *Arctostaphylos uva-ursini* (cystitis, especially if it is caused by *E.coli*), and another….

Chapter 5
Phyto-medicines with an anti-uricemic activity

Despite not eating foods with nucleic acids (meat, fish, eggs, milk and its derivatives), the patient begins to have high levels of uric acid in the blood, with the possible onset of renal damage.
The high increase in uric acid is caused by apoptosis phenomena in the cancer cells (SEE chapter 6), by the Immune cascade (SEE chapter 9), and by the breakdown of the tumor growth by enzymes (SEE chapter 7). All these phenomena cause the death of a large number of tumor cells…
Together with or as an alternative to Allopurinol various phyto-medicines are effective in eliminating uric acid which has been induced by the immune therapy.

Note 1: the use of Allopurinol in cancer patients is still regarded as unadvisable (until there is evidence to the contrary).

The following is a list of phyto-medicines with curing properties for prostate hypertrophy, cystitis, nephritis and kidney stones.

1. *Adlumia fungosa*: it is still being evaluated for possible side effects.
2. *Agropyrum repens*: it is also useful as a diuretic and anti-edemigene plant.
3. *Berberis vulgaris*: effective for uric diathesis, nephropathy and kidney stones.
4. *Betula alba*: (N.B. it also has an apoptotic action on melanomas, SEE chapter 6).
5. A decoction of the seeds of *Celastrus paniculatus*
6. *Citrus limonum*: a diuretic, it is effective in the prevention of kidney stones.
7. *Chimaphila umbellata*: it is useful for cystitis, chronic cystopyelitis and hypertrophy of the prostate gland. It is also suspected of having an anti-cancer effect on breast tumors.
8. *Erigeron canadensis*: it is also useful as a diuretic plant.
9. *Eupatorium perfoliatum* or *purpureum*: *purpureum* is preferable as an anti-uricemic and antiseptic of the urinary tract, but both plants are immune stimulating.
10. *Fabiana imbricata*: effective for uricemic diathesis, kidney stones, cystitis and prostatitis.
11. *Fraxinus excelsior*: according to some sources it is the best natural uricosuric agent.
12. *Harpagophitum procumbens*: very effective.
13. *Hieracium pilosella* : an anti-uricemic of recent clinical evaluation.
14. *Mahonia aquifolium*: effective for uric diathesis, nephropathy and kidney stones. It is also strangely effective against psoriasis, and hence a potential anti-neoplastic activity is suspected, perhaps with an apoptotic base.
15. *Ononis spinosa*: a diuretic action due to saponine.
16. *Orthosiphon stamineus*: a diuretic plant, effective in cases of uricemia. It is also useful at a hepatic-biliary level.
17. The leaves of *Perilla ocymoides*: effective for uric diathesis, hyperuricemia. It is also effective as an anti-oxidative.
18. *Petroselinum crispum* or *sativum*: effective for cystalgia, urethritis and hepatopathy.
19. *Populus tremuloides*: use the fresh inside bark of the young branches and the leaves. It is useful for acute or chronic cystitis, hypertrophy of the prostate gland and uric acid.
20. *Solidago virga aurea*: also used for chronic nephrytis, hypertrophy of the prostate gland and cystitis.
21. *Urtica dioica*: it is also a remineraliser of proven effectiveness; unfortunately it contains a lot of proteins.

22. The berries of *Vaccinum vitis idea*: arbutine is a diuretic and disinfectant for common infections of the urinary tract (cystitis, urethritis etc) given that it is then metabolized and eliminated by the kidneys, liberating hydroquinone. What is more there are over 500 different types of flavonoids with a considerable anti-oxidative, vaso-protective and anti-inflammatory effect. It could have an ability to induce apoptosis in some forms of tumors.

Rudolf Breuss' renal preparation:

It is also possible to prepare at home some formulas which have been famous for more than a century in popular medicine such as *Rudolf Breuss*' renal preparation:

15 grams of *Equisetum arvense*
10 grams of *Urtica dioica* (according to the author, that picked in spring is the best)
8 grams of *Polygonum aviculare*
8 grams of *Hypericum perforatum*

Put half a tablespoon in a cup of boiling water and leave to infuse for 10 minutes, then strain, put the liquid aside and add to the remaining grounds 2 cups of hot water and boil for a further 10 minutes. Then strain again and mix the 2 tisanes together. It is advisable to drink this 3 times a day.

In the East various formulas for the preparation of effective herbs are used against serious prostate pathologies ([703]) : *Epidium bevicornum* (the stems and aerial parts), *Morinda officinalis* (the roots), *Rosa laevigata* (the fruit), *Rubus chigius* (the fruit), *Schisandra chinensis* (the fruit), *Ligustrum lucidum* (the fruit), *Cuscuta chinensis* (the seeds), *Psoralea corylifolia* (the fruit) and *Astragalus membranaceus*. SEE this scientific paper in INTERNET to:
http://www.erbeofficinali.org/dati/nacci/studi/Equiguard%209%20erbe%20cinesi%20contro%20il%20cancro%20della%prostata.pdf or on : http://www.erbeofficinali.org/dati/nacci/allpdf.php

Chapter 6

Phyto medicines with a Bio-Chemo-Therapy action: plants which have a "suicide affect" on Cancer.

Fresh plants contain thousands of vitamins which are able to activate our immune system against germs, viruses or tumour cells, or even to induce apoptosis (cell suicide or programmed cell death – SEE note) in tumour cells.

The plant with anti-cancer properties (apoptosis and/or immunostimulation) must not damage human organs or tissues and must therefore be eaten fresh, as a real PHYTOTHERAPIC PRODUCT.

In many cases, it can also be taken in the form of INFUSION (TEA or DECOCTION), with or without the addition of other substances, for example alcoholic ones, according to EXPERTS' prescriptions.

It is generally advisable to eat raw fresh plants with the addition of honey, provided that they have no toxic side effects, as for example the *Salvia species*, which must be taken in the form of TEA in order to eliminate the very dangerous Thujone…

Amounts of vitamins needed to induce apoptosis in a certain number of tumour cells in the laboratory without damaging healthy human cells are really very small.

The following is a report of several scientific studies showing the actual ability of these vitamins to induce cell suicide in various tumours. Amounts needed are measurable in a few dozens of micromoles/litre, i.e. picomoles/microlitres.

As far as apoptosis-inducing vitamins are concerned, Tatman's fundamental scientific study is highly recommended. His book lists about 180 different isoprenoids (Tatman H., Cancer Letters 175, 2002, pp. 129-139).
http://www.erbeofficinali.org/dati/nacci/studi/TATMAN%20(%20ARTICOLO%SUGLI%20%20ISOPRENOIDI).pdf

In this book "*Mille Piante per guarire dal Cancro senza Chemio*" *("Thousand Plants against Cancer without Chemotherapy*", issue DECEMBER 2007, the author M.D. Giuseppe Nacci recommends using fresh preparations of these plants with the addition of honey, similarly to what Father Romano Zago suggested for the preparation of *Aloe arborescens*, for example: since ancient times HONEY has traditionally been added in twice the amount of the plant used (blended, ground, crushed, etc.).

HONEY is very important because it protects the precious vitamins from air oxidation and gastric juices and allows them to be absorbed by patients' intestinal walls. Furthermore, honey is a powerful antiseptic preventing germs from destroying vitamins. Several types of honey also have real healing properties as they are obtained from flowers of medicinal plants.

PLEASE NOTE: As known to Ayurvedic Indian Medicine for thousands of years, patients affected by malignant tumours must never take plant SPROUTS, as they usually contain ALL 9 ESSENTIAL AMINO ACIDS, FOLIC ACID and Vitamin B12, a fact that WESTERN MEDICINE also discovered recently.

The following is a collection of significant scientific papers which can help doctors choose the most suitable plants for healing each malignant tumour (http://www.erbeofficinali.org/dati/nacci/allpdf.php).

The papers, almost all of them available in PDF format, can be found in the scientific literature and indicate the amounts of vitamins which are needed to induce APOPTOSIS in the cancerous cell line considered. The amounts are measurable in micromoles, i.e. micromoles/litre, i.e. nanomoles/millilitre, i.e picomoles/microlitre. The studies generally demonstrate that these plants almost never have side effects on healthy cells.

PLEASE NOTE: Reading the articles will make it clear that the amounts of vitamins needed to induce APOPTOSIS can change depending on tissular Ph, on oxygen quantity and above all on the time they remain in the tumour…

Aloe arborescens, maybe the most famous plant among those currently studied, contains *Emodin*, a fluorescent anthraquinone inducing a selective apoptosis only in tumour cells.
Please find three PDFs attached at the end of this work, including Palù G.: *Aloe-Emodin is a new type of anticancer agent with selective activity against neuroectodermal tumors*, Cancer Research, 60, pp. 2800-2804, 2000. [PDF http://www.erbeofficinali.org/dati/nacci/allpdf.php]

Apoptosis

By apoptosis we mean the activation of specific endonuclease which break up DNA, acting at the level of the nucleosomic sites which make up the primary structural unit of the nuclear chromatin of the cell. The induction molecules, in general deriving from plants (phyto-chemical), induce apoptosis in neoplastic cells, by activating proteolytic intracellular enzymes, which cause the deterioration by proteolysis of the vital sequence of the DNA, thus causing the death of the cell through apoptosis. In anti-neoplastic therapy these molecules have to reactivate the suicide command in the tumor cells, without causing damage to the healthy cells. Initial clinical experience has already found in *Emodine*, contained in *Aloe*, a good example of a particularly selective molecule for certain types of human tumor, like vitamins A, D and E.
The deliberate attempt on the part of companies producing GMO to deactivate (with Fortilin, Bcl-2, Bcl-xl) this precious natural mechanism contained in plants is very serious. This phenomenon of blocking apoptosis (anti-apoptosis action), already introduced experimentally into tobacco plants by means of a virus ([748,751]), is according to the author a deliberate act of damage inflicted on the ecosystem by GMO: a damage which, if it is propagated to plants commonly used in the food chain, could render the cure of tumors and other serious illnesses completely impossible using the method proposed in this study.

Pseudo-Apoptosis

There are also vegetable substances (and perhaps even, by means of chemical synthesis, of pharmaceutical origin) which have the ability to be absorbed by membrane molecules exclusively present in certain human tumor cells, and therefore introduced to the inside of the diseased cell. Since all cellular membranes have the same structure, these molecules also become absorbed at the level of the lysosomial membrane, damaging it. De Duve ([84]) had defined lysosomes as “suicide vesicles”, and, if their membrane is damaged by toxic agents, it becomes permeable to enzymes contained in it, which thus digest the cell itself. This phenomenon is partly reminiscent of apoptosis: in practice, a cellular suicide induced by enzymes present in the DNA itself of the cell, that is to

say, the activation of specific endonucleases which break up the DNA, acting at the level of nucleosomic sites which make up the primary structural unit of the nuclear chromatin of the cell (SEE also:*Emodine-Aloe*). But, in this case, they are extraneous molecules which interfere with the integrity of the membrane of the *lysosomes*, and not with the DNA structure, as for example in the case of the berries of *Pittosporum tobira* and *Chamerops excelsa* ([84]).

Chapter 6.a : the plants

Another form of apoptosis was discovered by a Japanese study in the case of neuroblastomas, which tend to regress when a certain amount of H-Ras protein has accumulated in cells ([1042-43])
http://www.erbeofficinali.org/dati/nacci/studi/articolo%20sul%20NONU%20(morinda%20citrifolia)%20attiva%20contro%20tumore%20al%20cervello_2.pdf

It probably occurs also in the case of glioblastomas (astrocytomas of III or IV degree of malignancy). It was observed that this kind of tumour regressed in human beings after administering plant extracts inducing the production of the same vitamin (H-Ras) in glioblastomas. ([1173])

http://www.erbeofficinali.org/dati/nacci/studi/Suicidio%20di%20cellule%20tumorali%20del%20cervello%20(glioblastomi)%20e%20del%20cancro%20gastrico%20via%20APOPTOSI-INDIPENDENTE.pdf

In the case of brain tumours, *Morinda citrifolia* extracts are particularly important ([1043]).
which induced RAS expression and caspase-independent Neuroblastoma cell death.
http://www.erbeofficinali.org/dati/nacci/studi/articolo%20sul%20NONU%20(morinda%20citrifolia)%20attiva%20contro%20tumore%20al%20cervello_2.pdf

Other plants such as *Hypericum perforatum*, *Melissa officinalis*, *Momordica carantia*, *Betula alba*, *Yucca schidigera* ([1118]) and *Gardenia species* are currently being studied ([1061])
http://www.erbeofficinali.org/dati/nacci/studi/Geniposide,%20contenuto%20nel%20frutto%20di%20Gardenia,%20fa%20suicidare%20cellule%20del%20tumore%20del%20cervello.pdf.

Alpha-Bisabolol, a sesquiterpene alcohol in Chamomile (*Matricaria chamomilla*) essential oil, could be considered as a promising inducer of apoptosis in highly malignant glioma cells ([1568])

A significant effect on the treatment of glioma was reported using Elemene which is found in small amounts in many essential oils: it prolonged quality survival time of 40 patients with glioma ([1574])
(Tan P.: *Clinical study on treatment of 40 cases of malignant brain tumor by Elemene emulsion injection*, Chin. J. Integ. Trad. Western Med, 20, pp.: 645-648, 2000) http://www.mednat.org/cancro/cancro_cervello.pdf

Note: *Morinda citrifolia* is inhibition of angiogenic initiation and disruption of newly established human vascular ([1172]).
http://www.erbeofficinali.org/dati/nacci/studi/articolo%20sul%20NONU%20(morinda%20citrifolia)%20attiva%20contro%20tumore%20al%20cervello_1.pdf

The author therefore prefers to use the term *Pseudo-Apoptosis*, to better differentiate this mechanism from *Apoptosis* proper, as described above.

One particular aspect concerns medicines, phyto-medicines, vitamin substances or minerals, or of other types, which have a selective anti-tumoral action on cancer cells alone, by means of inducing apoptosis or pseudo-apoptosis like (from: http://www.erbeofficinali.org/dati/nacci/allpdf.php)

The cruciferous vegetables ([809])
http://www.erbeofficinali.org/dati/nacci/studi/INDOLI%20e%20ISOTIOCIANATI%20delle%20crucifere%20o%20%20brassicacee.pdf

Glucosinolates ([1137]) http://www.erbeofficinali.org/dati/nacci/studi/Glucosinolati.pdf

Volatile isoprenoid constituents of fruit, vegetables and herbs, for leukaemia and melanoma ([1141])
http://www.erbeofficinali.org/dati/nacci/studi/TATMAN%20(%20ARTICOLO%SUGLI%20%20ISOPRENOIDI).pdf

Bioflavonoids for Leukaemia ([1130]) http://www.erbeofficinali.org/dati/nacci/studi/azione%20di%20anti-leucemia%20dei%20bioflavonoidi_2.pdf

Baicalin and Baicalein ([718, 1563,1564]).

Quercetin for Leukaemia ([1146, 1561])
http://www.erbeofficinali.org/dati/nacci/studi/Quercitina%20apoptosi%20su%20LEUCEMIA.pdf)

Quercetin for oral cancer ([1370]) http://www.erbeofficinali.org/dati/nacci/studi/quercetina.pdf

Quercetin for oesophageal adenocarcinoma ([1560]) and colonrectal cancer ([1562])

Limonene induces the formation of apoptotic bodies on BCG-823 gastric cancer cells in a dose-and time –dependent manner ([1565]) and induced significant reductions of hepatocellular carcinomas ([1566]). Limonene showed anti-angiogenic and pro-apoptotic effects on human gastric cancer implanted in nude mice, thus inhibiting tumor growth and metastasis ([1577]).

Essential oil of lemon balm (*Melissa officinalis*) was found to be effective against a series of human cancer cell lines ([1567]).

Artemisia annua induced apoptosis of hepatocarcinoma (Li Y.: *Induction of apoptosis of cultured hepatocarcinoma cell by essential oil of Artemisia annua* ([1569])

Eucalyptol (*Eucalyptus globules*, *Elettaria cardamomum*) on human leukaemia HL-60 cells showed induction of apoptosis ([1570])

The essential oil of *Melaleuca alternifolia* and its major monoterpene alcohol (terpinen 4-ol) were able to induce caspase – dependent apoptosis in human melanoma cells ([1571]).
http://www.erbeofficinali.org/dati/nacci/studi/terpenoide%20di%20olio%20di%20Melaleuca%20alternifolia%20induce%20apoptosi%20su%20MELANOMA.pdf

The essential oil of *Tetraclinis articulate* (conifer tree) showed the hallmarks of apoptosis when tested on a number of human cancer cell lines including melanoma, breast and ovarian cancer in addition to peripheral blood lymphocytes ([1572])

Cudrania tricuspidata induces apoptosis in human leukaemia ([1573])

Pomegranate seed oil (*Punica granatum*) contains a coniugated trienoic fatty acid as a principal ingredient, which can induce apoptosis in several cancer cell ([1576])

Alisma plantago acquatica induces apoptosis in human acute lymphoblastic leukaemia and human fibrosarcoma ([1559-1600]) http://www.erbeofficinali.org/dati/nacci/studi/ALISMA%20PLANTAGO-AQUATICA.pdf

Ellipticine of *Ochrosia elliptica* for breast cancer ([1135])
http://www.erbeofficinali.org/dati/nacci/studi/Ocrosia%20elliptica%20induce%20apoptosi%20su%20cancro%20della%20mammella.pdf

Carnosic acid ([712]).

Diosmin (as *Tribulus terrestris*) induce apoptosis on osteosarcoma ([1134])
http://www.erbeofficinali.org/dati/nacci/studi/DIOSGENINA%20fa%20suicidare%20cellule%20dell'OSTEOSARCOMA.pdf

Betulinic acid for melanoma, neuroblastoma, leukaemia, malignant brain-tumors ([1036-1041, 1127,1128,1166, 1603]) http://www.erbeofficinali.org/dati/nacci/studi/betulla_1.pdf
http://www.erbeofficinali.org/dati/nacci/studi/betulla_2.pdf http://www.erbeofficinali.org/dati/nacci/studi/betulla_3.pdf)
http://www.erbeofficinali.org/dati/nacci/studi/Acido%20betulinico%20induce%20apoptosi%20su%20tumori%20neuroectodermali.pdf

Mimosa species ([1142]) http://www.erbeofficinali.org/dati/nacci/studi/MIMOSA%20fa%20suicidare%20cellule%20tumorali.pdf

The berries of *Pittosporum tobira* and *Chamerops excelsa* ([84]).

Emodine-aloe ([333,487,715]) http://www.erbeofficinali.org/dati/nacci/allpdf.php
http://www.aloearborescens.tripod.com/studi.htm

Flavonoids ([1122]) http://www.erbeofficinali.org/dati/nacci/studi/Flavonoidi%20promettenti%20agenti%20anticancro.pdf

Catechin ([1123,1186]),

Vitamins A, D and E (SEE chap.3).

Citrus limonum ([693])
http://www.erbeofficinali.org/dati/nacci/FLAVONOIDI%20contenuti%20nel%20Limone20%provocano%20APOPTOSI.pdf

Allium sativum ([694,696,1369]) http://www.erbeofficinali.org/dati/nacci/studi/aglio_provoca_apoptosi_del_cancro_del_polmone.pdf
http://www.erbeofficinali.org/dati/nacci/studi/AGLIO%20provoca%20apoptosi%20in%20cancro%20della%20PROSTATA_2.pdf ;
http://www.erbeofficinali.org/dati/nacci/studi/aglio%20induce%20apoptosi%20sulla%20leucemia%20mieloide%20cronica.htm
http://www.erbeofficinali.org/dati/nacci/studi/DIFFERENZA%20fra%20ALLINASI%20di%20AGLIO%20FRESCO%20ed%estratto.pdf

Rosmarinus officinalis ([1062]).

Sutherlandia frutescens ([1147]) http://www.erbeofficinali.org/dati/nacci/studi/sutherlandia%20frutescens.pdf
Uncaria tomentosa and *Uncaria guianensis* ([714, 1606]) http://www.erbeofficinali.org/dati/nacci/studi/Uncaria_species.pdf
http://www.erbeofficinali.org/dati/nacci/studi/Uncaria_species%20azione%20antiproliferativa%20degli%20acidi%20uncarinici%20di%20Uncaria.pdf

Acacetin ([1165])
http://www.erbeofficinali.org/dati/nacci/studi/ACACETINA%20induce%20APOPTOSI%20su%20cancro%20del%20fegato.pdf
Two bioflavonoids (Apigenin and Quercetin) inhibit metastatic potential of melanoma ([1609])

http://www.erbeofficinali.org/dati/nacci/studi/allpdf.php
The metanolic extract of the flowers of *Hypericum perforatum*, *Vaccinium vitis idaea*, *Bacopa monnieri* ([640]),

Various flavenoids (Wagonin, Fisetin) for human hepatic-carcinoma ([713]).

Capsicum frutescens, fasciculatum or *annuum* on leukaemia and prostate cancer ([1351,1598])
http://www.erbeofficinali.org/dati/nacci/studi/peperoncino%20efficace%20su%20leucemia.pdf)

http://www.erbeofficinali.org/dati/nacci/studi/Capsaicina%20(peperoncino)%20induce%20APOPTOSI%20in%20cellule%20del%20cancro%20della%20prostata%20sia%20androgeno-positive%20che%20androgeno-negative.pdf

Curcumina induce apoptosis in lung cancer ([1133])
http://www.erbeofficinali.org/dati/nacci/studi/curcuma%20provoca%20APOPTOSI%20(SUICIDIO)%20di%20cellule%20del%20cancro%20del%20polmone.pdf

It's in *Curcuma longa* and *Curcuma zedoaria* , currently under experiment in vitro only on leukaemia [[690]], but already mentioned by Castore Durante even in 1617; *inhibition of metastases* ([1161]).

Many other plants, still being studied to verify their possible toxicity according to dosage, such as: *Thalictrum acutifolium* for lung cancer ([711]).

Sophora flavescens for leukaemia ([716])
http://www.erbeofficinali.org/dati/nacci/studi/Sophora%20flavescens%20induce%20apoptosi%20su%20leucemia.htm

Hibiscus sabdaiffa, experimented in vitro only on human leukaemia ([692]),
http://www.erbeofficinali.org/dati/nacci/studi/ibisco_induce_apoptosi_su_leucemia_e_retinoblastoma.pdf

Ursolic acid([700])
http://www.erbeofficinali.org/dati/nacci/studi/Acido%20ursolico%20(Asparago)%20induce%20apoptosi.htm

Altholactone induced apoptosis on leukaemia ([1125])
http://www.erbeofficinali.org/dati/nacci/studi/altolactone%20induce%20apoptosi%20su%20leucemia.pdf

Elemene (*Curcuma zedoaria* and another plants), induced apoptosis in leukaemia ([1409]).
http://www.erbeofficinali.org/dati/nacci/studi/elemene_zedoaria_provoca_apoptosi_nella_leucemia.pdf

Organic Germanium on lung cancer ([269])
http://www.erbeofficinali.org/dati/nacci/studi/Germanium%20132%20un%20caso%20clinico%20di%20cancro%20polmonare.pdf

Carotenoids induced apoptosis in prostate cancer ([1366])
http://www.erbeofficinali.org/dati/nacci/studi/carotenoidi%20sono%20fattori%20attivi%20contro%20il%20cancro%20della%20prostata.pdf

Cianidine 3-Glucoside and Peonidine 3-Glucoside induced apoptosis on cancer ([1368])
http://www.erbeofficinali.org/dati/nacci/studi/Riso%20indiano%20(CIANIDINE)%20inducono%20APOPTOSI%20su%20cellule%20del%20cancro.pdf

Flavonoids and Isoflavonoids ([1129]) http://www.erbeofficinali.org/dati/nacci/studi/azione%20di%20anti-leucemia%20dei%20bioflavonoidi_1.pdf ,

Alkaloides of *Gelsemium sempervirens* induced apoptosis on liver cancer ([699])
http://www.erbeofficinali.org/dati/nacci/studi/alcaloidi%20del%20Gelsemio%20inducono%20apoptosi%20su%20cellule%20tumorali.htm

Essential oils of plants induced apoptosis on cancer and leukaemia ([1371])
http://www.erbeofficinali.org/dati/nacci/studi/gli%20olii%20essenziali%20.pdf

Manganese Superoxide Dismutasis induced apoptosis on mesotelioma ([1365])
http://www.erbeofficinali.org/dati/nacci/studi/Manganese-Superossido%20Desmutasi-%20apoptosi%20del%20mesotelioma%20pleurico.pdf

Curcumina and Quercitina induced apoptosis on adenoma ([1410])
http://www.erbeofficinali.org/dati/nacci/studi/cipolla%20e%20curcuma%20efficaci%20contro%20i%20polipi%20precancerosi%20dell'intestino.pdf

Curcumina and Isothiocyanates (PEITC) induced apoptosis on prostate cancer ([1352])

http://www.erbeofficinali.org/dati/nacci/studi/curcuma%20longa%20e%20isotiocianati%20(Crucifere).pdf

Pereskia bleo for breast cancer ([1144])
http://www.erbeofficinali.org/dati/nacci/studi/PERESKIA%20induce%20apoptosi%20su%20cancro%20della%20mammella.pdf

Panax ginseng ([1170,1171])
http://www.erbeofficinali.org/dati/nacci/studi/GINSENG/%20pianta%20che%20induce%20apoptosi%20su%20molti%20tumori%20maligni_1.pdf
http://www.erbeofficinali.org/dati/nacci/studi/GINSENG/%20pianta%20che%20induce%20apoptosi%20su%20molti%20tumori%20maligni_2.pdf

Resveratrol ([1162]) in the *Polygonum cuspidatum*, *Vitis vinifera* and in *Yucca schidigera* [1118] which is characterized by its apoptotic activity p53-dependent on Melanoma, by depolarizing mitochondrial membranes (activating Caspase-9) in Acute Leukaemia ([1121,1148,1605]), in the Breast cancer ([1608]) and also its anti-angiogenese properties ([695])
http://www.erbeofficinali.org/dati/nacci/studi/resveratrolo_2.pdf
http://www.erbeofficinali.org/dati/nacci/studi/resveratrolo%20induce%20apoptosi%20su%20melanoma.pdf
http://www.erbeofficinali.org/dati/nacci/studi/resveratrolo_1.pdf
http://www.erbeofficinali.org/dati/nacci/studi/Resveratrolo%20induce%20apoptosi%20sulla%20Leucemia.pdf
http://www.erbeofficinali.org/dati/nacci/studi/allpdf.php

Gordonia axillaris, tested on human tumors ([698]) http://www.erbeofficinali.org/dati/nacci/studi/camellina%20B_(english).pdf

The rhizome of *Atractylodes ovata* tested on leukaemia ([704]).

Solanum lyratum for cancer of the liver ([705])
http://www.erbeofficinali.org/dati/nacci/studi/apoptosi%20di%20cancro%del%20fegato%20con%20varie%20piante%20cinesi_1.pdf

Lepidozamia peroffskyana ([1044]).

Boswellia carterii tested on leukaemia ([704]).

Drinaria fortunei which has proven effective against human osteoclast ([717]), and according to the author should be tried on osteolithic bone metastasis or Multiple Myeloma.

Phyllanthus urinaria against lung cancer ([720])
http://www.erbeofficinali.org/dati/nacci/studi/PHYLLATHUS%20provoca%20APOPTOSI%20su%20tumori.pdf

Salvia miltiorrhiza is still being evaluated for its possible toxic effects (Tujone), but apoptosis on epatocarcinoma ([708,1115,1116]) http://www.erbeofficinali.org/dati/nacci/studi/salvia%20%20induce%20apoptosi%20su%20tumori.pdf and Leukaemia ([1575])

Camellia sinensis ([173,1123,1124, 1159, 1160,1164,1186]) http://www.erbeofficinali.org/dati/nacci/studi/the%20verde_2.pdf
http://www.erbeofficinali.org/dati/nacci/studi/the%20verde_3.pdf

Tartary buckwheat flavonoid activates caspase 3 and induces apoptosis in cancer ([1064]).

Zingiber officinale (6-paradol) activates caspase 3 ([1143])
http://www.erbeofficinali.org/dati/nacci/studi/Zenzero%20induce%20APOPTOSI%20su%20LEUCEMIA%20con%206-paradolo%20e%206-gingerolo.pdf

Sesquiterpene lactone parthenolide, the principal active component in medicinal plants (es.: *Tanacetum parthenium*), induced apoptosis in toumors, depletion of Glutathione, generation of reactive oxygen species, activation of Caspases 7,8,9, overexpression of GADD153, an anticancer agent inducibile gene, and subsequent apoptotic cell death. ([701])

http://www.erbeofficinali.org/dati/nacci/studi/PARTENOLIDE%20induce%20APOPTOSI%20su%20diversi%20tipi%20di%20tumori%20maligno.pdf

Goniothalamin of *Goniothalamus species* ([1138,1139])
http://www.erbeofficinali.org/dati/nacci/GONIOTALAMINA%20induce%20APOPTOSI%20su%20cellule%20della%20LEUCEMIA_1.pdf
http://www.erbeofficinali.org/dati/nacci/GONIOTALAMINA%20induce%20APOPTOSI%20su%20cellule%20della%20LEUCEMIA_2.pdf

Boswellic acid induces apoptosis in metastatic melanoma and fibrosarcoma ([1131])
http://www.erbeofficinali.org/dati/nacci/studi/acido%20boswellico%20induce%20apoptosi%20su%20cellule%20del%20melanoma%20e%20del%20fibrosarcoma.pdf

Citrus species induced apoptosis in cancer, with beta Cryptoxanthin and Hesperidin ([1063])
http://www.erbeofficinali.org/dati/nacci/studi/Ciproxantina%20e%20Esperidina.pdf

In Calabria (Italy) *Citrus aurantium bergamia* (Bergamot orange) is being cultivated.

In the following work, many food plants included in the diet of several people and having advantageous medical properties are reported ([1149-1153]).

Spinaches also have effects on papillomas ([1154])
http://www.erbeofficinali.org/dati/nacci/studi/spinaci%20sono%20efficaci%20su%20papillomi_(english).php

Equally important is organic Selenium ([1155])
http://www.erbeofficinali.org/dati/nacci/studi/Selenio%20induce%20APOPTOSI%20su%20cellule%20del%20carcinoma.pdf

Alpinia oxyphylla (Zingiberaceae) in human promielocytic leukaemia ([1156])
http://www.erbeofficinali.org/dati/nacci/studi/alpinia%20species%20induce%20apoptosi%20su%20leucemia%20promielocitica.pdf).

Another process of apoptosis induced by woodfordin I in human leukaemia K562 cells ([1157])
http://www.erbeofficinali.org/dati/nacci/studi/EPILOBIO%20Chamaenerion%20angustifolium%20(woodfordin%201)%20induce%20apoptosi%20su%20leucemia.pdf

Chlorophyllin and chlorophyll are modulation of apoptosis ([1158])
http://www.erbeofficinali.org/dati/nacci/studi/clorofilla%20e%20clorofillina%20inducono%20APOPTOSI.pdf

Pentacyclic triterpenes from *Chrysobalanaceae species* have cytotoxicity on leukaemia ([1167]).

Inhibition of human breast cancer growth by Genistein ([1168])
http://www.erbeofficinali.org/dati/nacci/studi/GENISTEINA%20fa%20suicidare%20cellule%20del%20cancro%20della%20mammella.pdf

Several major ingredients of Chinese herbal medicines are under study in human hepatoma ([1169]).
http://www.erbeofficinali.org/dati/nacci/studi/apoptosi%20di%20cancro%del%20fegato%20con%20varie%20piante%20cinesi_2.pdf

Anche l'alcool perillico induce apoptosi di tumori, sia cancri che leucemie ([1556-1559])
http://www.erbeofficinali.org/dati/nacci/studi/Perillyl%20alcohol%20(Monoterpene)%20against%20cancer.pdf)
http://www.erbeofficinali.org/dati/nacci/studi/Perillyl%20alcohol%20(Monoterpene)%20induces%20APOPTOSIS%20on%20CARCINOMA.pdf)
http://www.erbeofficinali.org/dati/nacci/studi/Perillyl%20alcohol%20inhibits%20human%20breast%20cancer.pdf)
http://www.erbeofficinali.org/dati/nacci/studi/Anti-leukaemia%20effects%20of%20Perillyl%20alcohol.pdf)

Anche l'estratto di radice di *Solanum dulcamara* ha dimostrato di provocare apoptosi nelle cellule del cancro della prostata e delle sue metastasi ([1655])
http://www.erbeofficinali.org/dati/nacci/studi/Dulcamara%20solanacea%20induce%20apoptosi%20nel%20cancro%20della%20prostata.pdf

Fra i tanti Indoli, è da ricordare la Glucobrassicina, contenuta nelle Brassicacee, che determina apoptosi nel cancro della mammella. In particolare, essa è contenuta nella *Isatis tintoria* ([1656])

http://www.erbeofficinali.org/dati/nacci/studi/Isatis%20tinctoria%20(glucobrassicina)%20induce%20apoptosi%20nel%20cancro.pdf

Many other plants exist, and have been collected in particular extracts for therapeutic use, not only as plants with potential apoptotic and pseudo apoptotic use but also as immune stimulating plants (chap.9) and/or with an anti-oxidative action (SEE chap.3).

On the basis of recent discoveries about the apoptotic induction of the seeds of *Momordica charantia* ([639]), particular interest is currently being shown to the seeds of other plants such as *Helianthus annuus* (sunflower); *Citrus paradisi* (grapefruit); *Cucumis melo* (melon); *Cucumis sativus* (cucumber); *Citrullus vulgaris* (water melon, red melon); *Solanum lycopersicum* (tomato); *Solanum melongena* (aubergine/eggplant); *Rubus idaeus* (raspberry); *Actinidia chinensis* (kiwi); *Citrus aurantium* (orange) and *Vitis vinifera.*

A matter of grave concern is that large GMO seed firms are putting on the global agricultural market fruits with no seeds inside, in particular the following: *Cucumis melo*, *Citrus limonum*, *Citrullus vulgaris*, *Solanum lycopersicum*, *Vitis vinifera*.

Seeds are deemed significant anti-cancer agents essentially because they contain the well-known vitamin B17 (SEE chapter 7).

Another modifications are: GMO-*Brassica rapa* (turnip, [968]), GMO-*Brassica oleracea botrytis* (cauliflower,[968]), *Prunus domestica* ([1013]), *Citrus paradisi* ([1014]),etc….

Pueraria species induced apoptosis on human toumors for the contents of Antocyanin (apoptosis on toumors) but the contents of Antocyanin of the Pueraria GMO were dramatically decreased by 40% ([1119]) http://www.mednat.org/alimentazione/PUERARIA.pdf)
It is a particularly serious thing to try to genetically modify *Allium sativum* (Cultivated garlic) and *Allum cepa* (Garden onion) because these plants contain particularly precious anti-cancer substances (SEE chapter 3).

Recently, also *Solanum Lycopersicum* (tomato) has been made a target for the introduction of GMO: in particular the gene of the *Solanum pennellii* has been introduced, thus determining an increased level of glycemia in this food, causing a further risk in cancer patients and those with diabetes.

The author of this work, dr. Giuseppe Nacci, thinks that genetic modification of plants (GM plants) is an unacceptable damage for human health, not only for the subtraction of vitamin B17 in human feeding, but also of many other vitamins that have an apoptotic activity.

The question that was asked was thus the following: is it possible that chemo-pharmaceutical multinationals, that is, those producing drugs for CHEMO-THERAPY, want to destroy the natural heritage of hundreds of anti-tumour vitamins contained in fruit and vegetables so that, in the next decades, they can "*cancel out the competition of alternative therapies*" thus making CHEMO-THERAPY the only possible therapy against cancer?

Even though the issue can seem complex, I would like to focus on the following data: the wicked alliance between GMO Multinationals and Chemo-pharmaceutical Multinationals.

Chapter 6.b.: The perverse alliance of the agro-industrial and chemical-pharmaceutical Multinationals

1) Agro-industrial Multinationals (OGM)

For some years we have been witnessing the birth of multinationals which define themselves as "*science of life multinationals*", which are active in the pharmaceutical market, agri-business (seeds and pesticides) and the veterinary business. They are, in themselves, different sectors, but they are linked by the use of biotechnology (GMO) to produce their products. These multinationals are using unscrupulous and aggressive economic strategies: since the beginning of the 90s they have been working towards buying companies, even large companies.
One of these, *Monsanto*, within the space of a few years has acquired *Asgrov, Agracetus, De Calb,* and *Cargill* investing 10 billion Euros.
Another big group, *Dupont*, has acquired *Pioneer*, investing about 8 billion Euros.
These investments do not seem to have any economic logic: they pay much more for the companies than their actual value, as if they were trying to eliminate a potential competitor rather than obtain a short term economic result.
Alongside the acquisitions we also have the mergers: *Ciba Geigy* and *Sandoz* created *Novartis* (with a turnover of 20 billion Euros in the year 1997-98).

From the merger of the French company *Rhone Poulenc* and the German company *Hoechst* we have the new company *Aventis.*
Still within this context, *Syngenta*, the first worldwide agrochemical group was founded in October 2000. It is the result of a merger between the Swiss company *Novartis* (a company well-known for producing medicines for chemotherapy) and the Anglo-Swedish company *Astra-Zeneca* (a company also well-known for producing medicines for chemotherapy), and will have a turnover of about 8 billion euros. *Monsanto*, after its merger with *Pharmacia & Upjohn*, a large pharmaceutical industry (this too is well-known as a producer of medicines for chemotherapy) now concerns itself only with agriculture, with a turnover which in 2000 reached 5.5 billion dollars.

The current situation stands thus: a few multinationals (*Syngenta, Monsanto, Novartis, Dupont* and *Aventis*) have 25-30% of the seed market (but more than 90% of the transgenic seed market) and behind these big groups there is a plethora of smaller companies which makes one think that this trend can only get stronger in the future, since medium size companies cannot compete with these big groups. The objective seems clear: to convert the traditional seed market into a biotechnical one (that is, GMO). But the worrying fact is that we find the same names in the field of pesticides, where the same companies control 55% of the market, and in the pharmaceutical field where the same companies play a dominant role.

2) Chemical-pharmaceutical Multinationals (Big-Farma)

The history of the chemical-pharmaceutical multinationals is incredible because of their rapid development, and today they are connected to the agro-industrial sector in an extremely dangerous way.
The chemical-pharmaceutical industry started in Europe in the second half of the nineteenth century: in many cases they were dyeing industries which, moving away from basic chemistry, moved towards the new and more promising fields of specialized chemistry in key economic fields.

Before the Second World War, a powerful international pharmaceutical cartel developed in Germany. It controlled global pharmaceutical companies and chemical plants and was active in 93 countries, representing a powerful economic and political force in each of them. It was known as I.G. Farben. It would become the main supporter of Hitler's chemical production during the years of war, offering products such as high explosives, toxic gases and the ignominious *Zyklon-B*, the lethal substance used by Nazis in the death camps. In 1928, however, before the outbreak of war, the American monopolist manufacturer John D. Rockfeller had merged his international empire in America with I.G. Farben, creating the largest and most powerful pharmaceutical cartel ever seen.

The Military Nuremberg Tribunal established in 1946/47 that the Second World War would not have taken place without this petrochemical cartel called I.G. Farben. As a consequence of the sentence passed by the Tribunal, I.G. Farben was divided into Bayern, BASF and Hoechst, and some executives were condemned for initiating a war against international law, genocide, the exploitation and looting of private and public properties in foreign countries and other crimes against humanity.
The events leading to the war and linked to this powerful cartel are reported in Joseph Borkin's *The Crime and Punishment of IG Farben*.

After the war, Germany, with its three large companies *Bayer, Hoechst* and *BASF* (which encouraged the rise of Hitler's national socialism), played an important role. So did Switzerland, which, in Basle, saw the founding and the development of companies *Ciba, Sandoz* and *Roche* – all of which later spread throughout the world.
But it was in the 1990s that the really big mergers started: in 1989, in the United Kingdom two big pharmaceutical companies merged to form *Smith Kline – Beecham*: later they merged with *American Home* (with an annual turnover of about 25 billion Euros).
In 1993 the Swedish company *Pharmacia* bought the Italian company *Farmitalia-Carlo Erba,* then it merged with the American company *Upjohn* in 1995, and then again with *Monsanto,* before being bought by *Pfizer* which had previously bought the American company *Parke Davis.*
In 1995 there was the *Glaxo-Wellcome* merger (with an annual turnover of about 14 billion Euros).
In 1998 *Smith-Kline-Beecham* (with an annual turnover of 62 billion Euros) merged with *Glaxo-Wellcome* (with an annual turnover of about 90 billion Euros) to make an annual turnover of more than 150 billion Euros.
In the meantime the English company *Imperial Chemical Industries* merged with the Swedish company *Astra,* forming the company *Astra-Zeneca.*
These mergers have continued among the same companies operating in the same field: *Santoz* and *Ciba Geigy* (*Novartis,* 1996), *Astra-Zeneca* (1998).

Their turnovers are in the range of the GDP (Gross Domestic Product) of many western countries. These huge companies have not been founded for the good of the patient but out of the need to create monopolies and hence ever bigger profits.

Latest data:

June 2002 : Bayer Company to acquire *Aventis, Inc*

June 2002: *Aventis* was taken over by *Bayer*. This allowed *Bayer* to enter the sector of GMO seeds. The merger brought to the foundation of *Bayer CropScience*, which is composed of three main commercial groups: *Crop Protection, Bio Science* and *Environmental Science*.

June 2005: *Sementis* was taken over by *Monsanto*.

ST. Louis, Jan. 24, 2005: *Monsanto* Company to acquire *Seminis, Inc.*, a leading Vegetable and Fruit Seed Company.

ST. Louis (Jan. 24, 2005). *Monsanto Company* announced today that it signed a definitive agreement to acquire *Seminis, Inc.*, for $ 1,4 billion in cash and assumed debt, plus a performance-based payment of up to $ 125 million payable by the end of fiscal year 2007.

"…The addition of *Seminis* will be an excellent fit for our company as global production of vegetables and fruits, and the trend toward healthier diets, has been growing steadily over the past several years, " said Hugh Grant, chairman, president and chief executive officer of Monsanto. "*Seminis* is uniquely positioned to capitalize on this fast-growing segment of agriculture, and the acquisition likewise expands *Monsanto*'s ability to grow. We look forward to furthering the growth and leadership position established by Alfonso Romo and his team as the *Seminis* business is an important extension to our agricultural seeds platform…"

Seminis is the global leader in the vegetable and fruit seed industry and their brands are among the most recognized in the vegetable-and-fruit segment of agriculture. *Seminis* supplies more than 3,500 seed varieties to commercial fruit and vegetable growers, dealers, distributors and wholesalers in more than 150 countries around the world.

In addition to *Seminis* leading presence in the vegetable and fruit seed industry, which is expected to contribute to *Monsanto*'s financial results in the near-term, *Monsanto* management sees additional benefits longer term. From a technology perspective, *Monsanto* intends to continue on the path taken by *Seminis* for its business which is to focus on developing products via advanced breeding techniques. Longer term, biotechnology applications could be an option, and will be evaluated in the context of *Monsanto*'s research-and-development priorities and potential commercial business opportunities.

The perverse alliance

One can thus affirm that the two cardinal points of the economy and the life of the individual, agriculture and pharmaceuticals, are substantially under the control of a few multinational groups.

We are faced with a choice: accepting biochemical modifications of plants leading to immense damage to human health or taking a stand together with the democratic institutions of our society against GMO and chemo-pharmaceutical multinationals, which in their perverse alliance are responsible for the reckless invasion of GMOs all over the world.

Chapter 6.c

Since these anti-neoplastic effects (apoptosis and pseudo-apoptosis) are released by immune action, as described above (chap.6.1), and since this biochemical action is partially reminiscent of traditional Chemo-Therapy, that is, the simple administering of drugs either orally or intravenously, but in this case with no serious side effects on the rest of the organism (and particularly on the immune defenses of the patient), these new substances, according to the author, can be catalogued as drugs with a *biochemotherapy* action.
It is not yet known exactly if there is a mechanism to induce apoptosis or pseudo-apoptosis in human tumors using the following plants: *Ochrosia elliptica* for breast cancer, *Pereskia bleo*, *Urtica diotica* and *Lamium album* for tumors of the stomach, tumors in female genitalia, lymphomas and leukaemia; *Acalypha indica* for lung tumors; *Malva sivestris* or *vulgaris* for tumors of the larynx; *Cetraria islandica* for melanoma, bone sarcoma and different types of carcinoma; Resveratrol for melanoma, *Epilobium parviflorum* and *Copaifera officinalis* for tumors of the prostate and the bladder; *Epilobium angustifolium* or *Solanum paniculatum* for tumors of the uterus; the bark of *Betula alba* (birch) for melanoma (betulinic acid); *Salvia officinalis* for lymphomas, leukaemia, epatocarcinoma, and carcinomas of the pancreas, (it is, however, counter indicated for breast tumors); *Mimosa species, Gardenia jasminoides, Quercus robur*, *Betula alba*, *Morinda citrifolia*, *Lepidozamia peroffskyana, Melissa monarda* and *Melissa officinalis* for glioma; *Asparagus racemosus* for human skin carcinoma and carcinoma of the nasopharynx; *Sticta pulmonaria* or *Lobaria pulmonaria, Glechoma hederaceum* for melanoma, bone sarcoma and different types of carcinoma; *Euspongia officinalis* for lymphomas; *Acorus calamus* for gastro-intestinal carcinoma; *Rumex acetosa* for gastric carcinoma; *Equisetum arvense* for lymphoma, leukaemia and pancreatic carcinoma; for tumors of the lungs, kidney and bladder; *Chimaphila umbellata* for tumors in both the male and female genital areas; *Galium aparine* for carcinoma of the tongue; *Lysimachia nummularia, Artemisia absinthium* for gastro-intestinal carcinoma; *Phyllantus niruri* or *Artemisia abrotanum* for peritoneal carcinosis from gastro-intestinal tumors; *Marrubium vulgare* for breast tumors, *Plantago major* for melanoma, bone sarcoma and different types of carcinoma; *Alchimilla alpina* and *vulgaris* for carcinoma of the female genital area; *Meum mutellina* for melanoma, bone sarcoma and different types of carcinomas; *Bacopa monnieri* for sarcomas; *Cerastium alpinum* for carcinoma of the breast and lungs; *Primula veris* or *officinalis* for lung tumors; *Scutellaria baicalensis* o *latiflora* for lung tumors, *Gentiana germanica* for breast carcinoma; *Ailanthus glandulosa* for tumors of the head and neck; *Nelumbo nucifera* for carcinoma of the stomach, *Cissampelos pareira* per carcinoma and leukaemia, *Pimpinella major* and *saxifraga* for carcinomas of the oral cavity, the neck and the larynx; *Mormordica charantia* against leukaemia, *Antennaria dioica* for lung carcinoma; *Gnafalium supinum* or *Erythrina mulungu* for carcinoma of the stomach, *Asparagus cochinensis* for tumors of the breast and of the lungs, *Verbascum thapsus* or *densiflorum* for melanoma, bone sarcoma and different types of carcinoma; *Lapsana communis* for tumors of the breast (hypothesized); *Erythroxylum catuaba* for melanoma; the flowers of *Trigonella foenum graecum* (only in an infusion) for lymphoma, leukaemia and pancreatic carcinoma; *Maytenus illicifolia* for cancer and leukaemia, *Antyllis alpestris* for lung carcinoma, *Cerastium alpinum* for carcinoma of the stomach; *Sida cordifolia* for leukaemia, sarcoma and carcinoma of the nasopharynx; *Erithrea antaurium* or *Boerhaavia diffusa* for gastro-intestinal carcinoma; *Houttuynia cordata* for lung carcinoma, *Inesinae calea* for carcinoma and leukaemia; *Maytenus krukovit* for melanoma; *Physalis angulata* aut *Muehenbeckia volcanica* for leukaemia and testicules tumors, *Sempervivum montanum* for leukaemia and lymphomas; *Cayaponia tayuya* for sarcomas, *Pfaffia paniculata* per cancer and leukaemia, *Serenoa repens* for carcinoma of the prostate; *Uncaria tomentosa* for some types of leukaemia; *Pedicularis rostrato-capitata* for carcinoma of the breast; *Marasdenia cundurango* for gastric carcinoma; *Primula hirsuta* for carcinoma of the breast; *Saxifraga oppositifolia* for carcinoma of the breast, the uterus and for leukaemia, *Alpinia oxyphylla* for leukaemia, *Cupressus lusitanica*, *Argyreia speciosa* (or *Lettsomia*

nervosa), *Aquilaria agallocha*, *Hypericum richeri*, *Grindelia camporum* or *squarrosa*, *Althaea officinalis*, *Argemone mexicana*, *Cinnamomum zeylanicum*, *Myroxylon balsamum*, *Saxifraga aizoides*, *Mahonia aquifolium*, *Pulmonaria angustifolia* or *officinalis*, *Bambusa arundinacea*, *Peucedanum ostruthium*, *Rubia cordifolia*, *tinctorium* or *peregrina*, *Draba aizoides*, *Campanula latifolia*, *Polygala senega*, *Smilax sarsaparilla* or *utilis*, *Citrullus colocynthis*, *Albizzia lebbek*, *Celastrus scadens*, *Myrica cerifera*, *Nepeta cataria*, *Taraxacum officinalis*, *Galphimia glauca*, *Adiantum capillus veneris*, *Drosera rotundifolia*, or *anglica*, or *intermedia*, *Annona squamosa*, *Thymus serpillum*, *Sysymbrium officinale*, *Larrea mexicana*, *Aralia racemosa*, *Actinidia chinensis*, *Crocus sativus*, *Buxus sempervirens*, *Viola tricolor*, *Sambucus nigra*, *Laurus nobilis*, *Tephorosia purpurea*, *Myristica fragrans* and *sebifera*, *Tabebuia impetiginosa*, *Larrea divaricata*, *Eclipta alba*, *Ailantus glandulosa*, *Rosmarinus officinalis*, *Thymus vulgaris*, *Hyssopus officinalis*, *Luffa operculata*, *Apium graveolens*, *Artemisia dracunculus*, *Crataegus oxyacantha* or *monogyna*, *Chondrus crispus*, *Panax ginseng*, *Ajuga reptans*, *Ajuga piramidalis*, *Tinospora cordifolia*, *Leucanthemopsis alpina*, *Emblica officinalis*, *Moringa pterygosperma*, *Eupatorium perfoliatum*, or *purpureum*, *Glycyrrhiza glabra*, *Hieracium pilosella*, *Morinda citrifolia*, *Xantoxilum fraxineum*, *Trifolium pratensae*, *Sutherlandia frutescens*, *Arctium lappa*, *Ulmus rubra*, *Rhodiola rosea*, *Rumex crispus*, *Boswellia serrata*, *Rheum palmatum* or *officinale*, *Echinacea purpurea*, *angustifolia* or *pallida*, *Astragalus membranaceus*, *Hypoxis hemerocallidea*, *Lycopodium clavatum*, *Tribulus terrestris*, *Picramnia antidesma*, *Cassia angustifolia*, *Rhamnus sagrada* or *purshiana*, *Rhamnus frangula*, *Terminalia chebula*, *Ocimum basilicum*, *sanctum* o *tenuiflorum*, *Capparis spinosa*, *Lonicera coprifolia*, *Cardamine pratensis*, *Carpinus betulus*, *Carlina acaulis*, *Curcuma longa*, *Holarrhena antidysenterica*, *Lepidium meyenii*, *Stachys arvensis*, *Polygonum aviculare*, *Geranium robertianum*, *Myrtus communis*, *Melaleuca alternifoglia*, *Cinchona calisaya* or *succirubra*, *Azadirachta indica*, *Lepidium meyenii*, *Calendula silvestris*, *Schinus molle*, *Ilex paraguariensis*, *Cassia occidentalis*, *Cynara scolymus*, *Nerium oleander*, *Phyllanthus orbicularis*, *Zingiber officinale*, *Goniothalamus species*, *Myroxylon balsamum* or *pereirae*…..
There are about 200 other plants proposed by the author (this data is confidential).

Note : Selective inhibitions on telomere activity

Various active principles, extracted above all from plants, are currently being studied to verify their selective anti-telomere activity. It must be remembered that 90% of cancer cells have this characteristic, which healthy cells do not. In recent medical literature it has been noted that *Uncaria tomentosa* is thought to have this characteristic.
Blocking telomerase by dietary polyphenols is a major mechanism for limiting the growth of human cancer cells in vitro and in vivo ([2088]).
There are studies currently underway on extracts from plants such as *Camellia sinensis* (confidential data).

Chap. 6.d: The berries of *Pittosporum tobira* and *Chamaerops excelsa*

Concerning the anti-tumor action carried out by these plants, discovered after 30 years of research by D'Arrigo ([84]) no other studies have been found in literature.
The data obtained are significant, however, and deserve further investigation.

The advantages are the following:

1) no collateral chromosome damage on healthy cells
2) no teratogenic effect

The therapeutic doses are different between the two berries. As in the case of apoptosis induced by *Emodine-Aloe*, these two substances should be tested for all human tumors, to discover their ability to induce pseudo-apoptosis in the individual clinical case.
Furthermore their pharmo-kinetics should be studied as in the case of *Emodine-Aloe* (SEE table 4), both for oral administration, as in the case of *Emodine-Aloe*, and also for intra-parenchymal administration (I.V.).

Chap. 6.e : Limonene

Limonene, found in lemons (*Citrus limonum*), oranges (*Citrus aurantium*), juniper (*Juniperus communis*) *Foeniculum vulgare*, *Mentha pulegium*, *Mentha spicata*, *Verbena officinalis*, *Hyssopus officinalis*, and in sage (*Salvia officinalis*), induces phenomena of apoptosis in leukaemia cells ([693]).
At least 6-7 lemons a day should be taken, possibly fresh, because lemons help eliminate the acid wastes from the body, increasing the reserves of alkaline substances in the blood and helping the urinary apparatus to expel uric acids. One lemon a day should be taken in the first week, to reach 7 lemons a day by the seventh week of the treatment; this should be continued this throughout the illness until the hoped-for cure. The honey from lemon flowers is currently under evaluation. Lemon trees flower all year round, in general they have two principle flowerings which are more abundant: in April-May and in September. A lemon plant lasts 80 years, it starts producing fruit 5 years after it has been planted out and it reaches full maturity after 15 years, when it can produce as many as 200 to 600 fruits a year.
The essential oil of *Citrus limonum* is extremely nutritious both for its K-cals and for the phyto-chemicals found in it. N.B. the pressing of the oil must be done cold and without solvents.

Limonene induces the formation of apoptotic bodies on BCG-823 gastric cancer cells in a dose-and time –dependent manner ([1565]) and induced significant reductions of hepatocellular carcinomas ([1566]).
Limonene showed anti-angiogenic and pro-apoptotic effects on human gastric cancer implanted in nude mice, thus inhibiting tumor growth and metastasis ([1577]).

N.B. *Citrus aurantium bergamia* (bergamot orange) should also be investigated for its possible apoptotic properties on human cancer cells. It grows exclusively in the South of Calabria, Italy.

Chap.6.f: Elemene

Tan P.: *Clinical study on treatment of 40 cases of malignant brain tumor by Elemene emulsion injection*, Chin. J. Integ. Trad. Western Med, 20, pp.: 645-648, 2000 http://www.mednat.org/cancro/cancro_cervello.pdf

OBJECTIVE: To investigate the effect of elemene emulsion injection (EEI) in treating malignant brain tumor. METHODS: By conducting a retrospective study of 40 patients with brain tumor, 29 of malignant glioma and 11 metastatic tumor, who were treated with EEI from January 1994 to May 1998. EEI 0.4-1.2 g/d was given to each patient by intravenous dripping or/and intravenous infusion by pumps, and directly injected into carotid artery or infused through a carotid artery catheter with pumps. The total dosage of 6-12 g was given in 2-6 therapeutic courses with an interval of 1-1.5 months between courses. The effectiveness of treatment was accessed according to the changes of tumor size, Karnofsky Performance Status (KPS) and survival time of patients. The control group consisted of 29 cases of malignant brain tumor (22 of primary and 7 of metastatic) was treated with chemotherapy 2-3 therapeutic courses with an interval of 1-1.5 months between them. RESULTS: (1) In the EEI treated group the mean tumor size was changed from 6.70 cm3 (before treatment) to 2.67 cm3 (after treatment), $t = 3.02$, $P < 0.01$, it was reduced by 61%; (2) In the EEI treated group 4 cases was CR, 26 PR, the total effective rate being 75.0% (95% credibility interval +/- 13.4%), while in the control group, 2 of CR, 10 PR, and the total effective rate 41.4% (95% credibility interval +/- 17.9%), the difference between the two groups was significant, chi $2 = 3.867$, $P < 0.05$; (3) KPS decreased in the EEI group from 94.7 scores (before treatment) to 88.2 scores (after treatment), the decrement was 6.5 scores ($t = 3.5313$, $P < 0.01$); (4) The survival time in the EEI treated group was 25.4 months, and that in the control group was 17.4 months ($t = 3.74$, $P < 0.01$). CONCLUSION: Elemene has significant effect on treatment of malignant brain tumor. It could prolong the high quality survival time of patients and is worthy of further investigation.

Chap. 6.g:

Other phyto-medicines with an apoptotic or pseudo apoptotic activity

Morinda citrifolia

Also in the fruit of *Morinda citrifolia*, a shrub from equatorial Africa, South-East Asia, Polynesia and the Caribbean , known by various names (*African bumbo, Indian mulberry, morinda grandis, Lada, Mengkudo, Nhau, Nonu, Noni, Nono*) an anthraquinone has been discovered (*Damnacanthal*) which induced RAS expression and caspase-independent Neuroblastoma cell death: possible mechanism of spontaneous Neuroblastoma regression ([1042-1043]).
NOTE: *Damnacanthal* induces apoptosis in cancer cells, under the stimulation of U.V.A. ([579]) and this could be particularly useful for skin tumors, or for the treatment of internal tumors using fiber optics, after taking the concentrated juice of the fruit orally, or as an intravenous infusion of the same active principle (*Damnacanthal*), if it is pharmacologically bio-compatible for intravenous infusions.N.B. It might also inhibit cancer growth by restoring the cytoskeleton of the pre-cancerous cells ([578]). SEE PDF: Shunji Chi: *Oncogenic Ras triggers cell suicide through the activation of a caspase-independent cell death program in human cancer cells*, Oncogene, 1999, Vol. 18, No. 13, pp. 2281-2290 http://www.erbeofficinali.org/dati/nacci/allpdf.php

Abuta cissampelos (Abuta)

There is an extensive bibliography on the action of *Abuta cissampelos* ([793,810-823])
Abuta contains the alkaloid Tetrandrine, which has been documented to be an analgesic, anti-inflammatory,and bebrifuge and has recently been show to have antitumor and antileukemic properties as well. It also contains an alkaloid called Berberine, which has been documented to be hypotensive, antifungal, anti-tumorous, and antimicrobial and is used for the treatment of cardiacarrhythmia, cancer, candidiasis, diarrhea, and irritable bowel syndrome. *Abuta* contains tropoloisoquinoline alkaloids, pareirubrines A and B, which have been isolated as alkaloids with anti-leukemic properties. In clinical experiments, the bisbenzylisoquinoline alkaloids have demonstrated to be the anti-inflammatory constituents of *Abuta*: these alkaloids suppressed the production of nitric oxide, a critical mediator in inflammation, which explains some aspects of the anti-infiammatory mechanisms of *Abuta*.

Schinus molle (Brazilian peppertree)

There is an extensive bibliography on the action of *Schinus molle* ([793,830-838]).
Phytochemical analysis of *Brazilian peppertree* reveals that the plant contains tannins, alkaloids, flavonoids, steroidal saponins, sterols, terpenes, gums, resins, and essential oils.
The essential oil, present in the leaves, bark, and fruit, is a rich source of triterpenes, sesquiterpenes, and monoterpenes, including several novel ones that scientists have not seen before. Many of the plant's documented biological activities are attributed to the essential oils found in the plant. The fruit can ontain up to 5% esential oil, and the leaves can contain up to 2% essential oil.
In laboratory tests the essential oil as well as a leaf extract demonstrated good to very strong antifungal actions against numerous fungi and even *Candida* in vitro.
The essential oil and leaves have clinically demonstrated in vitro anti-bacterial and anti-microbial activity against numerous bacteria and pathogens in several studies. In much earlies in vitro tests, a leaf extract of *Schinus molle* demonstrated antiviral actions against several plant viruses and was show to be cytotoxic against 9kb cancer cells.

Maytenus ilicifolia (Espinheira santa)

There is an extensive bibliography on the action of *Maytenus ilicifolia* ([793,839-854]).
Espinheira santa contains antibiotic compounds that showed potent antitumor and antileukemic activities in vivo and in in vitro at very low dosages. Two of these compounds, Maytansine and Mayteine, were tested in cancer patients in the USA and South America in 1970s. Althhough there were some significant regressions in ovarian carcinoma and some lymphomas with Maytasine further research was not continued due to the toxicity at the dosages used.
Research with the compound Mayteine revealed little to no toxicity, and validated its uses in traditional and folk medicine for various types of skin cancers. Cancer research is still ongoing in South America with this compound. In traditional medicine today, an applicatiion of the leaves of Maytenus is employed as an ointment for treating skin cancer and a decoction is used as a wash for cancers. Although it's still used in folk medicine for various types of cancer.
It's potent anti-ulcerogenic abilities were demonstrated in a 1991 study that showed that a simple hot water extract of *Maytenus ilicifolia* leaves was as effective as two of the leading antiulcer drug, Ranitidine and Cimetidine. The same study showed that it caused an increase in volume and pH of gastric juice. Toxicological studies were also published in 1991 that demonstrated the plant's safety of use without side effects.

Guazuma ulmifolia (Mutamba)

There is an extensive bibliography on the action of *Guazuma ulmifolia* ([793,873-883]).
In the first study published, various water and alcohol *Guazuma ulmifolia* bark extracts demonstrated weak cardiac depressant and cardiotonic activity, as well as hypotensive, smooth muscle-relaxant, and uterine-stimulant activities in animal studies. Various leaf and bark extracts have clinically demonstrated in vitro antibacterial and antifungal activity against numerous pathogens in five different studies from 1987 to 1993. It also tested to have active properties against Gonorrhea in vitro in a 1995 study. A weak molloscicidal activity of the bark was documented in a 1974 study.
A Brazilian research group demonstrated that a dried leaf extract was cytotoxic against cancer cells in vitro, exhibiting a 97,3% inhibition of cell growth in a 1990 study. Some of the latest research on mutamba has focused on the antioxidants found in the bark and leaves (proanthocyanidins), and their ability to interfere with prostaglandin synthetase, a process by which bacteria and pathogens replicate.

Tabebuia impetiginosa, heptaphylla, avellanedae, rosea, serratifolia (Pau d'arco)

There is an extensive bibliography on the action of *Tabebuia* ([793,884-902]).
The chemical constituents and active ingredients of *Tabebuia* have been well documented. Its use and reported cures with various types of cancers in the early 1960s fueled much of the early research. Its anticancerous properties were first attributed to a phytochemical found in the bark and wood called Lapachol. In a 1968 study Lapachol demonstrated highly significant activity against cancerous tumors in rat. Then, in 1974, the NCI reported that Phase I clinical trials failed to produce a therapeutic effect with Lapachol without side effects and discontinued further cancer research. Another research group developed a Lapachol analog in 1975 that was effective in increasing the life span by over 80% in mice inoculated with leukaemia cells. In a small study in 1980 with nine patients with various cancers (liver, kidney, breast, prostate and cervix), pure Lapachol demonstrated an ability to shrink tumors and reduce pain caused by tumors and achieved complete remissions in three of the patients.

The Phytochemical Database housed at the U.S. Department of Agricolture has documented Lapachol as being anti-abscess, anti-carcinomic, anti-edemic, anti-inflammatory, anti-malarial, anti-septic, anti-tumor, anti-viral, bactericide, fungicide, insectifuge, pesticide, protisticide, respiradepressant, schistosomicide, termiticide, and viricide.
Besides Lapachol, *Tabebuia* contains at least 20 other active constituents that are attrbuted to its other actions. It has clearly demonstrated broad clinical applications against a large number of disease-causing micro-organisms, which hepls explains its wide array of uses in herbal medicine. Its action seems to come from increasing oxygen supply at the local level, destroying bacteria, viruses, fungi, and parasites. Its anti-microbial properties were demonstrated in several clinical trials, which it exhibited strong activity against various gram-positive bacteria and fungi, including *Candida*, *Staphylococcus*, *Trichophyton*, *Brucella*, tuberculosis(TBC), pneumonia, strep, and dysentery.
Tabebuia and its constituents have demonstrated anti-viral properties against various viruses, including *Herpes 1* and *Herpes 2*, influenza, *Poliovirus*, and Vesicular Stomatitis Virus. Its antiparasitic actions against various parasites, including malaria, *Schistosoma*, and *Trypanosoma*, have been clinically validated. Bark extracts of *Tabebuia* have demonstrated anti-inflammatory activity and have been shown to be successful against a wide range of inflammations.
Note1: in 1987 a chemical analysis of 12 commercially available *Tabebuia* products showed that only one product contained Lapachol in trace amounts.
Note2: *Tabebuia cassinoides* (Bignoninaceae): contains Lapachol of the naphthoquinone family and other naphthos and anthraquinones (as *Aloe species*), with opposite effects to Vitamin K; it has anti-bacteria, anti-mycotic and anti-virus effects. The active principles beta-Lapachone and dehydro-alpha-Lapachone have a particular tropism for neoplastic cells and block their oxidative metabolism, where it accumulates within 6 hours of administration and in very high concentrations.

Smilax officinalis (Sarsaparilla)

There is an extensive bibliography on the action of this plant ([793,910-922])
There are many species of Smilax around the world that are very similar in appearance, uses, and even chemical structure, including *Smilax officinalis*, *Smilax regeli*, *Smilax aristolochiaefolia*, *Smilax febrifuga*, *Smilax sarsapailla*, and *Smilax ornata*.
Sarsaparilla vine should not be confused with the tree Sarsaparilla, wich was once used to flavor rootbeer..
A *Smilax* root from Mexico was introduced into European medicine in 1536, where it developed a strong following as a cure for syphilis and rheumatism. Since this time, the *Smilax* genus has a long history of use for syphilis and other sexually transmitted diseases throughout the world. With its reputation as a blood purifier, it was registered as an official herb in the U.S. Pharmacopoeia as a syphilis treatment from 1820 to 1910. From the 1500s to the present, Sarsaparilla has been used as a blood purifier and general tonic and has been used all over the world for the same conditions, namelt, gout, syphilis, gonorrhea, wounds, arthritis, fevers, coughs, scrofula, hypertension, digestive disorders, psoriasis, skin diseases, and *cancer*. The therapeutic dosage is reported to be 1 to 3 g daily. In the 1950s the antibiotic properties of *Smilax* were documented. Its effective use as an adyuvant for the treatment of leprosy was documented in a human trial in 1959. Its anti-inflammatory and hepatoprotective effects have been shown in rats, and improvement of appetite and digestion as well as diuretic actions in humans have also been documented. Sarsaparilla's blood -purifyng actions were demonstrated when it exhibited the ability to attack and neutralize microbial substances in the blood stream.Sarsaparilla has been erroneously touted to contain testosterone and /or other anecbolic steroids. While it is a rich source of steroids and saponins, it has never been proven to have any anecbolic effects, nor has testosterone been found in *Smilax* or any other plant source thus far. No known toxicity or side effects have been documented for *Smilax*; however, ingestion of large dosages of saponins may cause gastro-intestinal irritation.

Alcornea castaneifolia, or *floribunda* (Iporuru)

In addition to its anti-inflammatory and pain -relieving properties, an in vitro study in Argentina found that an extract of *Alcornea* was antibacterial and effective against a penicillin G-resistant strain of *Staphylococcus aureus*, *Escherichia coli*, and *Aspergillus niger* ([923]). The anti-inflammatory properties of *Alcornea* are attributed to a group of alkaloids including Alchorneine, which are found in the bark of *Alcornea* as well as several other related species of *Alchornea* ([924]).

Artemisia species

Almost every kind of *Artemisia* (Sagebrush) contains Tuione, a toxic volatile substance. In particular, it is found in *Artemisia absinthium* (Wormwood), *Artemisia pontica* (Roman wormwood) but also in other different plants: *Salvia officinalis*, (Kitchen sage), *Thuya occidentalis* (Arborvitae), *Tanacetum vulgare* (Common tansy). Here lies the necessity of taking *Salvia officinalis* only as a herbal tea or infusion, and to substantially eliminate *Tuja occidentalis* and *Tanacetum vulgare* from the healing protocol.
But the various types of Artemisia are however useful particularly due to a substance called Artemisine: in China, a dog, which had been immobilized by a tumor, was cured in five days with infusions of Artemisina, a substance which is extracted from the stem of *Artemisia species*. From laboratory experiments it has been noted that Artemisia was able to recognize and eliminate, in sixteen hours, all the neoplastic cells in one type of breast tumor which was untreatable with radiation, saving the healthy cells. Artemisina becomes active on cells only when they contain a lot of Iron. Cancer cells normally have a higher than normal Iron level, to allow for the continual replication of DNA, and a number of receptors for the metal 15 times higher than that of healthy cells.N.B. Artemisina has also been used against malaria and it was seen that it does not have any side effects([723]).
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Larrea divaricata (Zigophyllaceae):

it contains nor-didehydroguairetic acid. It has an anti-oxidant and bacteriostatic activity. It stops aerobic and anaerobic glycolysis, inhibiting the action of cancerogenous substances. It would seem to be very effective on gastro-intestinal tumors.

Hypericum perforatum (Hypericaceae):

contains hypericine ([724]), which has also been indicated for brain tumors, taking into account its immune-stimulating ability.

Capsella bursa pastoris Cruciferae):

hemostatic, anti-metrorrhagia and oxytoxic compounds. It has an anti-neoplastic activity with a mechanism which is not clear.

Annona muricata (Graviola)

Its still being studied ([725-735]).Several studies by different researchers demonstrated that the bark as well as the leaves had hypotensive, antispasmodic, vasodilator, smooth muscle-relaxant, and cardiodepressant activities in animals. Researchers reverified graviola leaf's hypotensive properties in rats again in 1991. Several studies over the years have demonstrated that leaf, bark, root, stem, and seed extracts of *Annona muricata* are antibacterial in vitro against numerous pathogens, and that the bark has antifungal properties. *Annona muricata* seeds demonstrated active antiparasitic properties in a 1991 study, and a leaf extract showed to be active against malaria in two other studies, in 1990 and 1993. The leaves, root, and seeds of *Annona muricata* demonstrated insecticidal properties, with the seed demonstrating strong insecticidal activity in an early 1940 study. In a 1997 clinical study, novel alkaloids found in *Annona muricata* fruit exhibited anti-depressive effects in animals. Much of the recent research on *Annona muricata* has focused on a novel set of phytochemicals found in the leaves, seeds, and stem that are cytotoxic against various cancer cells. In a 1976 plant screening program by the *National Cancer Institute*, the leaves and stem of *Annona muricata* showed active cytotoxicity against cancer cells, and researchers have been following up on this research ever since. Two separate research groups have isolated novel compounds in the seeds and leaves of the plant that have demonstrated significant anti-tumorous, anti-cancerous, and selective toxicity (apoptosis) activity against various types of cancer cells; the research groups have published eight clinical studies on their findings.
One study demonstrated that an isolated compound in *Annona muricata* was selectively cytotoxic (apoptosis) to colon adenocarcinoma cells, showing that it had 10.000 times the potency of Adriamycin, a leading chemotherapy drug.

Soncus oleracues and *Soncus arvensis* (Compositae):

considered effective against breast carcinomas.

Cynara scolymus [Compositae cinaraceae] (artichoke):

contains Cynaropicrin, which has an anti-neoplastic activity (apoptosis). It may contain other molecules with an anti-neoplastic activity or at least have curative properties against deficiency pathologies of various types, including tumors. Unfortunately, the precious plant is already being subjected to irreversible genetic modification (GMO) ([808]).

*Euphorbia heterodoxa (*Euphorbiaceae):

a Brazilian plant the juice of which, called "alvelos" would seem to be effective against skin tumors, carcinomas and sarcomas.

Cetraria islandica (Parmeliaceae):

similar to *Cetraria gryophora* and *umbilicaria* it has anti-tumoral activity, but it is not known on what basis.

Some studies have been carried out recently on the metanolic extract of the flowers of *Hypericum perforatum*, on the bark of *Betula alba*, on *Vaccinium vitis idaea* and on many other herbal products, and have found a lot of evidence of selective action on certain types of human and animal tumors. Much of this data is confidential.
Recently 200 herbs have been catalogued, to be used as herbal extracts, both as an anti-oxidative (SEE chap.3) and an immune-stimulant (SEE chap.9), and especially as a potential apoptotic or pseudo-apoptotic activator, on the basis of current ideas in the world herbarium (about 25,000 plants).
Because most of these extracts come from flowers, according to the author the following could be justified:

1) The production of honey from one flower based on these extracts, where possible.
2) The production of mixed seeds and pure organic honey, for example of *Acacia*.
3) The production of seeds to then be germinated (recipient full of water which is rich in mineral salts, drained and then made to germinate).
4) The production of mixed seeds with sesame oil (*Sesamum indicum*) according to the ancient Indian tradition: it is the type of oil most used in the Ayurvedic tradition, because it absorbs the different herbal properties used in Indian medicine very well, thus helping gastro-intestinal digestion; this particular oil must be pressed cold. On the other hand, it has a high percentage of protein (25%), and its use is therefore to be evaluated.

There are about 200 plants considered by the author for their bio-chemotherapy activity.

1) *Acalypha indica*
2) *Acorus calamus*
3) *Actinidia chinensis*
4) *Adiantum capillus veneris*
5) *Ailantus glandulosa*
6) *Ajuga reptans*
7) *Ajuga piramidalis*
8) *Albizzia lebbek*
9) *Alchimilla alpina*
10) *Alchimilla vulgaris*
11) *Allium sativum*
12) *Alpinia oxyphylla*
13) *Althaea officinalis*
14) *Annona muricata*
15) *Annona squamosa*
16) *Antennaria dioica*
17) *Antyllis alpestris*
18) *Apium graveolens*
19) *Aquilaria agallocha*
20) *Aralia racemosa*
21) *Arctium lappa*
22) *Argemone mexicana*
23) *Argyreia speciosa* (o *Lettsomia nervosa*)
24) *Artemisia abrotanum*
25) *Artemisia dracunculus*
26) *Asparagus cochinensis*

27) Asparagus racemosus
28) Astragalus membranaceus
29) Atractylodes ovata
30) *Azadirachta indica*
31) *Bacopa monnieri*
32) Bambusa arundinacea
33) Betula alba
34) Boswellia carterii
35) Boswellia serrata
36) *Buxus sempervirens*
37) *Caesalpinia sappan*
38) Campanula latifolia
39) Capparis spinosa
40) Capsicum frutescens, fasciculatum, or *annuum*
41) Cardamine pratensis
42) Carlina acaulis
43) Carpinus betulus
44) Cassia angustifolia
45) Ceanothus americanus
46) Celastrus scadens
47) Cerastium alpinum
48) Chimaphila umbellata
49) *Chondrus crispus*
50) Cinchona calisaya
51) *Cinchona succirubra*
52) Cinnamomum zeylanicum
53) Cirsium spinosissimum
54) Citrus aurantium bergamia
55) Citrullus colocynthis
56) *Citrus limonum*
57) Coscinium fenestratum
58) Crataegus oxyacantha
59) Crataegus monogyna
60) Crocus sativus
61) Cupressus lusitanica
62) Curcuma longa
63) Curcuma zedoaria
64) Draba aizoides
65) Drinaria fortunei
66) Drosera anglica
67) Drosera intermedia
68) Drosera rotundifolia
69) Echinacea angustifolia
70) Echinacea pallida
71) Echinacea purpurea
72) Eclipta alba
73) *Emblica officinalis*
74) *Epilobium angustifolium*
75) *Epilobium parviflorum*
76) *Equisetum arvense*
77) *Erithrea antaurium*

78) *Eucalyptus globulus*
79) *Eupatorium perfoliatum*
80) *Eupatorium purpureum*
81) *Eurycoma longifolia*
82) *Euspongia officinalis*
83) *Ferula communis*
84) *Frangula alnus*
85) *Galphimia glauca*
86) *Galium aparine*
87) *Gordonia axillaris*
88) *Gardenia jasminoides*
89) *Gentiana germanica*
90) *Geranium robertianum*
91) *Glechoma hederaceum*
92) *Glycyrrhiza glabra*
93) *Gnafalium supinum*
94) *Goniothalamus species*
95) *Grindelia camporum*
96) *Grindelia squarrosa*
97) *Helianthus annuus*
98) *Jieracium pilosella*
99) *Holarrhena antidysenterica*
100) *Hibiscus sabdaiffa*
101) *Houttuynia cordata*
102) *Hydnophytum formicarum*
103) *Hypericum perforatum*
104) *Hypericum richeri*
105) *Hypoxis hemerocallidea*
106) *Hyssopus officinalis*
107) *Lamium album*
108) *Lapsana communis*
109) *Larrea divaricata*
110) *Larrea mexicana,*
111) *Laurus nobilis*
112) *Lepidium meyenii*
113) *Leucanthemopsis alpina*
114) *Lonicera caprifolium*
115) *Lycopodium clavatum*
116) *Lysimachia nummularia*
117) *Luffa operculata*
118) *Mahonia aquifolium*
119) *Malva silvestris* o *vulgaris*
120) *Momordica charantia*
121) *Marasdenia cundurango*
122) *Marrubium vulgare*
123) *Medicago sativa*
124) *Melaleuca alternifoglia*
125) *Melissa monarda*
126) *Melissa officinalis*
127) *Meum mutellina*
128) *Mimosa species*

129) *Momordica charantia*
130) Morinda citrifolia
131) *Moringa pterygosperma*
132) *Myrica cerifera*
133) *Myristica fragrans*
134) *Myristica sebifera*
135) *Myroxylon balsamum*
136) *Myrtus communis*
137) *Nelumbo nucifera*
138) *Nepeta cataria*
139) *Nerium oleander*
140) *Ochrosia elliptica*
141) *Ocimum basilicum*
142) *Ocimum sanctum*
143) *Ocimum tenuiflorum*
144) *Pedicularis rostrato-capitata*
145) *Pereskia bleo*
146) *Peucedanum ostruthium*
147) *Picramnia antidesma*
148) Pimpinella major
149) Pimpinella saxifraga
150) Phyllanthus orbicularis
151) Phyllanthus urinaria
152) *Plantago major*
153) Polygala senega
154) Polygonum aviculare
155) Polygonum cuspidatum
156) Primula hirsuta
157) Primula officinalis
158) Primula veris
159) *Prunus amygdalus*
160) *Prunus armeniaca*
161) *Prunus avium*
162) *Prunus nigra*
163) *Prunus persica*
164) *Prunus spinosa*
165) Pulmonaria angustifolia
166) *Pulmonaria officinalis*
167) *Quercus robur*
168) *Rhamnus sagrada*
169) Rhamnus purshiana
170) *Rheum officinale*
171) *Rheum palmatum*
172) Rhodiola rosea
173) Rosmarinus officinalis
174) Rubia cordifolia
175) Rubia peregrina
176) Rubia tinctorium
177) Rumex acetosa
178) Rumex crispus
179) Salvia miltiorrhiza

180) *Salvia officinalis*
181) *Sambucus nigra*
182) *Saxifraga aizoides*
183) *Saxifraga oppositifolia*
184) *Scutellaria baicalensis*
185) *Sempervivum montanum*
186) *Serenoa repens*
187) *Sida cordifolia*
188) *Smilax sarsaparilla*
189) *Smilax utilis*
190) *Solanum lyratum*
191) *Sophora flavescens*
192) *Stachys arvensis*
193) *Sticta pulmonaria* (o *Lobaria pulmonaria*)
194) *Streptocaulon juventas*
195) *Sutherlandia frutescens*
196) *Tabebuia cassinoides*
197) *Tabebuia impetiginosa*
198) *Taraxacum officinalis*
199) *Tephorosia purpurea*
200) *Terminalia chebula*
201) *Thalictrum acutifolium*
202) *Tinospora cordifolia*
203) *Tribulus terrestris*
204) *Trifolium pratensae*
205) *Trifolium rubeus*
206) *Trigonella foenum graecum*
207) *Thymus serpillum*
208) *Thymus vulgaris*
209) *Ulmus rubra*
210) *Uncaria guianensis*
211) *Uncaria tomentosa*
212) *Urtica dioica*
213) *Vaccinium vitis idaea*
214) *Verbascum densiflorum* o *thapsus*
215) *Viola tricolor*
216) *Xantoxilum fraxineum*

Chapter 7 :
vitamin B 17 (Laetrile)

Vitamin B17 was thoroughly studied by Japanese researchers in the early 1970s. Vitamin B17 is found especially in apricot (*Prunus armeniaca*) kernels.

It is also found in the bitter seeds of wild almonds (*Prunus amygdalus*), of cherries (*Prunus avium*), of plums (*Prunus domestica*), of peaches (*Prunus persica*), of blackthorns (*Prunus spinosa*), of acerolas (*Malpighia punicifolia*), of quinces (*Cydonia oblonga*), as well as in the seeds and/or pulp of many other fruits.

This vitamin is very useful for cancer therapy. Indeed, it takes advantage of cancer cell metabolism, which is different from healthy cell metabolism in human beings.

Neoplastic cells, and especially anaerobiotic neoplastic cells, have a high concentration of beta-Glucosidase, without Rhodanese. Therefore, they immediately phagocyte vitamin B17, and divide it by hydrolysis into two poisons: benzaldehyde and cyanide ions. On the contrary, healthy cells are normo-oxygenated and rich in Rhodanese, so they quickly convert these two poisons into benzoic acid and thiocyanates respectively. Both of them are harmless for healthy cells; actually, they are useful for them. According to Kanematsu Sugiura, a Japanese researcher, beta-Glucosidase is found in the cells of breast, stomach, womb, mesentery and gullet cancer, in much higher concentrations compared to healthy cells. On the contrary, the Rhodanese enzyme is not present in cancer cells ([514, 515,774-787]).

The modern history of vitamin B17 started in 1830, when two French scientists, Roubiquet and Bontron-Chariand, purified for the first time a vitamin later called Amygdalin or vitamin B17 ([1187]).

Seven years later two German scientists, Von Liebig and Woehier, discovered that this vitamin could be found in all fruit seeds (apart from citrus fruits) and could be divided into Cyanide ions, Benzaldehyde and Glucose by only one specific enzyme.

The use on human beings for medical purposes and cancer therapy followed shortly after. In 1845, fifteen years after the first French scientific experiences, the French scientific journal "*Gazette Medicale de Paris*", (1188) and afterwards the German journal "*Journal für die Chirurgie und Augenheil-kunde*"([1189]), described the first case of metabolic therapy with vitamin B17 to "cure cancer", created by Russian doctor Inosmetzeff, professor at the Imperial University of Russia in Moscow. Therapy was performed on a twenty-one-year-old boy affected by cancer, and consisted of 46 grams of Amygdalin administered for 3 months. Inosmetzeff had also cured a 48-year-old woman with extended metastases due to womb cancer. In 1845 this woman was still alive, 11 years after metabolic therapy with Amygdalin. In both cases, Inosmetzeff said that he never noticed any side effects with vitamin B17.

This vitamin was only used again for cancer therapy after more than a century, that is in 1950, when US researcher Ernest Krebs started using vitamin B17 again. After boiling it, evaporating it in alcohol, and then settling it in small white crystals, he called the result "Laetrile".

The term “Laetrile” is the acronym for “LAEvomandeloniTRILE-glucoside”. It is almost the same as Amygdalin (which is naturally present in fruit bitter seeds). The only difference is in chemical structure: Laetrile has two molecules of glucose, Amygdalin has more. Indeed, the chemical structure of Laetrile is D-1 mandelonitrile–beta-glucuronide, while for Amygdalin it is D-mandelonitrile-bi-glucoside.

There are at least a dozen other cyanogenetic glucosides (nitrosilides) similar to Amygdalin, that can be found in vegetables, fruit (including lemons), cassava, legumes and cereals ([1190]).

Vitamin B 17 is a stable, chemically inert molecule, and it is not noxious if taken in the right quantity under a doctor’s supervision. The initial recommended dosage in adults is 4-5 bitter seeds per day for apricot bitter seeds (quantity has to be higher or lower if seeds are of a different fruit) for the first week. In the following week, the doctor can decide whether dosage can be increased or diminished. The values that have to be reached must be carefully calculated according to the following parameters: the biological half-life of vitamin B17, urine analysis (the presence of Sodium Thiocyanate and hippuric acid in certain quantities could mean that the quantity of seeds taken is too high), the patient’s hematic and body mass, the patient’s good or bad liver, kidney (and other organs’) function, the possible massive colliquation of cancer mass with possible death due to irreversible kidney failure, etc…

The pharmaco-cynetics of vitamin B17 are complex and must be taken into account. In medical and/or phitotherapic literature, episodes of deadly poisoning of children have been reported. Death occurred after they ate food that was particularly rich in vitamin B17, such as peculiar berries, traditionally not eaten and therefore extremely interesting for cancer therapy, or bitter almond seeds, which are notoriously richer in vitamin B17 than apricot bitter seeds. Death in children is easier because the concentration of vitamin B17 is higher in a smaller body. Moreover, their liver mass is smaller: this organ is essential to detoxify blood from vitamin B17. Finally, liver enzymes in children could be less functional.

Treatment has to be interrupted from time to time under a doctor’s supervision. Seeds must be chewed very well or previously ground. Therapy has to be stopped immediately if sickness arises. Seeds must never be taken all together, but during the whole day. It is better to eat them on a full stomach, in order to avoid the partial hydrolysis of vitamin B17 by hydrochloric acid. It is forbidden to take more than six apricot bitter seeds in one hour, even if health conditions are good; as far as peach seeds are concerned, a dosage of no more than half seed per one hour can be taken.

Vitamin B17 poisoning is not the only possible one. Other natural vitamins, too, can cause death if taken in excess. For instance, medicine books still report an episode that took place at the beginning of the 20th century. A group of arctic explorers died because of vitamin A poisoning: they had eaten huge quantities of polar bear liver, that they had taken for survival.

The only vitamin that seems not to cause poisoning is said to be vitamin C. It can be taken in quantities higher than 50 grams per day.

Back to vitamin B17, Krebs discovered that this vitamin reacts to enzyme Beta-glucosidase. The latter is found in many tumors, and is virtually absent in healthy cells. In the reaction, the enzyme splits the innocuous vitamin B17 into two powerful poisons: Cyanide ions and Benzaldehyde. The latter is a strong painkiller. These two substances are produced in small quantities by cancer cells themselves, and combine in cancer cells producing an extremely toxic substance that kills cells in a sort of pseudo-apoptosis.

Small quantities of this poison can still be active even after cancer cells died and can go into circulation, cancer generally having many blood vessels.

On the contrary, healthy cells have another enzyme, called Rhodanese. It is found in cells in quantities that are inversely proportional to those of Beta-glucosidase. If vitamin B17 comes into contact with healthy cells, Rhodanese neutralizes Cyanide ions and oxidizes Benzaldehyde. Two products are obtained: Thiocyanate and benzoic acid, which are good nutrition for healthy cells. If these two products are in excess, they are eliminated through the urine.

It is clear then that the enzyme Beta-glucosidase produces Cyanide ions from nitriloside food. Notice that Cyanide ions have to be freed from vitamin B17 or from Laetrile. Cyanide ions are not found freely in food: they are only produced in cancer cells, because the specific enzyme for this (Beta-glucosidase) can only be found in cancer cells.

In 1947, Fishman and Aniyan wrote in the important medical journal Journal Biol. Chem. ([1191]):

"…Tissue excised from malignant noeplasms (cancers) of various organs, including breast, uterus, stomach, abdominal wall and esophagus were found to contain 200 to 3600 percent more beta-glucosidase activity than uninvolved adjacent tissue. Metastases to lymph nodes from cancers originating in various organs contained beta-glucosidase in higher concentrations than the uninvolved lymph nodes". http://www.mednat.org/cancro/FISHMAN%201947.pdf

In the same year, they wrote in the notorious journal Science ([1192]): *"…high Beta-glucosidase is probably a characteristic feature of cancer cells*".

In his book "Nitrilosides (Laetriles)", pages 189-204, Krebs writes:
http://www.mednat.org/cancro/Nitrilosides_Plants_Animals.pdf
"In addition to their high levels of Beta-glucosidase, malignant lesions are characterised by a generally profound deficiency of Rhodanese, as was reported by Homberger, Mendel, Rodney and Bowman. Rosenthal reported an 80% decrease in Rhodanese in cancerous liver tissue, and a similar decrease was found in the leukemic invasion of tissues"([1187]).

Researcher James South explains the essential biochemistry of what happens when a person eats nitriloside food or takes vitamin B17 in pharmaceutical form, either as Laetrile or as Amygdalin:
"*…These two properties of cancel cells – an excess of Laetrile-splitting Beta-glucosidase and a deficiency of cyanide-detoxifiying Rhodanese – are presumed to provide the explanation of both why Laetrile kills cancer cells, and why it is preferentially split by cancer cells into Cyanide ions, Benzaldehyde and sugar. They will then be poisoned, since cancer cells lack the Cyanide-detoxifying enzyme Rhodanese. If some Cyanide "spills out" from the cancer cells, adjacent normal cells will then be able to detoxify it through their Rhodanese enzymes.*" ([1187]).
http://www.mednat.org/cancro/JAMES_SOUTH.pdf

If quantities do not exceed liver (and other organs') function of purifying blood from this poison, it is the doctor's task to assess how the metabolic therapy is going from blood and urine tests and from the patient's general check-up.

The Rhodanese enzyme destroys hydrocyanic acid and produces a non-toxic substance: Thiocyanate. As Oke notes:

"…Rhodanese is widely distributed in all the tissues with the highest concentrations in the liver. Detoxification can therefore take place in all parts of the body, but with the liver as the chief site.

When hydrocyanic acid (Cyanide) is converted to thiocyanic acid (Thiocyanate) there is a 200-fold reduction in toxicity"([1190]). http://www.mednat.org/cancro/OKE.pdf

When Beta-glucosidase destroys Laetrile, Benzaldehyde and Cyanide ions are released in cancer cells.

Several studies on humans used Benzaldehyde itself as a drug against cancer ([1193,1194]). In 1980-1985 Kochi wrote: " *…no toxic effects were reported, including hematologic or biochemical disorders, even when Benzaldehyde was repeatedly administered for long periods*." http://www.mednat.org/cancro/benzaldehyde_derivative.pdf

Tatsumura used an average total dose of 393 grams of a substance similar to Benzaldehyde, that subsequently changed into Benzaldehyde, and obtained a positive reaction rate of about half the 24 patients who were given treatment:

"…Careful monitoring showed no toxic action of the drug at these large doses. Complete necrotic liquefaction of tumour was seen in 2 of 3 cases in which histological examination was feasible"([1195]). http://www.mednat.org/cancro/TATSUMURA.pdf

During the Seventh International Congress of Chemotherapy in Prague, in 1971, Dean Burk said:

"*In vitro tests with Ehrlich ascites carcinoma (a type of cancer cell culture) revealed that, where cyanide alone killed one percent of the cells and Benzaldehyde alone killed twenty percent, a combination of the two was effective against all the cells. Amygdalin with Beta-glucosidase added also succeeded in killing 100 percent of the ascites tumor cells, due to the same two chemicals*" ([1187]).

But Krebs soon realized that he had clashed with huge economic interests. Chemo-pharmaceutical multinationals could not obtain a registration nor have exclusive rights on vitamin B17. Thus, they began a long defamatory campaign against apricot bitter seeds, and they convinced the whole American population that these are allegedly dangerous.

At the moment, cancer treatment with Laetrile is forbidden by law in the USA, even if under a doctor's supervision. That is why dozens of thousands of American citizens get treatment in expensive private hospitals just beyond the Mexican border, in Bahamas, and in other places, where they officially go "on holiday".

For instance, doctor Francisco Contreras, the current managing director of the Oasis of Hope hospital in Tijuana, Mexico, treated more that 60,000 patients with a vegetarian therapy and vitamin B17 in 35 years of activity ([1187]). http://www.mednat.cancro/Contreras.pdf

Doctor Ernesto Contreras has been using Laetrile since 1963, and thinks that
"…The majority of most frequent cancers, such as lung, breast, colon, ovarian, stomach, esophagus, prostate cancer, and lymphoma, can improve dramatically with Laetrile" ([1187]).

Case history

Amygdalin taken orally has been known to be a poison since ancient times, though amygdalin-laden black and brown bitter seeds were described as antitumor agents in the pharmacopeia of ancient China ([1497]) Egyptian, Greek, Roman and Arabic physicians also used amygdalin to treat tumors ([1498]).

In a study conducted in 1958, Prof Marco Tasca, head of the radiology department of the Civil Hospital in Sanremo, treated 21 Italian terminally ill patients – 3 suffering from seminomas, 4 from breast cancers, 1 from womb cancer, 2 from laryngitis cancers, 7 from lung cancers, 1 from cancer of the oesophagus, 2 from stomach cancers, 1 from Hodgkin's disease – with intramuscular injections of Laetrile. He noticed that patients showed good drug tolerance, their clinical conditions improved during the entire treatment period and only one month – on average – after the interruption of the therapy the neoplastic pathology resumed its progression. He pointed out only two complications: hemorrhage and icterus. The former probably caused by necrotic eschars coming off the tissues, the latter induced by a direct toxic action on hepatic cells, which rarely happens though (5% of his case histories). The article is available in PDF format ([1373]) at http://www.fiocco59.altervista.org/images/tasca.pdf or http://www.mednat.org/cancro/tasca.pdf.

In the 1966 report, Proceedings of the *Ninth International Cancer Congress*, Rossi cites a ten-year trial in Europe involving 150 patients that found "50 percent of all cases in treatment showed objective improvement" and concluded that laetrile was "*an extremely useful chemotherapeutic drug*."([1382]) http://fiocco59.altervista.org/vitamina_b_17.htm

In 1994, professor Binzen published the results he obtained treating patients with Laetrile between 1974 and 1991. His case history included 180 patients with primary cancer (with no metastasis and limited to only one organ or tissue). 131 patients were still alive in 1991, when the report was published. At that time, 58 patients had been followed for 2 to 4 years, while 80 of them had had a medical follow-up for 5 to 18 years. Out of the 42 patients that had died by 1991, 23 had died from cancer, 12 from "unrelated causes" and 7 of "unknown causes" (Binzel E.P.: "*Alive and Well*"). http://www.mednat.org/cancro/ALIVE_AND_WELL.pdf

Among patients with metastasis, 32 out of 108 had died from their disease, 6 from "unrelated causes" and 9 from "unknown causes". Out of the 61 patients that were still alive in 1991, 30 had had a medical follow-up of 2-4 years, 31 had been followed for 5-18 years.

Doctor John A. Richardson's case history of 1976 reports over 6,000 cases that show a positive effect of vitamin B17 against cancer. ([1187])

There are 4,800 cases reported and carefully studied by doctor Ernesto Contreras. Those were selected among 10,000 case sheets collected in 14 years of experiences with Laetrile.

Doctor Paul Wedel from Oregon reported about 4,000 cases of metabolic treatment. He survived cancer himself with vitamin B17 and a diet similar to the gersonian one ([1187]).

1,000 cases were reported by doctor Manuel Navarro of Santo Tomas University in Manila, the Philippines. The Mexican government is even monitoring about 100 patients that are being treated with metabolic therapy and vitamin B17, under the guidance of doctor Mario Soto de Leon, medical director of the Cydel Clinic in Tijuana ([1187]).

In Germany, doctor Hans Nieper reported about 1,000 cases. (http://www.mwt.net/~drbrewer)

It is interesting to notice that cases such as that of Mr. Glen Rutherford from Kansas, who healed completely in Tijuana, are recorded in tribunal archives as "cures" ([1187]).

Note of doctor Giuseppe Nacci (author of this book) : in ALLEGATED see Morrone J.A.: Exp. Med. Surg. 20, pp.. 299-308, 1962.Title: *Preliminary Report of 10 cases treated with Laetrile*
http://www.mednat.org/cancro/morrone.pdf

ALLEGATED: Morrone J.A.: Exp. Med. Surg. 20, pp.. 299-308, 1962.
Title: *Preliminary Report of 10 cases treated with Laetrile*

Case 1.: W.L. age 62, female, married, housewife, weight 118 lb., height 62 in., blood pressure 144/95 mm. Diagnosis adenocarcinoma of both breasts with metastases to the skull, pelvis and spine. There was bilateral inguinal adenopathy. History of bilateral mastectomy, eighteen years apart, fallowed by deep X-ray. Urinalysis and hemotology negative. During the last six months the patient had suffered from constant excruciating pain in the back, entire spinal region, pelvis, thighs and legs. She was unable to lie down and tried to sleep in a chair. Repeated doses of codeine and other analgesics every two or three hours were required. Laetrile 1 gm was injected intravenously. In five minutes the systolic blood pressure dropped 12 mm but there were no other apparent effects. The following day the patient walked into my office without aid and reported that she had slept well with very little pain, that she needed less codeine, and that her appetite was good. Her general appearance was greatly improved.
An injection of Laetrile 1 gm was repeated. The systolic blood pressure fell 10 mm, but there were no apparent side effects. After ten minutes she said that pain was relieved completely and stepped down from the examining table without help. In a period of one month she received six injections of Laetrile, four of 1 gm and two of 2 gm. In each instance there was a prompt fall of blood pressure, average 10,4 mm, range 8-12 mm.
During the period of treatment the patient returned to her house-work, was almost free from pain, discontinued codein, took non analgesics other than 10 grains of aspirin at bedtime or during the night, and slept well. Her morale was excellent, her appetite good, and she gained 3 ½ lb. At the last examination she reported that she was completely free from pain. There were no apparent adverse effects from any of the injections. As of May 1, 1962 the hemogram showed distinct improvement in red blood cell count and haemoglobin, with no adverse changes. Urinalysis was negative.

Case 2.: J.S., age 74, male, married, pattern maker, weight 163 lb., height 62 in., blood pressure 188/100 mm. Diagnosis inoperable carcinoma of the left lung with metastasis to the mediastinum. Urinalysis and haematology negative.
During the last six months the patient complained of cough, constant chest pain, dyspnea, blood-tinged expectoration, anorexia, and loss of weight (15 lb.) . A X-ray revealed a mass in the left side of the chest suggestive of a neoplasm. Bronchoscopy and a biopsy established the diagnosis of carcinoma of the lung. Exploratory thoracotomy showed extensive carcinoma of the left lung with metastases and many perforations in the pleura, diaphragm, aorta, pericardium and mediastinum. The condition was considered inoperable.
Pain was so constant and severe that the patient took meperidine hydrochloride and codeine every two or three hours. When interviewed, he had such great difficulty in talking and breathing that his wife had to give the history.
Physical examination revealed icteric sclerae, pallid conjunctivae, sluggish reflexes, enlarged and tender cervical and supraclavicular glands, dullness and moist rales over the life side of the chest, and edema of the ankles extending up to the knees.
Laetrile 1 gm was injected intravenously. In five minutes the systolic pressure dropped 28 mm but there were no signs of shock or other adverse effects. Three days later the patient reported that the pain had been less severe since the injection but that he had suffered for two days from pain in the left shoulder and side of the chest. Analgesics were still required. After the second intravenous injection of Laetrile 1 gm, the systolic blood pressure fell 15 mm, but there were no side effects other than burning to the office unassisted. Pain, dyspnea and edema were considerably diminished. His color and general appearance were considerably improved.
In a period of seven weeks he received sixteen injections of Laetrile, seven of 1 gm, six of 1,5 gm, and three of 2 gm. There was a prompt fall of blood pressure following the injections, ranging from 8 to 28 mm. Pain was reduced and appetite improved but there was no weight gain. He was able to discontinue use of meperidine hydrochloride and codeine. There were no apparent adverse effects from the injections as shown by the before and after hemograms and urinalyses.

Case 3.: J.C., age 40, female, married, housewife, weight 113 lb., height 61 in., blood pressure 140/90 mm. Diagnosis infiltrating carcinoma of the left breast invading the lymph nodes at all levels of the axilla, with metastases to the liver.
Radical mastectomy and deep X-ray therapy. Urinalysis and haematology negative.
For the last six months she suffered from very severe pain in thre abdomen and back. Meperidine hydrochloride, morphine and opium were required for relief.
Laetrile 1 gm was injected intravenously. In five minutes the systolic blood pressure dropped 10 mm but there were no other apparent effects. She returned the following day and reported no relief of pain.
An intravenous injection of Laetrile 1 gm, was repeated, following which the systolic blood pressure dropped 12 mm. There was considerable reduction of pain and appetite improved after this injection. In a period of four weeks she received twelfe injections of Laetrile, ten of 1 gm, and two of 1,5 gm. Pain was relieved almost entirely and only a

single dose of narcotic drug at bedtime was required. Morale and appetite were improved but there was no gain in weight. There were no apparent adverse effects from the injections. Comparison of before and after hemograms showed improvement in the red blood cell count and haemoglobin following Laetrile therapy.

Case 4.: J.F., age 38, female, married, housewife, weight 155 lb., height 62 in., blood pressure 160/90 mm. Diagnosis adenocarcinoma of left breast with carcinomatosis. Mastectomy, deep X-ray therapy and castration. Urinalysis and haematology negative. The patient complained of agonizing pain in her spine, chest, pelvis, legs, arms and head. X-ray visualization confirmed the diagnosis of disseminated metastases. Adenopathy was present. Codeine, meperidine hydrochloride and opium were required to control the pain. Laetrile 1 gm was injected intravenously. After fifteen minutes the systolic blood pressure rose 3 mm. There were no apparent side effects. On the following day pain was reduced, appetite improved, and the general condition was somewhat better. A second intravenous injection of Laetrile 1 gm was given. In five minutes the systolic blood pressure dropped 16 mm but there were no apparent side effects. Three days later the patient reported that the pain was considerably less and she required a minimum dosage of opiates for relief. In a period of eighteen days she received eight injections of Laetrile, five of 1 gm, two of 1,5 gm, and 1 of 2 gm.
During the period of medication she showed progressive improvement and suffered very little pain. Opiates were no longer required. Morale was excellent. There were no apparent adverse effects from the injections. Comparison of before and after hemograms showed improvement in the red blood cell count and haemoglobin following Laetrile therapy.

Case 5.: R.F., age 20, male, single, premedical student, weight 200 lb., height 69 in., blood pressure 114/70 mm. Diagnosis malignant lymphoma, type Hodgkin's. Condition started as enlarged cervical gland, diagnosis on biopsy. Urinalysis negative, haemoglobin 11 gm/100 cc. Deep X-ray therapy was employed. The patient complained of weakness, dizziness, and pain in the axillae and groin. The cervical, axillary and inguinal glands were palpably enlarged. The conjugativae and sclerae were pale and icteric. Laetrile 1 gm was injected intravenously. In ten minutes the systolic blood pressure dropped 6 mm, but here were no other apparent effects. Four days later the patient reported that he felt more active, had a better appetite, and had suffered no ill effects. An injection of Laetrile 1 gm was repeated. The systolic blood pressure dropped 4 mm in ten minutes, no other apparent effects. In a period of four and a half months he received nineteen injections of Laetrile, five of 1 gm and fourteen of 2 gm. During the period of medication the pains in the neck and groin ceased and the adenopathy disappeared. The patient felt euphoric and his general appearance was considerably improved. There were no apparent adverse effects from the injections. The blood picture improved after Laetrile therapy.

Case 6.: L.D., age 37, female, single, draftsman, weight 190 lb., height 66 in., blood pressure 280/110 mm. Diagnosis infiltrating adenocarcinoma of left breast. Both her mother and sister had died of cancer. History of radical mastectomy. Metasteses in left axilla broke down, producing multiple sinuses. The principal complaints were severe pain in the left side of the chest, necessitating the use of codeine, and a foul odor from the discharging sinuses. To control her distressing cough it was necessary to prescribe meperidine hydrochloride and opium for use on alternate days. The left shoulder and arm were swollen and painful. The skin was glistening red. The circumference of the left mid-arm measured 19 ½ in., as compared with 13 in. for the right. Adenopathy was present in the entire left axillary and supraclavicular areas, both sides of the neck, and in the right breast. The liver was palpable and tender. Both sides of the chest were tender and especially painful on coughing.
Laetrile 1 gm was injected intravenously. In five minutes the systolic blood pressure dropped 38 mm but there were no apparent other effects. On the following day she received a second injection. Pain and cough diminished and there was less discharge from the axillary sinuses. However, she felt a sense of heat and itching in the operative area. After the third injection pain was relieved completely and the fetor disappeared. After the fourth injection, the drainage ceased completely and the area was odourless. Multiple crusts covered the healing sinuses. Induration and inflammation were almost completely gone. The texture of the skin of the left arm had returned to normal. In a period of five months she received fifty injections of Laetrile, nine of 1 gm, thirty-nine of 2 gm, and two of 2,5 gm. The immediate hypotensive response was easily controlled when phenylephrine hydrochloride 0,3 mg was used simultaneously with Laetrile. During the period of treatment the patient returned to work. Pain and cough disappeared. The discharge from the metastatic sinuses ceased and there was no more fetor. The circumference of the left mid-arm was reduced from 19 ½ in., to 17 in., an indication of less tumefaction. Narcotics for relief of pain and cough were no longer required. There were no apparent adverse effects from any of the injections. In this case treatment with Laetrile was continued from July 7, 1961 until May 1962. In the extended period of ten months the patient received 133 injections, twince a week or oftener. Comparison of before and after hemograms showed definite improvement in the red blood cell counts and haemoglobin. Adenopathy and tumefaction regressed to a considerable extent.

Case 7.: G.P., age 21, male, single, college student, weight 149 lb., height 70 in., blood pressure 110/70 mm. Diagnosis malignant lymphoma, Hodgkin's type. Urinalysis and haematology negative. A growing mass in front of the right ear, which returned four years after its initial appearance and recession, was removed and found to contain multinucleated giant cells typical of Hodgkin's disease. There was a hard, tender, enlarged lymph node in the mid-sternocleidomastoid

region measuring 3 x 2 cm. Urinalysis and haematology were negative. Laetrile 1 gm was injected intravenously. The systolic blood pressure dropped 4 mm, but there were no apparent side effects. Three days later the enlarged gland was smaller, softer, and less painful. By the sixth day all pain had ceased. In a period of four months he received twenty-seven injections of Laetrile, ten of 1 gm, and seventeen of 2 gm. There were no side effects. One injection, made directly into the tumor mass, was followed by itching and local tenderness. During the period of treatment the patient returned to college. Pain was absent, appetite good, weight icreased 13 lb., and his appearance was excellent. The blood picture improved under Laetrile therapy.

Case 8.: A.T., age 66, male, married, fireman, weight 120 lb., height 68 in., blood pressure 188/98 mm. Diagnosis inoperable carcinoma of the prostate with possible metastasis to the liver. Hemoglobin 10 gm/100 cc. The patient complained of nicturia, hematuria, nausea, vomiting, and severe pain in the groin and thighs. Codeine and meperidine hydrochloride were required for relief. The skin and sclerae were jaundiced. There was painful adenopathy in both groins. Laetrile 1 gm was injected intravenously. In seven minutes the blood pressure dropped 68 mm and the skin became cold and clammy. The patient appeared to be in incipient shock but responded promptly to an injection of phenylephrine hydrochloride, after which his blood pressure recovered 66 mm. Next day in injection of Laetrile 1 gm was repeated. His systolic blood pressure dropped 10 mm, but there was no shock reaction. Following the second injection the pain ceased and the use of narcotics was no longer needed. Nausea and vomiting were relieved, and jaundice was reduced. In a period of four days he received three injections of Laetrile 1 gm. During this time there was no pain and narcotic drugs were discontinued. Bleeding from the bladder ceased. Nausea and vomiting were relieved, and jaundice was diminished. Before and after hemograms and urinalyses showed no change.

Case 9.: M.T., age 65, female, married, housewife, weight 110 lb., height 66 in., blood pressure 160/90 mm. Diagnosis adenocarcinoma of the pancreas and omentum. Hemoglobin 11,5 gm/100 cc. The liver was palpable and painful nodules extended to about 3 inches below the costal margin. During the last seven months she had suffered from extreme pain and had lost 20 lb. Meperidine hydrochloride was required for relief. She was exceedingly weak, jaundiced, emaciated, and unable to stand without assistance. Laetrile 1 gm was injected intravenously. There were no adverse effects. A second injection was given four days later. Pain was partially relieved and the dosage of meperidine hydrochloride was reduced. The blood picture and urinalysis showed no change under Laetrile therapy.

Case 10.: F.E., age 17, male, single, student, weight 150 lb., height 71 in., blood pressure 110/70. Diagnosis Hodgkin's disease, granuloma type, with metastasis to the thorax. During the last three months a growing mass in the left supraclavicular region had reached the size of a quarter sphere of an average orange. The patient complained of pain in both axillae, weakness, nausea and anorexia. He had lost 26 lb and was jaundiced. Biopsy confirmed the diagnosis. The axillary lymph glands were enlarged, especially on the right side. The roentgengrams showed progressive nodal enlargement inside the torax. Laetrile 1 gm was injected intravenously. In five minutes the systolic blood pressure dropped 6 mm, but there were no apparent other effects. On examination two days later the mass in the neck was softer and smaller. By the fifth day it was reduced to about half the original size, and was softer and movable. The axillary lymph glands were barely palpable. He was free from pain and his appetite had returned.
In a period of five months he received thirty-six injections of Laetrile, nineteen of 1 gm, and seventeen of 2 gm. There were no side effects. During the period of treatment there was no pain and no enlargement of the supraclavicular mass occurred. Appetite improved and the patient gained 24 lb. He returned to his studies. Comparison of before and after hemograms showed distinct improvement in the red blood cell count and haemoglobin.

Allegated:
Clinical Trial of Chemotherapeutic treatment of advanced cancers with Leatrile (L-Mandelonitrile-Beta-Diglucoside)

Guidetti Ettore
Rossi Benedetto
Deckers Christian

Presented at the 9th International Cancer Congress in Tokyo, October 1966

From 1954 to 1966 we gave 150 patients the above-mentioned therapy, chiefy at San Cottolengo Hospital, Turin; Dosio Hospital, Milan; and Louvain University Cancer Institute. All patients were in the terminal stage of the disease, the majority of them prey to cachezia, and all other therapies had failed.

The following table summarizes the cases treated, classified according to the site of the tumor, and showing the number of patients for each degree of reaction to therapy. We use the sign ++ to denote patients who reacted in an objectively favourable manner, by which we mean diminution of volume of the tumor or at least all interruption of its evolution, improvement in the roentgenographic picture, and improvement in laboratory findings. The mark + and + indicates patients who showed a more or less distinct subjective improvement, and the mark – those who reacted negatively to the treatment.

Cases corresponding to ++ represent about 20% of those treated.

We again underline the fact that the majority of these cases were simultaneously subjected to an immunotype therapy, which might have some bearing on the number of positive results observed, grouped under the signs ++ and + totalling about half the number of cases treated.

Cancer Site	**No. cases**	**++**	**+**	**±**	**-**
Toruli tactiles	26	5	6	6	9
Breast	25	3	8	7	7
Uterus	24	7	7	4	6
Rectum	20	2	9	2	7
Ovary (with infusion)	10	2	2	2	4
Other types	30	9	7	2	12
Totals	135	28	39	23	45

We have separately considered neoplasms of the pleura with effusion (15 cases), where the product was used direct by injection in the pleural cavity. In these cases we observed our best results, as generally we obtained reduction and then on occasion complete disappearance of the effusion, associated with a distinct improvement in the patients' condition.

Conclusion:
On the basis of our clinical trial, we are able to state that L-mandelonitrile-beta-diglucoside may be considered an extremely useful chemotherapeutic drug for palliative medical treatment of malign neoplasms, from the standpoint both of its therapeutic effect and its very low toxicity.

Amygadin metabolic liver aspects

(FROM INTERNET [unknown the Author) :
Detoxification of cyanide can take place in all tissues of the body, but principally in the liver. The dosage levels and toxicity of amygdalin (Laetrile) in laboratory animals and humans is well established and documented.
No evidence of acute or accumulative toxicity was observed in any animals giving doses in excess of 100 times the maximum intravenous dose usually given in humans.
These findings coincide with that mentioned by Otto Jacobsen in 1887, Davidson in 1944 and Dr. Dean Burk (*National Cancer Institute)* in 1968: "*Amygdalin is impressively nontoxic from the pharmacological point of view*", and "*non-hydrolyzed amygdalin is less toxic than glucose*". The oral toxicity of amygdalin was found to be 39 to 44 times greater than the intramuscular route, and more toxic than intravenous route (parentenal route). Amygdalin is **less tolerable by oral administration** because of the hydrolysis of amygdalin by the gastric juices. On the other hand, amygdalin, in dosages of 20-40/mg/kg orally (for a 200 lb human this would translate to 16 - 500mg laetrile/B17 tablets, daily), used in humans, is 10 to 20 times less than the minimum toxic dosage in dogs. The biological half life of amygdalin is only 80 minutes. Over 80% of the amygdalin administered is excreted from the body in 4 hours. The usual metabolic approach to amygdalin (laetrile) therapy is to provide the patient with adequate nutritional support, with relatively nontoxic high doses of vitamins and minerals, and other active natural substances. Amygdalin (laetrile) has been administered in dosages of up to 70 grams (70,000 miligrams-mg) per day in adult humans by combined oral and parentenal routes without adverse effects.
Ever since the days of Louis Pasteur (1822-1895) and Paul Ehrlich (1854-1915), cancer victims have hoped for the "wonder vaccine" or the "magic bullet". Amygdalin (laetrile) does not come under the heading of either of these dramatic therapies. There are a number of factors that enter into the cancer treatment complex. The type of cancer involved is an important factor. Some types of cancer tend to be more sensitive to treatment than other. Amygdalin (laetrile) is not equally effective in all types of cancers. Rubin (1977) found in their clinical investigations in Israel that Amygdalin (laetrile) was most effective against Adeno-carcinoma and Hodgkin's disease, somewhat less effective in certain other of the Sarcomas and Melanomas, and relatively poor results were achieved with the Leukaemia. Similar results have been obtained by other clinicians in the United States and elsewhere. The best results with Amygdalin (laetrile) therapy have been achieved with Lung, Prostate, Breast, Lymphomas, Liver and Brain cancer. The chemical quality of the Amygdalin (Laetrile) also has a bearing on the clinical therapeutic results.
Only the laevo isomer of Amydalin (Laetrile) has been found to be therapeutically active. A high quality Amygdalin is now produced in Mexico and some products are currently under investigation in the United States and Germany . It is therefore of the utmost importance that quality products be utilized. Failure to recognize this point can result in inadequate dosage levels and false negative therapeutic results (Krible, 1912; Levi, et al, 1965; Rubin, 1978). Other factors relating directly to the administration of Amygdalin (Laetrile) concern the dosage. In the past, most physicians have tended toward administering too low a dosage. Therefore the frequency of administration, the route of administration, and the dosage are of the utmost importance if adequate blood levels are to be maintained. In the past, most errors of administration have been made on the side of too little, rather than too much. However, it should be kept in mind that the most effective routes are by parenteral injection (I.M or I.V.) and the physician should not attempt to achieve the necessary dosage levels by the oral route. Rubin (1978) reports administering 70 gr. per day to each patient with no ill effects. Another aspect that will have a bearing on the recovery of a patient depends upon the degree of tissue damage caused by excessive radiation and toxicity resulting from Chemo-Therapy.
It is presently estimated in the United States, Mexico, and elsewhere, that about 90% or more of the patients begin using Amygdalin (Laetrile) only after all other types of cancer therapies have failed. Most metabolic physicians are of the opinion that if the patient were to begin *Metabolic Therapy*

earlier in the course of the disease, it would improve the patient's chances of *Cancer Control*. The adequacy of liver functions is of the utmost importance in cancer therapy. The liver has varied, intricate and extremely complex metabolic functions. Among other things the liver is concerned with fat, carbohydrate and protein metabolism.

The liver has a propensity for storing vitamins, especially A, D and B 12, and Iron in the form of ferritin. The liver forms a large proportion of the blood constituents: Fibrinogen, Prothrombin, Accelerator Globulin, Factor VII, and other coagulation factors. The liver is involved in vitamin K metabolism. The liver is concerned with the vascular storage and filtration of blood, with about 1,000 ml of blood flowing from the portal vein through the liver sinusoids each minute, and an additional 400 ml flows into the sinusoid from the hepatic artery. Thus when the liver or kidneys are damaged due to a primary or metastatic malignancy, it may adversely affect the entire metabolism of the body.

The studies conducted thus far on Amygdalin (Laetrile) indicate that there is no damage to the liver or kidney function. Much of the effort of metabolic therapy is dedicated toward sustaining adequate liver and kidney functions, and to attempt to minimize the detoxification load placed upon them. It should be emphasized that Amygdalin (Laetrile) therapy is most effective when used in conjunction with a comprehensive METABOLIC approach. Most physicians using this form of therapy provide adequate nutritional support with the use of proper vitamin and mineral supplements. The patient is placed on a complete vegetarian diet with a reduction of proteins, fats, refined sugars, and processed foods. All tobacco, alcohol, caffeinated drinks, and most toxic medications are eliminated. The patient is placed on a high intake of select fruit juices, fresh fruits and vegetables. A program of Detoxification is required. A minimum of 9 gr of Amygdalin (Laetrile) per day is administered, largely by the parenteral route, but even higher levels may be given if indicated. Patients that refuse to follow the general Metabolic Program are discouraged from taking Amygdalin (Laetrile) .

Amygdalin poisoning: medical aspects

1) Effect: quick tissue anoxia due to intracellular respiratory failure and toxic lesion of respiratory centres.
2) Amygdalin plasmatic half-life: about 80 minutes.
3) Clinical symptoms: asthenia, torpor, somnolence, headache, vertigo, coma, dyspnea, apnea, polypnea, heart rhythm disorders (bradycardia, atrial fibrillation). Vomit and diarrhea are possible as well. High abdominal pain. Not associated with cyanotic coloration.

Basic therapy

1) Artificial breathing with 100% oxygen.
2) Hypotension needs to be treated with sympathomimetic amines (if it is of cardiogenic origin) or with liquid infusion (if it is of hypovolemic origin).
3) Electrolytes and acid-base balance have to be checked (risk for lactic acidosis).

Antidotal therapy

1) Inhalation of gauze pads soaked with a vial of amile nitrate for 15-30 seconds, to be repeated every 2-3 minutes using another vial.
2) Slow endovenous infusion (3-5 minutes) of 10 millilitres of 3% sodium nitrite solution.
3) Endovenous infusion of 50 millilitres of 25% sodium thiosulfate.

Clinical observation must be intense for at least 24 hours. Medical treatment should be corrected according to methaemoglobin monitoring (it should not be more than 40%).

Therapeutic dosage of vitamin B17

The various kinds of seeds or food contain adequate quantities of vitamin B17. But, unfortunately, it is not possible to calculate the bioavailability of these foods for absorption of vitamin B17 by intestinal walls, and this depends on many factors. Empirically, in adult patients weighing about 70 kg, it can be lethal to administrate daily 15 (fifteen) bitter almond seeds, or 30 (thirty) peach bitter seeds, or 300 (three hundred) apricot bitter seeds.

On the contrary, even a quantity as small as 2-3 bitter almond seeds is deadly for a child.

Table 7.1 shows the quantity of vitamin B17 found in 100 grams of fruit.
Table 7.2 shows the quantity of vitamin B17 found in 100 grams of seeds.
Table 7.3 shows the quantity of vitamin B17 found in 100 grams of various types of leaves.
Table 7.4 shows the quantity of vitamin B17 found in 100 grams of various types of tubers.

Table 7.1

Quantity of B 17 in 100 grams	**Fruit type**
Less than100 mg	Blackberry (*Rubus fructicosus*)
about 500 mg	Wild blackberry (*Rubus fructicosus*)
about 500 mg	Cherry core (*Prunus avium*)
about 500 mg	Wild apple (*Malus communis*)
about 500 mg	Swedish blueberry
100-300 mg	Grapes (*Vitis vinifera*)
100-500 mg	Elderberry (*Sambucus nigra*)
100-300 mg	Gooseberry (*Ribes grossularia*) Barberry (*Berberis vulgaris*)
100-300 mg	European blueberry (*Vaccinium myrtillus*) or American blueberry (*Gaylussacia baccata*)
100-300 mg	*Morus nigra* (Black mulberry)
100-300 mg	*Rubus ursinus loganobaccus, Arctostaphilos uva ursi* (California blackberry)
100-300 mg	Raspberry (*Rubus idaeus*), *Vaccinium vitis idaea* (Cranberries).
100-300 mg	Quince (*Cydonia oblonga*)
Unknown	Indian Fig (*Opuntia ficus indica*)
Unknown	Graviola (*Annona muricata*)

Table 7.2

Quantity of B17 in 100 grams	Seed Type
about 500 mg	Apple seeds (*Malus communis*)
about 500 mg	Apricot seeds (*Prunus armeniaca*)
100-300 mg	Buckwheat seeds (*Fagopyrum esculentum*)
about 500 mg	Cherry seeds (*Prunus avium*)
100-300 mg	Flax seeds (*Linum usitatissimum*)
100-300 mg	Millet seeds (*Panicum miliaceum*)
about 500 mg	Nectarine seeds (*Prunus persica nectarina*)
about 500 mg	Peach seeds (*Prunus persica*)
about 500 mg	Pear seeds (*Pyrus communis*)
about 500 mg	Plum seeds (*Prunus domestica*)
100-300 mg	Pumpkin seeds (*Cucurbita maxima*)
about 500 mg	Rape seeds (No OGM)
Unknown	Indian Fig seeds (*Opuntia ficus indica*)
Unknown	Kiwi seeds (*Actinidia sinensis*)
Unknown	Cedar seeds (*Citrus medica*)
Unknown	Lemon seeds (*Citrus limonum*)
Unknown	Grapes seeds (*Vitis vinifera*)
Unknown	Melon seeds (*Cucumis melo*)
Unknown	Watermelon seeds (*Citrullus vulgaris*)
Unknown	Cucumber seeds (*Cucumis sativus*)
Unknown	Grapefruit seeds (*Citrus decumana, paradisi*)
Unknown	Bergamot seeds (*Citrus aurantium bergamia*)

Table 7.3

Quantity of B 17 in 100 grams	Leave type
Less than 100 mg	Broccoli (*Brassica oleracea botrytis aut italica*)
Less than 100 mg	Spinach leaves (*Spinacia oleracea*)
about 500 mg	Alfalfa leaves (not buds) (*Medicago sativa*)
about 500 mg	Eucalyptus leaves (*Eucalyptus globulus*)
100-300 mg	Watercress leaves (*Nasturtium officinale*)
Unknown	Aloe leaves (*Arborescens, ferox, vera*, etc…)
Unknown	Indian Fig leaves (*Opuntia ficus indica*)
Unknown	Melaleuca leaves (*Melaleuca alternifolia*)

Table 7.4

Quantity of B 17 in 100 grams	Tuber type
Less than100 mg	White potatoes (*Solanum tuberosus*)
about 500 mg	Manioca, Cassava (*Manihot utilissima*) (note: NO GMO)
Unknown	Red potatoes (*Solanum tuberosus*)

Under examination: *Heracleum sphondylium* (Italian ginseng), *Daucus gingidium*, *Arbutus unedo*, *Sanguisorba officinalis* (Sorb-apple), *Hedera helix* (Ivy).

Various sources report a very low biological half-life of about 80 minutes. This confirms that it is possible to administrate a maximum dose of about 5-7 apricot bitter seeds every hour for adults.
Some American doctors that have been working in Mexican clinics for the past 30 years claim that a safe dosage for an adult weighing 70 kg is about 5-7 bitter seeds every hour, about 100-250 seeds per day in total. Daily administration of 250-300 apricot seeds in an adult weighing 70 kg gives a quantity of vitamin B17 that is surely toxic. According to these doctors, it is important that seeds are taken on a full stomach, to avoid partial hydrolysis of Amygdalin by gastric juices. This would produce Cyanide ions directly in the stomach. Moreover, in their opinion endovenous administration of Amygdalin can be useful, because it is more tolerated as the maximum dose without reaching the above mentioned toxic quantities.
Finally, it is important to start administrating Amygdalin, if orally, in low doses, not higher than 5 bitter seeds per day, for the first week, and then 7-10 bitter seeds in the following weeks, at different intervals.
The bioavailability of apricot seeds is very high compared to other sources of vitamin B17.
However, I take no responsibility for B17 therapies carried out without a doctor's supervision. I especially advise against this therapy on patients who already underwent chemotherapy. Their liver cannot properly detoxify blood from Cyanide ions and benzaldehyde. As far as this is concerned, doctor Moertel's work, published on N.Engl.J.Med. in 1982 (Moertel CG: *A clinical trial of amygdalin (laetrile) in the treatment of human cancer*, N.Engl.J.Med., 306, pp.: 201-206 ([1256]), shows this therapy's complete failure (http://fiocco59.altervista.org/nacci/Moertel%201982.pdf)

Note on the work of New Engl.J.Med., 1982 (Moertel CG: *A clinical trial of amygdalin (laetrile) in the treatment of human cancer*, N.Engl.J.Med., 306, pp.: 201-206): this work was conduced by the dr. Moertel of the Mayo Clinic; In this work are:

1) Chemically pure amygdalin was not used. Instead a mixture, which supposedly mimicked what was being used in a Mexican Clinic.
2) 70 per cent of these patients were stable during the first three weeks of the study, during which the patients received intravenous amygdalin.
3) Once the patients were switched to oral amygdalin alone, they did deteriorate fairly quickly.
4) Supporters of amygdalin do not believe that this study was valid proof against amygdalin efficacy.

From : England Journal of Medicine, 307, pp.119, 1982 (on the work of dr. Moertel CG: *A clinical trial of amygdalin (laetrile) in the treatment of human cancer*, N.Engl.J.Med., 306, pp.: 201-206 ;
http://fiocco59.altervista.org/nacci/Moertel%201982.pdf)

To the Editor: In the article on the Laetrile clinical trial, the investigators state, "*No substantive benefit was observed in terms of cure, improvement, or stabilization of cancer, improvement of symptoms related to cancer, or extension of life span*". In the accompanying editorial there appears the statement, "*Even when combined with the "metabolic" therapy (vitamins and a "natural" diet) so enthusiastically touted by the anti-establishment cancer therapists, Laetrile produced no discernible benefit in a group of 178 patients with a variety of types of advanced cancer*". As one of the touters, I wish to point out that these conclusions are not justified by the evidence. The reason for my contention is that there was no control group with which the group of treated patients could be compared.
The investigators say that the median survival time was 4,8 months (five months for patients with colorectal cancer, five months for those with lung cancer, four months for those with breast cancer, and three months for those with melanoma), and they claim , "*These survival times appear to be consistent with the anticipated survivals in comparable patients receiving inactive treatment or no treatment* ". No survival curves for these comparable patients are presented,

nor are there any references to pertinent reports. The editorial states that "*The lack of concurrent controls was partially offset by the fact that all patients were in the advanced stages of a disease known to be almost uniformly and rapidly fatal. Any objective responses in tumor size or apparent prolongation of survival could be identified by comparison with historical controls. But there was not the slightest suggestion of any beneficial effect*".
It is my opinion that there probably was a beneficial effect, including prolongation of survival. Other studies have shown that the median survival time in patients with cancer "*for which no standard treatment was known to be curative or to extend life expectancy*" was about 1,4 months; an example is the control group in the study by Creagan et al. (*Failure of high-dose vitamin C therapy to benefit patients with advanced cancer: a controlled trial*. New England Journal Medicine, 1979, No. 301, pp: 687-690).
The observed median of 4,5 months accordingly constitutes a substantial increase. In any case, it is improper to announce a negative result without performing a careful statistical analysis of the treated group and a suitable control group.
The report by Moertel et al is marred by other errors and imperfections. For example, Figure 3 shows that 10 of the 178 patients in the group survived to the end of the study, whereas in the text it is stated that 26 of the 178 survived; one of these numbers is wrong.
One third of the patients had not received chemotherapy, but despite the well-known contention that vitamins and diet have greater value for these patients than for those who have received chemotherapy, no statistical analysis of the observations on the two sub-groups is presented. Moreover, 14 of the 178 patients received much higher doses of vitamins than the others did, but little information is given about these 14 patients, and no statistical analysis of their responses in comparison to those of the others is reported.

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To the Editor: Despite your belief that the National Cancer Institute (NCI) "*clinical trial*" of Laetrile "*closes the books*" on the use of amygdalin in cancer therapy, your readers should be well aware of many dissenting views and of our widespread suspicion that the trials were designed to make certain that Laetrile – or whatever the NCI was construing to be Laetrile –failed.
This organisation and the undersigned are parties to ongoing litigation against the NCI in regard to the conducting of the trials.
Officers of this organisation were the only Laetrile proponents who assisted at the early stages in developing the NCI design protocols for the study.
We became involved in litigation only after it became clear to us that the NCI was going to test not pure amygdalin but a degraded or decomposed form of it (the putative "*RS-epimer racemic mixture*" said by Moertel et al. to be a copy of material provided by a major Mexican manufacturer).
Let me stress that our side does not believe that even with appropriate material the lives of most of the patients with incurable or inoperable cancer could have been saved.
It is our belief that the patients' responses within the first three weeks of treatment (when most patients were on the 21-day injectable part of the program) indicate at least some fleeting anti-neoplastic action, even from the degraded product. Indeed, by any of the various semantic renderings of the results of the first three weeks of therapy, either a majority of patients were stable or a sizable minority (46 per cent) had no signs of progressive disease during this part of the program. Unless the English language has substantially changed during the past 24 months, I cannot interpret these renderings as other than suggesting limited efficacy of the injectable material. Would it not have been wise to continue giving injections and to make a real effort at a real metabolic program in these incurable patients ?
Our side also laments the lack of any Laetrile-using physician in the NCI program and the lack of available raw data on the patients.
We insist that the NCI "*clinical trial*" has asked far more questions than it has answered about Laetrile, but that by no stretch of the imagination can it be said to have "*closed the books*" on Laetrile.

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Chapter 8:

Retroviruses and Cancer

FROM: Jawetz E.:"Review of Medical Microbiology", 1980 Lange Medical Publications, Los Altos, California

In the past the viral origin of tumours was widely discussed.

Nowadays, a number of viruses is known to induce tumours in men and animals.

The production of tumour without viral replication was observed in both DNA and RNA viruses.

Although the first known malignant disease of viral origin, i.e. the avian leukaemia, was discovered at the beginning of the 20th century, it was only in the '60s and '70s that viral oncology began to be studied extensively.

Towards the end of the '70s, the following conclusions could then be drawn:

1) PROVED: the viral etiology of warts and of molluscum contagiosum in human beings (benign tumours).

2) PROVED: clinical similarities, as well as anatomical, pathological and epidemiological ones, between human tumours and those of inferior animals, whose viral etiology was demonstrated.

3) PROVED: the role played by some common viruses (Adenovirus, Herpes Virus) in the experimental production of tumours in animals.

4) PROVED: biophysical, biochemical and antigenic analogies between viruses of animal tumours and some human viruses.

The intensification of studies allowed to discover the viral etiology of many common tumours in inferior animals. This was possible thanks to the technological progress achieved in tissue culture methods, the use of newborn animals with known genetic constitution and the implementation of modern biophysical, biochemical and immunologic methods.

The viruses which induce tumours can be divided into two main groups having different physical, chemical and biological properties: one group contains RNA as genetic material, the other DNA.

The viral infection of a cell has been described as the penetration of a genetic system (virus) into the sphere of action (DNA) of another system (human or animal eukaryotic cell). The infection of a cell with a cytocide virus causes its death, but the infection with a tumour virus brings to a simultaneous coexistence of the virus and the cell, which profoundly changes the properties of the infected cell. This mechanism, known as cell transformation, has been studied in depth since the '60s and '70s. There is significant evidence showing that cancer involves one single cell at the beginning of its course. The modified cell has new, abnormal properties which are genetically transmitted to its daughter cells. The genetic modifications in tumour cells can lead to morphological, metabolic and

antigenic alterations, leading to one of the following results: the modified cells spread to the surrounding tissues, causing metastatic tumour in distant organs and tissues and the death of the hosting cell; alternatively, the hosting cell keeps its homeostasis through immunological control mechanisms (humoral or cellular). Therefore, a tumour can be defined as a cell growth which is permanently or temporarily beyond control; it can be generalised or metastatic, culminating in the death of the hosting cell (malignant tumour), or it can remain localised (benign tumour).

RNA tumour VIRUSES (Oncornaviruses)

Although DNA and RNA tumour viruses differ profoundly in their replication mechanisms, the fact that Oncornavirus genes – similarly to those of DNA tumour viruses – integrate in the hosting cell's chromosome DNA, may show a shared mechanism of Oncogenesis for the two viral agent groups.

Oncornaviruses are all similar in structure, chemical composition, reaction to chemical and physical agents and replication. They are divided in types A, B and C according to morphological, antigenic and enzymatic differences.

They constitute a subfamily – known as *Oncornaviridae* – of the *Retroviridae family*, because all members contain reverse transcriptase (RNA-dependent DNA polymerase), which allows them to transcribe their viral RNA into the hosting cell's DNA. Then, after the single-stranded DNA molecules have been extracted from the RNA-DNA hybrid by another enzyme (RNAase H), they are able to synthesize double-stranded DNA molecules. What is known about them strengthens the hypothesis that Oncornavirus RNA replicates in vivo in man through an intermediary DNA.

The reverse transcriptase of *Oncornaviruses* was purified and proved to be a protein of the virus's inner part, with a molecular weight of about 60,000-80,000 Daltons, separable from *Oncornavirus* gs antigens. The reverse transcriptase is not present only in the *Oncornaviruses* described below. Other types of RNA viruses, which cause latent infections in their hosting cell, have the above-mentioned enzyme.

This has been proved for antigenically correlated viruses (*Visna* Virus) which cause "slow" infections in sheep, a disease clinically similar to *Bovine Spongiform Encephalopathy*, and for viruses which form syncytia (*foamy*) and derive from Primates, cattle and felines. A well-known virus is HIV, thought to be correlated to AIDS (*Acquired Immuno-deficiency Syndrome*), whose causes are not completely clear; this disease was also assumed to have a viral origin (the well-known SV40 DNA oncogenic virus).

Many GMO plants (and also some breeding animals such as chickens and salmons) are modified by introducing this kind of viruses, i.e. *Retroviridae*, containing the reverse transcriptase, in order to modify the plant's DNA (or to induce the production of the growth hormone or of other hormones in breeding animals).

Many of these viruses are classified within the subfamily of *Oncornaviridae* (family of *Retroviridae*), because they share with them the reverse transcriptase – a feature of *Retroviridae* – and other biological and biophysical properties, such as that of causing tumours. The *Visna* Virus, for example, transforms murine cells in vitro; its RNA genome is composed of a 60-70S molecule with the same properties as *Oncornaviruses*.

It would therefore be advisable to analyse the *Retroviridae* used by *GMO Multinationals* to produce GMO plants in greater detail (or to induce the production of the growth hormone or other hormones in breeding animals such as chickens and salmons).

Reactions of Oncornaviruses to chemical and physical agents

Because of the lipids contained in their envelope, RNA tumour viruses are sensible to ether. They can be deactivated by heating them at 56 degrees Celsius for 30 minutes, by treating them with weak acids (pH 4.5) and with formalin 1:4,000. Furthermore, they can be stored at temperatures lower than 70 degrees Celsius below zero.

Antigenic properties of Oncornaviruses

Oncornaviruses have two types of antigens:

1) Type-specific or subgroup-specific antigens which are linked to the viral envelope and are found in single strains or groups of strains among the *Oncornaviruses* of each species. They are codified by the env gene. They can be detected through serologic tests, such as neutralization, complement fixation, immunodiffusion and immuno-fluorescence with serums of animals affected by tumours which produce the virus or with immune serums used against whole virions. The envelop antigens of AVIAN C viruses contain at least 2 glycoprotein components with a molecular weight of 85,000 Daltons and 35,000 Daltons. There are no crossed reactions between the envelope antigens of *avian Oncornaviruses* and *mammals Oncornaviruses*, or between *Oncornaviruses* belonging to different species of mammals. Moreover, no crossed reactions take place between C and B viruses in the murine system, or between C and D viruses in the primate system.

2) Group-specific antigens (*gs*) which are associated to the inner polypeptides of the central part of the virion. They are produced by cutting the polyprotein codified by the *gag* gene. They can be detected through tests such as complement fixation, immunodiffusion and immunofluorescence, radio-immunoassays using animal serums of heterologous species affected by virus-induced tumours, immune serums prepared against virions broken with *Tween 80* ether or monospecific immune serums against single polypeptides. The main *gs* antigen (p30) is a basic polypeptide with a molecular weight of about 30,000 Daltons; it is common among the C viruses of a hosting species (birds, felines, hamsters, mice, primates, rats, vipers). Crossed reactions between the p30 antigens of *avian Oncornaviruses* and those of *mammalian Oncornaviruses* were not observed. Furthermore, there are no crossed reactions between the p30 antigens of C and B viruses in mice or between C and D viruses in primates.

Oncornavirus replication and cell transformation

A common feature of Oncornaviruses is that they are not cytocide for the cells in which they replicate. Like other viruses, *Oncornaviruses* live an eclipse phase after infecting a cell. The latter, once infected, produces new viruses, continues multiplying and may or may not become malignant. The infectious virus and viral particles are easily detected in most tumour cells or cells transformed in vitro. Viruses mature on the cell membrane and are continuously released by the cell through the cell membrane budding. Immediately after penetrating and infecting the cell, the viral RNA is transcribed into DNA: the RNA-DNA hybrid is then further transcribed into a double-stranded DNA which becomes integrated into the hosting cell's DNA during cell division. The integration of the specific viral DNA (*Provirus*) works as a permanent mark for the RNA transcription of the viral progeny and also as a hereditary transmissible gene for the transformation.

Oncornavirus – induced tumours

Normally these viruses can cause tumours only in their hosting organisms, rarely in other kinds of animals, including man. It is not known whether the relative "*respect for other species*" – a characteristic common to the *natural Retroviridae* mentioned below (Complexes A, B, C, D, E) – was kept in the *Retroviridae* which were manipulated in order to produce GMO plants or animal feed, or to modify the DNA of some animals which are eaten by human beings, such as salmons, chickens, etc. It is only known that this "*respect for other species*" is not applied in the case of DNA tumour viruses.

Complex A

[Complex of avian leukaemia – avian sarcoma]

Leukaemias

Leukaemias usually affect chickens. Viruses inducing leukaemias are widely spread among these animals. The two main viral leukaemias are lymphoid leukaemia (*avian lymphomatosis virus*), myelogenous leukaemia (*avian myeloblastosis virus*) and erythroid leukaemia (*avian erythroblastosis virus*). The infectious virus and its physical particles can be found in high concentrations in tumour cells, in peripheral blood and in other organs of infected animals. This cannot be seen in the case of DNA tumour viruses. Myeloblasts or erythroblasts obtained from infected birds and grown through tissue culture continue to release viruses which can induce the disease in chickens through inoculation. Almost all chicken farms are infected by different types of these viruses, in particular by the lymphomatosis virus. The virus is transmitted horizontally through saliva and faeces, causing in adult animals an infection characterised by temporary viremia and persistent antibodies. Only relatively few adult birds develop signs of the clinical disease. The vertical transmission was observed in hens – but not in cocks – affected by viremia. This kind of non-genetic vertical transmission allows for the transmission of the *Oncornavirus* information through the germinal line in the form of a DNA provirus. The vertical transmission determines chickens affected by congenital viremia, which are tolerant to the virus, have no antibodies and are permanent spreaders of the virus itself. The incidence of leukaemia in animals congenitally infected is much higher than in animals infected by physical contact.

Sarcomas

The *Rous sarcoma virus* has been subjected to numerous experimental mutations since it was isolated for the first time in 1911.

Nowadays, the sarcoma is probably different from the natural one. These *avian viruses* differ for their oncogenesis, antigenic structure and host range. However, they cause sarcomas in birds of all ages and in laboratory chicken embryos even though – unlike *avian lymphomatosis viruses* – they are not transmitted naturally. Furthermore, they induce tumours in ducks, turkeys, pigeons and other birds. *Schmidt-Ruppin subgroup viruses* can infect mammal cells, thus inducing tumours – as already demonstrated when inoculated into newborn rats, *Syrian* and *Chinese* hamsters, rabbits, mice, guinea pigs and monkeys. These *avian tumours* usually still contain the infectious virus, whereas those affecting mammals strangely do not.

Note 1: These types of Retroviruses produce C particles. Particles similar to *C-type Oncornaviruses* were found under the electronic microscope in the cells or plasma of patients with solid tumours in man, such as Hodgkin's and non-Hodgkin's lymphoma, and sarcomas.

Note 2: Nowadays bibliographical research is being conducted to find out whether *D-subgroup avian viruses* were used to create GMO plants. However, it is known that these types of Retroviruses – which induce leukaemias in chickens – were used as vectors to introduce human genes into their DNA in order to increase their production. Moreover, these Retroviruses were also used as vectors to implant the growth hormone gene in some species of farmed fishes (Salmons) with a view to making them grow faster.

Complex B

[Complex of murine leukaemia- murine sarcoma]

Leukaemias

Numerous *murine leukaemia viruses* inducing different types of tumours were isolated. For example, *Graffi virus* causes myelogenous leukaemias in some rat strains and lymphatic leukaemia in others with a high percentage of cases.

Gross virus is responsible for most leukaemic diseases: it was demonstrated that most leukaemia viruses present murine pathogens in rats and that *Moloney virus* acts as a pathogenic agent also in hamsters.

Newborn animals are the most susceptible to *leukaemia viruses* but the disease can also attack young and adult animals. Genetic factors play an important role in determining rat susceptibility to viruses, the nature of the disease and virus transmission. A high number of infectious viruses and viral particles are present in infected animal blood and tumour tissues. *Murine leukaemia viruses* are spread in nature and *Gross virus* is the prototype of these agents causing natural leukaemias.

Sarcomas

Numerous strains of these viruses were isolated. They induce sarcomas in hamsters, rats and newborn mice. The transmission of some strains in rat cells allowed the RNA of the menome of the virus to obtain rat nucleic acid sequences.

Note 1: These types of *Retroviruses* produce C particles. Particles similar to *C-type Oncornaviruses* were found under the electronic microscope in the cells or plasma of patients with solid tumours in man, such as Hodgkin's and non-Hodgkin's lymphoma, and sarcomas.

Complex C

[Complex of the murine mammary tumour (carcinoma)]

The oncogenesis of various viral strains belonging to this type is quite complex, as it derives from the interaction among viruses, the genetic constitution of the hosting cell and hormonal factors. The most virulent viral strain known (MuMTV) causes mammary adenocarcinomas in female mice, with large quantities of infectious virus and B particles within the tumour, the milk and the blood of the mouse. In these animals, the virus is transmitted from the mother to the offspring through the milk. The virus induces adeno-carcinomas in the mammary gland only, and only in mice of susceptible lines. The animals which do not develop any tumour remain infected at a subclinical level, and transmit the virus to their offspring.

Studies conducted on a number of strains of mice in the ’70s showed that this highly virulent virus (MuMTV) was ubiquitous even in virus-positive mouse strains, but with a low incidence of mammary cancer. In some mouse strains, the MuMTV virus was rarely expressed completely. Hybridization studies proved that the tissues of mouse strains with a low (e.g., BALB/c) or high frequency (e.g., C3H) of mammary tumour contained DNA sequences of MuMTV and variable quantities of viral RNA. All mice presented endogenous sequences of the highly virulent MuMTV virus in their DNA. However, the properties and functions of the “endogenous” MuMTV virus – as distinct from the “exogenous” MuMTV virus, which is transmitted through milk – were not clarified.

Again in the ’70s, some viral strains (*GR*) were also described which are transmitted vertically through the eyes or semen, apparently in the form of an integrated DNA provirus (genetic vertical transmission).

NOTE 1: These types of Retroviruses produce B particles. Particles similar to *B-type Oncornaviruses* were found in human mammary tumours and in the milk of both Parsi women (an Indian population with a very high incidence of mammary cancer) and American women with a family anamnesis of mammary cancer. These particles contain RNA of significant molecular weight (70S) and the enzymatic activities of *reverse transcriptase*, which are all characteristics of Retroviruses. The serums of rabbits rendered immune against purified MTV precipitate a soluble antigen which can be found in the serums of women with mammary cancer. Furthermore, it was observed that the DNA synthesized in vitro from the VTM enzyme (by using the RNA of the VTM as a model) hybridizes with the polysomal RNA obtained from mammary adeno-carcinomas of the human species. Such hybridization could not be observed with the RNA deriving from other malignant diseases or normal human tissues. It was also indicated that the RNA contained in the extracts of human mammary adeno-carcinomas is a 70S component carried within a particle with the same typical density of *Oncornaviruses* together with the RNA-directed DNA polymerase. The DNA synthesized in vitro from the combination of 70S human RNA and enzyme specifically hybridizes with the RNA of the VTM. By adopting the same techniques, the research group found RNA complementary to the RNA of the murine *leukaemia retrovirus* (but not to that of the VTM) in other malignant tumours of the human species which are not related to mammary cancer. It could be observed that the DNA obtained in vitro from the murine *leukaemia retrovirus* with *reverse transcriptase* hybridizes with the RNA obtained in the cells of various leukaemias, lymphomas (including *Burkitt lymphoma*) and sarcomas. It was shown that the RNA contained in the cells of a number of *human leukaemias* is a 70S RNA combined with *reverse transcriptase*. It was finally noted that the DNA synthesized from this complex specifically hybridizes with the RNA of the *murine leukaemia retrovirus*, but not with the RNA of the VTM or of the virus of *avian myeloblastosis*.

Note 2: Mammary carcinomas in the human species. It is not known whether these viruses can also infect milk cows and consequently be transmitted to the human species. All these considerations are nonetheless of extreme concern in the light of the present use of *GMO animal feed*, which is created in the laboratory with a frequent application of Retroviruses and has been supplied to milk cows for approximately 10 years now. In the long run, there is a risk that spontaneous transgenic modifications may occur, with consequent possible “epidemics” of mammary tumours in the human species.

Complex D

[Complex of feline leukaemia- feline sarcoma]

The viruses of *feline leukaemia* and *feline sarcoma* were isolated from domestic cats suffering from leukaemia and fibrosarcoma.

Leukaemia

The virus of leukaemia is an infectious agent commonly found in stray cat populations. Most infections are light and transitory, and only a minor percentage of cats develops leukaemias or lymphomas in their old age. 70% of cats with leukaemia release infectious viruses which are easily transmitted to the animals of the same group. Newborn kitties are most sensible to the development of persistent viremia and the occurrence of tumours.

Sarcoma

The sarcoma virus is also frequently found. It can affect other species too, including dogs, rabbits, and apes.

Note 1: These types of Retroviruses produce C particles. Particles similar to *C-type Oncornaviruses* were found under the electronic microscope in the cells or plasma of patients with solid tumours in man, such as Hodgkin's and non-Hodgkin's lymphoma, and sarcomas.

Human infection: It is not known whether these viruses can also infect the human species, but it has been in any case proved that the virus of *natural* (i.e. non-GMO) *feline sarcoma* also affects primates. All these considerations are nonetheless of extreme concern in the light of the present use of *GMO food* for domestic cats and dogs, which is created in the laboratory with a frequent application of similar Retroviruses and has been sold as cat and dog food also in Europe for approximately 10 years now. In the long run, there is a risk that "epidemics" of leukaemias and sarcomas may occur, first in domestic dogs and stray and/or domestic cats, and then in human beings because of the presence of such animals in homes, given the evidence that the virus of *natural* (i.e. non-GMO) *feline sarcoma* also affects primates.

Complex E

[Primate Oncornavirus]

The *woolly monkey sarcoma virus* (SSV-1) induces sarcomas in *newborn hapaline monkeys*; the *gibbon ape leukaemia virus* (GALV) causes leukaemia in this species.

These types of Retroviruses produce C particles. Particles similar to *C-type Oncornaviruses* were found under the electronic microscope in the cells or plasma of patients with solid tumours in man, such as Hodgkin's and non-Hodgkin's lymphoma, and sarcomas.

It is not known whether similar Retroviruses were used to produce GMO plants or breeding animal feed.

Other Retro-viruses

Visna Virus

This is a virus causing demyelination of the *Central Nervous System*, with a clinical picture compatible with *Bovine Spongiform Encephalopathy*. The incubation period ranges from a few months to several years. It affects the sheep of Iceland.

Considering its numerous similarities with RNA tumour viruses, this virus was included in the family of Retroviridae.

Similarities include: assembly and maturation of the virion through budding, the virion's diameter (70-100 nm), the presence of RNA-dependent DNA polymerase (*reverse transcriptase*), of 40S and 70S RNA and of a similar polypeptide set. Furthermore, the virus contains projections and prickles on the external membrane, and the negative particles resemble those of the *Rous sarcoma virus*. Thread-like inner structures were also noted (C particles), similar to those described above for *avian*, *murine* and *feline Retroviruses*.

HIV

This virus is suspected to be the agent causing AIDS, but the scientific debate is still open on the issue. Another AIDS-causing agent has recently been suggested: SV40 (DNA tumour virus).
Note : Plants against AIDS : http://fiocco59.altervista.org/nacci/anti-AIDS%20plants.pdf

B-Epatite

SEE medical Lecterature (cancer of liver)

Chap. 8.2.:
Dangers Inherent in the Process Itself
THE USE OF CAULIFLOWER MOSAIC VIRUS

35S Promoter (CaMV) in Calgene's Flavr Savr Tomato Creates Hazard

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The majority of crop plant constructions for herbicide or disease resistance employ a Promoter from cauliflower mosaic virus (CaMV). Regardless of the gene transferred, all transfers require a promoter, which is like a motor driving production of the genes' message. Without a promoter, the gene is inactive, but replicated. CaMV is used because it is a powerful motor which drives replication of the retrovirus and is active in both angiosperms and gymnosperms. The CaMV pararetrovirus replication cycle involves production vegetative virus containing RNA which is reverse transcribed to make DNA similar to HIV, Human Leukemia Virus and Human hepatitis B. (Bonneville et al. RNA Genetics Vol.11, "*Retroviruses, Viroids and RNA Recombination*" pp. 23-42, 1988). CaMV is closely related to hepatitis B and is closely related to HIV (Doolittle et al. Quart.Rev.Biol. 64,1-30, 1989; Xiong and Eickbush, *Origin and evolution of retroelements based upon their riverse transcriptase sequences* EMBO Journal 9, 3353, 1990). The CaMV promoter is preferred above other potential promoters because it is a more powerful promoter than others and is not greatly influenced by environmental conditions or tissue types. CaMV has two Promoters 19S and 35S. Of these two the 35S promoter is most frequently used in biotechnology because it is most powerful. The 35S promoter is a DNA (or RNA) sequence about 400 base pairs in length. The use of the CaMV promoter in plants is analogous to the use of retrovirus LTR promoters in retrovirus vectors used in human gene therapy. The majority of human gene therapy trials employ LTR promoters to provide motors to activate genes.

Antisense genes are genes constructed to have a complementary sequence to a target gene, thus producing a product that combines with a gene message to inactivate it. Antisense is analogous to an antibody which combines with an antigen like a key fitting a lock. Antisense is being used to treat human cancer and HIV infection. Antisense is used to prevent spoilage in tomatos, either by targeting an enzyme degrading cell walls (polygalacturonase), or production of ethylene a hormone promoting ripening (P. Oeller et al. Genetic Engineering 49, 1989; R. Fray and D. Grierson, Trends Genetics 9, 438, 1993). Most frequently antisense targets production of a chemical metabolite producing ethylene. The antisense gene also influenced polyamines spermine and spermidine production through S-adenosylmethionine. The implication is that the plant antisense gene product should be tested in animals to ensure that critical functions including gene replication, sperm activity and gene imprinting are not disrupted.

The perceived hazards of CaMV in crop plants include the consequences of recombination and pseudo recombination. Recombination is the exchanges of parts of genes or blocks of genes between chromosomes. Pseudorecombination is a situation in which gene components of one virus are exchanged with the protein coats of another. Frequently viruses may incorporate cellular genes by recombination or pseudorecombination, it has been noted that such recombinants have selective advantages (Lai, Micro. Rev. 56, 61, 1992).

It has been shown that the CaMV genes incorporated into the plant (canola) chromosome recombine with infecting virus to produce more virulent new virus diseases. The designers of the experiment questioned the safety of transgenic plants containing viral genes (S. Gal et al., Virology 187: 525, 1992). Recombination between CaMV viruses involves the promoter (Vaden and Melcher, Virology 177: 717, 1992) and may take place either between DNA and DNA or RNA and RNA and frequently creates more severe Infections than either parent (Mol. Plant-Microbe Interactions 5, 48, 1992). Recently related experiments suggest altered plants may breed deadlier diseases (A. Green and R. Allison, Sciences 263: 1423, 1994). DNA copies of RNA Viruses are frequently propagated using the CaMV 35S promoter to drive RNA virus production (J.Boyer and A. Haenni, Virology 198: 415, 1994 and J.Desuns and G.Lomonossoff, J. Gen. Vir. 74: 889, 1993). In conclusion CaMV promoters recombine with the infecting viruses to produce virulent new diseases. CaMV viruses and promoter may incorporate genes from the host creating virulent new diseases.

CaMV can recombine with insect viruses and propagated in insect cells (D. Zuidema et al. J. Gen. Vir. 71: 312, 1990). Thus it is likely that as large numbers of humans consume CaMV modified tomatos recombination between CaMV and hepatitis B viruses will take place creating a supervirus propagated in plants, insects and humans.

Plant biotechnology has grown out of recombinant DNA research that began in the early 1970's. The special nature of recombination has been debated since that time. In recent years, government regulators on the American and European continents, under pressure from well-funded lobby representing the biotechnology industry, have chosen to ignore the special nature of recombination. They have chosen instead to base regulations on existing frameworks for toxic chemicals and pathogenic organisms. Ignoring the special nature of recombination is likely to have costly, if not terminal, environmental consequences. A worst-case example includes the complete cloning of Human Immunodeficiency Virus (HIV) on an E. coli plasmid. When the plasmid is used to transform animal cells, intact HIV viruses are released from the cells. A careless (but legal) release of HIV bacteria to the environment would allow the plasmid to transfer to Salmonella as well as E. coli. Thus, numerous mammals and birds could contain HIV bacteria which could transform the animals, which would in turn produce HIV particles unable to target the animals T-cell receptors but easily transmitted to humans. When all the animals are HIV carriers, human survival would be marginal. The special concerns of recombination in plant biotechnology include the viruses and bacteria used in crop plant construction and gene flow between related crop plants and weeds in the field.

Currently most experts agree that virus diseases such as influenza gain strength for epidemics by alternating between animal hosts (pigs and ducks) and man. Epidemics begin when rare combinations appear in large closely associated populations such as in Asia. CaMV can propagate in plant and insect hosts following recombination. It may not be outlandish to predict that CaMV

may recombine with related Hepatitis B or for that matter HIV to create a most powerful disease. The salient feature being large number of people or animals consuming large numbers of virus genes incorporated into crop plants making up a major part of human and animal diet.

The use of CaMV promoter is seldom an issue in reviews of safety of gene tinkered crops. Few people have raised the important issue and more often than not their concerns are ignored by government officials "protecting" public safety. This omission may be a fatal one because it has potentially the most damaging impact, and the one perceived at the beginning of gene splicing.

Conclusion

As Bill Mollison said; "*the time for evidence is over, there is only time for action*." Or in the more eloquent words of Kant, "*It is often necessary to take a decision on the basis of knowledge sufficient for action, but insufficient to satisfy the intellect.*" In this case I think we are faced with a situation demanding the latter.

If we campaign wholeheartedly for a ban we are on solid scientific ground. We can appeal directly to people to help, and show them why it is important. The campaign for labelling is making the issue of a life-threatening technology appear to be merely an issue of civil rights. This is playing right into the hands of the biotech corporations. I would like to see a debate about how to stop them, not about how to allow them to carry on. No one has the right to choose something that threatens the lives of others. These new organisms must be stopped. The democratic process is being subverted by powerful corporations who are taking direct action with no mandate. How should we react?

Chap. 8.3.: Scentific Article in WEB

Pairs of mutant cauliflower mosaic virus (CaMV) DNAs readily recombine in plants: three cloned chimeras resulted from multiple recombination events….. It suggesting that recombination of double-stranded DNAs may also generate CaMV DNA recombinants

Ray Vaden: *Recombination sites in Cauliflower Mosaic Virus DNAs; implications for Mechanisms of recombination*, Virology, No.177, pp: 717-726, 1990 http://www.dirittolibertadicura.org/images/OGM/ray%20vaden%20.pdf

…In several cases transgenic plants may contain mixtures of nucleic acids from different viruses provided by an external source, e.g. an insect vector ….. both DNA and RNA recombination events may have been involved in the production of functional virus….

Gal S.: *Agroinfection of transgenic plants leads to viable Cauliflower Mosaic Virus by intermolecular recombination*, Virology, No.187, pp.: 525-533, 1992 http://www.dirittolibertadicura.org/images/OGM/gal.pdf

….Analysis of viral RNA confirmed that RNA recombination had united the transgenic messenger RNA and the challenging virus through aberrant homologous recombination…..

Greene A..: *Recombination between viral RNA and transgenic plant transcripts*, Science, Vol. 263, 11 march 1994 http://www.dirittolibertadicura.org/images/OGM/greene.pdf

...Different strategies employed to obtain infectious clones from nonretroviral RNA viruses and the different possible parameters affecting infectivity of such clones, keeping in mind, however, that the success or failure of the construction of these clones is often empirical and that very few systematic studies have been performed on the different parameters involved….

Boyer J.C.: *Infectious transcripts and cDNA clones of RNA Viruses*, Virology, No. 198, pp.: 415-426, 1994 http://www.dirittolibertadicura.org/images/OGM/boyer.pdf

…When a segment of a specific viral genome is expressed in a transgenic plant….several independent investigations have demonstrated that transgenic transcripts are available to replicating viruses….

Allison R.F.: *Recombination in plants expressing viral transgenes*, Seminars in Virology, Vol. 7, pp.: 417-422, 1996
http://www.dirittolibertadicura.org/images/OGM/allison.pdf

…..We demonstrate that recombinant viruses can be isolated from transgenic plants….an analysis of 24 infected plants showed that a recombination event occurred in every plant, demonstrating that under strong selection conditions, the recovery of CaMV recombinants from transgenic plants can be very high….

Wintermantel W.M.: *Isolation of recombinant viruses between Culiflower Mosaic Virus and a viral gene in transgenic plants under conditions of moderate selection pressure*, Virology, No. 223, pp.: 156-164, 1996
http://www.dirittolibertadicura.org/images/OGM/wintermantel.pdf

….Cauliflower mosaic virus 35S promoter…. its activity in human cells may have impact on the risk assessment for the environmental release of genetically modified plants… the results showed very low but measurable activity of 35S promoter in human 293T – cells (0,01% of that revealed when using pCMV…… In potato protoplasts pCMV displayed nearly 1% activity seen with p35S…

Vlasak J.: *Comparison of hCMV immediate early and CaMV 35S promoters in both plant and human cells*, Journal of Biotechnology No. 103, pp.: 197-202, 2003. http://www.dirittolibertadicura.org/images/OGM/vlasak.pdf

OTHER:

Latham J.: *GM Gene Flow (B): Horizontal gene transfer of viral inserts from GM plants to viruses*, Technical paper, February 2004 http://www.dirittolibertadicura.org/images/OGM/latham.pdf

Zuidema
http://www.mednat.org/alimentazione/zuidema.pdf

Dessens
http://www.mednat.org/alimentazione/dessens.pdf

Hammond J.: *Epidemiological risks from mixed virus infections and transgenic plants expressing viral genes*; Maryland USA; Adv Virus Res., 1999, 54, pp. 189-314.

Xiong Yue Eickbush T.: *Origin and evolution of retroelements based upon their riverse transcriptase sequences*, EMBO Journal, vol. 9, No.10, pp.: 3353-3362, 1990
http://www.mednat.org/alimentazione/EMBO%20JOURNAL%201990.pdf

Chapter 9:

Immune Therapy

Immune therapy is the immune response against tumors, carried out by means of *gamma delta* T Lymphocytes, cytotoxic T Lymphocytes, killer lymphocytes and Natural Killers, real guide systems of a *complete* immune response of the patient against the tumor itself (start of the Immune Cascade).
There are different scientific studies on this subject:
JAMA, 278: 1972-1981, 1997; Crit. Rev. Oncol.-Hematol, 22, pp.: 213-228, 1996; Semin. immunol., 8, pp. 295-302, 1996; Sem. Oncol., 23, pp.: 101-107, 1996; Springer Semin. Immunopath. 18, pp.: 185-198, 1996; Cancer Met Rev., 15, pp:329-349, 1996; Ann. Rev. Immunol., 12, pp.: 337-365, 1994; Adv Immunol. 35, pp.: 89-122, 1984.

Brain cancer : J. Neurosurgery 77, pp 757-762, 1992; Cellular Immunology, 178, pp: 101-107, 1997; J. Neuro-Oncology, 32, pp.: 29-38, 1997.

Breast cancer : Cancer Gene Therapy, 4, pp.: 157-166, 1997; Surgery, 122, pp.: 228-234, 1997. Per tumori del Colon: Blood 89, pp: 2529-2536, 1997;

Leukaemia: Progress Cancer Research and Therapeutics, 22, pp: 127-133, 1982;

Liver cancer: J. Immunology, 161, pp.: 5133-5137, 1998;

Lung cancer: Blood 89, pp.: 2529-2536, 1997; J. Immunology 147, pp: 729-737, 1991; J. Immunology 143, pp.: 740-748, 1989.
Melanoma: Cancer Immunology, Immunotherapy, 42, pp.: 237-245, 1996; J. Immunotherapy, 13, pp.: 153-165, 1993.

The Immune Cascade, induced to fight the tumor, is carried out by means of the use of phyto therapy (plant therapy), because it is considered safer compared to the complex methodology of extracting Lymphocytes from the tumor, cultivating them in a sterile environment, and then reinjecting them, intravenously, into the patient, as Rosemburg and other authors [see: Pizza Giancarlo: *Immunotherapy of metastatic kidney cancer*, Int. J. Cancer, 94, pp.109-120, 2001]).

There have been many studies carried out on the search for natural substances which have an anti-neoplastic immune-modulating action ([9, 11, 32, 44, 50, 53, 61, 67, 82, 105, 126, 132, 144, 145, 146, 180, 196, 198, 225, 236, 278, 279, 306, 310, 319, 331, 346, 351, 359, 368, 372-381, 387, 388, 394, 395, 406, 412, 418, 419, 430, 444, 456, 462, 472, 474, 500, 516, 517, 520, 577]).

The majority of tumoral antigen markers, which were well thought of during the 1980s as specific tumoral antigens, are in fact differentiating antigens, that is, antigens which appear along the maturing lines of the cell as embryonal antigens.
Not all tumoral cells express the same antigens at the same time and irrespective of the cellular cycle, it is thought that these antigens can cause a weak cytotoxic reaction mediated by the lymphocytes, perhaps because of carbohydrate structures screening the protein structures, which are the real determining antigens;([507]).

The activation of the T lymphocyte suppressors is caused by the weak immune response to the tumor: in the case, that is, of a spontaneously arising tumor, the presence at the beginning of a low number of cells favors rather than inhibits its growth by means of a mechanism mediated by the T suppressors.

It is still much debated whether the regional lymph nodes form an immune or even only a mechanic barrier to the spread of the metastasis.
The lymph nodes next to the tumor often do not contain tumoral cells but they show a hyper-plastic reaction which suggests the existence of a reaction of the host against the tumor or its derivatives.
The theory has also been proposed that the lymph nodes have a limited capacity to eliminate neo-plastic cells.
It is thought that the limit of this action is exactly connected to the number of malignant cells which reach the lymph node, a value which has to be less than 500-1.000 cells to avoid the onset of a metastasis.
The destruction of metastasizing cells is started, above all, by the histiocyte macrophages of the breasts with a hyper-plastic reaction of these, which is then followed by an active infiltration of the tumoral micro-metastasis caused by cytotoxic T lymphocytes and *Natural-Killers* (NK) ([507]).
These are thought to have a spontaneous reactivity against both primary and metastasis cancerous cells, without any manifestation of histocompatability or of specific types for the function of the interaction of the cells.
Rats with a low level of NK, if treated with *Beta-estradiol* increase their NK quite significantly, with significant reductions in the number of metastases([507]).
Even the *neutrophils* of peripheral human blood have been shown, in vitro, capable of inhibiting the growth of cancerous cells of either human or murine origin, with a strength ratio of 40 to1 between effector cells and neo-plastic cells; and always if the latter are covered by antibodies ([507]).

Macrophage-Monocytes show cytotoxity of a phagocytic type on neo-plastic cells even in the absence of precise stimulation; their cytotoxity is thought to occur by means of a bond, favored by the receptor for the FC portion of the antibody and of the *complement*, to the antigen target covered by antibodies with a strength ratio of 1 to 1, after which the cells may be destroyed ([507]).
Recently, there has also been notable interest regarding T Lymphocytes, which might be activated by particular substances, such as lecithin, which is contained in *Aloe* for example ([499]).
The following plants might also be useful, because they are forerunners of Prostaglandin and therefore they assist in the Immune Cascade: oil of *Borrago officinalis* (Borragine [note; eliminate the fine down which covers it]); oil of *Oenothera biensis* (Enotera); the leaves of *Nelumbium speciosum* (Kamala), which contain two essential unsaturated fatty acids (vitamin F): gamma-linolenic acid and linolenic acid: the two acids cis-linolenic and gamma linolenic introduce a number of essential fatty acids into the human biochemical complex; then, the delta 6 desaturated block is overcome through gamma-linolenic acid (GLA) encouraging the production of Protaglandin and so setting off the first phase of the Immune Cascade.

The immune response to the tumor is fully demonstrated by the use of other phytotherapeutic substances([621,773,793,794]) such as extract of *Viscum album* (Mistletoe) and above all by a variety of combinations of European, Asian, American, Australian and African herbs, or by using them individually: *Echinacea purpurea, Astragalus membranaceus, Panax ginseng, Rhodiola rosea, Morinda citrifolia, Campanula latifolia, Tribulus terrestris, Uncaria tomentosa, Sida cordifolia, Arctium lappa, Rumex acetosa, Rumex crispus, Bacopa monnieri, Rheum palmatum or officinale, Trifolium pratensae, Calendula officinalis, Achillea filipendulina, Urtica dioica, Acalypha indica, Taraxacum officinale, Malva silvestris* or *vulgaris*, *Epilobium angustifolium or parviflorum, Artemisia abrotanum* or *dracunculus, Salvia officinalis* or *lavandulifolia, Equisetum arvense Crocus sativus, Polygala senega, Thymus vulgaris, Citrullus colocynthis, Primula veris* or

officinalis, *Ailanthus glandulosa*, *Thymus serpillum*, *Sysymbrium officinale*, *Aquilaria agallocha*, *Eclipta alba*, *Larrea mexicana*, *Viola tricolor*, *Drosera rotundifolia* or *anglica*, or *intermedia*, *Argemone mexicana*, *Sambucus nigra*, *Smilax sarsaparilla* or *utilitis*, *Myrica cerifera*, *Rosmarinus officinalis*, *Cinnamomum zeylanicum*, *Adiantum capillus veneris*, *Luffa operculata*, *Tephorosia purpurea*, *Nepeta cataria*, *Momordica charantia*, *Trigonella foenum graecum*, *Verbascum thapsus* or *densiflorum*, *Serenoa repens*, *Sempervivum montanum*, *Ajuga reptans* or *piramidalis*, *Gnafalium supinum*, *Citrus aurantium bergamia*, *Draba aizoides*, *Hieracium pilosella*, *Cicerbita alpina*, *Hypericum richeri*, *Angelica archangelica*, *Leucanthemopsis alpina*, *Primula hirsuta*, *Saxifraga oppositifolia*, *Cerastium alpinum*, *Cirsium spinosissimum*, *Pedicularis rostrato-capitata*, *Potentilla grandiflora*, *Annona squamosa*, *Gentiana germanica*, *Saxifraga aizoides*, *Antennaria dioica*, *Argyreia speciosa* (o *Lettsomia nervosa*), *Moringa pterygosperma*, *Antyllis alpestris*, *Hypoxis hemerocallidea*, *Eupatorium perfoliatum* or *purpureum*, *Euspongia officinalis*, *Glycyrrhiza glabra*, *Lycopodium clavatum*, *Galphimia glauca*, *Albizzia lebbek*, *Sticta pulmonaria* or *Lobaria pulmonaria*, *Holarrhena antidysenterica*, *Sutherlandia frutescens*, *Chimaphila umbellata*, *Myristica fragrans* or *sebifera*, *Grindelia camporum* or *squarrosa*, *Althaea officinalis*, *Guajacum officinalis*, *Boswellia serrata*, *Myroxylon balsamum*, *Erithrea antaurium*, *Pulmonaria officinalis* or *angustifolia*, *Peucedanum ostruthium*, *Bambusa arundinacea*, *Ocimum basilicum*, *sanctum* or *tenuiflorum*, *Ceanothus americanus*, *Cassia angustifolia*, *Centaurea erythreum*, *Rhamnus sagrada* or *purshiana*, *Aralia racemosa*, *Rhamnus frangula* (or *Frangula alnus*), *Curcuma longa*, *Terminalia chebula*, *Lepidium meyenii*, *Mahonia aquifolium*, *Stachys arvensis*, *Abuta grandifolia*, *Polygonum aviculare*, *Ailantus glandulosa*, *Geranium robertianum*, *Marasdenia cundurango*, *Melissa monarda* or *officinalis*, *Alchimilla alpina* or *vulgaris*, *Asparagus racemosus*, *Apium graveolens*, *Lamium album*, *Pimpinella major*, *Lysimachia nummularia*, *Marrubium vulgare*, *Acorus calamus*, *Galium aparine*, *Lapsana communis*, *Glechoma hederaceum*, *Myrtus communis*, *Cinchona calisaya* or *succirubra*, *Meum mutellina*, *Picramnia antidesma*, *Azadirachta indica*, *Achyrocline satureoides*, *Polypodium lepidopteris*, *Anacardium occidentale*, *Bidens pilosa*, *Bixa orellana*, *Carapa guianensis*, *Scutellaria baicalensis* o *latiflora*, *Nelumbo nucifera*, *Boerhaavia diffusa*, *Calendula silvestris*, *Cassia occidentalis*, *Houttuynia cordata*, *Cayaponia tayuya*, *Cissampelos pareira*, *Asparagus cochinensis*, *Copaifera officinalis*, *Cynara scolymus*, *Erythrina mulungu*, *Erythroxylum catuaba*, *Ilex paraguariensis*, *Inesinae calea*, *Lepidium meyenii*, *Maytenus krukovit*, *Maytenus illicifolia*, *Myroxylon balsamum* or *pereirae*, *Pfaffia paniculata*, *Phyllantus niruri*, *Physalis angulata* or *Muehenbeckia volcanica*, *Psidium guajava*, *Schinus molle*, *Solanum paniculatum*, and another….

Chapter 9.a : Immune stimulation : the experience of S.A.Rosenberg

In 1986, Rosenberg demonstrated that an immune mediated cell response, aimed at neo-plastic clones, was possible ([375]), even if the exact mechanism by which the *Tumor Infiltrated Lymphocytes* (TIL) exercised their anti-cancerous clinical effect was not yet known.
In preceding studies it had been seen that lymphocytes CD8+ managed to lyse autologous tumors and alien tumors characterized by HLA restricted to the Major Hystocompatibility Complex of the First Class ([376]).
In a later study ([377]) however, it was demonstrated, through the use of murine tumors, that it was, instead, the specific secretions of *Interferon Gamma* (IFN Gamma) by the TIL, that were the principle artifice of the immune response of the autologous tumor. From other studies it was then observed that the TIL deriving from contact with human melanomes and from carcinomas of the breast secreted small quantities of GM-CSF (stimulation factors of the granulocyte colony and the macrophages), IFN Gamma and Tumoral Necrosis Factor Alfa (TNF Alfa), in response to alien tumors specifically characterized by HLA ([378-380]). This demonstrated a precise interaction, restricted to the Major Hystocompatibility Complex, between T lymphocytes and cancerous cells. Studying, therefore, a series of TIL taken from the carcinomatous lesions of the human colon ([106,412]), it was seen that these did not have a litic effect on the neo-plastic cells, yet it was possible to recognize, by means of the Major Hystocompatibility Complex, the carcinomas of the colon (autologous or alien) marked with HLA. A subsequent study ([279]) showed that the expression of the MHC antigens, both of the first and the second class, could be reduced in carcinomas of the colon.
In a further study ([381]), Rosenberg put forward the theory that the capacity of the TIL to secrete cytokines, immediately after being stimulated by autologous and alien tumors, characterized by HLA, was due to a specific recognition on the part of a tumor-associated antigen, traceable even in different patients: this was the beginning of the official adoption of Immune Therapy.

Chapter 9.b : Aloe arborescens

Aloe arborescens

Among all the medicines, phyto-medicines and active principles mentioned in this chapter, it is important to underline the recent use in medicine of a particular plant, which has been known since antiquity for its therapeutic properties: Aloe : ([146,149,164,179,189,211,225,267,273,314,333,372,387,388,392,393,465,487,499, 1117]).

Of the 250 known varieties, science has recently shown particular interest in *Aloe arborescens*, it is considered better than the other varieties of the plant including *Aloe vera.*

Compared to the latter, in fact, *Aloe arborescens* has a higher concentration of active principles, at least three times higher, and furthermore it is more resistant to our climate.

It contains about a hundred active principles. Of the known substances, apart from 8 essential amino acids, many vitamins, acetylsalicylic acid, choline and various forms of lipids, *Aloe* also contains some rare mineral salts: Zinc, Manganese, Iron, Germanium, Chromium, Magnesium, Boron, and Selenium, with important implications for the various human pathologies: among these, many of the degenerative pathologies, the metabolism and deficiency diseases. *Aloe arborescens* tends to normalize the biochemical and functional parameters of the organism in a time window which varies from 2 to 6 months:

1) Regularization of partial pressure of carbon dioxide in the blood.
2) Regularization of glucose values in the blood, particularly in diabetic patients.
3) Reduction of triglyceride.
4) Regularization of all cholesterol with an increase in the HDL/LDL ratio.
5) Normalization of Bilirubin.
6) Normalization of uric acid.
7) Regularization of Na / K, Ca / Mg.
8) An increase in hemoglobin.
9) Protection of the gastro-intestinal, hepatic, pancreatic and kidney systems.
10) Activation of the immune defenses against acute infections.
11) A lymphocyte rebalance in chronic infectious diseases such as Hepatitis C, HIV/AIDS.
12) An anti-oxidative protection of the DNA from the effects of ionizing radiation.

Plants against AIDS : http://fiocco59.altervista.org/nacci/anti-AIDS%20plants.pdf

In particular some substances effective in the cure of tumors gain value ([146,161-163,178,211,314,333,372,387-389,442,487,499]), such as Anthraquinone Aloctin A, Aloctin B, and Emodin; the polysaccharides which include Aloe-mannano; lecithin *ATF1011* and *Alexin B.*

These substances can be substantially divided into two groups with anti-cancerous action:

1) Immune stimulation (the specific topic of this paragraph chapter 9.b)
2) Apoptosis induction (Emodin-Aloe; SEE ALLEGATED).

Immune stimulation

1) The Aloctin A Anthraquinone (Aloctin A, Alo-A) and Aloctin B (otherwise known as Barbaloin), are contained in the external part of the leaves, and they are characterized by their laxative, bactericidal and anti-inflammation properties, in each case with completely safe maximum tolerable dosages, that is equal to about 10 mg/ kg without any risk of real damage to the patient. Their importance rests in the fact that they induce a high replicate activity in the cytotoxic T lymphocytes and on the *Natural Killers*, in a way which is comparable to other active factors already known. In particular, *Aloctin A* (Alo A) induces activation of IL-2,IL-3 and IFN gamma to minimum concentrations of 10 microgrammes

/mL ([211]). Furthermore it is thought to have the capacity to activate the Complement along the Via Alternativa ([389,162]).

2) The polysaccharides, of a particular biochemical structure, are characterized by an extreme facility of absorption by the intestinal villus of the patient (if they are not undergoing chemotherapy). They are not mucopolysaccharides, because they do not contain nitrogen groups; among these, Aloe-mannano is of particular value, which acts in an antigen way, recalling at least in part the action of beta-Glucano (chapter 4d): structurally, it is a long acetyl and water soluble chain formed by mannose and glucose in a stoichiometrical ratio of about 6 to 1. As it is a molecule which is antigenically foreign to the organism, and therefore capable, because of its particular polysaccharide conformation, of a higher capacity of assimilation by the intestinal villus, it exerts, considering its relatively scarce concentration, its good capacity to induce an immune response in the T *gamma-delta* lymphocytes which are present in about 150 lymph node stations of the intestine, with subsequent induction of the Immune Cascade (T lymphocytes are sensitized to the direct cytotoxic action [Tc], *Killer* lymphocytes [a cytotoxic action of the dependant-antibody mediated cell], *Natural Killer* lymphocytes [a cytotoxic action of the non dependant-antibody mediated cell] or by macrophage-monocytes….): an Immune Cascade which would seem to be characterized, at a distance of 1-2 months from the beginning of oral administration of a mixture made up of *Aloe arborescens* (a ratio of 1 to 2 between freshly chopped *Aloe* and Honey) by a situation of diffuse Peritonitis starting from a gastric, ileum-caecal or hepatic point and lasting almost a week, followed by a haematic peak of lymphocytes in the absence of an increase in other sub-groups of white corpuscles (author's personal observations).

3) *ATF1011*
It is a lecithin which connects to the surfaces of cancerous cells, thus inducing the activation of cytotoxic lymphocytes against them ([499]).

4) Alexin B
The lecithin *Alexin B* has been tested and given positive results on lymphocyte leukaemia ([442]).

In anti-neoplastic therapy, it is of vital importance to choose plant therapies prepared with a base of *Aloe* which correspond to the following 10 requisites (as estimated by the author), otherwise the therapy will fail, at least as is understood for the purposes of this study.

1) the preparation must be made with a very high quality organic honey, avoiding, at all costs honey made from a mix of flowers ('millefiori'), a side product of other honeys. Honey is of primary importance because it carries the different immune-modulating substances of *Aloe* (Aloctin, Aloe-mannano, and Zinc) to the very delicate T *gamma-delta* lymphocytes. The extreme vulnerability of these very delicate immune cells must be taken into consideration, and it is on them that, in substance, the whole immune Cascade response to the tumor depends (cytotoxic T lymphocytes, *Killer, Natural Killer,* macrophages, granulocytes etc). The honey itself, if is of a poor quality, could carry to the very delicate T lymphocytes, dangerous toxic-chemical substances such as pesticides.
Furthermore, the Honey carries Emodin, vitamins and mineral salts, not easily activated even by the few traces of toxic substances such as Chlorine, Fluoride, Iron, Copper and Alum (which are often in pharmaceutical products), but also: Cadmium, pesticides, fertilizers, preservatives and chemical additives.

2) The preparation must be made up from whole leaves of *Aloe*, and not only from the gel, because the morphology of the leaves consists of three very different materials, all pharmacologically useful: the outside cuticle, which is green and has sharp pointed sides, formed by cellulous fibers; the intermediate pericyclic

layer where the sap is yellowish and bitter (from which Anthraquinone Aloctin A and B , Emodin and even Anthraquinone are derived); and finally the inside spongy tissue where the gel itself is (from which the polysaccharides are derived including Aloe-mannano).

3) The leaves must be taken from plants which are at least 3-4 years old, and must not include any of the central leaves, that is, those which have a clear maculation, or any older leaves if they are too yellow, dry or broken. Young plants which have leaves with clear maculation must not be used.

4) The leaves must be cut at the base, eliminating the tip, the base itself and the side thorns including the 4-5 millimeter edge of the leaf. Each leaf must be cut cross-wise in 2 centimeter strips.

5) The pieces of leaf must be liquidized with organic honey and a spirit (dry, distillated, not fermented, of good quality, with no additives, such as for example: Grappa, *eau de vie*, Cognac or Whisky) in a container made of a suitable material, that is with no aluminum or iron (which deactivate Vitamin E and other substances in the plant). The liquidizer could perhaps be made of stainless steel (a study currently in progress); it must be sterilized by heat and not by using chemical disinfectants or other substances, such as chlorine (which deactivates different substances present in *Aloe*, even if there is just a trace used).

6) The weight ratio between the leaf and the Honey must be 1:2 in the case of *Aloe arborescens*; and 3:2 in the case of *Aloe vera*, because the latter is 3 times less rich in active principles compared to *Aloe arborescens.* Thus, for example, to 50-60 grams of *Aloe arborescens* leaves, 100-120 grams or up to a maximum of about 150-200 grams of pure Honey must be added.
Vice versa, with *Aloe vera* (the use of which is not advisable), at least 150-180 grams of leaves need to be used before adding from 100-120 grams up to about 150-200 grams of pure Honey.
In both cases, the spirit must be added, equal to 5-12 cc, until a homogenous cream is obtained.

7) To the mixture, already prepared in a cream, should then be added *Bis-carboxyle Germanium sesquioxide* (organic Germanium), or inorganic Germanium can be added directly to the sandy soil where the plant is grown, since it is well-known that enriching the soil with Germanium increases the therapeutic capacity of the plant, given the advantages we know about this element (SEE chapter 3).
Note: inorganic Germanium is toxic. If it is absorbed by the plant it becomes organic (no longer toxic).

8) Pour the contents into a glass container, sealing it well, write the date of the preparation and put it in a place with a temperature of 4°C (the standard temperature of a fridge), and away from the light (the active factors will become deactivated quickly both in the light and in a normal temperature).

9) Even kept in the dark and the cold, the active ingredients will deteriorate in a few weeks. Therefore it is advisable to consume the mixture within 1-2 months maximum after preparation.

10) *Aloe arborescens* contains a higher percentage of active principles then *Aloe vera*. Therefore it is advisable to cultivate *Aloe arborescens* (orange flower) rather than *Aloe vera*. If possible, it is best to use a soil mixed with sand.

According to the author, the several spoonfuls of *Aloe arborescens* with organic Honey must be taken at the usual hours advised (half an hour before breakfast, lunch and dinner).
Aloe arborescens has also been experimented using a dosage of two tablespoonfuls every 2-3 hours, up to a total of 18-20 doses daily, in more serious cases.
In the anti-cancer protocol (chap. 16), *Aloe arborescens* must, however, be integrated with 10-15 portions of fresh fruit and raw vegetables, *Allium sativum* and *Allium cepa* for *Germanium 132* (SEE chapter 3), 1-2 gramms of *Ananas sativus* stalk (Bromelain) with (bitter) seeds of *Prunus armeniaca* (or *spinosa*, or *avium*, or *domestica*), 20-40 types of medicals plants (SEE chap.6 and chap.9) organic whole-wheat pasta (without Lysine and Tripthophan).

Note : for all cultivated forms of *Aloe*, leaves and derivatives, particular attention must be paid to the different types of plant, bearing in mind that *Aloe vera* contains 1/3 less active principles than *Aloe arborescens.* In particular, attention must be paid to leaves deriving from plants which are not suitable, such as "*Aloe from Natal"*, a serious sophistication of the product because it contains Omonataloin: C –glucosydes of 1,7 dihydroxy-8-methodoxy-3 methyl ([580]).

Chapter 9.c : ESSIAC

From INTERNET: Herbal Therapies for Cancer, by Vivekan Don Flint and Michael Lerner, Research Assistance: Melanie Smith, October 1997.
(NON reported in Italian version of commercial Book “Diventa Medico di te stesso !”)

Essiac is an herbal preparation, reportedly based upon a Native American formula, that has been in use widespread by people with cancer since the 1920s.

Rene Caisse, a nurse at a rural clinic in Ontario, Canada, was told by one of her patients that she had recovered from a breast cancer 20 years earlier after using an Indian herbal tea. Caisse obtained the recipe for the tea from the woman and began giving it to patients in 1924 after reportedly using it successfully with an aunt with cancer ([1438]).

Cassie's life and work are the subject of two extremely sympathetic biographies, *The Calling of An Angel* ([1439]) by Gary Glum and *The Essiac Report*: Canada's Remarkable Unknown Cancer Remedy([1440]) by Richard Thomas.

According to Thomas, Caisse, working with her aunt's physician, R.O. Fischer, M.D., reasoned that even better results might be obtained by injecting the herbal preparation. Working with mice inoculated with human cancers, they determined which herbs could be safely injected:

It took Dr. Fischer and I about two years to find out just what ingredients could be given hypodermically without a reaction, and by elimination we found the ingredients that directly reduced the growth of the cancer. However, I found that the other ingredients, which could not be injected, were necessary to the treatment in order to carry off the destroyed tissue and infections thrown off by the malignancy. So by giving the injection to destroy the mass of malignant cells and giving the medicine orally to purify the blood, I was able to get the best results.([1441]).

Caisse believed that even if the tumor did not disappear completely, it could be forced to regress to the point that it could be surgically removed after six to eight treatments. Then, if there were any suspicion that malignant cells might be left after the operation, she recommended that Essiac be given once a week for at least three months thereafter ([1442]).

It was during this time the formula was given the name Essiac, Caisse spelled backwards.

Soon Caisse was reportedly treating as many as 30 people a day out of her mother's Bracebridge home. Then, in 1935, the Town of Bracebridge turned over a repossessed hotel to Caisse for use as a clinic. She treated many hundreds of patients there and received a great deal of attention in the press for her reported successes.

In 1938, supporters circulated a petition garnering 55,000 signatures in support of Caisse's practice, which operated in technical violation of Canadian law. Sympathetic legislators introduced a bill to authorize Caisse to practice medicine in Ontario. The competing "Kirby Bill" proposed instead setting up a Royal commission to investigate "controversial" treatments before allowing treatment of patients and require all formulas to be turned over to the Commission.

Caisse, who reportedly treated patients without regard to ability to pay, was adamantly opposed to surrendering the formula for Essiac fearing patients would be exploited. Nevertheless, the bill to legalize her practice lost by three votes. Caisse's threat to close her clinic brought a public outcry and the Health Minister assured her she would not be charged under the new Kirby law ([1443]).

In 1938, the Royal Cancer Commission initiated an investigation by visiting her clinic to interview patients. The visit was followed by a public hearing in 1939 attended by 387 patients who came to testify on Caisse's behalf. However, only forty-nine patients ultimately were allowed to testify. In most cases the commission decided it was unclear whether conventional therapy or Essiac was responsible for improvement, and in many cases whether the diagnosis of cancer was even accurate. The commission concluded that of eight patients whose diagnoses could be confirmed, two of the four recoveries could be credited to Essiac. The Commission concluded that "*the evidence adduced does not justify any favorable conclusion as to the merits of 'Essiac' as a remedy for cancer...*"

Despite the unfavorable ruling, Caisse continued to treat patients, but became increasingly fearful of prosecution. She closed her clinic in 1942, though she continued to treat patients in secrecy from her home ([1444]).

The [OAM] summary of Essiac research describes a 1958 study conducted at Memorial Sloan-Kettering Cancer Center (MSKCC) in which "some changes" were observed in mice treated with Essiac that were not observed in controls. MSKCC requested the formula in order to pursue further testing, but Caisse refused the request ([1445]).

In 1959, Caisse travelled to the Brusch Clinic in Cambridge, Massachusetts to work with Dr. Charles Brusch on a clinical evaluation of Essiac. Brusch was a highly regarded physician and President Kennedy's personal doctor. He also had a keen interest in unconventional medicine, having established the first clinic in the United States to conduct research on acupuncture.

After using Essiac with patients at the clinic for three months, Brusch wrote:

Clinically, on patients suffering from pathologically proven cancer, it reduces pain and causes a recession in growth; patients have gained weight and shown an improvement in their general health. This after only three months' tests and the proof Miss Caisse has to show of the many patients she has benefitted in the past 25 years, has convinced the doctors at the Brusch Medical Center that Essiac has merit in the treatment of cancer. The doctors do not say that Essiac is a cure, but they do say it is of benefit. It is non-toxic, and is administered both orally and by intramuscular injection ([1446]).

The OAM reports, however, that the results of studies on 35 mice and an unknown number of patients at the clinic have never been published ([1447]).

Researchers at both Memorial Sloan-Kettering Cancer Center (MSKCC) and the NCI expressed interest in testing Essiac, but Caisse refused to reveal the formula. But clinical research continued at the Brusch Clinic, and in collaboration with herbalist Elmer Grove, Caisse and Brusch added additional herbs, feeling they had potentiated the formula to the point it no longer needed to be injected, but could be taken orally ([1448]).

In 1973, Caisse contacted MSKCC concerning the possibility of further testing with Essiac. Caisse supplied Essiac for the next three years for tests in mice.

According to the OTA:

Caisse submitted three samples of Essiac (two dried samples used to make an extract and one liquid sample), which MSKCC tested in the S-180 mouse sarcoma test system. This test is intended to detect immunotherapeutic effects (indicated by the occurrence of tumor regression) or chemotherapeutic effects (indicated by a diminished tumor growth rate). The results of six immunotherapy tests and two chemotherapy tests of Essiac samples using the S-180 system all showed no activity ([1449]).

These disappointing results led to accusations by Caisse of improperly prepared Essiac and the implantation of animal rather than human carcinoma in the mice ([1450]).

The controversy around Essiac surfaced publicly again in Canada in 1977 when Homemakers Magazine, a widely read national publication, printed an exhaustively-researched article about Caisse and Essiac describing numerous case histories. The management of the publication also offered to set up a trust for Caisse "to represent her in any dealings she might have with the government, Cancer Institute or any interested pharmaceutical companies," an offer she refused ([1451]).

One of the results of the renewed interest in Essiac was an offer from the Resperin Corporation to open five fully-staffed clinics to offer Essiac free of charge to those who could not afford the proposed price of the therapy if she would grant the corporation exclusive rights to the formula. Resperin also offered to test Essiac in formal clinical trials with human subjects. Caisse accepted the offer and provided Resperin with the formula for Essiac ([1451]).

In 1978, Resperin filed a "preclinical new drug submission" with Health and Welfare Canada which would have allowed clinical trials with human subjects to proceed. The submission was suspended in 1982 by the Health Protection Branch (HPB) because Resperin failed to fulfill the agreement "*to maintain adequate manufacturing, to investigate the pharmacology of Essiac, and to arrange the appropriate clinical trials*."([1452]).

MSKCC tested Resperin's sample of Essiac in a variety of other animal leukaemia and solid tumor test systems in 17 separate chemotherapy experiments and found no antitumor activity in any of these tests. No evidence of acute toxicity was found, although some evidence of subacute toxicity (slight weight loss in treated animal) was observed ([1453]).

Likewise, the NCI tests conducted at the request of the *Health Protection Branch* of *Health and Welfare Canada* on a liquid sample of Essiac submitted by the *Resperin Corporation* showed no effect in a mouse lymphocytic leukaemia system. Unlike the MSKCC tests, the NCI tests found lethal toxicity at the highest levels given to animals. It is not known how the composition of the samples tested by MSKCC compared with those given to the NCI or how the concentrations used in the animal tests relate to treatments given to patients ([1454, 1455])

During the same period of time, Resperin applied to the FDA for permission to market Essiac in the United States and was turned down. Details of such submissions are confidential, so the circumstances of the denial are unavailable ([1456]).

In early 1980, Canadian health officials conducted a retrospective review of Canadian patients treated with Essiac using case summaries submitted voluntarily by the patients' physicians.

According to the report:

In 1982, 112 physicians who had received Essiac...were asked to submit case reports. Seventy-four responded on 87 patients. Of these, 78 showed no benefit.

Investigation of the nine remaining cases revealed that the cancer was progressing (four cases) the patient had died (two cases) or that the disease had stabilized (three cases).

Of this last group, all the patients had previously undergone some form of cancer treatment which could have stabilized the disease ([1457]).

It was also noted that some of the patients might have benefitted psychologically or emotionally from the treatment. Few patients reported any serious side effects other than occasional nausea vomiting that was attributed to a "variation in composition" of the preparation ([1458]).

Critics of this study cite numerous unanswered questions, such as whether the patients who "received no benefit" experienced a reduction in pain or increased appetite, whether the herbs were properly handled and the formula prepared properly, or whether the formula was given orally or by injection ([1459]).

During the preparation of the 1990 [*Report on Unconventional Cancer Therapies*], the OTA requested the details of these voluntary physician reports from the Canadian government but was told that the information was not available ([1460]).

However, in 1983, around the time of the Canadian government report, Dr. E. Bruce Henrick, Chief of Neurosurgery at the University of Toronto's Hospital for Sick Children, urged Canadian health officials to initiate clinical trials of Essiac, stating in a letter to the Canadian Minister of Health and Welfare that eight of ten patients with surgically treated tumors of the central nervous system had "*escaped the conventional methods of therapy including both radiation and chemotherapy*" by following an Essiac regimen ([1461]).

Though the research using Essiac in animals and humans is inconclusive, some research does exist on the anticancer properties of its various constituent herbs, though many herbalists maintain that it may be the synergistic effect of herbs in combination that is largely responsible for any observed benefit. As we have noted, Caisse did not believe that all the constituent herbs in Essiac acted directly on the tumor, but that some served other functions, such as detoxification and elimination.

Burdock (*Arctium lappa*)

Burdock root is a key ingredient in another herbal formula for cancer, the Hoxsey Therapy, as well as a staple in the Japanese and macrobiotic diets. According to the Office of Alternative Medicine report on *Unconventional Cancer Treatments*, burdock has historically been used against tumors in several countries: China (in a record from 502 A.D.), Japan, Italy (in the twelfth century), Spain, and Chile. A related species, lesser burdock, was employed as an antitumor agent by the Potawatomi Indians in the Midwest ([1462]).

The OTA reports two studies showing antitumor activity with burdock in animal tumor systems, with various fractions inhibiting Yoshima sarcoma in mice by as much as 61 percent ([1463-1465]). It also reports that the NCI has tested burdock 14 times, with one sample showing activity, though not considered significant, in the P388 mouse leukaemia model. The OTA also lists two other studies in animals which found no antitumor activity with *Arctium lappa* ([1466-1468]).

Japanese researchers tested *Arctium lappa* (burdock) and nine other vegetable juices for their ability to prevent chemically-induced chromosomal mutations in rat bone marrow cells. Significant suppression of the incidence of mutations was found using the fresh or boiled juice from onion, burdock, egg plant, cabbage and welsh onion ([1469]).

Arctium lappa (burdock) was also found by another team of Japanese researchers to reduce the mutagenicity of chemicals activated by the metabolism, as well as those whose mutagenicity is not dependant upon metabolic activity.

Purification of the "burdock factor" increased its effectiveness and reduced the level of mutagens by 24 percent, whereas fresh juice reduced mutagens by 17 percent ([1470]).

Benzaldehyde, which has been isolated from burdock, has also shown anticancer activity in some animal tests, described in the section on laetrile.
Arctium lappa seed (Burdock) contains a number of ligands, including arctigenin, which has been shown to induce differentiation in mouse myeloid leukaemia (M1) cells. In their report on their studies of terminal differentiating agents from methanolic extracts of over 200 plants tested, Kaoru Umehara and his colleagues at the University of Shizuoka found that burdock seeds showed a marked differentiation-inducing activity toward M1 cells at very low concentrations, though they were inactive towards a human promyelocytic leukaemia cell line ([1471]).

Arctigenin has also demonstrated potent cytoxic effects against another human leukaemia cell line while showing no toxicity to normal lymphocytes. Arctigenin was less effective in inhibiting the growth of a human T lymphocytic leukaemia cell line ([1472])

At least two cases of poisoning have been reported from the consumption of commercial burdock teas in the United States ([1473-1475]) though the OAM reports that one of these was later found to be attributable to an additive that contained Atropine ([1476-1479]).

Sheep Sorrel (*Rumex acetosa*)

The OTA reports that the NCI tested one sample of sorrel from Taiwan and found no activity in the mouse leukaemia model. Aloe Emodin and Emodin have been isolated from sorrel and have shown antitumor activity in some animal test systems ([1480]).

In one study, a Japanese researcher found that *Rumex acetosa* polysaccharide displayed antitumor activity in mice implanted with Sarcoma 180 solid tumors ([1481]).

Slippery Elm (*Ulmus fulva*)

According to the OTA, the NCI tested slippery elm seven times using samples from various parts of the United States and found no activity in mouse leukaemia systems. Slippery elm contains betasitosterol and a polysaccharide shown to have antitumor activity in animal models ([1482]).

Indian Rhubarb (*Rheum palmatum*)

The OTA reports that Indian rhubarb was found to have antitumor activity at one dose level in the Sarcoma 37 animal system, but not at a higher dose in the same system ([1483]). Another group found *Rheum palmatum* to be inactive in two other animal tumor systems ([1484]). The OTA also reports that the NCI tested two samples of *Rheum palmatum* from Poland and found no antitumor activity in mouse leukaemia systems. Another variety was tested three times by the NCI and again no activity was found in the mouse leukaemia system. However, some components of *Rheum palmatum* (Aloe Emodin, Catechin, Emodin and Rhein) have shown antitumor activity in some animal systems ([1485-1487]).

According to Boik, rhein is of particular interest in this regard. Rhein is a compound found in a number of purgative herbs that is largely responsible for their activity. Boik discusses research on the antitumor properties of Rhein, which seems to disrupt protein synthesis in neoplastic cells ([1486-1487]). Other studies indicate that it may be most effective when the exposure is prolonged, with an exponential relationship between cell kill rate and Rhein concentration up to 20 hours, and a linear relationship thereafter ([1488-1490]). In other research cited by Boik, Rhein has also shown antitumor activity in vivo, increasing survival time in P388 leukaemia bearing mice in one study and inhibiting melanoma in mice by 76 percent in another ([1491-1492]).

Today, the situation for the cancer patient interested in using Essiac is bewildering at best. Numerous "competing" formulas are on the market, each manufacturer claiming to have to have the version that Caisse used.

In Gary Glum's biography of Caisse, *The Calling of An Angel*, he states that he obtained the formula for Essiac from a woman who had achieved total remission from cancer using the formula given to her in writing by Caisse. Glum maintains that he authenticated the formula with Mary McPherson, a close friend of Caisse's, whose mother was reportedly cured of cancer by Essiac. Richard Walters, author of Choices: The Alternative Therapy Handbook states that although McPherson confirmed the authenticity of Glum's formula, she also stated that Caisse occasionally varied the formula.

According to Walters, Glum's critics contend that the formula he gives in an instruction sheet accompanying his book are inaccurate. They charge that it is missing at least one key ingredient and is drastically off in the ratios of the various herbs. These critics allege that Glum's version of Essiac is not the true Essiac and that it is potentially harmful to patients ([1493]).

Walters also reports that Sheila Snow, coauthor of the 1977 Homemaker's article, believes Glum's version of Essiac "*is the recipe Rene used in the 1930's when she prepared the remedy in her Bracebridge clinic for hundreds of patients, and quite conceivably the one passed along to the Resperin Corporation for its clinical studies*."([1493]).

In 1988, Charles Brusch, who claimed to have treated his own cancer using Essiac, entered into a partnership with Elaine Alexander, a Vancouver, British Columbia, radio talk show host who had interviewed him several times, to circumvent the law and market Essiac as a "*detoxification tea*" under a different name. Flora Manufacturing and Distributing Ltd. was chosen in 1992 to market the product under the brand name Flor Essence ([1494]).

According to Walters, Alexander believed that the method of preparation, ratios of ingredients and correct dosages were all essential to Essiac's efficacy. She stated that Caisse continually improved on the Essiac formula over the years and that Glum's version may be an "*early, primitive version*" of a formula Caisse later improved upon. She also believed that various "*specious facsimiles*" of Essiac that are available on the market could be dangerous to patients ([1495]).

The fact remains that there is no information available how Caisse used Essiac for specific cancers or whether all patients received the same formula and dosages. Further, neither Caisse nor her supporters ever published their research on the formula in animals or humans.

Although Essiac is unapproved for marketing in Canada, the Canadian government allows Essiac to be manufactured, sold and used by cancer patients under certain circumstances. A cooperative arrangement between Resperin and the Health Protection Bureau authorizes the sale of Essiac to cancer patients on "compassionate grounds" when no other treatment is appropriate.

Today, according to the Office of Alternative Medicine, Flora, Resperin, Essiac International, Glum, and Herbal Essence are the major suppliers of Essiac. The OAM estimates that the annual cost for one to four ounces of liquid Essiac to range from $527 to $2060. The annual cost for dry herbs is estimated to be in the range of $100 to $400, ([1496]) making Essiac a relatively inexpensive therapy with a contradictory research record and legions of patients over the years who feel they have received some benefit from it, either in terms of anticancer activity or quality of life benefits.

Chapter 9. d :

Other plants with an immune stimulating activity

There are about sixty other immune modulating plants from North America and Europe, with an action which is partially similar to *Aloe arborescens*, seven of which can be included in the composition termed *Essiac* (a formula of *Renè Caisse)* which is particularly effective ([517, 520,1047-1060, 1438-1496]).

There are also some interesting combinations of about 200 Indian plants and herbs of ancient Vedic, Chinese tradition ([608-609]), of Africa and of Sud-America, used today in modern western plant therapy which has revalued their importance ([621,773,793,794]).

Among the different plants the following deserve notice:

1) *Arctium lappa* (great burdock, bardana): the roots from the first year of growth must be used in autumn, and in spring of the second year before the flowers come out (they have both an immune–stimulating and an antibiotic effect);
2) *Rumex acetosa* (sorrel, acetosa): use all the plant before it flowers in its second year; it is particularly rich in vitamin C, it may however be the cause of kidney stones (it is therefore useful for the patient to also take common Magnesium, possibly with vegetables).
3) *Rheum palmatum* (chinese rhubarb): use the roots of the old plants with the periderm removed; the chrystphanic acid could have a certain anti-cancerous action; it has similar components to those of *Aloe* (Aloe-Emodin).
4) *Trifolium rubeus* (red trefoil): use the flowers for their 4 anti-cancerous substances: Genistin (suspected of inhibiting growth), Daidzein, Formonetin and Biocanin; note:OGM-risk([1066])
5) *Viscum album* (mistletoe) usually injected under the skin (note: it has adverse side effects on cardiopathic patients).

Another:

1) *Uncaria tomentosa*
2) *Bambusa arundinacea*.
3) *Echinacea purpurea, angustifolia,* or *pallida*
4) *Astragalus membranaceus.*
5) *Grindelia camporum or squarrosa*
6) *Tribulus terrestris*
7) *Plantago major*
8) *Scutellaria baicalensis* o *latiflora*
9) *Asparagus cochinensis*
10) *Ulmus rubra* or *fulva*
11) *Rhodiola rosea*
12) *Nelumbo nucifera*
13) *Xanthoxilum fraxineuem*
14) *Artemisia abrotanum*
15) *Artemisia dracunculus*
16) *Campanula latifolia*
17) *Acalypha indica*
18) *Equisetum arvense*
19) *Hypoxis hemerocallidea*
20) *Salvia officinalis*
21) *Citrus aurantium bergamia*
22) *Cassia angustifolia*

23) *Rhamnus sagrada* or *purshiana*
24) *Rhamnus frangula* or *Frangula alnus*
25) *Picramnia antidesma*
26) *Terminalia chebula*
27) *Angelica archangelica*
28) *Abuta grandifolia*
29) *Urtica dioica*
30) *Thymus vulgaris*
31) *Larrea mexicana*
32) *Primula veris* or *officinalis*
33) *Ailanthus glandulosa*
34) *Citrullus colocynthis*
35) *Thymus serpillum*
36) *Viola tricolor*
37) *Taraxacum officinalis*
38) *Rosmarinus officinalis*
39) *Sysymbrium officinale*
40) *Sticta pulmonaria* or *Lobaria pulmonaria*
41) *Cinnamomum zeylanicum*
42) *Polygala senega*
43) *Nepeta cataria*
44) *Adiantum capillus veneris*
45) *Tephorosia purpurea*
46) *Eclipta alba*
47) *Argyreia speciosa* (or *Lettsomia nervosa*)
48) *Aquilaria agallocha*
49) *Argemone mexicana*
50) *Glycyrrhiza glabra*
51) *Althaea officinalis*
52) Annona squamosa or *muricata*
53) *Momordica charantia*
54) *Albizzia lebbek*
55) *Apium graveolens*
56) *Moringa pterygosperma*
57) *Holarrhena antidysenterica*
58) *Verbascum densiflorum* or *thapsus*
59) *Sambucus nigra*
60) *Euspongia officinalis*
61) *Smilax aspera, sarsaparilla* or *utilitis*
62) *Serenoa repens*
63) *Myrica cerifera*
64) *Luffa operculata*
65) *Rumex crispus*
66) *Myristica fragrans* or *sebifera*
67) *Galphimia glauca*
68) *Lycopodium clavatum*
69) *Eupatorium perfoliatum*
70) *Eupatorium purpureum*
71) *Ocimum sanctum* or *tenuiflorum*
72) *Ocimum basilicum*
73) *Mahonia aquifolium*

74) *Calendula officinalis*
75) *Chimaphila umbellata*
76) *Ceanothus americanus.*
77) *Drosera rotundifolia,* or *anglica*, or *intermedia*
78) *Curcuma longa*
79) *Trigonella foenum graecum*
80) *Morinda citrifolia*
81) *Aralia racemosa*
82) *Asparagus racemosus*
83) *Ailantus glandulosa*
84) *Sutherlandia frutescens*
85) *Lepidium meyenii*
86) *Tabebuia impetiginosa*
87) *Stachys arvensis*
88) *Polygonum aviculare*
89) *Melissa monarda* or *officinalis*
90) *Crataegus oxyacantha* or *monogyna*
91) *Pulmonaria officinalis*
92) *Pulmonaria angustifolia*
93) *Azadirachta indica*
94) *Bacopa monnieri*
95) *Alchimilla alpina* or *vulgaris*
96) *Boswellia serrata*
97) *Lamium album*
98) *Pimpinella major*
99) *Acorus calamus*
100) *Galium aparine*
101) *Ajuga reptans* or *piramidalis*
102) *Marrubium vulgare*
103) *Lysimachia nummularia*
104) *Lapsana communis*
105) *Primula hirsuta*
106) *Peucedanum ostruthium*
107) *Sempervivum montanum*
108) *Saxifraga oppositifolia*
109) *Saxifraga aizoides*
110) *Pedicularis rostrato-capitata*
111) *Potentilla grandiflora*
112) *Leucanthemopsis alpina*
113) *Hypericum richeri*
114) *Gentiana germanica*
115) *Hieracium pilosella*
116) *Gnafalium supinum*
117) *Cicerbita alpina*
118) *Draba aizoides*
119) *Cerastium alpinum*
120) *Antennaria dioica*
121) *Antyllis alpestris*
122) *Marasdenia cundurango*
123) *Myrtus communis*
124) *Melaleuca alternifoglia*

125) *Cinchona calisaya* or *succirubra*
126) *Cetraria islandica* or *Lichen islandicus*
127) *Glechoma hederaceum*
128) *Centaurea erythreum*
129) *Meum mutellina*
130) *Epilobium angustifolium*
131) *Erithrea antaurium*
132) *Myroxylon balsamum*
133) *Larrea divaricata*
134) *Capsella bursa pastoris*
135) *Achyrocline satureoides*
136) *Polypodium lepidopteris*
137) *Anacardium occidentale*
138) *Bidens pilosa*
139) *Bixa orellana*
140) *Carapa guianensis*
141) *Boerhaavia diffusa*
142) *Calendula silvestis*
143) *Cassia occidentalis*
144) *Cayaponia tayuya*
145) *Cissampelos pareira*
146) *Copaifera officinalis*
147) *Cynara scolymus*
148) *Erythrina mulungu*
149) *Houttuynia cordata*
150) *Erythroxylum catuaba*
151) *Ilex paraguariensis*
152) *Inesinae calea*
153) *Lepidium meyenii*
154) *Maytenus krukovit*
155) *Maytenus illicifolia*
156) *Myroxylon balsamum* aut *pereirae*
157) *Pfaffia paniculata*
158) *Phyllantus niruri*
159) *Physalis angulata* aut *Muehenbeckia volcanica*
160) *Psidium guajava*
161) *Schinus molle*
162) *Solanum paniculatum*

Of these plants, there are at least 8 with phyto-therapeutic components similar to those of *Aloe species*: *Rhamnus frangula* or *Frangula alnus* ([239]), *Picramnia antidesma* ([612]), *Rhamnus sagrada* and *purshiana*, *Rubia tinctorium* or *peregrina*, *Rheum palmatum or officinale*([247]), *Terminalia chebula*, *Cassia angustifolia* ([613]) and *Tabebuia cassinoides*

According to the orhor, these plants should be integrated into the diet of the patient (they should be freshly picked from the vegetable garden, washed well and eaten raw).

Phyllantus niruri (Chanca piedra, Spaccapietra)

There is an extensive bibliography on the action of this plant ([793,925-941]).
"Chandra piedra" means "stone breaker, or shatter stone. It has been called stone breaker because it has been used for generations by the indigenous peoples of the Amazon as an effective remedy to eliminate gallstones and kidney stones and for other kidney problems.
The plant is employed for numerous other conditions, including blennorrhagia, colic, diabetes, dysentery, fever, flu, *tumors*, jaundice, vaginitis, and dyspepsia. It is little wonder that *Phyllantus niruri* is used for so many purposes, since the plant has demonstrated antihepatotoxic, antispasmodic, antiviral, antibacterial, diuretic, febrifugal, and hypoglycemic activities. It is also known as an anodyne, aperif, carminative, digestive, emmenagogue, laxative, stomachic, tonic, and vermifuge, based on its long, documented history of uses.
Its considered an excellent remedy for removing uric acid from the urine and eliminating stones.. Its also used for hydropsy, urinary and bladder infections and blockages, liver ailments, painful joints, cystitis, prostate disorders, kidney disorders, hepatitis, diabetes and as an antispasmodic and muscle relaxant specific to the urinary tract system. In India, its a common household remedy for asthma and bronchitis and is used to treat coughing, extreme thirst, anemia, jaundice, and tuberculosis.
The antihepatotoxic (liver-protecting) activity of *Phyllantus niruri* was attributed to two compounds in the plant, Phyllanthin and Hypophyllanthin, in a 1985 study by Indian researchers. Glycosides found in *Phyllantus niruri* demonstrated aldose reductase inhibitory activity in studies conducted by a Japanese research group in 1988 and 1989. The analgesic activity of *Phyllantus niruri* was demonstrated in 1994 and 1995 by another research group in Brazil. The diuretic, hypotensive and hypoglicemic effects of *Phyllantus niruri* were documented in a small, ope human study conduced in 1995. This study showed a significant diuretic effect, a significant reduction in systolic blood pressure in nondiabetic hypertensives and female subjects, and a significant reduction in blood glucose in diabetic patients taking *Phyllantus niruri* for 10 days.
Preliminary clinicals trials on children with infective hepatitis using an Indian drug containing *Phyllantus niruri* as the main ingredient showed promising results that fueled the subsequent in vitro and in vivo studies. The in vitro inactivation of hepatitis B by *Phyllantus niruri* was reported in India in 1982.A study that followed indicated that in vivo *Phyllantus niruri* eliminated hepatitis B in Mammals within 3 to 6 weeks.Other research, conducted from 1990 to 1995 has indicated that *Phyllantus niruri* does demonstrate anviral activity against hepatitis B.The most recent research on *Phyllantus niruri* reveals that its antiviral activity extends to Human Immunodeficiency Virus (HIV). A Japanese research group discovered *Phyllantus niruri*'s HIV-1 reverse transcriptase inhibition properties in 1992 with a simple water extract of the plant. A Pharmaceutical Institute isolated at least one of the constituents in the plant responsible for this activity, a novel compound that they named niruriside and described in a 1996 study.

Hypoxis hemerocallidea (Hypoxidaceae)

The "African potato" comes from the forests of Kwa Zulu Natal and Pondoland.. The active principles of this plant include Sitosterol and Sitosteroline, together with an anti-tumoral phenolic component: hypoxide. Sitosterol and Sitosteroline have a proven beneficial effect on the human immune system. Prof. Ben Smith, consultant in the oncology department of the Tygerberg Hospital in Cape Town, has treated patients with advanced tumors discovering that this has increased hopes of survival. Patients who suffer from tumors of the pancreas usually die within 4-6 months of diagnosis, but after therapy based on Sterol, taken from the plant, they have survived for a year or more, with relief from the unpleasant side effects of Chemo-Therapy.
N.B. Hypoxide contains 2 molecules of glucose, an apoptosis action is suspected.

Viscum album (Mistletoe)

With regard to *Viscum album*, of which there are beginning to be interesting reports ([48, 49, 116, 152, 153, 252, 271,498]), the author would also like to report a simple personal observation regarding the case of a patient of advanced years with a bilateral lung tumor in a pleural direction which went into complete remission in four months on the basis of subcutaneous injections of this substance, with absolutely no chemotherapy, radiotherapy or surgery (confidential data).

From other data in literature, it has been reported that after 24 hours of administering this substance, in general, there is an increase in the number and the activity of *Natural Killers* ([152]) and the interleuchines, the tumoral Necrosis Factor and the activity of the macrophages increase ([271]).

Note : *Viscum album* (mistletoe) can cause orthostatic hypertension and strong bradycardia; it cannot be used in patients who suffer from serious bradycardia or blocks of the sinuatrials or the branchia ventricular atrium.

Maytenus krukovit, laevis, macrocarpa, ebenifolia (Chuchuhuasi)

There is an extensive bibliography on the action of *Maytenus krukovit, laevis, macrocarpa, ebenifolia* ([793,824-829]).

In the 1960s it discovered its potent immune-stimulating properties, finding that it dramatically increased phagocytosis in mice. In the mid-1970s Italian researchers studying a chuchuhuasi extract used effectively to treat skin cancers identified its antitumor properties.

Its antiinflammatory properties were discovered in the 1980s by another Italian research group. They discovered that its anti-inflammatory properties, radiation protectant action, and antitumor properties were at least partially linked to triterpenes and antioxidants isolated in the trunk bark. In 1993 a Japanese research group isolated a group of novel alkaloids in *Maytenus species* that may be responsible for its effectiveness in treating arthritis and rheumatism. In the United States a pharmaceutical company studying chuchuhuasi's anti-inflammatory and anti-arthritic properties has determined that these alkaloids can effectively inhibit enzyme production of protein kinase C(PKC). PKC inhibitors have been of much interest worldwide because there is evidence that too much of this enzyme is involved in a wide variety of disease processes, including arthritis, ashtma, brain tumors, cancer, and casrdiovascular disease.

Achyrocline satureoides (Macela)

There is an extensive bibliography on the action of *Achyrocline satureoides* ([793,855-863]).

Achyrocline satureoides has been of recent clinical interest and its uses in natural medicine have been validated by science since the mid-1980s.

In animal studies with mice and rats, macela demonstrated analgesic, anti-inflammatory, and smooth muscle-relaxant properties internally (gastrointestinal muscles) and externally without toxicity. This may well explain why *Achyrocline satureoides* has long been used effectively for many types of gastrointestinal difficulties as well as asthma. In vitro studies have demonstrated that macela is molluscicidal, and mutagenic against *Salmonella* and *E.coli*, which could explain its uses against dysentery, diarrhea, and infections.

Other research on macela has concentrated on its anti-tumorous , antiviral, and immuno-stimulant properties. It was shown to pass the initial anti-crustacean screening test used to predict antitumor activity in 1993. In the mid-1980s German researchers extracted the whole dried plant and demonstrated that in humans and mice it showed strong immuno-stimulant activity by increasing phagocytosis. They isolated a plysaccharide fraction in the *Achyrocline satureoides* extract that seemed to be resonsible for this effect. In the mid-1990s Japanese researchers showed that an extract of *Achyrocline satureoides* flowers inhibited the growth of cancer cells by 67% in vitro.

In 1996 researchers in Texas found that a hot water extract of dried Macela flowers demonstrated in vitro antiviral properties against T-lymphoblastoid cells infected with HIV.

Morinda citrifolia

It is a shrub of equatorial Africa, South-East Asia, Polynesia and the Caribbean, it is known by a number of names (*Bumbo africano*, *Gelso indiano*, *Gran Morinda*, *Lada*, *Mengkudo*, *Nhau*, *Nonu*, *Noni*, *Nono*). An immune-modulating substance has been found in its fruit ([577]), alongside other particularly interesting molecules for other anti-neo-plastic activities, still being studied.

Physalis angulata (Mullaca)

There is an extensive bibliography on the action of *Physalis angulata* ([793,864-872]).

Pytochemical studies on *Physalis angulata* reveal that it contains flavonoids, alkaloids, and many different types of plant steroids, some of which have never been seen before in science. *Physalis angulata* has been the subject of recent clinical research that is still ongoing, based on preliminary studies showing that it is an effective immune stimulant, is cytotoxic to numerous types of cancer cells, and has antiviral properties, including against HIV. The new steroids found in *Physalis angulata* have received the most attention, and many of the documented properties and actions are attributed to these steroids. In several in vivo animal tests and in vitro lab tests, an extract of the entire plant of *Physalis angulata* and / or its steroidal fractions demonstrated immune stimulant properties by strongly enhancing blastogenesis, antibody responses, and increased T and B lymphocyte production. Various water, alcohol, and ethanol extract of *Physalis angulata* and its plant steroids have shown strong in vitro and in in vivo cytotoxic activity against numerous types of cancer cells, including leukaemia, lung, colon, cervix, and melanomas.

Panax ginseng

Panax ginseng is also the subject of many studies ([502-506,576]).

It is characterized by a certain immune stimulating action, particularly on T lymphocytes.

It grows naturally in shady areas in the mountains. It is particularly widespread in Korea, but is also found in Japan and China. It has been studied recently in Canada and the United States.

It contains organic Germanium (SEE chapter 3).

There are many products of this on sale. Its value depends on the fact that it is cultivated without the use of fertilizers or chemical substances. It is advisable to use the gel extracted from *ginseng* with a suitable percentage of ginsenoids (from a minimum of 8% to a maximum of 12%). It is counter-indicated in the case of hypertension and of prostatic hypertrophy.

Uncaria tomentosa

In May 1994, the WHO called the first International Conference on this plant, recognizing it as a medicinal plant([714,753-773]). Various alkaloid ossindolics have been extracted from its bark and its roots (such as Pteropodin, Specrofillin, Hystopteropodin, Uncaria F and Isomitrofillin). They have an immune-stimulating character, having been tested with a positive result on leukaemia cells (with a apoptotic or pseudo-apoptotic action). Glucosydes of chinovic acid (Chinoline) are also present. Other substances contained therein have an anti-inflammatory, hypertensive and vasodilatory effect. N.B. it also inhibits telomerasic activity (characteristic of about 90% of tumors known in humans, and induced apoptosis on tumor (SEE chapter 5).

Tabebuia impetiginosa

The suspected anti-neo-plastic activity of the pulverized inner bark of *Tabebuia impetiginosa*, a plant known in central America has not yet been clarified in medical literature ("Pau d'Arco", Ipe Roxo", "Taheebo", "Lapacho"). As well as an almost certain immune stimulating action, we could also add the activity of the lapocoic acid extracted from its wood, which would seem to have a particular bio-chemio-therapeutic property on cancerous cells cultivated in vitro (SEE also chapter 5); *Xiliodone* is another of its principle actives and would seem to be effective against *Candida albicans* (SEE chapter 5).

Abuta grandifoglia

Abuta contains palmatin (hypo-tensive and a sedative); bis-benzil-isoquinolinic alkaloids (anti-inflammatory agents acting on nitric oxide); and three particular molecules: Tetrandrin, Parirubin A and Parirubin B. Tetrandrin has the following actions: analgesic, anti-inflammatory , anti-pyretic and anti-cancerous (both against carcinomas and forms of leukaemia). But it has not yet been clarified whether its action is based only on an immune stimulating activity or it also has an apoptotic and pseudo-apoptotic activity. Parirubin A and Parirubin B are particular tropoloisoquinolic alkaloids: they are both effective against leukaemia in humans, but is has not yet been clarified whether their action is based only on an immune stimulating activity or whether it has an apoptotic or pseudo-apoptotic basis.

Marasdenia cundurango

It was recommended in the past as a cure against gastric carcinomas. A group of Japanese researchers have found a certain cytostatic activity of its pure glycosydes (Condurangins) on Ehrlich carcinomas and on carcinomas 180 ([616,617]). But other studies have not confirmed its neo-plastic activity ([618]). It is, however, effective in cases of gastric ulcers and gastro-duodenitis.

Tribulis terrestris

It is known as "Arbor sancta" for its ability to treat temperatures, hepatitis, and ulcers: it is immune stimulating, anti-bacterial, anti-viral, anti-helminthic, an insecticide, an insect repellent, an antiseptic, anti-inflammatory, a diuretic and an antipyretic. From this the following have been isolated: Diosgenin, Gitogenin, Ruscogenin, Kempferol, Tribuloside, Terrestroside F, Campesterol, beta-Sitosterol, Stigmasterol, Neotigogenin.

Momordica charantia (African watermelon)

Alfa-Momorcharin, a glycoprotein taken from its seeds, inhibits the growth of tumoral lines. Furthermore, this molecule increases the tumor-killing effect of mice macrophages on mastocimal murine cells (P815). It is also effective against leucemia cells. ([639]) The juice of its fruit has proved particularly effective as an anti-oxidative and hypoglycemiant.

Sida cordifolia (Bala)

Bala strengthens the immune defenses, it has positive results, on the patient, in the case of leucemia and sarcomas. It has also been experimented, in vitro, with success against nasopharynx carcinomas ([620]); its anti-myotic, anti-bacterial, anti-viral and anti-helminthic action has also been verified. It does, however, contain Ephedrine, a toxic substance, which is particularly dangerous for heart patients or with hypertension. It should be administered only in doses which a doctor considers safe for the patient.

Asparagus racemosus

The alcoholic extract from *Asparagus racemosus* has shown that is has an anti-tumor effect in vitro, against human skin carcinomas and nasopharynx carcinomas([700]).
It is not yet clear whether it is based on immune stimulation or on apoptotic or pseudo-apoptotic induction[(752]). It also inhibits the growth of *Entamoeba histolytica.*
It must however be noted that it can cause a hyposensitive effect. The extract from the roots (anti-diarrhea), on the other hand, causes an increase in cardiac range and frequency, even with low doses. Unfortunately, today in USA, this precious source of phytochemical molecules, which are just as good as recent anti-cancer plants, are seriously threatened by asparagus-GMO (with transgenic-virus too).

Seeds from *Linum usitatissimum* (flax or linseed)

contain ligands which seem to be effective against different tumors, and above all against breast cancer. Dosage, unless there are medical indications to the contrary: 1 teaspoon of seeds a day, and add flax seed oil to salads or to soups and other dishes after cooking. NB :use fresh seeds.

The young bark of *Cinnamomum zeylancium* (cinnamon, cinnamon from Sri Lanka and from Madagascar) unless there are medical indications to the contrary, take it every day.

The leaves and roots of *Taraxacum officinalis* (dandelions, chicory) unless there are medical indications to the contrary, eat them every day, raw, in salads, so as not to lose their active principles.

The stalks with the flowers and the leaves of *Thyme vulgaris* (pepoline, garden thyme), unless there are medical indications to the contrary, take it very day.

The flower tops of *Thymus serpillum* (wild thyme, citron thyme and *Erba soltorella*): high doses can cause nausea, vomiting bradycardia, asthenia, bradypnea and hypothermia (reversible if the plant therapy is suspended).

The twigs with the leaves and the flower tops of *Rosmarinus officinalis* (rosemary): unless there are medical indications to the contrary, take it every day.

The flower stems of *Crocus sativus* (saffron) seem to have an anti-cancerous action.

The seeds of *Coriandum sativum* (coriander, crane's bill): the therapeutic value has not been noted (Apoptose is suspected), which is particularly serious because the plant is toxic (except for the seeds). In any case there can be side effects on the kidneys.

A decoction of the peel of the roots of *Berberis vulgaris* (barberry): contains Berberin, which could have an immune stimulating activity([1002]); high doses have a serious effect on the heart; it has been used in the cachexia from cancer; note: the same Berberin could be particularly effective against amoebic dysentery and giardiasis; prepare a mixture of about 30 grams in 1 liter of water, and boil for 10 minutes. Take at least 3 cupfuls a day, unless there are medical indications to the contrary.

Curcuma longa (saffron from the Indies): unless there are medical indications to the contrary take it every day.

Sauces of *Menta arvensis, rotundifolia, piperita, spicata* (mint, peppermint and spearmint): unless there are medical indications to the contrary, take it every day; it is thought to have an apoptotic action on some tumors. The immune stimulating action of the oil of *Mentha piperita* (peppermint) is well known, as for example in Russia against TBC ([807]).

The leaves and flower tops of *Origanum vulgare* (oregano): unless there are medical indications to the contrary, take it every day either as a decoction or an infusion.

The berries of *Capsicum annuum, fasciculatum* and *frutescens* (chili peppers, red pepper, cayenne pepper): high doses can cause gastro-intestinal and kidney inflammation. It should not be prescribed for those who suffer from gastritis or ulcers.

Ananas sativus or *comosus* (pineapple): as well as an enzymatic action of Bromelain (SEE chapter 7), it could also have the ability to inhibit the growth of cancerous cells in vitro thanks to another enzyme ([641]): it has therefore been suggested to increase the intake of pineapple stalks to a maximum, provided they are biologically grown.

The Crucifers, such as :*Brassica oleracea* and *Brassica oleracea capitata* (cabbage), *Brassica oleracea bullata* (brussels sprouts), *Brassica oleracea botrytis* (cauliflower), *Brassica oleracea italica* (broccoli), *Brassica rapa* (turnip), *Raphanus sativus parvus* (radish), all contain particular anti-neo-plastic substances, in particular the isothyocyanates (which inhibit the development and growth of tumors), Indoles, Glucosynolates and Dithiolithones (anti-oxidants);([809]).
It is a family of plants which cure many pathologies, not only tumors in man. For this family of plants Valnet counted as many as 80 different pathologies, and in particular he advised eating centrifuged biologically grown cabbage. The use of cabbage leaves in cures is very interesting, and recalls that of the leaves of *Aloe arborescens*,. Both the therapies of Gerson and Breuss used these plants a lot. With regard to Brassicaceae, Pliny the Elder said that "… thanks to these plants the Romans managed without doctors for at least six centuries of war…".
Unfortunately, today, this precious source of phytochemical molecules, which are just as good as recent anti-cancer plants such as *Aloe arborescens*, are seriously threatened by transgenic pollution from GMO. SEE in PDF : Antony A. Miller: *Accumulation of very-long-chain Fatty acids in membrane glycerolipids is associated with dramatic alterations in plant morphology*, The plant Cell, Vol. 11, pp. 1882-1902, 1998, www.plantcell.org

In particular please note:
The manipulation and genetic modification of slow-ripening cauliflowers ([986]).
The manipulation and genetic modification of slow-ripening broccoli
The manipulation and genetic modification of virus-resistant lettuces
The manipulation and irreversible genetic modification of the very important oil from the seeds of Brassicaceae ([806]).
Dangerous([968]): GMO-*Brassica rapa* (turnip), GMO-*Brassica oleracea botrytis* (cauliflower).

The herb decoction of Rene Caisse

The formula based on a decoction of herbs of Rene Caisse ([520]) is famous: the roots of *Arctium lappa* (burdock), *Rumex acetosa*,(sorrel) the bark of *Ulmus rubra* (elm) and the roots of *Rheum palmatum* (chinese rhubarb).
The proportions of these ingredients are in a multiple of 4 ([520]). 1 part of the roots of *Rheum palmatum* (chinese rhubarb) 4 parts *Ulmus rubra*(elm) 16 parts *Rumex acetosa* (sorrel)and 24 parts of the roots of *Arctium lappa* (burdock). According to the author, *Ulmus rubra* (elm) could be substituted by *Betula alba* (birch).
The preparation is as follows:

1) Take 100 grams of these herbs and put them in 5 liters of water in a stainless steel pan which holds at least 10 liters.
2) Put a lid on the pan and bring it to the boil, simmer for 12 minutes.
3) Turn off the gas and stir the mixture to make sure there are no herbs stuck to the inside of the pan.
4) Put the lid back on and leave the mixture for at least 6 hours or overnight.
5) Remove the lid and stir.
6) Heat the mixture up, but do not boil it.
7) Wait for the herbs to settle on the bottom of the pan and then pour the still warm liquid into 4-5 liter bottles, preferably previously sterilized.
8) Preserve the preparation in the fridge, in the dark in the same way as *Aloe arborescens.*

The doses suggested are the following: 8 full soupspoons in a glass of warm water 3 times a day, on an empty stomach. If the immune response is induced, begin the maintenance treatment of 4 full soupspoons a day.
Note: an empty stomach means 1 hour before meals, or 2 hours after meals.

Renè Caisse's formula was later improved by De Sylva (defined the *Caisse Formula*) adding three more plants to the preparation ([520]): the bark of *Xantoxilum fraxineum*, the leaves of *Plantago major* (greater or rat tailed plantain) and the flowers of *Trifolium rubeus* (red trefoil): this would seem more effective than that based on only 4 herbs.
It must be prepared in small bottles and then pour a teaspoon into a cup, add boiling water and wait 15 minutes, compared with 3 minutes for *Camellia sinensis* (green tea), then strain the liquid (or leave residue at the bottom), and drink it like a normal cup of tea.
One small bottle will last from 15 days to two months, according to how much is consumed: the advisable dose is a level teaspoon four times a day for serious tumors. During remission of the illness a level teaspoon twice a day is sufficient.

A formula similar to Renè Caisse's is *Hoxsey's formula*:

Arctium lappa, *Glycyrrhiza glabra*, *Berberis vulgaris*, *Xanthoxilum fraxineuem*, *Trifolium rubeus*, *Alchimilla vulgaris*, *Larrea mexicana*, *Rhamnus sagrada* o *purshiana*, KI (Potassium Iodure).
Note: *Glycyrrhiza glabra* (liquorice) considerably lowers the production of hydrogen peroxide, superoxide and hydroxic radicals by the neutrophils (anti-inflammatory, anti-ulcergenic, anti-microbic and anti-oxidant effects); it is also able to inhibit the insurgence of skin tumors in animals in experiments; a powerful stimulator of interferon secretion, denominated SNMC has been identified among its components. Finally, glycyrrizic acid and the 18a- and 18b- glycyrretinic acids have been shown to have anti-mutagen properties.

Rudolf Breuss' Formula

Rudolf Breuss' formula is famous, above all, in German speaking countries: 300 grams of *Beta vulgaris cruenta* (red beet), 100 gram of raw carrot which has been biologically grown (*Daucus carota*), 100 grams of the tuber of *meum mutellina* (celery from monte, levistico) or *Apium graveolens* (wild celery), 30 grams of *Cochlearia armoracia* (radish), 100 grams of a decoction of potato peel (*Solanum tuberosum*) drunk cold; according to the German author it is necessary to avoid eating any other foods during the whole period of the cure (this is in contradiction to the other herbal preparations which are the object of this chapter), all the components of his preparation must be drunk, there should be no solid residue: therefore the vegetables must be liquidized, and then filtered through a fine filter or a linen cloth. According to the German author it would be better to use a handful of raw potato peel, boiled in 2 cups of water for 4 minutes rather than using 100 grams of whole potato. He also recommends the practice of salivating very well before swallowing: this has a well known medical value given the importance of the enzymes present in saliva in digestion.
Note : Do not eat *Apium graveolens* (wild celery, sweet celery, marsh celery) if it is fresh.

Formula of *Salvia officinalis, Hypericum perforatum, Mentha piperita* and *Melissa officinalis*:

The preparation of *Salvia officinalis* (sage) is also well known: it is left in an infusion of boiling water for no longer than 3 minutes (as for green tea), with 2-3 teaspoons in half a liter of boiling water; when the 3 minutes are up, add *Hypericum perforatum*,(St. John's wort) *Mentha piperita* (peppermint) and *Melissa officinalis* (lemon balm) and leave to infuse for a further 10 minutes. Stir the mixture and then drink it, the dosage must be prescribed medically.
From the leaves of *Salvia officinalis* the following have been isolated: Flavonoids, Fenols, oxytriterpenic acids, dyterpene, tannin, alpha and beta-Pinene, Canfene, beta-Myrcene, alpha-Terpin, Limonene (apoptosis in Leukaemia cells), Eucalyptol, gamma-Terpin, Lynalol etc.
Apoptosis in epatocarcinoma and another cancer for caspase 3 ([708,1015,1116]).
The following have been isolated from *Melissa officinalis*: essences, alcohols, fenolic acids, triperpin, flavonoids, tannin, vitamins B1 and B2, and mineral salts. It also has an interesting anti-hormone action (inhibition of TSH); the induction of selective apoptosis in glyoma cells is also suspected. According to recent studies *Hypericum perforatum*, would appear to induce selective apoptosis in human T Lymph node cells, and Eritro-leukaemia

Maria Treban's tisane

Equisetum arvense (common horsetail), *Calendula officinalis* (pot marigold), *Achillea millefolium* or *filipendulina, Urtica dioica* (perennial nettle), *Rumex acetosa* (sorrel).

A tisane of *Melissa monarda* (bergamot) and *Melissa officinalis* (lemon balm):

unless there are medical indications to the contrary, leave half a tablespoon in boiling water for 10 minutes. It would appear to be effective on glyomas.

A mixed infusion of *Calendula officinalis* or *silvestris* (pot marigold) and *Achillea millefolium* or *filipendulina* with Swedish Bitters.

An infusion of *Alchimilla alpina and Alchimilla vulgaris* with *Urtica dioica* (perennial nettle) and *Lamium album* (white nettles): unless there are medical indications to the contrary, leave 1 mixed tablespoon in boiling water for 10 minutes.

A preparation of *Pimpinella major* (salad burnet) gargled (it is thought to act on tumors in the oral cavity): unless there are medical indications to the contrary, leave 1 tablespoon to infuse in boiling water for 3 minutes. After gargling, swallow the mixture.

Chopped up *Acorus calamus* (sweet flag) it would appear to act on gastric carcinomas; it is a cold tisane (chop the herb up in cold water).

A tisane of *Salvia officinalis* (sage) (about 1 liter), mixed with the flowers of *Equisetum arvense* (common horsetail) (boiled for 10 minutes) and/or the flowers of *Trigonella foenum graecum* (only for infusions): they would appear to act on leukaemia lymphomas and tumors in the pancreas. It is, however, certain that *Equisetum arvense* stimulates hemotopoiesis and it acts almost as effectively as shark cartilage on the degenerative processes of the cartilages and the bones (arthritis and arthrosis); perhaps it could induce an angiogenic check on newly formed vessels similar to that already demonstrated by shark cartilage (SEE chapter 13).

A tisane of the flowers of *Epilobium parviflorum*, would appear to act on tumors of the bladder, the prostate gland and perhaps the testicles.

Hot compresses of the leaves of *Plantago major* (greater or rat tailed plantain) are well known for melanomas (but, preferably, according to the author, the alternative use of *Aloe arborescens* both as a compress and above all for oral administration, given the apoptosis action induced by Emodin).

Euspongia officinalis (sea sponge) is very particular: it is picked in the Mediterranean, the Red Sea and the Atlantic; it would appear to be effective against lymphomas and tumors in the thyroid; however it contains iodine, so it cannot be given to patients who are at risk from thyroid toxicosis or in patients waiting to undergo metabolic radiation with Iodine 131.

Infuse a teaspoon of the flower tops of *Cnicus benedictus* (blessed thistle) in a cup of boiling water for 10 minutes. The dosage to be based on a medical opinion.

A decoction of the roots (20 grams) of *Carlina acaulis* (stemless curline thistle) in a liter of water.

Stellaria media (common chickweed) : It should be cooked in a similar way to *Spinacia oleracea* (spinach).

A decoction of the roots (30 grams) of *Polygonum bistorta* in 1 liter of water. Bring it to the boil and simmer for 5 minutes. The dosage to be based on a medical opinion.

5–15 grams of the leaves of *Stachys officinalis* (wood betony) in half a liter of boiling water (an infusion).

Infuse 20 grams of *Alliaria matronalis* (the whole plant) in 1 liter of boiling water.

Infuse the leaves of *Hesperis matronalis* (sweet rocket) in 1 liter of boiling water for 10 minutes.

Infuse 10–12 grams of *Agrimonia eupatoria* (agrimony)

A decoction of the roots of *Enula campana*; from 10 - 20 grams in a liter of water.

For jaundice (cancer liver): a decoction of *Ononis repens* with an infusion of the seeds of *Foeniculum vulgare* (sweet fennel) unless there are medical indications to the contrary: 20 grams of the roots of *Ononis repens*; 5 grams of the seeds of *Foeniculum vulgare*; 1 liter of water. Boil the roots of *Ononis repens* until the water is reduced to ¼ of the original quantity (250 milliliters); then put the seeds of *Foeniculum vulgare* to infuse in boiling water for 5 minutes. Strain everything and give one cup to drink every 2-3 hours.

Infuse 1 teaspoon of the fresh flowers of *Calendula officinalis* (pot marigold) in a cup of boiling water for 10 minutes, unless there are medical indications to the contrary.

Steep 15 grams of finely chopped root of *Marasdenia condurango* in 300 milliliters of water. Boil to reduce the water to 200 milliliters. Sieve it while hot, pressing it. Take 2-3 tablespoons before meals, unless there are medical indications to the contrary.

Infusion of the roots of *Polygonum aviculare* (knotgrass): one dessert-spoonful to a cup of water. Boil for 2 minutes, infuse for 20 minutes. The dosage is to be based on a medical opinion.

A decoction done in two stages of *Triticum repens* also adding the roots of *Rubia tinctorium* (unless there are medical indications to the contrary) and the roots of *Glycirrhiza glabra* (liquorice). Boil 30 grams of *Triticum repens* for one minute. Throw away the water. Crush the *Triticum repens* and boil it again in 1,200 milliliters of water, until the liquid has reduced to one liter. Add 60 grams of the root of *Glycirrhiza glabra* and 15 grams of the roots of *Rubia tinctorium* (madder). Leave the infusion for 20 minutes. The dosage is to be based on a medical opinion.

Drosera rotundifolia (sundew): use the whole plant. 15 grams to 1 liter of water (an infusion).

Diplotaxis tenufolia (perennial wall rocket): the flour made from its seeds can substitute *Senapsis alba* (mustard).

Infuse 60 grams of *Marchantia polymorpha* (the dried plant), chopped up in one liter of water. Take 2 glassfuls a day unless there are medical indications to the contrary.

The stems or the whole plant of *Equisetum arvense* (common horsetail). A decoction of the whole *fresh* plant: 50-100 grams/one liter of water, boil for 30 minutes.
A decoction of the whole *dried* plant: 10-20 grams/one liter of water, boil for 30 minutes.

Infusion of *Tanacetum balsamita* (tansy) or *Chrysanthemum balsamita*: 1 dessertspoonful to one cup for 10 minutes, unless there are medical indications to the contrary. Drink after meals.

Infuse 60 grams of the roots of *Geum urbanum* (wood avens) or *Geum rivale* in one liter of water for 10 minutes. Drink half liter a day, unless there are medical indications to the contrary.
Note: *Geum urbanum* (wood avens) is toxic.

Steep in one liter of *Malus communis* vinegar: 30 grams of *Geum urbanum*, 10 grams of *Salvia officinalis* (sage), 10 grams of *Menta piperita* (peppermint) and 10 grams of *Ruta graveolens* (rue). Leave it to steep for 24 hours. Filter it. Take a sip 4 to 6 times a day, unless there are medical indications to the contrary.
Note: *Geum urbanum* (wood avens) and *Ruta graveolens* (rue) are toxic.

Infuse 15 grams of *Lippia citriodora* in one liter of water (similar to *Melissa officinalis* [lemon Balm]).

A decoction of *Erica cinerea* or *Cullana vulgaris* (heather): a handful of the flower tops in a liter of water. Boil for 3 minutes and keep it infused for 10 minutes. Drink it in 2 hours, unless there are medical indications to the contrary.

Fluid extract: 60 drops of *Erica cinerea* + 50 drops of *Solidago virgaurea* + one soupspoon of: the soft part of the stems of *Zea mais* (3 grams); the fluid extract of *Equisetum arvensis* (common horsetail) (10 grams); the syrup of *Rubus idaeus* (100 grams), 300 milliliters of water.

A decoction of a handful of the roots of *Eryngium campestre* (sea holly or eryngo) in one liter of water. Boil for 5 minutes. Drink in 2 days.

A decoction of a handful of the roots of *Eryngium maritimum* in one liter of water. Boil for 5 minutes.

Infuse *Sysymbrium officinalis* (*) a dessertspoonful of the whole fresh plant for 10 minutes in a cup. Take 3-4 cups a day; a soupspoon every 2 hours of:
1) the fluid extract of *Primula officinalis* (50 drops)
2) a mixture of the syrup of *Sysymbrium officinalis* (SEE below)
3) The principle parts (roots, rhizome ,bark infused in water) of *Tilia cordata, europaea, platyphilla* or *vulgaris* :200 ml.

(*) Note: this plant was mentioned by Castore Durante in his cure for “Cancaro”, on page 174a, of his book "Herbario novo", in 1617.

A mixture of the syrup of *Sysymbrium officinalis* (*)
A handful of the leaves and a handful of the flowers of *Sysymbrium officinalis;* 10 grams of *Glycirrhiza glabra* (liquorice), one liter of water. Boil and reduce the liquid by 1/3. Strain. Add 200 grams of Honey. Simmer in a bain-marie until it is like a syrup. Take a few soupspoons during the day.

(*) Note: this plant was mentioned by Castore Durante in his cure for “Cancaro”. on page 174a, of his book "Herbario novo", in 1617.

<u>For Leukaemia:</u>
20 grams of *Veronica officinalis*
25 grams of *Filipendula ulmaria* aut *Spiraea ulmaria*
25 grams of *Galium aparine*
30 grams of *Sambucus nigra* (shoots)
25 grams of Achillea millefolium
15 grams of *Hypericum perforatum*
20 grams of *Artemisia abrotanum*
15 grams of *Urtica dioica*
30 grams of *Taraxacum officinalis*
30 grams of *Calendula officinalis*
Another plants: *Aloe arborescens*, *Essiac*’s formula, Brazil plants as: *Simaruba amara, Physalis angulata, Scoparia dulcis, Petiveria alliacea, Schinus molle, Uncaria tomentosa*

NOTE: For another tumour, famous Brazil plant is *Annona muricata*; Its sold by a private company along with other mediacal herbs (*Mormodica charantia, Maytenus illicifolia, Physalis angulata, Scoparia dulcis, Guazuma ulmifolia, Uncaria tomentosa*).

Chap. 9.e.:
Anti-cancerous plants or similar plants with immune stimulating properties, mentioned in *Herbario Novo*

In his book *Herbario Novo* published in 1617, Castore Durante mentions 825 plants known in Europe and in both the East and West Indies, and the secret remedies obtainable from these plants (*the admirable virtues of the herbs ..... discovering rare secrets and particular remedies to cure the most difficult illnesses of the human body .....).* In particular he describes 11 plants which were considered even then as cures against "Cancaro", which was how Cancer was called then, and Aloe was mentioned for its curative qualities against "malignant ulcers":

Page 34D: “Antora” or “Zedoaria” (probably *Curcuma zedoaria*) (turmeric).
Page 146D: “Consolida media bugula”, probably *Ajuga reptans* (well known in the past as an immune stimulant for TBC) or *Ajuga piramidalis* (Bugle).
Page 162B: The roots of “Dragontea maggiore”: probably *Artemisia dracumculus*
Page 170D: ”Epithimum” : probably *Cuscuta epithimum*
Page 174A: *Erysimum officinale*: in the past it was known as an immune-stimulant for TBC.
Page 188B: *Filipendula ulmaria* or *Spiraea ulmaria*
Page 224A: “Heliotropium minus” : perhaps this is *Heliotropium europaeum*
Page 228BD: “Nicotiana” (old Italian), “Tobacco” (old Spanish): probably this is *Nicotiana alata* (Tobacco flower) or perhaps *Nicotiana tabacum* (Tobacco plant). They are considered poisonous nowadays
Page 324BD: *Urtica dioica* (perennial nettle) (doubtful for *Urtica urens* (annual nettle), *Lamium album* or *Acalypha indica*).
Page 325A: *Hordeum volgare* (barley).
Page 408D: a decoction of the roots of *Smilax aspersa,* or *Smilax sarsaparilla* or *Smilax utilis* (doubtful for *Smilax china* or *Hemisdesmus indicus*).

A particular note is dedicated to *Aloe*, on page 17D of "*Herbario Novo*", where its ability to cure patients with malignant tumors is recognized.
On page 18 on the other hand, another *Aloe* is reported called "Aloe Americana", but no properties against malignant tumors or similar are attributed to this plant. Looking carefully at the two sketches of the two *Aloe* plants, the author would maintain that the first *Aloe*, on page 17, corresponds to *Aloe ferox* (which has therapeutic qualities similar in many ways to *Aloe arborescens*); and the second *Aloe* (“Aloe Americana”), corresponds to *Aloe vera*, which is generally considered to have 3 times less the concentration of active principles compared to *Aloe ferox* and *Aloe aborescens*.

Many other plants are mentioned for the cure of "tumors" (perhaps not always malignant tumors) on the following pages:

2C: *Artemisia abrotanum* : southern wood
31A: the roots of *Angelica arcangelica* (angelica) or *silvestris.* (wild angelica).
67A: the leaves of “Bellide maggiore“: perhaps this is *Leucanthemum vulgare* or *Bellis major* (daisy, spring flowers, primroses):
71A; *Beta alba* (white chard): probably it is really *Beta alba* var.*cicla.*
81D: the flowers of *Buphthalmum oculus buvus* (oxeye, bull's eye). Probably it is the well known *Buphthalmum salicifolium* (bull's eye, asteroid).

100B: *Cicer arietinum* (chickpea) for tumors of the liver: Chickpea flour cooked in Endive water.
107A: the leaves of Chervil ("Cerfolium") this is probably *Anthriscus cerefolium*, similar in appearance to *Apium petroselinum* (Note from the author : both these plants are known today as cures for various pathologies, but they are, unfortunately, similar in aspect to *Aethusa cynapium* (garden hemlock) and to *Cicuta virosa* (poisonous hemlock); however, the latter can be distinguished from Parsley or Chervil by pressing 3 or 4 leaves between the fingers: its nauseating smell is characteristic).
126D: *Cicorium intybus* (chicory, radicchio).
129A: *Cuminum cyminum* (roman cumin), according to Durante it should be taken with pink Honey.
131C: "Mercorella bastarda". It is not clear whether it refers to *Mercurialis annua* of the Euphorbiaceae family, and therefore toxic or potentially toxic.
137D: *Cytisus laburnum* or *Cytisus scoparius* (broom); they are toxic.
147D: "Sperone di Cavaliere"(This is *Delphinium consolida* (royal comfrey or knight's spur) known Solanaceae, potentially toxic, it is still being evaluated by the author.
169B: the white foliage of *Chicorium endivia latifolium* (endive).
172A: the flowers and seeds of *Erica vulgaris* (heather)
174D: "Orobis", "Ervum", probably *Ervum ervilia.*
181B: *Vicia faba* (broadbean). Durante maintained that they were useful against "tumors" of the testicles.
207B: the berries of *Juniperus communis* (juniper), for tumors of the neck and chest (they are currently considered slightly toxic).
208C: the flowers of *Coronilla emerus, Cytisus scoparius, Sarothamnus scoparius, Spartium scoparium, juniceum* (different types of juniper), they are toxic.
209A: "Gingidium ": Durante said that "..... it is not the common chervil, even if it looks like it". It is probably *Daucus gingidium*.
231ABC: the green leaves of *Hyoscyamus albus* referred as effective against "tumors" of the lungs, the spleen and the testicles. This plant is still being studied for its possible toxic effect by the author.
238B: *Gnaphalium polycephalum* or *supinum* or *vira vira*.
239C: *Iris sylvestris major.*
248B: the leaves of *Laurus nobilis* (laurel).
262A: the seeds of *Linum usitatissimum* (flax): Durante said that "... flax seeds remove all types of "tumor"...", this has also been reported in Chinese and Indian texts; in the Gerson Therapy the oil of seeds of *Linum usitatissimum* (flax) is important for Omega-3 ([749]).
263A: *Pseudolinum* (false flax). Durante referred to it as a cure against ".. "tumors" of the nerves...."
307D: *Nasturtium officinalis* (nasturtium).
330D: *Panaces ascletanus* : Durante maintained it was an effective cure against "malignant tumors" and "little tumors"; perhaps *Heracleum sphondylium* : Panace, Italian ginseng.
340C: the roots of "Pentaphillo". It is probably the well known *Potentilla alba* (cinquefoil) or at least from the same family. It is currently being evaluated.
390B: the roots of *Rheum officinale* or *sinense* or *palmatum* (rhubarb): it is also used in Rene Caissè's formula (the famous decoction of Canadian herbs).
407C: The juice of the bark or the leaves of greek willow or willow. It is probably *Salix babylonica.*
431A: *Sesamoides parvum.*
455A: *Thapsia garganica*.(Thapsia)
463A: *Tribulus acquaticus.*
470CD: *Verbena officinalis* (verbena). Durante maintained it was effective against "tumors" of the spleen, the testicles and the head.
471C: *Veronica officinalis* (veronica). Durante maintained that it was effective against "tumors" of the head.

485C: “Vulvaria Garosmus “: probably *Vulvaria species*.
487A: “ Xiris “: *Iris foetisissima*
489C: *Cucurbita maxima* (pumpkin).

Conclusions to paragraph 9.a, 9.b, 9.c, 9d, 9e:

As with *Aloe arborescens*, these plants are also the cause of particular phenomena in the patient, which can probably be traced back to an immunitary activation, highlighted by the following symptoms and signs which can be integrated with blood tests and instrumental tests:
1. Nausea, vomiting, loss of appetite with intestinal and gastric pains, probably because of the activity of the gastro-enteric lymph nodes.
2. Possible transitory hyper-calcemia caused by an increase in IL-1 and TNF.
3. A transitory increase in the tumoral mass, because of lymphocyte infiltration and subsequent phlogosis.
4. A temperature (activation of the Immune Cascade), if there is an extended tumor.
5. High levels of uric acid in the blood, possible onset of kidney damage.
6. Ultrasonography: increase of lymph nodes (REACTIVES lymph nodes)

Chap. 9.f.:
Adjuvant immuno-therapy: Phyto medicines with an anti-stromal action on connective cancer tissue

…"Pancreatic proteolytic enzymes are the body's main defense against cancer and would be useful as a cancer treatment…"

British Medical Journal, 1906

Taking into account current literature, it must be pointed out that it is difficult for the white blood cells to penetrate inside the neoplastic mass because of the high pressure of the interstitial fluid (H-IFP, see: Jain R.K.: *Barrier to Drug Delivery in Solid Tumors*, Scientific American, Science, July, 1994), and because of phenomena, which are not yet clear, of slight deformability of the LAK lymphocyte cell membrane ([391]).

This cancer barrier may, however, be vulnerable to particular agents such as pancreas enzymes and to other different enzymes contained in *Aloe arborescens.*

What is more, the barrier could be vulnerable to *Bromelain* (a proteolytic enzyme found in the stalks of *Ananas sativus* or *Ananas comosus,* also found in the blood of patients after they had eaten a good quantity of this fruit). It could also be vulnerable to *Papain,* an enzyme which is similar to *Bromelain,* but contained in the leaves and the fruit of *Carica papaya.*

A similar enzyme to *Bromelain* and *papain* also exists in *Morinda citrifolia,* in concentrations about 800 times higher than in the stalks of *Ananas sativus* or *comosus.* This enzymatic similarity consists of a co-enzymatic component (prosthetic group), that is, of an alkaloid (*Xeronina*) of which the pre-synthesis components (*Proxeronina* and *Proxeronasi*) are also found in large amounts in the fruit itself.

Other proteolytic enzymes can be found in the roots of ginger (*Zingiber officinalis*), among which is *Zingibaina*, which has proved more effective than papain itself.

In Africa the wood and the dried and pulverized bark of *Okoubaka aubrevillei* is currently being studied because it could possibly have a pancreatic or similar enzyme action.

Finally we must also mention *Eichornia crassipes* (water hyacincth), with enzymes which are not yet sufficiently known but nonetheless similar to those mentioned above.
There are many different herbal preparations on the market derived both from these and other plants.
In Gerson's therapy ample use is made of similar pancreatic enzymes.

According to the author, the possible use of these enzymes even for injections into the cancer itself, similar to those of *Papain* which have been used for hernias of the disk, should be evaluated.

Note 1: some clinical cases of oncology therapy obtained by using extracts of corionic vessels, for example those of Gavollo ([141,147]), have been reported in medical literature. This fact could lead one to presuppose an immune stimulating action directed against the connective stoma of the tumor and possible, therefore, as an immune-stimulating curative technique.

Analogous to this form of anti-neoplastic activity, based on the activation of lysis phenomena of the extra-cell matrix of the cancer connective, probably on an immune basis, an anti-cancer technique, discovered in the past by the Italian doctor Armando Gambetti, should be researched. Unfortunately Dr.Gambetti died in the 70s without being able to continue his important work.

Chapter 9.g: The HOXSEY Therapy

From INTERNET: Herbal Therapies for Cancer, by Vivekan Don Flint and Michael Lerner, Research Assistance: Melanie Smith, October 1997.
(NON reported in Italian version of commercial Book “Diventa Medico di te stesso !”)

Like the story of Rene Caisse and Essiac, Harry Hoxsey has assumed for some a stature larger than life, and the story of the therapy that bears his name the quality of legend.

In 1919, at the age of 18, Hoxsey became involved in the mission passed down through his family from his great-grandfather, John Hoxsey. As the story goes, John Hoxsey, a veterinarian, observed a horse with cancer instinctively eating certain herbs that grew in the pasture that was subsequently cured. Hoxsey gathered these herbs and successfully treated other animals with cancer. The formulas he used were passed on to his descendants who used them to treat cancer in humans, as well ([1500]).

Harry Hoxsey viewed cancer as a systemic disease, but did not claim to know its cause; he called himself an "*empiricist*", saying his treatment was based on experience and practice:

We believe that the organism's attempt to adapt itself to the new and abnormal environment produced by the chemical imbalance causes certain changes (mutations) in newly born cells of the body. The mutated cells differ radically in appearance and function from their parent cells. Eventually a viciously competent cell evolves which finds the new environment eminently suitable to survival and rapid self-reproduction. These cells are what is known as cancer.

It follows that if the constitution if body fluids can be normalized and the original chemical balance in the body restored, the environment again will become unfavorable for the survival and reproduction of these cells, they will cease to multiply and eventually they will die. Then if vital organs have not been too seriously damaged by the malignancy (or by surgery or irradiation) the entire organism will recover normal health ([1501])
The Hoxsey Clinic was founded in Dallas, Texas, in 1924 and by the 1950s was one of the largest private medical facilities in the world, with branches in 17 states. Though initially very successful in terms of drawing patients--or perhaps because of this fact--the clinic became a target of organized medical groups. Hoxsey spent a good deal of his time in court defending himself against charges of practicing medicine without a license and using unapproved therapies, though none of his patients ever initiated legal proceedings against him ([1502]).

Hoxsey fit the stereotype of a quack--a former coal miner and Texas oilman, he was initially reluctant to disclose his formula and was a flamboyant character who openly taunted the medical establishment.

Hoxsey alleges in his autobiography, You Don't Have to Die, that Malcolm Harris, M.D., Chicago surgeon and future president of the American Medical Association (AMA), offered to buy his formula after observing its successful use with a patient. According to Hoxsey, he would have received 10 percent of the profits, but only after 10 years. The AMA would set the fees and keep all of the profits for the first nine years. Hoxsey said he refused the offer ([1503]).

As part of the ongoing battle between Hoxsey and the AMA and FDA, Morris Fishbein, editor of the Journal of the American Medical Association, published an assault on Hoxsey entitled "*Blood Money*" in the American Weekly in 1947 in which he labelled Hoxsey a "charlatan." Hoxsey sued for libel and won. Though the award was only two dollars, it was nonetheless a stunning victory for Hoxsey. Fifty of his patients testified on his behalf, and Fishbein was forced to admit during testimony that he had failed anatomy in medical school and had never treated a patient during his entire career. He also admitted in court that Hoxsey's pastes had actually resulted in some cures for external cancers. Fishbein and the AMA were now on the defensive and he was soon forced to resign his position ([1504]).

According to Hoxsey's autobiography in 1954 an independent team of ten physicians from around the United States visited the Dallas clinic for a two-day inspection, during which they interviewed patients and reviewed medical records. Hoxsey claimed a signed report stated that the clinic was:

...successfully treating pathologically proven cases of cancer, both internal and external, without the use of surgery, radium or x-ray.

Accepting the standard yardstick of cases that have remained symptom free in excess of five to six years after treatment, established by medical authorities, we have seen sufficient cases to warrant such a conclusion...

We as a Committee feel that the Hoxsey treatment is superior to such conventional methods of treatment as x-ray, radium, and surgery. We are willing to assist this Clinic in any way possible in bringing this treatment to the American public. We are willing to use it in our office, in our practice on our own patients when, at our discretion, it is deemed necessary ([1505]).

Another team assembled by the Canadian government visited the clinic in 1957 from the *University of British Columbia* in Vancouver. They concluded that the Hoxsey medications "*are of no value in the treatment of internal cancer and the external treatments used have no place in modern cancer therapy*"([1506]).

By the late l950s, Hoxsey was pressured out of business by FDA actions banning the interstate distribution of the treatments and by posting warnings in 46,000 post offices nationwide. Mildred Nelson, his chief nurse, attempted to keep the clinic going in other locations, but was encouraged by Hoxsey to move the operation to Mexico. Nelson still runs the *Bio-Medical Center* in Tijuana today.

Hoxsey employed one internal formula and three external remedies for cancers on or near the surface of the skin. Hoxsey believed the "*yellow powder*" to be highly selective for cancer tissue, leaving normal cells undamaged. According to Hoxsey, the yellow powder consisted of arsenic sulfide, talc, sulfur and what Hoxsey called a "*yellow precipitate*." The "*red paste*" (antimony trisulfide, zinc chloride and bloodroot) and the "*clear liquid*" (trichloroacetic acid) were not selective. Vaseline or zinc oxide applied around the area protected normal tissues from the corrosive actions of the latter ([1507]).

Speaking about the external remedy used for skin cancers, Hoxsey said:

In practice we have found that a small amount of our compounds, when placed on a large cancerous mass, cause a chain reaction which extends an inch or two beyond the point of application. The mass dries, separates from normal, healthy tissue and falls out ([1508]).

Interestingly, the ingredients in the red paste were used by Frederic Mohs, M.D., of the University of *Wisconsin Medical School* in the 1930s and 1940s to treat non-melanoma skin cancers. Mohs' technique employed the paste and serial microscopic examination of excised tissues. The paste was applied and left in place for 24 hours, during which time the patient was given medication for pain. After the tissue had been killed and fixed, a layer approximately five millimeters thick could be excised with a scalpel and examined with no pain or bleeding. Several successive applications, excisions and examinations were performed until the tumour was excised.

Mohs reported a 99 percent cure rate for all basal cell carcinomas he treated using this method. In a 1948 paper, Mohs contrasted his method with that of unconventional practitioners who did not used the fixative with the microscopic control of excision, which he considered unreliable and excessively mutilating ([1509]).

In the 1950s, Mohs abandoned the use of the fixative paste altogether in favor of surgical excision of fresh tissue specimens, a method used today for some types of skin cancer ([1510]).

Among other uses, bloodroot, one of the constituents of the red paste, has been employed in the United States as an expectorant, an antiseptic, a cathartic and an emetic. Externally, it has been used traditionally for skin fungus and cancer ([1511]).

Walters reports that the rootstock of bloodroot (*Sanguinaria canadensis*) contains Sanguinarine, an alkaloid with powerful anti-tumour properties, and that Native Americans living along the shores of Lake Superior used the red sap to treat cancer ([1512]). Drawing upon this lore, Dr. J. W. Fell working at the *Middlesex Hospital* in London in the 1850s reportedly treated cancer using a paste composed of bloodroot, zinc chloride, flour and water ([1513]).

In his autobiography, Hoxsey lists the ingredients in his internal treatment as Cascara (*Rhamnus purshiana*) and Potassium Iodide, to which one or more of the following herbs were added depending upon the patient's condition, location of the cancer and previous treatment: burdock root (*Arctium lappa*), pokeroot (*Phytolacca americana*), barberry or berberis root (*Berberis vulgaris*), buckthorn bark (*Rhamnus frangula*), stillingia root (*Stillingia sylvatica*), prickly ash bark (*Zanthoxylum americanum*), licorice (*Glycyrrhiza glabra*), red clover (*Trifolium pratense*), and Aromatic USP 14 (artificial flavor) ([1514]).

According to the OAM, the presence of all these ingredients (with the exception of the flavoring) was confirmed in an analysis by the *Hipple Institute*, though the volatility of some components means they might only be present in a fresh state and not in the final form ([1515]). According to the OTA report, the last two ingredients--red clover and flavoring--are not mentioned in *Mildred Nelson's list* of ingredients currently offered ([1516]).

Many of the constituent herbs have long been used in various folk traditions as cancer treatments and others are considered to be cathartic or cleansing. According to James Duke:

I should like to propose that there do exist bioactive compounds in that concoction that has been called "Hoxsey's Hoax." I am not here to support nor to refute the Hoxsey herbs, just to note the activity of compounds therein. Poor Hoxsey was haunted by the Health, Education and Welfare Department (HEW) of his day, whose claims were probably no closer to the truth than Hoxsey's. HEW stated back then, "Cancer can be cured only though surgery or radiation." That was before the marvels of phytochemicals like Vincristine and Vinblastine from the Madagascar periwinkle for leukaemia, and Etoposide for bronchial and testicular cancer from Mayapple root had been derived from the herbal potpourri...

Before he retired, Jonathan Hatwell of the National Cancer Institute published "*Plants Used Against Cancer*"...All ten of the Hoxsey herbs were generously cited in the folklore. Hoxsey certainly was not alone in suggesting anti-cancer activity for these plants.

Duke also notes that all of these herbs are listed in the 28th Dispensatory of the United States, with the recommeded dosages two to three times higher than the dosages in the Hoxsey formula ([1517]).

Cascara (*Rhamnus purshiana*)

The OAM reports that in American folklore cascara used both as cathartic and as a cancer remedy ([1518]). According to Boik, both Cascara and another constituent of the Hoxsey therapy, buckthorn, contain Rhein and Emodin, promising anticancer agents which have been described previously.

A 1952 study cited in the OTA report on *Unconventional Cancer Treatments* found no anticancer activity in a powdered suspension of cascara in the Sarcoma 37 system ([1510,1519]). The same report describes a series of 16 tests by the NCI which found no antitumor activity with Cascara (1520).

Cascara is a cathartic and an overdose can lead to severe diarrhea and dehydration ([1521])

Burdock root (*Arctium lappa*)

Burdock root is also one of the constituent herbs in the Essiac formula, and research on its anticancer properties are discussed in that section.

Pokeroot (Phytolacca americana)

Among other traditional uses cited by the OAM report, pokeroot is listed as an American folk remedy for cancer ([1521]).

One published study reported no significant antitumor activity with pokeroot in three animal test systems (Erlich ascites, leukaemia SN36 and sarcoma 180) ([1522]). The OTA also cites 43 tests for anti-tumour activity carried out by the NCI, one of which was positive, but which was withdrawn because of problems with its validity ([1510]).

In other studies, pokeroot has demonstrated the capacity to stimulate a mitogenic (immune) response{249} and to stimulate interleukin production ([1527]). One component of pokeroot has been shown to have the ability to induce the proliferation and differentiation of lymphocytes in the blood ([1510, 1528]). The OTA report suggests this property might be relevant to an immunologic response to cancer which might not be picked up as positive activity in animal tumour models ([1510]).

Research in China on a related species, *Phytolacca acinosa*, demonstrated that polysaccharides derived from the plant significantly enhanced the ability of macrophages to kill sarcoma cells and malignant fibroblasts. Macrophages incubated with pokeroot derivatives produced significantly more tumour necrosis factor (TNF) and interleukin-1 (IL-1). A substance derived from pokeroot, PEP-1, was as effective as Bacillus Calmette Guerin (BCG) at stimulating TNF production and better than BCG in its effect on IL-1 production ([1529]).

Pokeroot has been liked to poisonings, including some fatal episodes, in both children and adults ([1530]).

Barberry (Berberis vulgaris)

One of the most interesting and most researched constituents of the Hoxsey therapy is barberry, also known as berberis, jaundice berry, woodsour, sowberry, pepperidge bush and sour spine. Jonathan Hartwell lists traditional uses of barberry for cancer in Arabic medicine and against nasal polyps in traditional Chinese medicine ([1521]).

The OTA report *Unconventional Cancer Treatments* cites one test of barberry in which no anti-tumour activity was demonstrated ([1510]). However, in 1976, researchers reported on the anticancer properties of a substance isolated from barberry, lycobetaine ([1531]). And another derivative of barberry, Berberine, has been the subject of research as an antibacterial, anti-malarial and fever-reducing drug. Boik describes the research on Berberine in some detail, also listing it as an anti-tumour compound of particular interest. According to Boik, Berberine produces an anticancer effect, though the mechanism by which it works is unclear ([1532]).

Berberine inhibits the uptake of oxygen by tumor cells ([1533]) and induces differentiation in human teratocarcinoma cells in vitro. In this study, Berberine was a more powerful differentiating agent then vitamin A, but only at concentrations that might be difficult to achieve without significant toxicity ([1534]).

In other studies, Berberine at a much lower concentration inhibited the growth of a human hepatoma cell line ([1535]) and in Erlich and NK/Ly lymphoma cells lines ([1533,1536]). Berberine also exhibited marked cytotoxicity at low concentrations in a human HeLa cell line ([1537]).

Some in vivo studies of Berberine's anti-tumour activity have also been conducted. A single intraperitoneal dose of Berberine to rats bearing 9L brain tumours resulted in an 81 percent cell kill after 24 hours ([1539]). However, in another study, Berberine did not cross the blood-brain barrier in rats when injected intravenously. In this study, intraperitoneal administration of Berberine three times a day did increase the lifespan of rats bearing P338 lymphocytic leukaemia by 12 percent, but did not increase the lifespan when the P338 cells were injected intracerebrally ([1540]).

In another study, intraperitoneal Berberine did not inhibit Erlich ascites tumour growth in mice ([1541]).

Boik points out that the anti-tumour effects of Berberine may be related in part to its immune enhancing effects, citing a study by Kumazawa in which Berberine markedly activated macrophages against EL4 leukemic cells in vitro ([1541]).

Based on the available evidence, Boik does not believe that Berberine is likely on its own to produce a significant anti-tumour effect. However, he does conclude that it might be useful in combination with other agents such as vitamin A and DMSO that might reinforce its differentiating effects, an approach that has not been studied clinically ([1533]). Whether or not the other herbal constituents of the Hoxsey therapy might serve this purpose is at this point an open question.

Boik also takes note of the possibility that the anti-bacterial effects of Berberine may alter gut flora when taken orally ([1542]).

Buckthorn bark (*Rhamnus frangula*)

Hartwell reports that buckthorn has been used as a folk remedy for cancer in England and the United States ([1521]).

Buckthorn bark has yielded Emodin, the anticancer activity of which has been described previously. However, in three NCI tests in animal systems buckthorn bark failed to demonstrate any anti-tumour activity ([1510]).

Stillingia root (*Stillingia sylvatica*)

Stillingia root is a cathartic and emetic in large doses and has been used as a folk remedy for cancer in the United States ([1521]). Very few studies have been done on the properties of *Stillingia sylvatica* and the NCI has no records of screening the herb for anticancer activity ([1510]).

Stillingia root is a toxic irritant, causing swelling and inflammation of the skin and mucous membranes ([1521]).

Prickly ash bark (*Zanthoxylum americanum*)

Hartwell reports this and related species have been employed as folk remedies for cancer in the state of Georgia, the Antilles, China and the West Indies ([1521]).

Licorice (*Glycyrrhiza glabra*)

This is the commercially-available licorice long employed as a flavoring and, according to Hartwell, as a remedy for various cancers in Indian, Arabic, Chinese and Japanese traditional medicines ([1543]). Licorice is a component of Juzen-Taiho-To, an intriguing herbal therapy for cancer from the tradition of Kampo, the Japanese version of traditional Chinese medicine ([1544]).

The NCI has tested licorice 19 times, with one sample showing activity that was not considered significant. Another study showed licorice to be inactive in the Sarcoma 37 test system ([1545]).

Substances demonstrating anticancer activity that have been isolated from licorice include Benzaldehyde (also found in burdock, described previously), as well as Fenchone, Glycyrrhizin, Indole, Quercetin and beta-Sitosterol ([1510]).

Red clover (*Trifolium pratense*)

Hartwell reports 22 references to the use of red clover flowers or leaves for cancer, most often breast cancer, in several Eastern states as well as Europe, the Ukraine, Leipzig and Australia. Analyses of the leaves of red clover have revealed the presence of estrogens, which might account for their use, particularly for breast cancer ([1521]).

Boik notes that clovers contain Genistein, a promising anticancer agent that inhibits platelet aggregation, induces apoptosis, inhibits angiogenesis, reduces the bioavailability of sex hormones, induces differentiation in cancer cells and is relatively non-toxic ([1546, 1547, 1548]).

The NCI tested red clover 94 times, with one test showing activity that was not considered significant ([1510]). Red clover also demonstrated no activity in the P388 system ([1549]).

Potassium Iodide

The British Codex of 1968 describes Potassium Iodide as an expectorant and useful in providing a firm texture to the thyroid gland before surgery. None of the references are as a cancer treatment ([1521]). It is also said to hasten the dissolution of fibrous lesions, which may be of relevance for some cancers, though the doses given as part of the Hoxsey therapy are quite low ([1521]).

Potassium Iodide can also have an irritating effect on the gastric mucosa and, according to an article critical of the therapy printed in CA--A Cancer Journal for Clinicians, "*toxic reactions*“ known as "*iodisms*," (pimples, excessive secretion of the eyes or nose, impotence and a mumps-like condition of the salivary glands) may result after doses as small as 60 mg per day. Because the effects of Potassium Iodide are cumulative, iodisms usually occur in most patients with long-term use ([1550]).

The OAM also located one study of the Hoxsey therapy in animals. An independent test conducted by the *Center for Parasitology at the University of Texas at Arlington* found the modulation of antibody response in mice to be greatest for the Hoxsey formula and *Acemin* (extract of Aloe) among the substances tested ([1552]).

CA--A Cancer Journal for Clinicians also cites "*a carefully controlled experiment using the Hoxsey tonic in tumour-bearing mice showed no difference in tumor size and growth compared with tumors in untreated mice* ([1550, 1551])"

There have been two studies of the Hoxsey therapy in humans. The first is a best-case series of nine long-term cancer survivors treated with the formula ([1553]).

The second, a retrospective study by Steve Austin, N.D., was a preliminary study with no controls assessing the survival of 39 patients with a variety of histologically-confirmed cancers who had been treated at the Hoxsey Clinic. Of the 39 patients, 23 were lost to follow-up. Of the 16 remaining patients, nine claimed to have had advanced cancer and two said they had suffered local recurrences. Of the 16, 12 said they had had previous unsuccessful treatment with combinations of surgery, chemotherapy and/or radiation. Ten of the 16 died after an average of 15.4 months, and six patients remained disease-free with an average follow-up of 58 months. Sites of the cancers were lung (2), melanoma (2), recurrent bladder cancer, and labial cancer.

According to Austin:

Our Hoxsey results are uncertain due to the preliminary nature of our investigation. Nevertheless, we note that several long term survivors had very poor initial prognoses. Plausible explanations might include misdiagnoses, small sample size, and erroneous information from patients. However, we believe any apparently successful treatment of late stage lung cancer and melanoma should provoke interest. ([1554])

No side effects or toxicities have been reported in the medical literature from the Hoxsey therapy, though some of its constituent herbs do have side effects when consumed in doses greater than present in the therapy ([1555]).

The Hoxsey therapy is currently offered at the *Bio-Medical Center* in Tijuana, an outpatient clinic that treats all types of malignancies. Besides the Hoxsey therapy itself, the clinic offers immunotherapy, homeopathy, and chelation therapy ([1550]). The treatment also includes supplements and dietary restrictions.

Like Essiac and Laetrile, the primary evidence for any possible effect on cancer in humans lies primarily in anecdotes related by people who have used it during the decades of its popularity, though vocal advocates for all three approaches have championed a cause as much as a therapy.

Research does indicate that many of the herbs used in the Hoxsey internal tonic or the isolated components of these herbs have some anti-tumour activity or cytotoxic effects in animal test systems. It is not known whether there might be synergistic effects of the herbs used together. Further, the complete Hoxsey herbal mixture has not been tested for anti-tumour activity in animal test systems, with human cells in culture, or in clinical trials. It is also not known whether the individual herbs or their components that show anti-tumour activity in animals are active in humans when given in the concentrations used in the Hoxsey tonic.

Chapter 9.h : Coley's toxins

Concerning Coley's toxins ([66,196,516]), these lipopolysaccharides have shown their worth, because, at the beginning of the treatment, they induce an a-specific stimulation of the immune defenses (provided there is no concurrent or precedent Chemo-Therapy).

Probably the positive result of this therapy depends on the fact that they induce an endogenous hyper-thermia due to a temperature (39-40 degrees centigrade), in a way substantially similar to that described in Hyperthermia anti-cancer, which kills hypoxic cancerous cells present in the innermost tumoral mass.

Finally, the induction of thermal shock proteins, determines the specific anti-tumoral activation of the immune defenses, in the first place the lymphocytes, for the subsequent specific recognition of the cancerous cells.

The use, however, of other immune-modulating substances, especially *Aloe arborescens*, will also cause an increase in temperature in the patient, though not so high (37.5-38 degrees centigrade), rendering it therefore unnecessary, according to the author, to use Coley's toxins, unless you try to inject them directly into the tumoral mass, as has already been described in other studies, in order to obtain a greater, local activation, made worse, however, by the theoretical risk of liver and kidney failure caused by the rapid destruction of a great tumoral mass as has been reported in other studies using similar techniques.

Chapter 9.i : Bonifacio's Serum

Within the field of lipopolisaccharides with an immune stimulant action, the 'Padzahrs' taken from the stomach of goats can also be catalogued. They are effective against many tumors, provided that no Chemo-Therapy has compromised the immune defenses. They were brought to the attention of the media about 30 years ago (Bonifacio's Serum). SEE Italian book: Liborio Bonifacio: "*La mia lotta contro il Cancro*", 1970, Ediz. Varesina Grafica Editrice.

About 50 patients of Sud Italy: http://www.medicinetradizionali.it/bonifacio2.pdf

About 50 patients of North Italy: http://www.mednat.org/cancro/bonifacio4.pdf

Chapter 9.l.: Lectins

These are vegetable proteins present in the seeds of tomatoes, peppers, egg plants, in the flesh of beans, in *Aloe arborescens*, in potatoes, soya (soya lectins), and in other foods (snails).
Some of these (soya lectin, snails) have shown that they act selectively on some tumors; others, on the other hand, cause the agglutination of the erythrocytes in some blood groups.
Without acting as direct antigens, they therefore have the prerogative of provoking immunologic reactions such as the blastic transformation of the lymphocytes or the agglutination of the red corpuscles.
Moreover they form immune-complexes with the membrane polysaccharides.
The last two effects can be potentially dangerous because they are at the basis of the auto-immune response as, for example, in auto-immunitary diseases.
It is also interesting to observe that lectins show a particular structural similarity to integrins, which are physiological proteins on the surfaces of cells, specifically involved in cell adhesion.
On the basis of structural and functional criteria, they are classified into different groups: integrins, caderins, selectins and immune globulins.
Their function is to connect between them the intercellular glycocalics which can be homotypical, as for example the platelets, at coagulation level, or heterotypical, as for example in the area of cell adhesion and the extra-cellular matrix; that are also able to transfer extra-cellular signals directly to the inside of cells, because they are trans-membrane proteins able to connect with both the outside of the cell and the internal matrix of the same cell.
It is the prerogative of the lectins to bond with the membrane glycoproteins, such as for example Concanavalin A, produced by *Canavalina ensiformis* (black bean, red bean or Mexican bean), which bonds with all the membrane glycoproteins which contain a-glycosidic or mannosidic groups, forming aggregates; it can also act as a mythogen, principally for T-Lymphocytes and multi cell type agglutin.
Some lectins (tomato seeds, capsicum-pepper seeds, potatoes, egg plants and wheat) contain sugars similar to Glucose, such as D-Glucosamine and its phosophorylated derivative; these interfere in the glycolithic cycle impeding, by their presence, the use of the glucose.
Other components are acetyl-glucosamine, and deoxy glucose, which interact with ATP, the first inhibiting phosphorylation, the second forming a stable mix with the ATP itself. These substances can also interfere in the process of moving the sugars through the membranes whose glycoproteins attached to their outer part therefore represent the target preferred by the lectins.
Lectins are transported by metals and from this connection they derive their property of entering into circulation and of binding with the cellular membranes; the metals which perform this function are those with an atomic weight similar to Iron (Cobalt, Nickel, Copper, Zinc, Manganese Chrome…..).
The particular predilection lectins have for iron could be one of the causes of Anemia, given the subtraction of this chemical element from the intestine.

Hordeum volgare (barley) malt and the shells of shellfish are factors that inhibit the assimilation of lectins.
1. Barley malt: as well as containing Maltose (disaccharide sugar), also contains Destrin (a mixture of oligosaccharides) and the Diastasis enzyme (which breaks the chains of many oligosaccharides); tetraoses form between these, which can attract the lectins competitively, holding them in the intestinal space and thus preventing them from overcoming the digestive barrier.
2. Shellfish: their shells are rich in Chitosane which binds the lectins competitively, holding them in the intestinal space and thus preventing them from overcoming the digestive barrier.

Capter 10:

Non-insulin-dependent Diabetes mellitus or adult diabetes, or Secund Type

There are 5 subgroups of diabetes mellitus:
Type 1, insulin-dependent diabetes (IDDM), or juvenile diabetes, or First Type;
Type 2, non-insulin-dependent diabetes (NIDDM), or adult diabetes, or Secund Type;
Type 3 or secondary diabetes;
Type 4, gestational diabetes;
Type 5, diabetes caused by impaired glucose tolerance.

This work aims at analysing only Type 2 diabetes: non-insulin-dependent diabetes or adult diabetes (NIDDM). This one is almost always associated to obesity.
Many medical works were written about Type 2 diabetes.

The following are some introductory notes by Cherie Calbom and Maureen Keane in "*La salute con i succhi di frutta e verdura*", Edition Tecniche Nuove, pages 90-91:
"….Taking some exercise can be very useful during the treatment of diabetes. Many benefits were observed, such as greater sensitivity to insulin with a following reduction in injections, greater glucose tolerance, an increase in the number of insulin receptors, a lowering of the amount of cholesterol and triglycerides in the blood with an increase in HDL levels and a more considerable loss of weight in obese diabetic patients. However, the exercise programme for diabetic patients must be carefully developed in order to avoid risks.
Diet could be play the most important role in the treatment of diabetes. James Anderson developed a diet - rich in vegetable fibres with high amounts of carbohydrates (HCF)- which was well accepted by the scientific community, resulting to be the most suitable diet for this kind of disease (Anderson J.W.: *High-carbohydrate, high fibre diets for insulin-treated men with diabetes mellitus,* Am. J. Clin. Nutr. 1979, 32, pages: 2312-2321; Anderson J.W.: *Metabolic effects of high-carbohydrate high-fibre diets for insulin-dependent diabetic individuals,* Am. J.Cl.in. Nutr. 1991, 54, pages: 936-943).
The diet suggested by the *American Diabetes Association* and the *American Dietetic Association* – which use lists of substitute products – is considered less effective than the HCF diet by many doctors and nutritionists. The diet consisting of substitute product is much richer in proteins, cholesterol and fats compared to the HCF diet and bases itself on 6 groups of foods: milk, vegetables, fruit, bread, meat and fats. Thirty-five per cent of total caloric requirement come from fats. As demonstrated, this amount contributes to the development of atherosclerosis. The amount of carbohydrates is much lower than in the HCF diet, whose 40-45% of total calories derive from carbohydrates. Some scientific researches demonstrated that a diet rich in complex carbohydrates keeps the level of glucose in the blood better under control. Seventy-seventy five per cent of the HCF diet are constituted by complex carbohydrates (vegetables, fruit, legumes and wholemeal cereals); fifteen-twenty per cent by proteins and only five-ten per cent by fats. It is advisable to follow the modified HCF diet (MHCF) as it contains fewer treated cereals and does not include fruit juices, low-fibre fruit, skimmed milk and margarine. The MHCF diet is described in the following section "*Modifications to the diet*" (SEE Chap. 10.1)

Chap. 10.1.:
Modifications to the diet

1) Following a totally vegetarian diet or a modified vegetarian diet (with fish and poultry once a week). It was demonstrated that this diet reduces the risk of dying of diabetes.

2) Eating garlic and onion abundantly. It was demonstrated that these foods significantly help to lower the amount of sugar in the blood:
[Sharma KK.: *Antihyperglycemic effect of onion: effect on fasting blood sugar and induced hyperglycaemia in man*, Indian J.Med. Res., 1977, 65, pages: 422-429] ;
[Jain RC.: *Hypoglycaemic action of onion and garlic*, Lancet, 1973, 2, page: 1491] ;
[Silagy C.: *Garlic as a lipid lower agent a meta-analysis*, J. R. Coll. Physicians London, 1994, 28, pages: 39-45] ;
[Phelps S: *Garlic supplementation and lipoprotein oxidation susceptibility*, Lipids, 1993, 28, pages.: 475-477] ;
[Legnani C.: *Effects of a dried garlic preparation on fibrinolysis and platelet aggregation in healthy subjects*, Arzneimittelforsch, 1993, 43, pages.: 119-121] ;
[Silagy CA: *A meta-analysis of the effect of garlic on blood pressure*, J.Hypertens. 1994, 12, pages.: 463-468] ;
[Kawasakishi S.: *New inhibitor of platelet aggregation in onion oil*, Lancet, 1988, 2, 330] ;
[Louria DB.: *Onion extract in treatment of hypertension and hyperlipidemia: a preliminary communication*, Curr. Ther. Res., 1985, 37, pages.: 127-131].
SEE also bibliography to: 1851-1864

Note of the author (Doctor Giuseppe Nacci): unfortunately the current introduction of GMO garlic and onion (Genetically Modified Organism) represents a serious and unjustified obstacle to this therapy, not only with regard to diabetes treatment, but also to other chronic-degenerative diseases.

3) Consuming raw foods and juices of raw vegetable abundantly. It was observed that these foods are very beneficial to diabetic patients. Doctor John Douglas found out that fibre-rich carbohydrates are better tolerated by diabetic individuals if eaten raw and help to stabilize the level of sugar in the blood. Furthermore it was demonstrated that these foods reduce the desire to eat more. Doctor Max Bircher-Benner, founder of the renowned clinic with the same name, used raw vegetable juices in his dietary treatments, including that for diabetics.
Fruit juices should be avoided. It is allowed to use some thin slices of apple to sweeten a vegetable juice, but if this minimal amount of fructose increased the level of glucose in the blood, it is advisable to eliminate it.
All sugars should be eliminated. Saccharose was associated with poor glucose tolerance. All simple sugars (sweeteners) are eliminated in HCF and MHCF diets. It was proved that saccharose and fructose increase the level of total cholesterol and LDL, the amount of triglycerides and uric acid in the blood. It is inadvisable to use artificial sweeteners because of their risks to health.
Possono essere utili particolari piante come la *Trigonella foenum graecum* ([1846-1850, 2024-2026]), *Vaccinium myrtillus* ([2052-2057]) *Glycirrhiza glabra* ([1865]), *Rubus fruticosus* ([1866]), *Panax ginseng* ([1867, 2051]), *Arctium lappa* ([1868]), *Aloe species* ([1869-1871]), *Momordica carantia* ([1872-1874, 2040-2043]). Molti sono quindi gli Studi condotti sulle diete più adatte ([2005-2023]).

Note of the author of this book (Doctor Giuseppe Nacci): this therapy is similar to the old Gerson therapy, which was modified for the treatment of Type 2 diabetes mellitus (SEE Charlotte Gerson: "*The Gerson Therapy*). Gerson maintained that the main cause of this disease is essentially the high amount of cholesterol in the blood, which makes it impossible for cell receptors to absorb insulin. This theory is only partially shared. Besides, chemical-pharmaceutical multinationals invested considerable capitals in order to put on the market the "Statins", which seem to find favour with medical class despite well-known cases of death caused by "*Lipobay*".

At this point we should ask ourselves why the cholesterol is so high in the blood of patients affected by Type 2 diabetes mellitus and whether its reduction through the diet and not through drugs such as the "statins" could really cure this disease, in other words a treatment free of chemical/pharmaceutical therapies at last.

Alessandro Formenti and Cristina Mazzi, in their wonderful book ("*Cereals and legumes in the diet for the health*"), Edition "*Tecniche Nuove*", masterfully outlined the relation of cholesterol to the diet:

"The cholesterol plays a significant role in the organic physiopathology. It is a steroid alcohol necessary for the nervous system, the brain and the cell membranes. It is a precursor of various hormones, vitamin D and bile salts. Naturally, the cholesterol is above all present in animal fats (meat, lard, milk and by-products, eggs, sausages, fish, molluscs and shellfish), whereas it is almost absent in vegetal products.
Human body daily produces 2 grams of cholesterol (endogenous cholesterol), 1-1.5 grams originate in the liver; the rest is synthesized in the adrenal gland, in the cutis and in the intestinal mucosa. Further cholesterol (0.3-0.5 grams) is introduced in the body through food (exogenous cholesterol). Consequently, the amount of endogenous cholesterol is 3-4 times larger than that introduced by eating. Good levels of cholesterol in the blood range from 180 to 200 milligrams/ decilitre.
The blood is principally an aqueous medium, in which fats cannot circulate because of their water-repellent properties. Thus, the cholesterol is carried by lipoproteins, which are protein carriers having good affinity with water.
Up to the present time three main types of lipoproteins which transport fats are known:
Very Low Density Proteins
Low Density Proteins, LDL
High Density Proteins, HDL

Recently it was observed that also residual chylomicrons and intermediate density lipoproteins (IDL) cause the formation of atheromatous plaques when they are largely present in the blood.
About 80% of cholesterol is removed from the body after its conversion into bile acids, which are eliminated through the feces after being poured in the duodenum and then in the intestine. However, this process is largely influenced by the type of diet chosen.

People eating foods rich in protein and poor in vegetable fibres have a great number of micro-organisms in their colon, such as bacteroides, *Escherichia coli*, bifidobacteria and other Gram-negative flora, which degrade bile acids. Also thanks to a passage speed reduced by "fine" diets, these are almost reabsorbed and go back to the liver through the portal vein (enterohepatic circulation).
It should be noted that some substances produced by the degradation of bile acids are also powerful carcinogenic agents, i.e. 3-methyl-methylcholanthrene and, in case of neutral pH, nitrosamines. Moreover, lithocholic acid – which reduces the hepatic conversion of cholesterol into bile acids – is toxic.
Consequently, besides originating substances which favour colon cancer, a diet poor in fibres also creates a condition in which a smaller amount of cholesterol is converted into bile acids in the liver and then excreted in the duodenum; furthermore, old cholesterol adds to that daily synthesized.
As it was often demonstrated by studies on human beings and by animal experiments the most direct and important way used by the body to get rid of excess cholesterol is the colon and the defecation. Surely the modern diet – which is poor in fibres and rich in animal proteins – significantly contributes to cumulating cholesterol in the bloodstream. On the contrary, a diet rich in carbohydrates, vegetables and cereal bran accelerates the intestinal passage and favours the presence of mostly Gram-positive flora in the colon, such as streptococci and lactobacilli. In this

way, the degradation of bile acids is significantly reduced. These are scarcely reabsorbed and quickly and massively excreted through the feces.
Thus, the level of hematic cholesterol decreases first of all because great amounts are expelled through the alvus and then because the liver is stimulated to transform cholesterol into bile acids, which are immediately eliminated.
Furthermore, this kind of saprophyte flora produces volatile fatty acids which are able to inhibit the cholesterol synthesis, have a good energy value and, to a lesser extent, vitamins, amino acids and oligopeptides. Moreover, the fermentations in the human large intestine can degrade toxic and carcinogenic compounds.
Also the lifestyle influences cholesterolemia: the level of HDL cholesterol is higher in active people, moderate drinkers, non-smokers; whereas LDL cholesterol is higher in sedentary people, smokers and obese individuals. Further risk factors are heritability, hypertension and too much alcohol…".

Doctor Catherine Kousmine treated Type 2 diabetes mellitus by prescribing a correct diet and by reactivating the functionality of cell walls, tissues (for example intestinal tissue) and organs (for example the liver), in particular by using vitamin F (polyunsaturated fatty acid) and by eliminating foods rich in saturated fatty acids such as butter, margarine, etc…

According to the author, doctor Giuseppe Nacci, vitamin F is really important for the general biochemistry and in particular it is effective against the onset and the progression of diabetes and other chronic-degenerative diseases; the insulin binds with a receptor of the cell membrane, thus beginning a complex series of biochemical reactions in the cell. Glucose transporters, known as GLUT4 molecules, leave their endocellular region moving to the inner surface of the cell membrane ((Lienhard G.E.: Le Scienze, 283, marzo 1992). They then move to specific regions of cell membranes, where they detect and hook glucose molecules that they afterwards transport inside the cell, i.e. in the mitochondrions, where glucose is converted into energy.
Most of the molecules involved in the absorption of glucose molecules on surface and in their transport in mitochondrions are made of lipids, i.e. polyunsaturated fatty acid…
But also other vitaminic substances, such as Zinc ([1875-1893, 2044-2046]), Magnesium ([1960-1975, 2047]), Selenium ([1894-1900]), Chromium ([1908-1937]), Rame ([1901-1906]), Potassium ([1981-1984,2048]), Manganese ([2049-2050]), Vanadium ([1938-1946]), vitamin E ([1823-1838]), vitamin C ([1947-1959, 2038-2040]), Tiamina ([1976-1980]), Niacina ([1991-2002, 2027-2037]) and others, are involved in this process.

Consequently, large amounts of cholesterol and low levels of vitamin F and natural vitamins, such as vitamin C, are regarded as the cause of a metabolic system malfunctioning.

Therefore vitamin F deserves an in-depth analysis; for further information please SEE chapter 9.

According to the author, Doctor Giuseppe Nacci, a chronic deficiency in vitamin C also can have an essential role in diabetes, especially if associated to particular drugs such as Statins.

Vitamin C deficiency and the threat of Statins

As underlined by independent scientific papers about the issue of "*Lipobay*", the disposal of cholesterol cannot take place by using drugs such as Statins because it can be lethal. The human body is believed to compensate for chronic deficiency in vitamin C with cholesterol on connective tissues lacking in this vitamin. Differently from almost all other animals, humans and monkeys are not able to produce vitamin C. This explains their predisposition to vascular diseases such as myocardial infarction and strokes. The lack of vitamin C in today's diet forces the patient's body to use cholesterol to "keep together" tissue collagen fibres, thus endangering some delicate "strain" areas such as arterial walls which tend to form atheromatous plaques. According to scientific literature, these plaques can regress if very high amounts of vitamin C and other vitamins are taken. *Lipobay* and other statins eliminate cholesterol from the human body in an unnatural way thus causing ruptures of important arterial walls as their "glue" (cholesterol or enough vitamin C) is missing.
Note: a sudden and unnatural lack of cholesterol in the human body could also lead to other diseases such as Multiple Sclerosis.

To sum up, it can be said that therapy for NON-insulin-dependent diabetes mellitus, also known as adult diabetes or Type 2 diabetes mellitus, must base itself on the following considerations:

1) Cell insulin receptors are in Down Regulation because of high amounts of cholesterol circulating in the bloodstream.
2) Cholesterol must be assimilated as little as possible through food but since it is mostly produced by the liver it must be expelled every day through the feces.
3) The disposal of cholesterol must not take place by using pharmacological products such as statins. This can be fatal because of little-known severe diseases linked to deficiency in vitamin C (infarction, stroke) and in cholesterol in patients without particular hepatic enzymes (suspected onset of Multiple Sclerosis).
4) Therefore, it is more advisable to follow a therapy which aims at reactivating the intestinal functionality in order to eliminate "naturally" excess cholesterol: it is recommended a modified Gerson therapy in case of metabolic disorders, with addition of some variants developed by Kousmine, in particular a wide use of vitamin F.
Note: this therapy is here outlined but it is important to remember that only a doctor can prescribe it and that doctor Nacci waives all responsibility in case of people who want to undergo it without consulting a doctor.

1) Reactivation of intestinal saprophyte bacterial flora
2) Elimination of parasites, fungi and Gram-negative bacterial flora
3) Reactivation of normal intestinal wall
4) Vitamin F integration
5) Vitamin C integration ([1947-1959, 2038-2040])
6) Vitamin E integration ([1823-1838])
7) Acido alfa-Lipoico ([1839-1846])

The diet should be poor in glucose, yeasts, proteins (if containing all 9 essential amino acids), folic acid, vitamin B17:

Therefore the following foods should be excluded:
meat, fish, eggs, milk (it is liquid meat), milk by-products ([1985-1990]), mushrooms, algae, pollen.

Patients cannot eat legumes and cereals during the same meal. Cereals are preferable to legumes. Among cereals it is advisable to eat emmer (70 grams for plate).

It is advisable to exclude Sodium from the diet (Sodium chloride or sea salt).

The glycemic curve, caused by the introduction of food, should be always under certain values. Some raw foods could be listed with the specification of the amounts to be taken every hour as acceptable values of maximum glycemic curve tolerable for a diabetic patient.
Only the doctor can establish the best associations among fruits and/or vegetables.

Some useful spices to add to emmer pasta or fruit and/or vegetable shakes are:

Anethum graveolens (Dill, Fennel),
Ocimum sanctum or *tenuiflorum* (sweet Basil),
Cinnamomum zeylanicum (Cinnamon),
Elettaria cardamomum (Cardamom),
Eugenia caryophyllata or *Caryophyllus aromaticus* (Cloves),
Coriandrum sativum (Coriander),
Carum carvi (Caraway),
Carum nigrum or *Nigella sativa* (black Caraway or black Cumin),
Curcuma longa (Curcuma),
Artemisia dracunculus (Tarragon),
Melissa officinalis (lemon Balm),
Mentha species (Mint),
Origanum vulgare (Oregano),
Majorana hortensis (sweet Marjoram),
Schinus molle (pink Pepper),
Capsicum frutescens or *annum* (red Pepper, Paprika),
Cochlearia armoracia (Radish),
Rosmarinus officinalis (Rosemary),
Sinapsis arvensis (wild Mustard),
Sinapsis alba (white Mustard),
Thymus vulgaris (Thyme),
Crocus sativus (saffron Crocus),
Zingiber officinalis (Ginger).

It can also be useful to drink one spoon of apple vinegar of high quality (obtained from Cider of organic apples stored in oak or chestnut barrels for at least 6 months), diluted with half glass of water.

Marginal note:
Diabetes and the grave threat of Genetically Modified Organisms

The curative effectiveness of these particular vegetarian diets lies in the elimination of foods containing all potential cell growth factors (useful also to germs of intestinal putrefaction, fungi and parasites), in particular in the exclusion from the diet of food combinations containing ALL 9 ESSENTIAL AMINO ACIDS (Valine, Isoleucine, Leucine, Lysine, Methionine, Histidine, Tryptophan, Phenylalanine, Threonine), nucleic acids, vitamin B17, folic acid and relatively also of para-aminobenzoic acid [PABA].
Once foods containing all the above-mentioned substances were only those of animal origin (meat, fish, eggs, milk, cheese, butter, etc.).
Gerson and other authors (including the Chinese and Indian medicine) forbade from taking them for 1 year al least.
Thus the vegetarian diet proved to be successful, i.e. a diet consisting only of fruit and vegetables, including cereals and legumes.
Cereals and legumes are rich in proteins and the fact that they are used anyway by Gerson and many other schools of Western, Indian and Chinese medicine in the treatment of Diabetes mellitus could surprise.
They were used because cereals or legumes alone do not contain ALL 9 ESSENTIAL AMINO ACIDS.
But if they are eaten together during the same meal they cause the assimilation of all 9 amino acids.
For this reason you should not eat Pasta (or Polenta or Rice) together with Legumes in order to avoid the integration of ALL 9 ESSENTIAL AMINO ACIDS (8 contained in cereals + 8 contained in legumes), with a nutritional effect similar to that obtained from eating Meat (after all, a plate of Pasta and beans was once called “the meat of the poor”).
Furthermore, you should not eat potatoes with legumes or cereals.

Unfortunately, nowadays GMO Biotech Multinationals are spoiling the food chain by introducing potatoes, cereals and legumes enriched with ALL 9 ESSENTIAL AMINO ACIDS.
In particular: Soya, Beans, Peas, Maize, Rice, Soft Wheat (Bread), Durum Wheat (Pasta), Potatoes.
Another real problem is that a lethal insecticidal poison is synthesized by the plant itself in case of GMO foods, i.e. the Bacillus thuringiensis. It proved to be dangerous in tests on laboratory animals (mice), which were fed with GMO Maize and Potatoes. (SEE Chapter 2 and 3).
Another serious threat posed by GMOs is that many of them contain Retroviruses in order to provoke genetic modifications in the plants.

Note 1: organic Chromium
Organic Chromium – contained in the plants – could be one of the most important multivitaminic or provitaminic factors for normal pancreas functionality ([1908-1937]), as are organic Zinc for deficiency prostatic disorders and organic Iodine for deficiency thyroid disorders.

Note 2: The modern pharmacological treatment and the great waste of the financial resources

After diagnosing diabetes, the modern medical treatment consists in prescribing drugs which are substantially useless and expensive for the society: oral hypoglycaemics and insulin.

It is important to say, first of all, that neither insulin nor hypoglycaemic drugs have a therapeutic effect on diabetes: none of these medical strategies was studied to normalize the cell absorption of glucose.
This medical treatment increasingly causes disability and untimely death because of infarction and/or kidney failure and/or collapse.

Chap. 10.2.:
Oral hypoglycaemic drugs

Oral hypoglycaemic drugs appeared on the market 10 years ago. They are divided into 5 groups: biguanides, glucosidase inhibitors, meglitinides, sulfonylureas, thiazolidinediones.

Biguanides:

They lower the level of sugar in the blood in three different ways:
1) by inhibiting the normal glucose release from the liver reserves;
2) by interfering with the intestinal absorption of glucose present in ingested foods (carbohydrates);
3) by increasing the peripheral absorption of glucose.

Glucosidase inhibitors

They were developed to inhibit the pancreatic amylase enzymes, which are essential for the digestion of carbohydrates. Theoretically, if the digestion of carbohydrates is inhibited, the level of sugar in the blood cannot be high.

Meglitinides

They were developed in order to stimulate the pancreas to produce insulin in a patient who has probably already a high level of insulin in the bloodstream. Only rarely this level is measured by doctors. Obviously, these drugs are often prescribed without knowing the pre-existing insulin level but it is generally not known that a high insulin level may be almost as dangerous as a high glucose level.

Sulfonylureas

They are another group of pancreas stimulators used to increase insulin production. Before prescribing these drugs, doctors rarely measure the insulin in serum. These medicines are usually given to people suffering from type 2 diabetes – many of them already have high ineffective insulin – and it is generally known that they cause, as side effect, hypoglycaemia.

Thiazolidinediones

They are thought to cause liver cancer (confidential data).

Insulin

Today insulin is prescribed for both type 1 diabetes and type 2 diabetes.
Insulin replaces that no more produced by the body. This treatment – although it is necessary to keep alive people with type 1 diabetes – may be criticized if given to patients with type 2 diabetes.

Chap. 10.5.:
Healing with Gerson-like diet

Recovery time with *Aloe arborescens*, organic Germanium, vitamins A, C, E, F and vegan diet is one year or more.
Vascular disorders caused by high chronic level of glucose are solved quite quickly. But the effects of retinopathy and peripheral neuropathy are variable.
According to private hospitals of the “health” – above all those who follow the Gerson-like diet – kidney recovery cannot occur when the damaged exceeds more than 20% of their normal functionality.
The fine capillaries of renal glomerulus basal membranes begin to decay because of diabetes.
They are replaced by cicatricial tissue making the damage irreversible.
As far as eyes are concerned, cicatricial tissue provoked by retinal hemorrhages – which were caused by laser operations – does not allow the recovery from the damage.
Finally, in order to clean arteries many years of diet are necessary.

Chapter 11

Multiple Sclerosis (or Sclerose en plaques)

As far as treatments for Multiple Sclerosis (MS) are concerned, note should be taken of the great discoveries made by Catherine Kousmine in the 1960's. She successfully cured hundreds of cases of MS, about fifty of which are reported in her well-known book *Multiple Sclerosis is curable*.
Then, the Standard Treatment Protocol according to a neurologist of the University of Oregon Health Science Center in Portland is indicated. Finally, a clinical case of a patient suffering from Multiple Sclerosis is reported. The patient was partially treated with both of the above-mentioned methods in addition to a basic protocol which was developed by an Italian physician and is currently used to treat a 30/40-year patient.
It equally deserves mention that the Gerson Therapy also gave good results in the treatment for Multiple Sclerosis. In her book, *The Gerson Therapy* (chapter 17), Charlotte Gerson describes MS as an autoimmune disease. Furthermore, the author states that the repair process of the damaged myelin sheath may cause a temporary worsening of symptoms, which usually frightens patients as was observed in two clinical cases.
Recently, the first diagnostic test based on glycopeptide Csf114 has been patented as *Ms Pepkit*. It is used to show the presence of auto-antibodies linked to the worsening of the disease.

Chap. 11.1.:
Multiple Sclerosis Etiopathogenesis and Therapy According to Catherine Kousmine

According to Dr Catherine Kousmine, Multiple Sclerosis has an autoimmune etiology.
In the case of MS, it is the nerve-insulating myelin sheath that comes under assault. The disease is strictly connected with a nutritional deficiency of essential vitamins, which can be cured with a healthy diet eliminating any kind of digestion disorder causing toxic products. If diagnosed in its early stages and treated before life-threatening complications arise, i.e. in the first 2 or 3 years after the diagnose, MS can be cured in 75% of cases. This percentage was given by Dr Kousmine and is the result of her clinical experience and of the control of hundreds of cases which were followed for more than 20 years. If the disease is advanced, Kousmine's method makes patients' conditions stable. In some rare cases, extraordinary improvements are possible. For further details on Kousmine's Therapy, SEE her well-known book: " *Multiple Sclerosis is curable*".

Chap. 11.2.:
Etiopathogenesis and Therapy for MS Developed According to a Neurologist of the University of Oregon *Health Sciences Center* in Portland

A study conducted at the University of Oregon did not focus on MS etiopathogenesis but rather on a possible diet-based treatment. The study confirms that the disease affects people from 25 to 40 years of age. It also indicates that MS progresses slowly while patient's conditions worsen. Its symptoms are: vision and speech difficulties, dizziness, bladder and intestines disorders, loss of balance and emotional instability. According to the study, patients should be on rest, do physical exercise and eat a well-balanced diet. All this is necessary for the nervous system to work properly. In some MS cases, vitamin B12 was used to improve the balance of patients when standing or walking. Vitamin B13 also proved beneficial in the treatment for MS. At the University of Oregon, the therapy was based on a concentrated integration of minerals and a controlled diet. Food containing saturated fats was eliminated and replaced with food containing unsaturated fatty acids. Food such as cake mixes, cheeses, sweets and other chemically treated products should not be eaten because they contain hidden or unknown amounts of saturated fats. Furthermore, patients should eat wholemeal bread and cereals and take wheat germ or vitamin E to prevent the oxidation of unsaturated oils once they are introduced into the body. Fewer relapses, more energy and higher endurance in working and walking, as well as longer life expectancy are the beneficial effects observed on patients. When the treatment was administered in the early stages of the disease, when there were still few, not so visible symptoms, 90-95% of cases remained unchanged or even improved during the following 20 years.

Nutritional elements recommended by a neurologist of the University of Oregon:

Vitamin B Complex: 150 mg a day
Choline: 750-1,500 mg a day
Vitamin C: 1 gram a day
Vitamin E: up to 1,800 I.U. a day
Vitamin F: from 1,500 to 3,000 mg a day
Pangamic acid (Vitamin B 15): 50 mg a day
Vitamin B 13 with calcium and manganese: 1 gram a day
Lecithin: various amounts
Proteins: various amounts

Chap. 11.3.:
Personal Clinical Cases

Besides a deficiency of polyunsaturated fatty acids and important vitamins (or a diet rich in saturated fatty acids), the cause of MS could also be a lack of cholesterol due to an enzymatic defect of the liver. This hypothesis, which is shared, was formulated by an Italian physician with whom the author is cooperating in treating a patient.
It is thought that this enzymatic defect controlling cholesterol synthesis can be discovered by using drugs (*statins*) which make it worse. The enzyme used is *HMG-CoA reductase*.
At present statins are widely debated, especially after "*Lipobay/Baycol*" was withdrawn from the market ([1278, 1279]).

As is well documented in medical literature, Cholesterol generates Pregnenolone, which is synthesised into Progesteron and/or 17 OH Pregnenolone, which originate 17 OH Progesteron.
17 OH Pregnenolone also generates Dehydroepiandrosterone. Dehydroepiandrosterone and 17 OH Progesteron result in Androstenedione. Androstenedione creates Estrone and/or Testosterone. Testosterone originates Estradiol.

It is therefore advisable to keep under observation all patients who underwent long anti-cholesterol therapies based on anti-enzymatic drugs, such as statins, because they could develop MS.

The therapy given to an Italian patient was very similar to that used by Dr Kousmine and by the researcher of the University of Oregon, with the addition of 14-20 organic eggs a week, bluefish (Omega-3) and pumpkin seeds oil. At present, the patient's conditions have improved significantly and his hormonal blood profile has almost normalised.

The use of flax-seed oil (*cis-cis linoleic* fatty acid) and *Borrago officinalis* seed oil (homo linolenic fatty acid) is highly recommended. Recently, a particular phytotherapy product has been tested: *Olea europaea*. It is very rich in DHEA but diet should include no food containing many essential amino acids.

Principles of treatment, which are also shared with the above-mentioned therapies (Kousmine, University of Oregon):

1) excluding SATURATED fatty acids from diet;
2) taking vitamin F abundantly (polyunsaturated fatty acids);
3) taking vitamin E abundantly.

The patient was diagnosed with MS during the first months of 2003, also by using Magnetic Resonance. The patient was with "*Atopic Dermatite*" on the foods
After 1 years, the *Atopic Dermatite* was aut.
During the last two years, the blood hormones that are synthesized from cholesterol were kept under control. As the amount of total cholesterol improved, gradual progresses of patient's clinical conditions were observed.

Blood examinations every 3-4 months are therefore deemed necessary and useful in the mentioned treatments for MS. The following values should be examined (both in men and in women):
Cholesterolemia (HDL, LDL and total),
Triglycerides,
DHEA,
17 Beta-estradiol,

Prolactin,
Follicle-stimulating hormone or Follitropin (FSH),
Luteinizing Hormone or Luteotropin (LH),
free and total Testosterone,
THS,
FT3,
FT4.

Equally useful, though on different grounds:
Complete Blood Count (with special attention to EOSINOPHILS),
ESR,
C3,
C4,
Glycemia,
Creatinemia,
Azotemia,
Electrolytes (Na, K, P, Ca, Mg, Cl, Zn).

Total cholesterol: normal range 150-240 mg per 100 ml of blood

February 2003: 94
May 2003: 105
September 2003: 111
December 2003: 115
March 2004: 100
June 2004: 102
September 2004: 138
December 2004: 136
March 2005: 115
June 2005: 116
January 2006: 121
October 2007 : 118

Chap. 12:
Tamoxifen and natural phytoestrogens

Nella cura del cancro al seno, da molti anni, accanto alla Chirurgia, alla Radioterapia e alla Chemioterapia, è ormai d'abitudine somministrare anche sostanze chimiche sintetiche anti-ormonali che vanno a bloccare i recettori cellulari delle cellule mammarie, agendo sostanzialmente come "blocco" di crescita su tutte le cellule umane recettive ai ben noti ormoni femminili *Progesterone* e *Estrogeni*.

Fra queste sostanze chimiche sintetiche anti-ormonali di ormai ampio impiego in Oncologia, la più conosciuta è il ben noto Tamoxifene.

There is an interesting bibliography about Tamoxifen drug ([795-805]).

Tamoxifen is a synthesized hormone originated from a well-known carcinogenic substance, i.e. DES (Diethyl-stilbestrol). This substance is extremely dangerous because it can cause womb tumour according to the *International Agency for Research on Cancer*.

In November 1999, the *National Cancer Institute* stated that "…*for women over 60 years benefits are greater than risks, but for younger women the contrary is true: the risks are greater than the benefits*…"
Some experiments carried out on animals (rats) showed that Tamoxifen induces liver malignant tumours in 15% of rats treated with a daily 20 mg dose of Tamoxifen and in 71% with a 40 mg dose ([796]).
A Swedish study conducted on 931 women recorded 3 cases of liver tumour and 23 cases of womb cancer, with a frequency 6 times higher than the average.

Moreover, all patients with metastasis become "resistant" to the drug; the study carried out by the NCI and a research done in Scotland demonstrated that using Tamoxifen for more than 5 years can increase the cancer growth in the breast and in other parts of the body. In November 1995, the *National Cancer Institute* suddenly interrupted the study of Tamoxifen. Afterwards, the NCI announced that *Tamoxifen* cannot be used for more than 5 years (after 5 years there are no further benefits of *Tamoxifen*, in fact it can be detrimental to health…). The NCI study demonstrated that 33 out 6.000 women taking Tamoxifen for 2-5 years developed endometrial cancer; 17 women suffered from blood clots in lungs and 130 from blood vessels thrombosis.

Tamoxifen can indeed cause hormonal disequilibrium, osteoporosis, retinopathy eye disorders, cornea alterations, optic nerve damage and cataracts. All these side effects can be irreversible, even if the treatment is suspended ([805]).

It was estimated that less than 20% of women taking *Tamoxifen* suffer from severe side effects, but if these negative effects occur they can be permanent or cause even the death of the patient.

According to other studies, it is not sure that substitute hormonal therapy can be associated to higher risks of breast cancer ([942-946]).

Numerous research groups began studying the estrogenic activity of natural substances concentrated in some plants. They are called phytoestrogens ([947-949]) and are known since '40s.

These substances can be extracted from *Glicine maxima*, *Dioscorrea composita*, *Trifolium pratense*, *Linum usitatissimum* and other plants.

Phytoestrogens – or vegetal estrogens – have no structural similarities with the estrogens produced naturally. Phytoestrogens can be divided into 3 main groups: Isoflavones (soy, clover), rye, wheat, sesame seeds, *Linum usitatissimum* seeds, Coumestans (*Trifolium pratense*, bean sprouts, sunflower seeds) ([951-953]).

Trifolium pratense contains all four Flavones, which play an essential and important role in biology: Biochanin A, Genistein precursor, Formononetin, Genistein and Diadzein, which is metabolized into Equol ([954]).

The effects of the different phytoestrogens depend on species, tissue and number of estrogen receptors in a tissue. There are at least two different receptors (ERalfa and ERbeta) with different tissular distribution and bond affinity. This can explain the different estrogen's effects on the tissues of the body in vivo ([955]).

Therefore, isoflavones can be considered as "*Selective Estrogen Receptor Modulators*" (SERM). Basically, Isoflavones act as weak estrogens on Estrogen receptors, they are able to favour the bone formation and to reduce the risks of cardiovascular diseases but they are not strong enough to induce hormone-dependent tumours ([956-957]).

Since high levels of estrogens were correlated to breast tumour and other hormonal tumours, isoflavones can be effective by linking estrogen receptors and blocking the harmful effects of most powerful Estrogens, thus acting as "*general anti-estrogens*".

Other non hormonal anti-tumoral mechanisms were proposed. Genistein probably inhibits the growth of cancer cells both in vivo and in vitro; one of the proposed mechanism is the inhibition of tirosin kinase … ([958]).

Moreover, Genistein allows the differentiation of some malignant cells in benign cells – may be preventing carcinogenesis ([959]) – and inhibits angiogenesis ([960]).

Genistein is also an antioxidant, it prevents free radicals from damaging the cell ([961-962]) and can inhibit the growth of cancer cells, by inducing changes in the synthesis and the metabolism of the *Transforming Growth Factor* 1 (TGF) ([963]).

High levels of Genistein seem to block the cell proliferation in vitro; but in vivo it produced human cell proliferation of breast tumour in rats, whereas it did not influence the growth of estrogen-indipendent tumour cells ([964]). In culture, Genistein inhibits cells of estrogen-independent mammary tumour, but this effect does not take place if the tumour cells are implanted in mice without thymus ([965]).

Chapter 13:
Neurological diseases, cardiovascular diseases and ageing

Ageing, cardiovascular diseases and related neurological diseases such as Alzheimer's disease, Amyotrophic lateral sclerosis or Lou Gehrig's disease, Parkinson's disease and Parkinsonisms, Atherosclerosis of cerebral circulation, senile dementia, strokes etc. are often connected with:

1) Deficiency of natural vitamins able to guarantee proper blood circulation in all brain regions keeping capillary, arteriolar and venous walls healthy.

2) Deficiency of natural vitamins able to protect the cell from oxidative stresses, thus delaying its death.

3) Presence in cerebral and systemic blood flow of different types of toxic substances such as Mercury, Aluminium, fine dust particles etc. which damage cardiovascular walls and cells of tissues and organs such as heart, liver, kidneys, etc.

All the above-mentioned conditions are therefore linked to blood flow disorders of vital organs and consequently to the complex physiopathological state known as ageing.

Chap. 13.1.: Ageing

Going back to the brain, a real "*Organula in Organu*", it can be said that progressive vascular deficiency of blood circulation causes progressive organic decay of its most sensitive areas leading to associated diseases (Parkinson, Alzheimer, etc).
Of special interest is another inner mechanism which does not involve the capillary, venous and arterial walls of blood flow but the cell itself. This process can be seen as cell ageing, which is today considered unstoppable.

As a matter of fact, the rate of ageing depends on diet and oxidative stress ([1239]); in addition to that, captain Diamond's story is often mentioned in medical books and is worth being cited here.

He was born in Plymouth Mass on 1st May 1796, in the days of the Italian campaign conducted by an obscure French general who made himself called Napoleon, and died in 1916, during the First World War, at no less than 120 years of age, because of a dietary mistake that he should not have made at his age. The story of this sprightly old man was reported in a medical book by Dr. Threshed who, in 1915, described him in these terms: "*… this captain did not seem to have aged much between his 96 and current 119 years, and I saw this with my own eyes…*". The nice old man, at over 110 years of age, allowed himself the luxury of writing a book on his particular diet: "*The secret of living long and being happier*", in which he wrote he became vegetarian at 40 years, in 1836, i.e. when he was – so to say – very young…

Proper control of free radical metabolism could really extend life expectancy until reaching advanced ages ([1237]).
At this point, a short digression about telomeres, i.e. human DNA ends, is necessary.

Telomeres and ageing

Telomeres shorten after every cell division. After about 50 replications the cell can no longer divide ([1241]). When a telomere is deleted, the chromosome and consequently the cell die. Therefore, in normal human cells telomere length determines lifespan ([1242]). If telomeres are congenitally short, a rare genetic disease known as "Progeria" will be diagnosed. This disease causes early death at the age of puberty through typical disorders of ageing.
An excess of free radicals produces oxidative stresses causing lipid peroxidation in cytoplasmic semipermeable membranes. When damage exceeds the cell's ability to make up for it, a new cell division is needed to produce a new one. Unfortunately, the number of possible cell divisions is not infinite.
Every cell division thus induces an irreversible shortening of telomeres: lipid peroxidation accelerates telomere shortening as it increases cell substitutions. Finally, it deserves mention that damage caused by free radicals tend to worsen with age advancing ([1240]). Hence greater requirements of natural vitamins.
Vitamin E is the most effective "cleaner" of free radicals in the biological membrane ([1222]). However, the 600 known carotenoids, e.g. vitamin A, Lycopene, Zeaxanthin, Luteine, etc. can also help carry out this task, as was demonstrated for the prevention of coronary diseases ([1221]), strokes ([1243]) and cataracts ([1244]). Lycopene, an antioxidant found in Tomatoes, Watermelons, Melons and Apricots, seems to be the most effective carotenoid to eliminate reactive oxygen molecules (free radicals). Differently from what is generally thought, it offers better protection against ultraviolet rays than Beta-carotene, even though the latter is present in the same amount ([1225]).
An example of ageing interruption is given by retina macular degeneration, which can be slowed or even stopped by assuming caretenoids such as Luteine and Zeaxanthin ([1246]).

Other ageing factors

The Epiphysis is deemed to be the body's biological clock as it produces Melatonin and maybe other hormones. It is known that during ageing the Epiphysis is no longer able to stimulate the Thymus, one of the most sensitive organs.

It is also known that up to 30-40 years the body vessel endothelium can still produce enough amounts of nitric monoxide (NO) from a complex mechanism of enzymatic reactions which begins with a non-essential amino acid called *Citrulline*. This one is found in particular plants, some of which are traditionally called "immortality plants" or "plants of eternal youth". Hypercholesterolemia, on the other hand, reduces the amount of nitric monoxide (nitric oxide), but this process can be reversed by lowering lipid blood concentration ([1226, 1236]).
The nitric monoxide molecule seems to be the real "secret" of certain blue pills which are well known among not so young men…
In addition to nitric monoxide, vessel endothelium produces other substances which are essential to human physiology; among these, of special interest is Somatostatin.

Vessel endothelium degeneration, considered as the main cause of ageing, could be explained, as already happened in the past, with a deficiency of vitamin C and other vitamins – e.g. E – preventing cholesterol plaques on the delicate cerebral arteries and protecting the body from associated damages to the *Organula in Organu*, first of all to the Epiphysis.

Numerous studies about this theme have been conducted. The following is a report of some interesting peculiarities: the positive effects of wine on Alzheimer ([721]), those of *Ginkgo biloba* on cataract ([1217]) or Lou Gehrig's disease ([722]), the beneficial effects of Plants of the *Crassulaceae* Family (*Orostachys japonicus*) on hypothalamic neurons ([1218]) …

Chap. 13.2.: Cardiovascular Diseases

The etiology of cardiovascular diseases is obviously multifactorial, including coronary failure, most commonly associated to infarct. However, significant data show that oxidative stress is one of the main causes of this disease ([1231, 1234]).

Low density lipoproteins (LDLs) suffer from the negative effects of oxidative stress if they are not protected by antioxidants: LDLs are converted into peroxides by Homocysteine thiolactone, a cyclic compound deriving from the natural self-oxidation of Homocysteine.

If nitric oxide and other serum antioxidants, such as Glutathione and ascorbic acid (vitamin C), are destroyed by oxidative stress, then endothelial damages, proliferation of smooth muscle cells and peroxidation of LDLs are likely to occur ([1227]).

Inside each LDL macromolecule there are 1,700 cholesterol esters and 700 free cholesterol molecules, in addition to 6 tocopherol (SEE vitamin E) and other liposoluble carotenoids such as tocopherol (vitamin E). These antioxidants protect LDLs from oxidative damages deriving from lipid peroxidation, which can occur only when there is no more serum tocopherol. However, damage accelerates, then increasing in a linear way until there are no more liposoluble antioxidants. An increase of tocopherol extends protection for LDLs even though, in this case, carotenoids are less effective. Vitamin C rebuilds LDL surface tocopherol ([1223, 1224, 1232, 1233]).

As the two Nobel Prize winners Goldstein and Brown demonstrated, cells normally absorb LDL particles, one at a time, through a receptor-mediated endocytosis. After the peroxidation, however, LDL macromolecules become aggregates of foreign bodies which are phagocytized by endothelial macrophages creating large concentrations of foam cells. Once dead, they produce cell detritus and toxic lipid substances which are concentrated in the centre of an evolutive lesion of the vessel wall, called “vulnerable plaque”.

In the microenvironment of these endothelial plaques there are numerous agents that can lead to coagulation and inflammation. The rupture of this vulnerable plaque can cause, in some cases, coronary thrombosis together with possible infarct and/or sudden cardiac death ([1225, 1227, 1228, 1230, 1235]).

In her book, The Gerson Therapy ([749]), chapter 17, Charlotte Gerson writes: “*…differently from what Official Medicine teaches and believes, the composition and the development of atheromatous plaques in a patient on Gerson diet are not irreversible but reversible; so it is possible to clean artery walls*.” To reach this objective, many vitamins such as C and E play an important role.

There are a number of scientific studies ([1281, 1282]) concerning medicinal properties of vitamin E and of proto-anthocyanidins which protect vascular endotheliums and heart respectively.

Chap. 13.3.: Emergency Medicine

It is important to underline that in the context of emergency medicine oxidative stress reaches the highest level causing patient's most severe pathological conditions ([1250]) and leading to a serious vitamin deficiency: most patients receiving Complete Parenteral Feeding in intensive care are generally given phials containing no more than a dozen vitamins and in some hospitals even much lower amounts (1248) because of costs and availability. In other words, among thousands of natural vitamins, whose beneficial effects are known or foreseeable, patients are given only some vitamins and often in much lower amounts compared to the daily intake recommended for healthy people (RDA).
It is thought that patients in intensive care with high if not maximal oxidative stress have not even enough antioxidants to cope with normal circumstances. Some studies have recently examined oxidative stresses showing potential benefits of antioxidants in some diseases such as septic shock and acute respiratory failure ([1238, 1249]).

Oxidative stress and lipid peroxidation associated to Complete Parenteral Feeding have been demonstrated ([1245]). A greater attention to natural vitamin therapies is therefore necessary ([1247]). Furthermore, oxidative stress and antioxidant therapy should become common practice in EMERGENCY MEDICINE ([1251]).

For example, it should be normal to administrate endovenously TEN grams of vitamin C every 12 hours to all patients hospitalized because of car crashes, work accidents, infarct, ictus, etc (see www.laleva.org "*How to give endovenously vitamin C to hospitalized patients*", taken from the book "*Doctor Yourself*", pages 194 to 197, by Andrei W.Saul)
SEE Other: http://orthomolecular.org/library/jom/2000/pdf/2000-v15n04-p201.pdf)

Chap. 13.4.: The Failure of the *Cronos Study* on Alzheimer

The *Cronos Study* was conducted in Italy and was the most extensive survey ever carried out concerning negative and positive results of treatments using ACETYL-CHOLINESTERASE INHIBITORS, i.e. Donepezil, Rivastigmine and Galantamine.

The data were collected from 5,500 analysed Italian patients.

In 2005, "*L'Espresso*", an Italian newspaper, wrote: "*After 9 months, among those who have continued the study, only one patient out of six has significantly improved… All efforts to find a curative and not a palliative treatment have come to a stalemate… Furthermore, among elderly dementia patients, cases of ictus triple and the death rate doubles*…".

However, according to medical books, autopsies performed on patients who died of Alzheimer show high concentrations of Aluminium in basal ganglions ([1289]); besides, Fluorine has recently been thought to be another silent killer leading to this disease.

Detailed studies dealing with all possible alternatives to the current failure of drugs against Alzheimer's disease are scarce and difficult to find, given the lack of scientific rigour.

Using antioxidants to protect and heal delicate vessel endotheliums and to eliminate toxic substances which could accumulate in the brain is obviously the safest solution. Some studies really demonstrate the positive effects of antioxidants on the course of the illness. This result will deserve a more and more in-depth discussion about the use of natural vitamins to treat this disease too. Compared to healthy people, very low amounts of Vitamin A and D, Lycopene and beta-Carotene were observed in patients suffering from Alzheimer's disease.

In particular, vitamin C deficiency was deemed to be the main factor leading to the disease, first of all in connection with patient's cognitive functions (cognitive impairment). About this point, Riviere's accurate study is reported ([1219]). Moreover, in a study conducted on 633 patients aged over 65 years, a diet rich in vitamin C proved to decrease the risk of developing the disease ([1220]). Other promising vitamins are organic Selenium, Coenzyme Q10 and, above all, Magnesium.

Going back to acetyl-cholinesterase inhibitors, it was observed that *Huperzia serrata* does not have the same side effects as Prostigmina, Tacrina and Donepezil, even though it is an effective acetyl-cholinesterase inhibitor allowing significant improvements of memory, cognitive functions and behaviour in more than half of the cases ([1341]). Note should be taken of interesting results obtained using DHEA ([1342-1343]) and *Ginkgo biloba* ([1344-1347]). This one was found to stabilize the disease and to improve mental functionality in 64% of cases with no side effects. *Ginkgo biloba* must be taken for at least 4 months, though.

See Alzheimer (OTHER): http://fiocco59.altervista.org/nacci/alzheimer-therapy.pdf

Chap. 13.5.:
The common fallacy that cholesterol is bad, the truth about vitamin C deficiency and the pharmaceutical issue of Statins

As far as cholesterol is concerned, what follows should be carefully considered. In universities it is still taught that the main cause of infarcts and cerebral strokes is the high cholesterol level in the body. If it were true that high amounts of cholesterol in the blood really damage blood vessel walls, they should harm not only heart and brain but every part of the circulatory system. In other words, that would lead not only to myocardial infarction (of the heart) or cerebral infarct (of the brain) but also to infarcts of nose, ears, knees, elbows, fingers, liver, bones, etc.

But this never occurs.

Furthermore, vitamin C deficiency in humans and monkeys should receive the proper attention. Differently from almost all other animals, humans and monkeys are not able to produce vitamin C. This explains their predisposition to vascular diseases such as myocardial infarction and strokes. So the human body tends to compensate for vitamin C deficiency with cholesterol on connective tissues lacking in this vitamin.

The lack of vitamin C in today's diet forces the patient's body to use cholesterol to "keep together" tissue collagen fibres, thus endangering some delicate "strain" areas such as arterial walls which tend to form atheromatous plaques. According to scientific literature, these plaques can regress if very high amounts of vitamin C and other vitamins are taken.

The threat of statins

Lipobay and other statins eliminate cholesterol from the human body in an innatural way, thus causing ruptures of important arterial walls as their "glue" (cholesterol or enough vitamin C) is missing.

Please note that a sudden and innatural lack of cholesterol in the human body could also lead to other diseases such as Multiple Sclerosis (study on a clinical case, SEE Chap. 11).

Commercial interest in developing statins

A scientific study analysed 163 articles from medical journals concerning the use of statins. It found that some authors can be accused of conniving with the pharmaceutical industry. According to an article published by Medical News Today, more than 36 million Americans take cholesterol-lowering drugs. Experts state that following the new "guidelines" for the treatment of high cholesterol (SEE "Statins"), that figure will increase by 7 million. The turnover of these drugs amounted to 26 billion dollars already in 2003.

Chap. 14:
Scientific bases of an ANTI-CANCER therapy on a dietary and multivitaminic basis

The basic reason which led the author to a therapeutic approach to a real 'Anti-cancer Diet' integrating more than 400 medicinal plants (to be more specific, SEE attached "*Basic Protocol, Nacci Therapy*"), was fundamentally due to a reflection on the many schools of medical thought which have arisen to find a cure for cancer. The most important, all based on thousands of active factors extracted from medicinal plants (SEE also The Ninth Declaration of Intent) are: traditional Chinese medicine (Pen Tsao), traditional Indian medicine (Ayurveda) and classic Western medicine. The latter, in particular, is described today in different protocols such as the "Gerson diet", the "Breuss diet", the "Hoxsey therapy", and other authors (Maria Treben, Renè Caissè, J. Valnet, Castore Durante etc.). There are, in fact, private clinics which follow these 'classic' Western therapies (Classic Phyto-therapy Medicine'), often combined with Indian and Chinese formulas.
Gerson Institute:
http://gerson-research.org/docs/GersonM-1949-1/index.html
http://gerson-research.org/docs/GersonM-1945-1/index.html
http://gerson-research.org/docs/GersonM-1878-1/index.html
http://gerson-research.org/docs/CapeFW-1978-1/index.html
http://gerson-research.org/docs/HaughtJ-1962-1/index.html

Personally speaking, the author maintains that the common denominator for the therapeutic success of all these European, American and Asiatic schools lies essentially in the fact that the nutrition given to cancer patients is completely without vitamin B12, almost without glucose, without nucleic acids (DNA), and without the foods which contain all 9 essential amino acids (Leucine, Valine, Isoleucine, Lysine, Methionine, Trypthophan, Threonine, Phenylalaine and Histidine).

On the contrary, the phyto-therapy nutrition described here will be rich in tens of thousands of vitamins and pro-vitamin compounds, able to detoxify organs and emunctory systems (gastro-intestinal system, liver and kidneys, SEE chapters 3, 4 and 5), causing the phenomenon of apoptosis in the cancer cells (SEE chapter 6), that is by inducing a reactivation of the endonuclease enzymes, so that the DNA of the cancer cells self-destructs. What is more, it sets off the immune cascade (SEE chapter 4), that is, it induces the reactivation of the Natural Killer lymphocytes, of B lymphocytes (with the production of polyclonal antibodies directed towards the tumor-associated anti-genes of the diseased cells), and of Killer lymphocytes, thus reaching the full immune cascade (activation of monocytes, granulocytes etc…).
To complete the therapy thus described, it is also important that the patient follows a moderate exercise routine so that the organism does not consume its own muscular mass in order to satisfy the biochemical request from the tumor for vitamin B12, and from the cancer cells for nucleic acids.

It is important for the patient to be instructed in and followed throughout the therapy, together with the members of his family, because everyone should be aware of the methods of the treatment, and most of all of the particular diet that the patient must follow during the long period of therapy.
NB: The doctor in charge can choose the medicines based on chemical synthesis which can be used with the Phyto-therapy, according to his clinical and laboratory evaluations.

The anti-neoplastic therapy, as carried out by the doctor in charge, must be based on the following three-point therapy:

1) use of plants for medical purposes (*Aloe arborescens, vitamins A,C,E,F, Germanium, B17*)
2) anti-cancer diet (SEE Chap. 2)
3) continual physical activity, in order not to deplete the patient's system of its muscular proteins, since the cancer cells are "starved" by the diet followed, with the result that the organism's metabolic system searches for the following organic tissues for endogenous nutrition purposes:
    a) the patient's own muscular tissue
    b) adipose and reserve tissue
    c) the neoplastic tissue itself (as observed by the author)

On the basis of personal observations, effective recovery from the tumor, even if it is very extensive, could depend on:

Physical activity 50%
Anti-cancer diet 30%
Medicinal plants 20%

According to the author, we should therefore give importance to food which is free of, or at least low in nucleic acids, proteins, folic acids and vitamin B12: the main reason for this is that the tumor only grows because of particular energy giving factors (glucose) and substances necessary for the synthesis of new DNA for the creation of new tumoral cells (cellular mitosis). Following the diet, the low quantity of glucose and the reduction in or even absence of nucleic acids, proteins, folic acids and vitamin B12 will tend to block the tumoral growth. *But because the organism cannot survive without these substances, there will also be a constant depletion of these substances from the muscular and adipose tissues: it can therefore be deduced that the neoplastic tissue will also be depleted.*

In other words, the patient will begin to "feed himself" with his own cancer. Thus the need to integrate the pancreatic enzymes with similar ones of vegetable origin, with the purpose of helping the organism in this process of organic depletion at the tumor's expense.
It is also important not to eat pasta (or polenta, or rice, or bread) together with pulses, because doing so there is an integration of the 9 essential amino-acids (the 8 contained in the cereals + the 8 contained in the pulses), with a nutritional effect similar to the one obtained by eating meat, fisch, ham, eggs, milk, cheese…

Basically, it consists of a diet rich in fresh fruit of the season and fresh vegetables (from 10 to 15 portions a day of each);

Cereals should be taken in adequate quantities (small portions), and only in case of proven necessity (fever, excessive weight loss). Fruit and spices are also very important.

Food must be of a good quality, possibly bought from organic farms, or at least free of any dangerous chemical additives.

There should also be particular care in the consumption of natural vitamins.
Attention must be paid to exotic fruit, or fruit and vegetables which come from regions where health and hygiene are not well controlled, could be carriers of infectious diseases because of the dirty waters (sometimes, even liquid sewage) used to irrigate the land.
Fish should be eaten only after the immunity cascade has begun, with a noticeable dimensional decrease in the tumoral mass, given the possibility that the essential amino-acids found in fish could be assimilated by the tumoral cells as well.

There should also be particular care in the consumption of natural vitamins (SEE chapter 3).
We strongly advise against the administration of *Saccharomyces cerevisiae*, because of the high quantities of folic acids and nucleic acids, even though this substance is also very rich in useful vitamins and minerals.
It will have been noticed that there is a complete exclusion of sugars, except fructose. This is because the latter contains a low glycemic level: it therefore behaves differently from all the other sugars (glucose, saccharose, mannose, etc...) because it is absorbed slowly in the intestine; from the blood it then passes directly to the liver, where it is turned into hepatic glycogen. This course avoids a dangerous hematic hyperglycemia which, even if transitory in the non-diabetic neoplastic patient, gives an energy contribution to the tumoral cells.
The particular greed in accumulating glucose that the tumoral cells seem to have is exploited for example in diagnostics. In fact, in Nuclear Medicine is it now a consolidated practice to mark particular molecules of glucose with a particular radioactive tracer (Fluoride 18), for the precise purpose of spotting tumoral masses through these sugar molecules.
In fact, the fluorine18-glucose localizes itself on any kind of neoplastic mass. However, it should be noted that the glucose is gathered electively also by particularly sophisticated organs such as the heart and the brain.

After 50-70 days of diet-therapy (under medical judgment), the diet should also be moderate in the consumption of pasta or wholemeal polenta (if organic *Zea mays*), while the following cereals are allowed: *Hordeum volgare* (barley), *Milium effusum* (millet), *Triticum spelta* (spelt), *Oryza sativa* (rice), *Triticum durum* (wheat) and *Triticum aestivum* or *vulgare* (soft wheat).

Note 1: *Avena sativa* (oats), is questionable for Auxina and Lisin.
Note 2: *Helianthus annus* (sunflower seeds) has Methionine: not eat with pulses.
Note 3: pulses as *Glycine maxima* or *soya* (soya), *Phaseolus vulgaris* (beans), *Canavalina ensiformis* (Mexican beans), *Fagopyrum esculentum* (buckwheat or black wheat), should be avoided, because they are too rich in proteins and /or for Lisin and/or Tryptophane.
Note 4: *Glycine maxima* or *soya* (soya), *Zea mays* (sweet corn, maize), *Phaseolus vulgaris* (beans),
Nota 5: *Oryza sativa* (rice) and *Solanum tuberosum* (potatoes) should be avoided, because they are too transgenics (all the 9 essential amino-acid).
Nota 6: *Secale cereale* (rye) and *Amaranthus hypochondriacus* (amaranth) are too rich in Lisin.
Nota 7: *Fagopyrum esculentum* (Buckwheat) is not a cereal, it is a pulse because it belongs to the Polygonaceae family; unlike the graminaceous plants it is rich in Lysine, it should therefore not be eaten together with them.

After 80-300 days of diet-therapy (under medical judgment) a moderate diet of salt-water fish (not farmed fish, but small-sized fish, and never fried); fish-oil (omega 3), tuna fish is allowed (even though it is large);

Note 1 : perhaps also bread is danger (for vitamin B12 and transgenic risk of the meal).
Note 2: Cotton oil should also be eliminated, because it accumulates high percentages of herbicides and pesticides.

Another notes:

1) it would be preferable to start eating fish only after the immunity cascade has been induced; this also applies to other foods rich in protein, folic acid, vitamin B12, nucleic acids such as white meat, eggs, milk, cheese, liver, or royal jelly, but it's danger.

2) Honey must not be taken to give energy, but only as to help the transportation through the gastro-intestinal system of the active principles contained in Aloe and in the seeds and sprouts (about 250 recognized species), which are taken for anti-neoplastic purposes (SEE chapter 5: apoptosis).

3) Indian *Ghee* is still under evaluation (it is a clarified, deproteined and dehydrated butter, containing important active principles such as butyric and linoleic acid, liposoluble vitamins and many more).

4) Wild Barley (*Hordeum volgare*) is still under evaluation". Green Barley shoots are surely prohibited (it contains vitamin B12, folic acid and up to 8 essential amino acids, including Lysine and Methionine; it lacks in Tryptophan).

5) wheat germ oil is still under evaluation.

6) Soya lecithin is still under evaluation (possible anti-tumoral induction, but today it's all transgenic Soya).

7) *Sesamum indicum* (Sesame) oil is still under evaluation, for the consumption of mixed seeds following the old Indian tradition: it is the most widely used oil in Ayurvedic tradition, because it absorbs the various properties of the herbs which are used in Indian medicine very well, thus allowing good passage through the gastro-intestinal system; this particular oil should be cold pressed. On the other hand, it has a high percentage of protein components (25%), and therefore its use needs to be evaluated.

8) The use of algae is still under evaluation, because their use is debatable: for example *Spirulina,* widely used in vegetarian diets, cannot be equaled by any other element as to the quantity of proteins contained: from 60 to 70% in dry weight compared to 45% in dried eggs, 40% in *Glycine maxima* or *soya* (soya), 20% in meat; *Spirulina* is also the richest natural source of vitamin B12, the contents of which are 250 times higher than in liver. On the other hand, the blue algae found in the North-American lake of Klamath is particularly interesting because it can induce a specific immunity response against tumors (Immunity Cascade) even at low dosage (1-2 grams), but it's rich of vitamin B12.

9) Are under study another particular foods ([1149-1153]).

In the meantime, the Immunity Cascade (SEE chapter 9) may need to integrate the nucleic acids, the essential amino-acids, folic acid and vitamin B12 (already absorbed at the tumor's expense) with a further exogenous addition (external, in other words deriving from food), with the purpose of synthesizing a higher number of cytotoxic lymphocytes T, *Natural Killer, Killer, Monocytes-Macrophages*: thus the possibility of integrating the diet with supplements of these active principles, without going beyond certain values (fresh fish: quantities still to be determined; perhaps algae and bread; not meat, ham, eggs, milk, cheese, liver).
Such supplements should be started a couple months after the patient has been following the diet, with hematic tests able to prove that the immunity cascade has taken place, and with an X-Ray showing a tumoral mass which is reduced compared to before: if the tumor is still characterized by a considerable cancerous mass, and of a certain size, it would be advisable to still not administer such substances, leaving the organism to continue "feeding" itself with the tumoral mass. An excessive (and unbalanced) loss of weight in the patient and the hematic indicators of the levels of Albumin, are the simplest factors to observe to understand the effective level of "depletion" induced on the patient's healthy tissues, therefore allowing to evaluate whether or not to give external substances which are potentially dangerous such as royal jelly or fish (because of the quantities of nucleic acids, essential amino-acids, folic acids, vitamin B12).

According to the author, the diet should be based on 12-15 daily portions of fresh vegetables, fresh fruit, apple vinegar, flax oil (vitamin F), italian extravergine oil, with the addition of 14-18 tablespoons of *Aloe arborescens* (2 tablespoons every 2-3 hours), Potassium Iodure, 9-15 grams /day of natural vitamin C (SEE chapter 3), Magnesium, Zincum, Omega-3, vitamin B17 (SEE chapter 7), *Ananas sativus* stalk (chapter 3), *Allium sativum* and *Allium cepa* for organic *Germanium 132*, (SEE chapter 3), and then with the association of 20-40 medicals plants which have apoptotic activity for the particular type of neoplasia which is occurring (SEE chapter 6 and 9).
Cereals should be taken in adequate quantities (small portions), and only in case of proven necessity (fever, excessive weight loss).

Using energizing substances to sustain the increased pyretic metabolism (*temperature*)

The temperature induced by the Immune Cascade consumes high quantities of energy: this can bring about a reduction both in the cancer mass (positive effect) and in muscular mass (negative effect).
It is therefore important to remember that it is necessary to keep the patient's weight loss and the hematic values of the albumenemia continually under clinical observation, and follow two basic therapeutic principles:

1) physical activity by the patient, so as to reduce as much as possible the loss of muscle mass.
2) to administer, in the diet, energizing substances which are not dangerous. These are substantially: fresh fruit, cereals and pulses.

1 liter of liquidized fresh fruit (grapes, fruits of the forest) contains about 800-900 kilocalories, equal to 750cc of milk, or 650 grams of meat or 10 eggs….
Even the fresh fruit which we have is rich in energy:
1 liter of juice from biologically grown apples is 500 kilocalories
1 liter of juice from biologically grown cherries is 450 kilocalories
1 liter of juice from biologically grown pears is 420 kilocalories
1 liter of juice from biologically grown oranges is 400 kilocalories.

Never mix cereals and pulses at the same meal, because of the risk of adding together all the essential amino acids (which has a similar effect to eating meat, eggs, fish, cheese …..).

Among the various cereals the following merit attention: *Hordeum volgare* (barley), *Milium effusum* (millet), *Triticum spelta* (spelt), organic rice and organic wheat (*Triticum spelta* and *Triticum durum*).

American and European maize, American and European rice, American wheat must be discounted because they have been genetically modified (transgenic) and made toxic (maize).

Glycine maxima or *soya* (Soya) must also be discounted because it is transgenic and has a high protein content.

The cereals should not be used in the form of grains or flakes because of the elevated glycemic curve which would ensue in the blood; they should be eaten only as flour, or as shoots mixed with honey (SEE chapter 5): because of this last fact it is worth noting the extreme importance of eating grain shoots rather then simple seeds.

It is extremely important that the cereals are wholemeal.
Flour is obviously the primary material used in pasta, bread (without yeast) and polenta.

In the past *Plus* was famous; this was polenta made with *Triticum spelta* (spelt), *Hordeum volgare* (barley) and *Fagopyrum esculentum* (buckwheat) served with vegetables, *Allium cepa* (onions) and *Allium sativum* (garlic). But *Fagopyrum esculentum* (buckwheat) can no longer be used in our case because it is rich in Lysine, like many pulse vegetables, and it therefore has the possible risk of bringing together all 9 essential amino acids at the same time.

Wheat is the most widespread cereal: glutine, contained in its seeds in ideal proportions, renders it particularly suitable for leavening and bread making. There are two varieties: durum wheat

(*Triticum durum*) and soft wheat (*Triticum aestivum* or *vulgare*); the percentage of protein is about 13% (*Triticum vulgare*) and 12.5% (*Triticum durum*).

With the introduction of steel grinding stones rather than the traditional stone ones, there has been a huge increase in the production of white flour, that is refined, which has kept the energetic value but not the nutritional one (vitamins), because it does not have the external layer of the grains (the bran) or the grain shoots (vitamin E, SEE chapter 3.e).

Very often attempts are made to add the bran to the white flour, but the resulting product bears no resemblance to real wholemeal flour: real wholemeal flour is a uniform amber color, the mixed version is easily recognizable because it has a base which is dotted with brown bits, of either a light or dark color.
Other cereals: rice (6% protein), *Milium effusum* (millet, 11% protein), *Hordeum volgare* (barley, 11% protein), *Zea mays* (maize, 9.5% protein), *Triticum spelta* (spelt, 12% protein).

Buckwheat or black wheat (*Fagopyrum esculentum*) is not a cereal; unlike the latter it is rich in Lysine and Tryptophane; it contains a lot of Iron, Magnesium and group B vitamins; (11% protein). It should not be eaten with cereals or potatoes because of the risk of consuming all nine essential amino acids at the same time.

In the blood, *Triticum spelta* (spelt) does not have a high glycemic curve, unlike other cereals, and it can therefore be eaten by cancer patients because high peaks in the glycemic curve must be avoided.

Amaranthus hypocondriacus (amaranth) and *Secale cereale* (rye) must be eliminated completely from a cancer patient's diet not only because of its high protein levels (16%) but also because it contains Lysine, an essential amino acid almost completely absent from other cereals, because there would be the possible risk of consuming all nine essential amino acids at the same time if *Amaranthus hypocondriacus* (amaranth) were eaten at the same time as other cereals, above all wheat or maize (even if they are not transgenic):

N.B: wholewheat pasta (*Triticum spelta*, *Hordeum volgare* etc…) being whole, contain a lot of starch, so that, compared to pasta made with durum wheat, they should be drained well. They have a richer flavor than white pasta and so as not to lose this by draining the pasta it is better to put aside the water used for cooking the pasta to use in a vegetable soup. Cook the vegetables in some of the pasta water with half a stock cube, then liquidize to obtain a creamy mixture. There are various food compounds on the market which try to include these cereals in the diet. Wholemeal flour should be used, with no additives.

The patient must be treated according to the *laboratory values* obtained from blood tests, checking any possible improvement in his/her clinical condition, with a reduction in pain or vice versa the onset of temperature (ideally this should be at 38-38.5 degrees Celsius, and must not go higher than 39).
Particular attention must be paid to the improvement in the transminases, the creatinemia, the lymphocytic fraction, the increase in uric acid (SEE chap.4-5), the VES and other inflammatory rates. The *cancer markers* must be evaluated case by case (SEE chap 14.1). For some *cancer markers* in particular, for example CEA, PSA, CA19.9 CA125 or *beta2microglobulinemia*, hematic increases higher than *Cut off* must be noted, once the full anti-neoplastic immunitary response is reached, with a parallel increase in uric acid, with a subsequent recovery from the disease and hence a subsequent spontaneous lowering of hematic values of these particular *markers*.

Chap. 14.1:
Clinical Aspects, Instrumental Data and Laboratory Values/Results

Upon observation of over 50 patients, the evolving process of Immunity Cascade (Wave) induced by *Aloe arborescens* and other herbal remedies, in addition to the modified Gerson Therapy (i.e. the Anti-cancer diet of the author of this article) seems to be the following:

The patient's psychological approach to the illness is also important ([591-594]), which only a good daily relationship, medical treatment and family help can give, avoiding any conflicting medical opinions on the choice of therapy, at least in the presence of the patient himself.
It is particularly up to the Doctor in charge to impose the anti-tumoral diet, visiting the patient at home, varying the diet with the help of the family and organizing any lab tests which are considered appropriate and, if necessary, organizing any drug therapy at home.

Letters of 14 patients are on INTERNET : http://www.mednat.org/cancro/Casi%20clinici.pdf
18 Clinical Cases (Italian language) : www.mednat.org/cancro/Casi%20clinici.pdf or http://www.aloearborescens.tripod.com/18-casi-clinici-terapia-metabolica.pdf

Upon observation of over 50 patients, the evolving process of Immunity Cascade (Wave) induced by *Aloe arborescens* and other herbal remedies, in addition to the modified Gerson Therapy (i.e. the Anti-cancer diet of the author of this article) seems to be the following:

INFLAMMATIO LYMPHONODIS (Inflammation of the lymph nodes):

This is the inflammation of only the lymph nodes in proximity of the tumour, due to the activation of the Natural Killer lymphocytes. These lymph nodes will appear "reactive" during eventual scans. Immunity Cascade (Wave) against cancer (Immunity Response) always starts at lymph node level where lymphocyte natural killers are present. These lymph nodes are always located close to the area of the tumour, due to the continuous lymphatic drainage (lymphatic circulation) that draws towards these lymph nodes (in actual fact a filter system network), possible tumour cells that come from organs or tissues near the lymph node itself.
As already reported in medical literature (e.g.: V. H. Engelhard: "Science", n.314, october 1994; John Ding-E Young and Zanvil A. Cohn, "Science" 1994 " ([1266, 1267]) in Italian language : http://www.mednat.org/cancro/Le%20Scienze%201994_%20Natural%20Killer.pdf) the tumour cell is thus "examined" inside the lymph node by these and other particular lymphocytes, that analyse its genetic features made up of thin protein strands that are present on the surface of all cells both healthy and non. If the genetic feature is altered in its sequence, something rather common in the case of cancer cells, these lymphocytes kill the cancer cell through the use of a particular protein needle (Perforine), by means of which they puncture the "foreign" cell wall, causing the loss of Potassium and other substances contained within. Once it is killed, the tumour cell is analyzed and processed in this particular and absolutely precious biological micro-laboratory.
According to the author of this work the lymph node would thus mature (and develop), in the course of the following days and weeks, its immunitary response to Cancer. Therefore this immunitary response substantially gives way to a swelling of the lymph node, that can even reach the size of a few centimetres. These lymph nodes are always "reactive" upon eco scan (i.e. they are not destroyed in their internal morphology by the neoplasm invasion, but they only appear enlarged in size) and therefore SHOULD NEVER be removed. When surgeons, on the other hand, remove these lymph nodes, their result is nearly always negative and hardly ever present tumour cells sometimes only small infiltrations of tumour cells can be traced. (Note: though some of them result

to be totally overthrown in their morphological structure, being completely invaded by tumour cells).
The majority of lymph nodes, however, appear healthy and "reactive" to the tumour but, when they are removed by the surgeon, the *local* immunity response fails to take place. As a consequence, the tumour could, at this point, spread after a while to other areas that are rather distant from where it primarily originated (metastasis), for the very fact of the lack of filter action that these very important "network systems" have. Radio-Therapy also produces, strangely enough, a negative effect in the Immunity Cascade (Wave) process, because very often heavy session affect also the precious lymph nodes located in the vicinity of the primary tumour.
A patient with documented cancer in the right breast (who had undergone neither Surgery, nor Radiotherapy, nor Chemotherapy nor Hormone Therapy), after 48 months of this NACCI-therapy, started to present a swelling in the lymphnodes of the right arm-pit. Eco-scans revealed however, that the lymphnodes were "oval-shaped and reactive" due to immune response. At present the patient is in good health conditions.

The Immunity Cascade (Immunity Response) remains local per many months. This makes the initial therapeutic approach extremely delicate because it must safeguard first of all the "reactive lymph node", where very few *Natural Killer* Lymphocytes have finally recognized the illness. Only after the complex phenomena of "Immunity Cascade", i.e. of the activated sequence of the Gamma Delta Lymphocytes, Cytotoxic T Lymphocytes, B Lymphocytes, Killer Lymphocytes, Monocytes, will there finally be an Immunity Response that will not be local any longer, but finally generalized and widespread throughout the entire immunity network of the patient (production of Interleukin 6 (SEE C-Reactive Protein), activation of B Lymphocytes, presence of the Polyclonal Antibodies).

INFLAMMATIO TUMORIS:

This is characterized by *Dolor, Calor, Tumor, Funcio lesa*, in the area of the body hit by Cancer. There may also be temperature (always and however in the afternoon and/or evening). The pain (*dolor*) caused by *Inflammatio tumoris* seems to be different from cancer pain. Pain due to *Inflammatio tumoris* is generally experienced with Immunity Response (Immunity Cascade), i.e. during the afternoon after 3.00-4.00 p.m., and is easily kept under control by simple anti-inflammatory drugs (NSAIDs). Vice versa, pain due to growth of Cancer (*Dolor mali moris*) can, in no way, be dominated, if only partially, and however for a limited length of time, through Chemotherapy, Radio-Therapy, Surgery, Cortisone, Opiates (drugs). *Calor* (heat) caused by *Inflammatio tumoris* is also onset by the Immunity Response, i.e. in the afternoon, after 3.00-4.00 p.m. and is eased by simple anti-inflammatory drugs (NSAIDs). If the tumour mass is consistent, the heat (*Calor*) will be similar to a fever. If the tumour is superficial, the inflammation will cause it go soft (instead of hard) when touched, it will appear increased in size (approx. 1/3 of its original mass), hot instead of cold and the skin will be red.

It has been proved that properties contained in the essential oil of certain plants can actually induce cell death (apoptosis) (SEE Chapter 5) and are particularly effective on this type of tumour. Even metastases found in bone regions, like in the cervical, dorsal and lumbar vertebrae, react rather effectively with this type of clinical-therapeutic approach.
In particular, pure oil of *Hypericum perforatum* (produced on small-scale from fresh plants) has been experimented on a dorsal metastasis consequent to liver carcinoma and *Juniperus officinalis* oil (also made from fresh plants and produced on small-scale) on diffused bone metastasis due to carcinoma of the breast.
In this latter case, it was possible to prove also the cranial-caudal behaviour in connection to the immunity response, in a patient with metastasis in the cranial region, the dorsal-lumbar rachis, the sternum and iliac wings. After graphing the

dates that registered peaks of CA-15.3 in the blood test (coincident with phases of particular worsening of skeletal pain), what could be observed was that during an eight-month time span the Immunity Response, supported by local application of *Juniperus officinalis* oil, along the entire rachis, on the Iliac bones and on the sternum, continued its slow but progressive cleansing action from top to bottom. This came about in cyclic surges, with a constant and gradual increase of the circulating lymphocytes and VES. Thus, after eight months, this gave way to a gradual increase of the Reactive C Protein.

Many other patients with clinical cases of disseminated metastases to other organs and systems have also presented this cranial-caudal response of the Immune System (confidential data).

In the book "Gerson Therapy ": …*With all its defenses restored, the body is again capable of destroying tumor tissue, breaking it down and excreting it. The most aggressive kinds of malignancies (as melanomas, ovarian cancers, small-cell lung cancers, aggressive lymphomas) retreat the most rapidly. One can almost watch them melt away*…(from: "*The Gerson therapy. The amazing juicing programme for cancer and other illnesses.*…", by Charlotte Gerson and Morton Walker, Thorsons ed.; pp.30

FUNCTIO LESA:

In many cases the inflammation of the organ affected by cancer may, in many cases, to be put partially or totally "out of order". For example, in a woman patient with left lung cancer who had never undergone Surgery, Radio-Therapy or Chemo-Therapy, for 12 months her left lung presented a total atelectasis, without any pain whatsoever or other particular phenomena that could worsened the patient's condition. VES value was, however, rather good (50-60 mm first hour).

DEPROTEINATIO TUMORIS

The Anti-tumour Diet must not, as far as possible, contain any proteins: the latter for the fundamental reason that the growth of the tumour occurs, above all, through this particular nutritional factor. (Es. " Hildebrand, G.L.: *Five year survival rates of melanoma patients treated by diet therapy after the manner of Gerson: a retrospective review*, in Alternative Therapies, vol.1[4], September 1995, pp.29-37 http://fiocco59.altervista.org/27novembre.htm **MELANOMA)** www.gerson-research.org/docs/HildenbrandGLG-1996-1/index.html)."
As the body cannot survive without proteins, it will try to start up a mechanism of depriving the muscles and reserve tissues of these substances for the scope, above all, of nourishing the Cancer: the *Proteolysis Inducing Factor* (PIF) is produced directly by the tumour cells and is found in the blood stream. The PIF induces the destruction of the muscle proteins so as to nourish the very tumour cells with essential amino acids, vitamin B12 and folic acid. The PIF sets off the Wasting Syndrome. But, it is believed that this impoverishment will also occur to the neoplasm tissue, if the muscle mass is not allowed to be demolished and can thus be toned up appropriately through daily physical exercise and with an intake of a consistent quantity of Omega 3 oil (this inhibits the PIF).
This way the body is compelled to search for non-essential protein reserves, like fat deposits and, above all, the very tumour tissues: in other words the patient will start "nourishing" himself with his same Cancer.

The period of strict diet, with no blue fish, can vary from 3-4 months to over 10-12 months, according to the type of tumour, its metastases, age of the patient, general physical conditions, blood test reference values, etc. It is therefore the doctor's task to decide the best moment, to take

the big step towards introducing the first amount of this type of food (fish) which abounds in all 9 essential amino acids, vitamin B12, folic acid, DNA.

Vice versa in a patient with a serious metastasis in the liver originating from colon carcinoma, 12 months after starting a therapy with *Aloe arborescens* and a diet of only fruit, vegetables and spelt (*Triticum spelta*), a protein diet (blue fish) was not yet prescribed owing to the fact that the patient, who was in good physical condition, maintained a constant level of Total Blood Protein (7-7,5 grams/dl), VES value (20-36 mm first hour) during the first hour, Albumin within normal limits and, a very interesting feature. The same vitamin B12 values were maintained at a low 150-200 picograms/ml approx. 1 year after treatment began.
As the patient presented two important tumour masses in the liver both measuring 5 by 7cm in diameter before therapy, it could be estimated that the tumour's protein reserves, theoretically stored away for the patient's own nourishment, were enough for several months of survival because the tumour's protein density was ten times higher than that of the healthy tissue. 12 months after the beginning of the therapy, the masses in the liver appeared slightly reduced in diameter. There was a suspicion, however, that this was due above all to the protein density gradually diminishing rather than the size of the tumour itself reducing; a true sign of the presumed impoverishment of the protein being drawn from the tumour. Note: the hepatic hilum lymph nodes are obviously "reactive".

RELIQUATIO TUMORIS

After following a totally non-protein diet and without Vitamin B 12 (SEE: "Chapter 14), the tumour is progressively deprived of all of its protein elements to end up as a *Reliquatio tumoris*, i.e. a fibrous-necrotic tissue with no high level of protein density.

After diagnostic investigations (X-ray Tomography, Magnetic Resonance Tomography), protein density loss would reveal a loss of the previous "*high pressure of the interstitial fluid*", the latter is typical aspect of all malignant tumours. Therefore, there would be a loss of the previous accumulation of contrast enhancement only around the peripheral margin of the tumour mass (peripheral "bordered" accumulations or "enhancement effect").

Traditional contrast enhancement for diagnostic–instrumental investigations was provided by : Iodine 127 when X-Ray Tomography (TAC) was used or Gadolinium 157 when Magnetic Resonance Tomography (MRT) was employed. The loss of "enhancement effect" should be correlated to the previous loss of "high pressure of the interstitial fluid" of the tumour, i.e. to the aforementioned "*high density protein of the tumour*", this time diagnostic instruments reveal an evidently good internal perfusion of the contrast (Iodine 127 with X-Ray Tomography and Gadolinium 157 with MRT) throughout the entire tumour, therefore without having the "bordered" or "enhanced" accumulation outlining the tumour mass.

This event of so-called "peripheral loss of accumulation" in contrast enhancement (loss of enhancement effect) seems to come slightly before the final resolution (dissolution) of the tumour residue, that may occur in several different ways: from the *"Expurgatio tumoris"* (i.e. the expulsion of the fibrous-necrotic residue of the tumour), this can be total or partial, to the "*Resolutio totalis tumoris*" (i.e. the re-absorption and complete digestion of the tumour residue), to the "*Resolutio partialis tumoris"* (i.e. the presence of tumour residue in the tissues, mainly bone tissues), the latter seems to be a "bereavement" of fibrous-necrotic tissue that the body must, in time, totally eliminate (recorded clinical case). The final healing will occur through the process of "*Restituito ad integrum"* of the organs and systems previously invaded by Cancer.

EXPURGATIO TUMORIS

This is the expulsion of the fibrous-necrotic residue of the tumour (total or partial) that has been observed in various occasions. The following are some examples:
First case: a foreign patient came to Trieste for a six-month cycle of treatment. The patient presented a 6 cm x 3 cm tumour mass at the base of the tongue located mainly on the left side and being unable to eat solid food, could only swallow small amounts of liquid. Five months later, when the patient had to go back to work in his home country, the tumour mass had already diminished to less than half a centimetre (confirmation X-Ray Tomography and clinical-specialist investigations were carried out before his departure). Note: 2-3 months after the beginning of the cure, i.e. 3-4 months before leaving for his country of origin the patient "fistulated" a reddish-brown mass the size of a little finger from the ear-drum of his left ear. It was not analysed and therefore it cannot be proved that it was part of the tumour. The suspected process of *"Expurgatio tumoris"* took three days, and immediately after the patient was able to eat better and with less pain.

Second case: A 13-year-old boy affected by Leukaemia. At present, (July 2007) at a year's distance from the therapy started with *Aloe arborescens* and other herbs, the child is well and has had no relapse. His case of Leukaemia was overcome with the use of *Aloe arborescens* taken for only a few months and was resolved with the elimination of the protein and fluid substance of suspected *Reliquatio tumoris* nature, through the lymph nodes of his armpit (April 2003), obviously with a great deal of dismay on behalf of the child.

RESOLUTIO PARTIALIS TUMORIS

The storage of suspected tumour residue in the tissues, mainly in the bones. This seems to be a "confiscation" of fibrous-necrotic substance that the body must, gradually, completely get rid of.

RISOLUTIO TOTALIS TUMORIS

This phase substantially preludes the complete "RESOLUTIO AD INTEGRUM" of the tissues, the organs and/or the systems previously affected by the tumour.

OBSERVATIONS

The clinical and instrumental aspects concerning the patient (X-Ray Tomography, Magnetic Resonance, PET, Scans) are what the doctor is mostly engaged in. This compels him to delve deep into his medical knowledge due to the complexity of the clinical situation. The following clinical and/or instrumental and/or laboratory OBSERVATIONS can thus be outlined:

VES

An increase in this value is attributed, according to the Gerson Institute, to a good immunity response against the tumour and therefore substantially to the body taking control.
VES values equal to 40 mm first hour or over can be considered a good reference.

Uric acid and Urine

After the first few months when the consumption of meat, eggs, milk, cheese, butter, bread, pulses, mushrooms, algae and fish is strictly forbidden, once the immune cascade has started, a progressive increase of uric acid, of lymphocytes and of reactive C protein will be observed in the blood. At the same time a decrease in high quantities of protein in the urine will be noticed, making the urine a dark red color. The urine should be examined using reactive strips, which can be bought in the chemist's, to make sure there is no blood in the urine. The patient should increase his/her normal intake of water, good quality water with no chlorine, and should follow nephro protector phyto therapy (SEE chap.5). This should be enough to keep the process of urinary discharge of these proteins of possible cancer origin under control.

Temperature

The temperature always rises in the afternoon, at least in the initial phase, and does not react to antibiotics. The author of this work does not believe that this can be attributed to ANTI-CANCER IMMUNITARY CASCADE (IMMUNE RESPONSE) and therefore the administration of cortisone or antibiotics can play a negative role in this process. In particular, modifications caused by antibiotics to the bacterial flora in the intestine that can lead to "intestinal dysbiosis" (e.g. high level of EOSINOPHILS) could totally nullify the immunitary response.

Scan "reactive" lymph nodes

The "reactive" lymph node must have the following characteristics:

1) it must be oval i.e. it maintain a certain roundness in shape (the longitudinal diameter must be double the transversal one);

2) it must not be too dark. The more "hypoecogenous" the more "suspect" it may turn out to be, in other words, it has either metastacized or it may be itself the source of neoplasm (Lymphoma);

3) the Ilo must be recognizable (when lymph nodes are vascularized they are similar in appearance to the ramifications in the kidney).

Note: sometimes by closely inspecting the vascularization, it is possible to observe the ill portion inside the very lymph node (in this case a second -generation contrast enhancement like e.g. "*Sonovue*" can be utilized).

NOTE : the healthy and reactive lymph nodes (not metastasis) is COLD under Positron Tomography with F-18 Desossiglucose

the metastatic lymph nodes (not healthy and reactive) is HOT under Positron Tomography with F-18 Desossiglucose

Another value of Blood:

Carcino-embryonic antigen (CEA)
False positives are often found following either post-operative inflammations, or other kinds of inflammations.Cut off for non-smokers: 5 ng/mL. Cut off for smokers: 8 ng/mL

Alpha Feto Protein (AFP)
Its increase is also linked to the proliferation of normal hepatic cells, not only in the case of primitive or metastatic neoplasia of hepatic, testicular or ovarial derivation, and from a teratoma.Cut off: 10 ng/mL

Tissue polypeptide antigen (TPA)
It belongs to the cyto-keratins, which constitute the cyto-skeleton of epithelial cells. It is released into the system because of the cytolythic phenomena of neoplasia. It can be found in tumors which are situated in the gastro-enteric tract, or in the genital and urinary tracts, the breast, the lung and the thyroid. It has a higher number of false positives than CEA, especially in the case of hepatitis, cholestasis, cirrhosis of the liver, infections of the respiratory tract and of the urinary ducts. The cut off is estimated at around 60-80 U.I./L. Among the various cyto-keratins, the circulating cyto-keratin 19 (CYFRA 21.1) proved to be particularly useful for epidermal tumors of the lung (70%), adenocarcinomas of the lung (60%), and microcytomas (55%). Its hematic confirmation is also possible in patients with tumor of the breast, of the uterus, of the bladder and of the stomach.

Tissue polypeptide specific (TPS)
It is useful in case of breast tumors, tumors of the gastro-enteric system and of the genital area.
According to various authors, the TPS parameter could be used with good results for the evaluation of the responses to the cyto-reducing therapy and as a prognosticator, because it is more specific in evaluating proliferating activity of the tumor.

SCC Antigen (*Squamous Cell Carcinoma antigen*)
It may be found in cutaneous, esophageal, pulmonary and cervical spino-cellular carcinomas. It may also be found in psoriasis, pemphigus, in eczemas and in other benign pathologies of the skin.

CA 125:
epitope found on a mucin linked to the coelomatic epithelium, in ovarial carcinomas (serous and mucinous). It also occurs in inflammatory situations on an aspecific base, for example ovarial endometriosis and inflammatory peritoneal reactions. Cut off: 35 U.I./mL.
It is not considered valid to search for relapses in patients with a minimum residue of illness.

CA 19.9
It has been proposed as an elective marker for the screening and diagnosis of tumors of the pancreas, thanks to the fact that the effect of false positives is very limited, because of concurrent inflammatory illnesses (colitis, pancreatitis, intestinal polyps). Cut off of 37 U.I./mL. It is present in

70% of pancreatic cancers, in 50-60% of stomach tumors, in 45-50% of neoplasias of the colon-rectum, and in 40% of carcinomas of the biliary tracts.

CA 50

Wide-spectrum mucinic marker for tumors, can be superimposed on CEA and TPA. Also frequently present in benign pathologies, and therefore characterized by a high level of false positives.

CA 15.3

Mucinic marker considered to be more specific than CEA and TPA. It is the marker chosen for breast tumors, because there is a limited occurrence of false positives deriving from concurrent inflammatory illnesses (15%). Cut off: 37 U.I./mL. It is present in 33% of localized mammary tumors, and in 89% of metastasized ones. It is rare in other tumors (25%). It is useful in monitoring cyto-reductive treatments, because it has been proven that the positive or negative variations of the hematic concentration of this marker are associated with an increase or decrease in the mass of the neoplasia, especially if metastasized.

Mucinous-like cancer antigen (MCA)

It is also considered elective for mammary tumors, since it produced by the secretion of the breast itself in normal conditions: it enters the systemic circulation only when the development of the neoplasia is such that it determines a subversion of the structure of the gland. It is therefore a good indicator of the progression of the neoplastic illness and the monitoring of the cyto-reductive treatments, with a low percentage of false positives (10%) and a positiveness related to the stage of the illness: 20-30% in case of a localized tumor; more than 60% in case of metastasis. Cut off: 12 U.I./mL.

CA 549

Specific marker for mammary tumors, comparable for its specificity and sensibility to CA 15.3 and MCA. Cut off: 11 U.I./mL. It is present to a percentage of 10-15% during the first two stages of neoplastic mammary illness, and then progressively increases to up to 40% during the third stage, finally establishing itself at 75% when the illness reaches the fourth phase.

CA 195

Specific marker for tumors of the pancreas and of the colon, it can be superimposed over CA 19.9 due to its specificity and sensitivity; it is superior to CEA.

TAG 72

Wide-spectrum marker for tumors, it can be superimposed over CA 19.9. It is present in gastric carcinomas from 40 to 64%, and in carcinomas of the colon from 55 to 67%.

Vanilmandelic acid (VMA) and omoranillic acid (OVA)

They are metabolites of the serous catecholamines, which increase 90% in the case of pheocromocytoma and 70% in the case of neuroblasts. At present it is considered preferable to measure their values with reference to a milligram of creatine, considering the practical difficulty in collecting all the daily urine. In this way, the cut off values are as follows:

VMA: 20 mg/ mg of creatine

OVA: 40 mg/mg of creatine

NB: patients should have been deprived of certain food, such as tea, coffee, chocolate, vanilla, and of medicines which based on sympathetic-mimetic amines and bronchodilator syrups.

Specific prostatic antigen (PSA)
Cut off: 2,5 ng/mL.

C-Reactive protein
It is related to the soluble receptor of Interleukin 6 (IL-6), and therefore to the tumoral growth of *Multiple Mieloma*([572, 575]); the very same IL-6 is the major factor in allowing the survival of Multiple Mieloma cells, because it inhibits apoptosis of the infected cells ([573, 574]).
As regards all the other tumors, the immune cascade also determines a gradual increase in the C-reactive protein, related to the Interleukin 6 and therefore with B lymphocytes. Thus, the confirmation in the immuno-electrophoresis of the hematic protein profile, the gradual increase the gamma globulins as well, which can reach very high levels, assuming the form of a real "Polyclonal Peak", unequivocal sign of the patient's effective immunization against his own tumor.

Hyper-Calcemia
It can be caused not only by a tumor of the bone marrow, but also by a high anti-neoplastic immune response (which is possible, in the absence of Chemo-Therapy), because both the tumoral necrosis factor and the various Interleukins ([124]) determine a Calcium increase in the blood, with all the consequent clinical characterizations (drowsiness, sleepiness, lack of appetite, nausea, polyuria, systolic increase of the systolic PAO...)

Beta2-microglobulin
It does not properly represent the effective growth of the tumor, because it can also be induced by the phlogistic processes triggered as an immune response against the tumor. It belongs to the antigens of hysto-compatibility. It is very aspecific, and consequently it determines high levels of false positives, especially in cases of chronic illnesses concurring with the neoplasia.

Beta Chorionic Gonadotropin (β-HCG)
Marker for germinal tumors of the testicle (20% if seminoma, 50-70% if not seminoma), and for chorionic carcinoma.

Calcitonin (CT):
NB: monitoring the parafollicular cells of the thyroid.

Lymphocytic profile (SEE table)

Table: Lymphocytic profile

	Normal values
Pan T-CD3	57-80%; 820-1.840 cells/microlitre
Pan T-CD4	33-58%; 480-1.315 cells/microlitre
T suppressor CD8	17-37%; 250-790 cell/microlitre
Natural Killer CD 16	3-19%; 80-335 cells/microlitre
Natural Killer CD 56	3-13%; 80-220 cells/microlitre
Pan B CD 19	2-19%; 53-335 cells/microlitre

D-Dimers:
produced exclusively by the degradation of fibrin; insensitive to the presence of PDF and of fibrin. Good markers of the pre-thrombotic phase.

Myoglobin:
protein of muscular origin, the appearance of which in blood or in urine is a sign of destruction of the muscular tissues; it also reveals the state of the muscles and a situation of malnutrition.

Retinol binding protein (RBP):
situation of possible denutrition; however it increases in case of chronic kidney failure.

Pre-Albumin:
situation of possible denutrition.

Chlorine in association with Sodium:
in a situation of normal sodiemia, hyper-chloremia is a sign of metabolic alkalosis, or of compensatory respiratory alkalosis; hypo-chloremia, on the contrary, is a sign of metabolic acidosis, or of respiratory acidosis.

Transaminase (SGOT and SGPT):
they increase in the case of a hepatic pathology.

Uric acid:
terminal metabolite of purines, main constituent of nucleic acids.

Proteolisis Inducing Factor (PIF):
produced directly by the cancer cells, it is found in the circulating blood. PIF induces the destruction of the muscular proteins so as to feed the cancer cells themselves with the essential amino acids, vitamin B12 and folic acid. In this way the *wasting syndrome* is started. It is useful to monitor it in association with Omega-3 (EPA and DHA).

Chap. 14.2:
Using *phyto-medicines* with anti-inflammatory activity (SEE also chapter 3)

1) *Aegle marmelos*: it also has a sedative action; and contains linolic acid, the oil from its seeds has an anti-bacterial effect.
2) The bark of *Aesculus hippocastanum*: it is rich in bioflavenoids, it increases the resistance of the capillaries, and decreases their permeability with an anti-inflammatory and anti-edemigene effect.
3) *Aloe arborescens* or *barbadensis* (*vera*) mixed with good quality biologically produced honey (SEE chapter 4.b).
4) The bark of *Azadirachta indica* (arishta, nimba, neem, the sacred tree): Nimbidina (400mg/kg) is comparable to Fenilbutazone (100mg/kg): the plant also contains Quercetine and Rutine; the essential oil is also anti-bacterial (*Staph. aureus, E. coli, S. pyogenes*) and also acts on intestinal worms. It is a potent natural insecticide, in India it is also used in crops to protect the nearby plants.
5) *Baliospermum montanum* (Danti): a promising plant, the roots are currently under study to cure advanced hepatopathies, with ascites, jaundice etc...
6) Acetonic extract of *Boerhaavia diffusa* (Punarnava): it inhibits the increase in activity of aminotransferases in arthritis, in a similar way that Hydrocortisone does.
7) The bark of *Boswellia serrata*: it blocks the 5-lypoxigenase enzyme, thus inhibiting the action of the leucotriens; an immune-modulating action (extremely effective in rheumatoid arthritis); it is also suspected of having an anti-cancer action: induce apoptosis on melanoma and fibrosarcoma ([1131]). It contains boswellic acids, which are very anti-arthrotic. This plant causes an increase in the blood flow to the articular tissue, inhibits the inflammation mediators and supports the polysaccharide mucus synthesis.
8) *Camellia sinensis* (green tea): it contains different anti-oxidant substances; however it is the young leaves and the virgin buds which must be used, without fermenting the plant which leads to a large part of the active substances being destroyed (SEE also chapters 3, 6 and 9).
9) The mature fruit of *Capsicum annuum* or *fasciculatum* (chili pepper): in small doses it has proved useful in cases of gastritis, hemorrhoids, chronic catarrh in the pharynx and the tubes and chronic middle ear infection.
10) The fresh leaves of *Cardiospermum halicacabum* (during its flowering period): it reduces hypersensitive reactions; it is currently being evaluated for possible side effects; it would seem to be similar to Cortisone.
11) The leaves and the flower tops of *Cnicus benedictus* : an effective febbrifuge. N.B. it is similar to *Geum urbanum.*
12) *Psidium guajava* (guava): it has a certain activity against cachexia caused by cancer.
13) *Commiphora mukal*: the steroid crystalline parts of its resin completely inhibit the appearance of primary lesions in arthritis, but in a less efficient way than Hydrocortisone. It does, however, reduce the severity of the secondary lesions in a more efficient way than Hydrocortisone or Fenilbutazone.
14) The bark of *Crataeva nurvala*: also useful to eliminate kidney stones.
14) The essential oil of *Curcuma longa*: it prevents gastric ulcers from FANS; it has a hepatic protective action against poisoning by Carbon Tetra-Chloride; its polysaccharides have an immune-stimulating action like *Astragalus membranaceus.*
15) *Cyperus rotondus*: an anti-inflammatory, anti-pyretic, anti-histaminic.
16) The leaves and branches of *Eucalyptus globulus*: no longer used (except for infections of the respiratory tracts).

17) *Foeniculum vulgare* (wild fennel, sweet aniseed): it is effective against nausea caused by other medicines (even from Chemo-Therapy).
18) The extract of *Ginkgo biloba*, since it is rich in flavonoids, flavones and leuco-anthocyans; some bisflavonoids (Ginketol, Isoginketol, Bilabetol) act on the cell membranes and stabilize them; ginkolide blocks lipidic peroxidation and the formation of free radicals; it also inhibits the Platelet Activation Factor (PAF), thus reducing the risk of thrombosis. N.B: it is counter indicated in patients with coagulation disorders; it is unadvisable to use it combined with platelet anti-aggregants. It is effective on Amiotrophic Lateral Sclerosis ([722]).
19) *Hamamelis virginiana*: it is especially rich in flavonoids, phenolic acid, Choline, and mineral salts: it is an excellent venous vasoconstricter; it reduces capillary permeability and increases the resistance of the vasal walls, reabsorbing the edemas.
20) *Harpagophytum procumbens*: only the secondary tuberised roots should be used; like *Aloe arborescens* it has a good anti-inflammatory action without the side effects of FANS or, especially, of cortisones (these are immune-depressors), with no toxicity and a good analgesic effect. It should always be taken on a full stomach and is unadvisable in pregnant women and children under the age of 12.
21) *Matricaria chamomilla* (camomille): it reduces hypersensitivity to pain.
22) *Musa sapientum, acuminata, paradisiaca* (banana): Sitoindoside I and II are extracted from its fruit, in a ratio of 5:1, establishing complete protection against gastric ulcers, even those induced by medicines. But *Musa sapientum* has, in man, high level of glicemia in bood.
23) *Chrysantellum americanum*: it contains both flavonoids and saponines, it increases venous tone and decreases capillary permeability.
24) *Glycyrrhiza glabra*: its roots and rhizome contain anti-inflammatory substances; if it is taken over a long period it can induce hypertension.
25) *Achillea millefolium*: it contains an essential oil similar to that of *Matricaria chamomilla*, containing azulene and some types of lattones, which have an anti-inflammatory action.
26) The leaves of *Vaccinium myrtillus*: it improves the venous cycle because it is rich in vitamins.
27) *Okoubaka aubrevillei*: it has recently been revalued.
28) *Spiraea ulmaria*: like *Salix alba* and *Aloe arborescens* it contains salicylates, which have an anti-inflammatory action.
29) The roots of *Petasites officinalis*
30) *Picea marina*: substances useful against gastritis can be extracted from its resin.
31) *Pterocarpus santalinus*: it has recently been revalued ([621]).
32) The roots of *Ruscus aculeatus*: a powerful vasoconstrictor, it is anti-inflammatory and anti-edemagene.
33) The leaves of *Ribes nigrum*: a potent diuretic; it eliminates uric acid, and must be used with care in patients with hypertension, because of its DOCA-like action. It has the same counter-indications as cortisones. It contains more than 500 different types of bioflavonoids and tannins. It has anti-inflammatory properties and is therefore good to use together with *Harpagophytum procumbens.*
34) *Rubia cordifolia*: it has an anti-inflammatory activity; its cyclical hexapeptides have shown an anti-cancer activity in preclinical studies.
35) The bark of *Salix alba*: it contains salicylates like *Filipendula ulmaria* and *Aloe arborescens*.
36) *Scutellaria baicalensis* or *latiflora*: its flavonoids have a marked non-steroid (FANS) anti-inflammatory activity, very similar to that of Indometacine and Fenilbutazone, but without their well-known side effects; it also has anti-histaminic, anti-bacterial and anti-viral activities.
37) *Tanacetum parthenium*: it contains 6 groups of compounds of phyto-pharmaceutical interest: flavonoids, sesquiterpenes (including Partenolide [apoptosis, [701]]), monoterpines, hetero-spirochaetanolics, polyphenols and tannins. The most important active principles are lactone

sesquiterpines, the biological effects are: a) a decrease in the excitability of the smooth muscular system (vasoconstriction) when there are inflammation mediators (e.g. the Immune Cascade); b) an inhibition in prostaglandine synthesis; c) a reduction in exocytosis (greater than FANS). In practice, this has the ability to prevent the release of arachidonic acid ([583]), and what is more its anti-inflammatory action also works to inhibit the degranulisation of the polymorphonuclears ([584]).

38) The leaves of *Vitis vinifera*: they are rich in tannins and anthocyans; the latter act against the oxidant substances acting on the venous walls.

39) *Pygeum africanum*: this plant contains sterols, triterpenes and pherulic esters which inhibit the production of prostaglandine.

40) The bark of *Ulmus rubra* or *fulva*: its mucilages have a great gastro-protective and anti-inflammatory effect, especially if it is taken before meals.

Chapter 14.3:
Detoxification of the ill organism

Generally speaking a cancer patient has a temperature, pain and extensive inflammation of a number of organs and/or systems. The temperature induced by the Immune Cascade uses up vast quantities of energy: and this can cause a reduction both in the cancerous mass (a positive effect) and in muscle mass (a negative effect). The patient's temperature should, therefore, be kept under constant clinical control. Similarly, very acute inflammatory processes with worsening pain can cause acute pain for the patient.

In our work, where particular attention is given to immune therapy, the following must be considered:
A patient's temperature is an important part of their immune defense system to get lysis of the tumor mass, therefore considering temperature as a type of *endogenic hyperthermia*, since it is induced by the white blood cells as an auxiliary action against the cancer mass (SEE "Hyperthermia as cancer therapy").
A temperature, however, weakens a patient, causing a considerable loss in weight, and an appropriate diet must therefore be supplied.

The anti-cancer immune response, if it is present, is characterized by the presence of intermittent temperature peaks, of variable duration and intensity, since the temperature in general does not go higher than 37.5 –38.5 ° C, always in the afternoon, and lasts quite long (several hours) only if there is a considerable cancer growth present.

The temperature must be differentiated from concurrent infections.
Paracetamol could be used, because it does not interfere with the inflammatory processes, and it should be used in combination with phyto-therapy (in particular *Aloe arborescens*) in the induction phase of the anti-cancer Immune Cascade, and only if the patient is in pain which cannot be borne with other phyto therapies.

The clinical experience matured in these years of free professional activity at many patients' houses has definitely convinced the author of this work that what dr. Gerson demonstrated more than 50 years ago is right. *Hepatic detoxification* through coffee enemas (*Coffea arabica*) is the key to the solution of inflammatory and pain problems all tumour patients go through when the Immune

Cascade reaches its maximum levels, with the ESR being far beyond its normal limits, and extremely high neoplastic markers. Very often the patient's family panics, and the general practitioner is not ready to cope with the natural evolution of white blood cells' Immune Response: they finally attack the tumour itself in depth…

We would like to stress that *hepatic detoxification* is dangerous for patients who already underwent chemotherapy, and that what is described in this chapter must be considered a part of the therapy that was described up to now.

Tumour mass is made up by necrotic material, inflamed immune cells, connective tissue, and, of course, by neoplastic cells with various degrees of activity. From 3-4 PM until 3-4 AM, the Immune Response (Immune Cascade) takes place: the tumour is inflamed, toxic substances are released in blood, as well as dozens of pro-inflammatory molecules and many other dangerous or harmless substances coming from the tumour.

From 4 AM to 11 AM the patient detoxifies from all toxic material released by the tumour during the inflammatory response that took place during the previous hours. The liver is the key organ for a correct detoxification from all these substances, followed by the kidneys and the skin along with its mucosae (tongue, gastroephageal system). The list of substances is very wide, and is not one of the subject matters of this work.
First of all, we can say that necrotic tissue can be divided into two types:

1) "necrotic tissue with coagulation": it is biochemically characterized by protein denaturation and, morphologically, by the progressive disappearance of tissue structure that will become a white-grey mass with isolated nuclear debris.
2) "necrotic tissue with colliquation": it is produced both by autolysis and heterolysis.

Two important factors limit the growth of solid tumours, not depending on the immune response: first, the tumour mass is highly and chaotically vascularized, and, as a consequence, the internal neoplastic tissues receive less nutrition by "diffusion". The minimum distance between cancerous cell and capillaries has to be smaller than 150-200 micrometers, and the distance goes to 100 micrometers if you consider the diffusion capability of oxygen, which is necessary for cellular respiration. The internal pH of tumour mass is acid, with lack of nutrition, wide necrotized areas, and most neoplastic cells being "sleepy". As ESR values increase, in the months following the beginning of the Immune Cascade, we will see more and more tumour markers in circulating blood, as well as Lactate dehydrogenase, and many other substances released by the tumour or by white blood cells (granulocytes) penetrating the tumour's necrotic mass.
Out of these substances, many are highly toxic, and enfeeble the patient, intoxicating the liver and other organs, this way marking the failure of the therapy described in this book. Other substances produced directly from the tumour also deserve our attention for the dangers they bring to the patient, as for example the *Proteolisis Inducing Factor* (PIF), that induces the destruction of muscular proteins in patients in order to nourish tumour cells themselves with essential amino acids, vitamin B12 and folic acid. PIF also induces the *wasting syndrome*.

There are many substances released in blood by the tumour during inflammation:
Intermediate filaments such as Cytokeratins,Vimentin, Desmin, CEA, alpha-feto-protein, PSA, CA 15.3, CA 19.9, CA 125, other tumour markers, Bombesin, Chemochines (dangerous), some morphine-mimetic endogenous opioid peptides (e.g., metencephaline, adrenorphine), plasminogen activators (with the function of proteolysis for self-maintenance and expansion processes in the tumour itself), paraneoplastic prothrombins (without end debris of gamma-carboxyglutamic acid), *Transforming Growth Factor* (TGF), *Tumor-Derived-Growth Factor* (TDGF), *Tumor-Derived-Angiogenic-Factors* (TAF), *Insulin Like Growth Factor –I* (IGF-I), *Fibroblast Growth Factor* (FGF).

Neoplastic cells produce these substances for different reasons; the simplest one is that they compete with their host. The tumour tries to grow autocrinally: it produces specific growth factors, and malignant cells will then proliferate. Thus, oncogenes are allegedly responsible for the cells capability of growing independently through three effects:

1) coding the factor that self-stimulates growth,
2) coding its receptor,
3) amplifying phytogenous signals coming from the growth factor linked to the receptor itself.

The liver has the fundamental role of deactivating all substances produced by the tumour. However, to do so it needs vitaminic hepato-protective substances, such as those contained in phytotherapic products that classic Western medicine has knows for thousands of years: *Silybum marianum*, *Taraxacum officinale*, *Smilax aspera*, *Cynara scolymus*, *Salvia officinalis*, *Agropyrum repens*, *Hyssopus officinalis*, *Matricaria camomilla*, *Aloe species*, etc… They are extremely effective on many degenerative or toxic processes for the liver.

Proinflammatory mediators coming from the Immune Cascade are also dangerous for the patients themselves, if the immune response, given by the ESR, cannot be controlled by the general practitioner, risking to provoke very dangerous immune responses (indicated by ESR, tumour markers and very high Lactate dehydrogenase). Inflammation mediators can especially give long-lasting and severe pain on the nerves close to the area where the immune response takes place.
As the Immune Cascade is a defence of the organism, especially at night, according to Gerson the doctor should suggest coffee enemas, at 35-36 Celsius degrees, to be done during the afternoon, before night. One hour before this, the patient should be given at least one spoon of castor oil (the latter is however forbidden in patients who already underwent chemotherapy).

Coffee (*Coffea arabica*) opens the bile ducts in the liver. These are full of tumour toxins accumulated in the previous days, which are in this way discharged in the intestine. The liver is now ready to absorb new tumour toxins: they are produced by another granulocyte attack, and they will be discharged in blood. This will cause another inflammation process at night, a part of the immune response that is recognizable already in the afternoon, when the patient gets a temperature.

The second or third coffee enema is advisable during the same night, before 4AM (when the Immune Cascade ends), ideally around 8-9 PM, and again shortly before midnight, when the quantity of toxins and pro-inflammatory substances in blood is very high.

If the patient suffers from insomnia because of the enemas administered at night, the enemas will have to be performed in the morning and in the afternoon, one every 4-5 hours.

As Gerson said ([749]), the gut walls and hemorrhoidal veins absorb most of the caffeine in coffee. From the hemorrhoidal veins caffeine is discharged in the portal vein and then into the liver, where it opens bile ducts, thus allowing rapid elimination of tumour toxic substances accumulated in the previous hours.

When the enema liquid enters the colon, it should be kept inside for no more than 15 minutes, so that it is not absorbed systemically. Ideally, the liquid should be kept inside exactly for 12 minutes, according to Gerson's method ([749]), as we can read in this important medicine book:

"…While the coffee enema is being retained in the gut (for an optimum period ranging from twelve to fifteen minutes), all of the body's blood passes through the liver every three minutes. The hemorrhoidal blood vessels dilate from exposure to the caffeine; in turn, the liver's portal veins dilate too. Simultaneously, the bile ducts expand with blood, the

bile flow increases, and the smooth muscles of these internal organs relax. The blood serum and its many components are detoxified as this vital fluid passes through the individual's caffeinated liver.
The quart of water being retained in the bowel stimulates the visceral nervous system, promoting peristalsis. The water delivered through the bowel dilutes the bile and causes an even greater increase in bile flow. There is a flushing of toxic bile which is further affected by the body's enzymatic catalyst known to physiologists as glutathione S-transferase (GST).
The GST is increased in quantity in the small bowel by 700 percent, which is an excellent physiological effect, because this enzyme quenches free radicals. These quenched radicals leave the liver and gallbladder as bile salts flowing through the duodenum. The bile salts are carried away by peristalsis in the gut, travelling from the small intestine, through the colon, and out the rectum.
In 1990, the Austrian surgeon Peter Lechner, M.D., and his colleagues, who had been investigating Dr. Gerson's cancer treatment, discussed the benefits of increasing quantities of GST in the gut. It was then that Dr. Lechner reported:

GST binds bilirubin and its glucuronides so that they can be eliminated from the hepatocytes (liver cells)
GST blocks and detoxifies carcinogens, which require oxidation or reduction to be activated. Its catalytic function produces a protective effect against many chemical carcinogens.
GST forms a covalent bond with nearly all highly electrophilic (free radical) substances, which is the precondition of their elimination from the body. The intermediate products of potential liver poisons (hepatotoxic cytostatics) also belong in this category of forming free radical pathology.

Before the above published finding, Dr. Lechner had decided in 1984 that the coffee enema had a very specific purpose: lowering serum toxins. His medical report states, "Coffee enemas have a definite effect on the colon which can be observed with an endoscope. Wattenberg and coworkers were able to prove in 1981 that the palmitic acid found in coffee promotes the activity of glutathione S-transferase and other ligand by manifold times above the normal. It is this enzyme group which is responsible primarily for the conjugation of free electrophile radicals which the gall bladder will then release".

Starting in the late 1970s, the laboratory owned and supervised by biochemist Lee W. Wattenberg, Ph.D., identified two salts of palmitic acid, cafestol palmitate and kahweol palmitate (both present in coffee), as the potent intensifiers of glutathione S-transferase. Such enhancement turns this enzyme into a major detoxification system that catalyzes the binding of a vast variety of electron acceptors (the electrophiles) from the blood-stream to the sulfhydryl group of glutathione. Because the reactive ultimate carcinogenic forms of chemicals are electrophiles, the glutathione S-transferase system becomes an important mechanism for cleaning away any existing cancer cells (carcinogenic detoxification).

This detoxifying of cancer cells has been demonstrated innumerable times by experiments on laboratory mice whwrein detoxification of the liver increases by 600 percent and the small bowel detoxifies by 700 percent when coffee beans are added to the animals' diet. Analogous results take place within humans who are giving themselves coffee enemas.

We can state that coffee enemas stimulate bile duct dilation, thus helping in the elimination of tumour toxins through the liver and the dialysis of blood toxic debris through the colon walls.

The coffee enema is in a class by itself as a therapeutic agent. In no way does the oral administration of beverage coffee have the same effect as its rectal administration. On the contrary, drinking coffee virtually ensures reabsorption of toxic bile, While other agents classed as stimulators of bile flow (choleretics) do increase bile production from the liver, they hardly enhance any detoxifying by that organ's enzyme systems. Choleretics do nothing to ensure the passage of bile from the intestines out the rectum. It's a physiological fact that bile is normally reabsorbed up to ten times by the body before working its way out of the intestines in feces. The enzyme – intensifying ability of the coffee enema is unique among choleretics. Because it does not allow reabsorption of toxic bile by the liver across the gut wall, it is an entirely effective means of detoxifying the bloodstream through existing enzyme systems in both the liver and the small intestine. Inasmuch as clinical practice has taught clinicians utilizing the Gerson Therapy that coffee enemas are well tolerated by patients when used as frequently as every four hours in a twenty-four-hour period, the coffee enema should be categorized in the medical literature as the only nonreabsorbed, effective, repeatable choleretic agent.

Such a classification could go far to bring about the healing of pathologies that require quick absorption and no reuse of bile.

Dr. Gerson hypothesized on the physiological actions and effects of coffee enemas and observed their clinical benefits.

Introducing a quart of boiled coffee solution into the colon will accomplish the following physiological benefits:

It dilutes portal blood and , subsequently, the bile.
Theophylline and theobromine, major nutraceutical constituents of coffee, dilate blood vessels and counter inflammation of the gut .
The palmitates of coffee enhance glutathione-S-transferase, which is responsible for the removal of many toxic radicals from blood serum.
The fluid of the enema itself stimulates the visceral nervous system, promoting peristalsis and the transit of diluted toxic bile from the duodenum out the rectum.

Because the stimulating enema is retained for up to fifteen minutes, and because all the blood in the body passes through the liver nearly every three minutes, coffee enemas represent a form of dialysis of blood across the gut wall.

Chap. 14.3.a:
The usefulness of Potassium for human metabolism
(From : “Charlotte Gerson : The Gerson Therapy)

Potassium (chemical symbol K) is a mineral element needed by all plants and animals to live and thrive: It is the essential mineral required within all tissues and cells in the body for normal smooth function and for all their activities. Since it is required in the cells, not in the fluids, it is referred to as the “intercellular” mineral. Potassium is contained in all foods, particulary in fruits, vegetables, and whole grains. Animal sources, such as fish and meat, also contain potassium, but the plant-based material is easier to absorb.

Potassium is absorbed from foods through the intestinal tract; any excess is released in the urine. The kidneys play an important role in determining how much potassium is released or absorbed into the system. If the kidneys are irritated by chemicals, drugs or other problem, they may release too much potassium, contributing to a deficiency Potassium can also be lost through vomiting, diarrhea and surgical drainage, as well as laxatives and diuretics (agents that increase the flow of urine). Loss through the skin is rare but it can result from sweating during too much exercise or when overheated ([1417])

Part of the Gerson Therapy involves consuming a diet not only loaded with high-potassium foods but also supplemented with elevated doses of the mineral itself. In fact, Dr. Shoham wrote: “ *Potassium obviously is a central pillar in the whole structure of Dr. Gerson’s therapy. We are dealing here with enormous amounts of K - about 20 grams in the supplemental potassium solution during the first four weeks, reduced to half thereafter, about nine to ten grams in the juices, and probably two to three grams in the food, all together about thirty grams per day during the first weeks and then twenty grams per day subsequently*”.

Dr. Jacob Shoham was concerned about the possibility of hyperkalemia, an overabundance of potassium in a person's metabolism, which could possibly occur from a patient's conforming to the Gerson Therapy recommendation of K supplemention. Yet adverse signs or symptoms of hyperkalemia are not an effect from the high dose of potassium supplementation. Several Gerson Therapy patients have accidentally, through misinterpretation of labelling, self-medicated with potassium at levels approximately thirty-two times the recommended dosage of K for periods of up to three weeks. They did this without undergoing any significant adverse effects. Over time, from experience of users, elevating K intake to neutralize too much sodium (Na) in the tissues appears to be safe and effective. Excess K is easily excreted by normal kidneys.

Also, more than forty years ago, Dr. Gerson answered the hyperkaliemia question in his celebrated book. He declares: "The content of potassium in the serum is, in many cases, misleading. "*Then ge goes on to say, "It* [potassium in serum] *does not give any definite indication of an increasing or decreasing amount of K present in the tissues of essential organs…*
More coincident examinations of K made at the same time in serum and tissues and in different stages of the [cancerous] *disease, are necessary for such decisions*".

Dr. Gerson advises that hyperkaliemia occurs from seven specific sources:

1) "loss of fluids – blood, in majority of cases dehydration";
2) "Epilepsy –most cases";
3) "Cancer patients more often in the period before they go over to the terminal stage (on the way to elimination)";
4) "Never in cancer patients during restoration time";
5) "Addison's disease";
6) "Anuria – uremia (inability of liver and kidneys to excrete excess potassium in solution –lost from essential organs)";
7) "Acute and chronic asthma, and other degenerative allergies".

Potassium belongs to a chemical group that is associated with both phosphoric acids and carbohydrates, and the three substances readily combine with colloids; therefore, Dr. Gerson suggests that we may speak of these four grouped ingredients of the metabolism as the potassium group. Na is part of its own chemical group, the sodium group.

We take in an enormous amount of sodium, not necessarily with the foods we prepare ourselves but with those we purchase already packaged, especially those mixed ingredients that people eat in restaurants. Dining outside the home is an unhealthy way to eat and live. It's an underlying source of degenerating illnesses such as high blood pressure, stroke, and cancer. In his monthly newsletter HEALTH AND HEALING, Julian Whitaker, M.D., writes "*The way to bring your sodium-potassium ratio back into balance is to eat lots of vegetables, legumes, whole grains, and fruit. These whole-some foods naturally have an excellent sodium-to-potassium ratio of at least 1: 50….* " ([1418]).

Dr. Whitaker adds that some fruits, such as oranges, offer a good mineral proportion of 1 part sodium to 260 parts potassium.

Chap. 14.3.b:
Potassium supplementation on the Gerson Therapy
(From : "Charlotte Gerson : The Gerson Therapy)

At the Gerson Therapy hospitals, when patients are beginning their therapeutic programs, blood tests and urinalyses are performed once a week. This would be the case when someone is under the care of a Gerson certified practitioner as well. Monitoring of blood and urine values of patients on a continuous basis is of great importance.
Monitoring laboratory tests should be repeated about every six week, depending upon the severity of an individual's disease process. In the early stages with the debilitated patient, every four weeks would be recommended. These laboratory studies must accompany numerous clinical examinations. One of the most important laboratory tests involves the determination of the blood serum's potassium levels. K levels for sick Gerson patients will often fall between 5,9 and 6 milliequivalents per liter (mEq/L). Normal ranges for non-Gerson patients generally record at 3,4 to 5,1 mEq/L. (The Gerson Institute. *Gerson Therapy Practitioner's Training Seminar Workbook*. Bonita, California : The Gerson Institute, 1996, pp. 31)

Particularly in the initial stages of treatment, Gerson patients ingest significant potassium supplementation of up to 150 mEq/day. Even in the presence of elevated potassium serum levels, it's necessary to continue K supplementation. Dr. Gerson tells us that K ions are indispensable in certain enzymatic reactions and K plays a role in tissue protein synthesis. Normally, muscles, brain and liver possess much higher K content than Na content. As long as K remains normal, Na is diminished, and that's maintaining a healthy state.

At the Gerson Therapy hospitals, after blood testing upon the patient's hospital admission, 10 percent potassium solution is administered immediately. The K administration takes the form of 4 teaspoonfuls ten times daily added to all juices, and this dose usually continues for three to four weeks.

Then the amount of K is reduced to half. Presenting a warning, Dr. Gerson says : "*The combination of the blood level with the clinical observations teaches us that the restoration of the potassium content in the organs is a difficult and long-drawn-out process*".

A compound solution of potassium salts is made from 33 grams (g) each of potassium acetate, monophosphate, and gluconate, diluted in 32 ounces of distilled water. As stated, dosages vary from 1 to 4 teaspoonfuls (tsp), representing from 3,5 to 14 grams of K per day. This medication is added in equal amounts to each of the carrot/apple, greens, and orange jouces (but not to the pure carrot juices) daily, about 1 to 4 tsp per jouce drink.

We place emphasis on medicating with potassium because it forms a keystone for achieving healing benefits from use of the Gerson Therapy. This K medication is primary to the treatment of tissue damage syndrome (the penetration of Na into tissues), found in all cancers and in most other degenerative diseases. It combines with the other medications and dietary regimen to increase cellular K levels, reduce intercellular edema, and restore normal cell function.
As we alluded before, patients have experienced some misunderstandings using this high-dose K medication, even though instructions are provided on the container. You must dilute the contents of the container holding the concentrated K powder into 32 ounces of water. Spoon the diluted liquid you have created into the juices. Do not spoon the powder itself into the juices or you will be mixing in an overabundant dose. No adverse side effects occur at this usual dosage, except perhaps

for an irritation in the throat due to the strong potassium salts. Eating oatmeal gruel heals the potential throat irritation.
Store the potassium solution in a glass container rather than in plastic or metal. It needs no refrigeration but should be held in a dark closet (pantry) or stored in a brown-or amber-colored bottle or jar. One quart of potassium solution will last from one to three weeks, depending on the prescribed dosage. Discard any of the remaining potassium solution and replace it if, after some time has elapsed, it becomes cloudy.

Chap. 14.3.c.:
Potassium compound for one's enema solution
From : "Charlotte Gerson : The Gerson Therapy

The same potassium solution that is added to juices for drinking may be applied directly to enemas for the relief of abdominal spasms that occur from colon contractions. The dosage of this potassium compound consists of 2 to 3 tsp of K solution placed into each enema. At times, lesser amounts of water combined with the potassium compound for enemas may be required simply because the abdominal spasms may be too great to accept any increased liquid pressure into one's colon. Discontinue adding potassium compound to the coffee enema after six to eight days or it will cause irritation of the colon.

Tissue damage syndrome from cellular poisoning

According to a 1977 published report by Freeman Cope, M.D., a pioneering physician and research physicist, medical science has learned that cellular structures become poisoned by exposure to carcinogens, atherogens, antigens, allergens, and other offending pollutants in our surrounding. The cellular pollutants may cause oxygen starvation, trauma, generalized insult, or other tissue damage of the cells that takes the form of a syndrome, a series of symptoms and signs that manifest themselves in a repeated pattern. Any part of the body can undergo *tissue damage syndrome*, a cycle of cellular destruction, which Dr. Cope defines as "*the damaged configurational state in which the cell proteins lose their preference for association with K+ rather than Na+ , and the water content of the cell increases* (*the cell swells*)"

As described by Dr. Cope, the tissue damage syndrome presents an ill patient's dysfunctional cells with this series of pathological symptoms:

1) The damaged cells lose potassium
2) The involved cells readily accept sodium
3) The cells swell with too much water

The symptom that may be recognized most readily by the attending health professional is then labelled *cellular edema*.

Cellular edema does not allow for the manufacture of energy in the form of adenosine triphosphate (ATP). ATP is the energy storage compound of the body; it's the energy currency that results from burning sugar through oxidation. ATP gets manufactured, then it's used up, is manufactured again, and becomes used once more on a continuous basis. During the course of this metabolic process, ATP liberates bursts of energy for cellular use. ATP is an adenosine molecule possessing three strong phosphate bonds that contain the required energy. The cell must have ATP or it dies. If

enough cells die, tissue dies. If too many tissues die, an organ or body part dies. If too many organs die, the person dies.

When an excessive amount of water is present in the cell, the production of ATP is inhibited or stops altogether. At the same time, protein synthesis and lipid (fat) metabolism stops. On the Gerson Therapy, the damaged cell is confronted with less sodium, is allowed to bind with potassium, is delivered of its excess water content, and is improved in its mitochondrial function. Certain organelles, those tiny chemical factories inside of each cell called "*mitochondria*", perform the energy functions of burning sugar with oxygen, synthesizing protein, and metabolizing fats.

To eliminate the excess cellular water which shows up as edema, before Dr. Freeman Cope described and named tissue damage syndrome, Max Gerson was treating the condition as far back as the 1920s. Dr. Max Gerson eliminated sodium from the diet, fashioned an eating program that was high in potassium, supplemented the diet with additional potassium, and developed the means to remove from the bloodstream toxins that inhibit normal cellular enzyme functions, metabolism, and respiration.
To paint a defining picture of just what tissue damage syndrome is, think of Dr. Cope's discovery in this way. See the cell as an industrialized nation with its mitochondria as the nation's industrial cities. They are the cities of industry. When a cell (as the nation) has lost potassium, gained sodium, and swollen with water, it's equivalent to all of its cities' sewers backing up. Then the industrial cities are shut down in their function. Energy cannot be made by the cities of industry to clean out the sewers. The entire industrialized nation (that damaged cell) becomes over-polluted, becomes severely dysfunctional in every facet of its existence, and dies. Tissue damage syndrome has been the responsible agent for cellular death.
By eating the saltless diet and supplementing with elevated doses of potassium, clinically undiscernible but laboratory-measurable tissue damage syndrome can be avoided. During the time that Dr. Max Gerson was writing his life-saving book "*A Cancer Therapy Results of Fifty Cases and The Cure of Advanced Cancer by Diet Therapy: A summary of 30 Years of Clinical Experimentation*" this information was published in the *American Cancer Society*'s health professionals' journal Cancer ([1416]). There is no better means of removing the puffy malfunctioning sphere of partial metabolites and cellular edema from diseased tissue materials than application of the Gerson Therapy's saltless and high-potassium diet.

Note 1: it is very important to use great quantities of fresh fruit shakes and organic fresh vegetables, as great quantities of potassium and magnesium are lost by the body through diarrhea caused by enemas. Thus, it is also necessary to do regular blood tests, especially for potassium.

Note 2: in other therapies described by other authors, *Aloe vera* enemas were performed, with procedures very similar to Gerson's method. Using *Aloe vera* for enemas could be as effective as using coffee, or even better, as this plant has choleretic effects for the liver (that is, it detoxifies bile ducts) and laxative effects for the guts. In this way toxic substances are not reabsorbed by the gut walls.

Personally speaking, the author does not consider the use of opioids opportune under any circumstances, unless it is absolutely necessary because the cancer patient is in a painful and disabling condition which other medicines or phyto medicines cannot remedy: this is to prevent losing the active collaboration of the patient in the multifactorial therapy set forth in this work, where apparently marginal factors like diet on the contrary have a primary importance if a suitable therapy is to be correctly followed.

Chap. 15: Phytotherapics with antiangiogenesis action

The term *angiogenesis* refers to the process of ramification and growth of pre-existent blood vessels, whose walls are made up by only one layer of endothelial cells. During the regular growth process, angiogenesis helps the body to repair damaged tissues. Growth of blood vessels is regulated by proangiogenic and antiangiogenic factors produced by the body. This mechanism is activated by substances such as the *Vascular Endothelial Growth Factor* (VEGF), and is deactivated by growth inhibitors such as Thrombospondin.
When the mechanism that controls this equilibrium is altered, such as in tumours, an anarcoid net of blood vessels is created. Angiogenesis is thus the growth of small blood vessels that, in oncology, are particularly important: it is possible to use substances capable of inhibiting tumour growth through blocking the growth of its vessels in a rather selective way. This has a special importance, given the high interstitial fluid pressure (H-IFP, see: Jain R.K.: *Barrier to Drug Delivery in Solid Tumors*, Scientific American, Science, July, 1994) that in tumour masses hinders penetration of antineoplastic drugs, of *Natural Killer* lymphocytes, *Killer* lymphocytes, macrophages and cytotoxic T cells ([391]).

The first proangiogenesis molecule was discovered in the 70s and was called VEGF (*Vascular Endothelial Growth Factor*), but it was considered to be a simple vascular permeability factor.
In fact, it is the most important proangiogenic factor in tumours.
Isolated in 1989, it can be deactivated in different ways:

1) Specific Monoclonal Antibodies that deactivate the molecule.
2) Soluble forms of VEGF cell receptors, that are able to catch the growth factor before it links to the cells.
3) Small molecules that can enter the cells and block growth messages that VEGF sends to endothelial cells after linking to receptors on the outer surface.
4) Use of *Alfa-Interferon.*
5) Metal proteinase inhibitors: these molecules block the release of VEGF from where it is accumulated inside the extracellular matrix.

In any case, even small residual quantities would be enough to sustain the proliferative action of the tumour, as the action of VEFG is effective also in very low concentrations. Furthermore, the tumour can still use other substances, such as the fibroblast growth factor and Interleukin 8. Since the 60s researchers noticed that when the primary tumour mass is removed, the small metastases start growing very quickly, as if the production of tumour inhibiting substances stopped when removing the tumour. These inhibiting substances were later identified by Folkman in 1994 (Angiostatin) and in 1997 (Endostatin); ([113]).
About twenty more substances with antiangiogenesis action are now being studied ([55, 115, 384,518]), many of them are natural.
For example, *Camellia sinensis* (green tea) should have some inhibitors of Gelatinases; in *Rene Caisse* ([517, 520]) tea there could be an angiogenesis inhibition factor, *Genistein*, contained in the flowers of *Trifolium rubeus*; shark cartilage was considered in the past ([518]), and so it was sold in products that were suitable for administration in patients unless they had had surgery in recent times, and in any case in absence of clinical records of *Angina pectoris*, heart attacks, TIA (Transient Ischemic Attack), RIND (Reversible Ischemic Neurological Deficit), Ictus and other severe vascular conditions.
For lung tumour (not with small cells), the natural inhibitor *Neovastat AE-941* was discovered, and *BMS275291* was synthesized; for breast and prostate cancer, *Marimastat*® was synthesized, for kidney tumour and multiple mieloma *Talidomide*® was suggested.
But most of all, it was discovered that *Alfa-Interferon* would inhibit the release of growth factors such as VEGF. Therefore, as *Alfa-Interferon* is a part of the Immune Cascade produced by the body

itself against the tumour (see chapter 4), according to the author of this work all this should be considered as one more reason not to perform chemotherapy under any circumstances.
Resveratrol is contained in *Vitis vinifera*, in *Poligonum cuspidatum* and in *Yucca schidigea* ([1118]), and it has shown to be effective.
Morinda citrifolia can also inhibit angiogenesis ([1172]).

http://www.erbeofficinali.org/dati/nacci/studi/articolo%20sul%20NONU%20(morinda%20citrifolia)%20attiva%20contro%20tumore%20al%20cervello_1.pdf

Other plants
Combretum coffrum is a characteristic tree in South Africa, and its roots contain Combrestatin. This substance acts on blood vessels, diminishing their flux, with a different mechanism from angiogenesis inhibitors. Combrestatin A4 interacts with microtubules forming the cytoskeleton of endothelial cells. The latter change their shape, they become round and interrupt blood flow in small blood vessels. The quantity of nutrition that arrives to cancerous cells is then reduced, and cancerous cells die.

It is accepted that aberrant angiogenesis essential for the progression of solid tumours and haematological malignancies, thus, antiangiogenic therapy, is one of the most promising approaches to control cancer.

Perillyl alcohol (POH) which is the hydroxylated analogue of Limonene, has the ability to interfere with angiogenesis ([1604]) Lautrari H.: *Perillyl alcohol is an angiogenesis inhibitor*, J. Pharmacol. Exp. Ther. 311, pp.: 568-575, 2004.
http://www.erbeofficinali.org/dati/nacci/studi/Perilly%20alcohol%20inhibitor%20of%20ANGIOGENESIS.pdf

Limonene showed antiangiogenic and proapoptotic effects on human gastric cancer implanted in nude mice, thus inhibiting tumour growth and metastasis (Guang : *Inhibition of growth and metastasis of human gastric cancer implanted in nude mice by d-limonene* World J. Gastroenterol. 10, 2140-2144, 2004).

Note: against tumour biopsy

The author of this work is absolutely against any type of biopsy on malignant tumours or suspect malignant tumours. Clinical experience in the past few years has almost always shown the metastatizing explosion of malignant tumours if **partially** removed.
This metastatizing explosion must be probably traced back to the proangiogenic effect of inflammation, that is the result of the inappropriate biopsy.

Chapter 16: Based-Protocol of Dr Giuseppe Nacci (M.D.), for Cancer Therapy

Note 1: This diet-therapy is here outlined but it is important to remember that only a medical doctor can prescribe it and that doctor Nacci waives all responsibility in case of people who want to undergo it without consulting a medical doctor.

Note 2: This diet-therapy is USELESS in patients under CHEMO-Therapy and/or after CHEMO-Therapy.

Patient that have received Chemo-Therapy can have well over a lethal amount of Chemo-Therapy lodged within their body. When this therapy begins to work, it can very quickly dislodge toxins, including Chemo-Therapy residue from cells, into the bloodstream. Patients with these large amounts of toxins being released into their bloodstream often cannot detoxify their body fast enough if they are using this standard intensive therapy and patients may be prone to liver failure.

The diet should be very poor in Sodium Chloride (NaCl), Glucose, Yeasts, Proteins (is "protein" if has ALL 9 ESSENTIAL AMINO-ACIDS) Folic acid, vitamin B12.

Therefore the following foods should be excluded: Meat, Eggs, Milk (it's liquid Meat), milk by-products (Cheese, Cream, Ice-cream, Yogurt, Butter…), Yeast and/or Mushrooms, Algae, plant Sprouts, and other (SEE below).

1) **NOT Milk** (it's liquid Meat), and **milk by-products** (**Cheese, Cream, Ice-cream, Yogurt, Butter**…) ; they contain Growth factors, CASEIN, ALL 9 ESSENTIAL AMINO-ACIDS, Folic acid, and vitamin B12; note: Sodium Chloride in Cheese

2) **NOT Meat**, **Ham**, SALUMI, **Liver**, **Lard**…: they contain ALL 9 ESSENTIAL AMINO-ACIDS, Folic acid, and vitamin B12; note: Sodium Chloride in the Ham and Salumi sausage (salted pork meats).

3) **NOT Eggs** : they contain ALL 9 ESSENTIAL AMINO-ACIDS, Folic acid, and vitamin B12;

4) **NOT plant Sprouts** : they contain ALL 9 ESSENTIAL AMINO-ACIDS, Folic acid, and vitamin B12;

5) **NOT brewers' Yeast and/or Mushrooms (NOT Bread and/or Pizza):** they contain ALL 9 ESSENTIAL AMINO-ACIDS, Folic acid, and vitamin B12;

6) **NOT Algae:** they contain ALL 9 ESSENTIAL AMINO-ACIDS, Folic acid, and vitamin B12;

7) **NOT Sugars** (high glicemic curve) : NOT sugar Beets, Chips, Cornflakes, Crisps, Jam, Molasses, Muesli, Popcorn, Raisins.

8) **NOT Aspartame (E951)** it induces cancer http://www.ehponline.org/docs/2007/10271/abstract.html

9) **NOT Pickles**

10) **NOT American Pasta** (it has Folic acid for FDA-Law (In 1998, food fortification with folic acid became required by the FDA for a variety of grains, flour, and baked goods.)

11) NOT Margarine, hydrogenated vegetable Fats, Coconut, palm Oil : saturated fats and they damage cell walls and hinder the action of vitamin F

12) **NOT Saccharine** (E954)

13) **NOT vitamin integrators** (both synthetic and natural), if containing PABA, Folic acid, vitamin B12, SAM (S-adenosil-methionine), Carnitin (2 essential amionoacids: Lysin and Methionin)

14) **NOT dried Fruit** (it contains a lot of ESSENTIAL AMINOACIDS) : *Corylus avellana* (hazelnuts), *Olea europaea* (olives), *Pinus pinea* (pine nuts), *Castanea sativa* (sweet chestnuts),*Juglans regia* (walnuts), *Arachis hypogaea* (peanuts), *Pistacia vera* (pistachios), *Prunus amygdalus* (almonds);

Note: be careful with seeds of bitter almonds (*Prunus amygdalus*), because they contain a lot of vitamin B17. This makes 2-3 bitter seeds lethal for a child, and 12-15 lethal for an adult weighing 70 kg. On the other side, they are extremely effective on cancer (SEE chapter 7).

Blood values to check every month:

Total proteins: these are very important, patients must follow a hypoprotein diet, with limit values ranging from 6.0 to 6.2 g per 100 ml blood.
Lower values are dangerous (denutrition).
The author of this work usually improves lower protein values by prescribing cereals associated to legumes or bluefish.
The use of fruit or vegetable seeds, which are rich in vitamin B17 and unfortunately also in essential amino acids, is therefore very DELICATE, as there is the paradoxical risk of giving protein substances to tumour.

THERAPY

According to the author, the diet should be based on :

* 9-15 daily portions of fresh vegetables, fresh fruit, apple vinegar, ….SEE chap. 1, 2 and 3

* Flax oil (vitamin F)

* 9-15 tablespoons of *Aloe arborescens* (1-2 tablespoons every 2-3 hours), and/or ESSIAC formule (only 4 plants, without *Trifolium pratense*).

* 9-15 grams/day of natural vitamin C (*Rosa canina, Echinacea species, Emblica officinalis,*

* Magnesium

* *Ananas sativus* **stalk** and /or Papaia (NOT GMO)

* Vitamin B17 and/or Laetrile (Note: it's dangerous : SEE medical doctors)

* *Allium sativum* and *Allium cepa* (organic Germanium and other vitamins, as Allicin, B13…)

The following are useful spices (some of them carry out a specific anti-neoplastic function on an immuno-stimulating and/or apoptotic basis):

Anethum graveolens or *Peucedanum graveolens* (dill), *Hibiscus abelmoschus* or *Abelmoscythus moschatus* (rosemallow), *Angelica archangelica*, *Pimenta racemosa* (Pimenta), *Stirax officinalis* (benzoin), *Dryobalanops aromatica* (borneole), *Aniba roseadora* (Bois de Rose), *Melaleuca alternifolia* (Tea tree) *Melaleuca leucodendron* or *minor* (Cajeput), *Melaleuca quinquenervia* or *viridiflora* (Niaouli), *Cymbopogon nardus* or *citratus* (cymbopogon), *Foeniculum vulgare* or *sativum* (fennel), *Lavandula officinalis* or *angustifolia* (lavender), *Lavandula stoechas* (French lavender), *Myrtus communis* (myrtle), *Pinus mugo* (mugo pine), *Pinus sylvestris* (scots pine), *Salvia sclarea*, *Santalum album* (sandal wood), *Satureja montana* or *hortensis* (savory), *Lippia citriodora* (verbena), *Cananga odorata* (Ylang-Ylang), *Viola odorata* (sweet violet), *Pimpinella anisum* (anise), *Ocimum sanctum* or *tenuiflorum* (basil), *Cinnamomum zeylanicum* (cinnamon), *Elettaria cardamomum* (cardamom), *Eugenia caryophyllata* or *Caryophyllus aromaticus* (cloves), *Coriandrum sativum* (coriander), *Carum carvi* (cumin), *Carum nigrum* or *Nigella sativa* (black cumin), *Curcuma longa* (curcuma), *Artemisia dracunculus* (tarragon), *Melissa officinalis* (lemon balm), *Mentha species* (mint), *Origanum vulgare* (oregano), *Majorana hortensis* (marjoram), *Capsicum frutescens*, *fasciculatum* or *annum* (cayenne pepper, paprika), *Cochlearia armoracia* (radish), *Rosmarinus officinalis* (rosemary), *Salvia officinalis* (sage), *Schinus molle* (Brazilian peppertree), *Sinapsis arvensis* or *alba* (mustard), *Thymus vulgaris* (thyme), *Crocus sativus* (saffron), *Piper nigrum* (black pepper), *Zingiber officinalis* (ginger).

- **OTHER PLANTS**: 20-30 medical plants which have apoptotic activity for the particular type of neoplasia which is occurring (SEE chapter 6) and immunotherapy activity (SEE chap. 9) :
- *Ochrosia elliptica* for breast cancer, *Pereskia bleo*, *Urtica diotica* and *Lamium album* for tumors of the stomach, tumors in female genitalia, lymphomas and leukaemia; *Acalypha indica* for lung tumors; *Malva sivestris* or *vulgaris* for tumors of the larynx; *Cetraria islandica* for melanoma, bone sarcoma and different types of carcinoma; Resveratrol for melanoma, *Epilobium parviflorum* and *Copaifera officinalis* for tumors of the prostate and

the bladder; *Epilobium angustifolium* or *Solanum paniculatum* for tumors of the uterus; the bark of *Betula alba* (birch) for melanoma (betulinic acid); *Salvia officinalis* for lymphomas, leukaemia, epatocarcinoma, and carcinomas of the pancreas, (it is, however, counter indicated for breast tumors); *Mimosa species, Gardenia jasminoides, Quercus robur, Betula alba, Morinda citrifolia, Lepidozamia peroffskyana, Melissa monarda* and *Melissa officinalis* for glioma; *Asparagus racemosus* for human skin carcinoma and carcinoma of the nasopharynx; *Sticta pulmonaria* or *Lobaria pulmonaria, Glechoma hederaceum* for melanoma, bone sarcoma and different types of carcinoma; *Euspongia officinalis* for lymphomas; *Acorus calamus* for gastro-intestinal carcinoma; *Rumex acetosa* for gastric carcinoma; *Equisetum arvense* for lymphoma, leukaemia and pancreatic carcinoma; for tumors of the lungs, kidney and bladder; *Chimaphila umbellata* for tumors in both the male and female genital areas; *Galium aparine* for carcinoma of the tongue; *Lysimachia nummularia, Artemisia absinthium* for gastro-intestinal carcinoma; *Phyllantus niruri* or *Artemisia abrotanum* for peritoneal carcinosis from gastro-intestinal tumors; *Marrubium vulgare* for breast tumors, *Plantago major* for melanoma, bone sarcoma and different types of carcinoma; *Alchimilla alpina* and *vulgaris* for carcinoma of the female genital area; *Meum mutellina* for melanoma, bone sarcoma and different types of carcinomas; *Bacopa monnieri* for sarcomas; *Cerastium alpinum* for carcinoma of the breast and lungs; *Primula veris* or *officinalis* for lung tumors; *Scutellaria baicalensis* o *latiflora* for lung tumors, *Gentiana germanica* for breast carcinoma; *Ailanthus glandulosa* for tumors of the head and neck; *Nelumbo nucifera* for carcinoma of the stomach, *Cissampelos pareira* per carcinoma and leukaemia, *Pimpinella major* and *saxifraga* for carcinomas of the oral cavity, the neck and the larynx; *Mormordica charantia* against leukaemia, *Antennaria dioica* for lung carcinoma; *Gnafalium supinum* or *Erythrina mulungu* for carcinoma of the stomach, *Asparagus cochinensis* for tumors of the breast and of the lungs, *Verbascum thapsus* or *densiflorum* for melanoma, bone sarcoma and different types of carcinoma; *Lapsana communis* for tumors of the breast (hypothesized); *Erythroxylum catuaba* for melanoma; the flowers of *Trigonella foenum graecum* (only in an infusion) for lymphoma, leukaemia and pancreatic carcinoma; *Maytenus illicifolia* for cancer and leukaemia, *Antyllis alpestris* for lung carcinoma, *Cerastium alpinum* for carcinoma of the stomach; *Sida cordifolia* for leukaemia, sarcoma and carcinoma of the nasopharynx; *Erithrea antaurium* or *Boerhaavia diffusa* for gastro-intestinal carcinoma; *Houttuynia cordata* for lung carcinoma, *Inesinae calea* for carcinoma and leukaemia; *Maytenus krukovit* for melanoma; *Physalis angulata* aut *Muehenbeckia volcanica* for leukaemia and testicules tumors, *Sempervivum montanum* for leukaemia and lymphomas; *Cayaponia tayuya* for sarcomas, *Pfaffia paniculata* per cancer and leukaemia, *Serenoa repens* for carcinoma of the prostate; *Uncaria tomentosa* for some types of leukaemia; *Pedicularis rostrato-capitata* for carcinoma of the breast; *Marasdenia cundurango* for gastric carcinoma; *Primula hirsuta* for carcinoma of the breast; *Saxifraga oppositifolia* for carcinoma of the breast, the uterus and for leukaemia, *Alpinia oxyphylla* for leukaemia, *Cupressus lusitanica, Argyreia speciosa* (or *Lettsomia nervosa*), *Aquilaria agallocha, Hypericum richeri, Grindelia camporum* or *squarrosa, Althaea officinalis, Argemone mexicana, Cinnamomum zeylanicum, Myroxylon balsamum, Saxifraga aizoides, Mahonia aquifolium, Pulmonaria angustifolia* or *officinalis, Bambusa arundinacea, Peucedanum ostruthium, Rubia cordifolia, tinctorium* or *peregrina, Draba aizoides, Campanula latifolia, Polygala senega, Smilax sarsaparilla* or *utilis, Citrullus colocynthis, Albizzia lebbek, Celastrus scadens, Myrica cerifera, Nepeta cataria, Taraxacum officinalis, Galphimia glauca, Adiantum capillus veneris, Drosera rotundifolia,* or *anglica,* or *intermedia, Annona squamosa, Thymus serpillum, Sysymbrium officinale, Larrea mexicana, Aralia racemosa, Actinidia chinensis, Crocus sativus, Buxus sempervirens, Viola tricolor, Sambucus nigra, Laurus nobilis, Tephorosia purpurea, Myristica fragrans* and *sebifera, Tabebuia impetiginosa, Larrea divaricata, Eclipta alba, Ailantus glandulosa, Rosmarinus*

officinalis, Thymus vulgaris, Hyssopus officinalis, Luffa operculata, Apium graveolens, Artemisia dracunculus, Crataegus oxyacantha or *monogyna, Chondrus crispus, Panax ginseng, Ajuga reptans, Ajuga piramidalis, Tinospora cordifolia, Leucanthemopsis alpina, Emblica officinalis, Moringa pterygosperma, Eupatorium perfoliatum,* or *purpureum, Glycyrrhiza glabra, Hieracium pilosella, Morinda citrifolia, Xantoxilum fraxineum, Trifolium pratensae, Sutherlandia frutescens, Arctium lappa, Ulmus rubra, Rhodiola rosea, Rumex crispus, Boswellia serrata, Rheum palmatum* or *officinale, Echinacea purpurea, angustifolia* or *pallida, Astragalus membranaceus, Hypoxis hemerocallidea, Lycopodium clavatum, Tribulus terrestris, Picramnia antidesma, Cassia angustifolia, Rhamnus sagrada* or *purshiana, Rhamnus frangula, Terminalia chebula, Ocimum basilicum, sanctum* o *tenuiflorum, Capparis spinosa, Lonicera coprifolia, Cardamine pratensis, Carpinus betulus, Carlina acaulis, Curcuma longa, Holarrhena antidysenterica, Lepidium meyenii, Stachys arvensis, Polygonum aviculare, Geranium robertianum, Myrtus communis, Melaleuca alternifoglia, Cinchona calisaya* or *succirubra, Azadirachta indica, Lepidium meyenii, Calendula silvestris, Schinus molle, Ilex paraguariensis, Cassia occidentalis, Cynara scolymus, Phyllanthus orbicularis, Zingiber officinale, Goniothalamus species, Myroxylon balsamum* or *pereirae*

The importance of CEREALS

It is extremely important that cereals are wholemeal cereals.
Of course, flour is the basic form to have them as pasta, bread, or polenta. Wheat is the most widespread cereal. Gluten is contained in its seeds in an ideal proportion, and it makes it particularly suitable for rising and bread-making. There are two varieties of wheat: hard wheat (*Triticum durum*) and soft wheat (*Triticum aestivum* or *vulgare*). The percentage of amino acids contained is about 13% (*Triticum vulgare*) and 12,5% (*Triticum durum*), but all 9 essential amino acids are never present together. With the introduction of milling by steel wheels, that took the place of traditional grindstones, the large-scale production of white flour started. This flour is refined, and has kept its energetic value, but not its nutritious value (vitamins), as it does not have the outer layers of the grain (bran) nor the wheat germ (vitamin E).

What happens is that very often companies try to add bran to white flour again, but the product obtained cannot be compared to true wholemeal flour: the true semolina has indeed a quite uniform amber colour, compared to these mixtures that are easy to recognize (characteristic inhomogeneous look with brown parts that are darker or whiter).

Other cereals: rice (amino acids: 6%), millet (amino acids: 11%), barley (amino acids: 11%), oat (amino acids: 12%), sweetcorn (amino acids: 9.5%), rye (amino acids: 16%), amaranth (amino acids: 16%), emmer wheat (amino acids: 12%). The 9 ESSENTIAL AMINO ACIDS are NEVER present together.

Common buckwheat (*Fagopyrum esculentum*) is not a cereal, but something different. It is particularly rich in lysine (as LEGUMES) and tryptophan, and the amino acid percentage is about 11%. It contains a lot of Iron, Magnesium and group B vitamins, vitamin B17 included. It must not be eaten with cereals because ALL 9 ESSENTIAL AMINO ACIDS could be found together.

Hippophae rhamnoides (Olivello spinoso) is rich of Lysine, as LEGUMES.

Emmer wheat (*Triticum spelta*) does not have a high glycemic curve, contrary to other cereals, so it can be used for people who need to avoid high glycemic peaks, such as for cancer or diabetes patients.

Amaranth and rye are cereals. They have a high percentage of amino acids (16%), and they also contain lysine, an essential amino acid that is almost absent in other cereals. Therefore the risk is to sum up all 9 essential amino acids in case amaranth is eaten together with other cereals (e.g.: bread).

Secale cereale (rye) and *Amaranthus hypochondriacus* (amaranth) are too rich in Lisin.

Note: wholemeal pasta (emmer wheat, kamut, barley etc..), as it is wholemeal, releases starch, so, contrary to pasta made with hard wheat, it has to be carefully drained.
The taste is stronger than the one of white pasta, to the point that, if you don't want to lose the substances that you drain, you can keep them apart for an evening vegetable soup, for example cooking some vegetables in bit of water with half bouillon cube, and mixing them with the drained water, until you get a cream. Many food substances are sold that try to integrate nutrition with a large part of these cereals. You should choose wholemeal flour, without added substances.

POTATOS : Hippocrates Soup

For one person use a 4-quart pot, assemble the following vegetables, then cover with distilled water: 1 medium celery knob (or 3 to 4 stalks of celery), 1 medium parsley root (if available), garlic, 2 small leeks (if not available, replace with 2 medium onions), 1,5 Ibs tomatoes or more, 2 medium onions, and a little parsley.

Do not peel any of these special soup vegetables; just wash and scrub them well and cut them coarsely; simmer them slowly for 2 hours, then put them through a food mill in small portions; only fibers should be left. Vary the amount of water used for cooking according to taste and desired consistency. Keep well covered in refrigerator no longer than 2 days. Warm up as much as needed each time.

Potatos or Cereals

Potatos or Cereals should be taken in adequate quantities (small portions), and only in case of proven necessary (fever, excessive weight loss).
It is advisable to exclude Sodium from the diet (Sodium chloride or sea salt).
Among cereals it is advisable to eat emmer (70 grams for plate).

NEVER mix cereals and potatos: Patients cannot eat potatos and cereals during the same meal.

NOTE: The glycemic curve, caused by the introduction of FRUIT and/or VEGETABLE, (and or CEREALS, or POTATOS) should be always under certain values. Some raw foods could be listed with the specification of the amounts to be taken every hour as acceptable values of maximum glycemic curve tolerable for a diabetic patient.
Only the doctor can establish the best associations among fruits and/or vegetables.

1 liter of liquidized fresh fruit (grapes, fruits of the forest) contains about 800-900 kilocalories, equal to 750cc of milk, or 650 grams of meat or 10 eggs….
Even the fresh fruit which we have is rich in energy:
1 liter of juice from biologically grown apples is 500 kilocalories
1 liter of juice from biologically grown cherries is 450 kilocalories

1 liter of juice from biologically grown pears is 420 kilocalories
1 liter of juice from biologically grown oranges is 400 kilocalories.

3 units of FRUIT and/or VEGETABLE as ¼ LITER / 1 HOUR :

UNITS of Juice (for Light glicemic Curve) :

1/2 Orange
1/2 Lemon
1/2 Apple
1/2 Pear
1/2 Grapefruit
1 Kiwi
1 Pricklypear
1 Plum
1 Peach
1 Pomegranate
3 Aprocots
15 Cherries
60 grams of Grapes
80 grams of Gooseberries
100 grams of Blackberries
100 grams of Mulberries
140 grams of Raspberries
180 grams of Bilberries
180 grams of Whortleberries
180 grams of Blueberries
1/2 fetta of water Melon
1/2 fetta of musk Melon
100 grams of Carrot
150 grams of Pepper
150 grams of Onion
150 grams of Leek
250 grams of “italian Coste”
250 grams of Turnip
300 grams of Cabbage
300 grams of Broccoli
300 grams of Tomato
300 grams of Spinach
300 grams of Beet
300 grams of Brussels sprout
300 grams of Italian “Indivia”
400 grams of Lettuce
400 grams of Artichoke
400 grams of Cauliflower
400 grams of Italian “Cime di Rape”
400 grams of Italian “Verze”
400 grams of Celery
500 grams of Radish
600 grams of Courgette or Zucchini

Food combinations (cereals + legumes)

It is also important not to eat pasta (*Triticum durum, vulgare, spelta*) or Sweetcorn *(Zea mays*), or rice (*Oryza sativa*), or bread together with pulses, because doing so there is an integration of the 9 essential amino-acids (the 8 contained in the cereals + the 8 contained in the pulses), with a nutritional effect similar to the one obtained by eating meat (SEE chapter 1.b: Proteins)
ALL the essential amino acids are: Valine, Isoleucin, Leucin, Lysine, Methionine, Histidine, Tryptophane, Phenylalanine, Treonine.

LEGUMES contain a lot of energy, and, potentially, a lot of proteins. They contain a lot of proteins only together with food containing the missing amino acid (usually Methionine).

Dangerous CEREALS and LEGUMES

Never mix cereals and pulses (LEGUMES) at the same meal, because of the risk of adding together ALL 9 THE ESSENTIAL AMINO ACIDS (which has a similar effect to eating meat, eggs, fish, cheese …..).

Patients cannot eat **legumes and cereals** during the same meal.
Cereals are preferable to **legumes**.
Among cereals is advisable to eat emmer (70 grams for plate)
It is advisable to exclude Sodium from the diet (Sodium chloride or sea salt).
Some useful **Spices** to add to emmer organic **Pasta** (70 grams of "Farro" or "Kamut").

Only the doctor can establish (months – time: 3, 6, 12, 18….), if the patient eat Legumines and Cereals during the same meal and / or Fish

1) **Ematic value: total protein (from 6,0 grams / 100 ml to 6,2 grams / 100 ml), albumin, and other….)**
2) **X-RAY tomography (TAC) images, or Magnetic Resonance Tomography (MRT) images without "ENHANCEMENT EFFECT" (** typical aspect of all malignant tumours with peripheral "bordered" accumulations of "contrast" for"*high density protein of the tumor***), but "good internal perfusion" of the "contrast" (**Iodine with X-Ray tomography, or Gadolinium with MRT**)**

Pulses are allowed:

Medicago sativa (alfalfa, lucerne), *Glycine maxima* (soya), *Cicer arietinum* (chick peas), *Phaseolus vulgaris* (beans), *Vicia faba* (broad beans), *Lens esculenta* (lentils), *Pisum sativum* (peas),), *Ceratonia siliqua* (carob), *Colutea arborescens* (Erba vescicaria), *Trigonella foenum graecum* (fenugreek), *Galega officinalis* (galega), *Lotus corniculatus* (five-finger), *Glycirrhiza glabra* (sweet root), *Lupinus albus* (lupin), *Melilotus officinalis* (yellow melilot), *Trifolium pratense, rubeus* (clover), *Anthyllis alpestris* or *vulneraria* (kidney-vetch, lady's-finger).

Fish

Pay attention to farmed fish because the feed comes from unsafe sources (for example - butchered animals): according to the author small-sized and salt-water fish should be chosen, possibly belonging to species that tend to accumulate only small quantities of polluting substances (for example: anchovies, needle-fish, skullcaps, pilchards, sardines, mackerel, etc...).

Tuna, however, is considered to be a valid nutrient for neoplastic patients as well.

Fish should be eaten only after the immunity cascade has begun, with a noticeable dimensional decrease in the tumour mass, given the possibility that the essential amino-acids found in fish could be assimilated by the tumour cells as well.

The dangers of GM food

Thus, those that are dangerous for health are only GM legumes, as they have ALL nine essential amino acids, as we already know for alfalfa ([745,967]), for GM soya, GM peas, ([1011, 2006]), for GM clover ([1066]), and GM beans. People must know what happens if they use these as food, because the result is a nutrition full of proteins, and not only of energy. This is particularly important for people who have chronic-degenerative diseases (cancer, diabetes, arthrosis, osteoporosis, cardio-vascular diseases, American obesity, etc). The hidden protein intake can nullify nutritional therapies based on avoiding proteins (they are based on totally eliminating MILK, MEAT, EGGS, FISH and YEATS from the diet).

The problem is similar also for GM CEREALS, that were recently introduced in our nutrition. They contain the missing amino acid, usually Lysine.

At the moment, there are three GM cereals being produced and sold in the United States and in the rest of the world: SWEETCORN, RICE, and WHEAT.

Although many patients are very careful about food labels, at the moment we cannot exclude the following facts, based on failed therapy in some cases where the diet was correct:

1) Rice sold in Europe presumably contains Lysine in good quantities, as opposed to organic rice. It also seems that some rice brands sold in Europe also contain the pesticide toxin *Bacillus thuringiensis* (SEE below).

2) Some brands of GM sweetcorn have already been officially introduced in Europe, but we don't know whether they were enriched with all essential amino acids or not, nor how they were modified. It seems that they were modified introducing *Bacillus thuringiensis*, a pesticide toxic substance.

3) At least one fifth of Italian PASTA is made with wheat coming from abroad, usually from America ("*Panorama" magazine*, 2004-2005): no-one can exclude that American flower contains ALL 9 ESSENTIAL AMINO ACIDS.

It would be interesting to study the pasta imported from America to check the presence of: a) ALL 9 ESSENTIAL AMINO ACIDS, by comparison with certified organic wheat (organic wheat contains little or no Lysine).

b) Transgenic toxins (*Bacillus thuringiensis*).
c) Transgenic viruses (SEE chap. 8), that are often used to make GM vegetables.

The problem of WHEAT: the author expresses particular concern about wheat (*Triticum durum*), from which in Italy today we get both pasta and bread: patients suffering from cancer need a lot of energy (at least 2,000 kcal/per day) provided that it comes from food with no Vitamin B 12 and without *ALL 9 Essential Amino Acids*. That is NO animal product: Pasta, together with rice, is (or was) the most suitable food for this. They have already started growing new varieties of wheat in the USA, of the GM variety, the characteristics are not yet known. However it is feared that they may have been enriched with Lysine as in American potatoes, American maize, and American rice.

For this reason, the author expresses serious doubts on the introduction of cereals, pulses and other genetically modified vegetables (often not even declared as such) onto the market that could contain ALL the ESSENTIAL AMINO ACIDS (9), thus effectively rendering Cancer no longer curable as described in the present study.
For example, it has been possible to trace from bibliographical data that the potato (previously considered a cure for tumors), is today absolutely counter-indicated, because the synthesis gene of Lysine has been inserted into it ([689]). This is an essential amino acid that the potato did not have, and a gene obtained from *Amaranthus hypocondriacus* (amaranth, tumbleweed) which is well known to be rich in this essential amino acid. The very same Lysine ([685]) has been introduced into a local variety of potato in Israel, since 1992. In 1997, in the United States, human Casein was introduced into a North American variety of potato, thus making it complete with all the essential amino acids ([687]). In 1998 *Bacillus thuringiensis* was transferred to potatoes by means of GMO technology, and these were fed to mice ([1589]) : the intestinal cells of these mice showed degeneration phenomena and lesions in the microvillus on the surface of the intestinal space; hyperplasia was present in half of the cells and of several nuclei; the thin basal plate of the intestine was damaged in various places; several damaged microvilli appeared with fragments containing endoplasmic reticulum; the *Paneth cells* had a high degree of activation and contained a high number of secretory granules. [note from the author of this site: the resulting picture reminded one, at least to some extent, of ileitis from rays, or "*Baserga syndrome*", well known in the Marshall islands in 1954, where many civilians were exposed to food contaminated by radionuclides of alpha and beta emissions, coming from the fallout of nuclear explosions].
The genetic threat from this experimentation is very little debated with regard to its real problem ([689]).

If the patient manages not to destroy all of his/her own reserves of proteins in muscles, maintaining an energetic physical program, with long walks and exercise suitable to maintain good muscle tone throughout the patient's whole active muscular structure, then the organism will begin to look for protein reserves which are not essential, such as fatty tissue and above all, the neo plastic tissues themselves.

But particular attention must also be paid to other transgenic variants (GM) of plants used for food, which, according to the author, can no longer be used in a cure against cancer, because such plants usually come from abroad and furthermore have been prepared in laboratories in American, Canadian or Japanese industries and are therefore suspected of being carriers of transgenic viruses (with a risk of transgenic diseases); of lacking the important vitamins needed to fight tumors and perhaps of being carriers of substances which inhibit apoptosis in diseased cells (SEE below).
It is because of this that the author expresses serious concern about the introduction on the market of cereals, pulses and other genetically modified vegetables (often NOT declared) which could

contain ALL the ESSENTIAL AMINO ACIDS (Valine, Isoleucin, Leucin, Lysine, Methionine, Histidine, Tryptophane, Phenylalanine, Treonine) thus effectively rendering cancer no longer curable using the treatment described in this work, a work which in its ideals links up to the old therapy of Dr. Gerson, extending it to many other curative plants such as *Aloe arborescens*, for example.

The author of this study thus maintains that if GMO are liberalized, there will be the most serious environmental disaster ever seen, because there will no longer be any possibility of curing cancer with Gerson's diet, or with other food programs as described in this study, which alone were able to cure between 70% and 90% of patients, provided that there was no Chemo-Therapy ([749,750,969]).

NOT Sweetcorn (*Zea mays*): unfortunately it is a lost product, as it has a high transgenic pollution risk. Transgenic sweetcorn is dangerous both because of "*Bacillus thuringiensis*" (SEE chap. 2 and 3) , because Retro-vurus (SEE chap. 8) and added Lysine ([982]) and/or Tryptophane.

NOT Soya (*Glycine maxima soya*): it has a high trangenic risk, just like all of its byproducts, for example Tofu (soya "cheese"). Soya GMO contains too many proteins and ALL 9 ESSENTIAL AMINO-ACIDS, Bacillus thuringensis , and Retro-virus (SEE chap. 8)

NOT Tofu (it's soya "cheese")

NOT GM salmon : it contains transgenic viruses (SEE chapter 8 about transgenic viruses and cancer or Leukaemia).

NOT Peas: transgenic risk ([1011, 2006]).

NOT Beans : trasngenic risk.

NOT Peanuts (*Arachis hypogaea*): transgenic risk

Some Juicing tips offered previously by Dr. Gerson

From: "The *Gerson therapy. The amazing juicing programme for cancer and other illnesses*", by Charlotte Gerson and Morton Walker, Thorsons ed, pp.: 113-125

For the preparation of vegetable and fruit juices, Dr. Max Gerson recommended two machines: a separate triturator or grinder and a separate press. One of his juicing tips was that all parts of the juice machine that come into contact with ground foods should be made of stainless steel. Therapy exponents currently favour one machine in particular which uses these two processes.

Dr. Gerson required his recovering patients always to prepare fresh juices made from organic fruits and vegetables. He advised them never to attempt to prepare sufficient juice for the whole day in the morning. Also, as another tip discussed at length in his original text, Dr. Gerson advises not to drink water because the full capacity of one's stomach is needed for the juices and the Hippocrates special vegetable soup. Components in the soup are readily absorbed through the gastrointestinal mucosa. Water filling up the stomach tends to dilute the action of that organ's gastric acids and digestive enzymes.
This capter gives a complete description of the types of juicing machines along with the juicing process. As compared with Dr. Gerson's original text, here we provide much new information coming from those patients who have prepared their own juices at home and restored themselves to good health. A combination of the enzymatic effect of fresh, whole organic juices plus a therapeutic saltless diet with appropriate , limited, nutritional supplementation and the taking of coffee enemas – all assured means – results in renewed wellness that is long –lasting, natural, and safe. Juicing plant produce and swallowing the result is the most delicious way to good health.

Renew wellness by Drinking organic, Fresh-Made Juices

Juicing and imbibing such juice are integral aspects of the Gerson Therapy program. Unconditionally , the coauthors reaffirm: For any ill individual as well as for someone in a state of good health, drinking fresh-made juices processed from organically grown fruits and vegetables frequently through each day is critical to renewing or maintaining wellness.

An important note: While there are no federal standard for the commonly used combination term organically grown, it'usually refers to produce planted and grown without chemical pesticides, herbicides, or synthetic fertilizers, on farm lands and in groves, orchards, or vineyards that have been free of such chemicals for from three to seven years.

Along with providing sufficient fluid intake, fresh juices furnish nearly all of the nutrients-vitamins, minerals, enzymes, phytochemicals, herbals, and other vital food substances, including even proteins – required for your body to heal itself. Juice drinking is even more important for healing degenerative diseases than eating the same nutrients held in whole food. In fact, juices are food, of course, but in much more assimilable form for use by the gastrointestinal tract. Juice drinking allows for better digestion and greater absorption. By a person's conforming to the Gerson Therapy protocol and consuming thirteen 8-ounce glasses-about 104 ounces of juice daily – this vast amount of liquid plus three vegetarian meals offers the equivalent of between 17 and 20 pounds of food a day. Few people (possibly nobody) could consume that much solid edible material during usual waking hours. Drinking juices allows one to ingest massive amounts of nourishment in a short time.

Degenerative diseases often promote poor digestion for those persons victimized by them. Because of their intoxication from malfunctioning organs, the presence of decreased gastric acids, digestive dysfunction overall, and other such difficulties directly connective with the body's degenerations, such people are likely to suffer from the loss of appetite and an inability to eat at all or to hold and assimilate even small quantities of food. (Such a discomforting condition is known as cachexia).

Yet degenerative disease patients who suffer in this way often are able to keep themselves nourished rather well merely by drinking fresh made juices. The juiced nutrients are far more vital yo one's body than the fiber contents of whole foods. Nevertheless, solid foods must be added to the patient's total intake.

Juicing helped Dr. Gerson heal his patients

In order to bring about healing for his many tubercular, cardiovascular, cancerous, diabetic, arthritic and other patients suffering from degenerative diseases, Max Gerson, M.D., sought out new methods for overcoming their subclinical malnutrition. Even obese persons can lack nutrients. For each ill individual, juicing at home is how Dr. Gerson met the

challenge. And it was a technique which proved valuable. The juices made from raw foods and drunk by these very sick people provided the easiest and most effective means of giving them the highest-quality nutrition. This unique method of feeding that he developed during the approximately thirty-five year period from 1923 to 1958 produced the best clinical results ever witnessed in medical practice by that midpoint in the twentieth century.
Today, with the twenty-first century upon us, the coauthors are reluctant to make changes in a protocol that has been extremely effective for treating, reversing, or sending into near-permanent remission degenerative diseases of all types. These are the kinds of serious illnesses for which pharmaceutical medicine has had very little to offer..

During the course of his thirty years of active clinical practice, however, Dr. Gerson did change his protocol considerably. He repeatedly altered what the physician described as his "juice prescriptions" in response to his patients' blood test results, healing reaction responses, allergies, weight variations, and other metabolic conditions.

The physiological responses of severely damaged or weakened individuals often required him to change the medications and juices on an almost daily basis, especially during their first weeks of following the Gerson Therapy. That is the situation for current patients as well.

Questions and answers about drinking juices

Drinking juices begets large numbers of questions for which there are few answers. For instance, we wonder at but cannot completely answer some of the fallowing queries from those utilizing the Gerson Therapy:

When or how regularly should one drink the juices ?
Dr. Gerson advised that an ill individual should take 8 ounces at least once every hour, but it's not uncommon to find such a regimen difficult to accomplish.

What's to be done as a solution or compromise for being unable to follow the program exactly ? Drink as much as you can, but keep trying to ingest more. In this situation for juicing and drinking, more is better.

How much juice should you drink ?
As mentioned, attempt to consume 104 ounces of fresh organic juice in twenty-four hours.

How soon after actually performing the juicing is the best time to drink down the juice ? Unquestionably, the answer as "At once" !

It is acceptable to store the juice for future drinking ? The direct and uncompromising answer is "No !". But let's face it – if you work at a distance from home and can't lug around a 70-pound juicing machine, taking apple/carrot juices along with you in thermos-type storage containers or 8-ounce mason jars filled to the top is not all that bad. Do it if it's the only way you'll be getting your daily allotment of organic juices. Never keep or take along green juices (made from salad greens) for future ingestion because they oxidize quickly and lose their value.

Do we know what fruits and vegetables may best be combined or are incompatible ? Our observation is that almost all of plant produce is compatible, although Dr. Gerson urged the use of specific combinations of carrot and apple, carrot only, and juice made from various greens. Avoid other juiced produce.

At which section of one's gastrointestinal tract is juice absorption best ?
The entire length of the intestinal tract (23 feet or 7 meters from the top opening of the stomach to the anus) goes to work on enzymes in juices and takes them into the bloodstream. But not too much nutrient absorption takes place in the stomach, large intestine, and rectum.

Are the kidneys flushed more effectively if the recommended juices are consumed ?
Yes, physiological testing has shown that juice enzymes are cleansing agents – sometimes truly diuretic in nature. You can test this concept yourself by juicing large, white asparagus and drinking the product. Drinking celery juice is nearly as good a diuretic too. By drinking juices like these, you'll then urinate a lot, resulting in well-flushed kidneys and a swabbed-out urinary tract.

Some personal rules about juicing

Now we offer a bit of knowledge for you to assimilate. Since the therapeutic enzymes in freshly produced plant juices do oxidize out of existence and into free radical destruction by exposure to the oxygen in air for any prolonged period, we must offer two parts of one definite rule to follow.

If at all possible, try to freshly prepare each of your 8-ounce glasses of juice and drink them down immediately. This is especially important for the very ill patient.
In the morning, do not prepare all juices for drinking during the day in order to store them for later use, because before the day's end you'll probably be swallowing deficient juice with many nutrients missing.

Types (6) of Juicing devices

Partly on an intuitive belief but mostly observing results in his patients, Dr. Gerson presumed that the method of juice extraction decidedly affected the concentration of nutrients his patient took into their bodies.
Forty years after his death, we know from analyses of juices produced by each type of yuicing device that some machines are better than others for the production of quality drinking liquids. Also, the clinical results experienced by patients using each type of juicer provide further support for Dr. Gerson's original presumptions.
Although there are six types of juicers manufactured, which we will describe briefly, our preference focuses on one particular product type. We will cite the lesser machines first and move on the best kind to use this therapy.
Below are descriptions of the forms of juicing mechanisms which do produce vegetable and fruit juices but, compared to the sixth one that we prefer, a few of them hardly provide anything really drinkable in acceptable qualities and quantities.

1) Masticating Juicers
Masticators, as the term describes, chew up the vegetables or fruits and extract their juices in one step. The juice quality is fairly good, but the amount of vegetable or fruit pulp remaining is excessive with some of the plant enzymes being left behind in so much pulp. While the juice produced by masticators is richer in nutrients than that from centrifugal juicers (see below), it is less nourishing than what's acquired from the type of triturator or grinder/press that we prefer. Also, a masticating juicer heats up inside its grinding chamber, which tends to damage the enzymatic quality of the resulting juice.

2) Centrifugal Juicers
By far the most common and least expensive of the juice extractors, centrifugal juicers are also the least desirable for fulfilling requirements of a patient on the Gerson Therapy.
A centrifugal jucer works by pushing the vegetable or fruit part against a rotating disk whose teeth reduce it to pulp. Centrifugal force then throws the plant pulp against a basket screen through which the juice is strained, while the pulp remains behind. Such a mechanism sounds just right, but there are problems with the centrifugal procedure.

1) The produce does not get ground finely enough, particularly in the green leafy sort of vegetable.

2) The centrifugal force is less effective than the pressing action of other juicers in extracting juice. Such inadequate pressing causes minerals and phytochemicals (vitamins) in the pulp to remain in the pulp; thus, the juice that's rendered is lower in healing enzymes and other nutrients.

3) Dr Gerson said about centrifugal juicers, "*When the grinding wheel rotates against a resistance with insufficient access of air, positive electricity is produced and induces negative electricity on the surrounding wall. The exchange of positive and negative (ions) kills the oxidizing enzymes and renders the juice deficient.*" He went on to say that his patients who utilized centrifugal juicers did not experience healing successes with their self-administration of his therapy.

Among the centrifugal juicers, present an enzyme deficiency problem. In contrast, centrifugal juicers with angled-wall juicer baskets (currently popular because of vast amounts of promotion and advertising), don't have such a serious problem. Even so, centrifugal juicers offer an overall lack of nutrients and a reduced quantity of juice when compared with other types. As with the masticator juice machines, the centrifugal types are moderately priced.

3) Wheatgrass Juicers
Being small and highly specialized devices, wheatgrass juicers are designed specifically to extract the chlorophyll-laden juice of wheatgrass.
The Gerson Therapy does not use wheatgrass inasmuch as most patients find it to be extremely harsh for assimilation by the stomach. Besides, the desirable components in wheatgrass are already found in the Gerson green leaf juice, which is recommended for ingestion two to four times every day and is much easier on the digestive tract.

4) Citrus Juicers
Used for orange or grapefruit juicing exclusively, a citrus juice apparatus is a reamer-type device that cannot be used for any other type of fruit or vegetable. One should never use a citrus juicer that presses the skin.

5) Blender / Liquefiers

Certain liquefying machines are powerful blenders and not really yuicers at all. They grind the produce into a fine pulp, but they don't extract its juice. Since there is no reduction of bulk with a blender/liquefier, to derive the nutrients equivalent to those in 104 ounces of freshly produced organic plant juice, a person would need to ingest an alarming quantity of produce. According to our calculations, it would amount to at least 6 pounds of carrots, 8 pounds of apples, and four heads of lettuce every day, in addition to eating three regular meals. That's much too much bulk food for anyone to take into one's digestive tract in a twenty-four-hour period, expecially very ill people with little appetite and disturbed digestive systems.

Yet any juicer is better than no juicer at all. Even the less effective type of juice machine will furnish more nutrients than might be consumed in the equivalent quantity of produce.

But don't let price be the governing factor in choosing your juicing device. At the Gerson Institute, observations have repeatedly been made that some patients rigorously following the Gerson Therapy by use of a lower-cost centrifugal juicer have failed to experience either reductions in tumour masses or healing reactions even after many weeks on the program.

However, when they switched to the grinder/press juicer we're about to describe, their healing reactions occurred rapidly, and many saw dramatic improvements in their conditions. Be advised, therefore, that the choice of an appropriate juicer may be a life-or-death matter.

Among the various kinds of juice machines marketed today, we prefer only a couple of brands coming from the one particular extractor type to which we have alluded. We'll now discuss this sixth kind of juicer.

6) The Triturator (Grinder) / Press combination

Possessing a grinder or triturator for turning vegetables and fruits into a fine, juicy pulp and a hydraulic press for extracting the juice's enzymes from this pulp, the particular juicer – a triturator (grinder)/press combination machine – is the most acceptable choice for people suffering from serious degenerative diseases, especially for cancer patients. It is the juicer type of our preference. After grinding (the definition of "trituration") juice is extracted from vegetable or fruit pulp by being squeezed under high pressure of as much as 2,000 pounds per square inch (PSI).

Dr. Gerson recommended this type of machine above all others and suggested to his patients that they mix the pulp of different vegetables or fruits together thoroughly before pressing to enhance the extraction of certain nutrients. Such a course of action is possible only with a juicer that separates the grinding and pressing functions. Research indicates that Dr. Gerson's selection of a grinder (triturator)/press type of machine produces as much as fifty times higher amounts of certain essential nutrients such as the lycopene in ripe tomatoes or the proanthocyanidin in the seed membranes of grapes, both of which have proven anticancer qualities. Taken from a trituratur / press type of device, the vegetable or fruit juice is much fuller-bodies than that produced by other kinds of juicers. Moreover, it is free of pulp and furnishes about a 35 percent greater quantity of juice from the same amount of raw produce that might have been put through other juicing machines. Green leafy vegetables offer up even more quantity when processed by a triturator (grinder) / press extractor.

How to juice without undergoing a nervous breakdown

Whatever the juicing apparatus one uses, to produce various juices without undergoing a nervous breakdown, particularly during the beginning weeks of the Gerson Therapy program, we have some helpful hints to offer.

The patient or the patient's support person will be spending three to five hours of each waking day in front of the juicer producing the healing liquids that impart nourishment to body parts, tissues, and cells which have been lacking them. (That's one of the reasons the patient's immune system is performing in a lesser manner than it's supposed to).

So, here is our series of what we anticipate will be helpful suggestions:

Place the machine in a location that's pleasant to view –in front of a picture window, next to the sound of music, close to favourite photographs, and so on.

Since wash water for the juicer will be required regularly, have the machine's location be near the sink.

Because the juice goes in undesirable directions on occasion, it's a good practice to place the device on a large cafeteria tray to save your countertop from excessive washing.

It's not uncommon for vegetable pulp (especially carrots and green leafy items) to end up on the ceiling – especially during the first weeks of the juicing regimen. But this occurrence may be minimized by holding the flat of your hand over the open-mounth tube into which the produce is fed. Without letting your fingers get ground with the vegetables, this action will stop produce splatters and feedback.

Wear a large apron to protect your clothing from such splatters too.

Figure in advance how many carrots, apples, greens, peppers, chard, red cabbage, and other produce will be required for each day's juicing. Then scrub and wash them in advance, cut them into smaller pieces, and bag them in sufficient quantity for each session of juicing.

Consider making your clothes washer into a giant "salad spinner" by putting greens for the day into a mesh bag and running them through the "damp dry" cycle on the washer for twenty seconds to get rid of the excess water.

Use small pillowcases wrapped inside a large garbage bag to hold all of the day's greens and keep them from getting limp before use.

Purchase vegetables and fruits several times each week to ensure their freshness. Don't let them sit around for an entire week before they are turned into juice. This suggestion relates to green leafy items in particular. Still, you may need a second refrigerator.

Of course, acquire only organically grown produce, and at all costs avoid plant life that's come in contact with chemicals such as pesticides and herbicides. Chemicals on fruits and vegetables are a major reason that degenerative diseases of all types cause disability and death. Degenerations are known to some members of every family in the form of pathological symptoms.

Inasmuch as some organic produce becomes unavailable when it goes out of season (such as apples), it's advantageous to arrange in advance with your produce distributor for you or the support person to buy and pay for a couple of months' supply (but greens won't keep), to be held in the distributor's cooler until needed by the patient.

If you can afford it, install your own walk-in cooler for the advance storage of *out-of-season* produce.

After each juicing, try to disassemble the machine and wash its separate parts. It's tempting to do this after every third or fourth juicing, but be aware that bacteria or other unwelcome microrganisms may lodge on the food debris.

Use of a sink disposal unit and a sink sprayer hose makes it easier to clean the juicing apparatus.

For a press-type juicer, rinse off pulp from the pressing cloths, wring them out, place in bags, and store them in the freezer. Such an action keeps them microrganism-free.

Once a week, boil the pressing cloths in purified water.

If, after some time, the juice taste is "off" or "pulp explosion" occur too frequently, the fault probably will lie with overused cloths. It's time to replace them because the cloths' pores become clogged with fibers from the pulped juice.

If work or travel make it difficult to produce fresh juices during the day, here is the procedure to follow. Acquire a glass-lined or stainless steel vacuum bottle (thermos) and fill it with juice completely to avoid excess air exposure. Avoid storing green juices, but carrot/apple juice may be stored.

Chapter 17:
Absolute incompatibility of Phyto-Therapy with Chemo-Therapy

According to the author, any use, even in limited, of Chemo-Therapy (Chemo-Therapy) is totally counter-indicated by the use of phyto-therapeutics, given the ample demonstration in medical history of its failure in anti-neoplastic therapy.

In future it will be necessary to consider the legal situation of the doctor who treats his patient with front line Chemo-Therapy, without having previously tried to induce Immuno-Therapy with Phyto-medicines.
No patient who has already been subjected to Chemo-Therapy should undergo the long, complex and demanding therapies described here, because the effects of Chemo-Therapy are such that they remove all possibility of treatment, especially concerning Immuno-Therapy (SEE chapter 4). However, the doctor is allowed to attempt Immuno-Therapy for humanitarian purposes, bearing in mind the absence of any certainty as regards to actually curing the patient, due to the considerable damage suffered because of the previous sessions of Chemo-Therapy: this also applies in the case of low dosage Chemo-Therapy given by mouth, as is done in anti-neoplastic therapies which are today defined as "alternative" because they use Somatostatina-Octreotide, etc…
In fact, often Chemo-Therapy is carried out at the patient's home, with the prescription of pills, capsules, tablets (5 mg *Alkeran*®, 50 mg *Endoxan Asta*®, 25, 50 or 100 mg *Lastet capsules*®, 5 mg *Leukeran*®, 2 mg *Linfolysin*®, 2.5 mg *Methotrexate*® [note: the use of the latter is also allowed for the treatment of rheumatoid arthritis, according to the Italian Pharmaceutical Reference book], 2 mg *Myleran*®, 2 mg *Puretinol*®, 50 or 100 mg *Vepesid*®).
In any case, taking these tablets orally has extremely serious consequences, because the immune system of the gastro-intestinal tract is the most developed of all, given the antigenic load to which the organism is constantly exposed: in fact the cutaneous surface is only 2 square meters, the pulmonary surface is 80 square meters, whilst the gastro-intestinal surface reaches 300 square meters. The gastro-intestinal immune system, being extremely developed, is the reason for which many phyto-therapy medicines are given orally, with the intent of inducing a specific or generic immuno-stimulation towards particular natural antigens found in certain types of plant (SEE chapter 9), but this also explains its extreme vulnerability to Chemo-Therapy, because the latter leads towards a gradual alteration of the intestinal mucous tissues (especially the colon) caused by the death of the lymphocytes present in the mesenteric lymph nodes, in the Peyer Plates and the Lamina propria, etc. Such alteration determines not only a gradual alteration of the functioning of the lymphatic tissue present on the intestinal mucous, but also a gradual paralysis of the lympho-immune structures situated in other parts of the body, with their consequent functional depletion.

This DECLARATION may therefore be summed up as follows:

> Phyto-Therapy, being based mainly on Immuno-Therapy, that is on the activation of the Immune Cascade of the lymphocytes, should not be carried out on patients who are being treated with Chemo-Therapy, or who have been in the past, because of the high improbability of therapeutic success. However, the doctor is free to try Immuno-Therapy, for humanitarian purposes.
>
> Any doctor who is responsible for immuno-therapeutic treatments CANNOT assume the responsibility for following patients who are being treated with Chemo-Therapy, or any other therapy which debilitates the immune defenses, such as External Radio-Therapy, or the prolonged use of cortisones. However, the doctor is allowed in any case to attempt Immuno-Therapy for humanitarian purposes, bearing in mind the absence of any certainty as regards to actually curing the patient, considering the heavy damage caused by the previous sessions of Chemo-Therapy.

Any form of Chemo-Therapy causes irreparable damage to the physical condition of whoever exposes themselves to the action of these poisons called "cyto-toxic medicines".

The Hippocratic oath declares that it is forbidden to administer "poison" to a patient, even if that patient himself asks for it (see the Hippocratic Oath).

These poisons ("cyto-toxic medicines"), enter the bloodstream by means of injections and/or intravenous drips, or by indirect absorption via the stomach or intestinal mucous.
This type of treatment is different from surgery or radiotherapy, which concentrate their effects on specific points of the body (targeted therapy).
Chemo-therapy is used in hospitals when it is possible that cancer cells may be present in other parts of the body other than the primary tumor.
But rarely does Chemo-Therapy guarantee a survival period of at least 5 years, called inappropriately "the treatment period".
Rarely can we talk about "remission": bibliographical data report success in less than 1% in cases of cancer of the pancreas, 3% in cases of cancer of the liver, 7% in cases of cancer of the intestine.....

There are 60-70 cyto-toxic medicines on sale worldwide.
Some of these poisons cause fewer problems than others, such as: insomnia, tiredness, diarrhoea, alopecia, stomatitis, leukopenia, platelet penia, anaemia, nausea, vomiting ....

These are the immediate side effects, well known because they are visibly recognisable.
Rarely do we talk about the more serious and longer lasting effects, the consequences of which deeply deteriorate the life of a patient and the course of the illness. They render useless any therapy based on the immune-stimulation of natural killer lymphocytes, on apoptotic activity and detoxification using extracts of medical plants.
These serious and irreversible damages, which are rarely discussed, are the following:

1) A serious, stable and lasting reduction in the number of particular types and subtypes of white blood cells, which are indispensable for *specific* immune response against a tumor.
2) Somatic type cellular mutation, with the onset of other secondary tumors and/or metastasis.
3) Germinal type cellular mutation (testicles or ovaries), with the onset of sterility, miscarriages or the birth of deformed children from parents who have survived Chemo-Therapy or cancer.
4) Acceleration rather than decrease in the growth of the tumor, with the tumor acquiring cross-resistance to other poisons (glycoproteic membrane pump).

Chemo-Therapy (CH.T.) is not feasible in any way.

These aim to safeguard the patient’s bone marrow for the concurrent basic Immuno-Therapy.
Chemo-Therapy is completely contraindicated in any kind of association with Immuno-Therapy.
In fact, Chemo-Therapy is extremely depletive especially towards the lymphocytes, which have been recognized as being able to identify and destroy the tumoral masses through specific anti-neoplastic Immuno-Therapy (SEE chap. 4). According to the author, it can be asserted that it will only be the patient’s immune defenses which solve the neoplastic pathology, allowing him to make a complete recovery from the cancer. The surgical operation, external radiation, the use of Monoclonal Antibodies (MoAbs) in pre-targeting with radiactive isotopes must be considered merely as support techniques or methods, able to eliminate a certain amount of the primitive tumoral mass and its metastasis, bearing in mind that none of these factors can be considered the main reason for the patient’s complete recovery from the tumor: the possible and effective recovery of the patient from the tumor depends solely on the ability of his immune defenses to recognize and

destroy the tumor itself in a selective and radical manner (SEE chapter 4). The Immuno-Therapy therefore denies that Chemo-Therapy has any value in treating and *curing* the tumor.

General failure of Chemo-Therapy against nearly all forms of tumor: Chemo-Therapy reduces the tumoral mass, but at the great expense of causing severe damage to all the patient's organs and tissues, SEE table 2([1, 2, 7, 9, 12, 15, 18, 19, 23, 26, 31, 32, 33, 35, 36, 42, 44, 46, 50, 53, 54, 57, 60, 64, 65, 67, 68, 70, 72, 77, 80, 81, 82, 84, 88, 89, 90, 91, 92, 93, 95, 99, 100, 102, 104, 105, 109, 107, 110, 111, 113, 115, 117, 118, 121, 125, 127, 128, 133, 135, 137, 139, 140, 149, 150, 151, 152, 160, 162, 164, 166, 167 169,170, 171, 172, 173, 178, 180, 181, 183, ,1035,1067-1073]): It determines medullar deficiency (with resulting infections and drop in the body's immune defense against the tumor itself), hepatic insufficiency and kidney failure, possible development of pulmonary fibrosis with respiratory problems, damage to the heart and to the blood vessels, leukaemia and secondary cancers in a variable percentage. In any case, the neoplasia nearly always recurs, with the tumoral cells particularly resistant to other Chemo-therapeutic medicines, in subsequent cycles of second and third line Chemo-Therapy, until finally it is defined, quite inappropriately, "rescue Chemo-Therapy": in reality, it is a final and destructive Chemo-Therapy, carried out with chemo-therapeutic medicines of different kinds, which are never able to save the patient, and even less to make him reach an effective recovery…"

Chapter 17.1.:
the failure of the Chemo-Therapy

In 1975, Prof. Hardin Jones, University of California, proved for the first time, on a large-scale study that lasted 23 years, that cancer patients refusing to undergo Surgery, Radiotherapy and Chemotherapy (on a free food regime, without following a particolar diet) survived on average 3-4 VOLTE DI **PIù**, whereas patients that were treated with standard medication (Surgery, Radiotherapy and Chemotherapy).

Since then, this observation has been confirmed many times in medical literature, e.g. for breast cancer: survived on average 12 and a half years, whereas patients that were treated with standard medication (Surgery, Radiotherapy and Chemotherapy), died on average within 3 years ([1067]) [*The natural history of breast carcinoma in the elderly: implications for screening and treatment*, Cancer 2004; 100(9), pp.:1807-1813, http://www.mednat.org/cancro/MORGAN_%20cancer_no_chemio.pdf]; in consideration of the aforementioned, multi-centre studies on clinical experimentation on poor women affected by breast cancer, published in 2003-2004, concerning results obtained through various combinations of Chemotherapy, report totally inconclusive results: e.g. periods of approx. 5 months free from illness and an average of 15 months survival time ([1068]) [*Multicentre, phase II study evaluating capecitabine monotherapy in patients with anthracycline and taxane-pretreated metastatic breast cancer*, Eur. J.Cancer, 2004; 40(4), PP:536-542], or in the so-called Salvage Chemotherapy with average survival periods free from illness of only 8 months, with a average response period of 4 months, and progression of the illness within 5 months ([1069])[*Full dose paclitaxel plus vinorelbine as salvage chemotherapy anthracycline-resistant advanced breast cancer: a phase II study*, J.Chemother. 2003,15(6),pp.:607-612], or with survival periods free from progression of the illness of approx, 3 years with an average of about 1 year survival ([1070])[*Phase II study of docetaxel in combination with epirubicin an protracted venous infusion 5-fluorouracil (ETF) in patients with recurrent or metastatic breast cancer. A Yorkshire breast cancer research group study*, Br.J.Cancer, 2004, 90(11),pp.:2131-2134], or with an average survival period of 2 years ([1071])[*Capecitabine plus paclitaxel as front-line combination therapy for metastatic breast cancer: a multicenter phase II study*, J.Clin.Oncol.2004,22(12),pp: 2321-2327], or with a survival period free from progression of illness of 8-10 months, with an average survival time of 18-19 months ([1072]) [*Phase III study of intravenous vinorelbine in combination with epirubicin versus epirubicin alone in patients with advanced breast cancer: a Scandinavian Breast Group Trial*, J.Clin.Oncol.2004, 22(12),pp.:2313-2320]. Lastly, the "compassionate" use of Chemotherapy prescribed orally: "…an open-label, non randomized, compassionate-use study was carried…"([1073])[*Oral capecitabine in anthracycline and taxane-pretreated advanced/metastatic breast cancer*, Acta Oncol.,2004,43(2), pp.:186-189].

Again, in 1990, Prof. Ulrich Abel, of the University of Heidelberg asserted: "*…although chemotherapy drugs produce a "response", i.e. they bring about a reduction in the tumour mass, this reduction does not prolong the patience's survival; what's more, cancer returns more aggressive than before, in that chemotherapy favours the growth of resistant tumour clones. Furthemore Chemo seriously damages the body's defence, namely the immune system, very often kidneys and the liver….*"(*Chemothrapy of advanced epithelial cancer*: *a critical survey*. Hippokrates Verlag, Stuttgart, 1990; Healing Journal, No.1-2, Vol.7, 1990).

According to the data presented by Prof. Abel, patients treated with Chemotherapy present significantly poorer results, in terms of survival, in respect to patients treated with conventional medicine, gruped together and compared per type and stadium of tumour.
Prof. Abel states: "*…an impartial and balanced analysis of medical literature shows an almost nil rate of therapeutic success when employing conventional treatments for the cure of advanced forms*

of solid tumours …." (*Chemothrapy of advanced epithelial cancer*: *a critical survey.* Hippokrates Verlag, Stuttgart, 1990; Healing Journal, No.1-2, Vol.7, 1990).

In 1991, oncologist Albert Braverman wrote: "*…no type of solid tumour that was considered incurable in 1975 is curable today. Many oncologists recommend Chemotherapy for virtually any form of tumour, with expectations that the systematic failure does not discourage …*"

When Chemotherapy is useful

A Board of the World Health Organization declared that Chemotherapy is useful only in 1,5% (one point five percent) of cases.
According to a review of 1.500 scientific publications issued by Prof. Jones of the University of California, the above percentage of success rises to 2%.
Far more optimistic is the Gerson Institute, that reaches an estimate percentage of success (patients who survived five years from diagnosis) of around 15%, with a substantial failure however, of 85% of cases treated, a failure that rises to 93% in the case of intestinal tumours, to 97% in the case of tumours of the liver, to 99% failure if tumour of the pancreas ([749]) [Gerson C.: La Terapia Gerson. Macroedizioni,2002].

The Dubious Validity of Official Statistics

Official statistics reporting cases of therapeutic success of present standard treatments are by no means founded ([1197-1204]). In 1985, Prof John Cairns, University of Harvard, published a devastating critical essay on Scientific American: " *… apart from rare types of leukaemia, it is not possible to note any significant change in the incidence of death rate in patients with cancer following the large-scale use of Chemotherapy. There is no scientific evidence that Chemotherapy can actually cure the various types of cancer that nowadays afflict human society*…".
In 1987, 42 USA Congressmen ask to have a clear picture on alternative therapies that could be used for the treatment of cancer. Among other things, worthy of note is the fact that not even Surgery has been approved as a means for treating cancer, as no study with the traditional control group has ever been carried out to evaluate long-term results. Nor has Chemotherapy ever been approved, but it is only in a phase of experimentation that has been lasting for 50 years.

In essence:
A good "Response Incidence" only means that the tumour appears reduced in volume, but that doesn't mean that it has been defeated.

"Response" means: reduction in the volume of the tumour mass already recognized.

"*Response Incidence*": is the percentage of patients in which a diminishing of the tumour mass already known can be observed, during the months that follow Chemo-Therapy.

"*Response Duration*": means how long the reduction in the tumour mass lasts.

"*Complete Response*": means that the tumour mass can no longer be observed during diagnostic investigations.

"*Partial Response*": reduction by about 50% of the tumour mass.

ECRI (*Emergency Care Research Institute*) studies assert that the "*Response Incidence*", i.e. the reduction of the tumour mass following Chemotherapy, cannot be correlated to the "Prolonging of the patient's survival".

"*Remission*" does not absolutely mean "*longer survival*".

Medical literature concerning Chemo-Therapy never uses terms such as: "healing"
or "quality of life".

Vice-versa, in medical literature on Intensive Chemo-Therapy and Bone-marrow Transplant in the case of cancer with metastasis, statistics published very often refer to results that appear far better than what they actually are.

For example, statistics do not report about those patients that die as a consequence of the onset of infections that occur immediately after bone marrow transplant, that did engraft, with complete failure, therefore, of the transplant.

These patients are referred to by research scientists with the term "premature decease".

For example, the incidence of premature deceases in woman with breast metastasis was reported in 31 case studies published in the years from 1984 to 1994. The average registered was 10% in studies carried out from 1992 to 1994. Vice-versa this percentage rises to 17% when considering only the case studies that refer to 1994.

In other cases, patients that died due to infection do not result to have died because of cancer but appear among the number of "healed" patients.

Cost of Chemotherapy

It is believed that the cost of Chemotherapy for the Italian Government adds up to about 0,4 billion Euros per year.

Chap.17.2.:
Official statistics of Chemo-Therapy

We will now analyse survival times of patients with different malignant tumours after undergoing Chemo-Therapy:

(IV degree Astrocytomas, Head and Neck Cancers, small cell and non-small cell Cancer of the lung, small-cell Bronchial Carcinoma, Breast Cancer, Cancer of the Stomach, Cancer of the Pancreas, Kidney Cancer, Cancer of the Prostate, Ovarian Cancer, Cancer of the Uterus, Colorectal Cancer, acute and chronic myelogenous Leukemias, acute and chronic lymphatic Leukemias, Multiple Myeloma, Hodgkin's lymphoma/ NON-Hodgkin's lymphoma)

Brain Tumours

Percentage of survival after five years, in the case of fourth degree astrocytomas (multiform glioblastomas) is a mere 4-5%. .([1035]) [McLendon R: Cancer, 98 (8), pp.: 1745-1748, 2003 ; http://www.mednat.org/cancro/Allegato%202_Lendon_Alperin.pdf].
This latter scientific article states: "In 30 years, this rate has by no means improved…).

Head and Neck Cancers

Much research work has shown that post-surgical Chemotherapy does not prolong life in respect to patients that are not treated with Chemotherapy, however on a free food regime and no particular diet ([60,435]) [Stell P.M.: Br. J. Cancer, vol. 61, pp. 779-787, 1990 ;
http://www.mednat.org/cancro/Allegato%203_Stell_Rawson.pdf] ; [Chalmers T. in: De Vita: "*Cancro, principi e pratica dell'oncologia*", Lippincott and Co, Philadelphia, 4.a edizione, pp 235-241, 1993].

Some researches – out of twenty-three studies on pre-operatory and post-operatory Chemotherapy – demonstrated that there is no difference between groups treated with Chemotherapy and groups not treated (without any particular diet to follow ([72,74,98,195,397, 449]) [Tannock I.F.: J.Clin. Oncol. , Vol. 6, pp.1337-1387, 1984];[Clark J.R.: Seminars in Oncology, vol. 15, Suppl. 3, pp. 35-44, 1988];[Dodion P.: Raven Press, New York, pp. 525-547, 1986];[Choski A.J.: Seminars in Oncology, vol. 15, Suppl. 3, pp. 45-49, 1998];[Schantz S.P. : in : De Vita V. "*Cancro, principi e pratica dell'oncologia*", Lippincott and Co, Philadelphia, 4 a. edizione, pp. 574-630, 1993];[Jacobs C.: J. Clin. Oncol., vol. 8 pp. 838-847, 1990 ;
http://www.mednat.org/cancro/Allegato%204_%20Charlotte%20Jacobs.pdf].

Finally, according to a recent study (2004) ([1340]), which considered over 7,500 patients, only 2.5% were still alive 5 years after initiating Chemotherapy (this work is available in PDF format at: http://www.mednat.org/cancro/MORGAN.PDF).

Non-small Cell Lung Cancer

There are no evident indications of an advanced stage being influenced by Chemotherapy alone, concerning cases of advanced stage non-small cell lung carcinoma ([2]) [Abel U.: Biomed and Pharmacother, vol. 46, 1992, aggiorn. 1995, pp. 439-452] ; ([241])[Lad T.E.: *Immediate versus postponed combination*

chemotherapy (CAMP) for unresectable Non-Small Cell Lung Cancer: a randomized trial, Cancer Treatment Reports, Vol. 65, No.11-12, 1981 ; http://www.mednat.org/cancro/Allegato%205_Thomas%20E.%20Lad.pdf].

In the case of non-small cell bronchial carcinoma, some studies show an improvement in survival that is not, however, statistically significant being so limited that they do not justify the use of toxic therapies like Chemo.
Authors of extended research work all share the same view on this statement: ([16,39,158,259, 296, 361]) [Bakowski M.T.: Cancer Treatments Reviews, vol.10, pp. 159-172, 1983 ; http://www.mednat.org/cancro/Allegato%206_Marie%20T.%20Bakowski.pdf];[Mitrou P.S.: *Atemw.-Lungenkrhk.*, vol. 12, pp. 544-549, 1986];[Rankin E.M.: Slevin and Staquet, Studi randomizzati del cancro: un inventario critico per locazioni, Raven Press, New York, pp. 447-492, 1986];[Liu R.J.: Seminars in Oncol., vol. 20, pp. 296-301, 1993];[Hansen: J.Clin. Oncol., vol. 5, pp. 1711-1712, 1987];[Browen M.: in: Rosenthal S.: "*Supporto medico del paziente con cancro*", W.B. Saunders Co, Philadelphia, pp. 200-215, 1987]

Even recently, survival percentages have not changed: a Japanese work (2000) showed that 24% of 41 patients undergoing Chemotherapy with Radiotherapy were still alive after 3 years and 10% after 5 years ([1326]). [Japan Clinical Oncology Group Study 9306, Journal of Clinical Oncology, Vol. 20, No.3, 2002, pages: 797-803].

Another Japanese study (2004) demonstrated that only 2 patients out 70 patients treated with Chemotherapy and Radiotherapy responded completely to the therapy. Two years after the treatment 33% of patients were still alive ([1327]) [Yukito Ichinose: *Uracil/Tegafur plus Cisplatin with concurrent Radioterapy for locally advanced Non-Small-Cell Lung Cancer: a Multi-institutional Phase II Trial*, Clinical Cancer Research, Vol. 10, 2004, pp.: 4369-4373 ; http://www.mednat.org/cancro/Yukito%20Ichinose.pdf].

The same results were obtained by a Dutch study (2004), which considered 57 patients undergoing Chemotherapy without Radiotherapy: 50% of patients were still alive after about 4 months, but after one year only 32% were alive and in December 2002, i.e. 2 years and a half after the onset of the therapy, all patients were dead ([1328]) [F.M. Wachters: *Phase II Study of docetaxel and carboplatin as second-line treatment in NSCLC*, Lung Cancer, 2004, Vol. 45, pp.255-262 ; http://www.mednat.org/cancro/Wachters.pdf].

Small-cell Bronchial Carcinoma

In 1986, George et al. wrote "…. *with only a modest percentage of remissions, the incapability of long-term palliatives (contained action of symptoms), and a very modest number of survivors after 2-3 years, even in patients treated at the initial stage of the illness, no treatment with Chemo can be considered a standard in dealing with small-cell lung carcinoma …*" ([127]) [George TK, in : Cancer, vol. 58, pp. 1193-1198, 1986 ; http://www.mednat.org/cancro/Allegato%207_T.%20K.%20George.pdf].
During the following ten years, Klastersky (1995) summarized the most important studies that had been carried out: "….. *recently, a number of different chemotherapy regimes have been tried, in the hope of improving the results by increasing the intensity of the dose. All of these efforts, from the extreme (Chemotherapy with bone-marrow transplant) to the simplest (doubling of doses), have failed. No significant result has been obtained by increasing the chemotherapy doses in the treatment of small-cell bronchial carcinoma, nor has any improvement been noted through the combination of single agents…*" ([223]) [Klastersky J., in Seminars in Oncology, vol. 22, Suppl. 2, pp. 11-12, 1995].
Kokron (1982) observed: "…*in the control group that was not treated with Chemotherapy (however on a free food regime, with no particular diet, n.d.t.) evident advantages were due to the quality of life owing to the absence of side-effects tied to chemo-therapy and to the briefness of the terminal phase of the illness…*" ([232]) [Kokron O., in : Onkologie , vol. 5, pp. 56-59, 1982].

According to a 2004 study ([1340]), which involved about 28,000 patients (some suffering from small cell cancer and others from non-small cell cancer), only 2% of them were still alive 5 years after starting Chemotherapy (the work is available in PDF format: http://www.mednat.org/cancro/MORGAN.PDF .

Breast cancer

There are many scientific works which demonstrate that Chemotherapy is essentially useless in the treatment of the breast cancer ([71, 117, 183, 344, 373, 481]).

[Chlebowski R.T.: *A decade of breast cancer clinical investigation: results as reported in the program/proceedings of the American Society of Clinical Oncology*, *Journal of Clinical Oncology*, Vol. 12, No.9, 1994, pp.: 1789-1795 ; http://www.mednat.org/cancro/Allegato%208_Chlebowski.pdf].

[*A prospective randomized trial comparing Epirubicin monochemotherapy to two Fluorouracil, Cyclophosphamide, and Epirubicin regimens differing in Epirubicin dose in advanced breast cancer patients*, Journal of Clinical Oncology, vol.9, No.2, 1991, pp.: 305-312 ; http://www.mednat.org/cancro/Allegato%209_French%20Epirubicin%20Study%20Group.pdf].

[Hoogstraten B.: *Combination chemotherapy and adriamycin in patients with advanced breast cancer, a Southwest Oncology Group Study*, Cancer, 38, pp.. 13-20, 1976 ; http://www.mednat.org/cancro/Allegato%2010_Hoogstraten.pdf

[Petru E.: *No relevant influence on overall survival time in patients with metastatic breast cancer undergoing combination chemotherapy*, J.Cancer Res.Clin.Oncol., 1988, No: 114, pp.: 183-185 ; http://www.mednat.org/cancro/Allegato%2011_Petru.pdf];

[Walters R.S.: *Arandomized trial of two dosage schedules of mitomycin C in advanced breast carcinoma*, Cancer,1992, Vol. 69, No.2, pp.:476-481; http://www.mednat.org/cancro/Allegato%2012_Walters.pdf].

As far as far the use of different combinations of Chemotherapies is concerned, a number of multicentric experimental studies conducted on women affected by breast cancer and published between 2003-2004 showed inconsistent results: disease-free time of about 5 months and median survival time of 15 months ([1068]) [*Multicentre, phase II study evaluating capecitabine monotherapy in patients with anthracycline and taxane-pretreated metastatic breast cancer*, Eur. J.Cancer, 2004; 40(4), PP:536-542 ; http://www.mednat.org/cancro/Allegato%2013_Fumoleau.pdf]; in case of the so-known "Salvage chemotherapy", the disease-free median survival time was only 8 months with an average response time of 4 months and a disease progression within 5 months ([1069]); disease progression-free survival time 3 years with median survival time of 2 years ([1071]); disease progression-free survival time of 8-10 months with median survival time of 18-19 months ([1072]). Finally, the "compassionate" use of Chemotherapy given by mouth: "*…An open-label, non randomized, compassionate-use study was carried…*" ([1073]).
([1070])[*Phase II study of docetaxel in combination with epirubicin an protracted venous infusion 5-fluorouracil (ETF) in patients with recurrent or metastatic breast cancer. A Yorkshire breast cancer research group study*, Br.J.Cancer, 2004, 90(11),pp.:2131-2134; http://www.mednat.org/cancro/Allegato%2014_Humphreys.pdf],

According to doctor Ulich Abel, there is no direct evidence that Chemotherapy prolongs survival time; this should be noted because all women affected by breast cancer undergo Chemotherapy before and after the surgical intervention ([1306]).

In March 1996, Dr. Nelson Erlick, Director of the ECRI (Emergency Care Research Institute), carried out an extended analysis of the case studies published by the medical literature on breast cancer in the years prior to 1994. 1.500 scientific research works were studied.

On the basis of all the available data, the following resulted:

1) In the initial phase Intensive Chemotherapy and Bone-marrow transplant give a higher "Response Incidence" compared to the standard Chemotherapy. In other words: the tumour mass diminishes ("Incidence of Response"). But, this "Response" does not last long and cancer soon after starts to advance one again;

2) Standard Chemo-therapy offers patients with breast cancer metastasis a longer "Duration of Response" (i.e. the number of months during which the reduction of tumour mass lasts longer), and furthermore more patients survive for a year compared to those treated with Intensive Chemotherapy and Bone-marrow Transplant;

3) Scientific research on Intensive Chemotherapy and Bone-marrow transplant has not yet identified any sub-group of population in which this treatment can guarantee a period of non-progression of cancer that is major to that referred to control groups.

Up until the present day, medical literature has never declared that Intensive Chemotherapy and Bone-marrow Transplant may actually heal/cure anyone from breast cancer. Intensive Chemotherapy and Bone-marrow Transplant produce an income of 150-200 thousand Euro-Dollars for each bone-marrow transplant. The latter without considering the high percentage of deceases during the months that follow bone-marrow transplant, owing to fatal infections caused by germs, that occur in patients that are momentarily deprived of adequate immune defences after heavy Chemotherapy and the lack of active bone marrow, that takes time to engraft, notwithstanding the transplant performed in the previous weeks.

As far as this is concerned, it is important to notice that in the *Wall Street Journal* of 17 November 1994, in an article on the front page about politic pressure on insurance companies, so that they paid for bone marrow transplantation in case of advanced stage breast cancer, the experts gave totally negative reports about this sort of approach.

As far as early breast cancers are concerned, Philip Day in his famous book "*Cancer: Why We're Still Dying to Know the Truth*" recounts (pages 20-21) the incredible discovery of Doctor Irwin Bross of *Roswell Memorial Park Institute* in New York:

"… If a woman is diagnosed with early breast cancer, i.e. without metastasis, a simple scientific datum should be known. When a pathologist diagnoses a lesion such as "*an early breast cancer*", in the majority of cases the pathologist makes a mistakes because actually it is not a breast cancer. Most women are affected by a tumour similar to a cancer when seen under an illuminated microscope. It is possible that this tumour will not metastasize, which happens in case of a real cancer. The first controlled clinical trial regarding adjuvant therapies in the treatment of the breast cancer was conducted in my department. Doctor Lesile Blumenson and I made a surprising discovery: more than half patients had a tumour but it seemingly looked rather like a benign lesion. Our discovery did not arouse much interest among professional doctors. They would never accept the idea to admit the scientific truth as at that time the therapy consisted in the radical mastectomy. Admitting the truth could have led some women – whose breast had been removed because of a wrong diagnosis - to undertake legal proceedings against those incompetent doctors. Doctors from *National Cancer Institute* – furious – did not allow us to continue the research. They probably succeeded in covering up our discovery and stopping other publications. Breast cancer and cancer of the prostate have the same statistical results: when the functions of the two sexual organs decrease, cells often become abnormal and look like tumour cells. The Journal of the American Medical Association reported surprisingly high survival times for patients affected from cancer of the prostate which were not treated. This demonstrates that 7 cancers out of 8 were NOT actually cancers. Therefore, there is no reason for women to get into panic when the word "cancer" is pronounced. It is the panic that makes them easy victims…"

According to a recent study (2004) ([1340]), which considered over 42,000 patients, only 1.5% were still alive after 5 years from the first Chemotherapy cycle (this work is available in PDF format at: www.mednat.org/cancro/MORGAN.PDF).

On the contrary, in women suffering from early mammary cancer –i.e. without systematic metastasis to other organs or systems, except for axillary or inner mammary lymph nodes – after undergoing Surgery only (with or without emptying of the axillary lymph nodes but without Radiotherapy or hormonal therapy), the local percentage of disease-free survived patients after 5 years from the operation is 50% if not in menopause and 70% if already in menopause ([1751]).

With Ormonal Therapy, after Surgery, the percentage of disease-free survived patients after 5 years from the operation (if not in menopause) increases to about 70% ([1751])…
With Radiotherapy, this percentage further increases to about 90%. (Franco Bistolfi, SEE : "*La CronoBioDose nella RadioTerapia Esterna*" ; dal libro "*La Terapia dei Tumori con Gadolinio 159 in Risonanza Magnetica Nucleare*", Italo Svevo Editore, ([1755])
http://www.mednat.org/cancro/ALLEGATO%2044.pdf)

With Chemotherapy (before or after undergoing Surgery) the percentage of disease-free survival cases after 5 years decreases to about 75% for these patients, even in the case of new-generation Chemotherapy such as Taxanes ([1752])

Cancer of the Stomach

Kingston evaluated the effectiveness of chemotherapy drugs versus placebo (however on a free food regime, with no particular diet), in patients presenting non-operable gastric carcinoma. The group of 95 patients that underwent Chemotherapy showed an average survival time more or less equal to survival of patients on placebo ([221]) [Kingston R.D.: Clinical Oncology, vol. 4, pp. 55-69, 1978].
The unanimous evaluation of many other authors is that medical literature does not give any proof of prolonging life through Chemotherapy in the case of stomach carcinoma ([178,277,300,358]) [Moertel CG.: Cancer, vol. 36, pp. 675-682, 1975];[Queiber W.: Onkologie, vol. 9, pp. 319-331, 1986];[Hockey M.S.: Slevin and Staquet, Raven Press, New York, pp. 221-240, 1986];[Mc Donald: Seminars in Oncology, vol. 15, Suppl. 3, pp. 42-49, 1988].
Twelve randomized studies, that compared post-surgical Chemotherapy to control patients (on a free food regime, with no particular diet) have demonstrated the more or less same time of survival. ([7,210,171,154]).[Alexander H.L. .in:DeVita: *Cancro, principi e pratica dell'oncologia*, Lippincott and Co., Philadelphia, 1993, 4.a ediz.];[Kelsen D.: Seminars in Oncol., vol. 18, pp. 543-559, 1991];[Hermans J.: J.Clin.Oncol. Vol. 11, pp. 1441-1447, 1993];[Hallissey M.T.: The Lancet, vol. 343, pp. 1309-1312, 1994].

During the last 10 years the situation has not improved. According to a Japanese study (2004) which considered about 500 patients from 1985 to 1997, 8% were still alive 2 years after beginning Chemotherapy and only 2% after 5 years. ([1317]) [Yoshida M., Jpn J. Clin. Oncol. 2004, 34, pages: 654-9, FREE full text article at: http://www.jjco.oupjournals.org]

Other recent works demonstrate that Complete responses were achieved only in few cases; an American research (2005) involving 43 patients affected by Cancer of the stomach and the esophagus showed only one Complete Response and 5 Partial Responses; after 6 months 50% of the patients were alive, after 15 months 20% and after 2 years 12% ([1318]) [Enzinger PC. : *A phase II trial of irinotecan in patients with previously untreated advanced esophageal and gastric adenocarcinoma*, Dig. Dis. Sci. 2005, 50, pp.: 2218-2223; http://www.mednat.org/cancro/Enzinger.pdf].

According to the results of an Italian study (2006) involving 52 patients, 50% were still alive one year after the first Chemotherapy cycle but only 3 cases of Complete Response and 15 cases of Partial Response were observed. We are waiting to know the percentage of patients alive after 2 and 5 years ([1319]) [Felici A.: *Bi-weekly chemotherapy with cisplatin, epirubicin, folinic acid and 5-fluiorouracil continuous infusion plus g-csf in advanced gastric cancer: a multicentric phase II study*, Cancer Chemother. Pharmacol., 2006, 57, pp.: 59-64 ; http://www.mednat.org/cancro/Felici.pdf].

According to a study conducted in Korea, only one Complete Response and 13 Partial responses were observed out of 30 patients undergoing Chemotherapy; median survival time for all patients was 11 months. ([1320]). [Lee SH: Br. J. Cancer, 2004, 91, pages: 18-22].

Another Korean study (2005) considered 43 patients undergoing Chemotherapy from January 2002 to November 2002. Also the results of this study showed the slow decrease of surviving patients: about 40% of them 9 months after the beginning of the therapy, 20% after 14 months, then about 18% after about 20 months and following less than 5% 2 years and a half after the first Chemotherapy ([1324])[Do-Youn: *Docetaxel + 5-Fluorouracil + Cisplatin 3 day combination chemotherapy as a first-line treatment in patients with unresectable Gastric Cancer*, Japanes Journal Clin. Oncol., 2005, 35, pp.: 380-385; http://www.mednat.org/cancro/Do-Youn%20Oh.pdf] .

Another Swiss study (2004) showed that only one Complete Response wasachieved out of 52 patients; 50% were still alive after 9 months, about 24% after 18 months, 20% after 20 months, 18% after 24-30 months and about 10% after 2 years. Survival percentages after 4 years are not known yet ([1323]) [Roth AD: *5-Fluorouracil as protracted continuous intravenous infusion can be added to full-dose docetaxel (Taxotere)-cisplatin in advanced gastric carcinoma: a phase I-II trial*, Ann. Oncol. 2004, 15, pp.: 759-764; http://www.mednat.org/cancro/Roth.pdf].

Another Korean research conducted in 2002 showed that only one Complete Response and no less than 19 Partial Reponses were achieved out of 35 patients receiving Chemotherapy from 1999 to 2001; but the percentage of alive patients was 50% after 10 months, going down then to 20% after 18 months. Survival percentages after 5 years were not published ([1325]) [Eun Kyung Cho: *Epirubicin, Cisplatin, and Protracted venous infusion of 5-Fluorouracil for advanced gastric carcinoma*, Journal Korean Med. Sci., 2002, 17, pp.. 348-52 ; http://www.mednat.org/cancro/Eun%20Kyung.pdf].

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Finally, according to a recent study (2004) ([1340]), which considered over 5,000 patients with cancer of the stomach, only 0.7% were still alive 5 years after initiating Chemotherapy. On the contrary, out of 2,500 patients suffering from cancer of the esophagus, about 5% of them were still alive 5 years after the first Chemotherapy cycle (work available in PDF format at: www.mednat.org/cancro/MORGAN.PDF).

Cancer of the Pancreas

The average time of survival is 3 months in patients that undergo Chemotherapy, whereas in control patients (on a free food regime however, and no particular diet), that have not undergone Chemotherapy, the average time of survival is approx. 4 months ([118]) [Frey C., Cancer, vol. 47, pp. 27-31, 1981]. With Chemotherapy response results of over 30% have been reached (reduction of the tumour mass) ([38,285,321,401]) [Scheithauer W.: Tumor Diagnostik and Therapie, vol. 5, pp. 44-48, 1984; O'Connel: Seminars in Oncol., vol. 3, pp. 1032-1039, 1985;Meyer: *Tumor Diagnostic and Therapie*, vol. 8, pp. 54-58, 1987;Brennan: .in:DeVita "*Cancro, principi e pratica dell'oncologia*", Lippincott and Co, Philadelphia, 4 a. edizione, pp. 849-882, 1993], but the survival period of time, compared to patients NOT treated with Chemotherapy (likewise on a free food regime and no particular diet) does not change.

Even considering more recent studies, the results do not change; for example, in 2006, using new chemotherapeutic agents such as *Gemcitabine* in association with *Docetaxel*, only 3 out of 43 German patients demonstrated a Complete Remission; only 6 patients in all were still alive just one year after starting the therapy…but it is also known that the survival time after 2 and 5 years decreases further ([1309]). [Ridwelski K.: Eur. Pharmacol., 2006, 32, pages: 297-302].

Another study, which was conducted in 2005, considered 46 patients receiving *Gemcitabine* in association with *5 Fluorine-Uracile* (5 F-U); the median disease-free survival time was only 3 months and a half. About 75 patients died already one year after initiating the therapy. Also in this case data on survival time at 2-5 years are not available ([1310]). [Santasusana JM: Clin. Transl. Oncol. 2005, 7, 493-498]

According to a research carried out by the European Organisation for Research and Treatment of Cancer Gastrointestinal Group, at one year the survival rate is about 30% but with percentages of 10% at 16 months and about 1-2% at 2 years ([1311]); [Lutz MP.: J. Clin. Oncol., 2005, 23, pages: 9250-6, Full text article at http://www.jco.org]

Rates of a further research are: 30% one year after initiating the therapy, 10% at about 18 months and about 2% at more than 2 years ([1312]). [Ko A:, J. Clin. Oncol. 2006, 24, pages 379-385].

Better results were not reached even using microembolization and infusion of *Cisplatin*, *Mitoxantrone* and *Mitomycin*. Out of 265 cases treated in Germany between 1995 and 2005, 42-85% of patients were still alive one year after initiating the therapy, but the survival rate fell down to 20% after about 2 years and 10% after 4 years and settled at 5% after 5-6 years ([1313]) [K. Aigner: *Celiac axis infusion and microembolization for advanced stage III/IV pancreatic cancer – a phase II study on 265 cases*, Anticancer Research, 25, pp.: 4407-4412, 2005 ; http://www.mednat.org/cancro/Allegato%2016_Karl%20R.%20Aigner.pdf].

Another research showed only one case of Complete Response and 2 of Partial Responses out of 68 treated patients; the median survival time was 8 months, in particular the median survival time was about 6 months in patients with hepatic metastasis and about 9 months in patients without. In case of peritoneal carcinomatosis, the median survival time was 7 months and a half, as against 9 months in patients without peritoneal carcinosis. Percentages of patients alive after 2 and 5 years are not available. But the study revealed that only one Complete Response and 3 Partial Responses were achieved 54 months (4 years and a half) after initiating the therapy ([1314]) [Oman M.: *Phase I/II trial of intraperitoneal 5-Fluorouracil with and without intravenous vasopressin in non-resectable pancreas cancer*, Cancer Chemother. Pharmacol., 2005, 56, pp. 603-609; http://www.mednat.org/cancro/Oman.pdf

According to the results of another study involving 565 patients, the average disease-free survival

time following Chemotherapy was only 4 months ([1315]). [Oettle H.: Ann. Oncol., 2005, 16, pages: 1639-1645, full text article at: http://www.annonc.oupjournals.org] .

Chemotherapy given by mouth did not produce better results: a study conducted in 2005 on 58 patients treated with Rubitecan by mouth showed a survival time of 17% after 6 months but this percentage falls to 9% already after one year ([1321]).

Finally, another study conducted in 2004 demonstrated that only 20% of 48 patients treated by the North Central Cancer Treatment Group, USA, were still alive 9 months after starting the therapy. This percentage settled in the following months but it slowly decreased reaching 10% at the end of the study, i.e. after 2 years. We are waiting to know the percentage of patients alive after 5 years. ([1322]).

Instead, according to the results of a 2004 study ([1340]) involving over 5,000 patients, none of them was alive 5 years after the first Chemotherapy (work available in PDF format at: www.mednat.org/cancro/MORGAN.PDF).
([1737]) [F. Di Costanzo : *Gemcitabine with or without continuous infusion 5-FU in advanced pancreatic cancer: a randomised phase II trial of the Italian oncology group for clinical research (GOIRC*), British Journal of Cancer, No. 93, pp. 185-189, 2005 ; http://www.mednat.org/cancro/Allegato%2017_F%20Di%20Costanzo.pdf].

Kidney cancer

Survival after two years from diagnosis is notoriously considered an *anedoctal case,* or with very low survival percentages two years after the diagnosis (10-20%), if underwent chemotherapy ([1174,1175]) [Gattinoni L.: *Renal cancer treatment: a review of the literature*, Tumori, 2003, 89(5), pp.: 476-484; Flaningan RC.: *Metastatic renal cell carcinoma,* Curr. Treat. Options Oncol. 2003, 4(5), pp.: 385-390].

According to the results of a 2004 study ([1340]) involving about 6,000 patients, none of them was alive 5 years after the first Chemotherapy (work available in PDF format at: www.mednat.org/cancro/MORGAN.PDF).

Cancer of the Prostate

On the 4th November 1995, the scientific magazine *The Lancet* announces "…. *90% of cases of prostate cancer never become clinically significant. The percentage of survival at 10 years among patients that had never received any treatment (either Surgery, or Radiotherapy, or Chemotherapy, or Hormonetherapy) was 91,5% against 77% of patients that underwent Radiotherapy*…".
Comment of the author on the latter work published: Radiotherapy, as is known, destroys even the local defences, first of all the lymph nodes near the tumour, that abound in Natural-Killer Lymphocytes, unfortunately extremely sensitive to radiations.
Once again *The Lancet*, on 9th December 1995, comes down heavily with the shock announcement: "…. *radical surgery in the treatment of prostate cancer, manages only to spread the illness: monitoring 14 consecutive surgical operations, tumour cells that came from the prostate after the operation were discovered in the blood stream of 12 patients. In those same patients no tumour cells were revealed in their blood stream before the operation took place*…."

According to the results of a 2004 study ([1340]) involving about 32,000 patients, none of them was alive 5 years after initiating Chemotherapy (work available in PDF format at: www.mednat.org/cancro/MORGAN.PDF).

Ovarian Cancer

101 women treated with a standard dose of "Cisplatine" showed the same period of survival as other 306 women treated instead with higher doses of "Cisplatine" ([22,78])[Bella M.: Abstract No. 706, in: Proc. Amer. Soc. Clin. Oncol., vol.11, pp.223, 1992] [Colombo N.: Abstract No. 614, in: Proc. Amer. Soc. Clin. Oncology, vol. 12, pp 255, 1993].
Other studies confirm these results ([81,329,330]) [Conte P.F.: Abstract No. 880, in: Proc. Amer. Soc. Clin. Oncol. 12, pp 273, 1993];[Ozols R.F, "Journal of Clinical Oncology", Vol. 5, pp 641-647, 1987.];[Ozols R.F.: Seminars in Oncol., vol. 21, Suppl. 2, pp. 1-9, 1994].

According to the results of a 2004 study ([1340]) involving about 4,200 patients, only 9% of patients were still alive 5 years after initiating Chemotherapy (work available in PDF format at: www.mednat.org/cancro/MORGAN.PDF).

Cancer of the Uterus and Endometrium

In the case of metastasis cured with different combinations of chemotherapy drugs it is possible to have a partial response percentage of the tumour of over 40%, but according to randomized studies this does not result in any prolonging of survival time. ([31,186,327,455,492,)] [Williams, C.J.: Raven Press, New York, pp. 417-446, 1986];[Thigpen J.T.: Cancer, Vol. 60, pp. 2104-2116, 1987];[Hoskins WJ.in:DeVita:*Cancro, principi e pratica dell'oncologia*, Lippincott and Co, Philadelphia, 4.a edizione, pp. 1125-1152, 1993]; [Omura G.A.: Seminars in Oncol. Vol. 21,pp. 54-62, 1994];[Bonomi P.: J.Clin.Oncol., vol.3, pp. 1079-1085, 1985].
In actual fact, in an extended study on 260 women in class IIb and IV, the combination of Chemotherapy and Radiotherapy proved to be even worse that Radiotherapy alone ([450]) [Tattersall M.H.: J.Clin. Oncol., Vol. 13, pp. 444-451, 1995 ; http://www.mednat.org/cancro/Allegato%2019_M.H.N.%20Tattersall.pdf].

According to the results of a 2004 study ([1340]) involving about 6,000 patients, none of them was alive 5 years after the first Chemotherapy cycle. On the contrary, out of 2,500 patients suffering from cancer of the cervix, about 12% of them were still alive 5 years after the first Chemotherapy cycle (work available in PDF format at: www.mednat.org/cancro/MORGAN.PDF).

Colorectal Cancer

According to Nicholls ([317]) [Nicholls J.: in : Slevin and Staquet, *Studi randomizzati del cancro: un inventario critico per locazioni*, Raven Press, New York, pp. 241-271, 1986] and Kane (204) [Kane M.J.: Seminars in Oncology, vol. 18, pp. 421-442, 1991], the groups of patients not treated with Chemotherapy (but however on a free food regime, with no particular dietary restrictions), showed a major survival time compared to those patients that had undergone Chemotherapy.
Even results obtained on 1523 patients, through hepatic arterial infusion chemotherapy, do not show an advantage in survival and, in contrast with the actual aim of these studies, even present an increase in liver metastasis. ([301,429, 485]) [Soybel D.L.: Current Problems in Cancer, vol. 11, pp. 257-356,

1987];[Weber W.: SAKK Anticancer Research, Vol. 13, pp. 1839-1840, 1993];[Moertel CG.: The New Engl. J. Med., vol. 330, pp. 1136-1142, 1994].
([175]) [Hine K.R.: *Prospective randomised trial of early cytotoxic therapy for recurrent colorectal carcinoma detected by serum CEA*, Gut 25, pp.: 682-688, 1984 ; http://www.mednat.org/cancro/Allegato%2020_HINE.pdf].

Today the situation is not better. According to the results of an American study (2005) considering 110 patients, only a Partial remission was achieved. The average survival time for all patients was 6 months. More impressing was the drop in the number of disease progression-free patients (20%), which settled at 15% after 4 months and fell down to less than 5% 7-8 after initiating the therapy; the reported graph shows the slow but inexorable decrease of alive patients at 5, 10, 15 and 20 months, with a final survival percentage of 10% after 18 months ([1316]).

Finally, according to a recent study (2004) ([1340]), which considered over 30,000 patients affected by colorectal cancer, only 1-3% of them were still alive 5 years after initiating Chemotherapy (this work is available in PDF format at: www.mednat.org/cancro/MORGAN.PDF).

Chronic Lymphocytic Leukaemia

In a recent Polish study carried out on 229 patients who underwent chemotherapy, median survival (50%) for this disease is about 3-4 years, with the survival curve becoming slightly more stable in the following years, with 8-9 year survival values of 30% for patients older than 65, and of 15-20% for adult patients younger than 65.([1176]) [T. Robak: *The effect of subsequent therapies in patients with chronic lymphocytic leukaemia previously treated with prednisone and either cladribine or chlorambucil*, Haematologica, 90, pp.: 994-996, 2005].
In another recent, 10-year long work, 78 patients out of a total of 134 initial patients were subsequently brought to the second stage of therapy, as they were still considered to be able to continue chemotherapy. Progression-free survival turned out to be lower than 3-4 years for more than 75% of the 78 patients. Most of the 56 patients that were thought not to be able to continue clinical trials with the other 78 patients were excluded for the following reasons: *hepatitis B virus* infection, *Listeria monocytogenes* infection, *Zoster virus* infection, persistent cytopenia, autoimmune hemolytic anemia, non-hematologic neoplasia, cerebral hemorrhage, persistently high transaminase levels.([1177]) [F.R.Mauro: *Fludarabine + prednisone + alfa-interferon followed or not by alfa-interferon maintenance therapy for previously untreated patients with chronic lymphocytic leucemia: long term results of a randomized study*, Haematologica 88(12), pp.1348-1355, 2003]

Note: according to the author of this work, dr. Giuseppe Nacci, this sort of exclusions from chemotherapy treatment protocols are very common and tend to alter the final results.

Acute Lymphoblastic Leukaemia in Adults

Recent works regarding life-saving chemotherapy for patients with primarily refractory or relapsed Acute Lymphoblastic Leukaemia carried out on 135 adults show that survival percentages tend to linearize only after the first year from chemotherapy, with survival percentages lower than 20%. After 24 months, the percentage of patients still alive is lower than 10%.([1178]) [Camera A.: *GIMELA ALL –Rescue 97: a salvage strategy for primary refractory or relapsed adult acute lymphoblastic leucemia*, Haematologica, 89(2), pp.145-155, 2004. http://www.haematologica.org]

Acute Lymphoblastic Leukaemia in Children

If treated with chemotherapy, Acute Lymphoblastic Leukaemia in Children has a less dramatic prognosis compared to adults. Indeed, recent studies carried out in 1998 on 2038 children (a very wide sample) show variable survival percentages between 42% and 66.8%, 10-12 years after chemotherapy, with a stabilization of the mortality curve around the fifth-sixth year after treatment with chemotherapy.([1179]) [R. Consolini: *Clinical relevance of CD10 expression in childhood ALL*, Haematologica 83, pp.: 967-973, 1998]

Note: as chemotherapy is notoriously ineffective for most tumours, we wonder why it seems to be so effective in Acute Lymphoblastic Leukaemia. You should keep in mind that many drugs can erroneously give haematological values similar to Acute Lymphocytic Leukaemia, Hodgkin's Lymphoma or Non-Hodgkin's Lymphoma. The patient's immune response to germs or viruses (e.g. Mononucleosis) can also erroneously lead to a diagnosis of tumour. (SEE further).

Chronic Myelogenous Leukaemia

The following reported data have been obtained from 1084 patients who underwent chemotherapy; almost all of them had bone marrow stem cell transplant. In comparison with Acute Myelogenous Leukaemia, the median survival is better: about 60% of patients are still alive after 24 months and the survival curve tends to stabilize on slightly lower values in the following years. The situation for patients with Chronic Myelogenous Leukaemia in the progressive phase is different: only 50% of patients are still alive after 12 months. The percentage drops to 35% after 24 months and then stabilizes around 30%. ([1180]) [De Souza: *Validation of the EBMT risk score in chronic myeloid leucemia in Brazil and allogeneic transplant outcome*, Haematologica, 90, pp.: 232-237, 2005. http://www.mednat.org/cancro/De%20Souza.pdf]

Acute Myelogenous Leukaemia

A recent study of 2004 carried out on 621 elderly patients (older than 60) who underwent chemotherapy shows that the median survival (50%) is just 5-7 months. With an aggressive chemotherapy, less than 10% were still alive after 20 months; on the contrary, with a conservative approach (low-dose chemotherapy), about 20% of patients were still alive after 20 months. This figure dropped to 10% after another 20 months. Both curves drop to less than 2-5% of survivors in the following months. ([1181]) [Pulsioni A.: *Survival of elderly patients with acute myeloid leukaemia*, Haematologica, 89, pp.: 296-303, 2004; http://www.mednat.org/cancro/Pulsoni.pdf] .

In another recent study of 2004, carried out on 258 elderly patients with Acute Myelogenous Leukaemia who underwent chemotherapy with stem cell self-transplant, median survival (50%) goes up to just 8 months. After 24 months, about 23-24% of all patients are still alive. Then this percentage drops after 36 months and 48 months (4 years), when it seems that it finally stabilizes at about 10% of survivors. ([1182]) [Oriol A.: *Feasibility and results of autologous stem cell transplantation in de novo*

acute myeloid leukemia in patients over 60 years old. Results of the CETLAM AML-99 protocol, Haematologica, 89, pp.: 791-800, 2004; [http://www.mednat.org/cancro/Oriol.pdf] .

Multiple Myeloma

About 25% of patients survive five years after treatment with chemotherapy, less than 5% are still alive after 10 years. ([1183]) [Kenneth C. Anderson: *Management of Multiple Myeloma Today*, Seminars in Hematology, vol. 36, No.1, suppl.3, 1999 http://www.mednat.org/cancro/Allegato%2021_Anderson.pdf].

However, another study of 2000 ([1367]) based on a treatment randomization for Stage-1 Multiple Myeloma showed no benefits from chemotherapy compared to absence of treatment.
Last, a recent work of 2004 ([1340]) carried out on about 2700 patients shows that no-one of the patients was still alive five years after the beginning of chemotherapy.
(http://www.mednat.org/cancro/MORGAN.PDF)

Hodgkin's Lymphoma

A recent work of 2003 studied 97 patients who underwent chemotherapy, radiotherapy and stem cell transplant, in a time span of 18 years: from 1982 to 2000. In patients with chemoresistant Lymphoma, median survival (50%) is only two years, with the survival curve stabilizing at 30% five years after treatment. However, in patients with chemosensitive Lymphoma the survival curve goes down slowly and stabilizes in a very good way during the sixth year, with a percentage of survivors of 60% remaining the same in the ten following years. It is thought that the survival curve does not tend to further change.([1184]) [P.L. Zinzani: *High-dose therapy with autologous transplantation for Hodgkin's disease: the Bologna experience*, Haematologica, 88,(05), pp.: 522-528, 2003; http://www.haematologica.org].

Note: as chemotherapy is notoriously ineffective for most tumours, we wonder why it seems to be so effective in Hodgkin's Lymphoma. You should keep in mind that many drugs can erroneously give haematological values similar to Acute Lymphocytic Leukaemia, Hodgkin's Lymphoma or Non-Hodgkin's Lymphoma. The patient's immune response to germs or viruses (e.g. Mononucleosis) can also erroneously lead to a diagnosis of tumour.

It extremely important to remember that Reed-Sternberg cells are typical not only of Hodgkin's Lymphoma, but also of Epstein Barr virus infectious mononucleosis ([1292])[J.Kurtin: *Interfollicolar Hodgkin's disease*, Society for Hematopathology, Hematopathology Specialty Conference, 1996, Discussion, - Case # 5, Mayo Clinic, Rochester, Minnesota,USA http://researchpath.hitchcock.org/socforheme/specialty/Spechem965.html]

The latter study was published ten years ago and stated that Reed-Sternberg cells are different from Hodgkin's Lymphoma's cells. Under the microscope, with immunoperoxidase staining in paraffinated sections, Reed-Sternberg cells that are present in interfollicular Hodgkin's Lymphoma are phenotypically identical to Hodgkin's cells in lymphomas at the stage of nodular sclerosis, mixed cellularity or lymphocytic depression. Indeed, they are all positive both to anti-CD 15 antibodies (Leu-M1), anti-CD30 antibodies (Ber-H2), anti-CD45 antibodies (leucocyte common antigen), and to anti-KiB3 antibodies ([1293])[Wilson CS: *Malignant lymphomas that mimic benign lymphoid lesion: a review of four lymphomas*, Semin. Diag. Pathos. 1995, 12(1), pp: 77-86]; ([1294]) [Fellbaum C.: *Monoclonal antibodies k1B3 and Leu-M1 discriminate giant cells of infectious mononucleosis and of Hodgkin's disease*, Hum Pathos. 1988, 19, pp: 1168-1173].
Reed-Sternberg cells are highly reactive lymphocytes which elaborate a variety of cytokines and

growth factors. According to this article, it is likely that follicular hyperplasia is induced by Reed-Sternberg as a reaction to Hodgkin's Lymphoma. According to Doggett ([1295]) [Doggett R.: *Interfollicular Hodgkin's disease*, Am. J. Surg. Pathos. 1983, 7, pp.: 145-149 1999 http://www.mednat.org/cancro/Allegato%2022_DOGGETT.PDF], Interfollicular Hodgkin's disease stage must be seen as the result of partial involution of the ill nodule, and not as a distinctive sub-type of the disease. In biopsies carried out on patients, one can see different stages of lymph nodes (nodular sclerosis, mixed cellularity, interfollicular areas). Therefore, the types of Hodgkin's Lymphoma with follicular hyperplasia must be differentiated from other diseases, such as para-cortical immunoblastic reactions:

1.a) immunity reactions against various viruses, including Epstein Barr virus ([1296]) [Child CC: *Infectious Mononucleosis. The spectrum of morphologic changes simulatine lymphoma in lymph nodes and tonsils*. Am.J.Surg.Pathol. 1987; 11(2), pp.: 122-132 ; http://www.mednat.org/cancro/Allegato%2023_CHILDS.PDF];

1.b) post-vaccination lymphadenitis ([1297]) [Hartsock RJ.: *Postvaccinial lymphadenitis: Hyperplasia of lymphoid tissue that simulates malignant lymphomas*, Cancer 1968, 21, pp.: 632-649];

1.c) lymphadenopathies of autoimmune disorders such as adult Still's disease ([1298]) [Valente RM: *Characterization of lymph node histology in adult onset Still's disease*. J.Rheumatol. 1989, 16, pp.: 349-354];
1.d) Systemic Lupus Erythematosus (SLE)

1.e) lymphadenopathy associated to drug hypersensitivity ([1299]) [Abbondanzo SL: *Dilantin-associated lymphadenopathy. Spectrum of histopathololgic features*, Am. J. Surg. Pathol. 1995, 19(6), pp.: 675-686]; ([1300]) [Saltstein SL: *Lymphadenopathy induced by anticonvulsant drugs and mimicking clinically and pathologically malignant lymphomas*, Cancer 1959, 12, pp: 164-182].

All these disorders can be associated to para-cortical and follicular hyperplasia.
All these conditions in a benign disease must be separated from Interfollicular Hodgkin's lymphoma.

However, in infectious mononucleosis, a subset of immunoblasts can have cytological characteristics that are virtually identical to those of Reed-Sternberg cells.

The diagnosis of Hodgkin's Lymphoma is supported by a positive immunoreactive test made with anti CD-15 antibodies and a negative immunoreactive test made with anti-CD 45 antibodies.

In Hodgkin's Lymphoma with Reed-Sternberg cells, immunoreactivity to anti-CD 15 antibodies is about 15-20%. However, all previously investigated benign immunoblastic reactions are negative to anti-CD15 tests, and positive to anti-CD 45 tests. According to Reynolds (1301), Epstein Barr virus reactive atypical immunoblasts are however phenotypically similar to Hodgking's Lymphoma cells. Reynolds observed that it is possible to differentiate infectious mononucleosis from Hodgkin's Lymphoma thanks to the following three features:

1.a) Immunoreactivity to CD15 (if Hodgkin's Lymphoma).
1.b) Absence of immunoreactivity to CD15 for Epstein Barr virus reactive immunoblasts.
2.a) Presence of small collarette-shaped T cells around Hodgkin's cells.
2.b) Absence of small collarette-shaped T cells in Epstein Barr virus infectious mononucleosis.
3.a) presence of Epstein Barr proteins in viral infections. ([1301])[Reynolds DJ: *New characterization of infectious mononucleosis and a phenotypic comparison with Hodgkin's disease*, Am J. Pathos. 1995, 146(2), pp.: 379-388 ; http://www.mednat.org/cancro/Allegato%2024_RAYNOLDS.PDF]

The immunophenotype of Reed-Sternberg cells is very variable. Thus, the presence of these cells shouldn't be immediately interpreted as a diagnosis of Hodgkin's or non-Hodgkin's Lymphoma, as the use of CD-3, DAKO-M1 (CD15), L26 (CD 20), BerH2 (CD 30), MT1 (CD 43), DAKO-LCA (CD45RB), UCHL1 (CD45R0), LN2 (CD74) and DAKO-EMA antibodies in patients has been proven not to be fully reliable ([1302]) [Wei-Sing Chu: *Inconsistency of the immunophenotype of Reed-Sternberg cells in simultaneous and consecutive specimens from the same patients*, American Journal of Pathology, vol. 141, No.1, 1992, pp: 11-17]. http://www.mednat.org/cancro/Allegato%2025_CHUENGLISH.PDF

Another work showing that it is difficult to diagnose Reed Sternberg cells in Hodgkin's Lymphoma vs infectious mononucleosis, is the work of Bitsori (1303) [Bitsori M.: Reed-Sternberg cells in atypical primari EBV infection, Acta Pediatrica, Vol. 90, No.2, 2001, pp: 227-229,3]. In particular, the distribution of Leu MI (CD15) antibodies themselves is not reliable ([1304]) [Sewell HF: *Reaction of monoclonal antiLeu M1 - a myelomonocytic marker (CD15) –with normal and neoplastic epithelia 1987*, Journal of pathology, Vol. 151, No.4, pp.: 279-284; http://www.mednat.org/cancro/Allegato%2026_SEWELL.PDF]

Finally, we report the question of differential diagnosis of sarcoidosis and lymphomas themselves, as the former is very often a consequence of chemotherapy ([1305]) [Dickerman Hollister: *Sarcoidosis mimicking progressive Lymphoma*, Journal of Clinical Oncology, 2005, pp.: 8113-8116].

Non-Hodgkin's Lymphoma

In a recent work of 2005, 374 patients who underwent chemotherapy were taken into consideration. Based on the International Prognostic Index (IPI), patients were divided into 4 groups: low risk, low-intermediate risk, high-intermediate risk, and finally high risk. The various survival curves that were obtained are not so different from the ones we already knew from medical literature:
1) median survival (50%) of about one year for high risk patients, with a percentage of about 10% of survivors after the fifth year, and the curve going down in the following years;

2) median survival (50%) of about 3 years for high-intermediate risk patients, with a percentage of survivors of about 25% after the sixth year;

3) median survival (50%) of about 4 years for low-intermediate risk patients, with a percentage of survivors of about 40% after he sixth year and about 37% after the seventh year;

4) median survival (50%) of about 8 years for low risk patients, with a percentage of survivors slightly lower in the following years.([1185]) [M.van Agthoven: *Cost determinants in aggressive non-Hodgkin's lymphoma*, Haematologica, 90(5), pp.: 661-672, 2005].

Note: as chemotherapy is notoriously ineffective for most tumours, we wonder why it seems to be so effective in Non-Hodgkin's Lymphoma. You should keep in mind that some drugs can erroneously give haematological values similar to Acute Lymphocytic Leukaemia, Hodgkin's Lymphoma or Non-Hodgkin's Lymphoma. The patient's immunitary response to germs or viruses (e.g. Mononucleosis) can also erroneously lead to a diagnosis of tumour. For example we quote a recent Italian medicine book ([1307]), Savagno L.: "*I linfomi Non Hodgkin*", Piccin Editore, pp.: 202:

"*… translocation is necessary but not sufficient for the neoplastic transformation of B lymphocytes. The reader should agree that monoclonality is usually a signal of malignancy, however this is not an absolute rule and there are exceptions. We have already seen that, at the beginning of an intense and specific immune (defensive) reaction, lymphocytes proliferate indicating a uniform activation, and only a constraint that physiologically intervenes later makes reactive proliferation self-limiting. An enlightening clinical example is the case of F.R., a 28-year-old young man that underwent*

biopsy in 1994 because of a necrotizing tonsillitis with satellite adenopathy. The diagnosis of 3 different pathologists suggested a malignant lymphoma with small classification differences among the three doctors. One of them had also detected that tonsillar lymphocytes were monoclonal. When the medical oncologist visited F.R., before any antiblastic or radiant treatment, he still had a lymph node measuring 2 cm in diameter in the gonion, while the tonsillar lesion had spontaneously healed during treatment with sulphamidic drugs. A lymph node cytoaspiration showed a homogeneous layer of atypical lymphoblasts that were often in mitosis and that looked malignant. Two days later, when F.R. had to be given the test results, his lymph node had reduced to a maximum diameter of 5mm. A new cytoaspiration was carried out; this showed that there were no more proliferating atypical lymphoblasts. A completely different cell population had substituted them: they were almost exclusively mature plasmacells. Lymphocytes had typically evoluted into blasts, that in their turn changed into plasmacells. This allowed to understand the whole episode correctly: it wasn't a neoplastic disease, but a phlogistic-reactive disease. No antitumoral treatment was therefore given. The young man is now going towards the mature age without lymphoma, ten years after this episode. The lesson here is that monoclonality is almost a constant feature in neoplasias, but in itself it is not enough for an absolutely certain diagnosis…[([1307]), Savagno L.: *I linfomi Non Hodgkin*, Piccin Editore, pp.: 202: http://www.mednat.org/cancro/Allegato%2027_SALVAGNO.PDF]

Conclusion

Paul Winter shows a harsher version of facts and explains the dynamics of the system in this way: "*It is unlikely that a doctor consciously stops an oncologic therapy to protect his business or his career. But every doctor has his own ideas about what is the best treatment, based on what he learned. However, chemo pharmaceutical multinationals have a very strong influence on what is taught to doctors. Doctors are too busy to study more statistics about cancer treatments, and take for granted that what they are taught at university, or what is shown in medical journals, is the best possible treatment, as it is scientifically proven. Nor can they suspect that such treatments are the best thing only for chemo pharmaceutical multinationals, which exert their influence on "high-level medical cultural institutions" belonging to them*… (Winter, Paul: the Cancell Home page, http://www.best.com/handpen/Cancell/cancell.htm).

On 9 January 1991, dr. Martin F. Shapiro wrote on the Los Angeles Times, supporting the idea according to which chemotherapy is NOT curative and that it really has very little effect on the most common types of cancer: "*While some oncologists inform their patients on the lack of evidence that this therapy really works, other doctors could have been mislead by scientific documents that are optimistic about chemotherapy without guarantees. Other doctors are still sensitive to economic benefits. Doctors can earn much more money with chemotherapy than giving comfort to dying patients and their families*…".

Dr. Samuel Epstein stated on 4 February 1992: "*We are worried that the system that was founded against cancer, the National Cancer Institute (NCI), the American Cancer Society (ACS) and about twenty more centres for cancer treatment have mislead and confused the public opinion and the Congress (of the United States) through repeated statements according to which we are about to win the war against cancer*…".

As far as chemotherapy is concerned, the author of this work claims the right to complete freedom of therapy and technical autonomy (art. 12, Italian Medical Deontology Code), because of his contrary clinical beliefs, founded on countless scientific trials. He responsibly chooses to apply more suitable diagnostic and therapeutic remedies, practising what is often stated in legal literature, especially in Amedeo Santosuosso's work ("*Libertà di cura e libertà di terapia. La medicina tra*

razionalità scientifica e soggettività del malato", Il Pensiero Scientifico Editore, 1998, page 57), where he states, as a comment to article 19 of the Medical Deontology Code:

"*…Freedom of evaluation by the doctor is controlled by article 19, called "Refusal of professional performance". According to this article, that substantially reproduces the text of the previous Deontology Code, the doctor can refuse to perform his job, if he is asked to do something against his conscience or his clinical beliefs, unless his behaviour is immediately and seriously harmful for the patient…*"

It should be noticed that this rule is particularly broad and strict. Indeed, it allows objection of conscience not only when the law allows it and according to those procedures, but in all cases. Moreover, it allows to refuse therapies because of mere clinical beliefs, even when no conscience questions are involved. The only limit is about extreme situations, when the patient could be seriously and immediately harmed.

Besides, the Court of Cassation is very clearly in favour of the doctor's autonomy in therapeutic choices. This is a sentence of 2001 (Section IV, sent. n. 301/2001):

"*…It is fair to emphasize the doctor's autonomy in therapeutic choices, because, as medicine has no own scientific protocols based on mathematics, it often implies different practices or solutions that were shown to be effective thanks to experience. These solutions have to be chosen with a careful evaluation of a series of variants that only a doctor can evaluate. This freedom of therapeutic choices cannot be ill-considered nor based only on personal experience. Once the choice is made, the doctor must continue to carefully observe the situation, in order to intervene immediately in case an emergency arises, if he understands that his choice was not appropriate. When all this is realized, the doctor cannot be responsible of a possible failure. To evaluate if the therapeutic choice was right and if he acted out of inexperience, the judge must give an "ex-ante" judgement, that is, he must go back to the moment when the doctor has to choose, and consider the scientific bases of his choice…*".

QUESTIONS to ask your DOCTOR

They are formulated on the basis of a book published by an Australian doctor in 2004: Morgan G.: *The contribution of cytotoxic chemotherapy to 5-year survival in adult malignancies*, Clinical Oncol., 2004, 16, pages.: 549-560 (the attachment is available in PDF format on www.mednat.org/cancro/MORGAN.PDF).

Is it true that out of more than **3,500** American patients undergoing Chemotherapy for **Cancer of the Pancreas**, *none of them* was still alive after 5 years?

Is it true that out of more than **850** American patients undergoing Chemotherapy for **Sarcoma**, *none of them* was still alive after 5 years?

Is it true that out of more than **8,500** American patients undergoing Chemotherapy for **Melanoma**, *none of them* was still alive after 5 years?

Is it true that out of more than **4,500** American patients undergoing Chemotherapy for **Cancer of the Uterus**, *none of them* was still alive after 5 years?

Is it true that out of more than **23,000** American patients undergoing Chemotherapy for **Cancer of the Prostate**, *none of them* was still alive after 5 years?

Is it true that out of more than **3,000** American patients undergoing Chemotherapy for **Kidney Cancer**, *none of them* was still alive after 5 years?

Is it true that out of more than **1,700** American patients undergoing Chemotherapy for **Multiple Myeloma**, *none of them* was still alive after 5 years?

Is it true that out of more than **3,000** American patients undergoing Chemotherapy for **Cancer of the Stomach**, *only 0,7%* were still alive after 5 years?

Is it true that out of more than **14,000** American patients undergoing Chemotherapy for **Colon Cancer**, *only 1%* were still alive after 5 years?

Is it true that out of more than **30,000** American patients undergoing Chemotherapy for **Breast Cancer**, *only 1,4%* were still alive after 5 years?

Is it true that out of more than **5,000** American patients undergoing Chemotherapy for **Head and Neck Cancers**, *only 2%* were still alive after 5 years?

Is it true that out of more than **5,000** American patients undergoing Chemotherapy for **Rectal Cancer**, *only 3%* were still alive after 5 years?

Is it true that out of more than **1,800** American patients undergoing Chemotherapy for **Brain tumours**, *only 3,7%* were still alive after 5 years?

Is it true that out of more than **1,500** American patients undergoing Chemotherapy for **Oesophageal Cancer**, *only 5%* were still alive after 5 years?

Is it true that out of more than **20,000** American patients undergoing Chemotherapy for **Cancer of Lung**, *only 2%* were still alive after 5 years?

Is it true that out of more than **3,000** American patients undergoing Chemotherapy for **Ovarian Cancer**, *only 9%* were still alive after 5 years?

Is it true that out of more than **6,200** American patients undergoing Chemotherapy for **NON-Hodgkin's lymphoma**, *only 10%* were still alive after 5 years?

Is it true that out of more than **1,800** American patients undergoing Chemotherapy for **Uterine Cervix**, *only 12%* were still alive after 5 years?

Is it true that out of more than **800** American patients undergoing Chemotherapy for **Hodgkin's lymphoma**, *only 40%* were still alive after 5 years?

Is it true that out of more than **900** American patients undergoing Chemotherapy for **Testicules tumors**, *only 40%* were still alive after 5 years?

Chapter 18:
Dangerous Plants

Chap. 18.1.:
Plants that are potentially efficient against tumors, but whose heavy side-effects are already known or suspected in their use

1) Dry root of *Asclepias tuberose* (Pleuresy-root): contains glycoside asclepiad, asclepion; its potential apoptotic property is being evaluated, as long as it is active only on tumour cells, with the exclusion of side affects similar to Chemo-Therapy (CH.T.) In the past it was employed to cure plueuresy. Similar to *Bryonia cretica* (Cretan Bryony).

2) *Baptisia tinctoria* (Wild indigo): seems to act as a stimulant of the immune system; its potential apoptotic property is being evaluated, if active only on tumoral cells, with exclusion of side affects similar to Chemo-Therapy.

3) Fresh root of *Bryonia cretica*, (Cretan Bryony) gathered before it blooms: contains several bitter Cucurbitacin compounds, Bryoside, Triterpin bryonol, (crysofanic acid) polysaccharides; its potential apoptic property is being evaluated, as long as selective only on tumour cells, with the exclusion of side-effects like those caused by Chemo-Therapy. Similar to *Aesclepia tuberose*.

4) *Consolida regalis* [Ranuncolaceae] (Royal Knight's spur): Toxic plant the use of which is now allowed only under medical supervision. In the past Castore Durante mentioned it was effective against "tumours". The author of the present work is evaluating its potential apoptic effect, as long as this is selective only on tumour cells and does not produce any side-effects similar to Chemo-Therapy.

5) *Clematis recta* (Ground virginsbower) stem with flower and leaves: contains Anemonin, anemone Camphor; the leaves and stalk are toxic; it acts on the lymph glands, the mammary glands, testicles, prostate gland, urethra; its potential apoptic properties are being analysed as long as only tumour cells are involved, excluding side effects similar to Chemo-Therapy.

6) Dry seeds of *Croton tiglium* (Purging Croton): Forbole fatty acid di-ester, toxic crotin, protein, glycoside crotonoside; its potential apoptic effect is being evaluated, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

7) The dark red milky substance of *Croton draconoides;* perhaps the same as *Croton tiglium* (Purging Croton), its potential apoptic properties are being analysed as long as only tumour cells are involved, excluding side effects similar to Chemo-Therapy.

8) *Daphne mezereum* (Daphne, Spurge Laurel): fresh bark of branches, picked before blooming; contains Daphnine, Umbelliferone, malic acid, mezerean resin; it has a suspected immune-stimulating effect; heals Herpes Zoster; its potential apoptic effect is

being evaluated, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

9) The milky substance of *Euphorbia resinifera* (Resin Sandmat): contains Euphorbon, euphorgenic acid; its potential apoptic effect is under evaluation, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

10) *Euphrasia officinalis* extract (Common Eyebright): contains Rhinantin, Acubin; its potential apoptic effect is under evaluation, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

11) Dried root of *Helleborus niger* (Black Hellebore): it contains hellebrin, helleborin and glucosides similar to Digitalis; it has been employed empirically in non-dynamic conditions of cachesia connected to cancer; it is active also at cardiac-circulatory level; its emuntory function on kidneys, has been proven; its potential apoptic effect is under evaluation, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

12) *Hyoscyamus niger* (Henbane): contains Scopolamine, Atropin; used in the past for respiratory and bladder ailments; its potential apoptic effect is under evaluation, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

13) *Kreosotum species* (Beech wood): contains Guajacol and Creosol; used empirically in the past in the treatment of carcinoma; suspected immune-stimulating action; its potential apoptic effect is under evaluation, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

14) *Lophophutum leandri:* it contains leuco-cyanide components, tanning (hide industry) substances, catechines, bitter substances, traces of Iodine and Bromide; employed empirically ailments connected to liver, tyroid gland (strumi), angina pectoris; its potential apoptic effect is under evaluation, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

15) *Juniperus sabina*: contains Sabinol, Cadinene, Pinene; employed empirically in the treatment of condiloma; its potential apoptic effect is under evaluation, as long as selective only on tumour cells, excluding side-effects similar to Chemo-Therapy.

Chap. 18.2.: Plants to Absolutely avoid using

1) *Aethusa cynapium* [Umbelliferae] (Fool's Parsley) (potentially toxic);

2) *Aconitum nepellus* (True Monkshood): toxic plant, already known: its roots (toxic, like the rest of the plant), are very similar to those of the Turnip;

3) *Alpinia officinarum* (Galanga) (Colic root): contains Amphetamine ([621]);

4) *Anagallis arvensis* [Primulaceae] (Scarlet Pimpernel): Anagallide (potentially toxic);

5) *Arum maculatum* [Araceae] Cuckoo Pint, Aro, Ighero, Gigaro (Toxic);

6) *Bryonia dioica* [Cucurbitaceae]: Cretan Bryony, (potentially toxic);

7) *Camptotheca acuminate:* camptothecin is extracted from this plant, a substance that produces inhibition of the topoisomerases I with severe immune-depleting co-lateral effects of its action on tumour cells;

8) *Cannabis sativa indica* (Maryuana)*:* well known drug and as such causes, in time, serious irreparable damage to the brain;

9) *Centaurea solstizialis* [Compositae asteraceae]: the main active principle uses the receptors for tubulin as colchicin, impeding polymerization through metaphasic shield (Hokanson, Diss. Abstr. Int.B, 37, pp. 1265, 1976); it therefore affects both ill and healthy cells, impeding the polymerization of DNA through a metaphase shield;

10) *Chelidonium majus* (Celandine): contains Chelidonin, Chelidoxantin, Fumarin; causes serious damage to DNA cells, including the healthy ones. A semi- synthetic substance of Chelidonin alkaloid has been obtained from this plant. *Ukrain* has also been derived from this plant, with the addition of 3 atoms of phosphorus. It is still however toxic;

11) *Cicuta virosa* [Umbelliferae] (Mackenzie's water hemlock): Very toxic;

12) *Cinoglossum officinale* [Boraginaceae] (Hounds tongue): contains pyrrolizidine alkaloids, useful in gastroenterology therapy and in treating sores. Note: Toxic to the liver. It seems to have, however, an anti-neoplasm effect although the basis of which is unknown;

13) *Claviceps purpurea* or *Secale cornutum* (Ergot): highly toxic;

14) *Clematis vitalba* (Evergreen clematis): venomous plant;

15) *Colchinum autumnale* [Liliaceae] (Autumn crocus): active on both healthy and ill cells, impeding the polymerization of DNA through a metaphase shield, the active principles of this plant are at present employed in Chemo-Therapy;

16) *Colchicum luteum* [Liliaceae]: Meadow saffron (very toxic);

17) *Colubrina texensis* [Ramnaceae]: Texan hogplum: its active principle, Maytansin, block the cells in metaphase, the same way it does with *Vinca rosea* (Rosy periwinkle);

18) *Conium maculatum* [Umbelliferae]: Poison hemlock (very toxic);

19) *Croton tiglium*: active on both healthy and ill cells, impeding the polymerization of DNA through a metaphase shield (toxic);

20) *Croton draconoides* : active on both healthy and ill cells, impeding the polymerization of DNA through a metaphase shield (toxic);

21) *Daphne laureola* [Timeleaceae]: Spurgelaurel (very toxic);

22) *Daphne mezereum* [Timeleaceae]: Paradise plant (toxic);

23) *Digitalis purpurea* [Scrofulariaceae]: Purple foxglove (very toxic);

24) *Dieffenbachia picta* [Araceae]: Dumb cane (toxic);

25) *Euphorbia marginata* [Euphorbiaceae]: Spurge (toxic);

26) *Euphorbia pulcherrima* [Euphorbiaceae]: Poinsettia (toxic);

27) *Ferula communis*
(or narthex scorodosma foetida) [Umbelliferae]: Giant fennel (toxic);

28) *Ferula Juniperus or Sabina* [Cupressaceae]: (potentially toxic);

29) *Linum album* [Linaceae]: American Mandrake. Contains podophyllotoxin (SEE *Podophyllum peltatum*). It is believed that the mechanism of action can be compared to the one found in colchicines. It therefore acts both on the ill cells and on the healthy ones, impeding the polymerization of DNA through mitotic block. The active principles of this plant are at present employed in Chemo-Therapy;

30) *Lonchocarpus nicou* [Leguminosae]: Barbasco. Rotenone is extracted from this plant, competing with colchicines for the binding site on tubulin having the same action mechanism; therefore, its action is both on the ill and healthy cells, impeding polymerization of DNA with mitotic block. Active principles of this plant are at present employed in Chemo-Therapy;

31) *Mandragora officinarum*: Mandrake. Employed in Chemo-Therapy; the well-known chemotherapy drugs Etoposide (VP-16) and Teniposide are extracted from Podophyllotoxin;

32) *Oenanthe aquatica* [Umbelliferae]: Fineleaf waterdropwort (very toxic);

33) *Oenanthe crocata* [Umbelliferae]: Waterdropwort (very toxic);

34) *Oenanthe phellandrium* [Umbelliferae]: Water fennel (very toxic);

35) *Paris quadrifolia* [Liliaceae]: Herb-paris (potentially toxic);

36) *Podophyllum peltatum* [Berberidaceae]: Mayapple. The presence of resin characterized by lacton isomers of podophillic acid, identified as Podophyllotoxin which together with

other molecules, makes up the entire complex of Podophyllin. A number of well-known chemotherapy drugs like teniposide and etoposide are obtained from the latter. It is believed that its mechanism of action is similar to colchicines. It is therefore active on both ill and healthy cells, impeding polymerization of DNA with mitotic block. The active principles of this plant is at present employed in Chemo-Therapy.

37) *Prunus laurocerasus* [Rosaceae]: Cherry laurel (toxic);

38) *Rhus cotinus* [Anacardiaceae]: Poison oak (toxic);

39) *Rhus toxicodendron* : Red Smoke Tree (highly toxic);

40) *Ruta graveolens* [Rutaceae]: Common rue (potentially toxic);

41) *Salvia divinorum*: Diviner's sage. Toxic; characterized by long-term severe brain damage with no hope of recover.

42) *Sangiunaria canadensis*: Bloodroot. Contains several alkaloids, in particular Sanguinarin, chelidonic acid, cheleritrin. Its mechanism of action is similar to colchicines; it therefore acts on both the ill and healthy cells impeding polimerization of DNA with mitotic block;

43) *Senecio aureus* or *vulgaris* [Compositae] (Old-man-in-the-Spring-Ragwort). Its action is similar to that of alkaloids in Spurred rye and it, too contains pyrrolizidinic alkaloids (mutagens and hepatoxic cancer agents);

44) *Solanum dulcamara* [Solanaceae]. Climbing nightshade contains an alkaloid, glycoside tomatidenol. In the past the green leaves and fruits of this plant were used for breast carcinoma ([736]). It is at present considered a poisonous plant;

45) *Spartium juniceum* [Papilionaceae]: Spanish broom (toxic);

46) *Steganotaenia araviacea*: an African plant containing Steganacin when hydrolysing the guanosintriphosphate, blocks the polymerization of tubulin through receptor sites similar to colchicine. It is active therefore on both ill and healthy cells, impeding polymerization of DNA through metastatic block;

47) *Strychnos ignatii* (or *Ignatia amara*): Ignatious bean. Contains strychnine;

48) *Strychnos nux-vomica*: Poison nut. Contains strychnine;

49) *Taxus baccatus* [Taxaceae]: Yew, Tree of Death. Its action mechanism is similar to that of colchicine;

50) *Veratrum album* [Liliaceae]: Hellebore (toxic);

51) *Veratrum nigrum* [Liliaceae]: Black False Hellebore (toxic);

52) *Vinca rosea* [Apocyanaceae]: Periwinkle. The well-known Chemo-Therapy drugs Vinblastine, Vincristine, Vinleurosin and Vinrosidine are derived from this plant.

Chap. 18.3.: Families of dangerous or prohibited plants:

All plants belonging to the Apocinaceae family.

Nerium oleander [Apocinaceae]: Oleander (toxic);
Vinca major: Bigleaf periwinkle (toxic);
Vinca minor: Common periwinkle (toxic);
Vinca rosea: Rosy periwinkle (toxic).

All plants belonging to the Ranuncolaceae family (almost all of those mentioned in the present paragraph):
Aconitum napellus (Venus' chariot), Actea (Red baneberry), Adonide, Anemone, Columbine, Calta, Hellebore, Hepatica, Favagello, Pasqueflower, Ranunculus, Larkspur, Evergreen clematis):
Aquilegia vulgaris [Ranuncolaceae]: European columbine;
Aconitum delphinifolium [Ranuncolaceae]: Monkshood (toxic);
Aconitum ferox: Indian aconite (toxic);
Aconitum heterophyllum [Ranuncolaceae]: Atis (toxic);
Aconitum napellus [Ranuncolaceae]: Venus' chariot (very toxic);
Actea spicata [Ranuncolaceae]: Red baneberry (toxic);
Adonis spinosa [Ranuncolaceae]: Pheasant's eye (toxic);
Anemone epatica [Ranuncolaceae]: Anemone (potentially toxic);
Anemone nemorosa [Ranuncolaceae]: European thimbleweed (potentially toxic);
Anemone pulsatilla (or *Pulsatilla nigricas*): European pasqueflower (toxic);
Consolida regalis [Ranuncolaceae]: Larkspur
Helleborus niger [Ranuncolaceae]: Black hellebore (toxic);
Ononis spinosa [Ranuncolaceae]: Spiny restharrow (toxic);
Ranunculus acris [Ranuncolaceae]: Tall buttercup (potentially toxic).

Almost all the plants belonging to the *Solanaceae* family, with the exclusion of *Solanum lycopersicum* (Tomato), *Solanum melongena* (Eggplant), *Solanum tuberosus* (Potato), listed in the present paragraph are toxic. (Note: a number of Solanaceae are still under evaluation):

Atropa acuminate [Solanaceae]: Indian nightshade (very toxic);
Atropa belladonna [Solanaceae]: Nightshade (very toxic);
Datura stramonium [Solanaceae]: Jimson weed (very toxic);
Hyoscyamus niger [Solanaceae]: Black henbane (very toxic);
Lycium chinense [Solanaceae]: Chinese Wolfberry (toxic);
Lycium europaeum [Solanaceae]: European Wolfberry (toxic);
Mandragora officinarum [Solanaceae]: Mandrake (potentially toxic);
Nicotiana alata [Solanaceae]: Nicotina or Tabacco (potentially toxic);
Nicotiana tabacum [Solanaceae]: Tabacco (potentially toxic);
Solanum dulcamara [Solanaceae]: Woody nightshade (potentially toxic);
Solanum nigrum [Solanaceae]: Black nightshade (potentially toxic);
Solan:
um quitoense [Solanaceae]: Lulo (under evaluation);
Solanum photeinocarpum [Solanaceae]: Black nightshade;
Solanum surattense, xanthocarpum [Solanaceae]: Kantikari (under evaluation).

Chapter 19:
The Law of the Rommunes (*)

In this Book, FOUR QUESTIONS are indicated:

A) The Chemo-therapy is a failure

Any form of Chemo-Therapy causes irreparable damage to the physical condition of whoever exposes themselves to the action of these poisons called "cyto-toxic medicines". The Hippocratic oath declares that it is forbidden to administer "poison" to a patient, even if that patient himself asks for it (SEE the Hippocratic Oath). General failure of Chemo-Therapy against nearly all forms of tumor: Chemo-Therapy reduces the tumoral mass, but at the great expense of causing severe damage to all the patient's organs and tissues (see: chap 17.2: *the failure of the Chemo-Therapy*).

B) Very chemo-pharmaceutical multinational Policy (BIG-PHARMA) concerning public health in Europe (SEE chap. 1.2: "*Herb-Therapy must not be prohibited*")

The European Commission has proposed a directive on vitamin integrators, natural and nutritional products in the European Union. This Project of the European Commission aims to favor those who are making a profit from the main illnesses of deficiency which are now widely spread across the western countries (cancer, cardio-vascular diseases, diabetes, "american" obesity, hyper-tension, Alzheimer's, Parkinson's disease, Acquired Immuno-Deficiency Syndromes, etc…) that is to say those companies which make their profits from illnesses, instead of health: in other words, the major chemical and pharmaceutical industries. It can therefore be maintained that the Pharmaceutical Multinationals act through international institutions such as the European Commission and the *Codex Alimentarius* (a branch of the United Nations *Food and Agricultural Organization*), to pursue their more or less illicit money-making activities: for example, they have established the RDAs (*Recommended Daily Allowances*), also known as PRI's (*Population Reference Intakes*), an acronym which indicates the quantities of vitamins and minerals, that is, the quantities of nutriments that are absolutely scurvy and *beriberi*. But the recommended quantities are not sufficient, nor have they ever been thought of for the prevention of the deficiency diseases mentioned above (cancer, cardio-vascular diseases, diabetes, "american" obesity, hyper-tension, Alzheimer's, Parkinson's disease, Acquired Immuno-Deficiency Syndromes, etc…), that is, to guarantee good health by enforcing the organism's defenses. Nevertheless, the European Commission's proposal for a directive on vitamin integrators contemplates "maximum levels of dosage to be determined according to an analysis of risks, carried out with scientific methods, taking into account the contribution of vitamins and minerals from other nutriments…", and also the "*Population Reference Intake*". The answer could be the following: the directive proposed by the European Commission has been formulated on the suggestions of the Pharmaceutical Cartel, and it is the last attempt to eliminate the growing competition of biological substances provided by natural and nutritious products including alimentary integrators, consisting of over 13.000 essential vitamin principles.

(*) This Documents on "*the Low of the Rommunes*" has been written in "*Old Imperial English*"

C) Demonstration of the immediate perils brought about by the introduction of Genetically Modified Organisms (GMO) in Europe, including the consequent failure of natural anti-cancer therapies. (SEE chap. 2.22: "*The Threat of Genetically Modified Organisms*").

Therefore transgenic products represent, precisely by the way they are conceived, a formidable attempt to accentuate the unilateral characteristics of single crops, and thus the disappearance of the natural genetic patrimony which has existed for hundreds of millions of years. We will no longer have, in the near or not so near future, all those varieties of plants (for food or not) which are characteristic to every national or local region. The environmental, genetic contamination induced by hybrid creations of the large seed industries of GMOs, which will inevitably crossbreed with those varieties present in nature, will bring about a loss of the natural genetic patrimony (in no way recoverable), of all those particular characteristics which have become part of the genome of plants during the course of the long processes of adaptation to the various environmental situations. Today such a loss is really serious even for the natural environments such as forests. Substantially speaking, the very basis of human biochemistry is threatened today in its most intimate essence (human DNA) by the inconsiderate use of these artificial plants, with no possibility of recovering the genetic patrimony of more than 440,000 species of plants classified (out of an estimated total of 600,000 – 800,000), of which a substantial part will disappear over the course of a few hundred years, destroyed at their very base by genetic damage introduced by man. The plants are complex organisms, they are the fruit of hundreds of millions of years of biological evolution: every genetic modification caused in plants by man (with radiation such as Chernobyl, or with viruses such as presently used in GMO), however small that modification is, will cause damage, irreparable damage which often cannot be seen, because man only knows a limited number of safe vitamins and pro-vitamin substances. However, there are tens of thousands of vitamins and other substances present in plants, and it is these which are responsible for the correct working of the biochemical human complex and the human genome (DNA).

D) Alliance policy between chemo-pharmaceutical multinational Companies (BIG-PHARM) and the new Food and Agriculture Multinational Industries (GMO): SEE chap.6.b: "*The corrupt alliance between the Food and Agriculture Multinational Industries (GMO) and the chemo-pharmaceutical Companies (BIG-PHARMA*)

1) Agro-industrial Multinationals (OGM)

For some years we have been witnessing the birth of multinationals which define themselves as "*science of life multinationals*", which are active in the pharmaceutical market, agri-business (seeds and pesticides) and the veterinary business. They are, in themselves, different sectors, but they are linked by the use of biotechnology (GMO) to produce their products. These multinationals are using unscrupulous and aggressive economic strategies: since the beginning of the 90s they have been working towards buying companies, even large companies.

One of these, *Monsanto*, within the space of a few years has acquired *Asgrov*, *Agracetus*, *De Calb*, and *Cargil* investing 10 billion Euros.

Another big group, *Dupont*, has acquired *Pioneer*, investing about 8 billion Euros.

These investments do not seem to have any economic logic: they pay much more for the companies than their actual value, as if they were trying to eliminate a potential competitor rather than obtain a short term economic result.

Alongside the acquisitions we also have the mergers: *Ciba Geigy* and *Sandoz* created *Novartis* (with a turnover of 20 billion Euros in the year 1997-98).

From the merger of the French company *Rhone Poulenc* and the German company *Hoechst* we have the new company *Aventis.*

Still within this context, *Syngenta*, the first worldwide agrochemical group was founded in October 2000. It is the result of a merger between the Swiss company *Novartis* (a company well-known for producing medicines for chemotherapy) and the Anglo-Swedish company *Astra-Zeneca* (a company also well-known for producing medicines for chemotherapy), and will have a turnover of about 8 billion euros. *Monsanto,* after its merger with *Pharmacia & Upjohn*, a large pharmaceutical industry (this too is well-known as a producer of medicines for chemotherapy) now concerns itself only with agriculture, with a turnover which in 2000 reached 5.5 billion dollars.

The current situation stands thus: a few multinationals (*Syngenta, Monsanto, Novartis, Dupont* and *Aventis*) have 25-30% of the seed market (but more than 90% of the transgenic seed market) and behind these big groups there is a plethora of smaller companies which makes one think that this trend can only get stronger in the future, since medium size companies cannot compete with these big groups. The objective seems clear: to convert the traditional seed market into a biotechnical one (that is, GMO). But the worrying fact is that we find the same names in the field of pesticides, where the same companies control 55% of the market, and in the pharmaceutical field where the same companies play a dominant role.

2) Chemical-pharmaceutical Multinationals (Big-Farma)

The history of the chemical-pharmaceutical multinationals is incredible because of their rapid development, and today they are connected to the agro-industrial sector in an extremely dangerous way.
The chemical-pharmaceutical industry started in Europe in the second half of the nineteenth century: in many cases they were dyeing industries which, moving away from basic chemistry, moved towards the new and more promising fields of specialized chemistry in key economic fields.

Before the Second World War, a powerful international pharmaceutical cartel developed in Germany. It controlled global pharmaceutical companies and chemical plants and was active in 93 countries, representing a powerful economic and political force in each of them. It was known as I.G. Farben. It would become the main supporter of Hitler's chemical production during the years of war, offering products such as high explosives, toxic gases and the ignominious *Zyklon-B,* the lethal substance used by Nazis in the death camps. In 1928, however, before the outbreak of war, the American monopolist manufacturer John D. Rockfeller had merged his international empire in America with I.G. Farben, creating the largest and most powerful pharmaceutical cartel ever seen.

The Military Nuremberg Tribunal established in 1946/47 that the Second World War would not have taken place without this petrochemical cartel called I.G. Farben. As a consequence of the sentence passed by the Tribunal, I.G. Farben was divided into Bayern, BASF and Hoechst, and some executives were condemned for initiating a war against international law, genocide, the exploitation and looting of private and public properties in foreign countries and other crimes against humanity.
The events leading to the war and linked to this powerful cartel are reported in Joseph Borkin's *The Crime and Punishment of IG Farben*.
After the war, Germany, with its three large companies *Bayer, Hoechst* and *BASF* (which encouraged the rise of Hitler's national socialism), played an important role. So did Switzerland, which, in Basle, saw the founding and the development of companies *Ciba, Sandoz* and *Roche* – all of which later spread throughout the world.
But it was in the 1990s that the really big mergers started: in 1989, in the United Kingdom two big pharmaceutical companies merged to form *Smith Kline – Beecham*: later they merged with *American Home* (with an annual turnover of about 25 billion Euros).
In 1993 the Swedish company *Pharmacia* bought the Italian company *Farmitalia-Carlo Erba,* then it merged with the American company *Upjohn* in 1995, and then again with *Monsanto,* before being bought by *Pfizer* which had previously bought the American company *Parke Davis.*
In 1995 there was the *Glaxo-Wellcome* merger (with an annual turnover of about 14 billion Euros).
In 1998 *Smith-Kline-Beecham* (with an annual turnover of 62 billion Euros) merged with *Glaxo-Wellcome* (with an annual turnover of about 90 billion Euros) to make an annual turnover of more than 150 billion Euros.
In the meantime the English company *Imperial Chemical Industries* merged with the Swedish company *Astra,* forming the company *Astra-Zeneca.*
These mergers have continued among the same companies operating in the same field: *Santoz* and *Ciba Geigy* (*Novartis,* 1996), *Astra-Zeneca* (1998).
Their turnovers are in the range of the GDP (Gross Domestic Product) of many western countries. These huge companies have not been founded for the good of the patient but out of the need to create monopolies and hence ever bigger profits.

Ultimi dati :

giugno 2002 : acquisto della *Aventis* da parte della *Bayer*; l'accordo ha così permesso alla *Bayer* di fare il proprio ingresso nel campo delle sementi OGM. La fusione ha portato alla creazione della *Bayer CropScience* che si compone ora di tre gruppi commerciali principali: *Crop Protection*, *Bio Science* ed *Environmental Science*.
giugno 2005: acquisto della *Sementis* da parte della *Monsanto*.

ST. Louis, Jan. 24, 2005: *Monsanto* Company to acquire *Seminis, Inc.*, a leading Vegetable and Fruit Seed Company.
ST. Louis (Jan. 24, 2005). *Monsanto Company* announced today that it signed a definitive agreement to acquire *Seminis, Inc*., for $ 1,4 billion in cash and assumed debt, plus a performance-based payment of up to $ 125 million payable by the end of fiscal year 2007.
"The addition of *Seminis* will be an excellent fit for our company as global production of vegetables and fruits, and the trend toward healthier diets, has been growing steadily over the past several years, " said Hugh Grant, chairman, president and chief executive officer of Monsanto. "*Seminis* is uniquely positioned to capitalize on this fast-growing segment of agriculture, and the acquisition likewise expands *Monsanto*'s ability to grow. We look forward to furthering the growth and leadership position established by Alfonso Romo and his team as the *Seminis* business is an important extension to our agricultural seeds platform."

Seminis is the global leader in the vegetable and fruit seed industry and their brands are among the most recognized in the vegetable-and-fruit segment of agriculture. *Seminis* supplies more than 3,500 seed varieties to commercial fruit and vegetable growers, dealers, distributors and wholesalers in more than 150 countries around the world.

In addition to *Seminis* leading presence in the vegetable and fruit seed industry, which is expected to contribute to *Monsanto*'s financial results in the near-term, *Monsanto* management sees additional benefits longer term. From a technology perspective, *Monsanto* intends to continue on the path taken by *Seminis* for its business which is to focus on developing products via advanced breeding techniques. Longer term, biotechnology applications could be an option, and will be evaluated in the context of *Monsanto*'s research-and-development priorities and potential commercial business opportunities.

The perverse alliance
One can thus affirm that the two cardinal points of the economy and the life of the individual, agriculture and pharmaceuticals, are substantially under the control of a few multinational groups.
It is on the basis of this that the author has written the Seventh and the Eight Declarations.

But, I have a Dream...

Will a Judge ever be so courageous as to give back to Jurisprudence its profound sense of Justice?

Will the courage ever be found to rediscover the original mode of administration in a Democracy (Demou Kratos = Power of the People), the "Res Publica" (public Thing), which lies at the very foundation of Ancient Law ?

The Ancient Law which was born over three thousand years ago in an ordinary village of shepherds, set to guard an ordinary ford of an ordinary river, a sluggish, chalky stream of water, ever dry in summer, an obligatory passage for flocks of sheep and goats...

A small, ordinary village, where dwelled people proud and unbowed.

People out of the ordinary who had conceived and affirmed the incredible, *out-of-the-ordinary* idea that "NO ONE WAS OBLIGED TO OBEY ANYONE, BUT

THEIR STRICT LAWS: LAWS WHICH THEY THEMSELVES HAD IMPOSED ON THEMSELVES, LAWS WHICH THEY THEMSELVES HAD CHOSEN AND VOTED, STRICT LAWS, BEFORE WHICH THEY WERE ALL EQUAL: FROM THE POOREST TO THE RICHEST."

The respect for their sacred Laws was so strong that they used them even in war, thus they were the original inventors of military discipline, and thus created—from nothing—an army of free men who would go on to write history in the following one thousand and five hundred years.

Their military strength lasted so long because the defence of their individual freedom, of their ideal Laws, was worth more than their own lives and even of that of their little village of shepherds...

This, I believe might be why they never lost a war.

They disappeared from History only when they ceased to administer their sacred laws with Justice, Honour and Respect towards the Citizen, and instead delegated their individual freedom to an Emperor...

Nobody knows when the village which was to change the History of the World was born.

It is not even known what their original name was.
There are scholars who say that it was the Greeks from the South of Italy who gave them the name of "Ronnùmes", or "Rommùnes", because no one succeeded in making them submit.
"Rommùnes" indeed comes from the Greek word "ROME" (Strength) and the word "Rommùnes" signifies "*The Strongs*", "*The Courageouses*", "*They who are strongly armed*"...

And it was the name "Rommùnes" that the other Italic tribes then also used to denominate them, since the name instilled fear and respect.

They were free men, and their sense of Justice contrasted with the arrogance and the barbarities of the neighbouring peoples, who did not have that *out-of-the-ordinary* sense of "ABSOLUTE AND TOTAL EQUALITY OF ALL BEFORE THE LAW".

In the "square City of the Rommùnes", even the poorest person had the right to sue the mightiest of the community, if the latter was accused of having violated their sacred Laws.

The citizens would then have judged, in a public assembly, in broad daylight, without complicity and subterfuge, the accused and the accuser, both placed on the same level of justice, albeit from the very outset premising that the accused was Presumed Innocent, and verifying the truthfulness of the Evidence.
Three thousand years ago...

People out of the ordinary, the Rommùnes.

It seems that the ancient square village of these shepherds was finally rediscovered a few years ago.
It did indeed overlook what was once an ordinary ford of an ordinary river, a sluggish, chalky stream of water, ever dry in the summer, an obligatory passage for flocks of sheep and goats...
It is situated in Italy, a little further south than the land of the Etruscans, a little further west than the land of the Sabines, and a little further north than the land of the Samnites...
It lies beyond the River Tiber, on what remains of an old hill, called "Palatine".

They have told me they have returned.

They live in the hearts and minds of the very many men and the very many women who still today seek to demonstrate in our courts that Ancient Law is not dead, as in the words uttered by an old Senator, when the sun was setting on their Republic, to a man named Catiline:

...Quo usque tandem abutere patientia nostra ?

There lies in this sentence, which lay buried for two thousand years, all the spirit of a Civilisation which perhaps we have not yet lost.

And these words, perhaps, will once again resound in the halls of justice.

Dott. Giuseppe Nacci

Chapter 20

NAMES OF PLANTS of medical interest that have or have not been mentioned in the previous text.

Note 1: possible contra-indications are not reported. The possible relative and absolute contra-indications for the plants described only in the present work are reported in Chapter 18.

Note 2: Common names are written in Italian, and /or English, and /or French, and/or Deutsch, and /or Spanish, and /or Japanese, and / or Chinese, and /or Sanskrit.

1. *Abelmoschus moschatus* (or *Hibiscus abelmoschus*) : musk Mallow, Lataksturikam (Sanskrit)
2. *Abies alba*[Abietaceae] : abete bianco
3. *Abies excelsa* or *Picea excelsa* : Abete rosso
4. *Abies pectinata* : Abete vero
5. *Abroma augusta* : Cotone del Diavolo, Devil's Cotton, Abrome, Pinchaskarpas (Sanskrit)
6. *Abrus precatorius* : Jequirity, Paternostererbsen (Deutsch), Gunja (Sanskrit)
7. *Abutilon vitifolium* : Abutilo
8. *Acacia arabica*, or *nilotica*, or *indica* : Albero di Babul, Babul Tree, Babool Baum, Babhoola (Sanskrit)
9. *Acacia catechu* : Terra Cattù, Catecù; Catechu, Katechubaum (Deutsch), Cachoutier, Khadira (Sanskrit);
10. *Acacia farnesiana* : Mimosa, Gaggia, Acacia falsa, Cassia (Italian and English), Akazie (Deutsch) (Sanskrit)
11. *Acacia horrida* : Acacia del Senegal, Acacia gommifera, Acacaia della Gomma.
12. *Acalupha hispida* : red-hot Cattail
13. *Acalypha indica* : Ortica indiana, Ortica cinese, Ortica dell'Abissinia
14. *Acanthopanax senticosus* (*Eleuterococcus senticosus*) : Ginseng siberiano, Eleuterococco
15. *Acca sellowiana* : Feijoa
16. *Acantus mollis* : Acanto
17. *Acer campestris canadensis* : Acero canadese
18. *Achillea borealis* : Yarrow
19. *Achillea clytedata* : golden Yarrow
20. *Achillea herba-rota* : Achillea Erba Rotta, Achillee blanche
21. *Achillea millefolium* : Achillea Millefoglie, Erba del Soldato, Sanguinella, pink Yarrow, Achillee blanche
22. *Achillea moscata* : Camomilla di Montagna
23. *Achillea nana* : Achillea nana
24. *Achyrathes aspera* : Achiranto, rough chaff Tree, Apamarga (Sanskrit)
25. *Achyrocline satureoides* :Macela
26. *Aconitum delphinifolium* : Monkshood (TOSSICO)
27. *Aconitum ferox* : Aconito, Aconito indiano; indian Aconite; Wilder Sturmhut (Deutsch), Vatsanaba, (Sanskrit) (TOSSICO)
28. *Aconitum heterophyllum* : Atees; Eisenhut (Deutsch), Ativisha (Sanskrit) (TOSSICO)
29. *Aconitum napellus* : Aconito napello ((TOSSICO)
30. *Acorus calamus* : Acoro, Calamo, Calamo aromatico; sweet Flang, sweet Rush; Kalmus (Deutsch), Vacha (Sanskrit);
31. *Actea spicata* : Actea (Tossica)
32. *Actinidia chinensis* : Kiwi
33. *Adhatoda vasica, zelanica* (*Justicia adhatoda*): Malabar Nut; Malabar Nuss; Adotada (Japanese); Vasaka (Sanskrit).
34. *Adhyranthia bidentata* : Adiranzia
35. *Adianthum capillus veneris* : Adianto, Capovenere, Capelvenere
36. *Adianthum philippense, lunulatum* : Felce di Capelvenere, Maiden-hair Fern, Hansaraj (Sanskrit)
37. *Adianthum podatum* : Capelvenere del Canada
38. *Adlumia fungosa* : Fumaria

39. *Adonis flammeus* : Camomilla rossa(TOSSICO)
40. *Adonis vernalis* (or *Ononis spinosa*) : Anonide, Ononide, Ononide spinosa, Adonide (potenzialmente tossica)
41. *Adonxa moschatelina* : Moschatel
42. *Aegle marmelos* : bael Fruit, Bela-Fruchte (Deutsch), Bilva-shriphala (Sanskrit)
43. *Aesculus carnea* : Ippocastano rosso , red Chestnut
44. *Aesculus hippocastanum* : Ippocastano bianco, Castano d'India, white Chestnut .
45. *Aethusa cynapium* : Cicuta minore (potenzialmente tossica)
46. *Agaricus bisporus* : Mushroom, Mo Gu
47. *Agave americana* : Agave
48. *Agnus castus* (*Vitex trifoglia*; *Vitex agnus castus*) : Agnocasto, Pepe dei Monaci
49. *Agrimonia equatorium, eupatoria* : Agrimonia, Erba vettonica; Agrimony
50. *Agropyrum repens* : Gramigna, Dente di Cane, Grano delle Formiche
51. *Ailantus glandulosa* : Ailanto, Albero del Paradiso
52. *Ajuga piramidalis* : Aiuga
53. *Ajuga reptans* : Bugula
54. *Alangium salviifolium, lamarkii* : Foglia di Salvia; Sage Leaves, Ankola (Sanskrit)
55. *Albizzia lebbek* : Siris, Shirish (Sanskrit)
56. *Alchemilla vulgaris* : Alchimilla, Alchemilla, Erba rossa, Ventaglina
57. *Alchimilla alpina* : Alchemilla argentina
58. *Alchornea castaneifolia* : Iporuro
59. *Alhagi pseudalhagi, camelorum* : Persischemanna (Deutsch), Jawasa (Sanskrit)
60. *Alisma plantago* : Piantaggine d'Acqua o Mestolaccia
61. *Alliaria petiolata* : Alliaria
62. *Alliaria officinalis* : Alliaria
63. *Allium ascalonicum* : Scalogno
64. *Allium cepa* : Cipolla; Onion; Zwiebel; Oignon; Yang Cong (Chinese), Palandu (Sanskrit);
65. *Allium chinese* : chinese Onion, Xie
66. *Allium fistulosum* : spring Onions, Scallions, welsh Onion, Cong
67. *Allium porrum* : Porro
68. *Allium sativum* : Aglio, Garlic, Lauch, Ail, Suan (Chinese), Rasonam (Sanskrit)
69. *Allium schoenosprasum* : Erba cipollina
70. *Allium tuberosum* : chinese Chives, Jiu Cai
71. *Allium ursinum* : Aglio orsino
72. *Allium vineale* : Aglio delle Vigne
73. *Alnus crispa* : Alder
74. *Alnus glutinosa* : Alno, Ontano nero
75. *Alnus incana* : Alno, Ontano bianco
76. *Alocasia macrorrhiza* : Caladio a Grande Foglia, Great-leaved Caladium, Taro (Sanskrit)
77. *Aloe arborescens* : Aloe africana, Aloe arborescente, Aloe del Capo; Kidachi Aloe.
78. *Aloe vera or barbadensis or ferox* : Aloe vera, Aloe delle Barbados, Aloe delle Antille, Aloe indiana; indian Aloe, Subara, Luhui, Faigra, Kattavala, Rattabolam, Komarika, Kumari, Ghrit Kumari, Ghikanuar, Ghicuar, Kunhur (Sanskrit);
79. *Alpinia galanga, calcarata, officinarum* : Galanga, Java glangal, Malayavach (Sanskrit);
80. *Alpinia officinarum* : Galanga minore;
81. *Alstonia scholaris* : Corteccia di Dita, Dita bark, Dita-Riude, Saptaparna (Sanskrit)
82. *Althaea officinalis* :Altea, Bismalva, Malvaccione, Marsh-Mallow, Eibisch (Deutsch), Khatmi (Sanskrit);
83. *Althaea rosea* : Malvarosa
84. *Altingia excelsa* (*Styrax officinalis*) : Storace, Storax, Rasamala (Deutsch), Sillhaka (Sanskrit)
85. *Amaranthus caudatus* : Love Lies Bleeding
86. *Amaranthus hypocondriacus* : Amaranto; Amaranth; Amarante (French)
87. *Amaranthus retroflexus* : Amaranto
88. *Amaranthus ticolor* : Amaranth, Xian Cai
89. *Amaryllis zeylanicum* (*Crinum defixum, latifolium, asiaticum, bracteatum, toxicarium*) : Tubero velenoso, poison Bulb, Gift-Zwiebel, Sudarshan (Sanskrit)
90. *Ammi maius* : Rizzomolo
91. *Ammi visnaga* : Visnaga
92. *Amomum subulatum* : Grande Cardamomo; greater Cardamon, Kardmemeu (Deutsch), Elabari (Sanskrit)
93. *Amorphophallus campanulatus* : Telgu potato, Kunda (Sanskrit)
94. *Ampelopsis quinquefolia* : Vite del Canada
95. *Amygdalus communis* (or *Prunus amygadinus*) : Mandorle, Mandorle dolci; Almond; Mandelbaum; Amandier; Badama (Sanskrit).
96. *Anacardium occidentale* : Anacardio

97. *Anacyclus pyrethrum* : Pellitory root, Speidetwurzel (Deutsch), Akarava (Sanskrit)
98. *Anagallis arvensis* : Anagallide, Bellichina (potenzialmente tossica)
99. *Anagallis caerulea* : Occhi della Madonna
100. *Ananas sativus or comosus* : Ananas, Pinneaple, Ananas (Sanskrit);
101. *Anchusa officinalis* : Buglossa
102. *Andrographis paniculata* : King of Bitters, Andrographis Kraut , Kirta (Sanskrit)
103. *Andromeda polifolia* : bog Rosemary
104. *Anemone coronaria* : Anemone, Anemolo (potenzialm. tossica).
105. *Anemone hepatica* : Erba del Tron, Erba Trinità, Occhi di Gatto (potenzialmente tossica)
106. *Anemone hortensis* : Fiore Stella(TOSSICO)
107. *Anemone nemorosa* : Anemone dei Boschi (potenzialmente tossica)
108. *Anemone pulsatilla* (or *Pulsatilla nigricas*) : Anemone dei Prati (potenzialmente tossica)
109. *Anethum foeniculum* (*Foeniculum vulgare*, *capillaceum*) : Finocchio selvatico, Anice dolce, Erba buona, Fennel, Garten Feuchel (Deutsch), Uikyo (Japanese), Hui-hsiang (Chinese), Satupuspa (Sanskrit).
110. *Anethum graveolens* o *Peucedanum graveolens*: Aneto, Finocchio bastardo, Finocchio fetido; Dill; Shi Luo (Chinese), Aneth (French)
111. *Anethum sowa* (*Peucedanum graveolens*) : indian Dill (English); garten Dill; Indndo (Japanese); Misroya Satapushpi (Sanskrit).
112. *Angelica archangelica* or *officinalis* : Arcangelica, Erba degli Angeli, Erba dello Spirito Santo, Erba di Boemia, Angelika; Angelique
113. *Angelica dahurica* : Daurica
114. *Angelica glauca* : Glauca, Angelica, Angelika, Choraka (Sanskrit)
115. *Angelica silvestris* : Angelica, Angelika
116. *Angelica sinensis* : Dong Quai
117. *Aniba roseadora* : Bois de Rose
118. *Anigozanthos manglesii* : purple and red, red and green Kangaroo Paw
119. *Anigozanthos humilis* : Catspaw
120. *Annona muricata* : Guanàba,Graviola
121. *Annona squamosa* : Custard apple , Zuckerapfel, Sitaphalam (Sanskrit)
122. *Antennaria dioica* : Sempiterni
123. *Anthemis arvensis* : Camomilla falsa
124. *Anthemis cotula* : Camomilla, Chamomille
125. *Anthemis nobilis* : Camomilla romana, Antemide, Appiolina, Bambagella, Camomilla Inglese, Camomilla di Boemia
126. *Anthyllis alpestris* or *vulneraria* : Vulneraria; Kidney-Vetch, Lady's-Finger
127. *Anthriscus cerefolium* : Cerfoglio
128. *Antirrhinum majus* : Gola di Lupo; Snapdragon (English); Goule de Loup (French)
129. *Anthocephalus indicus*, *cadamba* : Wild cinchona, Kadamb, Katamba (Sanskrit)
130. *Aphanizomenon flosaquae* [*Algae*] : Alghe di Klamath
131. *Apium graveolens* : Sedano selvatico, Appio dolce, Appio palustre, Appio delle Paludi, Celery, Sellerie, Ajmoda, Han Qin
132. *Apium graveolens rapaceum* : Sedano-Rapa
133. *Apium graveolens dulce* : Sedano da Coste
134. *Apium petroselinum* (*Petroselinum hortense* or *Carum petrioselinum*) : Prezzemolo
135. *Aquilaria agallocha* : Aquilaria, Aloe Wood, Adperhopz (Deutsch), Agalloche, Agaru (Sanskrit)
136. *Aquilegia formosa* : Columbine
137. *Aquilegia vulgaris* : Aquilegia, Amor nascosto(TOSSICO)
138. *Arachis hypogaea* : Nocciolina americana, Spagnoletta, Peanut, Groundnut, Hua Sheng (Chinese)
139. *Aralia racemosa*, *quinquefolia* : Aralia, Nardo americano
140. *Araucaria imbricata* : Araucaria
141. *Arbutus unedo* : Corbezzolo, Albatro, Rossello
142. *Arctium lappa* : Bardana, Erba tignosa, Lappa, Lappola, Lappolaccio
143. *Arctostaphilos uva ursi* : Uva ursina, Ramoliva, Uva dell'Orso
144. *Arctostaphilos viscida* : Manzanita
145. *Areca catechu* : Areca; Areca nut; Betelnusse; Arequier-Nox d'arec; Pooga (Sanskrit)
146. *Argemone mexicana* : Argemone messicana, yellow Thistle, Prickly Poppy, mexican Poppy, Stachel Mohn (Deutsch), Satyanasi (Sanskrit).
147. *Argyreia speciosa* (or *Lettsomia nervosa*) : Elephant creeper, Vridha daraka (Sanskrit)
148. *Arisarum vulgare* [Araceae] : Arisaro, Gilico
149. *Aristolochia bracteata* : Wormkiller, Aristoloch (Deutsch), Kitamari (Sanskrit) (TOSSICO)
150. *Aristolachia chilensis* : Erba della Vergine (TOSSICO)
151. *Aristolochia clematitis*, *trilobata* : Aristolachia, Stralloggi (TOSSICO)

152.*Aristolachia elegans or littoralis* : Aristolachia (TOSSICO)
153.*Aristolochia gigantea* : Noaro(TOSSICO)
154.*Aristolachia grandifolia, gigas* : Aristolachia(TOSSICO)
155.*Aristolochia indica* : Indian birthwort, Indische Ostertuzei, Ishwari, Sunanda (Sanskrit). (TOSSICO)
156.*Aristolochia rotunda* : Erba astrologa(TOSSICO)
157.Aristotelia maqui : Aristotelia
158.*Aritiguitia bollii* :Asmachilea
159.*Armoracia rusticana* (*Cochlearia armoracia*) : Rafano, Cren, Barbaforte; Radish(English)
160.*Arnica montana, mollis* : Arnica, Panacea delle Cadute, China dei Poveri;Arnica (French)
161.*Artemisia abrotanum* : Abrotano
162.*Artemisia absinthium* : Assenzio, Assenzio maggiore, Assenzio romano
163.*Artemisia cina* : Fiori di Santonico
164.*Artemisia douglassiana* : Mugwort
165.*Artemisia dracunculus* : Dragoncello, Estragone, Tarragon(English)
166.*Artemisia genipi* : Genepì maschio, Genepì nero
167.*Artemisia glacialis* : Genepi
168.*Artemisia lactiflora* : duck foot Vegetable, Ya Jiao Cai
169.*Artemisia maritima, brevifolia* : Worm seed, Meersrand Beiful (Deutsch), Chauhar (Sanskrit)
170.*Artemisia mutellina* : Genepi
171.*Artemisia pontica*.: Assenzio pontico o gentile (tossico)
172.*Artemisia tilesii* : mountain Wormwood
173.*Artemisia tridentata* : Artemisia tridentata, Sage-brush
174.*Artemisia spicata* : Genepi
175.Artemisia vulgaris : Artemisia, Amarella, Fiore di Santa Giovanna, Mugwort, Indian Worm-wood, Beiful (Deutsch), Nagadamni (Sanskrit);
176.*Artocarpus integrifolia , heterophyllus* : indian Jack, Indischerbrod (Deutsch), Panasa (Sanskrit)
177.*Arum maculatum* Aro, Ighero, Gigaro, Giaro, Pan di Serpe (Tossica)
178.*Arum triphyllum* : Rapa indiana
179.*Arundo donax* : Canna comune, Canna rigata
180.*Arundo phragmites* : Canna di Palude
181.*Asarum europaeum* : Baccaro
182.*Assa foetida* (or *Ferula*) : Assa fetida
183.*Asclepias cordifolia* : Milkweed
184.*Asclepias gigantea* (*Calotropis gigantea*) : Mudar, bowstring hemp, Herbe Lirondelle, Alarka (Sanskrit)
185.*Asclepias tuberosa* : Cotone d'Egitto tuberoso, Radice da Pleurite, Pleuresy-root
186.Asparagus acutifolium : Asparago spinoso
187.*Asparagus adscendens* : Musli
188.*Asparagus cochinensis* : Asparago cinese,Tian Men Dong
189.*Asparagus officinalis, racemosus* : Asparago, Asparagus, Spargel, Asperge, Shatavari (Sanskrit);
190.*Asperula odorata* : Asperula, Stellina odorosa
191.*Aspidosperma quebracho* : Quebraco
192.*Asphodelus albus* : Asfodelo, Porraccio
193.*Asplenium trichomanes* : Asplenio, Erba rugginina
194.*Aster alpinus* : Astro delle Alpi
195.*Asteracantha longifolia* (*Hygrophila auriculata*) : Langblathriger Sterndorn (Deutsch), Kokilaksha (Sanskrit).
196.*Astragalus chrysopterus* : Astragalo
197.*Astragalus floridus* : Astragalo
198.Astragalus membranaceus : Astragalo
199.Astragalus tongolensis : Astragalo
200.Atractylodes ovata
201.Atriplex hortensis : Atriplice
202.*Atropa acuminata* : Belladonna indiana; indian Belladonna, Tolkkivacha (Deutsch), Suchi (Sanskrit) (molto tossica)
203.*Atropa belladonna* : Belladonna (molto tossica)
204.*Auricularia auricula* : wood Ear, Mu Er (Chinese)
205.*Avena sativa* : Avena; Oats (English)
206.*Averrhoa carambola* : Chinese gooseberry, Karmaranga (Sanskrit)
207.Azadirachta indica, Melia azadirachta : Albero sacro, Persian Lilac, Indischer Zedrach, Margousier, Arishta, Nimba, Neem (Sanskrit).
208.Baccharis rosmarinifolia or *genistelloides* : Baccaride
209.Bacopa monniera, Herpestis monniera, Monniera cuneifolia : Bacopa, Brahmi (Sanskrit);
210.*Bactris gasiaes* : Contaduro, Chontaduro

211. *Bauhinia forficata* :Pata de Vaca
212. *Balanites aegyptiaca or roxburghii* : Ingudi-vraksha (Sanskrit)
213. *Baliospermum montanum* : Danti
214. *Ballotta foetida* (or *nigra*) : Marrubio fetido
215. *Balsamita major* : Erba di San Pietro, Erba della Bibbia, Erba amara
216. *Balsamodendron mukel* (*Commiphora mukul*) : Mirra, Gum gugal, Myrrhe (Deutsch), Guggulu (Sanskrit).
217. *Balsamum peruvianum* : Balsamo del Perù.
218. *Balsamum toluiferum* : Balsamo di Tolù.
219. *Bambusa arundinacea, bambos* : Bamboo, Bambus (Deutsch), Bambou commun, Vasna (Sanskrit)
220. *Bambusa beecheyana* : bamboo Shoot, Tian Zhu (Chinese).
221. *Banskia menziesii* : menzies Banskia
222. *Baptisia tinctoria* : Indaco selvatico
223. *Barleria prionitis* : Kurantaka (Sanskrit)
224. *Barringtonia acutangula* : Hijjala (Sanskrit)
225. *Basella rubra* : Basella, ceylon Spinach, La Kui (Chinese)
226. *Bassia longifolia* (*Madhuca longifolia*) : indian Butter Tree; Madhuka (Sanskrit)
227. *Bauhinia forficata* : Pata de Vaca
228. *Bauhinia tomentosa* : Mountain Ebony, Aswamantaka (Sanskrit)
229. *Bauhinia variegata* : Kanchanara (Sanskrit)
230. *Bellis perennis* : Pratolina, Margheritina; Paquerette (French);
231. *Benincasa hispida, cerifera* : Zucca bianca, winter Melon, wax Gourd, white Pumpkin, Wachsgurkensamen (Deutsch); Dong Gua (Chinese); Courge (Sanskrit).
232. *Berberis aquifolium* : Oregon Grape
233. *Berberis aristata, floribunda, coriaria* : Turmeric, Berberitze, Daruharidra.
234. *Berberis vulgaris* : Crespino, Spina acida, Spino santo, Berberi, Berbero, Uva spinetta .
235. *Bergenia ligulata* (*Saxifraga ligulata*) : Steinbrech (Deutsch), Pashanbheda (Sanskrit).
236. *Bertholletia excelsa* :Noce del Brasile
237. *Beta vulgaris* : Barbabietole ; sugar beets
238. *Beta vulgaris cruenta* : Barbabietole rosse
239. *Beta vulgaris* var. *cycla* : Bieta; swiss Chard, Leaf-Beet, Jun Da Cai
240. *Betonica officinalis* (or *Stachys officinalis*) : Betonica
241. *Betula alba* : Betulla bianca, Betulla pelosa
242. *Betula papyrifera* : paper Birch
243. *Betula utilis* : Birch, Birke, Bhurjapatra (Sanskrit)
244. *Bidens pilosa* : Picao Preto
245. *Bigonia catalpa* : Bigonia
246. *Bixa orellana* : Annatto
247. *Blepharis edulis* : Utangan (Sanskrit)
248. *Blumea lacera* : Blume, Blumecampher, Kukurandru (Sanskrit)
Boerhaavia diffusa : Spreading hogweed, Punarnava (Deutsch), Herlee a cochons (French), Erva tostagno(Espanol), Punarnava
249. *Bombax buonopozense* : Papula
250. *Bombax ceiba* : Silk cotton Tree, yellow silk Cotton; Malabarischer wollbaum (Deutsch), Kapokur (Sanskrit).
251. *Borassus flabellifer, flabelliformis* : Palma di Palmira, Palmyra Palm, Palmyrapalm (Deutsch), Tala (Sanskrit)
252. *Boronia megastigma* : brown Boronia
253. *Barosma crenulata* : Bucco
254. *Borrago officinalis* (*Borago officinalis*) : Borragine, Borrana, Lingua rada; Borage (English); Bourrache (French);
255. *Boswellia serrata* : indian Olibaum, Salaibaum, Bswellie-dentee, Shallaki
256. *Bouganvillaea* : Bouganvillaea
257. *Brasenia schreberi* : Watershield, Chun Cai
258. *Brassica alboglabra* (it's variety of *Barassica oleracia*) : chinese Kale, Gai Lan
259. *Brassica campestris* (var. *oleifera*) : chinese Cabbage, bird Rape, Flowering, You Cai
260. *Brassica caulorapa* : Kohlrabi , Qiu Jinig Gan Lan
261. *Brassica juncea* : Senape indiana; brown Mustard, leaf Mustard, indian Mustard, chinese Mustard, Gai Cai (Chinese), Grunersenf (Deutsch), Rajika (Sanskrit)
262. *Brassica napus* : Ravizzone
263. *Brassica nigra* : Senape nera
264. *Brassica oleracea* : Cavolo, Cabbage, Cauliflower, Gan Lan
265. *Brassica oleracea botrytis* : Cavolfiore; Cauliflower
266. *Brassica oleracea bullata or gemmifera* : Cavoletti di Bruxelles
267. *Brassica oleracea capitata* : Cavolo-Cappuccio verde
268. *Brassica oleracea botrytis or italica* : Broccoli

269. *Brassica pekinensis* : chinese Cabbage, Bai Cai
270. Brassica rapa, campestris : Rapa ;Turnip(english)
271. Brayera anthelmithica (or *Hagenia abyssinica*) : Braiera o Cusso
272. *Briza maxima* : quaking Grass
273. Bromus ramosus : Avena selvatica, wild Oat
274. *Bromus stamineus* : Bromo
275. Brunfelsia uniflorus : Manacà
276. Bryonia alba : Brionia bianca
277. *Bryonia dioica* : Brionia, Zucca matta (potenzialmente tossica)
278. *Buddleja species* : yresine weberbrueri (English), Flor blanco (Espanol).
279. Bupleurum stellatum : Orecchio di Lepre
280. Buchanania lanzan, latifolia : Cuddapa almond, Chirongiol (Deutsch), Piyala (Sanskrit)
281. Butea frondosa, monosperma : Legno bastardo; Parrot, bastard Teak; Palasbaum (Deutsch), Palasa (Sanskrit).
282. Buxus chinensis : Bosso cinese
283. Buxus sempervirens : Bosso; Buis
284. *Cactus grandiflorus* : Regina della Notte
285. *Caenomeles speciosa* : Quince
286. Caesalpina bonducella, bonduc, crista : Noce di Bonducella, Bonducella Nut, Kugelstrauch Samen, Latakaranja (Sanskrit)
287. Caladenia aphylla : leafless Orchid
288. *Caladenia dilitata* : fringer mantis Orchid
289. *Caladenia flavia* : cowslip Orchid
290. *Caladenia gemmata* : blue china Orchid
291. *Caladenia latifolia* : hybrid pink Fairy, pink fairy Orchid
292. *Caladenia menziessi* : rabbit Orchid
293. *Caladenia patersonii* : Orchidea del Ragno bianco; white Spider Orchid
294. *Calamintha nepeta or sylvatica* : Mentuccia, Nepetella, Poleggio
295. Calamintha officinalis : Calaminta
296. Calandrinia discolor : Calandrina
297. Calandrinia polyandra : Parakeelya
298. Calectasia (or *Ornithogalum umbellatum*) : Stella di Betlemme; Star of Bethlehem
299. *Calendula officinalis* : Calendula, Calendola, Calta, Fiorrancio, Fioraccio, Garofano di Spagna; Calendula (English);
300. Calendula silvestis: Calendula
301. Calicopteris floribunda : Ukshi
302. Calliandra surinamensis : Tassel
303. *Callicarpa macrophylla* : Pringu (Sanskrit)
304. *Callistemon polandi* : queensland Bottlebrush
305. Calluna vulgaris : Scopiccio, Brentolo, Brugo, Brughiera, Erica, Heather
306. *Calochortus albus* : Lanterna delle Fiabe; fairy Lantern
307. *Calochortus lechtlinii* : Giglio di Mariposa; Mariposa Lily
308. *Calochortus monophylius* : yellow star Tulip
309. *Calochortus tolmiei* : star Tulip
310. *Calophyllum inophyllum* : Albero di Pannay, Pannay Tree, Tacama Hacharz (Deutsch), Laurier d'Alexandria, Punnaga (Sanskrit)
311. *Calothamnus myrticae* : one-sided Bottlebrush
312. *Calotropis gigantea* (*Asclepias gigantea*) : Canapa da Corda, Mudar, Swallow Wart, bowstring Hemp, Herbe Lirondelle, Alarka (Sanskrit)
313. *Calotropis procera* : Mudar, Aeribe hirondeille, Arbre-a-sofa, Arka (Sanskrit)
314. *Calycophyllum spruceanum* : Mulateiro
315. *Camellia sinensis* : The verde; green Tea(english)
316. Campanula barbata : Campanula barbata
317. Campanula lasiocarpa : Harebell
318. Campanula latifolia : Arcangelica
319. Campanula rapunculus : Raperonzolo
320. *Campanula trachelium* : Imbutini
321. *Campsis tagliabuana* : trumpet Vine
322. *Cananga odorata, genuina* : Cananga, Ylang ylang
323. *Canarium album* : Chinese olive, Lan Chi (Chinese)
324. *Canavalia gladiata* : sword Bean, Dao Dou
325. *Canavalina ensiformis* : Fagiolo nero, Fagiolo rosso, Fagiolo messicano; Mexican beans
326. *Cannabis sativa* : Canapa indiana (tossico)

327. *Capparis spinosa* : Capperi
328. Capsella bursa pastoris : Capsella, Borsa del Pastore; shepherd's Purse, Ji Cai (Chinese)
329. *Capsicum frutescens* or *annuum* : Capsico, Peperoncino rosso, Peperoncino piccante, Pepe di Caienna, Paprika, Spanish pepper, Cayenne, hot Peppers, Chilli, cayenne Pepper, Paprika , Paptika (Deutsch), Pimment annuel, La Jiao (Chinese), Katuvira (Sanskrit);
330. *Caralluma negevensis* : Caralluma (Tossica)
331. Carapa guianensis : Andiroba
332. Cardamine pratensis : Cardamine
333. Carduus defloratus : Cardo rosso
334. Carduus marianus (or *Silybum marianum*) : Cardo mariano, Cardo di Maria, Cardo asinino, Cardo lattato .
335. *Careya arborea* : slow Match
336. *Carex arenaria* : Carice
337. *Carica papaya* : Papaia, Papaya, Papaw, Melonenbaum (Deutsch), Fan Mu Gua (Chinese), Popayer commun (Sanskrit)
338. *Carlina acaulis* : Carlina
339. Carthamus tinctorium : Cartamo
340. Cardamine pratensis : Cardamine
341. Carinus betulus : Carpino, Hornbeam
342. Carpinus betulus : Carpino bianco
343. *Caryophyllus aromaticus* :Garofano,o Chiodo di Garofano
344. Carum carvi : Carvi, Cumino dei Prati, Comino dei Prati, Cumino bianco, Cumino tedesco, Comino tedesco, Cumin, Caraway, Gemeiner Kummel (Deutsch), Cuminnoir, Krishna jira (Sanskrit);
345. Carum nigrum (*Nigella sativa*) : Melanzio nero, Cumino nero, Comino nero; black Cumin; Schwarzkummel; Cumin noir; Nigera (Japanese); Upakunchika (Sanskrit);
346. Carum copticum (*Trachyspermum ammi, Ptychotis ajowan*) : Aiovano, Omum, Ajowan Kummel, Yamani
347. *Carum petrioselinum (*or *Apium petroselinum* or *Petroselinum hortense*) : Prezzemolo
348. *Cassia absus* : Chaksu (Sanskrit)
349. Cassia angustifolia (or *acutifolia*, or *obovata*): Senna indiana, Senna Tinnevelly; Tinnevelly Senna, Indian Senna, Sennes Blatter, Markandika (Sanskrit); .
350. Cassia fistula : Cassia cava, Cassia purgativa, Laburno indiano; indian Laburnum, Rohrkassie, Cassie purgative, Argbhada (Sanskrit); .
351. *Cassia foetida* (or *obtusifolia, tora, toroides*) : Cassia fetida, Fetid Cassia (Sanskrit).
352. *Cassia occidentalis* : Cassia occidentale, Caffè nero, Negro coffee, coffee Senna, Rinde-Tedegoso (Deutsch), Cassier, Wangjiang Nan (Chinese), Kasmard (Sanskrit).
353. *Castanea sativa* : Castagno dolce; sweet Chestnut .
354. *Castanea vesca* : Castagno; Chestnut.
355. *Castilleja minata* : Pennello indiano; indian Paintbrush.
356. *Catharanthus roseus:* (TOSSICO)
357. *Cayaponia tayuya* : Tayuya
358. Ceanothus integerrimus : deer Brush
359. *Cedrus libani, deodora* (or *Pinus deodara*) : Cedro del Libano, Deodar, Cedre deodar (Sanskrit)
360. *Celastrus montana, multiflora, nutans, paniculatus* : Albero del Bastone; Staff tree, Dudukol Celasterol (Deutsch), Kanguni
361. *Centaurea cyanus* : Fiordaliso, Ambretta, Muneghetta
362. Centaurea erythreum : Centaurea
363. Centaurea solstitialis : star Thistle
364. Centaurium umbellatatum : Cacciafebbre, Centaury
1) Centella asiatica : Centella, asiatic Centella, Lei Gong Gen (Chinese)
365. Centratherum anthelminticum (*Vernonia anthelminticum*) : Vernonia, Aranjajira (Sanskrit)
366. *Cephaelis ipecacuanha* : Ipecacuana
367. Cerastium alpinum : Cerasio
368. Ceratonia siliqua : Carruba ; Carob (english)
369. Ceratostigma wilmottiana : Cerato
370. Cercis siliquastrum : Albero di Giuda
371. Cereus giganteus : Saguaro
372. Cerinthus minor : Erba Tortora
373. Cestrum diurnum : Day blooming jessamine
374. *Ceterach officinarum* : Spaccapietra, Cedracca, Erba ruggine, Erba dorata
375. *Cetraria islandica* (or *Lichen islandicus*) : Lichene islandese
376. *Chaenomeles speciosa* : Quince
377. Chamaelirium luteum : Elonia
378. Chamelaucium uncinatum : geraldton Wax

379. *Chamomilla recutita* : Camomilla
380. *Chamaedaphne calyculata* : Cassandra
381. *Cheilanthes pruinata* :Kuti-Kuti
382. *Cheirantus cheiri* : Violaciocca
383. *Chelidonium majus* : Chelidonia, Celidonia, Erba porraia, Erba nocca, Erba da Porri Ukrain (TOSSICO)
384. *Chenopodium album* : Farinaccio; Lamb's Quarters
385. *Chenopodium ambrosioides* : Chenopodio, Ambrosia, The messicano, Mexican tea, Scho Kraut, Sugandhavastuk (Sanskrit)
386. *Chenopodium bonus henricus* : Buon Enrico
387. *Chimaphila umbellata* : Pirola ombrellifera, Chimafilla
388. *Chrysantellum americanum* : Crisantemo americano
389. *Chrysanthemum balsamita* : Balsamite odorosa, Erba di San Pietro
390. *Chrysanthemum leucanthemum* : Margherita
391. *Chrysanthemum maximum* : shasta Daisy
392. *Chrysanthemum morifolium* : Crisantemo, Chrysanthemum
393. *Chrysanthemum segetum* : Crisantemo, Ingrassabue; Chrysanthemum, Carland; Tong Hao Cai (Chinese)
394. *Chrysothamnus nauseosus* : Rabbitbrush
395. *Cicer arietinum* : Ceci; chick peas
396. *Cicerbita alpina* Lattuga alpina
397. *Cichorium intybus* : Cicoria, Cicoria selvatica, Radicchio, Cicorella; Chicory, Zichorie (Deutsch); Hasni ;
398. *Ciclamen europaeum* : Ciclamino
399. *Cicorium endivia latifolium* : Endivia
400. *Cicuta virosa* : Cicuta acquatica, Cicuta minore (molto tossica)
401. *Cimicifuga racemosa* : Cimifuga; black Cohosh
402. *Cinchona calisaya* or *micrantha*, or *legderiana*, or *officinalis*, or *succirubra* : China
403. *Cinnamomum camphora* : Canfora; Camphor; Kampher (Deutsch); Camphre; Karpoor (Sanskrit)
404. *Cinnamomum cassia*, or *zeylanicum* : Cannella, Cannella bella, Cannella di Ceylon, Cannella del Madagascar; Cinnamon; Zimt; Cannelle; Nikkei (Japanese), Twak (Sanskrit);
405. *Cinnamomum tamala* : Cassia cinnamomon; Zimtbaum; Cannelle; Tejpatra (Sanskrit)
406. *Cirsium arvense* : Scardaccione
407. *Cirsium spinosissimum* : Spinon
408. *Cirsium vulgare* : Cirsio, Scardaccione
409. *Cissampelos pareira* : Pareira, Foglia vellutata; Velvet Leaf; Talsche Pareivawurzel (Deutsch), Pareira (Japanese), Laghu Patha (Sanskrit)
410. *Cissus quadrangularis* (*Vitis quadrangularis, Heliotropium indicum*) : Conciaossa; Bone Setter, Dixanh young (Chinese), Asthisanhari (Sanskrit)
411. *Cistus incanus* : Rosalaio
412. *Citrullus colocynthis* : Coloquintide, Mela amara; bitter Apple, Koloquinte, Conchomlere amer, Koroshinto (Japanese), Hsikua (Chinese), Indravaruni (Sanskrit) (TOSSICO)
413. *Citrullus vulgaris* : Cocomero, Anguria, Melone rosso; Pasteque (French).
414. *Citrus aurantium* : Arancia
415. *Citrus aurantium bergamia* : Bergamotto
416. *Citrus decumana* , or *grandis* : Pompelmo
417. *Citrus deliciosa* : Mandarino
418. *Citrus limonium*, or *medica* : Limone; Citronner (French)
419. *Claviceps purpurea* (or *Secale cornutum*) : Segale cornuta
420. *Clematis recta* : Clematide retta, Fiammola
421. *Clematis vitalba* : Vitalba; Clematis(TOSSICO)
422. *Clerodendrum infortunatum* : Bhandira (Sanskrit)
423. *Clitoria ternatea* : Butterfly pea, Clitore-deternate (French), Chomama (Japanese), Aparajita (Sanskrit)
424. *Cnicus benedictus* : Cardo santo, Cardo benedetto, Erba benedetta.
425. *Coccinia indica, cordifolia, grandis* : Bimba (Sanskrit)
426. *Cochlearia armoracia* (*Armoracia rusticana*) : Rafano, Cren, Barbaforte; Radish(English)
427. *Coclearia officinalis* : Coclearia; Radish(English)
428. *Cocos nucifera* : Noce di Cocco; Coconut plant; Echte kokospalme (Deutsch), Coctier, Yashi (Japanese), Narikela (Sanskrit)
429. *Codonopsus pilosula*
430. *Coffea arabica* : Caffè verde
431. *Cola acuminata* : Noce di Cola
432. *Colchicum autumnale* : Colchico, Freddolina, Falso Zafferano (molto tossico).
433. *Colchicum luteum* : Collirio d'Oro, Golden Collyrium, Gelbe Herbastzeitlose, Hiranyatutha (Sanskrit); (molto tossico)

434. *Collinsonia canadensis* (*Pareira brava*) : Radice di Pareira
435. *Colutea arborescens* : Erba vescicaria
436. *Combretum caffrum* : Salice africano
437. Combretum micranthum : Combreto
438. Commiphora mirra : Mirra
439. Commiphora mukul (*Balsamodendron mukul*) : Gum gugal, Myrrhe (Deutsch), Guggulu (Sanskrit)
440. *Commiphora gileadensis* : Mirra
441. *Conium maculatum* : Cicuta maggiore (molto tossica)
442. *Conospermum stoechadis* : west australian Smokebush
443. *Conostylis aculeata* : yellow Cone
444. *Consolida regalis* : Speronella, Erba cornetta. (TOSSICO)
445. Convallaria majalis : Convallaria, Mughetto (**tossica**)
446. Convallaria polygonatum (or *Polygonatum officinale*) : Poligonato, Sigillo di Salomone
447. Convolvulus arvensis : Vilucchio
448. Convolvulus turpethum (*Ipomoea turpethum*; *Operculina turpethum*) : indian Jalap; Brast Liauische; Trivrit (Sanskrit).
449. Convolvulus purga : Convolvolo purgativo
450. Convolvolus scammonia : Scammonea
451. Convolvulus sepium : Vilucchio bianco, Campanello, Vilucchione
452. Copaifera officinalis :Copaiba
453. Coptis teeta : Gold thread, Mishamitika (Sanskrit)
454. *Corallina officinalis* : Corallina di Corsica
455. *Cordia myxa* : Cordia, Sebesten plum, Cordia (Deutsch), Seleastan (French), Sleshmataka (Sanskrit)
456. *Coriandrum sativum* : Coriandolo, Erba cimice, Coriander, Gemeiner coriender (Deutsch), Biles cereales (French), Yan Sui (Chinese), Dhanyaka (Sanskrit) .
457. *Corylus avellana* : Nocciolo, Avellana; hazelnuts(English)
458. *Corynanthe yohimbe* : Yohimbe
459. *Cornus canadensis* : Bunchberry
460. Cornus mas : Corniolo
461. Cornus sanguinea : Sanguinello
462. Cornus nuttalii : Legno di Cane, Dogwood
463. Correa pulchella : Correa (Italian and English)
464. Corylus avellana : Nocciolo
465. Cosmos bipinnatus : Cosmos
466. Costus speciosus : Costus, Pritge Kostwurz (Deutsch), Costus elegant (French), Kemuka (Sanskrit)
467. *Courouptia guaianensis* : cannon Ball
468. *Crassocephalum crepidioides* : false crowndaisy Chrysanthemum, Jia Tong Hao
469. *Crataegus azarolus* Azzeruola
470. *Crataegus oxyacantha* or *monogyna* : Biancospino, Bossolino, Spino bianco; Thorn-tree, Hawhorn; Aubepine (French)
471. *Crepis aurea* : Radichella amara
472. Crepis vesicaria : Crepide
473. *Crinum defixum, latifolium, asiaticum, bracteatum, toxicarium* (*Amaryllis zeylanicum*) : Tubero velenoso; Nilgiri longy St. John's Iliy, Cape Iily, poison Bulb; Gift-Zwiebel, Indohamayu (Japanese), Sudarshan (Sanskrit) (TOSSICO)
474. *Crithmum maritimum* : Finocchio di Mare, Bacicci, Cretamo
475. Crocus sativus : Zafferano, Castagnole, Croco; Saffron; Safran; Kumkumapu (Japanese), Fan Hunghau (Chinese), Kumkuma (Sanskrit)
476. Crocus vernus : Zafferano selvatico
477. *Croton draconoides* or *lechleri* : Sangue di Drago; Sangre de Grago (TOSSICO)
478. *Croton eluteria* : Eleuteria, Cascarilla (TOSSICO)
479. *Croton oblongifolium* : Croton lungo; Nagdanti (Sanskrit) (TOSSICO)
480. *Croton philippensis* (*Mallotus philippensis*) : Rottlera (English); Kamala (Deutsch); Kamola (French); Kampillaka (Sanskrit). (TOSSICO)
481. *Croton tiglium* : Crotonolo, Croton, Crotontiglio; Purgative-Croton; Krotonol (Deutsch); Huile dectiglium (French), Hazu (Japanese), Jayapala (Sanskrit) (TOSSICO)
482. Cucumis melo : Melone; Melon
483. *Cucumis sativus* : Cetriolo, Common-Cucumber; Gurke (Deutsch); Kyuri (Japanese); Huang Gua (Chinese); Trapusha (Sanskrit);
484. *Cucurbita maxima or moscata* : Zucca, Cocuzza; Pumpkin, Nan Gua (Chinese)
485. *Cucurbita pepo* : Zucchine; Courgette, zucchini/courgettes

486.Cuminum cyminum : Cumino romano, Comino romano, Cumin-Seed, Kumin, Kreuz Kummel, Anisacre (French), Kumin (Japanese), Jeeraka (Sanskrit);
487.*Cupressus sempervirens* : Cipresso
488.*Curculigo orchiodes* : Musli nero, Musli di Kalì, black Musalie, Kinbai zassa (Japanese),Talamulika (Sanskrit) (TOSSICO)
489.*Curcuma amada* : Zenzero di Mango, Mango-Ginger, Mangeingwer (Deutsch), Karpura haridra (Sanskrit)
490.*Curcuma angustifolia* : Appretta di Curcuma, Curcuma-Starch, Schmal-blattrige Kurkume (Deutsch), Tavakshiri (Sanskrit)
491.*Curcuma longa*, *domestica* : Curcuma, Zafferano delle Indie, Zafferano dei Poveri, Turmeric, Kurkuma Gelbwurzel (Deutsch), Ukon (Japanese), Yii-chin (Chinese), Haridra (Sanskrit);
492.*Curcuma xanthorrhiza* : Curcuma
493.*Curcuma zedoaria* : Zedoaria, Zedoaria rotonda, Round-Zedoary, Zittwer (Deutsch), Zedoaire long (French), Gajutsu (Japanese), Shati (Sanskrit);
494.Cuscuta chinensis : Cuscutacinese
495.*Cuscuta corymbosa* : Cuscuta
496.*Cuscuta epithymum* : Cuscuta
497.*Cuscuta reflexa* : Cuscuta; Dodder; Amaravela (Sanskrit)
498.*Cusparia febrifuga* or *officialis* (or *Galipea officialis*) : Angostura
499.*Cyamopsis tetragonolobus* : Guar
500.*Cyanicula amplexans* : shy blue Orchid
501.*Cyclamen europaem* : Ciclamino
502.*Cyclamen neapolitanum* : Ciclamino o Porporino
503.*Cyclanthera pedata* : Caigua
504.Cydonia oblonga, *vulgaris* : Mela Cotogna, Cotogno; Cognassier
505.Cymbopogon citratus : Verbena delle Indie,
506.Cymbopogon nardus : Citronella,
507.*Cynancum vincetoxicum* : Vincetossico
508.*Cynara cardunculus* : Cardo
509.Cynara scolymus : Carciofo, globe Artichoke
510.*Cynodon dactylon* : Erba del Cane; Dog Grass, Wucherndeu Hundszahn (Deutsch), Chiendent (French), Kyogishiba (Japanese), Doorwa (Sanskrit)
511.*Cynoglossum grande* : Cinoglosso, Lingua di Segugio; Hound's Tongue
512.*Cyperus rotundus* : Erba Noce, Nut Grass, Grasmandel, Souchet, Hamasuge (Japanese), Hiang Fou (Chinese), Mustaka (Sanskrit)
513.*Cyphomandra betacea* : Tamarillo
514.*Cyprepedium guttatum* or *parviflorum* : Lady's Slipper
515.*Cypripedium passerinum* : northern Lady's Slipper
516.*Cypripedium pubescens* : Cipripedio
517.*Cytisus laburnum* : Avorniello
518.*Cytisus scoparius* : Ginestra dei Carbonai (tossica)
519.*Dactylorhiza sambucina* : Orchidea sambucina
520.*Dahlia variabilis* : Dalia
521.*Dampiera linearis* : Dampiera
522.*Daphne laureola* : Laureola (molto tossica)
523.*Daphne mezereum* : Dafne, Mezereo (Tossica)
524.*Darlingtonia californica* : Darlingonia; california pitcher Plant
525.*Datura alba*, *metal* : Mela spinosa, Tromba degli Angeli; Thornapple, Angel's Trumpet; Weichhaaariger Stechapfel (Deutsch), Pomme epineuse (French), Yoshuchosen asaga (Japanese), Chan kiue Tse (Chinese), Dattura (Sanskrit).
526.*Datura candida* : Tromba degli Angeli; Angel's Trumpet
527.*Datura stramonium* : Stramonio, Erba del Diavolo, Noce spinosa (**molto tossica**)
528.*Daucus carota* : Carota selvatica, Pizzo della Regina Anna (Fiore); Carrot, Queen Ann's Lace; Karotte (Deutsch), Garotte cultive, Carotte sauvage (French), Hu Luo (Chinese) Bo Ninjin (Japanese), Garijara (Sanskrit)
529.*Davieasa divaricata* : orange spiked Pea
530.*Delphinium ajacis* : Speronella, Fior Cappuccio
531.*Delphinium denudatum* : Ritterspoon (Deutsch), Nirvishi (Sanskrit)
532.*Delphinium depauperatum* : Larkpur
533.*Dendrobium macraei* (*Ephemerantha macraei*) : Jivanti (Sanskrit)
534.*Dentaria enneaphyllos* : Dentaria
535.*Deonix regia* : Gulmohar
536.*Desmodium ascendens* : Desmodio
537.*Dianthus barbatus* : Garofano a Mazzetti
538.*Dianthus monspessulanus* : Garofanino

539. *Dicentra chysantha* : golden ear Drops
540. *Dicentra formosa* : bleeding Heart
541. *Dicleptera chinensis* : dog liver Vegetable, Gou Gan Cai (Chinese)
542. *Dictamus albus* : Dittamo, Frassinella, Limonella.
543. *Digitalis purpurea* : Digitale; Foxglove, Roter Fingerhut (Deutsch), Mao-ti-huang (Chinese), Hatapatri (Sanskrit); (molto tossica)
544. *Dillenia indica, speciosa* : Chalta (English), Biwamodoki (Japanese), Dok shan (Chinese), Avartaki (Sanskrit)
545. *Dioscorrea bulbifera, crispata, pulchella, sativa, versicolor* : Igname; Yam; Brotwurel, Barahi (Sanskrit)
546. *Dioscorrea hypoglauca* : Bie Xie
547. *Dioscorrea opposita* : chinese Potato, Chinese Yam, Shan Yao
548. *Dioscorrea villosa* : Igname selvatico, Wild Yam
549. *Diospyros kaki* : Cachi
550. *Diplotaxis tenuifolia* : Diplotaxide, Ruchetta selvatica
551. *Dipsacus fulloum* : Cardo dei Lanaioli
552. *Dipterocarpus indicus, turbinatus, laevis, alatus* : Albero dell'Olio di Bosco, Wood Oil Tree, Gurjunbalsam (Sanskrit).
553. *Diuris longifolia* : wallflower donkey Orchid
554. *Dodanaea viscosa* : hops Bush
555. *Dodecatheon frigidum* : shooting Star
556. *Dodecatheon hendersonii* : shooting Star
557. *Dolichos biflorus, uniflorus* : Ceci di Cavallo, Horse Gram, Pferde Bohne (Deutsch), Dolique (French), Kulitha (Sanskrit).
558. *Draba aizoides* : Draba
559. *Dracontium loretense* : Sacha
560. *Drimys chilensis,* or *winteri* : Drimide
561. *Drosera rotundifolia,* or *anglica,* or *intermedia* : Drosera, Rosolida, Rugiada del Sole; roud-leaved Sudew .
562. *Drosera pallida* : pale Sundew
563. *Dryandra polycephalus* : many headed Dryandra
564. *Dryandra praemorsa* : urchin Dryandra
565. *Dryas drummondii* : yellow Dryas
566. *Dryas octopetala* : Driade, Camedrio alpino
567. *Dryobalanops aromatica* (Borneolo),
568. *Dryopteris filix-mas* : Felce maschio (soggetta a restrinzioni legali in paesi)
569. *Dudleya cymosa* : Canyon dudleya
570. *Ecballium elaterium* : Cocomero asinino
571. *Echinacea purpurea, angustifolia,* or *pallida* : Echinacea, Pianta Pettine, Rudbeckia rossa, pallida
572. *Echium vulgare* : Erba viperina, Viperina azzurra, Serpentina, Erba rogna, Echio.
573. *Eclipta alba* : Bhringaraj, Bhringaraj (English), Takasaburo (Japanese), Lichang (Chinese), Takasaburo (Japan) (Sanskrit)
574. *Eichornia crassipes* : Giacinto d'Acqua
575. *Elephantopus scaber* : Piede d'Elefante, Prickly leaves, Pied d'Elephant, Gojihiva (Sanskrit)
576. *Elettaria cardamomum* : Cardamomo, Lessere cardamom, Cardamom (English), Kardamome (Deutsch), Cardamome (French), Karudemon (Japan), Ela Chhoti (Sanskrit);
577. *Eleuteria* : Cascarilla
578. *Eleuterococcus senticosus* (*Acanthopanax senticosus*) : Eleuterococco, Ginseng siberiano
579. *Elythranthera brunonis* : purple enamel Orchid
580. *Embelia ribes, glandulifera* : Embelia, Embelia Fruchte (Deutsch), Vidanga (Sanskrit)
581. *Emblica officinalis* (*Phyllanthus emblica*) : Emblic myrobalan (English), Amla (German), Amara (Japan), An Mole (Chinese), Amalik (Sanskrit).
582. *Embotrium coccineum* : Embotrio.
583. *Enothera biennis (Oenothera biennis*) : Enotera, Rapunzia.
584. *Ephedra vulgaris* : Efedra
585. *Epilobium angustifolium* : Epilobio; Fireweed, white Fireweed; Epilobe (French)
586. *Epilobium latifolium* : river Beauty
587. *Epilobium parviflorum* : Epilobio; Epilobe, willow-Herb; Epilobe (French)
588. *Epimedium saggitatum* : Yin Yang Huo
589. *Equisetum arvense* : Coda di Cavallo, Coda cavallina, Setolone; Horsetail
590. *Equisetum hiemale* : Asprella, Equiseto invernale.
591. *Equisetum maximum* : Coda di Cavallo, Coda cavallina, Setolone; Horsetail
592. *Erica arborea* : Scopa
593. *Erica vulgaris* : Erica
594. *Erigeron alpinus* : Cespola

595. *Erigeron canadensis* : Erigero.
596. *Eriodictyon californicum* : Erba santa; Yerba santa.
597. *Eriodictyon crassiflorium* : Eriodicto.
598. *Eriophorum sp*. : cotton Grass
599. *Eriophorum vaginatum* : Erioforo
600. *Erithrea antaurium* : Centaurea minore
601. *Erithronium purpurascens* : Giglio di Daino; fawn Lily
602. *Eritichium nanum* : Eritico
603. *Erodium cicutarium* : Filarea
604. *Erodium moschatum* : Erodio moscato, Erba muschio.
605. *Erthrina indica* : indian Coral
606. *Eruca sativa* : Rucola
607. *Ervum lens* (*Lens culinaris*) : Lenticchie
608. *Eryngium campestre* : Calcatreppolo
609. *Eryngium foetidum* : thorny Coriander, Ci Yan Sui
610. *Erysimum officinale* : Erisimo
611. *Erythraea centaurium* : Centaurea minore
612. *Erythraea chilensis* : Eritrea cilena
613. *Erythrina mulungu* : Mulungu
614. *Erythrina variegatis orientalis* : Corallo bianco; white Coral.
615. *Erythrina variegata*, *indica*, *stricta*, *corallodendron* : Albero del Corallo indiano, indian Coral Tree, Indisher Korallen Baum (Deutsch), Arbre immorte (French), Deigo (Japanese), Paribhadra (Sanskrit).
616. *Erithronium dens-canis* : Dente di Cane
617. *Erytroxylon coca* : Coca
618. *Erythroxylum catuaba* : Catuaba
619. *Eschscholtzia californica* : Escolzia; california Poppy
620. *Eucalyptus caesia* : silver princess Gum
621. *Eucalyptus erythrocorys* : Illaria, Illyarrie
622. *Eucalyptus forresiana* : fuchsia Gum
623. *Eucalyptus globulus* : Eucalipto, Albero della Febbre
624. *Eugenia caryophyllata* (or *Caryophyllus aromaticus*) : Garofano, Chiodi di Garofano (fiori), Eugenia aromatica;. Cloves(English)
625. *Eugenia jambolana* (*Syzygium jambolanum*) : Jambul; black Berry, Gewarz Nelke, Pomme Rose, Natsume (Japanese), Tsao (Chinese), Jambu (Sanskrit)
626. *Euonymus europaeus* : Fusaggine, Berretto da Prete, Corallini, Evonimo.
627. *Eupatorium cannabium* : Canapa acquatica, Eupatoria
628. *Eupatorium perfoliatum* : Canapa acquatica
629. *Eupatorium purpureum* : Canapa acquatica rossa
630. *Eupatorium triplinerve*, *ayapana* : Ayapana (Sanskrit)
631. *Euphorbia cyparissia* : Erba cipressina
632. *Euphorbia hirta*, or *pilulifera* : Euforbia; Pillenwolfsmilch (Deutsch), Dadakeeriya (Japanese), Dugadhika (Sanskrit);
633. *Euphorbia marginata* : Euforbia marginata (Tossica
634. *Euphorbia milli* : Christ's Thorn
635. *Euphorbia nerifolia* : common Milk Hedge, Enpurge (French), Kirinkaku (Japanese), Snoohi (Sanskrit)
636. *Euphorbia peplus* : Euforbia (Tossica)
637. *Euphorbia plentissima* : pill-bearing Spurge
638. *Euphorbia pulcherrima* : Stella di Natale (Tossica)
639. *Euphorbia resinifera* : Euforbia
640. *Euphrasia alpina* : Eufrasia
641. *Euphrasia officinalis* : Eufrasia, Erba degli Occhi; Euphraise (French)
642. *Euspongia officinalis* : Spugna di Mare
643. *Evodia rutaecarpa* : Evodia
644. *Evonymus atropurpureus* : Fusaggine nera
645. *Evonymus europaus* : Fusaggine
646. *Evolvulus alsinoides* : Vishnukraanti (Sanskrit)
647. *Fabiana imbricata* : Pichi-Pichi
648. *Fagopyrum dibotrys* : false Buckwheat, Ye Qiao Mai
649. *Fagopyrum esculentum* : Grano saraceno, Grano nero; Buckwheat or black Wheat
650. *Fagus sylvatica* : Faggio, Beech
651. *Ferula communis* : Ferola, Ferolaggine, Finocchiaccio
652. *Ferula narthex* (or *scorodosma*) : Ferula o Assa fetida

653. *Ferula foetida* : Assa fetida; Asafetida (Englisch), Perunkayam (Deutsch), Hingu (Sanskrit)
654. *Ficaria ranuncoloides* : Ficaria
655. *Ficus benghalensis or indica* : Banyan Tree, Figuier due bengal (French), Vata (Sanskrit)
656. *Ficus carica* : Fico; Figuier (French) .
657. *Ficus racemosa, glomerata* : country Fig Tree, Figuier du dialile; Attikka (Japanese), Udumbara (Sanskrit)
658. *Ficus religiosa* : sacred Fig, Bobaum Peepal (Deutsch), Figuier-ou-arbe despagodes (French), Tenjikubodaiju (Japanese), Pou tichou (Chinese), Aswatha (Sanskrit).
659. *Ficus vesiculosus* : alga bitorzoluta
660. *Filipendula ulmaria* or *Spiraea ulmaria* [Rosaceae] : Olmaria, Ulmaria, Regina dei Prati .
661. *Flaveria contrayerba* : Flaveria
662. *Foeniculum dulce* : Finocchio dolce
663. *Foeniculum officinale* : Finocchio
664. *Foeniculum sylvestre* : Finocchio selvatico
665. *Foeniculum vulgare*, or *capillaceum* (or *Anethum foeniculum*) [Umbrelliferae] : Finocchio selvatico, Anice dolce, Erba buona, Fennel, Garten Feuchel (Deutsch), Uikyo (Japanese), Hui Xiang, Hui-hsiang (Chinese), Satupuspa (Sanskrit).
666. *Fragaria vesca* : Fragola selvatica
667. *Frangula alnus* (or *Rhamnus frangula*) : Frangola, Frangula
668. *Fraxinus excelsior* : Frassino comune .
669. *Fraxinus ornus* : Frassino orniello, Manna
670. *Fritillaria cirrhosa* : Fritellaria; Crown
671. *Fritillaria imperialis* : Fritellaria imperiale, imperial Crown
672. *Fuchsia hybrida*, or *macrostemma* : Fucsia; Fuchsia
673. *Fucus vesiculosus* : Alga bruna, Fucus, Quercia marina .
674. *Fumaria indica* or *parviflora* : common Fumitory, Erdrauch (Deutsch), Tuysha Tu Chian (Chinese), Parpata (Sanskrit)
675. *Fumaria officinalis* : Fumaria, Fumosterno, Fumitory
676. *Galanthus nivalis* : Bucaneve
677. *Galega officinalis* : Galega
678. *Galeopsis grandiflora* : Galeopside
679. *Galipea officialis* (or *Cusparia febrifuga* or *officialis*) : Angostura
680. *Galium mollugo* : Caglio
681. *Galium verum* : Gallio; Gaillet (French);
682. *Gallium aparina* (*Galium aparine*) : Coglio, Aparine, Attaccamani, Attaccavesti
683. *Ganoderma lucidum* : Fungo-Fantasma, Reishi
684. *Garcinia cambogia* : Garcinia di Cambogia
685. *Garcinia indica, purpurea* : Mango rosso, red Mango, Kokumol (Deutsch), Brikshamia (Sanskrit)
686. *Garcinia morella* : Garcinia indiana; indian Gamboge, Gokatu (Deutsch), Tamal (Sanskrit)
687. *Gardenia jasminoides* : Gardenia
688. *Gelsemium sempervirens* : Gelsemio
689. *Genista hispanica* :Aulaga, Argelago
690. *Gentiana acaulis* or *clusii* : Genzianella, Genziana di Clusio
691. *Gentiana amarella* : Genzianella autunnale, Gentian
692. *Gentiana asclepiadea* : Genziana
693. *Gentiana germanica* : Genziana autunnale
694. *Gentiana lutea* : Genziana maggiore, Genziana gialla
695. *Gentiana rochiana* : Genzianella
696. *Gentiana verna* : Genzanella di Primavera
697. *Geocaulon lividum* : Comandra
698. *Geranium erianthum* : sticky Geranium
699. *Geranium robertianum* : Geranio robertiano, Erba roberta, Erba cimicina, Cicuta rossa, Erba di Roberto; (**potenzialmente tossica**).
700. *Geranium silvaticum* : Geranio selvatico
701. *Geum urbanum* : Erba benedetta, Benedetta, Cariofillata di Monte, Ambretta
702. *Ghee* : Burro chiarificato
703. *Ginkgo biloba* : Ginkgo
704. *Gladiolus caryophyllaceus* : pink Trumpet
705. *Gladiolus segetum* : Spadacciola
706. *Glechoma hederaceum* : Edera terrestre .
707. *Glicirida maculata* : spotted Gliciridia
708. *Globularia cordifolia* : Globularia strisciante
709. *Globularia vulgaris* : Morine

710. *Gloriosa superba* : superb Lily, Gloriosa Knollen (Deutsch), Glorieus du Malalier (French), Yurigurama (Japanese), Langalika (Sanskrit)
711. *Glycine maxima* : soia gialla, yellow Soybean, soya Bean, Huang Dou
712. *Glycine soja* : soia nera, black Soybean, Hei Dou
713. *Glycirrhiza glabra* : Liquirizia, Radice dolce, Legno dolce; sweet Root; Sussholz (Deutsch), Kanzo (Japanese), Kan-ts'ao (Chinese), Yashtimadhu (Sanskrit) ;
714. *Gmelina arborea* : Gambhari (Sanskrit)
715. *Gnaphalium polycephalum* or *gira-gira* : Gnafalio, Verbasco
716. *Gnaphalium supinum* : Zampa di Gatto
717. *Gonolobus condurango* (*Marasdenia cundurango*): Condurango
718. *Gossypium herbaceum, indicum* : indian Cotton, indische Baumwollenstaude (Deutsch), Cotoiner de-l'Inde, Wata (Japanese), Bong (Chinese), Karpas (Sanskrit).
719. *Gratiola officinalis* : Graziola
720. *Grevillea bipinnatifida* : fuchsia Grevillea
721. *Grevillea tenuiloba* : golden Glory Grevillea
722. *Grewia hirsuta, polygama, pilosa* : Gulsakri (Englisch), Nagbala (Sanskrit)
723. *Grifola frondosa* : Fungo danzante; Maitake
724. *Grindelia robusta* : Grindelia
725. *Guajacum officinale* : Guaiaco
726. *Guarea rusbyi* : Cocillana
727. *Guazuma ulmifolia* : Mutamba
728. *Gymnema silvestre* (*Asclepias geminata*) : Gimnema; Meshasringi (Sanskrit);
729. *Gynostemma pentaphyllum* : Pianta dell'Immortalità
730. *Gynura bicolor* : red back Vegetable, Hong Bei Cai (Chinese)
731. *Gypsophila repens* : Velo da Sposa
732. *Hagenia abyssinica* (or *Brayera anthelmithica*) : Braiera o Cusso
733. *Hakea laurina* : pincushion Hakea
734. *Hamamelis virginiana* : Amamelide, Nocciolo delle Streghe
735. *Hammarbya paludosa* : green Fairy Orchid
736. *Harpagophytum procumbens* : Arpagofito, Artiglio del Diavolo
737. *Hebe speciosa* : Veronica
738. *Hedera helix* : Edera comune, Ellera, Edera rampicante, Edera Helix
739. *Hedychium coronarium koenig* : Butterfly Lily
740. *Hedysarum coronarium* : Sulla
741. *Helianthemum nummularium* : Eliantemo, Rosa di Roccia; Rock Rose; Heliantheme (French)
742. *Helianthus annuda* : Sunflower
743. *Helianthus annuus* : Girasole ; Sunflower (English)
744. *Helianthus tuberosus* : Carciofo di Gerusalemme, Topinambur; Jeruralem Artichoke ;
745. *Helichrysum italicum* : Elicriso italico .
746. *Helicteres isora* : east indian Screw Tree, Caydotron (Chinese)
747. *Heliotropium angiospermum* :Erba dell'Alacrano
748. *Heliotropium indicum* (*Cissus quadrangularis, Vitis quadrangularis*) : Conciaossa; Bone setter, Hirassa, Asthisanhari (Sanskrit).
749. *Heliotropium peruvianum* : Eliotropio peruviano.
750. *Helipterum roseum* : pink everlasting Straw
751. *Helleborus niger* : Elleboro nero (Tossica)
752. *Helleborus fetidus* : Elleboro puzzolente (Tossica)
753. *Helleborus viridis* : Erba Nocca(Tossica)
754. *Hemiandra pungens* : Snakebush.
755. *Hemidesmus indicus* : Sarsaparilla indiana, indian Sarsaparilla, Ostindische Sarsaparilla, Salsepareille indienne, Indosarusa (Japanese).
756. *Heracleum lanatum* : Cow Parsnip
757. *Heracleum sphondylium* : Panace, Ginseng italiano.
758. *Hibbertia scadens* : Snakevine.
759. *Hibiscus abelmoschus* o *Abelmoscythus moschatus* : Ambretta
760. *Hibiscus alba* : Ibisco bianco; white Hibiscus
761. *Hibiscus abelmoschus* (*Abelmoschus moschatus*) : musk Mallow, Lataksturikam (Sanskrit)
762. *Hibiscus sabdariffa* : Ibisco, Carcadè; Hibiscus
763. *Hibiscus syriacus* : Rose of Sharon, Mu Jin Hua
764. *Hieracium pilosella* : Pilosella, Pelosella
765. *Hierochloe odorata* : Sweetgrass
766. *Hinthostachys setosa* :Muna-Muna

767. *Holarrhena antidysenterica* : Kurchi Tree, Kurchirinde (Deutsch), Ecore-d'Codagapala (French), Konetsushi (Japanese), Kutaja (Sanskrit)
768. *Hordeum vulgare* : Orzo; Barley
769. *Houttuynia cordata* : Ottinia; cordate Houttuynia, stinking Fish Plant, Yu Xing Cao (Chinese)
770. *Hottonia palustris* : Violetta d'acqua, Water violet
771. *Humulus lupulus* : Luppolo, Cupola, Livertizio; Houblon (French);
772. *Hurtica dioica* (or *Urtica dioica*) : Ortica grande; Ortie (French);
773. *Hybathhs calycinus* : wild Violet
774. *Hydnocarpus laurifolia, wightiana* : jangli Almond, Chaulmoogra (Deutsch), Daifushi (Japanese) Ta-feng-tzu (Chinese), Tuvaraka (Sanskrit).
775. *Hydrangea arborescens* : Idrangea.
776. *Hydrastis canadensis* : Idraste, Sigillo d'Oro, golden Seal
777. *Hydrocotile asiatica* : Centella asiatica, indian Pennywort, Asiotischer Wassernabel, Tsubokura (Japanese), Mandukaparni (Sanskrit).
778. *Hygrophila auriculata* (*Asteracantha longifolia*) : Langblathriger Sterndorn (Deutsch), Kokilaksha (Sanskrit).
779. *Hymenaea courbaril* :Jatoba
780. *Hyoscyamus niger* : Quisquiamo, Giusquiamo, Henbane, Bilsenkraut, Hiyosu (Japanese), Lao Lang Hoa (Chinese), Yavani (Sanskrit); (**molto tossica**)
781. *Hyoseris radiata* : Ioseride
782. *Hypericum perforatum* : Iperico, Pilatro, Cacciadiavoli, Erba di San Giovanni, Mille Buchi, Saint John's Wort
783. *Hypericum richeri* : Iperico montano, Pilatro, Scacciadiavoli, Erba di San Giovanni
784. *Hypochaeris radicata* : Piattello
785. *Hypoxis hemerocallidea* : Patata africana
786. *Hippophae rhamnoides* : Olivello spinoso
787. *Hyssopus officinalis* : Issopo, Erba odorosa, Soleggio, Hyssop, Kleinblatt-Rigerysop, Yanagihakuga (Japanese), Zupha (Sanskrit);
788. *Kaempferia aethiopica* : Kinkelibà
789. *Kaempferia galanga* : sand Ginger, Galanga, Sha Jiang
790. *Kingia argentia* : goddess Grasstree
791. *Krameria triandra* : Ratania
792. *Iberis amara* : Raspo amaro
793. *Ignatia amara* (or *Strychnos ignatii*) : Fava di San Ignazio
794. *Ilex aquifolium* : Agrifoglio, Holly
795. *Ilex paraguariensis* : Matè
796. *Illicium verum* : Anice stellato
797. *Impatiens glandulifera* : Non Mi Toccare; Impatiens
798. *Inesinae calea* : Aranto
799. *Inula helenium* : Inula, Enula campana, Elenio, Erbella
800. *Ipomoea aquatica* : water Spinach, hollow Vegetable, swamp Cabbage, Weng Cai
801. *Ipomoea batatas* : Batata rossa, Patata americana, Batata, sweet Potato, Hong Shu
802. *Ipomoea nil, hederacea, pharbitis* : pharbitis Seeds, Kaladana Harz (Deutsch), Krishnavijani
803. *Ipomoea purpurea* : Gloria del Mattino; morning Glory; Ipomee .
804. *Ipomoea turpethum* (*Operculina turpethum*; *Convolvulus turpethum*) : indian Jalap; Brast Liauische; Trivrit (Sanskrit).
805. *Iris douglasiana* : Iride, Giaggiolo; Iris.
806. *Iris florentina* : Iride bianco, Giaggiolo bianco; white Iris
807. *Iris germanica* : Iride, Ireos, Giaggiolo
808. *Iris pseudo-acorus* : Iride giallo, Giaggiolo giallo, Coltellaccio; yellow Iris
809. *Iris setosa* : wild Iris
810. *Iris versicolor* : Iride multicolore, Iride comune, Giaggiolo comune
811. *Ixeris denticulata* : chinese vegetable, Bitter, Ku Mai Cai (Chinese)
812. *Ixora* : Ixora
813. *Isopogon formosus* : rose Cone
814. *Jasmine officinalis* : Jasmin (French).
815. *Jasmine arborescens* : night Jasmine
816. *Jasminum sambac* : arabian Jasmine, Arabischer Jasmin, Matsurika (Japanese), Moli (Chinese), Mallika (Sanskrit).
817. *Jateorrhiza columba* : Colombo
818. *Jatropa manihot* (or *Manihot utilissima*) : Manioca amara
819. *Junglans nigra* : Noce nero
820. *Junglans regia* : Noce comune, Walnut, Nut Tree;
821. *Juniperus communis* : Ginepro, Petron, Juniper Berry; Wacholder Beere (Deutsch), Baie de genevrier, Hapusa (Sanskrit);

822.*Juniperus sabina, zelanica*) : Malabar Nut; Malabar Nuss; Adotada (Japanese); Vasaka (Sanskrit).
823.*Laburnum anagyroides* : Laburno, Maggiociondolo; Laburnum; (tossica)
824.*Lactuca sativa* : Lattuga, Celtuce, Lettuce, asparagus Lettuce , Wo Ju
825.*Lactuga sativa capitata* : Lattuga a cappuccio
826.*Lactuga scariola* : Lattuga scariola
827.*Lactuga virosa* : Cavolaccio
828.*Lagenaria sinceraria* : Calabash, bottle Gourd, Hu Lu (Chinese)
829.Laminaria digitata : Laminaria; Kelp
830.*Lamium album* : Lamio, Ortica bianca, Milzadella.
831.*Lamium purpureum* : Lamio rosso
832.*Lapsana communis* : Lassana, Erba delle Mammelle
833.*Larix decidua* : Larice
834.*Larix europaea* : Trementina
835.*Larix laricina* : Tamarack
836.*Larrea mexicana* : Chaparral
837.*Larrea nitida* : Larrea
838.*Lathyrus latifolius, odoratus* : Pisello odoroso, sweet Pea (English)
839.*Laurus camphora, Dryobalanops aromatica* : Lauro della Canfora
840.*Laurus nobilis* : Alloro
841.*Lavandula officinalis, angustifolia, spica* : Lavanda, Spigo, Nardo, Spigonardo.
842.*Lavandula stoechas* : Steca o Sticadosso
843.*Lawsonia inermis* : Hennè .
844.*Lens culinaris* (*Ervum lens*) : Lenticchie.; Lentils
845.*Lentinus edodes* : Shitake
846.*Ledum palustre* : Rosmarino selvatico, Ramerino di Palude, The del Labrador; Labrador Tea
847.*Leontodon taraxacum* (*Taraxacum officinalis*) : Tarassaco, Dente di Leone, Cicoria matta, Soffione
848.*Leontodon tuberosus* : Leontodo
849.Leonurus cardiaca : Cardiaca
850.*Lepidium meyenii* : Maca-Maca
851.*Lepidium sativum* : Agretto, Crescione inglese, Crescione comune
852.*Leschenaultia biloba* : blue Leschenaultia
853.*Lechenaultia formosus* : yellow, red, orange Leschenaultia.
854.*Leontopodium alpinum* : Stella alpina
855.*Lepidium latifolium* : Mostardina
856.*Lepidium sativum* : Agretto, Cardamomo
857.*Leptandra virginiana* : Leptandra
858.*Lespedeza capitata* : Lespedeza
859.*Leucanthemopsis alpina* : Crisantemo delle Alpi
860.*Leucojum aestivum* : Campanelle
861.*Leucojum vernum* : Campanellino o Bucaneve maggiore
862.*Levisticum officinale* (*Meum mutellina*) : Levistico, Sedano di Montagna
863.*Libertia coerulescens* : Libertia
864.Lichen islandicus : Lichene islandico
865.*Ligustrum lucidum* or *vulgare* : Ligustro
866.*Lilium candidum* : Giglio
867.*Lilium humboldtii* : Giglio della Tigre; Tiger Lily
868.*Lilium longiflorium* : Giglio dell'Est; eastern Lily
869.*Lilium martagon* : Lis martagon (French);
870.*Lilium parvum*: Giglio alpino; alpine Lily
871.*Linaria alpina* : Linaria di Monte
872.*Linaria vulgaris* : Linaria, Linaiola
873.*Linnanea borealis* : Twinflower
874.*Linum catharticum* : Lino catartico
875.*Linum usitatissimum* : Lino, Linosa; Linseed (English); Flachs (Deutsch); Lin (French); Ana (Japanese); Hou ma tse (Chinese); Uma (Sanskrit).
876.*Lippia citridora* : Verbena odorosa, Erba eloisia, Erba Luigia
877.*Liriosma ovata* or *Ptychopetalum olacoides* : Muira Puama .
878.*Listera borealis* : northern Twayblade
879.*Listera cordata* : Tundra Twayblade
880.*Lithospermum officinale* : Migliarino .
881.*Litsea glutinosa, chinensis, sebifera* : Maidasak (Sanskrit)
882.*Lobelia inflata* : Lobelia .

883.*Lobelia nicotianaefolia* : Lobelic (Deutsch); Nala (Sanskrit)
884.*Loiselluria procumbes* : Azalea alpina; alpine azalea
885.*Lolium temulentum* : Loglio
886.*Lonicera caprifolium* : Madreselva, Caprifoglio, Honeysuckle.
887.*Lophophytum leandri* : Fiore di Pietra
888.*Lotus alpina* : Ginestrino di Monte
889.*Lotus corniculatus* : Ginestrina, Ginestrino; five-finger (english)
890.*Luffa acutangula* : Ribbed gourd; Scharfeckige Gurke (Deutsch); Pipangua (French); Tokadochechima (Japanese); Szukua (Chinese); Koshataki (Sanskrit)
891.*Luffa aegyptiaca*, or *operculata* : Luffa; sponge Gourd; Luffa Schwammlobelic (Deutsch); Mechima (Japanese); Szu skua (Chinese); Dhamargava (Sanskrit).
892.*Luffa cylindrica* : Towel Gaourd, silk Melon, Loofah, Si Gua (Chinese)
893.*Lupinus albus* : Lupino ;Lupin(english)
894.*Lychnis alba* : Licnide bianca
895.*Lychnis flos-cuculi* : Fior di Cuculo
896.*Lychnis rubra* : Licnide rosa
897.*Lycium chinense* : chinese Wolfberry, Gou Qi Cai, or Cou Qi Zhi (Chinese)
898.*Lycium europaeum* : Spinacristi; Wolfberry (Tossica)
899.*Lycopersicum esculentum* : Tomato, Fan Qie
900.Lycopodium clavatum : Licopodio
901.Lygustrum vulgare : Ligustro
902.*Lypercanthus nigricans* : red beak Orchid
903.*Lythrum salicaria* : Salicaria, Salcerella
904.*Macropidia fuliginosa* : black Kangaroo Paw
905.*Macrozamia reidlei* : Macrozamia
906.*Madia elegans* : Madia
907.*Madia sativa* : Melosa
908.Madhuca longifolia (*Bassia longifolia*) : indian Butter Tree; Madhuka (Sanskrit)
909.*Majorana hortensis* (*Oreganum majorana* : Maggiorana; Marjoram(English)
910.*Mallotus philippensis* (*Croton philippensis*) : Rottlera (English); Kamala (Deutsch); Kamola (French); Kampillaka (Sanskrit)
911.Malpighia punicifolia or *glabra* : Acerola
912.Malus communis (or *Pirus malus*) : Mela; Apple ; Pommier (French);
913.*Malus sylvestris* : Melo ornamentale; crab Apple ;
914.*Malva crispa* : cluster Mallow, Dong Jui (Chinese)
915.Malva silvestris, vulgaris, nelecta : Malva
916.Mandragora officinarum : Mandragora (potenzialmente tossica)
917.Manihot utilissima (or *Jatropa manihot*) : Manioca amara
918.*Marasdenia cundurango* (*Gonolobus condurango*) : Condurango
919.*Mardenbergia comptoniana* : happy Wanderer
920.*Margycarpus setosus* : Margicarpo
921.*Marrubium vulgaris* : Marrobio bianco, Marrubio bianco, Erba arpiola
922.Matricaria chamomilla : Camomilla comune, Camomilla vera, Camomilla volgare
923.Matricaria inodorosa : Camomilla bastarda
924.Matricaria matricaroides : pineapple Weed
925.Matricaria parthenum : Matricaria, Amoreggiola
926.*Maytenus illicifolia* : Espineira santa
927.Maytenus krukovit :Chuchuhuasi
928.*Medicago sativa* : Erba medica, Alfa Alfa ;Lucerne(english)
929.*Megastigma lutea* : yellow Boronia
930.*Melaleuca alternifoglia* : Albero del The
Melaleuca leucodendron or *minor* (Cajeput),
Melaleuca quinquenervia viridiflora (Niaouli),
931.*Melaleuca thymafolia* : mauve Melaleuca
932.Melia azadirachta, azedarach : persian Lilac; Gemeiner Zedrach; Margosier; Nimba (Sanskrit).
933.Melilotus officinalis : Meliloto, Erba vetturina ; yellow melilot(english)
934.*Melissa monarda, officinalis, calamintha* : Melissa, Citronella, Cedronella, Erba bergamotta, Erba Limone; balm-Mint (English).
935.*Melittis melissiphyllum* : Melitta
936.*Mentha arvensis* : Corn mint; Mint (English); Minze (Deutsch); Midorihakka (Japanese); Puthea (Sanskrit).
937.*Mentha haplocalyx* : Peppermint, Bo He
938.*Mentha piperita, viridis* : Menta; Peppermint .

939.*Mentha pulegium* : Menthe pouliot (French)
940.*Mentha spicata* : Spearmint, Liu Lan Xiang
941.*Menyanthes trifoliata* : Trifoglio d'Acqua, o Trifoglio fibrino
942.*Mercurialis annua* : Mercorella
943.*Merremia hederacea* : morning Glory, Pa Li Cai (Chinese)
944.*Mertensia paniculata* : chiming Bells
945.*Mesembryantheum chilense* : Mesembriantemo
946.*Mespylus germanica* : Nespola comune
947.*Mesua ferrea* : Croco di Cobra; Cobra's Saffron; Nagassamen (Deutsch);Tagayasan (Japanese); Thiet lucmoc (Chinese); Nagkeshara (Sanskrit).
948.*Meum athamanticum* : Finocchiella
949.*Meum mutellina* (*Levisticum officinale*) : Levistico, o Sedano di Monte
950.*Michelia champaca* : yellow Champa; Wohlrieshen-de Michele (Deutsch); Champac (French); Kinkoboku (Japanese); Champaka (Sanskrit).
951.*Milium effusum* : Miglio; Millet(English)
952.*Mimosa cavenia* : Mimosa
953.*Mimosa tenuiflora* : Mimosa, Albero della Pelle; Tepezcohuite
954.*Mimulus aurantiacus* : sticky Monkey
955.*Mimulus cardinalis* : scarlet Monkey
956.*Mimulus guttatus* : Mimolo giallo; Mimulus
957.*Mimulus lewisii* : pink Monkey
958.*Mimusops elengi* : Affengesict (Deutsch); Karanicim (French); Bakula (Sanskrit).
959.*Mirabilis jalapa* : Bella di Notte
960.*Moehringia lateriflora* : grove Sandwort
961.*Molucella laevis* : green Bells of Ireland
962.*Momordica balsamica* : Mela balsamica
963.*Momordica charantica* : Cocomero d'Africa, Balsam-Pear, bitter Melon, Ku Gua
964.*Monardella odoratissima* : mountain Pennyroyal ;
965.*Moneses uniflora* : single Delight
966.Morinda citrifolia : Bumbo africano, Gelso indiano, Gran Morinda, Lada, Mengkudo, Nhau, Nonu, Noni, Nono).
967.*Moringa oleifera, pterygosperma* : Moringa; Horseradish Tree, Drumstick; Moronguier; Sigru (Sanskrit).
968.*Morus alba* : gelso bianco, indian Mulberry
969.*Morus celsa* : Gelso
970.*Morus nigra* : Gelso nero
971.*Mucuna pruriens* : Cow-itch Plant; Jackbohne (Deutsch); Hatsushomame (Japanese); Kapikachchha (Sanskrit).
972.*Muehenbeckia volcanica* or *Physalis angulata*:Mullaca
973.*Multifida dilitata* : Brachyome
974.*Murdannia braceata* : spit fire Vegetable, Tan Huo Cai
975.*Murraia Koelgu Spreng* : Curry Leaf
976.*Musa sapientum, acuminata, paradisiaca* : Banana, Platanos (Espagnol).
977.*Muscari botryoides* : Pentolini, Muschini.
978.Muscari camosus : Cipollaccio
979.Myosotis sylvatica or *alpestris* : Forget-me-Not
980.Myrcia salicifolia : Pedra Hume Caa
981.*Myrciaria paraensis* or *dubia* : Camu-Camu, Kamu-Kamu
982.*Myrica gale* : Sweetgale
983.*Myrica salicifolia* :Pedra Hume Caa.
984.*Myristica fragrans, sebifera* : Noce moscata, Miristica odorosa; Nutmeg (English) Echtermuscatnussbaum (Deutsch); Nikuzuku (Japanese); Jatiphalam (Sanskrit).
985.Myroxylon balsamum or *pereirae* : Tolù, Balsamo di Tolù
986.*Myrrhis odorata* : Mirra odorata, Miride, Finocchiella
987.*Myrtus communis* : Mirto, Mortella, Pepe della Corsica
988.*Narcissus poeticus* : Fior Maggio, Narciso silvestre
989.*Narcissus pseudonarcissus* : Narciso silvestre, Trombone, Giunchiglia, Tazzinella
990.*Narcissus tazzetta* : Tazzetta
991.*Nardostachys jatamansi* : Nardo indiano; Musk root (English); Indische Narde; Jata-manchi (French); Kan Sung (Chinese); Jatamansi (Sanskrit).
992.*Nasturtium officinale* : Nasturzio, Crescione, Watercress, Xi Yang Cai
993.*Nelumbium nelumbo, speciosum* (*Nelumbo nucifera*, *Nymphaea nelumbo*) : Loto sacro, Loto indiano; sacred Lotus, lotus Root, Indische Lotosblume; Lotus sacre; Hasu (Japanese); Lienou , Ou (Chinese); Kamal (Sanskrit).
994.*Nemophila menziesii* : Occhi Blu di Bambino; Baby Blue Eyes
995.*Nepeta cataria* : Erba gatta, Cataria, Erba gattaia, Nepitella, Menta dei Gatti, Menta selvatica

996. *Nerium indicum, odorum* : Roseberry Spurge; Wahlriechender Oleandes (Deutsch); Kenera (Japanese); Kyochikuto (Chinese); Karavira (Sanskrit).
997. *Nerium oleander* : Oleandro (Tossica)
998. *Nicotiana alata* : Nicotiana, Fiore del Tabacco; Tobacco
999. *Nicotiana tabacum* : Tabacco (potenzialmente tossica)
1000. *Nigella damascaena* : Damigella o Fanciullaccia (Tossica)
1001. *Nigella sativa* (*Carum nigrum*) : Melanzio nero, Cumino nero; black Cumin; Schwarzkummel; Cumin noir; Nigera (Japanese); Upakunchika (Sanskrit);
1002. *Nuytsia floribunda* : Cristo dell'Australia; west australian Christmas Tree.
1003. *Nux moschata* : Noce moscata
1004. *Nymphaea alba* : Ninfea, Carfano; water Lily.
1005. *Nymphaea nelumbo* (*Nelumbium nelumbo, speciosum*; *Nelumbo nucifera*) : Loto sacro, Loto indiano; sacred Lotus, Indische Lotosblume; Lotus sacre; Hasu (Japanese); Lienou (Chinese); Kamal (Sanskrit).
1006. *Nymphaea violacea* : purple nymph Waterlily
1007. *Nyctanthes arbor-tristis* : Night Jasmine; Parijata (Sanskrit)
1008. *Ochrocarpus longifolius* : Alexandrian Laurel; Punnaga (Sanskrit).
1009. *Ocimum basilicum* : Basilico dolce, Erba reale, Arancio dei Ciabattini; sweet Basil, Basil (English); Basilic (Frenc); Luo Le (Chinese).
1010. *Ocimum sanctum* : Basilico odoroso; Holy Basil; Basttikum (Deutsch); Basilic odorant; Tulssi (Sanskrit).
1011. *Oenanthe aquatica* : Finocchio acquatico (tossico)
1012. *Oenanthe crocata* : Enante (molto tossica)
1013. *Oenanthe javanica* : water Celery, water Dropwort, Shui Qin
1014. *Oenanthe phellandrium* : Fellandrio o Finocchio acquatico (molto tossica)
1015. *Oenothera acaulis* : Enotera
1016. *Oenothera biennis* (*Enotera biennis*) : Enotera
1017. *Oenothera hookery* : Primavera della Sera; evening Primrose
1018. *Oenothera multicaulis* :Saya-Saya
1019. *Olea europaea* : Olivo; Olive
1020. *Oninis repens* : Bulinaca (potenzialmente tossica)
1021. *Ononis spinosa* (or *Adonis vernalis*) : Anonide, Ononide, Ononide spinosa (potenzialmente tossica)
1022. *Operculina turpethum* (*Ipomoea turpethum*; *Convolvulus turpethum*) : indian Jalap; Brast Liauische; Trivrit (Sanskrit)
1023. *Ophrys apifera* : Vesparia
1024. *Orchis maculata* : Concordia
1025. *Orchis morio* : Giglio caprino, Pan di Cuculo
1026. *Origanum dictamnus* : Dittamo
1027. *Origanum majorana* (*Majorana hortensis*) : Maggiorana; Marjoram(English)
1028. *Origanum vulgare* : Origano, Menta bastarda, Erba acciuga, Maggiorana selvatica; Oregano(English)
1029. *Ornithogalum umbellatum* (or *Calectasia*) : Latte di Gallina, Cipollone bianco, Stella di Betlemme, Star of Bethlehem.
1030. *Oroxylum indicum* : Ch'len Tseng (Chinese); Shyonaka (Sanskrit)
1031. *Orthosiphon stamineus* : Ortosifon, The di Giava
1032. *Oryza sativa* : Riso; Rice (English)
1033. *Oxalis acetosella* : Acetosella
1034. *Paederia foetida* : Pianta del Fiore cinese; chinese Flower Plant; Prasarini (Sanskrit).
1035. *Paeonia officinalis* : Peonia
1036. *Papaver rhoeas* : Papavero rosso, Rosalaccio
1037. *Papaver somniferum* : Oppio; Papevero del Sonno, Papavero sonnifero
1038. *Paris quadrifolia* : Uva di Volpe (potenzialmente tossica)
1039. *Passiflora incarnata* or *edulis* : Passiflora, Maracuja
1040. *Passiflora mollissima* : Curuba
1041. *Pastinaca sativa* : Pastinaca; parsnips(english)
1042. *Patersomia occidentalis* : purple Flag
1043. *Panax ginseng* : Ginseng coreano, Radice della Vita, Radice d'Uomo
1044. *Panax quinquefolium* : Ginseng americano
1045. *Pandanus odoratissimus, tectorius* : Fragrant Screwpine; Schrauben Palme; Togenashiadan (Japanese); Kataki (Sanskrit).
1046. *Panicum miliaceum* : Miglio
1047. *Papaver icelandica* : Papavero islandese, icelandic Poppy
1048. *Papaver rhoeas* : Rosalaccio (**potenzialmente tossico**)
1049. *Papaver somniferum* : Papavero dell' Oppio; Opium Poppy; Mohn (Deutsch); Keshi (Japanese); Ya-pin (Chinese); Affiun; Ahiphenam (Sanskrit).

1050. *Parietaria officinalis* : Parietaria
1051. *Parnassia palustris* : Erba di Parnasso; Grass of Parnassus
1052. *Passiflora edulis* or *incarnata* :Passiflora, Maracuja, Passiflore (French)
1053. *Pastinaca sativa* : Pastinaca
1054. *Patersonia xanthina* : yellow Flag
1055. *Pachyrhizus erosus* : Yam Beam, Liang Shu
1056. *Paullinia sorbilis* or *cupana* : Guaranà
1057. *Paw anigozanthos manglesii* : yellow and green Kankgaroo
1058. *Pedicularis rostrato-capitata* : Pedicolare
1059. *Peganum harmala* : syrian Rue; Harmelraute; Harmal (Sanskrit)
1060. *Pelargonium graveolens* : Geranio
1061. *Penstemon davidsonii* : Penstemon
1062. *Penstemon newberry* : mountain Pride
1063. *Perilla frutescens* : Perilla; purple Perilla, Zi Su (Chinese)
1064. *Persea amaericana* : Avocado
1065. *Persea gratissima* : Pero avocato
1066. *Petasites hybridus, officinalis* : Petasite, Farfaraccio, Cavolaccio
1067. *Petrophile linearis* : pixie Mops
1068. *Petroselinum crispum* or *sativum* : Prezzemolo riccio
1069. *Petroselinum hortense* (or *Apium petroselinum* or *Carum petrioselinum*) : Prezzemolo
1070. *Peucedanum graveolens* (*Anethum sowa*) : indian Dill (English); garten Dill; Indndo (Japanese); Misroya Satapushpi (Sanskrit).
1071. *Peucedanum officinale* : Finocchio porcino
1072. *Peucedanum ostruthium* : Erba rena, Imperatoria.
1073. *Peumus boldus* : Boldo
1074. *Pfaffia paniculata* : Suma
1075. *Phaseolus vulgaris* : Fagiolo ; Beans(English).
1076. *Phellodendron pertusum* (or *Philodendron pertusum*) : Filodendro o Monstera.
1077. *Phitolacca decandra* : Fitolacca.
1078. *Phoenix dactylifera* : Dattero
1079. *Phyllanthus emblica* (*Emblica officinalis*) : Emblic myrobalan (English), Amla (German), Amara (Japan), An Mole (Chinese), Amalik (Sanskrit)
1080. *Phyllantus fraternus, niruri* : Spaccapietra, Chanca Pietra (Espagnol) Niruri (French); Kidachimikanso (Japanese); Bhumyaamlaki (Sanskrit).
1081. *Phyrus communis* : Pera; Pear
1082. *Physalis alkekengi* : Alkekengi, Alchechengio, Chichingero.
1083. *Physalis angulata* or *Muehenbeckia volcanica* :Mullaca
1084. *Phyteuma hemisphaericum* : Fiteuma
1085. *Phyteuma spicatum* : Fiteuma spigata
1086. *Phytolaccia decandra* : Fitolaccia
1087. *Picca mariana* : black Spruce
1088. *Picea sitchensis* : sitka spruce Pollen
1089. *Picrorrhiza kurroa* : Kooren (Japanese); Hu Huang Line (Chinese); Katula (Sanskrit).
1090. *Picea abies* : Epicea (French)
1091. *Picea excelsa* (or *Abies excelsa*) : Abete rosso
1092. *Picea glauca* : white Spruce
1093. *Picea marina* (or *Pinus maritima*) : Pino marittimo
1094. *Pieris echioides* : Aspraggine
1095. *Pilea cavalieriei* : stone oil Rape, Shi You Cai (Chinese)
1096. *Pilocarpus jaborandi* : Jaborandi
1097. *Pimenta racemosa* (Pimento),
1098. *Pimpinella anisum* : Anice, Anice verde, Aice comune, Cumino dolce; Anise(English)
1099. *Pimpinella magna* : Tragoselino
1100. *Pimpinella major* : Pimpinella, Tragosellino
1101. *Pimpinella saxifraga* : Pimpinella
1102. *Pinguicula villosa* : hairy Butterwort
1103. *Pinguicula vulgaris* : Pinguicola
1104. *Pinus deodara* (*Cedrus libani, deodora*) : Cedro del Libano, Deodar, Cedre deodar (Sanskrit)
1105. *Pinus maritima* (or *Picea maritima*) : Pino marittimo
1106. *Pinus mughus, pumilius* : Pino mugo, Mugo
1107. *Pinus pinea* :Pino;Pine(English)
1108. *Pinus sylvestris* : Pino silvestre, Pino della Scozia; Pine (English)

1109. *Piper angustifolium* : Matico
1110. *Piper longum* : Pepe lungo; Long Pepper; Racines de poivre long; Hihatsu (Japanese); Pipo (Chinese); Pipali (Sanskrit).
1111. *Piper methysticum* : Kava Kava, Pepe kawa
1112. *Piper nigrum* : Pepe nero; black Pepper; Schwartzer Pfeffer; Poivre noir; Hu Jiao, Huchio (Chinese); Maricha (Sanskrit).
1113. *Piper sarmentosum* : false Pepper, Jia Ju (Chinese)
1114. *Pirola rutundifolia* : Limonio
1115. *Pirus malus* (or *Malus communis*) : Mela; Apple; Pommier (French);
1116. *Piscidia erythrina* : Piscidia
1117. *Pistacia lentiscus* : Lentisco, Lentischio.
1118. *Pistacia vera* : Pistacchio;Pistachios
1119. *Pisum sativum* : Piselli, Pea, (English) Wan Dou (Chinese)
1120. *Pittosporum tobira* : Pitosporo
1121. *Platanthera obtusta* : green Bog Orchid
1122. *Plantago arenaria* : Psillio
1123. *Plantago coronopus* : Coronopo
1124. *Plantago lanceolata* : Piantaggine femmina
1125. *Plantago major* : Piantaggine maggiore, Pentacciola pelosa; Ripplegrass, Waybread, Plantain, Che Qian Cao (Chinese).
1126. *Plantago ovata* : Ispaghul, Psillo indiano; Spogel Seeds, Ispaghula; Indische Psylli-samen (Deutsch); Obeko (Japanese); Ch'-Ch'ientzu (Chinese); Ashwagolam (Sanskrit).
1127. *Plantago psyllium* : Psillio
1128. *Platanus orientalis* : Platano
1129. *Plygonum bistorta* : Bistorta
1130. *Plumbago zeylanica* : white Leadwort; Bleiwurz; Dentalaire de Cylon; Indo matsuri (Japanese); Pai Hau (Chinese); Chitraka (Sanskrit).
1131. *Plumeria alba* : Fiore della Pagoda, Fiore del Tempio, Pagoda Flower.
1132. *Plumeria rubra* : Temple
1133. *Phoenix dactylifera* : Datteri
1134. *Poinciana pulcherrima* : Peacock
1135. *Polemonium pulcherrima* : Jacob's Ladder
1136. *Polygala amara* : Poligala amara
1137. *Polygala chinensis* : Poligala cinese
1138. *Polygala senega* or *virginiana* : Poligala senega, Poligala della Virginia
1139. *Polygonum alaskanum* : wild Rhubarb
1140. *Polygonum aviculare* : Coreggiola, Correggiola, Centinodia, Sanguinaria
1141. *Polygonum bistorta* : Bistorta, Serpentina
1142. *Polygonum hydropiper* : Pepe d'Acqua
1143. *Polygonatum officinale* (or *Convallaria polygonatum*) : Poligonato, Sigillo di Salomone
1144. *Polypodium lepidopteris* : Samambaia
1145. *Polypodium vulgare* : Felce dolce, Polipodio
1146. *Polyporus officinalis* : Agarico bianco
1147. *Polysticum filix*-mas : Felce maschio
1148. *Populus balsamifera* : balsam Poplar
1149. *Populus nigra* : Pioppo nero
1150. *Populus tremula, tremuloides* : Pioppo tremulo; Aspen;
1151. *Portulara grandiflora* : office Flower
1152. *Portulaca oleacea* : Portulaca, Porcellana, Purslane, Ma Chi Xian (Chinese)
1153. *Potentilla anserina* : Anserina, Argentina
1154. *Potentilla aurea* : Pontentilla dorata
1155. *Potentilla erecta* : Tormentilla
1156. *Potentilla fruticosa* : Rosa della Tundra; Tundra Rose
1157. *Potentilla grandiflora* : Tormentilla
1158. *Potentilla reptans* : Cinquefoglio
1159. *Potentilla tormentilla* : Tormentilla.
1160. *Poterium sanguisorba* : Meloncello, Salvastrella
1161. *Poterium spinosum* : Spinaporci
1162. *Premna corymbosa, integrifolia, obtusifolia* (*Cornutia corymbosa*): Corimbosa; Agnimantha (Sanskrit)
1163. *Primula acaulis* : Primavera ad Occhio di Civetta
1164. *Primula hirsuta* : Primula irsuta, o viscosa
1165. *Primula officinalis, veris* : Primula, Primavera

1166. *Prosopis pallida* :Algarroba
1167. *Prunella vulgaris* : Brunella; self-Heal ; Brunelle
1168. *Prunus africana* : Pygeum africano
1169. *Prunus amygdalus* (or *Amygdalus communis*) : Mandorla, Mandorle, Mandorle dolci; Almond; Mandelbaum; Amandier; Badama (Sanskrit).
1170. *Prunus armeniaca* : Albicocca, Apricot (French)
1171. *Prunus avium* : Ciliegia selvatica
1172. *Prunus cerasifera* : Mirabolano; Cherry Plum
1173. *Prunus cerasus* : Ciliegia, Amarasco, Ciliegia visciola, Marasca-Cherry
1174. *Prunus domestica* : Susino, Pruno domestico
1175. *Prunus laurocerasus* : Laurocerasо (potenzialmente tossica)
1176. *Prunus mumus* : Pruno cinese
1177. *Prunus nigra* : Prugna nera
1178. *Prunus persica* : Pesca; Pecher (French).
1179. *Prunus puddum* : bird-cherry (English); Traubenkirsche; Padmaka (Sanskrit).
1180. *Prunus spinosa* : Prugna selvatica, Prugnolo
1181. *Prunus subhirtella* : Ciliegio del Giappone
1182. *Psidium guajava* :Guava
1183. *Psoralea corylifolia* : Babchi Seeds; Bawchan (Deutsch); Vakuchi (Sanskrit).
1184. *Pteleopsis habeensis* : Emba-Tule
1185. *Pterocarpus marsupium* : Malabarkino (English and Deutsch); Pterocarp (French); Pitasala (Sanskrit).
1186. *Pterocarpus santalinus* : red Sandalwood; Dunkelrothe Flugel- Fruct; Santal rouge (French); Tan hasiang (Chinese); Rakta chandana (Sanskrit)
1187. *Ptychopetalum olacoides* or *Liriosma ovata* : Muira puama
1188. *Pulmonaria angustifolia* : Polmonaria a Foglie strette
1189. *Pulmonaria officinalis* : Polmonaria
1190. *Pulsatilla nigricas* (or *Anemone pulsatilla*) : Anemone dei Prati
1191. *Pulsatilla vulgaris* : Pulsatilla
1192. *Punica granatum* : Melograno; Pomegranate; Granatbaum; Grenadier; Zakuro (Japanese); An-shih-liu (Chinese); Dadima (Sanskrit).
1193. *Ptychotis ajowan* (*Carum copticum*, *Trachyspermum ammi*) : Aiovano; Omum, Ajowan Kummel, Yamani
2) *Pueraria thomsonii* : sweet kudzu Vine, Gan Ge (Chinese)
1194. *Pulicaria dysenterica* : Pulicaria
1195. *Pyrethrum coronarium* : Piretro
1196. *Pyrethrum partenium* : Erba di Santa Maria
1197. *Pyrola secunda* : one-sided Witergreen
1198. *Pyrus cydonia* : pera cotogna
1199. *Pyrus sorbus* : Sorbo
1200. *Quassia amara* or *excelsa* : Quassia
1201. *Quercus alba* : Quercia bianca
1202. *Quercus peduncolata* : Farnia, Eschio
1203. *Quercus robur* : Quercia comune, Rovere; Oak
1204. *Quillaia saponaria* or *smeghaderina* : Quillaia
1205. *Quisqualis indica* : ragoon Creeper
1206. *Ranunculus acris, acer* : Ranuncolo, Bottone d'Oro; Bouton d'Or (potenzialmente tossica)
1207. *Ranunculus bulbosus* : Lappio
1208. *Ranunculus ficaria* : Favagello o Celidonia minore
1209. *Ranunculus glacialis* : Erba camozzera
1210. *Ranunculus occidentalis* : Ranuncolo di Palude, Buttercup
1211. *Raphanus sativus niger* : Rafano nero, Ravanello nero, Radice nera
1212. *Raphanus sativus* : Ramolaccio; Radish; Riibenrettig (Deutsch); Raifort cultivé; Daikon (Japanese); Lai fu (Chinese), Luo Bo (Chinese); Moolaka (Sanskrit).
1213. *Raphanus sativus parvus* : Ravanello
1214. *Rauwolfia serpentina* : Serpentina (Italian and English); Rauwalfia (Deutsch); Indojaboku (Japanese); Sarpagandha (Sanskrit); .
1215. *Reseda odorata* : Reseda
1216. *Rhamnus cathartica* : Spino cervino .
1217. *Rhamnus frangula* or *Frangula alnus* : Frangola, Frangula .
1218. *Rhamnus sagrada* or *purshiana* : Cascara, Sagrada, Cascara sagrada.
1219. *Rheum emodi* : Rabarbaro indiano; indian Rhubarb; Chosendaio (Japanese); Yunn-anta-huang (Chinese); Amlavetasa (Sanskrit).
1220. *Rheum officinale* : Rabarbaro; Rhubarb; Rhabarber; Rhubrabde

1221. *Rheum sinense* or *palmatum* : Rabarbaro cinese; chinese Rhubarb;
1222. *Rhodiola rosea* : Radice d'Oro, o Radice artica
1223. *Rhododendron campylocarpum, aureum, chrysanthum* : Rododendro, Rosa alpina
1224. *Rhododendron ferrugineum* : Rhododendron (French).
1225. *Rhus aromatica* : Rhus aromatica
1226. *Rhus cotinus* : Cotino (Tossica)
1227. *Rhus diversiloba* : poison Oak
1228. *Rhus succedanea* : Sommacco; Galls; Sumach (Deutsch); Hazenoki (Japanese); Lu (Chinese); Karkatashringi (Sanskrit)
1229. *Ribes nigrum* : Ribes nero
1230. *Ribes rubrum* : Ribes rosso
1231. *Ricinus communis* : Ricino comune; Castor oil Plant; Rhizinus (Deutsch); Ricin (French); Togoma (Japanese); Peima (Chinese); Eranda (Sanskrit).
1232. *Robinia pseudo acacia* : Falsa Acacia, Robinia; false Acacia, locust Tree
1233. *Rorippa indica* : indian Fieldcress, Hang Cai
1234. *Rosa acicularis* : prickly wild Rose
1235. *Rosa californica* : Rosa californiana, california wild Rose
1236. *Rosa canina* : Rosa canina, Rosa selvatica, Rosa spina, Rosa di Macchia, Scarnigia, Sweet brier, Wild Rose; .
1237. *Rosa centifolia* : Rosa pallida
1238. *Rosa gallica* or *damascena* : Rosa rossa
1239. *Rosa moschata* : Rosa muschiata
1240. *Rosmarinus officinalis* : Erba da Corone, Erba dei Trovatori, Ramerino, Tresomarino; Rosemary; Rosmarin (French); .
1241. *Rottlera tinctoria* or *Mallotus philippinensis* : Rottlera
1242. *Rubia cordifolia* : indian Madder; Farberwurzel (Deutsch); Garance (French); Akane (Japanese); Ch'ien-ts'oa (Chinese); Manjista (Sanskrit).
1243. *Rubia tinctorium* : Robbia
1244. *Rubus fruticosus, orsinus* : Mora, Rovo; Blackberry; Mure sauvage
1245. *Rubus idaeus* : Lampone
1246. *Rudbeckia hirta* : black-eyed Susan
1247. *Rumex acetosa* : Acetosa
1248. *Rumex crispus* : Romice comune, Lapazio
1249. *Rumex patentia* : Lapazio
1250. *Ruscus aculeatus* : Rusco, Pungitopo, Asparago pazzo
1251. *Ruta graveolens* : Ruta; Garden Rue; Raute (Deutsch); Matskareso (Japanese); T'sao (Chinese); Sadapaha (Sanskrit); (potenzialmente tossica)
1252. *Saccharomyces cerevisiae* : Lievito di Birra
1253. *Sagittaria trifolia* : Arrowhead , Ci Gu
1254. *Salix alba* : Salice bianco
1255. *Salix bebbiana* : Willow
1256. *Salix purpurea* : Salice rosso
1257. *Salix vitellina* : Salice giallo; Willow
1258. *Salmalia malbarica* : red silk Cotton
1259. *Salvadora persica* : Salvatore di Persia; Tooth brush Tree; Perische (Deutsch); Salvadore de Persa; Pilu (Sanskrit).
1260. *Salvia lavandulifolia, officinalis* : Salvia, Erba gobba, Erba sacra; Sage (English); Sauge (French);
1261. *Salvia militiorrhiza* : Salvia cinese
1262. *Salvia pratensis* : Salvia dei Prati
1263. *Salvia sclarea* : Salvia slarea .
1264. *Sambucus ebulus* : Ebbio
1265. *Sambucus nigra* : Sambuco, Sambucaro, Sango .
1266. *Sanguinaria canadensis* : Sanguinaria .
1267. *Sanguisorba officinalis* or *Poterium sanguisorba* : Sanguisorba, Pimpinella, Salvastrella;
1268. *Sanguisorba stipulata* : sitka Burnet
1269. *Sanicula europaea* : Erba fragolina
1270. *Santalum album* : Sandalo; white Sandalwood; Weisses Sandelholz (Deutsch); Santal (French); Byakudan (Japanese); Tan hsiang (Chinese); Chandanam (Sanskrit).
1271. *Santolina chamaecyparissus* : Santolina
1272. *Santureja hortensis* : Peverella Satureia, Santoreggia
1273. *Santureja montana* : Santoreggia montana
1274. *Saponaria officinalis* : Saponaria .
1275. *Saraca indica* : Asoka; Muyuju (Japanese); Asoka (Sanskrit).

1276. *Sarothamnus scoparius* (or *Spartium scoparium*) [Papilionaceae] : Ginestra dei Carbonai (Tossica).
1277. *Sassifrax officinale* or *varifolium* : Sassofrasso
1278. *Saussurea lappa* : Costus; Kostwurz (Deutsch); Kushtha (Sanskrit).
1279. *Saxifraga aizoides* : Sassifraga dei Ruscelli
1280. *Saxifraga ligulata* (*Bergenia ligulata*) : Steinbrech (Deutsch), Pashanbheda (Sanskrit).
1281. *Saxifraga oppositifolia* : Sassifraga a Foglie opposte
1282. *Scabiosa lucida* : Scabbiosa, Scabiosa
1283. *Scabiosa succisa* : Scabbiosa, Scabiosa
1284. *Schinus molle*: Pepe rosa, Albero del Pepe del Brasile; Brazilian peppertree
1285. *Schizandra sinensis* : Schisandra; Wu Wei Zi;
1286. *Schkuhria pinnata* :Canchalahua
1287. *Scrophularia nodosa* : Scrofularia maggiore
1288. *Scilla maritima* (or *Urginea maritima*) : Scilla o Cipolla marina
1289. *Scilla nutans* : Giacinto a Campanelle
1290. *Scleranthus annuus* : Centigrani; Scleranthus
1291. *Scolopendrium officinale* : Scolopendrio
1292. *Scoparia dulcis* : Vassourinha
1293. *Scorzonera hispanica* : Scorzonera
1294. *Scrophularia nodosa* : Castagnola
1295. *Scutellaria baicalensis* or *latiflora* : Scutellaria, Zucchetto, Papalina
1296. *Secale cereale* : Segale Rye(english*)*
1297. *Sedum album* : Erba pignola
1298. *Sedum dasyphyllum* : Porcellana
1299. *Semecarpus anacardium* : Anacardio orientale; Marking Nut Tree; Ostindis Chertintenbaum (Deutsch); Noix a marquer (French); Sumiurushinoki (Japanese); Bhallataka (Sanskrit).
1300. *Sempervivum aracnoideum* : Semprevivo
1301. *Sempervivum tectorum* : Semprevivo, Barba di Giove.
1302. *Sempervivum montanum* : Semprevivo montano
1303. *Senapsis alba* : Senape
1304. *Senecio aureus* : Senecione
1305. *Senecium incanus* : Senecione canuto.
1306. *Sequoia gigantea* : Sequoia
1307. *Serapias longipetala* : Bocca di Gallina
1308. *Serenoa repens* : Palma nana, saw Palmetto.
1309. *Serenoa serrulata* : Sabal
1310. *Sesamum indicum* or *orientale* : Sesamo; Sesamum; Sesam (Deutsch); Sesame (French); Goma (Japanese); Hu ma (Chinese); Tila (Sanskrit).
1311. *Sheperdia canadensis* : Soapberry
1312. *Sida cordifolia* : Sida; Country Mallow; Marubakingojikuwa (Japanese); Kedong (Chinese); Bala (Sanskrit).
1313. *Sidalcea sp*. : Mallow
1314. *Silene californica* : indian Pink;
1315. *Silene cucubalus* : Verzol, Verzini
1316. *Silene inflata* : Silene
1317. *Silene vulgaris* : Strigoli
1318. *Silybum marianum* (or *Carduus marianus*) : Cardo mariano, Cardo di Maria, Cardo asinino, Cardo lattato
1319. *Simarouba amara* or *Simaruba officinalis* : Simaruba
1320. *Simmondsia chinensis* : Jojoba
1321. *Sinapis alba* : Senape bianca
1322. *Sinapsis arvensis* : Senape selvatica; Mustard (English)
1323. *Sisymbrium officinale* : Erisimo
1324. *Smilax aspera*, *sarsaparilla officinalis* or *utilitis* : Smilace, Salsapariglia, Barba di Magnano, Erba serretta, Rogo cervino, Sarsaparilla
1325. *Smilax china* : Salsapariglia cinese.
1326. *Solanum dulcamara* : Dulcamara (potenzialmente tossica)
1327. *Solanum indicum* : indian Nightshade; Indische Nachtschatten; Shirosuzume-nasubi (Japanese); Housang kiue (Chinese); Brahati vanavrinktaki (Sanskrit).
1328. *Solanum lycopersicum* : Pomodoro ;tomato(english)
1329. *Solanum melongena* : Melanzana, Eggplant, Aubergine, Jia (Chinese)
1330. *Solanum nigrum* : Morella; black Nightshade; Alpkraut (Deutsch); Inubozuki (Japanese); Ti'en kui tse (Chinese); Kakamachi (Sanscrit); (potenzialmente tossica)
1331. *Solanum quitoense* : Lulo
1332. *Solanum paniculatum* :Jurubeba

1333. *Solanum photeinocarpum* : black Nightshade, Long Kui
1334. *Solanum surattense, xanthocarpum* : Kantakari (English); Nacutsebattin (Deutsch); Kinginnasubi (Japanese); Kantakari (Sanscrit).
1335. *Solanum tuberosus* : Patata, Potato, Ma Ling Shu
1336. *Soldanella alpina* : Soldanella
1337. *Solidago virga aurea, canadensis* : Solidago, Verga d'Oro; Golden rod
1338. *Sonchus oleraceus* : Sonco
1339. *Sorbus aucuparia* : Sorbo degli Uccellatori
1340. *Sorbus domestica* : Sorbo domestico
1341. *Spartium scoparium* (or *Sarothamnus scoparius*) : Ginestra dei Carbonai
1342. *Spartium juniceum* : Ginestra di Spagna, di Maggio (Tossica)
1343. *Spathodea campanulata* : Tulipano, Tulip
1344. *Specularia speculum* : Specchio di Venere
1345. *Sphaeranthus indicus* : east indian Globe Thistle; Munditika (Sanskrit)
1346. *Sphagum sp*. : Sphagum Moss
1347. *Spigalia anthelmia* : Spigalia
1348. *Spinacia oleracea* : Spinacio; Spinach; Bo Cai (Chinese)
1349. *Spiraea aruncus* : Spirea
1350. *Spiraea beauverdiana* : Spiraca
1351. *Spiraea filipendula* : Erba peperina
1352. *Spiraea ulmaria* or *Filipendula ulmaria* : Olmaria, Ulmaria, Regina dei Prati
1353. *Spiranthes romanzoffiana* : Lady's Tresses
1354. *Spirulina maxima* : Spirulina
1355. *Stachys arvensis* : Erba del Cancro
1356. *Stachys officinalis* (or *Betonica officinalis*) : Betonica
1357. *Stachys sieboldi* : chinese Artichoke, japanese Artichoke, Gan Lu Zi
1358. *Stachytarpheta jamaicensis* :Gervagno
1359. *Stellaria media* : Stellaria, Centonchio, goose intestine Vegetable, Chickweed, E Chang Cai (Chinese)
1360. *Sterculia acuminata* : Cola noci, Noci di Cola.
1361. *Stevia rebaudiana* : Stevia
1362. *Sticta pulmonaria* (or *Lobaria pulmonaria*) : Lichene polmonaria
1363. *Stirax officinalis* : Benzoino,
1364. *Strophanthus hispidus* or *kombe* or *gratus* : Strofanto
1365. *Strychnos nux-vomica* : Noce vomica (Stricnina); Gemeinerbrech Nussbaum (Deutsch); Noizvomique (French); Machin (Japanese); Fan Mu Pieh (Chinese); Kupilu (Sanskrit); .
1366. *Stylidium schoenoides* : Cowkicks
1367. *Styrax benzoin* : Benzoino
1368. *Styrax officinalis* (*Altingia excelsa*) : Storace, Storax, Rasamala (Deutsch), Sillhaka (Sanskrit)
1369. *Sutherlandia frutescens* : Cespuglio del Cancro; Cancer Bush
1370. *Swertia chirata* : Chiretta; Chireta (English), Chirata-kraut (Deutsch), Senburi (Japanese), Toyaku (Chinese), Kirata tikta (Sanskrit)
1371. *Symphytum officinale* : Consolida maggiore, Erba del Cardinale; Consoude (French)
1372. *Symplocos racenosa* Lodh Tree, Hainoki (Japanese) Lodhra (Sanskrit).
1373. *Sysymbrium officinale* : Erisimo, Cima amarella, Erba cornacchia, Rapa selvatica, Rapino
1374. *Syringa vulgaris* : Serenella, Siringa, Lilas ; Lilas (French).
1375. *Tabebuia avellanedae* : Lapacho
1376. Tabebuia species (impetiginosa, heptaphylla, avellanedae, rosea, serratifolia, cassinoides): Pau d'Arco, Ipe Roxo, Taheebo, Lapacho
1377. *Tacca aspera* : Tacca
1378. *Tamarix gallica* : Tamerice
1379. *Tamarindus indica* : Tamarindo, Tamarind, Tamarindenbaum (Deutsch), Tamarinier (French), Tomarindo (Japanese), Makkham (Chinese), Amlika (Sanskrit);
1380. *Tamus communis* : Tamaro.
1381. Tanacetum parthenium : Partenio
1382. Tanacetum vulgare : Tanaceto; Tansy .(tossico)
1383. *Taraxacum officinalis* (or *Taraxacum dens leonis*, or *Leontodon taraxacum*) : Tarassaco, Dente di Leone, Cicoria matta, Soffione, Pisciacane; Dandelion (English), Lowenzahn (Deutsch), Pissenli (French); Seiyotanpope (Japanese), P'u kung ying (Chinese), Dugdha feni (Sanskrit); .
1384. *Taxus baccata* : Tasso, Albero della Morte; Biemi, Tree of Death (English); Eilec (Deutsch), Talispatra (Sanskrit); (Tossica)
1385. *Tecoma undulata* : Tecoma
1386. *Tectona grandis* : Teakwood

1387. *Telosma cordata* : Cordate Telosma, Ye Lai Xiang (Chinese)
1388. *Tephrosia purpurea*, *maxima*, *laceolata* : Tefrosia, Purple tephrosia (English), Nabankusafuji (Japanese), Nah troi (Chinese), Sarapunkha (Sanskrit).
1389. *Terminalia arjuna* : Arjuna myrobalan (English), Arjuna (Sanskrit)
1390. *Terminalia belerica* : Belerica, Belleric myrobalan (English), Myrobalane (Deutsch), Bererikamiro baran (Japanese), Bang nut (Chinese), Vibhitaka (Sanskrit).
1391. *Terminalia chebula* : Chebula, Chebulic myrobalan (English), Rispiger Myrobalanenbaum (Deutsch), Shirobarannoki (Japanese), He lile (Chinese), Haritaki (Sanskrit).
1392. *Tessaria integrifolia* :Pajarobobo
1393. *Teucrium chamaedrys* : Camedrio o Querciola
1394. *Teucrinum marum* : Maro, Erba dei Gatti
1395. *Teucrium scorodonia* : Scorodonia
1396. *Teucrium scordium* Scordio
1397. *Thalictrum foliolosum* : Gold thread, Tryamana (Sanskrit*)*
1398. *Thapsia garganica* : Tapsia
1399. *Theobroma cacao* : Cacao ; Cocoa (English)
1400. *Thuya occidentalis* : Tuia, Albero della Vita (contiene turione, tossico)
1401. *Thymus serpillum* : Timo Serpillo, Erba soltorella, Timo cedrato; Time(English)
1402. *Thymus vulgaris* : Timo comune, Pepolina, Timo dei Giardini ; Time(English)
1403. *Thysanonthus manglesianus* : Fringer Lily Twiner
1404. *Tiarella trifoliata* : Laceflower
1405. *Tilia cordata*, *europaea*, *platyphilla*, *vulgaris* :Tiglio; Tilleul (French)
1406. *Tilia tomentosa, argentea* : Tiglio argenteo
1407. *Tinospora cordifolia* : Tinospora, Ibonashitsu zurabuji (Japanese), Kuan chu hisng (Chinese), Guduchi (Sanskrit).
1408. *Trachyspermum ammi* (or *Carum copticum*, or *Ptychotis ajowan*): Aiovano; Omum, Ajowan Kummel, Yamani
1409. *Tragopogon pratensis* : Barba di Becco
1410. *Trapaeolum maius* : Nasturzio
1411. *Tribulus terrestris* : Albero sacro, small Caltrops; Croix de chevalier; Hamabishi (Japanese); Xinnao Shu Tong, Chili (Chinese); Gokshura (Sanskrit).
1412. *Trifolium alpinum* : Trifoglio alpino; Claver
1413. *Trifolium pratensae* : Trifoglio pratense, Clover
1414. *Trifolium rubeus*: Trifoglio rosso, Red Clover
1415. *Trigonella foenum graecum*: Fieno greco; Fenugreek; Fenugre (French); Koroha (Japanese); Medhika (Sanskrit); .
1416. *Trillium chloropetalum* : Trillium
1417. *Triteleia ixioides* : pretty Face
1418. *Triticum durum* : Frumento duro, Grano duro; wheat(English)
1419. *Triticum spelta* :Farro;spelt(English)
1420. *Triticum turgidum* : Frumento kamut (antico Egitto)
1421. *Triticum aestivum* or *vulgare* : Frumento tenero, Grano tenero; soft wheat(English)
1422. *Tropaeolum majus* : Nasturzio; Nasturtium; Capucine (French).
1423. *Tulipa clusiana* : Lancetta
1424. *Tulipa silvestris*: Tulipano bolognino
1425. *Turnera aphrodisiaca* or *diffusa* : Damiana
1426. *Tussilago farfara* : Farfara, Farfaro, Tussilagine
1427. *Typha latifolia* : Stancia; cattail Pollen
1428. *Ulex europaeus* : Ginestrone, Gorse
1429. *Ulmus campestris* : Olmo
1430. *Ulmus fulva* or *rubra* : Olmo rosso
1431. *Ulmus glabra* : Olmo
1432. *Ulmus procera* : Olmo inglese, Elm
1433. *Uncaria guianensis* or *tomentosa*: Unghia di Gatto
1434. *Uragoga emetica* : Ipecacuana
1435. *Urginea indica* : indian Squill; Indische Meerzwiebel; Vana palandam (Sanskrit).
1436. *Urginea maritima* (or *Scilla maritima*) : Scilla o Cipolla marina
1437. *Ursinia anthemoides* : Ursinia
1438. *Urtica dioica* (or *Hurtica dioica*) : Ortica grande; Ortie (French);
1439. *Urtica urens* : Ortica
1440. *Utricularia vulgaris* : Bladderwort
1441. *Vaccinium myrtillus* : Mirtillo nero
1442. *Vaccinium uliginosum* : blueberry Pollen; bog Blueberry

1443. *Vaccinum vitis idaea* : Mirtillo rosso, Vite del Monte Ide
1444. *Valeriana jatamansi or wallichii* : Valeriana indiana; indian Valerian; Indische Baldrian; Thuwarala (Japanese); Tagara (Sanskrit)
1445. *Valeriana officinalis* : Valeriana, Amantilla, Erba gatta, Nardo selvatico; Valerian; Baldrian (English); Valeriane (French);
1446. *Valerianella olitoria* : Valerianella
1447. *Vanda roxburghii or tessellata* : Vanda; Rasna (Sanskrit)
1448. *Vanilla planifolia, aromatica, fragrans* : Vaniglia
1449. *Veratrum album* : Veratro bianco, Elleboro bianco (Tossica)
1450. *Veratrum nigrum* : Veratro nero
1451. *Verbascum densiflorum* : Verbasco
1452. *Verbascum thapsus* : Verbasco, Candela Regia, Guaraguasco, Tasso Barbasso; Mullein
1453. *Verbena officinalis* : Verbena, Berbena, Erba crocetta, Erba grana, Erba sacra, Menta di San Pietro; Vervain .
1454. *Vernonia aenulans* : Vatke
1455. *Vernonia anthelminticum* (*Centratherum anthelminticum*) : Vernonia, Aranjajira (Sanskrit).
1456. *Vernonia cinerea* : Ash-colored fleabane; Yanbaruhikodai (Japanese); Sahadevi (Sanskrit).
1457. *Vernonia senegalensis* : Omo-Kuka
1458. *Veronica alpina* : Veronica
1459. *Veronica beccabunga* : Beccabunga
1460. *Veronica chamaedrys* : Veronica
1461. *Veronica officinalis* : Veronica, The svizzero
1462. *Verticordia mitcheliana* : red Feather
1463. *Viburnum lantana* : Viburno, Lentaggine
1464. *Viburnum prunifolium* : Viburno
1465. *Vicia faba* : Fave, broad Bean, Can Dou (Chinese)
1466. *Vigna radiata* : mung Bean, black Gram, green Gram, Lu Dou (Chinese)
1467. *Vigna unguiculata* : black-eyed Pea, Cowpea, Dou Jiao (Chinese)
1468. *Vigna unguiculata* : rice Bean (a variety of Cowpea), Fan Dou (Chinese)
1469. *Vinca alba*: old Maid
1470. *Vinca major* : Pervinca maggiore (**Tossica**)
1471. *Vinca minor* : Pervinca (**Tossica**)
1472. *Vinca rosea* : Vinca (**Tossica**)
1473. *Viola calcarata* : Viola Farfalla
1474. *Viola odorata* : Viola mammola, Violetta; wild Violet; Wildnechendes Veilchen; Niosumaire (Japanese); Banaphsha (Sanskrit).
1475. *Viola renifolia* : white Violet
1476. *Viola tricolor* : Violetta, Viola del Pensiero; blu elf Viola; Pensee (French);
1477. *Viscum album* : Vischio .
1478. *Viscum album crataegi* : Vischio di Biancospino
1479. *Vitex agnus castus* (*Agnus castus*, *Vitex trifoglia*) : Agnocasto, Pepe dei Monaci
1480. *Vitis quadrangularis* (*Cissus quadrangularis*, *Heliotropium indicum*) : Conciaossa, Bone setter, Hirassa, Asthisanhari (Sanskrit)
1481. *Vitis vinifera rubra* : Vite rossa, Uva nera; Grapes (English); Rosinen (Deutsch); Raisin (French); Budo (Japanese); P'u t'ao (Chinese), Draksha (Sanskrit);
1482. *Wahlenbergia capensis* : Cape Bluebell
1483. *Wisteria sinensis* : Glycine (French);
1484. *Withania somnifera* : Winter cherry; Aswangandha (Japanese); Ashvagandha (Sanskrit).
1485. *Yucca schidigera* : Yucca
1486. *Xanthorrea preissi* : Balga blackboya
1487. *Xanthosia rotundifolia* : southern Cross
1488. *Xanthoxilum fraxineuem* : Frassino spinoso
1489. *Zantedeschia sp.* : callia Lily
1490. *Zanthoxylum alatum* : Gelbholz (Deutsch); Asakurazansho (Japanese); Chiao (Chinese); Tejpal (Sanskrit)
1491. *Zea mays* : Mais, Granturco; sweet Corn, Corn, Maize; Mais doux (French); .
1492. *Zingiber officinalis* : Zenzero; Ginger (English); Inguere (Deutsch); Gingembre (French); Shoga (Japanese); Chiang, Jiang (Chinese); Ardhrakam (Sanskrit);
1493. *Zinnia elegans* : Zinnia
1494. *Zizania caduciflora* : wild rice Stem, Jiao Bai (Chinese)
1495. *Zizyphus jujuba or martiana* : Jijube Fruit; Stumpfblattriger Judendorn (Deutsch); Jujubier (French); Gnumatsume (Japanese); Hong tsao (Chinese), Badri (Sanskrit).
1496. *Zizyphus vulgaris* : Giuggiolo; Jujube; Brustbeeren; Natsume (Japanese); Suan tsao (Chinese); Unnab (Sanskrit).

Chap. 21: Bibliography

The following is a list of about 1600 scientific papers quoted in the book in the name of the "*Evidence Based Medicine*", which provides this medical method:

1. Formulating a clinical question;
2. Searching for best available scientific evidence;
3. Analysing scientific evidence critically;
4. Acting on the basis of gathered scientific evidence;
5. Evaluating the results;

1) Aapro MS: *Retinoids in oncology*, Eur J Cancer.; 31A(5): 834-835, 1995.
2) Abel U.: *Chemio-Terapia di carcinomi in stadio avanzato: un inventario critico*, in: Biomed and Pharmacother, vol. 46, 1992, aggiorn. 1995, pp. 439-452 www.macrolibrarsi.it/libro.php?lid=3231
3) Adamson PC: *Clinical and pharmacokinetic studies of all-trans-retinoic acid in pediatric patients with cancer*, Leukemia.; 8, pp: 1813-1816, 1994 .
4) Ahmad N.: *Green Tea constituent epigallocatechin-3-gallate and induction of apoptosis and cell cycle arrest in Human Carcinoma Cells*, Journal of the National Cancer Institute Vol 89 No.24, 1997.
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Curriculum vitae of the author

Giuseppe Nacci was born in Trieste, Italy, on 26th February 1964.

He graduated in medicine at the University of Trieste in the academic year 1990-1991. In 1996 he specialized in Nuclear Medicine in Milan, where he took part in the first human experiments of the oncological Radio-Immuno-Therapy with Yttrium 90 and Monoclonal Antibodies conducted by the *Scientific Institute San Raffaele* and the *European Oncological Institute*.

After patenting his industrial invention Synthesis and Use of biotin-DTPA-Gadolinium 157, 159 for radio-therapy (No. 01313103, class A61K051), he published "*Therapy of tumours with Gadolinium 159 in Nuclear Magnetic Resonance*", 760 pages, Callerio Onlus Foundation, by the publishing house in Trieste "Italo Svevo", May 2000 (only available in Italian under the title "*La Terapia dei tumori con Gadolinio 159 in Risonanza Magnetica Nucleare*").

In May 2006 he published a paper concerning the extreme dangerousness of Genetically Modified Organisms on the American Journal of the *Gerson Institute*, San Diego, California (Gerson Heating Newsletters, Vol. 21, No. 3, May-June 2006, pages: 5,7,9, Part I, available at http://www.erbeofficinali.org/dati/nacci/studi/healg213.pdf).

Later in the same year he published the book "*Diventa Medico di Te stesso*" ("*Become your own doctor*"), by "*Editoriale Programma, s.r.l.*, Padova, Italy.

In January 2007 this book was awarded the following prize: "*Best scientific book of the year 2006*", given "*motu proprio*" and unanimously by the *Board of Councillors of the Verein zur Förderung der Forschung Mare Nostrum – Research Institute* (*Association for Promotion of Research Mare Nostrum*) in Wildon, Graz, Austria.
More information at
http://www.mednat.org/The-best-book_Nacci.gif
http://www.mednat.org/Miglior-libro_Nacci.gif

In October 2007 he received an honour known as the SIGILLO TRECENTESCO (the fourteenth-century Seal) from the city of Trieste in recognition of his passionate commitment in his study and scientific research (http://trieste.rvnet.eu/2007/10/31/il-medico-giuseppe-nacci-riceve-il-sigillo-della-citta/#comments).

In November 2007 he presented his book and 40 clinical cases at the Policlinico Militare Celio in Rome (Celio Military Hospital) to the highest authorities of the Italian Military Health Service.
Further details at:
http://aloearborescens.tripod.com/libro-giuseppe-nacci.pdf
http://www.medicinetradizionali.it/intervista%20nacci.pdf

In December 2007 he published one of his books on the Internet, "*Thousand Plants against Cancer without Chemo-therapy*". The book can be downloaded in English free of charge from: http://www.mednat.org/cancro/nacci_english.pdf
http://www.erbeofficinali.org/dati/nacci/studi/Thousand_Plants_against.pdf

Since May 2008 this book in English has also been available on the web site of the USA "*National Health Federation*" (http://www.thenhf.com/about_us.html)

In August 2008 he published on the Internet a paper on the extreme dangerousness of the nuclear plant in Krsko (Slovenia).
http://www.ecceterra.org/docum.php?id=%201626

On 13th September 2008 Dr Nacci took part in the annual Congress SANA in Bologna explaining in eight points the extreme dangerousness of GMOs. He asked for explicit intervention of the National Democratic Institutions in order to safeguard the health of the Italian people and prevent GMOs from being authorised and introduced also in Italy from January 2009.
Further details at: http://www.erbeofficinali.org/dati/nacci/studi/SANA_Conference_091308.pdf

In October 2008 he was awarded the Seal of the city of Padua and received the price "*Libraio della città di Padova 2008*" (Padua Bookseller 2008).
Further details at: http://www.erbeofficinali.org/dati/nacci/Premio_Padova.htm

From October 1998 to December 2007 he hold the position of Director of the Regional Health Service at the Financial Police Administration of Friuli Venezia-Giulia.

ALLEGATEDs

ALLEGATED 1: ***The Case for a GM-free Sustainable World***

ISP, www.indssp.org www.i-sis.org.uk www.twnside.org.sg

Why GM Free?

1. GM crops failed to deliver promised benefits

The consistent finding from independe esearch and on-farm surveys since 1999 is that GM crops have failed to deliver the promised benefits of significantly increasing yields or reducing herbicide and pesticide use. GM crops have cost the United States an estimated $12 billion in farm subsidies, lost sales and product recalls due to transgenic contamination. Massive failures in Bt cotton of up to 100% were reported in India.

Biotech corporations have suffered rapid decline since 2000, and investment advisors forecast no future for the agricultural sector. Meanwhile worldwide resistance to GM has reached a climax in 2002 when Zambia refused GM maize in food aid despite the threat of famine.

2. GM crops posing escalating problems on the farm

The instability of transgenic lines has plagued the industry from the beginning, and this may be responsible for a string of major crop failures. A review in 1994 stated, "While there are some examples of plants which show stable expression of a transgene these may prove to be the exceptions to the rule. In an informal survey of over 30 companies involved in the commercialisation of transgenic crop plants….almost all of the respondents indicated that they had observed some level of transgene inaction. Many respondents indicated that most cases of transgene inactivation never reach the literature."

Triple herbicide-tolerant oilseed rape volunteers that have combined transgenic and non-transgenic traits are now widespread in Canada. Similar multiple herbicide-tolerant volunteers and weeds have emerged in the United States. In the United States, glyphosate-tolerant weeds are plaguing GM cotton and soya fields, and atrazine, one of the most toxic herbicides, has had to be used with glufosinate-tolerant GM maize.

Bt biopesticide traits are simultaneously threatening to create superweeds and Bt- resistant pests.

3. Extensive transgenic contamination unavoidable

Extensive transgenic contamination has occurred in maize landraces growing in remote regions in Mexico despite an official moratorium that has been in place since 1998. High levels of contamination have since been found in Canada. In a test of 33 certified seed stocks, 32 were found contaminated.

New research shows that transgenic pollen, wind-blown and deposited elsewhere, or fallen directly to the ground, is a major source of transgenic contamination. Contamination is generally acknowledged to be unavoidable, hence *there can be no co-existence of transgenic and non-transgenic crops*.

4. GM crops not safe

Contrary to the claims of proponents, GM crops have not been proven safe. The regulatory framework was fatally flawed from the start. It was based on an *anti*-precautionary approach designed to expedite product approval at the expense of safety considerations. The principle of 'substantial equivalence', on which risk assessment is based, is intended to be vague and ill-defined, thereby giving companies complete licence in claiming transgenic products 'substantially equivalent' to non-transgenic products, and hence 'safe'.

5. GM food raises serious safety concerns

There have been very few credible studies on GM food safety. Nevertheless, the available findings already give cause for concern. In the still only systematic investigation on GM food ever carried out in the world, 'growth factor-like' effects were found in the stomach and small intestine of young rats that were not fully accounted for by the transgene product, and were hence attributable to the transgenic process or the transgenic construct, *and may hence be general to all GM food*. There have been at least two other, more limited, studies that also raised serious safety concerns.

6. Dangerous gene products are incorporated into crops

Bt proteins, incorporated into 25% of all transgenic crops worldwide, have been found harmful to a range of non-target insects. Some of them are also potent immunogens and allergens. A team of scientists have cautioned against releasing Bt crops for human use.

Food crops are increasingly used to produce pharmaceuticals and drugs, including cytokines known to suppress the immune system, induce sickness and central nervous system toxicity; interferon alpha, reported to cause dementia, neurotoxicity and mood and cognitive side effects; vaccines; and viral sequences such as the 'spike' protein gene of the pig coronavirus, in the same family as the SARS virus linked to the current epidemic. The glycoprotein gene *gp120* of the AIDS virus HIV-1, incorporated into GM maize as a 'cheap, edible oral vaccine', serves as yet another biological time-bomb, as it can interfere with the immune system and recombine with viruses and bacteria to generate new and unpredictable pathogens.

7. Terminator crops spread male sterility

Crops engineered with 'suicide' genes for male sterility have been promoted as a means of 'containing', i.e., preventing, the spread of transgenes. In reality, the hybrid crops sold to farmers spread both male sterile suicide genes as well herbicide tolerance genes *via pollen.*

8. Broad-spectrum herbicides highly toxic to humans and other species

Glufosinate ammonium and glyphosate are used with the herbicide-tolerant transgenic crops that currently account for 75% of all transgenic crops worldwide. Both are systemic metabolic poisons expected to have a wide range of harmful effects, and these have been confirmed.

Glufosinate ammonium is linked to neurological, respiratory, gastrointestinal and haematological toxicities, and birth defects in humans and mammals. It is toxic to butterflies and a number of beneficial insects, also to the larvae of clams and oysters, *Daphnia* and some freshwater fish, especially the rainbow trout. It inhibits beneficial soil bacteria and fungi, especially those that fix nitrogen.

Glyphosate is the most frequent cause of complaints and poisoning in the UK. Disturbances of many body functions have been reported after exposures at normal use levels.

Glyphosate exposure nearly doubled the risk of late spontaneous abortion, and children born to users of glyphosate had elevated neurobehavioral defects. Glyphosate caused retarded development of the foetal skeleton in laboratory rats. Glyphosate inhibits the synthesis of steroids, and is genotoxic in mammals, fish and frogs. Field dose exposure of earthworms caused at least 50 percent mortality and significant intestinal damage among surviving worms. Roundup caused cell division dysfunction that may be linked to human cancers.

The known effects of both glufosinate and glyphosate are sufficiently serious for all further uses of the herbicides to be halted.

9. Genetic engineering creates super-viruses

By far the most insidious dangers of genetic engineering are inherent to the process itself, which greatly enhances the scope and probability of horizontal gene transfer and recombination, the main route to creating viruses and bacteria that cause disease epidemics. This was highlighted, in 2001, by the 'accidental' creation of a killer mouse virus in the course of an apparently innocent genetic engineering experiment.

Newer techniques, such as DNA shuffling are allowing geneticists to create in a matter of minutes in the laboratory millions of recombinant viruses that have never existed in billions of years of evolution. Disease-causing viruses and bacteria and their genetic material are the predominant materials and tools for genetic engineering, as much as for the intentional creation of bio-weapons.

10. Transgenic DNA in food taken up by bacteria in human gut

There is already experimental evidence that transgenic DNA from plants has been taken up by bacteria in the soil and in the gut of human volunteers. Antibiotic resistance marker genes can spread from transgenic food to pathogenic bacteria, making infections very difficult to treat.

11. Transgenic DNA and cancer

Transgenic DNA is known to survive digestion in the gut and to jump into the genome of mammalian cells, raising the possibility for triggering cancer.

The possibility cannot be excluded that feeding GM products such as maize to animals also carries risks, not just for the animals but also for human beings consuming the animal products.

12. CaMV 35S promoter increases horizontal gene transfer

Evidence suggests that transgenic constructs with the CaMV 35S promoter might be especially unstable and prone to horizontal gene transfer and recombination, with all the attendant hazards: gene mutations due to random insertion, cancer, reactivation of dormant viruses and generation of new viruses. This promoter is present in most GM crops being grown commercially today.

13. A history of misrepresentation and suppression of scientific evidence

There has been a history of misrepresentation and suppression of scientific evidence, especially on horizontal gene transfer. Key experiments failed to be performed, or were performed badly and then misrepresented. Many experiments were not followed up, including investigations on whether the CaMV 35S promoter is responsible for the 'growth-factor-like' effects observed in young rats fed GM potatoes.

In conclusion, GM crops have failed to deliver the promised benefits and are posing escalating problems on the farm. Transgenic contamination is now widely acknowledged to be unavoidable, and hence there can be no co-existence of GM and non-GM agriculture. Most important of all, GM crops have not been proven safe. On the contrary, sufficient evidence has emerged to raise serious safety concerns, that if ignored could result in irreversible damage to health and the environment. GM crops should be firmly rejected now.

Why Sustainable Agriculture?

1. Higher productivity and yields, especially in the Third World

Some 8.98 million farmers have adopted sustainable agriculture practices on 28.92 million hectares in Asia, Latin America and Africa. Reliable data from 89 projects show higher productivity and yields: 50-100% increase in yield for rainfed crops, and 5-10% for irrigated crops. Top successes include Burkina Faso, which turned a cereal deficit of 644 kg per year to an annual surplus of 153 kg; Ethiopia, where 12 500 households enjoyed 60% increase in crop yields; and Honduras and Guatemala, where 45 000 families increased yields from 400-600 kg/ha to 2 000-2 500 kg/ha.

Long-term studies in industrialised countries show yields for organic comparable to conventional agriculture, and sometimes higher.

2. Better soils

Sustainable agricultural practices tend to reduce soil erosion, as well as improve soil physical structure and water-holding capacity, which are crucial in averting crop failures during periods of drought.

Soil fertility is maintained or increased by various sustainable agriculture practices. Studies show that soil organic matter and nitrogen levels are higher in organic than in conventional fields.

Biological activity has also been found to be higher in organic soils. There are more earthworms, arthropods, mycorrhizal and other fungi, and micro-organisms, all of which are beneficial for nutrient recycling and suppression of disease.

3. Cleaner environment

There is little or no polluting chemical-input with sustainable agriculture. Moreover, research suggests that less nitrate and phosphorus are leached to groundwater from organic soils.

Better water infiltration rates are found in organic systems. Therefore, they are less prone to erosion and less likely to contribute to water pollution from surface runoff.

4. Reduced pesticides and no increase in pests

Organic farming prohibits routine pesticide application. Integrated pest management has cut the number of pesticide sprays in Vietnam from 3.4 to one per season, in Sri Lanka from 2.9 to 0.5 per season, and in Indonesia from 2.9 to 1.1 per season.

Research showed no increase in crop losses due to pest damage, despite the withdrawal of synthetic insecticides in Californian tomato production.

Pest control is achievable without pesticides, reversing crop losses, as for example, by using ‘trap crops’ to attract stem borer, a major pest in East Africa. Other benefits of avoiding pesticides arise from utilising the complex inter-relationships between species in an ecosystem.

5. Supporting biodiversity and using diversity

Sustainable agriculture promotes agricultural biodiversity, which is crucial for food security and rural livelihoods. Organic farming can also support much greater biodiversity, benefiting species that have significantly declined.

Biodiverse systems are more productive than monocultures. Integrated farming systems in Cuba are 1.45 to 2.82 times more productive than monocultures. Thousands of Chinese rice farmers have doubled yields and nearly eliminated the most devastating disease simply by mixed planting of two varieties.

Soil biodiversity is enhanced by organic practices, bringing beneficial effects such as recovery and rehabilitation of degraded soils, improved soil structure and water infiltration.

6. Environmentally and economically sustainable

Research on apple production systems ranked the organic system first in environmental and economic sustainability, the integrated system second and the conventional system last. Organic apples were most profitable due to price premiums, quicker investment return and fast recovery of costs.

A Europe-wide study showed that organic farming performs better than conventional farming in the majority of environmental indicators. A review by the Food and Agriculture Organization of the United Nations (FAO) concluded that well-managed organic agriculture leads to more favourable conditions at all environmental levels.

7. Ameliorating climate change by reducing direct & indirect energy use

Organic agriculture uses energy much more efficiently and greatly reduces CO_2 emissions compared with conventional agriculture, both with respect to direct energy consumption in fuel and oil and indirect consumption in synthetic fertilizers and pesticides.

Sustainable agriculture restores soil organic matter content, increasing carbon sequestration below ground, thereby recovering an important carbon sink. Organic systems have shown significant ability to absorb and retain carbon, raising the possibility that sustainable agriculture practices can help reduce the impact of global warming.

Organic agriculture is likely to emit less nitrous dioxide (N_2O), another important greenhouse gas and also a cause of stratospheric ozone depletion.

8. Efficient, profitable production

Any yield reduction in organic agriculture is more than offset by ecological and efficiency gains. Research has shown that the organic approach can be commercially viable in the long-term, producing more food per unit of energy or resources.

Data show that smaller farms produce far more per unit area than the larger farms characteristic of conventional farming. Though the yield per unit area of one crop may be lower on a small farm than on a large monoculture, the total output per unit area, often composed of more than a dozen crops and various animal products, can be far higher.

Production costs for organic farming are often lower than for conventional farming, bringing equivalent or higher net returns even without organic price premiums. When price premiums are factored in, organic systems are almost always more profitable.

9. Improved food security and benefits to local communities

A review of sustainable agriculture projects in developing countries showed that average food production per household increased by 1.71 tonnes per year (up 73%) for 4.42 million farmers on 3.58 million hectares, bringing food security and health benefits to local communities.

Increasing agricultural productivity has been shown to also increase food supplies and raise incomes, thereby reducing poverty, increasing access to food, reducing malnutrition and improving health and livelihoods.

Sustainable agricultural approaches draw extensively on traditional and indigenous knowledge, and place emphasis on the farmers' experience and innovation. This thereby utilises appropriate, low-cost and readily available local resources as well as improves farmers' status and autonomy, enhancing social and cultural relations within local communities.

Local means of sale and distribution can generate more money for the local economy. For every £1 spent at an organic box scheme from Cusgarne Organics (UK), £2.59 is generated for the local economy; but for every £1 spent at a supermarket, only £1.40 is generated for the local economy.

10. Better food quality for health

Organic food is safer, as organic farming prohibits routine pesticide and herbicide use, so harmful chemical residues are rarely found.

Organic production also bans the use of artificial food additives such as hydrogenated fats, phosphoric acid, aspartame and monosodium glutamate, which have been linked to health problems as diverse as heart disease, osteoporosis, migraines and hyperactivity.

Studies have shown that, on average, organic food has higher vitamin C, higher mineral levels and higher plant phenolics – plant compounds that can fight cancer and heart disease, and combat age-related neurological dysfunctions – and significantly less nitrates, a toxic compound.

Sustainable agricultural practices have proven beneficial in all aspects relevant to health and the environment. In addition, they bring food security and social and cultural well-being to local communities everywhere. There is an urgent need for a comprehensive global shift to all forms of sustainable agriculture.

ALLEGATED 2

Article by AGNES SINAI – Researcher.

State of alert at *Monsanto*: after the Terminator scandal, the first killer plant in the history of agriculture (1), the company is torn between a policy of defense and strategic aggression. The problems began with the acquisition of the *Delta & Pine Land* Company, for the sum of 1.8 billion dollars; *Monsanto* thus came into possession of a patent which, thanks to a genetic engineering technique, enabled seeds to be 'blocked', inhibiting growth from one year to the next. *Rafi* (*The Rural Advancement Foundation International*) nicknamed this sterilization technique "Terminator".
Faced with opposition at an international level, Bob Shapiro, the managing director of *Monsanto*, announced the withdrawal of the product, before he himself resigned. Since then the multinational organization has abandoned its former slogan "Food, health, future" - and is trying to make a new name for itself. Producing GMOs (they modestly speak of biotechnology, "Biotech") is, in fact, a high risk business, both in terms of image and investments. Not to mention possible biological accidents: threats to biodiversity and the appearance of mutant insects, resistant to the insecticides incorporated in transgenic plants (2).
In the United States the Environmental Protection Agency (EPA) has already urged farmers to dedicate at least 20% of their land to conventional crops to enable the development of insects which are not resistant to the transgene *Bacillus thuringiensis*.
Genetically "improved" organisms: they are sufficiently risky to explain why, in the merry-go-round of mergers, takeovers and restructuring, agro-chemistry, which includes vegetable biotechnologies (that is, GMOs), is systematically isolated from other sectors, so as to compartmentalize the transgenic risk. It is with this logic that *Aventis* is trying to separate from *CropScience*, its agrochemical branch: the company had marketed the transgenic maize "*Starlink*", which can cause allergies in man.
Although it is exclusively intended for animal feed, maize has been found in notable quantities in crisps and corn-flakes eaten by American consumers and in cakes made by *Homemade Baking* and sold in Japan. Still within this context, *Syngenta*, the first worldwide agrochemical group was founded in October 2000. It is the result of a merger between the Swiss company *Novartis* (a company well-known for producing medicines for chemotherapy) and the Anglo-Swedish company *Astra-Zeneca* (a company also well-known for producing medicines for chemotherapy), and will have a turnover of about 8 billion euros. *Monsanto*, after its merger with *Pharmacia & Upjohn*, a large pharmaceutical industry (this too is well-known as a producer of medicines for chemotherapy) now concerns itself only with agriculture, with a turnover which in 2000 reached 5.49 billion dollars. It ceded its important anti-arthritis medicine *Celebrex* to *Pharmacia*, to specialize in the production of plant health products, agricultural seeds and, in particular, of genetically modified seeds. *Monsanto* is now, on a worldwide level, the second producer of seeds (after *Pioneer*) and of plant seeds after *Syngenta*, and it is the number one producer of herbicides thanks to *Roundup*, the herbicide most widely sold in the world (its turnover in the year 2000 was 2.6 billion dollars, almost half the group's turnover). Its aim is to make the public accept transgenic products by convincing them that it is better to eat transgenic plants rather than ones which have been sprayed with pesticides (3). This is a strategy which is dressed up in philanthropic and ecological frills to overcome the last obstacles.
With no consideration for ethics, *Monsanto* in January 2001 adopted a new code of behavior with five promises: 'dialogue', 'clarity', 'respect', 'sharing' and 'benefits'.
According to the managing director of *Monsanto-France*, Jean-Pierre Princen, European consumers – the most unwilling to accept GMOs – must understand that a genetically modified organism is nothing more than a genetically improved organism. From here we have the birth of a new *Monsanto*, known inside the company as 'plan M2': its seeds are ecological and excellent for our health. Those who doubt it are simply misinformed.
Today the teams from the multinational company are meeting in Ho-Chi-Minh City to sell their herbicides and to strike up privileged relations with the Vietnamese media, scientists and members of the government. From the Philippines to Argentina they want carte blanche to operate, 'Free to operate' in Company slang.
On the outside, therefore, they have to highlight the ecological quality of GMOs, of which the Company markets two varieties.
The first, the Bt gene, was developed from the *Bacillus thuringiensis* bacteria, and spreads its own insecticide toxins, which allows to reduce the vaporization of supplementary pesticides: a cotton crop called "Bt" will undergo two of them instead of six or eight. The second variety: *Roundup Ready*, was developed to resist the herbicide *Roundup*. In this way, a farmer buys in a kit both the seed and the herbicide! *Roundup* was introduced by the company as a biodegradable product, and this has led to a lawsuit for false advertising from the *Direction générale de la concurrence, de la consummation et de la repression des fraudes* (Dgccrf) of Lyons (General direction for competition, consumerism and the suppression of fraud).
Risk of sterility: in the United States, the EPA calculates that between 20 and 24 million kilograms of glyphosate is used annually (4). This product is present in huge amounts above all in the production of soya, grain, hay and in grazing land and land lying fallow. Since 1998 its use has increased by almost 20% a year. It is contained in *Roundup* and is the herbicide which is sold the most in the world earning for *Monsanto* about 1.5 billion dollars a year. The patent expired

in 2000, but the company will keep a part of the monopoly thanks to the genetically modified plants, developed because they are tolerant to glyphosate. In Brittany this pesticide is one of the dangerous and regular pollutants: in October 1999 it was 172 times above the norm in the Elorn, which provides a third of Finistère with drinking water, "which goes to prove that to say *Roundup* is biodegradable is a lie" said Dr. Lylian Le Goff, a member of the Biotechnological team of the association *France Nature Environnement* (France Nature Environment).

The pollution by pesticides of the soil, of water and of rain water, of the whole food chain and the air has become a serious problem for public health which the French authorities have delayed in taking into consideration. As a consequence, according to Dr. Le Goff, "It is absolutely necessary to apply the principle of precaution, and reconsider the drive to use pesticides, especially when helped by false advertising, which stresses the innocuousness and biodegradability of products containing glyphosate".

The ingestion of pesticides by the consumer would be much higher if the genetically modified plants were more widespread, given that they are impregnated by pesticides. Like dioxins, pesticides too – among which glyphosate – are not biodegradable in the human body and constitute a real and invisible pollution (5). Their molecules accumulate various effects – allergic, neurotoxic, cancerogenous, mutagenic and hormonal - affecting male fertility.

They have properties similar to female hormones, estrogens: globally the actions of these hormones are thought to be responsible for the 50% decrease in sperm production over the last fifty years. If the decline in sperm production were to continue, cloning would be forced on the human race by the year 2060! As well as being biodegradable, the transgenic seeds which are compatible with *Roundup* are presented by *Monsanto* as 'climate friendly', given that, according to *Monsanto*, using them allows farmers to reduce or even to eliminate plowing, allowing huge doses of carbon gas and methane to be stored in the soil, with the consequent reduction by 30% in the emission of carbon gas in the United States. It remains to be explained in what way a non transgenic cultivation would be less efficient… One thing is certain: there would be fewer profits, especially because standard cultivation would not use the herbicide *Roundup*.

The sudden ecological vocation of *Monsanto* and the zeal of its "managing director for sustainable development", Robert B. Horsch, converge with the interests of those who are selling the right to pollute, such as those land owners in Montana who are already part of a coalition for the sale of the rights of carbon gas emission (6).

If the phraseology *Monsanto* is using to the outside world centers on 'tolerance', 'respect' and 'dialogue', the language used within is much cruder. Ted Crosbie, who is in charge of the vegetable development program, showed the true philosophy of the company at a meeting of *Monsanto Latin America* in January 2001; he didn't mince his words: "we will deliver the pipeline and the future together". To put it more clearly, they will flood the agricultural land available with GMOs – an irreversible wave. Latin America is, from this point of view, 'a winning environment'. *Monsanto* has estimated that in Brazil alone there are still 100 million hectares of land to 'develop'.

Unfortunately, this country continues to be reluctant to accept GMOs, laments Nha Hoang and his colleagues in the *Monsanto* group, responsible for the 'free to operate' strategy in Latin America: "It is already the second producer in the world of transgenic Soya, after the United States, and soon it will probably be the first". It is the greatest economic power in Latin America, but it is the only one where transgenic cultivation is not permitted. The judges declared the authorization process for transgenic Soya *Roundup Ready* invalid, because no appropriate studies of the effect on the environment had been carried out; they maintained that the present agency responsible for the regulation of biotechnology had been constituted illegally. The statute of the company in question, CtnBio, is waiting for ratification from the Brazilian Congress…. Its aim: to obtain the 'pipeline' for transgenic Soya to open the way for other authorizations which will allow it to put the following on the market: *Yieldgard Maize, Bollgard Cotton and Roundup Ready Cotton* in 2002; *Roundup Ready Maize* in 2003; and *Soya Insecticide Bt* in 2005. In the meantime, *Monsanto* has invested 550 million dollars in building a factory which will produce its herbicide *Roundup* in the north-east of the State of Bahia. The strategy of the multinational is based on biotech acceptance: get GMOs accepted by society and then – or at the same time – inundate the market. To this end huge, aggressive advertising campaigns are launched. In the United States, television advertising time are bought directly by the propaganda machine of this field, the *Council for Biotechnology Information*. *Monsanto* is a cofounder of this organization, which centralizes the information relating to "the benefits of biotech". "Television is an important means of getting biotech accepted. Therefore watch the commercials and show them to your family and friends", is Tom Helcher's invitation; he is the director of the *biotechnology acceptance* programs at *Monsanto* headquarters at Crève-Coeur (Missouri). Above all the American farmers must be reassured, because they especially are worried about their foreign markets and they are hesitating to buy genetically modified seeds.

Even if *Aventis Crop Science, Basf, Dow Chemical, DuPont, Monsanto, Novartis,* and *Zeneca Ag Products* have launched huge advertising campaigns in the United States, they hesitate to do the same in Europe… In Great Britain, *Monsanto'*s commercial team has stated that it is satisfied with the results of its program of "talking campaign in favor of biotechnology" which after a study course guaranteed by the company enables its employees in the commercial sector to call themselves 'experts' in the subject and therefore go on to proclaim the merits of transgenic products to farmers and schools. "There is nothing better than an excess of communication", says Stephen Wilridge, managing director of *Monsanto-Northern Europe.*

The school system is obviously a strategic element in the campaign to win over public opinion. After seeing the program *Biotechnology Challenge 2000*, which is partially financed by *Monsanto*, 33% of high school students in

Ireland did research into the role of biotechnology in food production. Mobilized to give prizes and awards, David Byrne himself, the European commissary in charge of the protection of consumer health, said that he "had no doubt that there was a link between the reluctance of consumers towards biotechnology and the lack of serious information on the subject". For 2001, the managing director of *Monsanto-Ireland*, Patrick Reilly, hopes for a wider participation, because, "these students are informed consumers and they will decide the future".

The multinational is not only learning to decode messages but also to recycle them and the expectations of society. For some months *Monsanto* has wavered between fanciful dialogue with and a deep-down rejection of the most important non-governmental organizations which contest the alleged quality of GMOs.

Beginning with Greenpeace, defined by the Swiss inventor of golden rice, Ingo Potrykus, who works for *Syngenta, as* 'a criminal against humanity'. Golden rice is a transgenic rice enriched with beta-Carotene (vitamin A), it is therefore a second generation GMO; it has been called 'medifood', because of its alleged healing and nutritional qualities. As it is the first therapeutic rice in the history of agriculture, the big biotechnological companies have been waiting a long time for it: thanks to Golden rice, the last skeptics will no longer have any doubts about the fundamental, virtuous character of the GMO project. Vitamin A, transgenically integrated, will be, in the end, the moral promoter of transgenic nutrition all over the world: who will venture to criticize its merits, when so many children in the third world suffer from blindness because of a lack of beta-Carotene? Who will dare to doubt that the basic vocation in the transgenic seed trade is nutritious, ecological and humanitarian?

A fiendish assertion. The fact remains that the efficacy of golden rice for the populations concerned is hardly credible. Greenpeace and others have shown that it is absurd, making clear particularly with the help of micrograms, that to consume a sufficient dose of Vitamin A every day, a third world child would have to complete a heroic feat: eat 3.7 kilograms of boiled golden rice a day, instead of two carrots, a mango and a bowl of rice. At a press conference at *Biodivision*, the 'Davos' of biotechnology, held at Lyons in February 2001, we heard Potrykus' public reaction: "If you intend to destroy the experimental cultivation for humanitarian purposes of golden rice, you will be accused of contributing to a crime against humanity. Your actions will be scrupulously recorded in court and you will have, I hope, to answer for your illegal and immoral acts before an international court". Therefore, all those who doubt and contest are criminals against humanity, they are even called 'fiends of the earth', a play on words of the English name and the web site 'Friends of the Earth', which is much appreciated by the *Monsanto* staff.

If political opposition is by nature 'fiendish', the 'dialogue' cannot go on. And yet the new *Monsanto* promises in its code of conduct "to begin a permanent dialogue with all those who are interested, to better understand the problems and worries raised by biotechnology".

Behind this apparent solicitude lurks a real business strategy, that of double conformity: a conformity imposed afterwards, of the image of GMOs with the consumers' expectations; consensus of opinions, by means of advertising campaigns and intensive communication. Because, if *Monsanto's* one and only aim is to get its biopolitical project passed worldwide, the new *Monsanto* needs to demonstrate flexible ethics (obviously of a variable nature) seeing as how it is the multinational itself which is setting the rules.

To this end, the company has entrusted Wirthlin Worldwide, a worldwide specialist in business communication, the task of 'finding the means and ways of helping *Monsanto* to persuade consumers through reason and to motivate them through emotions'.

This survey of people's attitudes – called 'the Vista project' – is based on 'monitoring consumers' value systems'.

Starting with the collection of data, the project elaborates a chart of four levels of thought (…): prejudices, facts, feelings and values. In the United States the results of the study have enabled messages to be devised which impress the general public, and identify the importance of the argument supporting biotech : fewer pesticides on your plates".

In France the staff at *Monsanto* had to undergo this survey during a private interview where they assumed that they could express themselves freely on what they thought of biotechnology, 'for good or bad', given that the objective was to train "spokespeople who would use messages designed for the masses".

Genetic pollution. Access to genetic material and to the markets, with the benefit of total freedom of movement, is the double priority of the concept "free to operate". To perfect a GMO costs between 200 and 400 million dollars and takes seven to ten years. As a return for such an investment, the multinational must obviously get an income, guaranteed by the patent filed on the plant. To be able to sow again from one year to the next, royalties must be paid to the company every year. Every variety which has a GMO will be protected by the patent, which means that the farmer will have to acquire a license.

The risk, in the short term, is to give the big seed producing companies the possibility of blocking the whole system, monopolizing the genetic patrimony throughout the world and creating an irreversible situation: the farmer will not be able to recover this patrimony in order to choose for himself again.

This could also be a problem for *Monsanto* according to its own code of conduct, which promises to "make sure that third world farmers who are without resources can benefit from the knowledge and advantages of all forms of agriculture, in order to improve food safety and the protection of the environment".

And here we have the generous concession to South Africa of a patent for transgenic sweet potatoes, in the hope of spreading it all over Africa. "In Africa, with patience, we can widen our position with *Yield Guard* and also with *Roundup Ready Maize.* At the same time we should think about reducing or eliminating the rights to our technology which is suited to local crops, such as Sweet potatoes or cassava".

A two-faced strategy where generous intentions are shown so as to get a foothold in a market which is not easily penetrated, or less solvent but potentially dependant. A similar proceeding to that which led to the planting of golden rice in Thailand by *Syngenta* (to make it freely available, it was necessary to remove 70 patents) or to use Indian milk cows doped with *Monsanto*'s *Polisac* (a forbidden hormone in the European Community), so as to conquer local markets which were not attracted to biotechnology.
On the other hand, *Monsanto* has recently had Percy Schmeiser, a Canadian farmer, fined 10.000 Euro for 'pirating' transgenic kohl. He counterattacked by accusing *Monsanto* of accidentally polluting his fields of traditional kohl with a transgenic kohl tolerant to *Roundup.*
But is the justice system capable of establishing the origin of genetic pollution? This case, which may not be the first, shows how difficult it is to prevent the accidental dissemination of GMOs.
In France, such cases have been hushed up. In March 2000, different plots of conventional seeds of spring kohl sold by the *Advanta* company, contaminated by GMO seeds of a different company, were planted in Europe. The plants were destroyed. In August 2000, some varieties of winter kohl, checked by Dgccrf, were shown to be contaminated by GMO seeds. But no kohl GMO has yet been authorized for either cultivation or consumption in France. Already now, traceability is showing its weaknesses. Chance contamination is more and more frequent.
A health worker in Lombardy has recently reported the presence of GMO in lots of *Monsanto* soya and Maize seeds. GMOs have been found in stocks of Maize seeds deposited at Lodi, near Milan. The pressure in Europe will increase, given that imported soya - which is largely transgenic - will replace the animal meal which is prohibited today.
But is it not the aim of companies which produce transgenic seeds to see the disappearance of the non-GMO matrix, counting on the high costs of checking which this entails? Probably, in the next few years, farmers will have more and more difficulty getting seeds from this matrix. World research is turning towards transgenic seeds and so it is possible that non-GMO varieties will end up being unsuitable to the evolution of agricultural techniques, if not completely obsolete.
One can therefore doubt the 'transparency' shown by *Monsanto.*
The consumer depends on the information provided by the company. Every genetic construction is considered a patent and no legal obligation exists, for a company, to provide a private laboratory test for an analysis check. In France, the description of a genetic construction is filed at the Dgccrf which is the only organization that can do any analysis. However it does not have the right to do analysis on a commercial level, and therefore it cannot be used by consumers or companies for this purpose.
The consumer will therefore have to be content knowing that companies market the seeds only after they have received authorization that they can be used for human consumption and after undertaking to "respect the concerns of a religious, cultural and ethnic nature in the world and not use genes coming from man or animals in the agricultural products destined for consumption by man and animals". The recent nomination to the management of the American EPA of Linda Fischer, an ex-*Monsanto* manager, makes one think that not only is the new *Monsanto* outside the law but it aims to make the law.

Notes:
(2) The risk of uncontrolled dissemination has been one of the reasons given by Josè Bové and two other farmers to justify the destruction of transgenic rice plants in greenhouses at the Centre for International Cooperation and Agronomic Research Development (CIRAD), which occurred at Montpellier in 1999. The three defendants were sentenced on 15 March but they have appealed.
(3) Some people from *Editions de l'Institut national de la recherche agronomique* (Inra) have published a cartoon (La Reine rouge, text and illustrations by Violette le Quéré Cady, Paris 1999), it would be a good idea for the personnel of *Monsanto* to read it. It is a panegyric in favor of GMOs, in the name of the danger from insecticides.
(4) Figures cited by Caroline Cox, "Glyphosate, Journal of pesticide reform, autumn 1998, vol. 18, n° 3, published by the Northwest Coalition for Alternatives to Pesticides.
(5) Read the work of Mohammed Larbi Bouguerra, The invisible pollution, Puf, Paris, 1997.
(6) http://www.carbonoffset.org.

ALLEGATED 3 : Mexican Clinics

Please note that over the last year several Mexican Clinics have been temporarily closed. Some are allowed to re-open either completely or with some restrictions on what services they can provide. Bio-Pulse and Century Nutrition were shut down in March 2001. For more information on these closures, see Peter Chowka's article on Natural Healthline's website. We understand that many of the health inspectors in Mexico about this time were fired and replaced. Apparently any clinic that does not have the appropriate permits will be closed. If we hear about any other closures, we will post the information on this page. Other clinics impacted have been: St. Jude (Jimmy Keller's clinic), Century Nutrition may be prohibited from providing some therapies. American Metabolics and American Biologics were temporarily shut down, but they they all reopened. If any hospital is using "unproven" approaches or does not have all the proper permits, they may be temporarily shut down to get the proper permits. Any of the clinics that are found to have their papers in order could potentially resume offering alternative therapies if the Mexican federal government approves their requests to conduct experimental treatments. We have heard that they would be limited to a small number of patients and could not charge the patients for experimental treatments. We have not confirmed this.

See our January Newsletter for a write up on why people go to Mexican Clinics.

If you do go to this clinic for treatment, be sure to let us know about your experience. Any feedback you can offer may help others who are trying to decide which clinic to go to or which therapy to use.

Advanced Medical Group has an office in El Paso, but the clinic is in Juarez, Mexico. They treat cancer, arthritis, diabetes, and heart disease using chelation, ozone, electrotherapy, laetrile, Koch, and BCG. Contact number is: (800) 863-7686. We do not have much information on this clinic, other than one complaint.

American Biologic is an "integrated facility" that offers a wide variety of approaches, including laetrile, enzymes, chelation, oxygen therapies, bioelectrical therapies, nutritional therapy, hydrotherapy, and hyperthermia. They also have an office in Chula Vista California. American Biologics was also temporarily shut down and were renting a small part of the old Hospital Del Mar/The Meridian Hospital, but we have been told they have reopened their clinic. We have received some positive and some negative comments about this clinic; mostly we have heard that they have become more conventional than in the past. Go to our web page on them for more information. 800-227-4473

American Metabolic uses up to 150 different nontoxic medications and therapies to train the immune system to eliminate cancer. The clinic was temporarily shut down, but they have advised us they have re-opened. We have received some positive and some negative comments about this clinic. Go to our web page on them for more information - at http://www.cancure.org/american_metabolic.htm. 800-388-1083

As of May 1st, the Gerson Institute has initiated a license agreement with a new treatment center co-owned and operated by the two most knowledgeable and devoted Gerson physicians in the world: Dr. Alicia Melendez and Dr. Luz Maria Bravo. The new treatment facility, called Baja Nutri Care, is located in the Playas area of Tijuana, Mexico. Call **Tel.** 619-685-5353 or 888-4-GERSON.

Betania West Institute - Salvador Vargas M.D. in Tijuana. Vargas uses intravenous Laetrile with low-dose chemo, low-dose radiation, enzymes, Vitamins, etc. Tel: Toll free (888) 396-3130, 01152 664 638-8496 or Fax: 01152 664 638-8413 or e-mail: betaniawest@hotmail.com U.S. Mailing Address: PO. Box 430430 San Ysidro, CA 92143-0430

Bio-Medical Center (Hoxsey Clinic) in Tijuana was established in 1963 and was one of the first alternative cancer facilities in Mexico. They use Hoxsey tonic and salves to treat cancer. Best results are with skin cancer (including melanoma) and breast cancer. 011-52-664-684-90-11

BioMedics Institute in Tijuana offers hyperthermia and focused low dose radiation with advanced therapies including brachytherapy, vaccine therapies, bio molecular therapies, Xenotransplantation (Cell Therapy), Apheresis, Ultraviolet Blood Irradiation, Cytokine Therapy, Electro-Magnetic Therapy, detoxification, Biological response modifiers, aloe vera, cesium, live cell therapy, and a nutritional program. They treat many disorders, including: cancer, immune disorders including lupus and MS, cardiovascular problems, gastro-intestinal disorders, chronic fatigue, and Fibromyalgia. They have purchased a linear accelerator to allow them to do lower dosed "pinpoint" radiation. Their website is http://www.biomedicsinstitute.com/ or call (888) 626-8067 for more info.

BioPulse Rejuvenation Clinics were known for their intense treatments to fortify the immune system. The clinic in Mexico apparently did not have all the required permits to operate, so they are being prevented from using some of their therapies. They are currently focusing on a tumor marker test.

Center for Immuno-Energy Therapy has moved from Canada to Reynosa as they felt there they would be able to allow the medical support that need for more rapid elimination of cancers. They provide individuals with chronic degenerative health problems, including immuno-deficiency diseases, neuroimmune diseases, and problematic infections assistance on how to achieve wellness. They use magnetic therapy, chelation therapy, HANSI, enzyme therapy, photoluminescence/oxygenation of the blood, diet, herbs, and a special

technique of intra-cancer injections. Phone 317-928-8885 for more details. We do not have many details about this clinic.
Centro Medico is a Windstorm Foundation Facility in Mexico. They tackle the "incurables" - emphysema, stroke, cancer, Lou Gehrig's, etc. using bio-oxidative therapies, oxygen therapy, vaccines, enzyme therapy, and herbal therapy. (Please note, this information came from *Third Opinion* by John Fink and has not been verified. We believe the clinic has been closed.)
Century Nutrition, Hulda Clark's research center in Mexico was temporarily shut down. They have re-opened, but we don't know if there are any restrictions on what therapies they can use. For details call her association at 1-800-220-3741.
CHIPSA - the home of the Center for Integrative Medicine, is a modern full-service hospital located Tijuana. CHIPSA treats all forms of cancer and is one of the few places in the world where patients can receive the Coley's Toxins modalities. They use a modified Gerson Diet. They also use the VG-1000 vaccine, CoQ10, Ozone Therapy, Hyperthermia, Laetrile, DMSO, Wobe Enzymes, Chelation, Biological Dentistry, diet, supplements, and a variety of other approaches. 1-877-424-4772 - (1-877-4-CHIPSA)
Contreras Clinic - See Oasis Hospital below.
CSCT -Cell Specific Cancer Therapy also known as Zoetron is in Tijuana, Mexico has been shut down.

Hospital Santa Monica, also known as the Donsbach Clinic, uses detoxification of the body, a rigorous course of immune enhancing and rebuilding therapies and many disease-specific treatment protocols, including hyperthermia, oxygen/ozone therapy, light therapy, ultraviolet blood purification, diet and nutrition. 800-359-6547 or 619-427-3007
Europa Institute of Integrated Medicine - Contact Dr. Carolyn Bormann, a consultant for them has an office in California, but the clinic is in Mexico. They treat cancer and also multiple sclerosis, lupus, CFIDS, viral syndromes, and other immune dysfunctions. They use ozone, chelation, photoluminescence, UBI, hyperthermia, amino acid, enzyme, nutrition, hydrotherapy, neural therapy, and biologicals. (909) 338-3533.
Genesis West Research Institute for Biological Medicine, previously run by Sergio Amescua, M.D., is now being run by Jacob Swilling, PhD. They treat cancer and other chronic and degenerative illnesses. Treatments include detoxification, non-toxic dentistry, chelation therapy, oxygen and ozone, therapeutic nutrition, pH balance, and Bio-Energetic Medicine. www.cancertherapies.com 831-309-7988
Gerson Healing Centers of America has an office in Bonita, California, but the main clinic is in the Oasis Hospital in Mexico. They not only treat cancer, but also heart disease, diabetes, multiple sclerosis, lupus, arthritis, and liver diseases. Therapy is Gerson, minerals, enzymes, liver extract, B12, acupuncture, botanicals, massage, and chiropractic. They offer a variety of educational programs. http://www.gerson.org/ 1-888-4-GERSON
Harold Manner Center has an office in San Ysidro and a hospital in Tijuana, Mexico. They are best known for their use of laetrile in treating cancer. They were temporarily shut down but we have heard they have re-opened.
Hospital Bajanor S.A. de C.V. in San Diego also treats arthritis, heart disease, lung infections, and kidney stones. They use detoxification, amino acids, laetrile, DMSO, EDTA chelation, GH3, polypeptides, Hoxsey, germanium, and nutrition. www.bajanor.com. 1-888-294-0342
Hope4Cancer Institute run by Antonio (Tony) Jimenez, M.D. is in Tijuana. They use Polyatomic Aphaeresis, Carnivora, PolyMVA, oxygenation, alkalinizing, detoxify, anti-tumor agents, stimulate immune status, nutritional program, and prayer. Medical dentistry is also done here. Their website is http://www.hope4cancer.com/, or email drtony@hope4cancer.com. Tel: 011 526 680-6654 or Fax: 011 526 680-6654. Patient Response line at 800 670-9124. We do not have much information on this clinic.
I.M.A.Q - Dr. Castillo - Dr. Isai Castillo Ramos in Tijuana treats cancer, diabetes, arthritis, and many chronic diseases. He uses IVs, Hoxsey, laetrile, nutrition, etc. Costs to go to his clinic are very low compared to many other clinics. 800-296-9881 http://www.drcastillo.com/
Institute of Chronic Disease is run by Dr. Gustavo Andrade. They treat cancers, Candidiasis, Chronic Fatigue Syndrome and Herpes. Therapies include conventional therapies, vitamins, enzymes, laetrile, ozone, shark cartilage, Hydrazine Sulfate, and chelation. http://www.bajaonline.com/dr-andrade/programs.htm 011-526-680-9292.
International Bio Care Hospital and Medical Center (IBC) in Tijuana uses a program founded on a broad basis of lifestyle changes, of which nutrition is among the most important to help rebuild the immune system. They also use UBIT - ultraviolet blood irradiation, bioelectrical repolarization (BER) and anti-fungal therapy. They are a full in-house hospital. (800) 785-0490 http://www.ibchospital.com.
International Center for Medical & Biological Research, Inc. has an office in San Diego and clinic in Mexico. They treat prostate, breast, liver, lung, and bone cancers, testicular, melanoma, multiple myeloma, and leukemia. They use electromagnetic treatment according to Nordstrom and Rife, chelation, and the center's own vaccines. Phone: Dr. Suzanne Henig at (619) 481-5284 or 011-52-66-30-18-53. We don't know very much about this clinic.

International Medical Center in Juarez Mexico. They treat cancers, heart disease, circulatory problems, arthritis, diabetes, amyotrophic lateral sclerosis, chronic fatigue, Epstein-Barr virus, candidiasis, hypoglycemia, Parkinson's disease, Alzheimer's disease, and most chronic degenerative diseases. Treatments include chelation, hyperbaric oxygen, electrotherapy, hydrotherapy, colon therapy, ozone therapy, detoxification, respiratory therapy, physical therapy, acupuncture, shark and bovine cartilage, Koch vaccine, enzyme and nutritional therapy, and immunotherapy. Phone: (800) 621-8924. We don't know very much about this clinic.
Medico Cirujano in Tijuana is run by **Dr. Perez Garcia.** He uses IPT - Insulin Potentiation Therapy for treating cancer. 18 years of IPT experience. Dr. Garcia also has a training program. www.iptq.com 011-52-(664)-686-5473.
Mission Medical has a clinic in Tijuana. They can be reached by calling (619) 662-1578. Their primary doctors are James Gunier, H.M.D., Ph.D.; Roberto Diaz, M.D., Ph.D.; N. They treat all forms of cancer as well as AIDS, arthritis, Alzheimer's, stroke, paralysis, rare neurological diseases, and chronic degenerative diseases. They use nontoxic therapies; tumor reduction therapy, tumorin, therapeutic immunology, RNA regeneration, Koch, Ridasa, immune therapy, rare homeopathic tumor related remedies, HCL mineral chloride infusion, super IV drops, herbology, Rife, Dia-Pulse, poultices, counseling, diet, lifestyle, and a personalized follow-up program. We don't know very much about this clinic.
Monterrey Clinic, formerly called the Davidson Cancer Clinic, is run by James Gary Davidson. Apparently he is under indictment. We do not recommend dealing with this clinic.
New Hope Clinic - Dr. Stephen Linsteadt - in Tijuana is best known for their use of BioElectric Cancer Therapy and BioResonance protocols from Germany. They are an integrative medical facility utilizing the latest techniques in the treatment of cancer, heart disease, arthritis, and most chronic degenerative diseases. Treatments include BioElectrotherapy, BioResonance, photoluminescence, oxygenation, chelation, immune system modulators and auto-vaccinations, enzyme and nutritional therapy.
Oasis of Hope Hospital - also known as Contreras Clinic is in Tijuana Mexico. (note: Gerson Center now operates out of its own clinic.) They are currently the only facility authorized by The Issel's Foundation to use use the name of Issels and Issels Treatment. They have been treating cancer patients over 35 years.
USA Phone: 1-888-500-HOPE (4673)
International Phone: 011-52-664-6316111

Program for Studies of Alternative Medicines in Jalisco is run by Hector E. Solorzano, M.D., Ph.D. It was established in 1985 and treats cancer, arthritis, lupus, AIDS, diabetes, migraine, multiple sclerosis, and chronic renal failure using
216 different alternative therapies, including, DMSO, chelation, enzymes, amino acids, shark cartilage, electromagnetism, moxibustion, and lasers. (Please note, this information came from *Third Opinion* by John Fink and has not been verified.) Phone: 011-378-13532; -15133; -15134.
Providence Hospital, located just of outside of Tijuana, was founded in 1996 by Dr. Gary Tarasov. In addition to treating cancer, Providence Hospital also offers a unique vaccination program for those currently without cancer. 619-972-383.

San Diego Clinic in Tijuana uses a "Total Integrative Medicine Program" - the use of all major forms of alternative and complementary therapies to treat specific cancers and other degenerative conditions including MS, ALS, and CFS. Therapies include detoxification, nutritional programs, boosting the immune system, enzyme therapy, Biological (Biological Response Modifiers, especially cytokines) and Immunological Therapies, and a variety of vaccines. Costs to go to his clinic are very low compared to many other clinics. Contact: Vincent Gammill at (858) 523-9144 for more information on this clinic.
Sanoviv is a health resort on the Baja Coast at Rosarita Beach. They are a modern, beautiful facility right on the ocean that incorporates modern diagnostics with a variety of treatment programs. They treat many cancers as well as many degenerative diseases. They believe the body has the power to heal itself when provided with the proper nutrients and when relieved of its accumulated toxic burdens. Their website is www.sanoviv.com or for more info call (800) SANOVIV.
Stella Maris Clinic in Tijuana offers a basic 21 day therapy which includes detoxification and individualized protocols to rebuild the immune system. Dr. Alvarez, who runs this facility, is one of our favorite doctors. 800-662-1319.
Lawrence H. Taylor, M.D., is working as a consultant with BioMedics Institute in Mexico. (above) His program calls for a reordering of a patient's body and mind, from immune system support and detoxification to emotional counseling and a complete nutritional program. (888) 626-8067 or (909) 303-3250.

Clinic Tours:
If you would like to tour some of the clinics in Mexico, there are several organizations that provide tours, including:
CCS Cancer Clinic Tours in Modesto - 209-529-4697

Private Cancer Tours aka Alternative Health Tours
P. O. Box 530218 San Diego, CA 92153-0218
Phone: (619) 475-3834 Fax: (619) 475-0753
E-mail: getwell@healthtours.com
Website: www.healthtours.com
http://www.alternativemedicaltours.com/ - 1-800-788-9050 - However, we understand they often only tour American Biologics and Hospital Meridian.

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The information on this page is provided by The Cancer Cure Foundation based on information we have received from a variety of sources, including the clinic itself, feedback from people who have gone to the clinic, and in some cases from clinic tours. The listing of a doctor or clinic here does not signify an endorsement by the Cancer Cure Foundation, unless we have indicated it. We encourage you to check out each clinic by visiting the clinic if possible, talking to people who have gone to the clinic (ask the clinic for contact information of people who have gone to the clinic), and by checking with other organizations as to what they know about the clinic. There are also some forums you can join to get feedback from others. We would also be happy to tell you what we know about any of these clinics.
If you do go to any of these clinics for treatment, be sure to mention you heard about them through The Cancer Cure Foundation, and be sure to let us know about your experience, positive or negative. Any feedback you can offer may help others who are trying to decide which clinic to go to or which therapy to use.
Back to the Directories Page.

List of other Clinics in Center/South AMERICA Offering Alternative Therapies

The listing of a doctor or clinic here does not signify an endorsement by the Cancer Cure Foundation. We will add additional information about each clinic as soon as our staff has a chance to contact them. If we have a separate page for the clinic, there will be a hyperlink to that page. In addition, we are putting together a database that will include details including contact information, size of clinic, costs if available, whether they take insurance, etc. If you would like us to check our database to see if we have this information available on a particular clinic, or if you would like us to contact a clinic on your behalf, contact our office by emailing us at ccf@cancure.org, or by calling us at (800) 282-2873 or (805) 498-0185 9-5 PST.

If you do go to a clinic for treatment, be sure to let us know about your experience. Any feedback you can offer may help others who are trying to decide which clinic to go to or which therapy to use.

Bahamas

Immuno-Augmentative Therapy Centre in Fort Lauderdale has a clinic in the Bahamas. The goal of IAT is to build systemic levels of tumor killing immune complexes to the levels that would be found naturally in a balanced immune system - their credo is "we treat immune systems, not cancer." (242) 352 7455.
http://www.iatclinic.com

Cuba

In Havana, **Ozone Research Center** - Carlos Hernandez Castro, Ph.D., also treats senile dementia, Parkinson's, arthritis, diabetic neuroangiopathy, and glaucoma. Primary therapy is ozone therapy. 011-53-721-0588

Ecuador

Robert B. Wickman DO ND is Quito is an Osteopathic doctor, specializing in diseases of the nervous system and spinal column. He has treated many cancers, even advanced. He uses IPT therapy, diet and supplements. Rbw66_2000@yahoo.com 593-2-241-274

San Salvador

Hospital de Diagnostico, a "boutique hospital" using art and music and other extra medical forms of gentleness and strength to add to its ambiance of healing, has added HANSI AT to its list or therapies offered. To assure El Salvador of its integrity, it will be tested further there under the auspices of Stanford University, while other tests are beginning in St. Petersburg, Russia, in cooperation with the Pasteur Institute and the World Health Organization. Dr. Rodrigo Brito, president and director of Hospital de Diagnostico, and his staff will administer the treatment of late stage cancer along with the facility's arsenal of advanced equipment for cancer therapies. Dr. Cesar Bertacchini, oncologist and professor of oncology in Buenos Aires, Argentina, will join them as medical director of the program. Patients will be received beginning August 1, 2002. For additional information, contact Dr. Colleen Green at the U.S. Information Office (941) 358-8500.

South America

Centro De Rejuvenecimiento Cellular Por Oxigenoterapia Hiperbarica in Palmira, Colombia does adjuvant HBO treatment, especially for those receiving radiation or chemotherapy, mostly breast and prostate cancers. They also use nutritional and vitamin therapy. Tel. (57) (02) 272 45 44 , FAX : (57) (02) 273 32 28

In Cali there are two clinics that use allopathic and alternative, including Hyperbaric, Bio Energetic Medicine, homeopathic medicine, acupuncture, chelation, vitamin and nutritional medicine. These two clinics are: **Clinica de Medicina Biologica** del Dr. Arturo - Tel (57) (02) 554 12 87 and **Medicina Bio Energetica**, Dr. Elias Bechara Simancas - Tel (57) (02) 661 78 36 or email ebechasim@hotmail.com.

List of Clinics in the United States Offering Alternative Therapies

The following doctors, clinics and hospitals provide alternative treatments for cancer in the United States. If you are interested in a clinic outside of the United States, go to Clinics Outside of the US, or to our list of Mexican Clinics, which we have recently put on its own web page. We also have a list of clinics that use a combination of alternative and conventional therapy to treat cancer. If you are interested in working with a naturopath, we have a web page devoted to naturopathic physicians and traditional naturopaths. If you would like to find a homeopath who works with individuals with cancer, go to our page devoted to homeopaths.

The listing of a doctor or clinic here does not signify an endorsement by the Cancer Cure Foundation. We will add additional information about each clinic as soon as our staff has a chance to contact them. If we have a separate page for the clinic, there will be a hyperlink to that page. In addition, we are putting together a database that will include details including contact information, size of clinic, costs if available, whether they take insurance, etc. If you would like us to check our database to see if we have this information available on a particular clinic, or if you would like us to contact a clinic on your behalf, contact our office by emailing us at ccf@cancure.org, or by calling us at (800) 282-2873 or (805) 498-0185 9-5 PST. We have been asked to add contact information to our website - We are still confirming this information, so if you find any of the phone numbers, websites, or addresses are not accurate, please let our webmaster know.

Some people find it helpful to visit several clinics before choosing one. There are several companies that offer clinic tours, especially to the clinics in Mexico. If you would like us to put you in touch with these companies, we can help you arrange this.

If you do go to a clinic for treatment, be sure to let us know about your experience. Any feedback you can offer may help others who are trying to decide which clinic to go to or which therapy to use

USA

Alaska:

Elisabeth-Anne Cole, M.D., Ph.D., in Kenai treats immune dysfunction presenting as cancer-all phases, all tumors, at any location in the body, as well as AIDS, HIV, lupus, multiple sclerosis, Parkinson's disease, rheumatoid arthritis, chronic fatigue syndrome, Crohn's disease, diabetes, arteriosclerosis, and fibromyalgia. She uses nontoxic immune system enhancement and balancing through nutritional supplementation, diet, detoxification, oxygenation, and bioenergetic/electromagnetic strengthening, as well as acupuncture, neural therapy, and sclerotherapy. 907-283-7740.

Brian Le Compte, MD in Anchorage may use laetrile and IPT as part of his approach. phone: 907-344-7775 or email: kininigen@hotmail.com.

Arizona:

Aeris Health Systems (AHS) in Tempe, AZ is run by Dr. Charles A. Knouse, D.O. He specializes in alternative cancer therapies, stressing multi-modal integrated cancer treatment. Some of his approaches include: Intravenous vitamin C, Insulin-Potentiation Therapy (IPT) with either very low-dose chemotherapy or very high-dose intravenous vitamin C, intravenous alpha lipoic acid, supplements, and nutrition and lifestyle counseling. For more information, go to his website at http://www.aerisclinic.com/. To reach him by email - info@aerisclinic.com. By phone: 480.446.8181 or toll free: 877-585-7684.

Aidan Incorporated in Tempe is a research-based facility that provides complementary and unique approaches to treating cancer. Their treatment approach is designed to help stimulate a person's own immune system to recognize and attack tumor cells. They believe defective or inadequate antigen (cell surface information) presentation and inadequate T cell recognition of tumor cells are the root cause of the development of most malignancies. They also believe that people with malignancies can have a much higher requirement of vitamin C and that vitamin C, given in adequate intravenous doses, can exert potent anti-

tumor effects. They also use C-Statin as an anti-angiogenesis inhibitors to enhance the effectiveness of immune-based therapies. They also use a homeopathic form of dendritic cell therapy. Their website is just www.aidan-az.com or call 800-529-0269. A write up on this clinic is in Alternative Medicine Magazine's November issue. To order a copy, go to http://www.alternativemedicine.com.

BioImmune (formerly **CancerOption.com**) **Arnold Takemoto**, President www.canceroption.com (888) 663-8844 or (480) 778-1618. They really aren't a clinic, but they provide protocols to use at home. They can also recommend clinics that are using their protocols. We have heard they have a good protocol for leukemia.

The First Resort in Green Valley, AZ is run by Bryan McConnell, ND. It is mostly a general practice, but he does treat cancer using a variety of approaches. He uses IV vit C, IPT, diet, exercise, colon hydrotherapy, detox, cleansing, chelation, EDTA, trained in Gerson and other diet programs, juicing, classical homeopathy, darkfield microscope, hoxsey, essiac, bio-oxidative therapies, constitutional hydrotherapy, hydrazine sulfate, Poly MVA for cancer cytotoxic action, DMSO, and dry sauna similar to Hubbard protocol. Call 877- 399-9212 or 520 399-9212. http://www.thefirstresortaz.com/

Integrative Health Care, PC, in Scottsdale AZ, is run by Alan Christianson, ND treats almost any type of cancer, even later stage cancers. They use metabolic therapies for those not undergoing conventional care. For those doing conventional treatments, they use intravenous nutrition and botanical meds to prevent side effects and help efficacy of chemo/radiation. Call (480) 657-0003 or go to their website at http://www.integrativehealthcare.com/.

Effective February, 2001, **Immune Therapies International (ITI)** will be operating two clinics that will offer treatments for people with cancer. One is in Dunwoody, Georgia (Atlanta area) and the other is in Tucson, Arizona. Their approach uses state-of the art medicine and diagnostic testing which will mobilize the body, mind, spirit, and emotions toward ongoing health. Each participant's individualized treatment plan is developed by Dr. Jesse A. Stoff M.D. (H), Director of Integrative Medicine and his team of health professionals. ITI's medical model is integrative medicine at its best. For information on their facilities, go to http://www.immunerecovery.com/facilities.htm or call them at 866-471-4743.

Jesse Stoff, M.D., is no longer associated with Solstice or **IntegraMed**. He is training doctors and setting up treatment protocols for Immune Therapies International (ITI).

New Hope Medical Center in Scottsdale uses alternative methods to treat immune deficient illnesses such as cancer. Dr. Fredda Branyon, Director, and Dr. Mario Galaburri, NMD, agree that a physician should never just treat the symptoms of the illness, but treat the individual as a whole. Dr. Ronald Peters, MD, MPH, has also joined the New Hope team, reinforcing New Hope Medical Center's commitment to offer its patients an aggressive, non-invasive approach to the treatment of cancer and other auto-immune diseases. Dr. Peters has 15 years of experience in integrative medicine and nutritional biochemistry, with special emphasis in the treatment and prevention of chronic disease. **Phone** (480) 556-0182, toll free: (888) 518-7788, or go to their website at http://www.newhopemedicalcenter.com/.

Dr. Michael Uzik, ND. works with Arizona Naturopathic Physicians in Tucson AZ treats a wide range of conditions, including HIV, cancer, MS, chrones, etc. using nutritional IVs, mistletoe, ambrozile (oleander), copper reduction therapy for anti-angiogenesis, chelation, diet, herbs, heavy metal detox, etc. He is also an ND for Southern AZ AIDS Foundation. He only sees patients if they are under the care of an oncologist. 520-546-2321.

California:

For a list of alternative practitioners in Ventura County, go to
http://www.cancure.org/alternative_practitioners_ventura.htm. This list includes more than just doctors - it will include massage therapists, Reiki and QiGong practitioners, naturopaths, and more.

Advanced Medical Clinic, in Encino is run by Ilona Abraham, M.D. They also treat heavy metal toxicity, and chronic depression of the immune system. They use chelation, mercury detoxification, homeopathy, and nutritional supplements. Their website is www.antiaging-techniques.com. 818-345-8721

Alternative Medicine Associates, in Santa Barbara also treats chronic pain, arthritis, cardiovascular disease, Parkinson's, and Alzheimer's. They use Chinese herbs, acupuncture, nutrition, osteopathy, Ayurveda, and QiGong. Phone: 805-569-8825.

American Biologics has an office in Chula Vista, but the clinic is in Mexico.

American Metabolic Institute has an office in San Diego, but the clinic is in Mexico.

Bio-Medical Center (Hoxsey Clinic) has an office in in San Ysidro, but the clinic is in Mexico.

Michael Broffman, an herbalist and acupuncturist works at the Pine Street Medical Clinic in San Anselmo, CA. He uses traditional Chinese medicine with cancer patients as an adjunct to mainstream treatments - (TCM) & supplement program. (415) 485-0484

Casdorph Clinic of Long Beach, run by Richard Casdorph, M.D., Long Beach, mainly treats cardiovascular disease, toxic metal exposure, and practices environmental medicine. He uses EDTA chelation, and nutrition. 562-597-8716

Center for Well Being and Integrative Medicine Clinic in Westlake Village is run by **Dr. Norman Narchi.** He has over 25 yrs. in practice Parkinson's, Alzheimer's, fibromyalgia, chronic fatigue, ADD combination of healing techniques and conventional practices. He often uses QiGong in his treatment protocols. 818-879-0555 or 818-879-5508 www.centerforwellbeing.com or email nnarchi@centerforwellbeing.com.

Daniel Beilin, O.M.D., L.Ac., in Aptos treats cancer and internal medicine, using enzyme, diet, polypeptides, alkalization, Sanum Therapy, and Chinese herbs. He also uses thermography to test for cancer. Contact info: 831-685-1125 or dbeilin@got.net.

Contreras Clinic (Oasis Hospital) has an office in Chula Vista, but treat in Mexico.

Europa Institute of Integrated Medicine - contact a consultant for the clinic - Dr. Carolyn Bormann, who has an office in Twin Peaks, but the clinic is in Mexico.

Genesis West Research Institute for Biological Medicine has an office in Irvine, but the Clinic is in Tijuana, Mexico.

Gerson Healing Centers of America has an office in San Diego, but the main clinic is in Mexico at Oasis of Hope. The diet is used to treat autoimmune disorders, CHD, and Type II diabetes using Gerson's Diet, Issel's treatments, and Danopoulos' protocols. They have clinics in Mexico, Canada, and the UK. See our organizations page. 1-888-4-GERSON www.gerson.org.

David **Getoff, ND**, a Naturopath and Board-Certified Clinical Nutritionist in Jamal, CA. treats cancer and a variety of other conditions with nutritional support. He utilizes numerous modalities from around the world to support your body's ability to heal itself. 619-468-6846 http://www.naturopath4you.com/ca.htm

Harold Manner Center has been temporarily shut down. They are best known for their use of laetrile in treating cancer. The clinic is in Mexico.

Holistic Medical Center in Los Angeles is run by Emil Levin, M.D. He also treats viral infections, parasites, allergies, asthma, hepatitis, diabetes, and more, Therapies include infusion, homeopathic, chelation, and vitamins. Phone: 213-650-1789.

Holistic Resource Center in Agoura Hills, CA - Dr. Alan Schwartz, MD. and a number of holistic practitioners including a chiropractor, naturopaths, homeopath, and a massage therapist. They can do bio-electrical screening, NAET allergy removal, and they provide nutritional support including IVs, diet programs, Poly MVA, PC SPES, homeopathy, and more. 818-597-0966 or fax 818-597-8668.

Douglas Hopper, MD in Santa Monica specializes in family practice, treating ADD, allergies, Alzheimer's, arthritis, CFS, cancer, fibromyalgia, Parkinson's, thyroid disorders, and many other conditions. He uses a

wide range of approaches. Note: He will be doing a special program to test the use of hi vitamin C, and other supplements against cancer. The program is being funded so there is no charge to participate. You might want to contact him for information. He can be reached at 310-581-8585, by fax at 320-215-4650, website http://www.yourowndoctor.com/aboutus.asp?site=2092&doc=2092, or email: hoppermd@alumni.princeton.edu.

Richard P. Huemer, MD in Quartz Hill, has retired. He is still providing medical advise via the internet. He works with athersclerosis, chemical sensitivities, autism, and chronic fatigue syndrome. He uses nutrition, IV vitamin C, high-dose nutrients, and BCG. His website is http://www.huemer.yourmd.com.

Orange County Immune Institute in Huntington Beach has a "complementary" approach to exploit the biochemistry and genetics of cancer cells and how they differ from normal cells. The emphasis is on eliminating toxicity and building the immune system. Therapies used include: chelation, hyperthermia, BioResonance devices, diet and nutrition, detoxification, nutraceuticals, light, and immunotherapy. In some cases, different forms of chemotherapy are used. For more information about this clinic and for a link to an article about them, see a write up on our website at http://www.cancure.org/immune_institute.htm. You can also call them at 714-842-1777 or go to www.drferre.com.

Dr. Shaw in Woodland Hills, CA is a licensed acupuncturist and Chinese Herbalist who provides treatment for a variety of illnesses including cancer, AIDS, allergies, ALS, candida, chronic fatigue, diabetes, gulf war syndrome, leukemias, lupus, and other conditions. His website is www.drshawlac.tothe.net/. He is one of the few doctors in the United States that uses HANSI in his treatments. The clinic also offers Chinese Herbs, vitamins and minerals, and nutritional counseling. Call: (818) 888-1617 or (818) 346-8888 for information. www.drshawlac.tothe.net.

Institute of Chronic Disease has an office in San Ysidro , with a clinic in Mexico.

International Biocare Hospital is in Mexico **-** They use the Alivizatos Treatment.

International Center for Medical & Biological Research has an office in San Diego and clinic in Mexico.

Jeremy E. Kaslow, MD FACP, FACAAi in Santa Ana, CA treats heart disease, fatigue, arthritis, cancer, headaches, chronic infections, allergies, elevated cholesterol, depression, anxiety, PMS, menopause, autism, diabetes, osteoporosis, etc. He believe these conditions are manageable if the underlying causes are more fully understood. He uses nutritional counseling, hormone balancing, Neural Therapy, detoxification, mind/body approaches, Chinese medicine and herbs, metabolic approaches, and allergy elimination. (714) 565-1032 http://www.drkaslow.com/index.html.

La Jolla Whole Health Medical Clinic is run by Dr. Mark Stengler in La Jolla, CA. He specializes in the treatment of chronic illnesses using natural medicine, with specialties in the areas of nutrition, herbal medicine, and homeopathic medicine. He is also the author of thirteen different health-related books. Their website is www.lajollawholehealth.com or call them at 858-450-7120.

Livingston Foundation Medical Center in San Diego is run by Kenneth C. Forror, M.D. He also treats allergies, arthritis, lupus, and scleroderma. There is a 10-day comprehensive program which includes vaccines, nutrition, diet. A 2-day prevention program is also offered. Their website is http://www.lfmc.net/. (888) 777-7321.

Mission Medical Center is in San Diego. They also treat AIDS, arthritis, Alzheimer's, stroke, paralysis, and rare neurological diseases. Therapies they use include tumorin, therapeutic immunology, RNA, Koch, herbology, Rife, and diet. Phone: 619-662-1578. http://www.missioninstitutes.com/english/mmc.html.

Natural Healing Institute in Encinitas is run by Steven R. Schechter, N.D., Ph.D. He also treats AIDS, CFIDS, Epstein-Barr virus, liver disorders, and environmental disorders using therapeutic herbs, supplements, glandular extracts, enzymes, and nutrition. http://www.naturalhealinginst.com/ 760-943-8485

Oasis Hospital has an office in San Ysidro, but the clinic is in Mexico. It is also called the Contreras Clinic.

Richard A. Kunin, M.D. in San Francisco is also a general medicine practitioner. He uses psychiatry-neurology, nutrient support, diet, detoxification, chelation, magnetic, DMSO, and other approaches. Phone: 415-346-2500.

Preventive Medical Center of Marin, is in San Rafael. It is run by Elson M. Haas, M.D. He is a general family practitioner who also does preventive medicine, cardiovascular, gastrointestinal, and viral infections. He uses detoxification, osteopathy, nutrition, acupuncture, herbals, bodywork, and psychotherapy. The website is www.elsonhaas.com. Scott Anderson is semi-retired, but still works at the clinic. 415-472-2343

James R. Privitera, M.D. has an office in Covina. He treat arthritis, circulatory problems, preventive medicine, chronic fatigue, and PMS in addition to cancer. His approach is to use nutrition, immunological enhancement, chelation, and darkfield microscope. His website is http://www.nutriscreen.com/. Contact info: Phone: (626) 966-1618 or Toll Free: (888) 220-7888 or toll free: 800-5-PREVENT

Rational Therapeutics, run by Robert Nagourney, M.D. in Long Beach treats blood disorders and solid tumors. His approach is laboratory-based therapy utilizing short form (apoptotic) assays to identify active agents and eliminate inactive agents. Custom tailored, assay-directed therapy, to provide personal cancer strategies based on your tumor response in the laboratory. This eliminates much of the "guess work" prior to your undergoing the potentially toxic side effects of chemotherapy regimens. Contact info: 562-989-6455. Website: http://www.rationaltherapeutics.com/

Robert Jay Rowen, MD has moved from Alaska to Santa Rosa, CA. You can reach him at 707-571-7560. He treats most forms of cancer, as well as treating chronic pain, immune dysfunction, allergies, and cardiovascular disease. The main therapies he uses includes: IPT therapy, chelation, bio-oxidative, nutrition, herbs, acupuncture, immune therapies, vitamin C, vaccines, and detoxification. He is not using laetrile in California. We understand he enjoys treating later stage cancers. His website is http://www.doctorrowen.com, and his email is drrowen@att.net.

Sat Hari/New Dawn Health Care Services in Los Angeles, CA offers a unique and holistic alternative cancer support program. They focus on the whole person, including body, mind, and spirit integration. They offer a multitude of support therapies that emphasize immune system enhancement, body detoxification and emotional balancing. They use NAET for allergy elimination for immune system enhancement, advanced nutritional therapies, Quantum Xerroid Energetic analysis, BEFE - Bio-Electric Field Enhancement for detoxification, QRS Pulsed Magnetic field therapy for detox and oxygenation, Ceragem Far Infra-red heat, massage, Kundalini yoga and meditation. Call 310-266-5321 for more information. www.alternativemedicine.com/rananshahar.

Sciabbarrasi, Joseph MD in in Santa Monica, CA has a general practice, but he also treats cancer. using orthomolecular approaches, homeopathy, acupuncture, nutritional and herbal therapies. (310) 395-2453.

Simply Healing, run by Alex Strande, N.D., PhD is in Irvine. Alex is a naturopath and PhD microbiologist who has been practicing for over 20 years. He specializes in chronic fatigue, pain, depression and anxieties, difficult and rare conditions. If you've tried everything and you're still not getting well, call Simply Healing at 949-553-1882. www.simplyhealingclinic.com.

Stella Maris Clinic has an office in San Ysidro, with the clinic in Mexico.

Suzanne Skinner, Ph.D., R.N.C., N.D., D.Sc., C.H. has an office in Torrance. She uses Contact Reflex Analysis, nutrition, colonics, homeopathy, herbs, supplements, lymphatic work, and Kineseology to treat cancer and most illnesses. Phone: (310) 518-4555.

Lawrence H. Taylor, M.D., has an office in Chula Vista, but operates his clinic in Mexico.

Valley Cancer Institute in Los Angeles is run by James Bicher, M.D. They treat brain, bone, throat, thyroid, lungs, breast, liver, pancreas, colon, female, prostate cancer, many more. They use primarily hyperthermia and nutrition along with standard conventional therapy. www.vci.org 310-398-0013

Colorado:

Applewood Chiropractic Clinic in Wheat Ridge CO, is run by Brian E.P.B. O'Connell, N.D. They treat conditions from asthma to Zoster and claim to specialize in cancer, neurological challenges (MS, Fibro, etc.) and ADD/ADHD. For diagnosis they use muscle testing and live blood cell analysis along with traditional approaches. They use all natural products he and others developed, they work with an herbologist, and they refer to a chosen group of chiropractors for structural adjustments. http://www.askdoctorub.com/ (303)996-6262

Health Quarter Ministries in Colorado Springs is run by Dr. David Frahm, who wrote the book "A Cancer Battle Plan". They offer a 10 day detox retreat, as they believe proper nutrition heals the body at the cellular level, but before nutritional changes can be effective, detoxing the system must take place. There is a very strong "spiritual" aspect to their program. For information, go to http://www.healthquarters.org/, call (719) 593-8694, or fax (719) 531-7884.

Robert C. Roundtree, M.D., practices at the Helios Health Center in Boulder. He works with many patients who use traditional therapies, so he uses nutritional and herbal supplementation to help reverse damage that can result from chemotherapy and radiation. His goal is to build the immune system back. He has been on sabatical.

Connecticut:

Ron Schmid, N.D. and Ellen Triplett, C.L.S., run a clinic in Brookfield and one in Fairfield. They treat cancer, autoimmune problems, lupus, rheumatoid arthritis, colitis, ulcers, and psoriasis using diet and supplements. Phone: (860) 945-7444 http://www.drrons.com/index.html.

Florida:

Accent on Health in Lake Worth is run by Sheri W. Pinsley, D.O. They treat most cancers, chronic fatigue, immune suppressive diseases, candida, MS, Parkinson's disease, and chronic pain. They use intravenous treatments including chelation, vitamins and minerals, and hydrogen peroxide; nutritional counseling; stress management; and lifestyle modifications. Phone: (407) 547-2770.

Center for Metabolic Disorders in Hollywood is run by E.K. Schandl, Ph.D. He also treats heart disease, multiple sclerosis, Parkinson's disease, lupus, and AIDS. He uses Metabolic-IV, interferon, hyperbaric oxygen, and nutrition. Phone: 954-929-4814 www.caprofile.net (He also runs American Metabolic Labs in Hollywood, FL)

Dayton Medical Center, run by **Martin Dayton, MD DO,** in Sunny Isles Beach FL integrates holistic, alternative and mainstream conventional medicine to treat cancer, arteriosclerosis, arthritis, neurological disorders including MS, and general conditions. They specialize in preventive medicine including Insulin Potentiation Therapy, Poly MVA, Cantron, QiGong, low dose Naltrexone, chelation therapy, cell therapy, therapeutic nutrition, IV's, and oxidation therapy. Their website is www.daytonmedical.com and their phone number is (305) 931-8484.

Hippocrates Health Institute in West Palm Beach, FL**.** They treat cancer, heart disease, diabetes, obesity, allergies, and more. They use diet, detox, mind/body approaches, nutritional counseling, wheatgrass and juice therapy, nutripuncture, and electro-magnetic treatments. We are not sure if they are set up to treat advanced cancers. www.hippocratesinst.com 800-842-2125

Immuno-Augmentative Therapy Centre has an office in Fort Lauderdale, but the clinic is in the Bahamas.

Lost Horizon Health Awareness Center in Oviedo, FL, run by Roy B. Kupsinel, M.D., also treats degenerative diseases. Therapies include EDTA chelation, preventive medicine, nutrition, and diet. Phone: 407-365-6681. Email rkupsinel@aol.com.

Panama City Clinic aka **Akbar Clinic** is in Panama City, FL. It is run by Naima Abdel-Ghany, M.D. She also treats AIDS and chronic degenerative diseases using metabolic therapy, nutrition, enzymes, hyperpyrexia, oxygenation, acupuncture, supplements, and natural immune enhancers. Phone: (850) 872-8122. We have heard very good things about her.

Perlmutter Health Center in Naples also treats arthritis, bowel and digestive disorders, cardiovascular, problems, dementia, and Parkinsons. They use a variety of complementary health techniques, including vitamins, nutrition, herbal, massage, and EDTA chelation. http://www.perlhealth.com/about.htm 941-649-7400

Thomas McNaughton, M.D. has a clinic in Sarasota. He also treats immune dysregulation, cardiac/pulmonary diseases, and chronic fatigue syndrome using chelation, bio-oxidative, nutrition, and immune system enhancement. Phone: 813-365-6273.

Victor A. Marcial-Vega, M.D. in Miami, FL uses a multi-faceted nutritional and herbal supplementation program to strengthen the immune system and the patient's own inner defenses. 305-213-3507 www.atlantisenergy.net

Georgia:

Immune Therapies International has two clinics - Their clinic in Dunwoody, GA (Atlanta) is located within Progressive Medical Group, aka **Atlanta Integrative Medical** in Atlanta, GA and their second clinic is in Tucson, Arizona. They work with cancer and many immune disorders. Their approach uses state-of the art medicine and diagnostic testing which will mobilize the body, mind, spirit, and emotions toward ongoing health. Each participant's individualized treatment plan is developed by Dr. Jesse A. Stoff M.D. (H), Director of Integrative Medicine and his team of health professionals. ITI's medical model is integrative medicine at its best. You can contact them through ITI's website at http://www.immunerecovery.com/atlanta.htm or call them at 866-471-4743.

Stephen B. Edelson, M.D. in Atlanta considers detoxification of the body and strengthening the immune system to be vital in reversing cancer. He uses nutritional supplementation, detoxification, immunotherapy, diet, and strengthening the immune system, as well as laetrile (amygdalin), carnivora, ultra-violet blood irradiation, coffee enemas, shark cartilage, and vitamins as part of their therapy. They have also started using IPT therapy, along with laetrile and megadoses of Vitamin C to control and reverse cancer. www.edelsoncenter.com 404-841-0088.

IMS - Integrated Medical Specialists - Dr. Shantha and Dr. Bergeron now work out of separate facilities.

American Wellness Clinic in Cumming, Georgia is run by Dr. Rhett Bergeron. Additional staff includes a naturopath and hyperbaric oxygen therapy specialist. He offers therapies that most clinics in the U.S. do not offer. He treats all forms of cancer, including late stage cancers, auto immune diseases, and more. (678) 679-0632. Email: biologicalmd@aol.com. Website: www.NetPhysician.com.

Dr. Shantha runs Integrated Chemotherapy Specialists. He uses IPT with low dose chemo as the cornerstone of his treatment. Restoring the immune system to enable it to destroy cancer cells, and killing the cancer at the site of occurrence is the prime objective at ICS. Therapies he uses includes: IPT therapy, hyperthermia, Urea, Homeopathy, Sodium phenylbutyrate, vaccines, BioResonance, oxygen therapy, CELLBAL, Iscador, vitamins and supplements, and more. His website is http://www.iptmd.com/. Email info@iptmd.com or call him at (770) 474-4029.

Illinois:

Keith Block, M.D. at the Block Medical Center in Evanston, IL considers it important to use a complete detoxification program along with both conventional and complementary techniques. http://www.blockmd.com or 847-492-3040.

Contemporary Medicine in Burr Ridge uses a Comprehensive Cancer Care model utilizing all of nutrition, mind-body medicine, together with IPT - Insulin Potentiation Therapy. http://www.contemporarymedicine.net/ 630-321-9010

Natural Medicine Clinic, in Naperville is run by Dr. J. Steven Holcomb, who treats any illness when natural medicine is preferred, using nutrition, herbal, QiGong, and acupuncture. Phone: (630) 357-8662.

Ross A. Hauser, M.D., D.C. and Marion A. Hauser, M.S., R.D., C.N.S.D. have a clinic in Oak Park, IL. They also treat chronic pain, allergies, blockages of arteries, and chronic fatigue. They use bio-oxidative therapies (ozone, hydrogen peroxide), IPT therapy, and photoluminescence. www.caringmedical.com (708) 848-7789

Jack O. Taylor, M.S., D.C. He provides nutritional support for cancer patients. He uses a variety of supplements, glandulars, detoxification programs, and chiropractic adjustments. www.metabolicmap.com 727-418-0218.

Kentucky:

The Foxhollow Clinic of Integrated Biological Medicine in Crestwood offers an individualized program that may include intravenous therapies, metal detox, Neuromuscular Restructuring, neural therapy, cupping, juicing, immune strengthening therapies, hormone balancing, stress management, mind/body approaches, nutrition, supplements, and energy balancing - rebalancing the energy "meridians" in your body through homeopathy, oriental medicine, European biological remedies and anthroposophical medicine. They are a partner clinic with Paracelsus Clinic in Switzerland. Contact info: 502-241-4304, (800) 624-7080, Fax: (502) 241-3935, or www.Foxhollow.com.

Maine:

Maine Whole Health in Portland Maine is run by Alan N.Weiner, DO, CCN. Alan N.Weiner is certified in clinical nutrition and has experience in treating cancer with a variety of alternative modalities. Devra Krassner, ND also works at the clinic. They guide you in bridging conventional and complementary cancer therapies. They use diet and nutrition programs to enhance the immune system, detoxification, IVs, supplements, homeopathy, herbal and botanical medicine, a complete mind/body approach - Psychoneuroimmunology (PNI), and guided imagery. - 207-828-5645 http://www.mainewholehealth.com/.

Maryland:

Ahmad Shamim, M.D. in Laurel, MD also treats heart disease, hypertension, arthritis, diabetes, digestive disorders, yeast-related illnesses, and multiple sclerosis. He uses cleansing, detoxification, immune enhancement, herbals, enzymes, diet, glandulars, supplements, and immune stimulators. Phone: 410-792-0333. We have heard some good things about him.

Paul V. Beals, M.D. also runs a clinic in Laurel. He treats Most nonmetastatic cancers and various degenerative diseases. including heart disease, diabetes, lung disease, multiple sclerosis, and fibromyalgia. He uses diet, metabolic nutrition, IV & oral vitamins & minerals, immunotherapy, laetrile, megavitamins, DMSO, hydrogen peroxide, BCG, and chelation. Contact info: (301) 490-9911.

In Baltimore, **The Ruscombe Mansion Community Health Center**, run by Peter Hinderberger, M.D., Ph.D. treats all illnesses including cancer using, homeopathy, anthroposophy, acupuncture, massage, Reiki, Trager, craniosacral, and "zero balancing." http://members.aol.com/ruscombe/where.htm Phone: (410) 367-7300.

Michigan:

Community Supported Anthroposophical Medicine (CSAM) in Ann Arbor, Michigan treats many chronic conditions. They have a waiting list for cancer patients. CSAM is a 501 (c)[3] not-for-profit organization dedicated to providing patient care, education and research in health care through Anthroposophically extended medicine. Approaches used include diet, Iscador, homeopathy, and adjunct approaches to conventional treatments, or stand alone. 734-677-7990 http://www.csamwebsite.org

In Pontiac, **Vahagn Agbabian, D.O.** does internal medicine using complementary approaches, especially nutritional. Chelation and IPT therapy may also be used. Phone: 248-334-2424. We have had a couple of good reports on him.

Nevada:

Dr. Brodie in Reno includes nutritional and herbal supplements along with strong physical and psychological support and conventional treatments where necessary. www.drbrodie.com 775-829-1009

James W. Forsythe, M.D., H.M.D. manages two clinics: Cancer Screening and Treatment Center of Nevada for conventional cancer treatment and Century Wellness Center for alternative medicine. Dr. Forsythe's expertise is in conventional therapy and he may propose that as your first option.

Las Vegas Institute of Preventive Medicine in Las Vegas is run by Dr. Thomas Brumfield M.D. He uses POLY-MVA and hormone management. Go to www.lasvegasiopm.com/index.html for more info or email him at drbrumfield@lasvegasiopm.com. He can also be reached by phone at 702-380-8470. We don't have a lot of information about his clinic.

LIFExtension Center, run by Phillip Minton, M.D., features natural therapies including R-A Therapy to induce cancer cells to naturally kill themselves via genetic programs and to revert to a non-cancerous state via aptosis. 775-324-5700 **http://www.aacancer.com/**

Nevada Clinic in Las Vegas has good responses with liver metastases, colon, and breast cancers. They also treat lupus and AIDS using homeopathy, chelation, acupuncture and other approaches. Website: www.nevadaclinic.com. 800-641-6661

New Jersey:

In Fort Lee, the **Center for Nutrition & Preventive Medicine**, run by Dr. Gary Klingsberg, D.O., treats breast, colon, prostate, & lung malignancies and cardiovascular diseases using diet, herbs and supplements; chelation, and osteopathic manipulation. Phone: 201-585-9368.

Magaziner Medical Center in Cherry Hill is run by Allan Magaziner, D.O., P.C. He mainly treats prostate, breast, lung, and bowel cancers; but he also treats Alzheimer's, multiple sclerosis and heart problems. He uses oral and IV vitamins, minerals, amino acids, oral botanicals, herbs, enzymes, homeopathic remedies, chelation, and detoxification. His website is www.drmagaziner.com. 856-424-8222

Metabolic Associates in Florham treats cancer and also AIDS, cholesterol, obesity, and any disease with a nutritional component by using nutrition and diet in their therapies. Phone: 201-377-7300 email: metabolic@iname.com

Charles B. Simone, M.MS., M.D., in Lawrenceville, NJ, operates the Simone Protective Cancer Center. He feels lifestyle modifications are an important part of therapy. He has a "Ten-Point Plan to Reduce Your Chances of Getting Cancer." His program also uses special nutritional supplements, adjunctive therapies and hormonal treatments. 609-896-2646
http://www.drsimone.com/ 609-896-2646
http://www.drsimone.com/

New York:

The Ash Center for Comprehensive Medicine in New York - Richard N. Ash, M.D., P.C., also does internal medicine, and treats HIV, chronic fatigue, arthritis, heart disease, and allergies. He uses chelation, oxidative therapies, and vitamins (oral & IV). Their website is http://www.ashmd.com/ashcenter/default.htm. We don't have much info on him.

Atkins Center for Complementary Medicine in New York is run by Robert Atkins, M.D. 1-800-2-Atkins. We understand that Dr. Atkins is cutting back on his cancer practice, especially for later stage cancers. We have heard he has a unique program for prostate cancer. We will contact them to find out about this.

Centers for Integrative and Complementary Medicine in New York is run by Dr. Dr. Fred Pescatore, who has worked along side Dr. Atkins. Dr. Pescatore treats patients with AIDS, diabetes, heart disease, hepatitis, and cancer—in addition to addressing more common concerns such as diet and nutrition—by employing a combination of both alternative and traditional medicines. 212-779-2944.

Center for Progressive Medicine & Rhinebeck Health Center in Rhinebeck - Kenneth Bock, M.D. and Steven Bock, M.D., also treat allergies, ADD, autoimmune disorders, and heart disorders using chelation, diet, herbs, Chinese remedies, enzymes, homeopathic medicine, photo-oxidation, and oxidative medicine. Phone: 845-876-7082 http://www.rhinebeckhealth.com/.

Complete Care in Glen Cove is run by Dr. Lodi, MD, CNS. They treat cancer and they treat most chronic disorders, including chronic fatigue, fibromyalgia, auto-immune conditions, Parkinsons and more. They use a wide range of treatments including IVs, Bio-oxidative therapies, vaccines, nutritional support, IPT (Insulin potentiation therapy), mind/body approaches, and more. For more information, call 516-759-2032 or email him at donoharm@pol.net.

Foundation for Cartilage and Immunology Research uses bovine cartilage is used as a first-line therapy where other modalities are of little or no value, such as cancer of the pancreas, adenocarcinoma of the lung, squamous cell cancer of the pharynx, lung, larynx (metastatic), renal cell carcinoma, and others. It is used as a reserve therapy in malignancies for which there are standard therapies of recognized effectiveness, such as breast, gastrointestinal, or prostate cancer. Phone: (914)763-6195.

Dr. Gonzales in New York treats all cancers, but specializes in pancreatic cancer. He uses a metabolic approach, with high doses of supplements. 212-213-3337 website: http://www.dr-gonzalez.com/

The **Hoffman Center** in New York also treat muscular degeneration, Lyme disease, HIV, and heart conditions. They use nutrition, chelation, acupuncture, neural therapy, megadoses of vitamins (IV), and Chinese medicine. Phone: (212)779-1744 website: www.drhoffman.com.

Institute of East-West Medicine is run by Raymond Chang, M.D., F.A.C.P. He treats cancer with TCM - Traditional Chinese Medicine, Acupuncture, Ayurveda and authentic Tibetan Medicine consultations are offered. The emphasis is on preserving and practicing the original traditional healing arts of Asia with modern conventional medicine. 212-683-1221. The website is http://www.eastwestmed.org and email is info@eastwestmed.org.

Revici Life Science Center, in New York, NY - Emanuel Revici, M.D., until he passed away ran the **Revici Life Science Center** in NY, NY. Dr. Korin took over until he passed away. It is run for awhile by Dr. Joseph Carozzi. It may now run by Dr. Revici's grandson. They use fatty acids and sterols, enzymes, high-dose selenium, dietary changes, and a "biologically guided" nontoxic chemotherapy. He recommends not taking high dose vitamins without checking how these shift the body's acid/alkaline balance. 212 252-1942

Michael B. Schachter, M.D. of the Schachter Center in Suffren has had good responses with breast, lung, colon, lymphoma, and Hodgkin's. He also treats AIDS, neurological problems, and candida. He uses detoxification, EDTA & DMPS chelation, laetrile, DMSO, coenzyme Q10, hydrogen peroxide, shark cartilage, hydrazine sulfate, biomagnetic, and homeopathy. (845) 368-4700
New patient services: ext. 6 http://www.mbschachter.com

At **Strang Cancer Prevention Center** in New York City. **George Wong, PhD,** is a Harvard trained Phd, as well as fourth generation Chinese herbalist. He has actively practiced traditional Chinese medicine (TCM) in New York City for many years and is experienced in the TCM management of a wide variety of chronic diseases, particularly those related to aging and cancer. He is president of American Foundation for Chinese Medicine in New York City, a not-for-profit research organization in New York City dedicated to the advancement of the knowledge of TCM. Currently he is directing an herbal medicine program at Strang and Cornell with a major emphasis on women's health issues. Call his office at 212-794-4900 x 128 for more info on his practice. For a testimonial, go to http://www.annieappleseedproject.org/newungoodres.html. His website is http://home.strang.org/homeindex.htm and email is gwong@strang.org.

CAM Institute for Integrative Therapies - Tutsis Center is located in Brooklyn, New York. Their phone number is 718-621-0900. They use hyperbaric medicine. Mostly known for treating strokes and brain injuries.

North Carolina:

Carolina Center for Bio-Oxidative Medicine is in Raleigh. They treat cancer and also immune system dysfunctions and cardiovascular disease using ozone, EDTA chelation, hydrogen peroxide, minerals, vitamins, diet, detoxification, hydrotherapy, and lymphatic massage. Phone: (919) 571-4391.

In Southern Pines, **Carolina Health Quest** is run by Keith Johnson, M.D., ASCVD, CAD, PVD. He also treats arthritis, COPD, CFIDS, and hormonal deficiencies. Therapies include chelation, hydrogen peroxide, DMSO, ozone, hormone replacement, and colonics. Phone: 910-695-0335.

Nature's Path in Matthews NC also treats Multiple Sclerosis naturally. For cancer, they use intravenous supernutritional treatments, colonic hydrotherapy, nutritional therapy, oxygen therapy, natural hormone replacement, chelation, blood irradiation, and more. They can be reached at 704-849-8266 or through their website at http://www.anti-aging-doctors.com/page43.htm.

North Dakota:

Brian E. Briggs, M.D. in Minot gets the best responses with prostate cancer, but he also treats cardiovascular disorders and immune system disorders and uses detoxification, neural therapy, nutrition, chelation IV, amygdalin IV, and supplements. Office 701-838-6011.

Ohio:

Essence Of The Spirit Retreat in Caldwell, Ohio is run by Randy and May Huffman. The retreat is free, but they do accept donations. They use Lee Crock's Energy Stimulator to help the body heal itself. Information on this device is available at http://www.keelynet.com/biology/crock.htm. (Note: They do not specifically treat cancer, though some people appear to have been helped by this machine. This is a facility where one can experiment with an approach that has not been evaluated and approved. Guests should be under the care and responsibility of a physician as there are no persons available with the medical knowledge that are permitted to administer any form of medical attention.) They can be reached by phone at (740) 783-0021.

Philip E. Binzel, Jr., M.D. 667 Waverly Dr. Washington Court House, OH 43160, (740) 335-2974 Author of the book *Alive and Well*. Note: He is retired, but will occasionally accept patients.

Partners in Wellness in Cincinnati - Leonid Macheret, M.D., is a general practice doctor who treats cancer and also arthritis, cardiovascular disorders, hypoglycemia, metabolic disorders, diabetes, fibromyalgia, and he also does preventive medicine. He uses chelation, acupuncture, nutrition, orthomolecular, ethnic herbs, Ayurvedic, yoga, and osteopathic manipulation. Phone: 513-851-8790.

Physicians Care Center in Powell OH is run by William D Mitchell, DO FACOI. He offers Internal medicine, preventive medicine, and accepts all types of cancer, even later stage cancers. He uses IPT therapy, nutritional approaches, etc. phone: 614-761-0555 website: http://www.pcci.ascinet.com/ or email: wmitchell@ascinet.com.

Oklahoma:

Alternative Medicine New Hope Health Clinic in Jenks uses a holistic approach to treating cancer and other conditions. Treatment is very thorough and involves finding the underlying causes to the cancer and then working to reverse and remove these causes. Detoxification, immune therapy, homeopathy, naturopathy, ozone therapy, oxidation, chelation are some of the approaches they use. (877) 544-HOPE (4 6 7 3) www.newhopehealthclinic.com

William H. Philpott, M.D. in Midwest City also deals with pain relief, arteriosclerosis, and degenerative diseases using magnetic therapy. He will help you set up a protocol to follow at home, or he can work with your doctor or even put you in touch with doctors he has trained. Phone: 405-390-1444.

Oregon:

Gateway to Health Naturopathic Clinic in Portland, is run by Thomas Lee Abshier, ND. He provides Naturopathic diagnosis and treatment of difficult to diagnose and treat medical symptoms. Treatments may include PC SPES. Ph: 503-255-9500 or visit his website www.naturedox.com/index.html.

Acupuncture & Natural Medicine Clinic in Portland is run by Rick Marinelli, N.D., M.Ac.O.M. The clinic focuses on the successful treatment of chronic disease and pain, and can help with adjunctive cancer therapy, autoimmune and inflammatory disorders, diabetes, and degenerative disc disease. They use naturopathic medicine, acupuncture, Neural Therapy, Prolotherapy, integrated medicine, Orthopedic Medicine, herbal medicine, nutritional medicine, and detoxification. Website: http://www.natural-healthmedicine.com info@natural-healthmedicine.com. (503) 644-4446

Dr. Paul Anderson is a Naturopathic Physician in Salem. His website is http://www.docpaulanderson.com and the phone number to reach him at is 503-365-0377. Dr. Anderson provides health care for the whole family, integrating conventional and alternative health care. He provides intensive treatment to support the immune system, including I.V. treatment, diet therapy, and detoxification. These same therapies may also help traditional therapies (such as surgery and chemotherapy) work better. Each patient is treated as an individual, and personal choices are supported.

Tori Hudson, N.D. of "**A Woman's Time**" in Portland, OR is well-known for treating cervical cancer. She uses a precise program of herbs, nutrition, dietary change, and special nontoxic treatments. Phone: 503-222-2322 or visit her website: www.awomanstime.citysearch.com/.

Martin Milner, N.D., in Portland at the Center for Natural Medicine, Inc. uses a naturopathic approach with nutritional and herbal supplementation, exercise, stress reduction, and dietary change. 503-232-1100 http://www.cnm-inc.com/

Pennsylvania:

Center for Preventive Medicine and Dentistry in Bala Cynwyd - Howard Posner, M.D., also treats heart disease, arthritis, candida, hypertension, and infertility. He uses megavitamins, herbs, homeopathic remedies, ayurveda, detoxification, and shark cartilage. Phone: 610-667-2927 www.docposner.com

Health Achievement Center in Darby also treat arteriosclerosis, arthritis, toxic states, ADD, and chronic fatigue. They use electro-acupuncture, neural, chelation, bio-oxidative, hydrotherapy, and detoxification in their treatments. Phone: 610-461-6225.

Donald J. Mantell, M.D. in Sarver also treats arthritis, allergies, and multiple sclerosis. They use metabolic, diet, vitamins, minerals, enzymes, herbs, homeopathy, DMSO, vitamin C, colonics, electro-acupuncture, and chelation. Phone: 412-776-5610.

In Cranberry Township, **P. Jayalakshmi, M.D**. and K.R. Sampathachar, M.D. run The Alternative Medicine and Holistic Medical Center. They treat cancer only using nutrition, oral supplementation, chelation, megavitamins, oxidative, colonics, Ayurvedic, and detoxification. Phone: 215-473-4753 Website: www.globeworks.com/alternative_medicine/index.html.

South Carolina:

Health Dimensions Clinics located in West Columbia and Spartanburg, South Carolina are run by James Shortt, M.D. The Clinics feature Hormone Modulation, Immune Enhancement, Sports Medicine, Oxidative Medicine, Chelation Therapy, Neural Therapy, Kinesiology, Live Blood Analysis and Longevity and cancer treatments. He uses Oxidative Therapy, Chelation Therapy, DMSO, beta glucan, enzymes, and transfer factors as part of his therapy. (803) 755-0114

Tennessee

Preventive Medicine and Wellness Clinic in Old Hickory, TN is run by Russell W. Hunt, M.D. He treats cancer, arthritis, fibromyalgia, chronic fatigue, heart disease, etc. using IPT therapy, chelation, nutrition, IVs, conventional approaches along with alternative approaches. works on immune system 615-541-0400 www.angelfire.com/tn2/preventionmd/

Texas:

Burzynski Clinic, in Houston is run by S.R. Burzynski, M.D., Ph.D. They have found their best results with brain cancer. They also treat non-Hodgkins lymphoma, prostate, and kidney cancer. Their main therapy is the use of antineoplastons. Therapy is very expensive here. 713-335-5697 www.cancermed.com/

Energy Health Centre in Ft. Worth, Texas offers integrative treatments that combine conventional and complementary medicine in the healing of cancer, AIDS, Hepatitis C, fibromyalgia, chronic fatigue and heart disease. They offer adjunctive immunologic support to those individuals suffering from advanced cancer. Treatments include: IPT therapy, nutritional oral and IV therapy, Tradition Chinese Medicine, bioenergetic medicine (homeopathy, NAET), detoxification (homeovitics and chelation), psychoneuroimmunological (mind-body) therapy, diet, supplementation, high dose Vitamin C IVs, and oxidative medicine. They have a website at http://www.energyhealth.com/ and can be reached by phone at 817-927-5111. They have a special cancer option and prevention program.

Global Healing Center in Houston, TX, is currently only offering programs in cancer prevention. 713-484-6550 or http://www.globalhealingcenter.com/

Vladimir Rizov, M.D., in Austin gets good results with prostate cancer. He also treats cardiovascular problems, arthritis, fungal infections, and allergies. He uses IPT therapy, DMSO, vitamins, EDTA, enzymes, nutrition, detoxification, chelation, oxygen, and homeopathy. Website: www.newvitality.com Phone: (512) 451-8149

Utah:

BioPulse Rejuvenation Clinic - believe they are closed.

Vermont:

Champlain Center for Natural Medicine in Shelburne, VT is run by Bill Warnock, ND, Lorilee Schoenbeck, ND, and Simon Frishkoff, ND. They treat cancer - all stages, multiple sclerosis, HIV/AIDS, arthritis, Wilson's Syndrome and chronic fatigue. They may use a variety of approaches - homeopathic, anthroposophical, acupuncture, botanic, nutritional, bee venom therapies, and mistletoe. They work with patients who want alternative or integrated approaches to help their immune system while doing or after chemo or other conventional approaches. http://www.vtnaturalmed.com (802) 985-8250

Virginia:

Integrated Medical Center in Annandale offers live blood analysis and bio-terrain which show many conditions such as candida, cancer, lymes disease, and parasites. They use chelation, IV vitamin drips, nutrition, acupuncture, Hyperbaric Chamber, colon hydro therapy, and homeopathy. They can be reached at 703-941-3606 or by fax at 703-658-9415.

Vincent Speckhart, M.D., M.D.H. in Norfolk, VA uses homeopathic remedies, herbs, and nutritional supplements to remove toxins and repair the immune system. (757) 622-0014

Washington:

The Leo J **Bolles Clinic** is in Bellevue offers the following services: chelation therapy, IV vitamin therapies, homeopathy, neural therapy, H2O2, detoxification, heavy metal removal, antiviral IV therapy, Electro acupuncture, herbal medicine, oral vitamin therapy, dark field blood evaluation, Thermographic Analysis, EKG Analysis, Anti-cancer Protocols, Chronic Fatigue Therapies, Fibromyalgia treatments, NAET and all phases of Preventive Medicine. Contact info: 425-881-2224 http://www.bollesclinic.com/

Patrick Donovan, N.D., at the University Health Clinic in Seattle considers diet and nutritional/herbal supplementation to be critically important. He also feels it is important to understand the psychological side of the disease process. (206) 525-8015

Northwest Natural Health Specialty Care Clinic, Dan Labriola, N.D., in Seattle works with patients who need or want to stay with conventional treatments and uses naturopathic approaches to provide nutritional supplementation to help reduce the side effects of chemotherapy and other harsh treatments. 206-2784-9111http://www.nwnaturalhealth.com/

Pacific Center for Naturopathic Medicine in Bellingham is run by Rachelle Herdman, N.D., M.D. They treat cancer and autoimmune, neurological, cardiovascular, digestive disorders, and chronic fatigue. They use nutrition, diet, Ayurveda, homeopathy, botanical medicine and teas, herbal tinctures, plant extracts, and a variety of supplements. Second location in Canada. Phone: 360-734-0045.

The Paracelsus Clinic in Federal Way is run by Dr. Dorman. They treat a variety of conditions, primarily with prolotherapy and chelation. Their website is: http://www.paracelsusclinic.com/ or they can be reached by phone at 253-529-3050.

Wisconsin:

Waisbren Clinic in Milwaukee, run by Burton A. Waisbren, Sr., M.D., treats carcinoma, lymphoma, multiple sclerosis, and chronic fatigue syndrome. Therapies they use include BCG, Coley's vaccine, lymphoblastoid lymphocytes, vaccines, Interleukin2, and Interferon. www.waisbrenclinic.com 414-272-1929

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List of Clinics in CANADA
Offering Alternative Therapies

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If you do go to a clinic for treatment, be sure to let us know about your experience. Any feedback you can offer may help others who are trying to decide which clinic to go to or which therapy to use.

Canada

Centre for Integrated Healing in Vancouver, BC has an introductory program that consists of 12 hours of seminars and workshops over a two day period, including an introduction to complementary cancer care and healing, meditation, healthful nutrition, visualization, group sharing, decision making, vitamins, supplements and an opportunity to discuss a wide variety of complementary cancer care modalities with the Centre's practitioners. They help put together an integrated cancer care program, that might include Floressence, MRV vaccine, 714X, cimetidine, indomethacin, and Hydrazine Suflate. www.healing.bc.ca (604) 734-7125

Jim Chan, ND in Vancouver, BC is an acupuncturist and doctor of Chinese Medicine. He works with cancer patients using alternative therapies and nutrition. He has a very good reputation. 604-435-3786

Cose, Inc., in Rock Forest, Quebec is primarily run by Gaston Naessens, Francoise Naessens, Stephane Sdicu, and Daniel Sdicu. They treat cancer and multiple sclerosis, rheumatoid arthritis, and degenerative diseases. Their main therapy is 714X. Note: Gaston Naessens invented the Somatoscope, a microscope capable of reaching 30,000X magnification and a condenser permitting ultramicroscopy to help in diagnosing cancers. Note: The clinic is currently closed, but it may be reopening. For info on 714X and Gaston Naessens, go to www.cerbe.com.

Highline Oxyzone, Oxygen Therapies in Vernon, BC provides adjunctive therapies for cancer, HIV/AIDS, post stroke, chronic brain-trauma neurological conditions such as M.S., Cerebral Palsy, etc. and auto-immune disorders. They use ozone, hyperbaric oxygen therapy, detoxification, lymphatic drainage, and intravenous vitamin therapies. They can be reached by phone at 250-503-2111 or by fax at 250-542-1574.

HOC Centre for Progressive Medicine - Dr. Thao Nguyen in Coquitlam, BC uses hyperbaric oxygen, hydrogen peroxide, ozone, Bio-Oxidative Medicine, Balneotherapy, IV / Chelation. It is a Hyperbaric oxygen centre with a naturopathic physician on staff. Their focus is on neurological conditions as well as adjunctive care for cancer and HIV/AIDS. They can be reached by phone at 604-520-3941 or by fax at 604-520-9869.

Abram Hoffer, M.D., Ph.D. practices in British Columbia. He is considered a pioneer in the use of nutritional substances for healing. He uses high doses of Vitamin C along with other supplements, and a low-fat, low-sugar, dairy-free diet. 250 386 8756 **http://www.islandnet.com/~hoffer**

Kelowna Naturopathic Clinic in Kelowna, BC is run by Dr. Garrett Swetlikoff, ND. He is a naturopathic physician who has a family practice and utilizes biological medicine. He uses a wide variety of modalities, including but not limited to, clinical nutrition, botanical medicine, homeopathy, intravenous high dose vitamin/minerals, Ukrain, B17 oral and IV, neural therapy, ozone, IV hydrogen peroxide, photo oxidation, thymus injections, IV DMSO, Heckel whole body hyperthermia, Insulin Potentiation Therapy, Potassium and Insulin IV, Helixor mistletoe therapy, Photocell, Clodronate, Heparin,Pulsed electromagnetic field therapy,

Ionized O2, Blood and Urine vaccines, Sanum pleomorphic remedies, IV Garlic, PCSPES, Chelation therapy IV and oral, Enzymes, various diets and alot of "care and love" - his words.
phone: 250-868-2205 or email: gswetlikoff@home.com

Natural Therapeutics Limited in Toronto, Canada. We believe this clinic has been shut down.

Northern Health Inc. in Ontario - Rudolf E. Falk, M.D., who was associated with this clinic has passed away. It has been replaced by the **Nasri Chelation Clinic**. Dr. Durenfeld and Dr. Nasri are continuing where he left off using a variety of approaches including vitamin C, hyaluronan, HA, hyperthermia, Intravenous Poly MVA with Hyaluronic Acid, Iscador, Laetrile, Tumorin, Hydrogen Peroxide, Neural Therapy, Wobe-mugos, Dendritic vaccine, Infra red Sauna. They also use low-dose chemotherapy, non-steroidal anti-inflammatory drugs, and high doses of vitamin C, all of which are combined with hyaluronic acid, which is a targeting carrier molecule. The use of hyaluronic acid allows for better penetration of the drug to the tumor, and also better targeting, so the severe side effects of drugs are not felt. In operation since 1986. Phone: (705)735-2354. website: www.nasrichelation.com.

Pacific Center in Vancouver is run by Rachelle Herdman, N.D., M.D. They treat chronic problems, including cancer, autoimmune, neurological, cardiovascular, digestive disorders, and chronic fatigue. Treatments include: nutrition, diet, Ayurveda, homeopathy, botanical medicine & teas, herbal tincture, plant extracts, supplements, mind-body medicine-in-depth and counseling. Phone: (604)734-0244.

Richmond Alternative Medical Clinic in Richmond, BC - Dr. Martin Kowk, ND, MSAOM, RAC, uses traditional (TCM) Chinese herbal medicine, acupuncture, acupoint injections, clinical nutrition, homeopathic medicine, chelation therapy, ozone, IV therapy, and more. They also treat autoimmune disorders and do amalgam and heavy metal detoxification. Phone: 604-207-0167

Schafer's Health Centre, in Saskatchewan run by Dr. Sir Leo J. Schafer, M.H., R.H.C., L.C.S.P., also treat AIDS, degenerative diseases. He uses, herbology, magnets, diet, nutrition, Rife, and over 220 herbal formulas. They also sell Rife machines. In operation over 20 years. Phone: (306) 228-2512.

Vital Path Health Centre in British Columbia treats cancer fibromyalgia, liver disease, and stroke using hyperbaric oxygen, homeopathy, oxygen, Chinese herbs, Essiac and Hoxsey in some cases, diet, and acupuncture. Psychological therapies are also used, such as guided imagery and positive affirmations. Their website is http://www.vitalpathhealthcentre.com/ for more information. (250) 549-1400

List of Clinics in EUROPE
Offering Alternative Therapies

Clinics outside of the United States

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If you do go to a clinic for treatment, be sure to let us know about your experience. Any feedback you can offer may help others who are trying to decide which clinic to go to or which therapy to use.

Austria

The Kroiss-Cancer-Center for Alternative Cancer Therapy run by Dr. Thomas Kroiss in Vienna, Austria is especially known for treating breast cancer, cancer of lung, colon/rectum, prostate, brain tumor, leukemia, liver metastases, bone metastases, and ovarial tumors, using Their website is http://www.kroisscancercenter.com/ and they can be reached by phone at 43-1-982 57 67 or by fax: 43-1-982 69 92.

Denmark

Humlegaarden Complementary Cancer Clinic - Since 1945, Humlegaarden has been one of Scandinavia's most well-known private cancer clinics, using alternative therapies along with chemotherapy if necessary. 45 491 32 465

England/UK

Brackendene Clinic, run by Dr. Paul Layman is in Dorset, England. They carry out metabolic therapy and give B17 IVs. You can contact him at: Tel. 01202 824109/ Fax 01202 820739.

The Bristol Cancer Help Center in England is run by Dr. R.M. Daniel, B.Sc., M.B.B.Ch. The clinic opened in 1980. They use diet, immune stimulators, vitamins, minerals, herbal extracts, Bach flower remedies, shiatsu, massage, and many creative techniques. Their website is http://www.bristolcancerhelp.org/ or contact: 0117 980 9500 Fax: 0117 923 9184.

Callebout, M.D. in London, England uses numerous herbs, nutritional supplements, enzymes, and substances uniquely tailed to fight cancer, along with a detoxification regime, an overhaul of the patient's diet, and psychological tips for "health survivorship." 011 44 207 2 55 2232 or Mobile: 44 7930 336348

Dove Clinic for Integrated Medicine in Hants. They tailor their tests and treatments to the individual. They may use Laetrile and Dendritic Cell Therapy to reduce tumor size, C-statin from bindweed for angiogenesis inhibition, homeopathy, diet and nutrition, autohemotherapy or intravenous ozone, acupuncture, whole body negative ionisation, and life style changes/mind/body approaches. They treat late stage cancers and many chronic diseases. Their website is http://www.doveclinic.com and they can be reached by phone at 01962 718 000.

The Issels Cancer Treatment is a 50 year old therapeutic system originating in Europe. Therapy includes: detoxification, nutritional support, supplementation of vitamins, minerals and enzymes, Chelation Therapy, acupuncture, massage therapy, counseling, Oxygen/Ozone Therapy, vaccines, light therapy, and a truly integrated approach to treating cancer.

The Park Attwood Clinic in Worcestershire uses a combination of treatments, including anthroposophical approaches, in conjunction with conventional medication when needed. They treat a wide range of illnesses including cardio-vascular diseases, musculo-skeletal disorders, neurological problems, immunological disorders, and cancer. Tel: +44 (0) 1299 861444 or Fax: +44 (0) 1299 861375. Full details at their website www.parkattwood.org.

Germany

BioPulse Rejuvenation Clinic - The Bio Pulse Clinic in Mexico has been stopped from using some of the therapies they were using. We aren't sure about the clinic in Germany.

Bio Med Klinik in Bad Borgzabern is run by E. Dieter Hager, M.D., Ph.D., since 1989. They treat cancer as well as other immunodeficiencies, including chronic fatigue syndrome. They use many therapies including hormone therapy, hyperthermia, immunotherapy (ASI/tumor vaccination), thymus peptides, and electrotherapy (galvanotherapy). Complementary oncology, immunology and hyperthermia. Contact info: 49 / 63 43 / 7 05 - 0 http://www.biomed-klinik.de/bmgruwo1en.htm

Hartmut Baltin, M.D. between Salzburg and Munich treats cancer, multiple sclerosis, HIV, and autoimmune diseases. He uses diet, plant extracts, hyperthermia, ozone, vaccinations, minerals, vitamins, psychotherapy, surgery, and acupuncture. Tel.: 0049-08052-4176.

Hufeland Clinic for Holistic Immunotherapy in Bad Mergentheim Germany uses a treatment based on a well-established concept developed by Dr. Josef Issels, which is a holistic approach using fever therapy, hyperthermia and immunobiological medicine. They treat most cancers including breast, melanoma, prostate, colon, kidney, brain, and sarcomas, as well as arteriosclerosis. They also use colonics, eumetabolic, homeopathic, vitamins, minerals, enzymes, ozone, oxygen, hydrogen peroxide, chelation, hydrotherapy, acupuncture, and nutrition. 49 7931/536-0 http://www.hufeland-klinik.de/Englisch/hufeland_clinic.htm

Dr. Helmut Keller treats cancer as well as multiple sclerosis, chronic polyarthritis, Crohn's disease, and neurodermatitis using preventative programs, immune evaluations, vitamins, minerals, and hyperthermia. Phone: 011-49-9288-5166. We show he has moved to Stella Maris Clinic in Mexico.

Klinik St. Georg in Bad Aibling, Germany is run by Dr. Douwes. Their standard cancer protocol is a week of detoxification and the strengthening of the immune system with diet and nutritional supplements, followed by two weeks of localized hyperthermia treatment and low-dose chemotherapy. Best to fax them at 011+49-8061-498-455 http://www.klinik-st-georg.de/englisch/Frameset.html. We have received a few complaints about this clinic - Go to our web page on them for additional information.

Hans Nieper's clinic is in Hanover, north of Frankfurt. Although he is no longer alive, the office is still open and they treat cancer, multiple sclerosis, arteriosclerosis, coronary disease, amyotrophic lateral sclerosis, rheumatoid arthritis, and osteoporosis. Therapies include eumetabolic therapy, gene repair, beta-carotene, dialdehydes, squalene-ascorbate, ureylmandelonitrile, laetrile, and enzymes. (Trying to confirm contact info: 011-49-511-348-08-08 or Fax: 011-49-511-318417.)

Institute for Immunology and Thymus Research in Bad Harzburg outside of Hanover is run by Milan C.

Pesic, M.D. They have had the best response with treating the following cancers: lung, bladder, colon, pancreatic, breast, Hodgkin's, non-Hodgkins, and Kaposi's sarcoma. They use THX/Thymex-L, a thymus extract for the immune system. Tel.: 0049-5322-960541

Hungary

United Cancer Research Institute, in Budapest is run by Dr. Laszlo K. Csatary and Eva Csatary. They can be reached via a Fort Lauderdale phone/fax number: 954-525-3120. This clinic uses a not-so-new Virus Therapy that they have been researching and developing for over 30 years. They have patients that are in remission since their inception. 954-525-3120

New Clinical Gerson

A new Clinical Gerson, is in Dobogoko (Budapest). Dobogoko is at a distance of 30 kms from Budapest, and is linked to the city by a good road. There is an hourly bus service to Budapest, and a local service every 15 minutes. The nearest hospital is at 5 kms from the Center, at Pilisszzentkereszt. Preliminaries of patient admission, assessment , medical underwriting system:

Initial steps at the head office of Source of Health Foundation

1) Enquirers calling in person, by telephone or e-mail are briefly (10-20 minutes) informed about the Gerson Therapy.

2) The enquirer is given the recommended information material: Beata Bishop's book and the DVD.

3) Photocopies of the enquirer's medical reports are requested (hospital discharge papers, complete blood work, x-rays, ultrasound, CT scan, PET)

4) If the above documents do not provide sufficient information, we arrange for the enquirer to undergo specific tests.

5) The date for a personal consultation is agreed.

6) The enquirer provides at least 2 days prior to the consultation the completed questionnaire and the copies of the medical documentation.

Consultation : The suggested protocol is explained during a 2-hour consultation

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Ireland

The East Clinic in Killaloe in County Clare/Killaloe is run by Paschal Carmody, M.B., B.Ch., D.C.H., D.Obs. It was established over 20 years ago. They treat cancer as well as cardiovascular disease, musculoskeletal, dermatological, hematological, and neurological disorders. They use immune modulating, live cell treatment, ozone, hyperthermia, chelation, and nutritional supplement therapy. Tel: 001 353 61 376349/376206. Fax: 001 353 61 376773.

Italy

Giancarlo Pizza, MD at Sant'Orsola-Malpighi Hospital in Bologna - Telephone (direct from the U.S.) 01139 0516362478 or fax: 01139 0516362476. Treatment is out-patient at the Clinic. Additional follow-up both and home and visiting the clinic may be required. Best results are in renal cancer, but they treat most cancers. They use specific and non-specific transfer factor; low dose IL-2 injected intralymphatically, interferon, LAK cells (lymphokine activated killer cells), interferon-alpha, and hormone therapy. Currently they have a proposed research study on transfer factor as a form of immunotherapy for advanced metastatic prostate cancer stage D3. NFAM has a write up on this clinic at http://www.med.unibo.it.

Pizza Giancarlo: *Immunotherapy of metastatic kidney cancer*, Int. J. Cancer, 94, pp.109-120, 2001 ; http://www.mednat.org/cancro/Allegato%2043.pdf]).

Portugal

Health Center of Lisbon is run by Serge Jurasunas, ND. It was established over 15 yrs ago. They treat most cancers, especially breast, stomach, prostate, colon, pancreas, and brain; as well as multiple sclerosis, and Parkinson's. The therapies they use include: Geoxy 132, chitin, Ukraine therapy, bamboo leaf extract, SGE, SOD, LEM, aloe vera injections, xian tian, propermyl, DMSO, enzymatic, hematoxilan, live cell, tributyrrate, nucleic acid, and peptides. 00351-1-347-1117

Spain

J. Buxalleu Font in Barcelona treats solid tumors using self-vaccination with gamma globulin. He has used this therapy since 1965. 0034-93-792-0489

Las Mariposas Clinic in Malaga, Spain - treats any problem with chronic diseases and degeneration, especially cancer. Their clinic, as far as we know, is the only clinic in the world that **offers a full refund of all clinical consultation fees** to any cancer patient that is treated by them that does not see any noticeable improvements within ninety days after following their therapy. Their program uses HLB - high blood resolution analysis to allow them to tailor their approach to your specific endogenic (immune) status and hormonal needs, EAP (Electro-Acupuncture) treatment, and Dr. Budwig's protocol.

Switzerland

Aeskulup in Brunnen - http://www.aeskulap.com/e/index.htm - has approaches similar to Klinik St Georg in Germany and they are a well known clinic in Switzerland. They use Classical homeopathy, neural therapy, TCM - traditional Chinese medicine, acupuncture, anthroposophic medicine (mistletoe), fever therapy (hyperpyrexia), blood-oxygen therapy, ozone therapy, hyperthermia - whole body and local, galvanotherapy, and more. 41 41 825 48 61or info@aeskulap.com.

CSCT has closed the clinic in Switzerland. Their clinic in Mexico has also been shut down.

Fred Vogeli is opening a clinic in Switzerland. He uses Hulda Clark's approaches. Go to www.drclark.net or email info@drclark.net for more info.

Lukas Klinik, CH-4144 Arlesheim, Phone: 011-41-61-72-3333. Their website is http://www.lukasklinik.ch/English/Default1.htm. They use Mistletoe in their treatment programs. They aim to give special consideration not only to the physical situation of the sick individual but also to his or her soul and spirit. The work bases on the insights gained in anthroposophically extended medicine which was developed by Rudolf Steiner and Ita Wegman.

Paracelsus Klinik Center for Holistic Medicine and Dentistry combines holistic medicine, naturopathic treatments and biological dentistry. They work with some clinics in the U.S. In US, contact 508-748-0816.

Serafin Naturheilpraxis AG in Wolfhalden, Switzerland uses Electro-acupuncture, chiropractic, darkfield microscopy, laser therapy, pain management, immune system modulations, most natural healing methods for treating chronic diseases, including cancer. This includes enzymes, mistletoe, thymus therapy, hyperthermia, and vaccines.
Ph. + 41 (0)71 891 32 40 or fax.+ 41 (0)71 891 32 47
Their website: http://www.serafin.ch/coco.htm or e-mail-address: cheitz@searfin.ch

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United Kingdom
See England above

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Back to the Directories Page.

List of Clinics in ASIA / OCEANIA Offering Alternative Therapies

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Hong Kong

Optimum Health Centre in Causeway Bay is run by Alexander Yuan, B.A., D.C., N.D., D.Ht. It was established in 1987 and is one of the oldest & largest health centers in Hong Kong. They treat a full range of health problems, including AIDS and cancer. They use gastrointestinal tract cleansing, colon hydrotherapy, herbal, nutritional, constitutional hydrotherapy, ionic, enzymes, supplements, and diet. 2577-3798 http://www.naturalhealing.com.hk/ohc.htm

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Japan

Holistic Keihoku Hospital in Tokyo is run by Tsuneo Kobayashi, M.D. They treat many cancers including bone, breast, liver, ovarian, and colon; as well as cirrhosis of the liver; and chronic hepatitis. They use lymphocyte therapy, LAK therapy, plasma exchange, herbal, refreshment therapy (enhancement of natural healing), psychoimmunomodulation, and immuno-thermo-chemotherapy. 0081-03-3946-7271

New Zealand

Bay of Plenty Environmental Health Clinic in Tauranga is run by Mike Godfrey, M.B.B.S. In addition to cancer they treat Alzheimer's, cardiovascular disorders, and other chronic diseases using nutrition, immunosupportive therapies, detoxification, chelation, acupuncture, and homeopathy. They also do mercury amalgam investigations.

Phillipines

Bio Medical Health Center in Pasay City, Metro Manila treats chronic degenerative diseases, vascular and heart diseases using, homeopathy, chelation, and Chinese Medicine. 0063-702-827-1444

ALLEGATED 4 : Emodine-Aloe

Aloe arborescens contains about a hundred active principles, including 8 essential amino acids, vitamins, mineral salts and other micro-nutrients. But, above all, it contains substances which are particularly effective in the cure against tumors, in particular *Emodine-Aloe* is a fluorescent anthraquinone which induces selective apoptosis towards cancer cells alone.
SEE PDF allegated: Palù G.: *Aloe-Emodin is a new type of anticancer agent with selective activity against neuroectodermal tumors,* Cancer Research, 60, pp.2800-2804, 2000.

Table 4.1
Emodine-Aloe concentration (equivalent nanogram / gram of the net weight) in various organs and tissues of male and female rats, at different times after the oral administration of 4.5mg / kg (5.6 MBq) of Aloe-Emodine marked with Carbon 14, in an average of three rats for each value.

Organs	Equivalent-nanogram/ gram					
	3 hours	6 hours	12 hours	24 hours	48 hours	96 hours
Blood	164,7	131,1	41,2	15,4	15,5	10
Plasma	312	300,4	78	32,1	28,6	13,7
Carcass	83	448,6	91,6	23,5	24,3	9,5
Liver	671	550	134	86	146	77
Kidney	1.736	1.396	1.432,8	1.469	701	608
Lung	111	104,3	29,1	12,1	13,1	7,7
Heart	64,5	67,8	20,8	11	17,1	8,5
Spleen	30,4	30	Not valued	Not valued	10,6	Not valued
Brain	10,1	7,8	Not valued	Not valued	Not valued	Not valued
Skin	62,5	50,6	23,1	9	10,5	20,2
Muscle	22,4	20,5	6,2	Not valued	4,2	Not valued
Lymphonod	94,5	109,4	28,5	18,6	27,4	Not valued
Pancreas	40	46	10,8	Not valued	Not valued	Not valued
Thyme	38,6	41,6	11,7	Not valued	14,7	Not valued
Suprarenal	67,4	62	33,7	Not valued	Not valued	Not valued
Testicules	30	37,2	16,2	5	6,5	4
Stomach	42.424,3	58.612	573,2	Not valued	30	Not valued
Smoll Intest.	12.247,6	12.094,5	1.001,3	107,5	19,6	3,6
Ceco Intest.	140.707,7	98.816	10.380,1	1.582	835,3	14
Large Intest.	94.908,4	19.781	8.680	Not valued	1.035,6	63
Rectum	110.785,1	178.717,7	18.317,1	5,405,7	932	41,3
Eyes	18,5	14,6	4,6	Not valued	Not valued	Not valued
Bone	26,3	37,3	12	Not valued	Not valued	Not valued

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Emodine induces apoptosis in the neoplastic cell, by activating proteolytic intracellular enzymes, called caspase 3, 8 and 9, which cause deterioration through proteolysis by a transcription factor, called Spl ([247]). By modifying this basal cellular transcription, the death of the cancer cell through apoptosis is caused.

This action ([333]) happens for different types of tumors, already at a minimum concentration equal to 1-13 micromols/liter (1-13 nanomols/mL); (SEE table 4). To be more precise, the lethal dose in 50% of cases is 1 nanomol/mL in the case of Neuroblastoma and 13 nanomols/mL in the case of Ewing's sarcoma. However the following would seem to be immune to apoptosis induction: epithelial tumors, carcinoma of the cervix, carcinoma of the colon and T cell leukemia.
From unavailable bibliographical sources the following would appear to respond well: melanoma, Multiple Myeloma, glioma and some types of carcinomas and sarcomas. It is effective against hepatic-carcinoma ([715]).

Theoretical calculation of *Emodine-Aloe* pharmacokinetics for Multiple Myeloma in man.

Estimating theoretically (that is, not demonstrated) that the dosage sufficient to induce apoptosis in Multiple Myeloma cells should also be equal to 1-13 microMols / liter (1-13 nanoMols /mL), as has already been reported in medical literature for neuroblastomas ([333]), one can estimate whether daily doses of *Aloe arborescens* taken orally, could be considered sufficient to reach, in the bone marrow, these concentrations (1-13 nanoMols / mL), believing it to be a therapeutic concentration for Multiple Myeloma too, that is, admitting that *Emodine-Aloe* is also effective against Multiple Myeloma.

Basic data

1 gram of fresh *Aloe arborescens* contains about 2.6 micrograms of *Emodine-Aloe* (titration done in Trieste on a commercial product ready for oral administration).
On the basis of pharmacokinetics of *Emodine-Aloe*, taken by mouth in animals, and then measured in the organs of the animals killed ([487]), one can do the correlation for man.

FIRST APPROXIMATE CALCULATION
1 gram of fresh *Aloe-arborescens* contains 2.6 micrograms of *Emodine-Aloe*
Therefore:
Based on the study of the chemical structure of *Emodine-Aloe* ([333]), one can maintain that the molecular weight of *Emodine-Aloe* should be about **265** Dalton (an approximate estimate).

SECOND APPROXIMATE CALCULATION
The calculation of *Emodine-Aloe* present in a 750 mL jar, containing 350 grams of *Aloe arborescens*
Therefore:
1 gram of Aloe arboescens is equal to:
2.6 grams of *Emodine-Aloe* (titration done in Trieste on a commercial product).
10 nanomols of *Emodine-Aloe* (SEE first approximate calculation).
In a 750mL jar, containing 350 grams of Aloe arborescens there will therefore be:
910 micrograms of *Emodine-Aloe*, equal to 1.2 micrograms / mL of *Emodine-Aloe.*
3,500 nanomols of *Emodine-Aloe,* equal to 4.6 nanomols / mL of *Emodine-Aloe.*

THIRD APPROXIMATE CALCULATION
The calculation of *Emodine-Aloe* present in only one tablespoon of *Aloe arborescens*, taken from the same 750 mL jar, containing 350 grams of *Aloe arborescens.*
Postulating that one tablespoon is equivalent to 8 mL.

Therefore:
1.2 micrograms /mL of *Emodine-Aloe* x 8 = 10 micrograms of *Emodine-Aloe* / tablespoon.
4.6 nanomols / mL of *Emodine-Aloe* x 8 = 37.3 nanomols of *Emodine-Aloe /* tablespoon.

FOURTH APPROXIMATE CALCULATION
The calculation of *Emodine-Aloe* absorbed in the PLASMA by an adult patient, taking only one tablespoon of *Aloe arborescens,* daily, from the same 750 mL jar, containing 350 grams of *Aloe-arborescens.*
Postulating that one tablespoon is equivalent to 8 mL.
Postulating that the fraction of *Emodine-Aloe* present in the PLASMA of human adult subjects is the same as that obtained experimentally in mice.
In the experiments on mice, shown in table 4.1 ([487]), the quantity of *Emodine-Aloe* present in the plasma was 0.9 micrograms equivalent for 1 mL, with respect to the quantity of *Emodine-Aloe* introduced into the stomach of the same animals.
The quantity of *Emodine-Aloe* introduced into the animals was 4.5 mg / kg of animal.
Since each animal weighed less than 200 mg, we can calculate that the quantity of *Emodine-Aloe* introduced into *each animal* should be equal, probably, to *a fifth* of 4,5 mg of *Emodine-Aloe.*
Thus:
4,500 micrograms divided by 5 micrograms = 0.9 milligrams of *Emodine-Aloe* / animal.
If of 900 micrograms of *Emodine-Aloe* introduced orally, the animal concentrates 0.3 micrograms of *Emodine-Aloe* / mL of PLASMA, on the basis of table 4 ([487]), there will therefore be a quantity of *Emodine-Aloe* in the PLASMA 3,000 times less than the quantity of *Emodine-Aloe* introduced, that is, 300 micrograms / mL ([487]).

N.B. this concentration will be stable for the first 6 hours, then it will reduce to:
1/4 after 12 hours ([487]).
1/8 after 24 hours ([487]).
1/16 after 1 week ([487]).

Therefore, assuming for adult patients a dilution of *Emodine-Aloe* of 3,000 times in the PLASMA, the result will be that : 1 tablespoon of *Aloe-arborecens* =
1.2 micrograms / mL of *Emodine-Aloe* x 8 = 10 micrograms of *Emodine-Aloe /* tablespoon.
4.6 nanomols / mL of *Emodine-Aloe* x 8 = 37.3 nanomols of *Emodine-Aloe* / tablespoon.
Therefore, everything is divided 3,000 times, thus:
10 micrograms of *Emodine-Aloe* / 3,000 = 3.3 nanograms / mL.
37.3 nanomols of *Emodine-Aloe* / 3,000 = 12 picomols /mL.

FIFTH APPROXIMATE CALCULATION
The calculation of *Emodine-Aloe* absorbed in the BONE MARROW by an adult patient, taking only one tablespoon of *Aloe arborescens* a day, from the same 750 mL jar, containing 350 grams of *Aloe arborescens*
Postulating that 1 tablespoon is equal to 8 mL.
Postulating also for adult patients a dilution of *Emodine-Aloe* of 3,000 times in the PLASMA, that is, equal to= 3.3 nanograms /mL of PLASMA
= 12 picomols / mL of PLASMA
The quantity (concentration) of generic substance contained in the bone marrow depends on the quantity (concentration) of the same substance contained in the plasma or in the blood.
Admitting a uniform distribution of the substance in the PLASMA and in the extra-cellular space in the bone marrow, both concentrations are considered as equivalent ([684]), if the substance is a small amount (< 1 kiloDalton).

Therefore, the values shown in table 4.1 ([487]) of the estimated concentration of *Emodine-Aloe* in PLASMA, must also be referable to the same concentration of *Emodine-Aloe* in the extra-cellular space in the bone marrow.
If *Emodine-Aloe* really has an apoptosis function against Multiple Myeloma, one can therefore expect a progressive accumulation of the *Emodine-Aloe* in cancer cells, starting from concentrations of the drug in the extra-cellular space of the bone marrow equivalent to those shown in table 4 ([487]) for PLASMA.
Therefore:
Postulating that one tablespoon is equivalent to 8 mL
Postulating also for an adult patient a dilution of *Emodine-Aloe* of 3,000 times in the PLASMA, that is, equal to = 3.3 nanograms / mL of PLASMA
= 12 picomols / mL of PLASMA
= 3.3 nanograms /mL of extra-cellular space in the bone marrow
= 12 picomols / mL of extra-cellular space in the bone marrow.

SIXTH APPROXIMATE CALCULATION
The calculation of *Emodine-Aloe* absorbed by the cancer cells of Multiple Myeloma from the extra-cellular space of the BONE MARROW by an adult patient, taking only one tablespoon of *Aloe arborescens* a day, from the same 750 mL jar, containing 350 grams of *Aloe arborescens*
Since the concentration of *Emodine-Aloe* stays constant for at least 6 hours, we estimate that the fraction of *Emodine-Aloe* absorbed is equal to that present in the extra-cellular space of the bone marrow.
Postulating that 1 tablespoon is equivalent to 8 mL
Postulating also for an adult patient a dilution of *Emodine-Aloe* of 3,000 times in the PLASMA, that is, equal to = 3.3 nanograms /mL of PLASMA and/or extra-cellular space in the bone marrow
= 12 picomols /mL of PLASMA and/or extra-cellular space in the bone marrow.
Quantity of *Emodine-Aloe* absorbed by the cancer cells (mL of intracellular space)
3.3 nanograms /mL of extra-cellular space in the bone marrow
12 picomols / mL of extra-cellular space in the bone marrow.

SEVENTH APPROXIMATE CALCULATION
Approximate calculation of the quantity of *Emodine-Aloe* accumulated in the intracellular space of the cancer cells, gradually increasing the number of tablespoons of *Aloe arborescens.*
Postulating that 1 tablespoon is equivalent to 8 mL
Postulating also for an adult patient a dilution of *Emodine-Aloe* of 3,000 times in the PLASMA, that is, equal to = 3.3 nanograms /mL of PLASMA and/or extra-cellular space in the bone marrow
= 12 picomols /mL of PLASMA and/or extra-cellular space in the bone marrow.
Postulating that the quantity of *Emodine-Aloe* absorbed by the cancer cells (mL of intracellular space) is equal to that present in the extra-cellular space of the bone marrow:
3.3 nanograms / mL of extra-cellular space in the bone marrow
12 picomols / mL of extra-cellular space in the bone marrow

Calculation estimates
To make calculating easier we propose an increase in the dose of one tablespoon a week, beginning with:
1 tablespoon at 12 p.m. for the first week.
1 tablespoon at 12 p.m.; a second tablespoon at 18 p.m. the second week.
2 tablespoons at 12 p.m.; a third tablespoon at 18 p.m. the third week.
2 tablespoons at 12 p.m.; 2 tablespoons at 18 p.m. the fourth week.
1 tablespoon at 9 a.m.; 2 tablespoons at 12 p.m. and 2 more tablespoons at 18 p.m. (fifth week).

At this point there are two options:

1) A constant increase of one spoonful a week, from the fifth week onwards
2) Maintaining a steady five spoonfuls a day.

A constant increase of one spoonful a week

1 tablespoon at 12 p.m. for the first week.
1 tablespoon at 12 p.m., a second tablespoon at 18 p.m. for the second week.
2 tablespoons at 12 p.m.; a third tablespoon at 18 p.m. the third week.
2 tablespoons at 12 p.m., another 2 tablespoons at 18 p.m. the fourth week.
1 tablespoon at 9 a.m.; 2 tablespoons at 12 p.m.; 2 more tablespoons at 18 p.m. the fifth week.
2 tablespoons at 9 p.m., 2 tablespoons at 12 p.m., another 2 tablespoons at 18 p.m. the sixth week.
2 tablespoons at 9 p.m., 3 tablespoons at 12 p.m., another 2 tablespoons at 18 p.m. the seventh week.
2 tablespoons at 9 p.m., 3 tablespoons at 12 p.m., another 3 tablespoons at 18 p.m. the 8th week.
3 tablespoons at 9 p.m., 3 tablespoons at 12 p.m., another 3 tablespoons at 18 p.m. the 9th week.
3 tablespoons at 9 p.m., 4 tablespoons at 12 p.m., another 3 tablespoons at 18 p.m. the 10th week.
3 tablespoons at 9 p.m., 4 tablespoons at 12 p.m., another 4 tablespoons at 18 p.m. the 11th week.
4 tablespoons at 9 p.m., 4 tablespoons at 12 p.m., another 4 tablespoons at 18 p.m. the 12th week.
4 tablespoons at 9 p.m., 5 tablespoons at 12 p.m., another 4 tablespoons at 18 p.m. the 13th week.
4 tablespoons at 9 p.m., 5 tablespoons at 12 p.m., another 5 tablespoons at 18 p.m. the 14th week.
5 tablespoons at 9 p.m., 5 tablespoons at 12 p.m., another 5 tablespoons at 18 p.m. the 15th week.
N.B. this concentration will be stable for the first 6 hours, reducing then to:
1/4 after 12 hours
1/8 after 24 hours
1/16 after 1 week

An increase of 1 spoonful a day, subsequently maintaining a steady intake of 5 spoonfuls a day
1 tablespoon at 12 p.m. for the first week.
1 tablespoon at 12 p.m.; a second tablespoon at 18 p.m. the second week.
2 tablespoons at 12 p.m.; a third tablespoon at 18 p.m. the third week.
2 tablespoons at 12 p.m.; 2 more tablespoons at 18 p.m. for the fourth week
1 tablespoon at 9 a.m.; 2 tablespoons at 12 p.m.; 2 more tablespoons at 18 p.m. the fifth week
Then: a constant increase of one spoon a week starting from the fifth week.
N.B. this concentration will be stable for the first 6 hours, reducing then to
¼ after 12 hours;
1/8 after 24 hours
1/16 after 1 week.

A constant increase of one spoonful a week
The doses will be the following: Tab. 4.2: FirstWeek

Monday	12 picomols / mL
Tuesday	12 picomols / mL + 1,5 (*) = 13,5
Wednesday	12 picomols / mL + 1,6 (*) = 13,6
Thursday	12 picomols / mL + 1,6 (*) = 3,6
Friday	12 picomols / mL + 1,6 (*) = 3,6
Saturday	12 picomols / mL + 1,6 (*) = 13,6
Sunday	12 picomols / mL + 1,6 (*) = 13,6

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed
Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first week **only**: about **94** picomols / mL.

Tab. 4.3.: 2th week

Monday	12 picomols / mL + 1,6 (*) + 12 picomols / mL = 25,6 (18-p.m.)
Tuesday	12 picomols / mL + 4,2 (*) + 12 picomols / mL = 28 (18-p.m.)
Wednesday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)
Thursday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)
Friday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)
Saturday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)
Sunday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 2th week **only**: about **194** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 2 weeks: 94 + 194 picomols /mL = about **288.**

Tab. 4.4: 3th week

Monday	24 picomols / mL + 4,7 (*) + 12 picomols / mL = 40 (18-p.m.)
Tuesday	24 picomols / mL + 6 (*) + 12 picomols / mL = 42 (18-p.m.)
Wednesday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)
Thursday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)
Friday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)
Saturday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)
Sunday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 3th week **only**: about **300** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 3weeks: 288 + 300 picomols /mL = about **588.**

Tab. 4.5.: 4th week

Monday	24 picomols / mL + 7 (*) + 24 picomols / mL = 55 (18-p.m.)
Tuesday	24 picomols / mL + 9 (*) + 24 picomols / mL = 57 (18-p.m.)
Wednesday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)
Thursday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)
Friday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)
Saturday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)
Sunday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 4th week **only**: about **402** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 4 weeks: 588 + 402 picomols /mL = about **990.**

Tab. 4.6: 5th week

Monday	12 picomols / mL + 10 (*) + 48 (**) picomols / mL = 70 (18-p.m.)
Tuesday	12 picomols / mL + 11 (*) + 48 (**) picomols / mL = 71 (18-p.m.)
Wednesday	12 picomols / mL + 12 (*) + 48(**) picomols / mL = 72 (18-p.m.)
Thursday	12 picomols / mL + 12 (*) + 48 (**)picomols / mL = 72 (18-p.m.)
Friday	12 picomols / mL + 12 (*) + 48 (**) picomols / mL = 72 (18-p.m.)
Saturday	12 picomols / mL + 12 (*) + 48 (**)picomols / mL = 72 (18-p.m.)
Sunday	12 picomols / mL + 12 (*) + 48 (**)picomols / mL = 72 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 5th week **only**: about **504** picomols / mL.Overall dose absorbed from 1

mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 5 weeks: 990 + 504 picomols /mL = about **1,500.**

Tab. 4.7.: 6th week

Monday	24 picomols / mL + 12 (*) + 48 (**) picomols / mL = 84 (18-p.m.)
Tuesday	24 picomols / mL + 14 (*) + 48 (**) picomols / mL = 86 (18-p.m.)
Wednesday	24 picomols / mL + 14 (*) + 48 (**) picomols / mL = 86 (18-p.m.)
Thursday	24 picomols / mL + 14 (*) + 48 (**) picomols / mL = 86 (18-p.m.)
Friday	24 picomols / mL + 14 (*) + 48 (**) picomols / mL = 86 (18-p.m.)
Saturday	24 picomols / mL + 14 (*) + 48 (**) picomols / mL = 86 (18-p.m.)
Sunday	24 picomols / mL + 14 (*) + 48 (**) picomols / mL = 86 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 6th week **only**: about **600** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 6weeks: 1,500 + 600 picomols /mL = about **2,100.**

Tab.4.8.: 7th week

Monday	24 picomols / mL + 14 (*) + 60 (**) picomols / mL = 98 (18-p.m.)
Tuesday	24 picomols / mL + 16 (*) + 60 (**) picomols / mL = 100 (18-p.m.)
Wednesday	24 picomols / mL + 16 (*) + 60 (**) picomols / mL = 100 (18-p.m.)
Thursday	24 picomols / mL + 16 (*) + 60 (**) picomols / mL = 100 (18-p.m.)
Friday	24 picomols / mL + 16 (*) + 60 (**) picomols / mL = 100 (18-p.m.)
Saturday	24 picomols / mL + 16 (*) + 60 (**) picomols / mL = 100 (18-p.m.)
Sunday	24 picomols / mL + 16 (*) + 60 (**) picomols / mL = 100 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 7th week **only**: about **700** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 7 weeks: 2,100 + 700 picomols /mL = about **2,800.**

Tab.4.9.: 8th week

Monday	24 picomols / mL + 16 (*) + 72 (**) picomols / mL = 112 (18-p.m.)
Tuesday	24 picomols / mL + 18 (*) + 72 (**) picomols / mL = 114 (18-p.m.)
Wednesday	24 picomols / mL + 19 (*) + 72 (**) picomols / mL = 115 (18-p.m.)
Thursday	24 picomols / mL + 19 (*) + 72 (**) picomols / mL = 115 (18-p.m.)
Friday	24 picomols / mL + 19 (*) + 72 (**) picomols / mL = 115 (18-p.m.)
Saturday	24 picomols / mL + 19 (*) + 72 (**) picomols / mL = 115 (18-p.m.)
Sunday	24 picomols / mL + 19 (*) + 72 (**) picomols / mL = 115 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 8th week **only**: about **800** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 8 weeks: 2,800 + 800 picomols /mL = about **3,600.**

Tab. 4.10: 9th week

Monday	36 picomols / mL + 19 (*) + 72 (**) picomols / mL = 127 (18-p.m.)
Tuesday	36 picomols / mL + 21 (*) + 72 (**) picomols / mL = 129 (18-p.m.)
Wednesday	36 picomols / mL + 21 (*) + 72 (**) picomols / mL = 129 (18-p.m.)
Thursday	36 picomols / mL + 21 (*) + 72 (**) picomols / mL = 129 (18-p.m.)
Friday	36 picomols / mL + 21 (*) + 72 (**) picomols / mL = 129 (18-p.m.)
Saturday	36 picomols / mL + 21 (*) + 72 (**) picomols / mL = 129 (18-p.m.)
Sunday	36 picomols / mL + 21 (*) + 72 (**) picomols / mL = 129 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 9th week **only**: about **900** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first fifteen weeks: 3,600 + 900 picomols /mL = about **4,500.**

Tab. 4.11: 10th week

Monday	36 picomols / mL + 21 (*) + 84 (**) picomols / mL = 141 (18-p.m.)
Tuesday	36 picomols / mL + 23 (*) + 84 (**) picomols / mL = 143 (18-p.m.)
Wednesday	36 picomols / mL + 23 (*) + 84 (**) picomols / mL = 143 (18-p.m.)
Thursday	36 picomols / mL + 23 (*) + 84 (**) picomols / mL = 143 (18-p.m.)
Friday	36 picomols / mL + 23 (*) + 84 (**) picomols / mL = 143 (18-p.m.)
Saturday	36 picomols / mL + 23 (*) + 84 (**) picomols / mL = 143 (18-p.m.)
Sunday	36 picomols / mL + 23 (*) + 84 (**) picomols / mL = 143 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 10th week **only**: about **1,000** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first fifteen weeks: 4,500 + 1,000 picomols /mL = about **5,500.**

Tab. 4.12.: 11th week

Monday	36 picomols / mL + 23 (*) + 96 (**) picomols / mL = 155 (18-p.m.)
Tuesday	36 picomols / mL + 25 (*) + 96 (**) picomols / mL = 157 (18-p.m.)
Wednesday	36 picomols / mL + 26 (*) + 96 (**) picomols / mL = 158 (18-p.m.)
Thursday	36 picomols / mL + 26 (*) + 96 (**) picomols / mL = 158 (18-p.m.)
Friday	36 picomols / mL + 26 (*) + 96 (**) picomols / mL = 158 (18-p.m.)
Saturday	36 picomols / mL + 26 (*) + 96 (**) picomols / mL = 158 (18-p.m.)
Sunday	36 picomols / mL + 26 (*) + 96 (**) picomols / mL = 158 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 11th week **only**: about **1,100** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first fifteen weeks: 5,500 + 1,100 picomols /mL = about **6,600.**

Tab. 4.13.: 12th week

Monday	48 picomols / mL + 26 (*) + 96 (**) picomols / mL = 170 (18-p.m.)
Tuesday	48 picomols / mL + 28 (*) + 96 (**) picomols / mL = 172 (18-p.m.)
Wednesday	48 picomols / mL + 28 (*) + 96 (**) picomols / mL = 172 (18-p.m.)
Thursday	48 picomols / mL + 28 (*) + 96 (**) picomols / mL = 172 (18-p.m.)
Friday	48 picomols / mL + 28 (*) + 96 (**) picomols / mL = 172 (18-p.m.)
Saturday	48 picomols / mL + 28 (*) + 96 (**) picomols / mL = 172 (18-p.m.)
Sunday	48 picomols / mL + 28 (*) + 96 (**) picomols / mL = 172 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 12th week **only**: about **1,200** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 12 weeks: 6,600 + 1,200 picomols /mL = about **7,800.**

Tab. 4.14: 13th week

Monday	48 picomols / mL + 28 (*) + 108 (**) picomols / mL = 184 (18-p.m.)
Tuesday	48 picomols / mL + 30 (*) + 108 (**) picomols / mL = 186 (18-p.m.)
Wednesday	48 picomols / mL + 31 (*) + 108 (**) picomols / mL = 187 (18-p.m.)
Thursday	48 picomols / mL + 31 (*) + 108 (**) picomols / mL = 187 (18-p.m.)
Friday	48 picomols / mL + 31 (*) + 108 (**) picomols / mL = 187 (18-p.m.)
Saturday	48 picomols / mL + 31 (*) + 108 (**) picomols / mL = 187 (18-p.m.)
Sunday	48 picomols / mL + 31 (*) + 108 (**) picomols / mL = 187 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 13th week **only**: about **1,300** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first fifteen weeks: 7,800 + 1,300 picomols /mL = about **9,100.**

Tab. 4.15: 14th week

Monday	48 picomols / mL + 31 (*) + 120 (**) picomols / mL = 200 (18-p.m.)
Tuesday	48 picomols / mL + 33 (*) + 120 (**) picomols / mL = 203 (18-p.m.)
Wednesday	48 picomols / mL + 33 (*) + 120 (**) picomols / mL = 203 (18-p.m.)
Thursday	48 picomols / mL + 33 (*) + 120 (**) picomols / mL = 203 (18-p.m.)
Friday	48 picomols / mL + 33 (*) + 120 (**) picomols / mL = 203 (18-p.m.)
Saturday	48 picomols / mL + 33 (*) + 120 (**) picomols / mL = 203 (18-p.m.)
Sunday	48 picomols / mL + 33 (*) + 120 (**) picomols / mL = 203 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 14th week **only**: about **1,600** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first fifteen weeks: 9,100 + 1,600 picomols /mL = about **10,700.**

Tab. 4.16.: 15th week

Monday	60 picomols / mL + 33 (*) + 120 (**) picomols / mL = 213 (18-p.m.)
Tuesday	60 picomols / mL + 35 (*) + 120 (**) picomols / mL = 215 (18-p.m.)
Wednesday	60 picomols / mL + 35 (*) + 120 (**) picomols / mL = 215 (18-p.m.)
Thursday	60 picomols / mL + 35 (*) + 120 (**) picomols / mL = 215 (18-p.m.)
Friday	60 picomols / mL + 35 (*) + 120 (**) picomols / mL = 215 (18-p.m.)
Saturday	60 picomols / mL + 35 (*) + 120 (**) picomols / mL = 215 (18-p.m.)
Sunday	60 picomols / mL + 35 (*) + 120 (**) picomols / mL = 215 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the fifteenth week **only**: about **1,500** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first fifteen weeks: 10,700 + 1,500 nanomols /mL = about **12,200.**

An increase of 1 tablespoonful a day, subsequently maintaining a steady intake of 5 spoonfuls a day.

The accumulated doses are as follows

Tab. 4.17.: first week

Monday	12 picomols / mL
Tuesday	12 picomols / mL + 1,5 (*) = 13,5
Wednesday	12 picomols / mL + 1,6 (*) = 13,6
Thursday	12 picomols / mL + 1,6 (*) = 3,6
Friday	12 picomols / mL + 1,6 (*) = 3,6
Saturday	12 picomols / mL + 1,6 (*) = 13,6
Sunday	12 picomols / mL + 1,6 (*) = 13,6

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first week : about **94** picomols / mL.

Tab. 4.18.: 2th week

Monday	12 picomols / mL + 1,6 (*) + 12 picomols / mL = 25,6 (18-p.m.)
Tuesday	12 picomols / mL + 4,2 (*) + 12 picomols / mL = 28 (18-p.m.)
Wednesday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)
Thursday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)
Friday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)
Saturday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)
Sunday	12 picomols / mL + 4,7 (*) + 12 picomols / mL = 28 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 2th week **only**: about **194** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 2 weeks: 94 + 194 picomols /mL = about **288.**

Tab.4.19.: 3th week

Monday	24 picomols / mL + 4,7 (*) + 12 picomols / mL = 40 (18-p.m.)
Tuesday	24 picomols / mL + 6 (*) + 12 picomols / mL = 42 (18-p.m.)
Wednesday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)
Thursday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)
Friday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)

Saturday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)
Sunday	24 picomols / mL + 7 (*) + 12 picomols / mL = 43 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 3th week **only**: about **300** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 3 weeks: 288 + 300 picomols /mL = about **588.**

Tab.4.20.: 4th week

Monday	24 picomols / mL + 7 (*) + 24 picomols / mL = 55 (18-p.m.)
Tuesday	24 picomols / mL + 9 (*) + 24 picomols / mL = 57 (18-p.m.)
Wednesday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)
Thursday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)
Friday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)
Saturday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)
Sunday	24 picomols / mL + 10 (*) + 24 picomols / mL = 58 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 4th week **only**: about **402** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 4 weeks: 588 + 402 picomols /mL = about **990.**

Tab.4.21.: 5th week

Monday	12 picomols / mL + 10 (*) + 48 (**) picomols / mL = 70 (18-p.m.)
Tuesday	12 picomols / mL + 11 (*) + 48 (**) picomols / mL = 71 (18-p.m.)
Wednesday	12 picomols / mL + 12 (*) + 48(**) picomols / mL = 72 (18-p.m.)
Thursday	12 picomols / mL + 12 (*) + 48 (**)picomols / mL = 72 (18-p.m.)
Friday	12 picomols / mL + 12 (*) + 48 (**) picomols / mL = 72 (18-p.m.)
Saturday	12 picomols / mL + 12 (*) + 48 (**)picomols / mL = 72 (18-p.m.)
Sunday	12 picomols / mL + 12 (*) + 48 (**)picomols / mL = 72 (18-p.m.)

(*) *Emodine-Aloe* still present in the extra-cellular space from the day before and absorbed

(**) Sum of the two doses taken respectively at 12 p.m. and 18 p.m.. Since the concentration of *Emodine-Aloe* in the first 6 hours after taking it (e.g. 12 p.m.) is constant, in order to simplify the calculation, those doses referred to at 12 p.m. and 18 p.m. can be considered as additional doses.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the 5th week **only**: about **504** picomols / mL.Overall dose absorbed from 1 mL of intracellular space of myelomatose cells (theoretical evaluation) in the first 5 weeks: 990 + 504 picomols /mL = about **1,500.**

From 6th week: 500 picomols / mL / week.

Allegato No. 5: Sherry Rogers, M.D.:

The World's Most Vicious MACC Attack
(MACC - multinational agriculture and chemical corporations)

Up until now I never dreamed there could be anything worse than the chemical catastrophes we have experienced in this century, but I was wrong, for at least with chemical sensitivity you can find evidence for it's bioacumulation in the body, and get rid of it.

On the other hand there is a newer plague that is nearly impossible to detect and it is irreversible. Worse, it causes an unmistakable, inescapable domino effect. GENETIC ENGINEERING is the culprit.

You probably were first aware of genetic engineering when I told you about Monsanto inserting genes from plants of unrelated species into the soybean plant to make it resistant to the potent herbicide, Roundup [glyphosate]. The Roundup resistant soybean seed can now be heavily sprayed with Roundup to kill weeds, and never damage the soybean.

However, the beans do pack quite a wallop for those who ingest them because they are heavily contaminated with the toxic herbicide, Roundup. These genetically modified soybean products, which comprise about 80% of the beans available, have been found in most baby formulas including Carnation, Similac, Enfamil, Isomil, and Neocare as well as Doritos, Fritos, vegetable oils, soybean oil, margarine, and much more.

As well, one of the genes is from the petunia plant which is a nightshade.That means folks with nightshade-induced arthritis can now get arthritis from soybean products. When Monsanto inserted the Brazil nut gene into soy, folks allergic to Brazil nuts were suddenly anaphylaxis [serious life threatening reaction where one is not able to breathe] from soybean. They quickly removed the gene because the symptom was so dramatic.

Unfortunately, genetic engineering is not limited to a simple matter of trying to improve upon a few species of plant food. For when a gene from one species is placed in a wholly different animal or plant, you need a vector, or something that will carry that gene into the genetic factory of the unrelated organism. Oftentimes a VIRUS is used, since a virus is merely a piece of genetic material with a protein coat that is so small that it can easily "infect" other genetic material.

Cancer Viruses Are Deliberately Inserted Into Your Food

Cancer in chickens, often results from infection with the Rous Sarcoma virus. Hold your seat, for you'll probably find this as difficult to believe as I did. Scientists who make money for companies through genetic engineering have decided there is no problem with using this chicken cancer virus as a vector or carrier to implant the growth hormone gene into farmed fish so they will grow faster.

The problem is that once inside the fish, this virus can persist and infect the next host, you, that eats that fish. Scientists glibly say that there is no danger here and can get away with it because the U.S Government does not require any testing or proof of the safety of genetically engineered foods. And the scary part is far from over.

Leukemia virus in chicken has been used as a vector to carry genes, many of which are human, into developing poultry. In addition, a retrovirus was used as a virus vector in pigs to insert human fetal cells to grow aortas for transplantation into humans. These have led to infections in humans with the pig's retrovirus. Have they lost their minds and all ethics?

These viruses can also combine with one another to create new plant and animal diseases. And more important, foreign genetic material from these viruses can be absorbed through our intestines and become incorporated into the cells of our own bodies creating new diseases in us. Wow! What a sci-fi nightmare!

Genes inserted into plants are put there to make them resistant to certain pests, pesticides, herbicides or antibiotics. But these vectors or gene transporters can also infect the bacteria and other organisms in our intestinal tracts. Creating a new antibiotic resistance in them. How would you like to be harboring Klebsiella or Candida in your gut that is resistant to all treatments?

If that weren't enough of a problem, one of the most common genes inserted into plants is the Bt gene. Bt stands for Bacillus thuringiensis, a particular bacteria that secretes a toxin that kills many types of pests that infect plants. The problem is that this toxin, once inside some people makes them extremely ill. It can mimic the symptoms of night- shades where you seemingly overnight have to crawl to the bathroom for days because of such sore body muscles and joints.

As with a nightshade attack [November 1999 issue] days or weeks later it can end as precipitously as it began, baffling every physician. The Bt gene has been put in potatoes, corn and not only have soybeans become Roundup resistant but so has the sugar beet from which vitamin C powder can be made.

Genes have been put into tomatoes to change their ripening time, into cotton [used in junk food oil called vegetable oil, as on roasted nuts given out on airlines] to make that plant resistant to pesticides. Canola oil is another product of genetic engineering and should never be ingested.

In 1994 the U.S FDA approved the genetically engineered hormone rBGH which is a growth hormone designed to increase milk production in cows. This growth hormone caused increased mastitis and need for antibiotics [which go into the milk] and as well over 800 farmers using it reported adverse health problems in their cows. Monsanto, the developer, tried to bribe Health Canada Govt. officials with several million dollars to approve this hormone which is used by about a third of U.S. farmers.

The prestigious medical journal, Lancet [May 9,1998], shows that breast cancer is SEVEN times higher in women with tiny increases in growth hormone, Insulin like Growth Factor [IGF-1], which comes from cows injected with BGH. In January 1996 the International Journal of Health Sciences reported that IGF-1 concentrations are ten times higher in BGH milk and can be absorbed through our intestines and increase our risk of cancer.

As well, there is evidence that it has caused abnormal cysts on the thyroid gland and in the prostate gland and a myriad of other symptoms. There is no turning back. By forcing genes from one species to another entirely unrelated species, we are creating new entities. This is another example of the arrogance and ignorance of man when he thinks that he can one-up God and create an improved organism.

There are so many fallacies with this reasoning that over a dozen books have already been written to begin to collate much of the evidence against genetically modified organisms. The difficulty is that there are not enough people even aware of the problem to make a significant impact.

By the time the damage is done it will be to late. It's not like cleaning up a lake from decades of pollution. Once we have [1] lost thousands of species of plants, [2] driven all small farmers out of

business, [3] created Frankenstein foods, [4] super weeds resistant to all herbicides, [5] plants resistant to pesticides, [6] new viruses and new illnesses in humans, there will be no turning back.

You might be surprised as I was to find that there is no testing required even after these and many more facts have come to light. Genetically modified foods are already unavoidable and there is absolutely no labeling required. We are already eating genetically modified foods, as 60% of processed foods now contain at least one genetically modified food.

A common snack might be chips with firefly gene or potato chips with chicken gene [watch out for leukemia and sarcoma, muscle cancer, virus genes]. Or perhaps you like salsa with tomato having a flounder gene. A common meal might include creamy broccoli soup with a bacteria gene and a salad made with canola oil, vegetable oil or soybean oil, all GMO products.

People like myself who are nightshade sensitive are really out of luck because the tobacco gene is used in lettuce and cucumbers and the petunia gene is used in soybeans and carrots. Folks with celiac disease might be fooled because walnuts can have the barley gene in them. And some foods like strawberries have "undisclosed genes" so all bets are off.

Would we expect anything different from an industry that has carte blanche regulation-free control over our total food supply? You might think cheese is a safe food but they've genetically engineered bacterial rennet. Apple juice can have the silkworm gene and grapes can contain a virus gene. Well including trout, salmon, catfish, bass and even shrimp. In May of 1999, three giant multinational food companies announced they would no longer market genetically engineered foods or their ingredients in England, because the Limeys were smart enough to protest, so guess who will get the leftovers? U.S.

Proponents of GMO foods say they will lessen the amount of pesticides that must be used, but that is not true. Didn't we already fall for this line with the promise that new pesticides would reduce the need for others?

First of all many of the toxins that plants have been genetically manipulated or forced to produce also kill beneficial things like ladybugs so that even more pesticides are needed to do the job that they would have done. These genes can also spread from the crops to the weeds making the weeds more resistant and stronger than ever, creating an epidemic of super weeds.

Also disturbing is a report that Monsanto's Roundup ready resistant GE soybeans have higher than normal levels of estrogen. Is this something we want for male babies growing up on soybean formula? As well, some of the viruses used as vectors for genes and inserted into plants to make them virus resistant can be combined with genetic material from another invading virus [as from a cold] forming a brand new more virulent virus and creating a new fatal epidemic that has never before been seen.

Clearly NAFTA has allowed our illegal "recycled" pesticides access to us, while our FDA and USDA cannot police what they already have on their plates, much less handle the billion dollar graft associated with genetic engineering that is so carefully documented in BEYOND EVOLUTION.

The FDA has allowed Olestra into your foods, which has no proven ability to decrease the rampant obesity. But it does decrease you absorption of priceless nutrients like vitamin E, D, and K that are absolutely crucial in inhibiting the top two most common causes of death and disease, arteriosclerosis and cancer.

In the past we have talked about how many people are not "Better Through Chemistry" as DuPont's old motto suggested. Because many have lost loved ones to cancer and other diseases caused by environmental chemicals, they have become "bitter through chemistry". These chemicals are allowed in our air, food and water so that multinational corporations can make huge profits. Now with the wildfire spread of genetic engineering, small farms will fade into extinction as multinational agriculture and chemical corporations [MACC] gain control over all of your food.

Are you ready for the greatest MACC attack in the history of the world? Worse than chemical pollution ever thought of being, genetic pollution has the irreversible potential and probability of changing the very nature of all of or food and even our own genetics. As veterinarian, Michael W Fox, warns in his excellent and highly recommended book, BEYOND EVOLUTION [which details and references the dangers of GMO foods], our only chance to save ourselves and the future is with people power.

But uninformed people are powerless. Multinational corporations are changing our food and animals and they have free reign. They're not accountable to anyone since they do not have to label their foods and they are not required to do any safety testing. It is irreversible, unstoppable and has the capability of snowballing us into a veritable Jurassic Park.

You vote with your shopping basket and can make your voice heard by letting your legislators know that you want all genetically engineered food labeled and all engineering stopped until there are appropriate studies done on the long range human side effects and safety.

ALLEGATED 6: Official list of authorized GMOs in Europe

They are 26: Twelve varieties of maize, six of colza, five of cotton and one of Soya, a biomass and a yeast cream. After recent illegal importation of genetically modified maize Bt 10 into France and Spain from USA, the European Commission published a list of 26 biotechnological products, which were authorized in the 25 Member States. The listed products include twelve varieties of maize, six of colza, five of cotton and one of Soya-bean, a biomass and a yeast cream. The list was drawn up in order to clear up the chaotic situation which arose after recent events.
"This register is an important instrument to define the legal status of GMOs, whose sale was allowed in the EU before the current law came into force in April 2004" – as explained by Markos Kyprianou, European Commissioner for Health and Consumer Protection.
"The register indicates which products can be legally sold in the EU, even though many of them are not yet present on the market".
The above-mentioned 26 products were authorized by previous EU regulations or did not require an authorization when they were put on the market. Since the products were not subject to the new and strict law, which became effective in April 2004 and provided for an in-depth authorization process and a scientific assessment of safety from European Food Safety Authority (EFSA), the Commission and the Joint Research Centre analysed the products before adding them – with all the requested information –to the specific section of the EU register indicating genetically modified food and feed. Once a product is officially included in the EU list of biotechnological products, the enterprises can continue to sell the authorized product for a 3-9 month period, at the end of which they will re-apply to the European Commission for authorization.

Notification of existing products, entered in the Community Register of GM food and feed.

Transformation event	Notifier	Date of notification	Designation	Unique ID	More info...
MON810	Monsanto Services International S.A./N.V.	12.07.2004	Insect-protected maize line MON 810	MON-ØØ81Ø-6	
MON863	Monsanto Services International S.A./N.V.	12.07.2004	Rootworm resistant maize MON 863 generated by transformation of *Zea mays*	MON-ØØ863-5	
MON40-3-2	Monsanto Services International S.A./N.V.	13.07.2004	Glyphosate-tolerant soyabean 40-3-2	MON-Ø4Ø32-6	
NK603	Monsanto Services International S.A./N.V.	14.07.2004	Glyphosate tolerant NK 603 maize	MON-ØØ6Ø3-6	
NK603 x MON810	Monsanto Services International S.A./N.V.	15.07.2004	Hybrid maize NK603 X MON810 tolerant to glyphosate (NK603) and resistant to lepidopteran larvae of *Sesamia* spp. and *Ostrinia nubialis* (MON810)	MON-ØØ6Ø3-6 x MON-ØØ81Ø-6	
DAS1507	Pioneer Overseas Corporation	19.08.2004	Maize line 1507, with resistance to the European corn borer and certain other lepidopteran pests and with tolerance to the herbicide glufosinate-ammonium	DAS-Ø15Ø7-1	
GT73	Monsanto Services International S.A./N.V.	31.08.2004	Oilseed rape (*Brassica napus L.*), with tolerance to the herbicide glyphosate	MON-ØØØ73-7	
MON531	Monsanto Services International S.A./N.V.	23.09.2004	Cotton (*Gossypium hirsutum*) cultivar Coker 312, transformed using plasmid PV-GHBK04 to be provided with insect resistance trait	MON-ØØ531-6	
MON1445	Monsanto Services International S.A./N.V.	23.09.2004	Cotton (*Gossypium hirsutum*) cultivar Coker 312 , transformed using plasmid PV-GHGT07 to be provided with the resistance to glyphosate trait	MON-Ø1445-2	
T25	Bayer CropScience GmbH	01.10.2004	Maize (*Zea mays L.*) with increased glufosinate ammonium tolerance	ACS-ZMØØ3-2	
MON531 x MON1445	Monsanto Services International S.A./N.V.	04.10.2004	Cotton hybrid MON531 x MON 1445 is produced to combine insect resistance trait (MON 531) with resistance to glyphosate trait (MON 1445).	MON-ØØ531-6 x MON-Ø1445-2	
GA21	Monsanto Services International S.A./N.V.	04.10.2004	Maize (*Zea maize* L.) line GA21 with increased tolerance to the herbicide glyphosate	MON-ØØØ21-9	
Bt11	Syngenta Crop Protection AG	04.10.2004	Maize line Bt11	SYN-BTØ11-1	
Bt176	Syngenta Crop Protection AG	04.10.2004	Maize line (*Zea mays L.*) with the combined modification for insecticide properties conferred by the Bt-endotoxin gene and increased tolerance to the herbicide glufosinate	SYN-EV176-9	

			ammonium		
MS8/RF3	Bayer CropScience GmbH	05.10.2004	Hybrid swede-rape (*Brassica napus L. oleifera Metzg.*) derived from crosses using: (a) the progeny of the male sterile swede-rape line MS8 (b) the progeny of the fertility restoration swede-rape line RF3	ACS-BNØØ5-8 ACS-BNØØ3-6 ACS-BNØØ5-8 x ACS-BNØØ3-6	
GA21 x MON810	Monsanto Services International S.A./N.V.	06.10.2004	Hybrid maize GA21 x MON 810 produced to combine insect-protection (MON810) and increased tolerance to the herbicide glyphosate (GA21)	MON-ØØØ21-9 x MON-ØØ81Ø-6	
MS1/RF1	Bayer CropScience GmbH	07.10.2004	Hybrid swede-rape (*Brassica napus L. oleifera Metzg.*) derived from crosses using: (a) the progeny of the male sterile swede-rape line MS1 (B91-4) cultivar Drakkar (b) the progeny of the fertility restoration swede-rape line RF1 (B93-101) cultivar Drakkar	ACS-BNØØ4-7 ACS-BNØØ1-4 ACS-BNØØ4-7 x ACS-BNØØ1-4	
MS1/ RF2	Bayer CropScience GmbH	08.10.2004	Hybrid swede-rape (*Brassica napus L. oleifera Metzg.*) derived from crosses using: (a) the progeny of the male sterile swede-rape line MS1 (B91-4) cultivar Drakkar (b) the progeny of the fertility restoration swede-rape line RF2 (B94-2) cultivar Drakkar	ACS-BNØØ4-7 ACS-BNØØ2-5 ACS-BNØØ4-7 x ACS-BNØØ2-5	
MON863 x MON810	Monsanto Services International S.A./N.V.	11.10.2004	Maize hybrid MON863 x MON810 produced by conventional breeding to combine the rootworm resistance trait in MON 863 with the lepidopteran insect resistance trait present in GM maize, MON 810	MON-ØØ863-5 x MON-ØØ81Ø-6	
TOPAS 19/2	Bayer CropScience GmbH	11.10.2004	Canola (*Brassica napus L. spp. oleifera*) derived from crosses between non-genetically modified swede rape and a line resulting from transformation event Topas 19/2	ACS-BNØØ7-1	
pMT742	NOVO Nordisk A/S	12.10.2004	NOVO Yeast Cream is a product produced from genetically modified yeast strains (*Saccharomyces cerevisiae*) cultivated on substrates of vegetable origin	...	
T45	Bayer CropScience GmbH	13.10.2004	Oilseed rape transformation event T45 modified to be tolerant to the non-selective herbicide Liberty®	ACS-BNØØ8-2	
MON863 x MON603	Monsanto Services International S.A./N.V.	13.10.2004	Hybrid maize MON863 x NK603 produced by conventional breeding to combine the rootworm resistance trait in MON 863 and glyphosate resistance trait in NK603	MON-ØØ863-5 x MON-ØØ6Ø3-6	
MON15985	Monsanto Services International S.A./N.V.	14.10.2004	Insect-protected cotton containing event 15985 was developed from cotton line 531	MON-15985-7	
MON15985 x MON1445	Monsanto Services International S.A./N.V.	14.10.2004	Cotton hybrid MON15985 x MON1445 is produced to combine insect resistance trait (MON 15985) with resistance to glyphosate trait (MON 1445).	MON-15985-7 x MON-Ø1445-2	
pCABL	Ajinomoto Eurolysine SAS	18.10.2004	Bacterial protein, by-product from the production by fermentation of L-Lysine HCl obtained from *(Brevibacterium lactofermentum)* the recovered killed microorganisms	...	

Allegated No.7: Poverty and globalisation

By Vandana Shiva, BBC Reith Lecture, [May 2000]

Recently, I was visiting Bhatinda in Punjab because of an epidemic of farmer suicides. Punjab used to be the most prosperous agricultural region in India. Today every farmer is in debt and despair. Vast stretches of land have become water-logged desert. And as an old farmer pointed out, even the trees have stopped bearing fruit because heavy use of pesticides have killed the pollinators—the bees and butterflies.

And Punjab is not alone in experiencing this ecological and social disaster. Last year I was in Warangal, Andhra Pradesh where farmers have also been committing suicide. Farmers who traditionally grew pulses and millets and paddy have been lured by seed companies to buy hybrid cotton seeds referred to by the seed merchants as "white gold", which were supposed to make them millionaires. Instead they became paupers.

Their native seeds have been displaced with new hybrids which cannot be saved and need to be purchased every year at high cost. Hybrids are also very vulnerable to pest attacks. Spending on pesticides in Warangal has shot up 2000 per cent from $2.5 million in the 1980s to $50 million in 1997. Now farmers are consuming the same pesticides as a way of killing themselves so that they can escape permanently from unpayable debt.

The corporations are now trying to introduce genetically engineered seed which will further increase costs and ecological risks. That is why farmers like Malla Reddy of the Andhra Pradesh Farmers' Union had uprooted Monsanto's genetically engineered Bollgard cotton in Warangal.

On March 27th, 25 year old Betavati Ratan took his life because he could not pay pack debts for drilling a deep tube well on his two-acre farm. The wells are now dry, as are the wells in Gujarat and Rajasthan where more than 50 million people face a water famine.

The drought is not a "natural disaster". It is "man-made". It is the result of mining of scarce ground water in arid regions to grow thirsty cash crops for exports instead of water prudent food crops for local needs.

It is experiences such as these which tell me that we are so wrong to be smug about the new global economy. I will argue in this lecture that it is time to stop and think about the impact of globalisation on the lives of ordinary people. This is vital to achieve sustainability.

Seattle and the World Trade Organisation protests last year have forced everyone to think again. Throughout this lecture series people have referred to different aspects of sustainable development taking globalisation for granted. For me it is now time radically to re-evaluate what we are doing. For what we are doing in the name of globalisation to the poor is brutal and unforgivable.

This is specially evident in India as we witness the unfolding disasters of globalisation, especially in food and agriculture.

Who feeds the world? My answer is very different to that given by most people.

It is women and small farmers working with biodiversity who are the primary food providers in the Third World, and contrary to the dominant assumption, their biodiversity based small farms are more productive than industrial monocultures.

The rich diversity and sustainable systems of food production are being destroyed in the name of increasing food production. However, with the destruction of diversity, rich sources of nutrition disappear. When measured in terms of nutrition per acre, and from the perspective biodiversity, the so called "high yields" of industrial agriculture or industrial fisheries do not imply more production of food and nutrition.

Yields usually refers to production per unit area of a single crop. Output refers to the total production of diverse crops and products. Planting only one crop in the entire field as a monoculture will of course increase its individual yield. Planting multiple crops in a mixture will have low yields of individual crops, but will have high total output of food. Yields have been defined in such a way as to make the food production on small farms by small farmers disappear. This hides the production by millions of women farmers in the Third World—farmers like those in my native Himalaya who fought against logging in the Chipko movement, who in their terraced fields even today grow Jhangora (barnyard millet), Marsha (Amaranth), Tur (Pigeon Pea), Urad (Black gram), Gahat (horse gram), Soya Bean (Glycine Max), Bhat (Glycine Soya)—endless diversity in their fields. From the biodiversity perspective, biodiversity based productivity is higher than monoculture productivity. I call this blindness to the high productivity of diversity a "Monoculture of the Mind", which creates monocultures in our fields and in our world.

The Mayan peasants in the Chiapas are characterised as unproductive because they produce only 2 tons of corn per acre. However, the overall food output is 20 tons per acre when the diversity of their beans and squashes, their vegetables their fruit trees are taken into account.

In Java, small farmers cultivate 607 species in their home gardens. In sub-Saharan Africa, women cultivate 120 different plants. A single home garden in Thailand has 230 species, and African home gardens have more than 60 species of trees.

Rural families in the Congo eat leaves from more than 50 species of their farm trees.

A study in eastern Nigeria found that home gardens occupying only 2 per cent of a household's farmland accounted for half of the farm's total output. In

Indonesia 20 per cent of household income and 40 per cent of domestic food supplies come from the home gardens managed by women.

Research done by FAO has shown that small biodiverse farms can produce thousands of times more food than large, industrial monocultures.

And diversity in addition to giving more food is the best strategy for preventing drought and desertification.

What the world needs to feed a growing population sustainably is biodiversity intensification, not the chemical intensification or the intensification of genetic engineering. While women and small peasants feed the world through biodiversity we are repeatedly told that without genetic engineering and globalisation of agriculture the world will starve. In spite of all empirical evidence showing that genetic engineering does not produce more food and in fact often leads to a yield decline, it is constantly promoted as the only alternative available for feeding the hungry.

That is why I ask, who feeds the world?

This deliberate blindness to diversity, the blindness to nature's production, production by women, production by Third World farmers allows destruction and appropriation to be projected as creation.

Take the case of the much flouted “golden rice” or genetically engineered Vitamin A rice as a cure for blindness. It is assumed that without genetic engineering we cannot remove Vitamin A deficiency. However, nature gives us abundant and diverse sources of vitamin A. If rice was not polished, rice itself would provide Vitamin A. If herbicides were not sprayed on our wheat fields, we would have bathua, amaranth, mustard leaves as delicious and nutritious greens that provide Vitamin A.

Women in Bengal use more than 150 plants as greens—Hinche sak (Enhydra fluctuans), Palang sak (Spinacea oleracea), Tak palang (Rumex vesicarious), Lal Sak (Amaranthus gangeticus)—to name but a few.

But the myth of creation presents biotechnologists as the creators of Vitamin A, negating nature's diverse gifts and women's knowledge of how to use this diversity to feed their children and families.

The most efficient means of rendering the destruction of nature, local economies and small autonomous producers is by rendering their production invisible.

Women who produce for their families and communities are treated as `non-productive’ and `economically’ inactive. The devaluation of women's work, and of work done in sustainable economies, is the natural outcome of a system constructed by capitalist patriarchy. This is how globalisation destroys local economies and destruction itself is counted as growth.

And women themselves are devalued. Because many women in the rural and indigenous communities work co-operatively with nature's processes, their work is often contradictory to the dominant market driven `development' and trade policies. And because work that satisfies needs and ensures sustenance is devalued in general, there is less nurturing of life and life support systems.

The devaluation and invisibility of sustainable, regenerative production is most glaring in the area of food. While patriarchal division of labour has assigned women the role of feeding their families and communities, patriarchal economics and patriarchal views of science and technology magically make women's work in providing food disappear. "Feeding the World" becomes disassociated from the women who actually do it and is projected as dependent on global agribusiness and biotechnology corporations.

However, industrialisation and genetic engineering of food and globalisation of trade in agriculture are recipes for creating hunger, not for feeding the poor.

Everywhere, food production is becoming a negative economy, with farmers spending more to buy costly inputs for industrial production than the price they receive for their produce. The consequence is rising debts and epidemics of suicides in both poor and rich countries.

Economic globalisation is leading to a concentration of the seed industry, increased use of pesticides, and, finally, increased debt. Capital-intensive, corporate controlled agriculture is being spread into regions where peasants are poor but, until now, have been self-sufficient in food. In the regions where industrial agriculture has been introduced through globalisation, higher costs are making it virtually impossible for small farmers to survive.

The globalisation of non-sustainable industrial agriculture is literally evaporating the incomes of Third World farmers through a combination of devaluation of currencies, increase in costs of production and a collapse in commodity prices.

Farmers everywhere are being paid a fraction of what they received for the same commodity a decade ago. The Canadian National Farmers Union put it like this in a report to the senate this year:

"While the farmers growing cereal grains—wheat, oats, corn—earn negative returns and are pushed close to bankruptcy, the companies that make breakfast cereals reap huge profits. In 1998, cereal companies Kellogg's, Quaker Oats, and General Mills enjoyed return on equity rates of 56%, 165% and 222% respectively. While a bushel of corn sold for less than $4, a bushel of corn flakes sold for $133 … Maybe farmers are making too little because others are taking too much."

And a World Bank report has admitted that "behind the polarisation of domestic consumer prices and world prices is the presence of large trading companies in international commodity markets."

While farmers earn less, consumers pay more. In India, food prices have doubled between 1999 and 2000. The consumption of food grains in rural areas has dropped by 12%. Increased economic growth through global commerce is based on pseudo surpluses. More food is being traded while the poor are consuming less. When growth increases poverty, when real production becomes a negative economy, and speculators are defined as "wealth creators", something has gone wrong with the concepts and categories of wealth and wealth creation. Pushing the real production by nature and people into a negative economy implies that production of real goods and services is declining, creating deeper poverty for the millions who are not part of the dot.com route to instant wealth creation.

Women—as I have said—are the primary food producers and food processors in the world. However, their work in production and processing is now becoming invisible.

Recently, the McKinsey corporation said: "American food giants recognise that Indian agro-business has lots of room to grow, especially in food processing. India processes a minuscule 1 per cent of the food it grows compared with 70 per cent for the U.S…".

It is not that we Indians eat our food raw. Global consultants fail to see the 99 per cent food processing done by women at household level, or by the small cottage industry because it is not controlled by global agribusiness. 99% of India's agroprocessing has been intentionally kept at the small level. Now , under the pressure of globalisation, things are changing. Pseudo hygiene laws are being uses to shut down local economies and small scale processing.

In August 1998, small scale local processing of edible oil was banned in India through a "packaging order" which made sale of open oil illegal and required all oil to be packaged in plastic or aluminium. This shut down tiny "ghanis" or cold pressed mills. It destroyed the market for our diverse oilseeds—mustard, linseed, sesame, groundnut, coconut.

And the take-over of the edible oil industry has affected 10 million livelihoods. The take over of flour or "atta" by packaged branded flour will cost 100 million livelihoods. And these millions are being pushed into new poverty.

The forced use of packaging will increase the environmental burden of millions of tonnes of waste.

The globalisation of the food system is destroying the diversity of local food cultures and local food economies. A global monoculture is being forced on people by defining everything that is fresh, local and handmade as a health hazard. Human hands are being defined as the worst contaminants, and work for human hands is being outlawed, to be replaced by machines and chemicals bought from global corporations. These are not recipes for feeding the world, but stealing livelihoods from the poor to create markets for the powerful.

People are being perceived as parasites, to be exterminated for the "health" of the global economy.

In the process new health and ecological hazards are being forced on Third World people through dumping of genetically engineered foods and other hazardous products.

Recently, because of a W.T.O. ruling, India has been forced to remove restrictions on all imports.

Among the unrestricted imports are carcasses and animal waste parts that create a threat to our culture and introduce public health hazards such as the Mad Cow Disease.

The US Centre for Disease Prevention in Atlanta has calculated that nearly 81 million cases of food borne illnesses occur in the US every year. Deaths from food poisoning have gone up more up more than four times due to deregulation. Most of these infections are caused by factory farmed meat. The US slaughters 93 million pigs, thirty seven million cattle, two million calves, six million horses, goats and sheep and eight billion chickens and turkeys each year.

Now the giant meat industry of US wants to dump contaminated meat produced through violent and cruel methods on Indian consumers.

The waste of the rich is being dumped on the poor. The wealth of the poor is being violently appropriated through new and clever means like patents on biodiversity and indigenous knowledge.

Patents and intellectual property rights are supposed to be granted for novel inventions. But patents are being claimed for rice varieties such as the basmati for which my Valley—where I was born—is famous, or pesticides derived from the Neem which our mothers and grandmothers have been using.

Rice Tec, a U.S. based company has been granted Patent no. 5,663,484 for basmati rice lines and grains.

Basmati, neem, pepper, bitter gourd, turmeric…….every aspect of the innovation embodied in our indigenous food and medicinal systems is now being pirated and patented. The knowledge of the poor is being converted into the property of global corporations, creating a situation where the poor will have to pay for the seeds and medicines they have evolved and have used to meet their own needs for nutrition and health care.

Such false claims to creation are now the global norm, with the Trade Related Intellectual Property Rights Agreement of World Trade Organisation forcing countries to introduce regimes that allow patenting of life forms and indigenous knowledge.

Instead of recognising that commercial interests build on nature and on the contribution of other cultures, global law has enshrined the patriarchal myth of creation to create new property rights to life forms just as colonialism used the myth of discovery as the basis of the take over of the land of others as colonies.

Humans do not create life when they manipulate it. Rice Tec's claim that it has made "an instant invention of a novel rice line", or Roslin Institute's claim that Ian Wilmut "created" Dolly denies the creativity of nature, the self-organisational capacity of life forms, and the prior innovations of Third World communities.

Patents and intellectual property rights are supposed to prevent piracy. Instead they are becoming the instruments of pirating the common traditional knowledge from the poor of the Third World and making it the exclusive "property" of western scientists and corporations.

When patents are granted for seeds and plants, as in the case of basmati, theft is defined as creation, and saving and sharing seed is defined as theft of intellectual property. Corporations which have broad patents on crops such as cotton, soya bean, mustard are suing farmers for seed saving and hiring detective agencies to find out if farmers have saved seed or shared it with neighbours.

The recent announcement that Monsanto is giving away the rice genome for free is misleading, because Monsanto has never made a commitment that it will never patent rice varieties or any other crop varieties.

Sharing and exchange, the basis of our humanity and of our ecological survival has been redefined as a crime. This makes us all poor.

Nature has given us abundance, women's indigenous knowledge of biodiversity, agriculture and nutrition has built on that abundance to create more from less, to create growth through sharing.

The poor are pushed into deeper poverty by making them pay for what was theirs. Even the rich are poorer because their profits are based on the theft and on the use of coercion and violence. This is not wealth creation but plunder.

Sustainability requires the protection of all species and all people and the recognition that diverse species and diverse people play an essential role in maintaining ecological processes. Pollinators are critical to fertilisation and generation of plants. Biodiversity in fields provides vegetables, fodder, medicine and protection to the soil from water and wind erosion.

As humans travel further down the road to non-sustainability, they become intolerant of other species and blind to their vital role in our survival.

In 1992, when Indian farmers destroyed Cargill's seed plant in Bellary, Karnataka, to protest against seed failure, the Cargill Chief Executive stated, "We bring Indian farmers smart technologies which prevent bees from usurping the pollen". When I was participating in the United Nations Biosafety Negotiations, Monsanto circulated literature to defend its herbicide resistant Roundup ready crops on grounds that they prevent "weeds from stealing the sunshine". But what Monsanto calls weeds are the green fields that provide Vitamin A rice and prevent blindness in children and anaemia in women.

A worldview that defines pollination as "theft by bees" and claims biodiversity "steals" sunshine is a worldview which itself aims at stealing nature's harvest by replacing open, pollinated varieties with hybrids and sterile seeds, and destroying biodiverse flora with herbicides such as Roundup. The threat posed to the Monarch butterfly by genetically engineered bt crops is just one example of the ecological poverty created by the new biotechnologies. As butterflies and bees disappear, production is undermined. As biodiversity disappears, with it go sources of nutrition and food.

When giant corporations view small peasants and bees as thieves, and through trade rules and new technologies seek the right to exterminate them, humanity has reached a dangerous threshold. The imperative to stamp out the smallest insect, the smallest plant, the smallest peasant comes from a deep fear—the fear of everything that is alive and free. And this deep insecurity and fear is unleashing the violence against all people and all species.

The global free trade economy has become a threat to sustainability and the very survival of the poor and other species is at stake not just as a side effect or as an exception but in a systemic way through a restructuring of our worldview at the most fundamental level. Sustainability, sharing and survival is being economically outlawed in the name of market competitiveness and market efficiency.

I want to argue here tonight that we need to urgently bring the planet and people back into the picture.

The world can be fed only by feeding all beings that make the world.

In giving food to other beings and species we maintain conditions for our own food security. In feeding earthworms we feed ourselves. In feeding cows, we feed the soil, and in providing food for the soil, we provide food for humans. This worldview of abundance is based on sharing and on a deep awareness of humans as members of the earth family. This awareness that in impoverishing other beings, we impoverish ourselves and in nourishing other beings, we nourish ourselves is the real basis of sustainability.

The sustainability challenge for the new millennium is whether global economic man can move out of the worldview based on fear and scarcity, monocultures and monopolies, appropriation and dispossession and shift to a view based on

abundance and sharing, diversity and decentralisation, and respect and dignity for all beings.

Sustainability demands that we move out of the economic trap that is leaving no space for other species and other people. Economic Globalisation has become a war against nature and the poor. But the rules of globalisation are not god—given. They can be changed. They must be changed. We must bring this war to an end.

Since Seattle, a frequently used phrase has been the need for a rule based system. Globalisation is the rule of commerce and it has elevated Wall Street to be the only source of value. As a result things that should have high worth—nature, culture, the future are being devalued and destroyed. The rules of globalisation are undermining the rules of justice and sustainability, of compassion and sharing. We have to move from market totalitarianism to an earth democracy.

We can survive as a species only if we live by the rules of the biosphere. The biosphere has enough for everyone's needs if the global economy respects the limits set by sustainability and justice.

As Gandhi had reminded us: “The earth has enough for everyone's needs, but not for some people's greed”.

ALLEGATED 8:
Phyto-Therapy (Plant therapy) is a classical medical therapy, NOT an alternative therapy.

Phyto-therapy means plant therapy (from the Greek *Fitos*, plant).
It has always been used by those who wanted to keep the sick alive and if possible, cure them.
In Ancient times it was priests who used this 'technique', but from Hippocrates onwards the herbalists-doctors practiced 'Medicine', in the modern sense of the term, that is, the art of knowing how to administer the precise plant extracts, chosen and proportioned according to the illnesses diagnosed.
The oldest evidence of plant therapy comes from the Egyptians, around about 4000 BC, but we also have evidence from the Chinese, Tibetans and Indians: for example a Chinese text from 3000 BC (Pen Tsao), contains over a thousand natural remedies, and even then there were many remedies against cancer. Even in the West we had various remedies proposed against cancer: among these, alongside various herbs advised, it is important to remember the words of Hippocrates of Kos, who said that if a tumor was surgically removed, it had less chance of healing, while if the patient followed an exclusively herbal diet, without removing the tumor, he would have a better chance of recovery …….
To treat patients using herbs was therefore the duty of every doctor, because the knowledge learned by Pliny the Elder, and before him, the Greeks and the ancient schools of Alexandria and the East was based on the logical deduction of a physical-pathological process in action, which needed a treatment based on the official medical knowledge of the time: thousands of plants catalogued according to the illnesses they could cure, and the diagnosis, therapy and prognosis were entrusted to the experience of the individual doctor…..
Thus, up to the XIX century, western medicine was only practiced using tisanes and infusions of herbs, on the basis of thousands of years of experience which from Hippocrates onwards had been called 'Medicine', that is the art of knowing how to treat and heal, an art which was even governed by the ethical code of each individual doctor, and of which today we remember only the so-called 'Hippocratic Oath', forgetting the precious teachings about food, hygiene, and the correct herbal potions, all essential for maintaining or restoring perfect health…….
Thus, in ancient medical knowledge, above all of the Greeks, Etruscans and Romans, we can see how they carried out treatments without apparent use of antibiotics, and even complex surgical operations….
The ancients really knew many herbs and plants very well, and there are famous and important documents which show their profound medical and surgical knowledge, both in times of peace and times of war, showing how they managed without antibiotics and vaccinations; and so it is useful to look at important medical documents such as the "Erbario Greco", by Dioscorides, or "Storia Naturale" by Pliny the Elder, together with important texts from the Age of Enlightenment, for example the still relevant "Erbario Novo" by Durante Castore, published in Venice in 1617: all books still valid as points of reference and to give an idea of the medicinal values of many plants, which are unfortunately very little known today and in some cases even forgotten.

Without forgetting organic chemistry, which was able to reproduce such sterile molecules in order to use them for intra-muscular, intravenous, intra-vault or intra-arterial injections, we must reconsider the usefulness of medicines if they are for not for intra-parenchymal use, taking into consideration that it is much more efficacious and curative to use plants in any situation which is not necessarily 'sterile', if it is compatible with our notions of modern medicine.

There are about 800,000 plant species in nature. About 90% of these are estimated to contain vitamins or pro-vitamin substances essential for the normal functioning of human bio-chemistry.
Today Biochemistry (see for example Albert L. Lehninger 'The Principles of Biochemistry') is still studied in depth because the evolution of mammals, which has lasted more than 60 million years, happened fundamentally through the external use of essential vitamin and pro-vitamin substances derived basically from plants, in a complex synergic action which even today is not clearly understood in its endocellular dynamics and above all in its DNA.

It can therefore be claimed that the majority of current illnesses could substantially derive from a simple lack of vitamins: a lack which could more or less be either due to environmental factors and the individual's genetic predisposition.

It is thought that the number of vitamins and pro-vitamin compounds amount to at least 13.000 – 15.000 different substances, many of which are not even known today.

Therefore, if, as the author proposes, it is true that diseases are caused by an enzymatic lack of vitamins (shown by a highly sophisticated biochemical component such as mammals, which have evolved over millions of years on a mainly vegetarian diet) then the majority of diseases or syndromes could be treated and cured by a correct choice of particular plants (Natural Remedies), not only from Europe but also from Asia, Africa, Oceania and the Americas.

The scientific study of individual officinal plants must therefore be subject to a worldwide debate, with the aim of finding more efficient medical treatments, giving value to the ancient knowledge of plant medicines, and by using modern instruments of analysis which confirm the tens or hundreds of active ingredients contained in each individual plant.
This 'Natural Remedy' is presently being studied on a personal level (confidential data), but the reader is invited to consult up-to-date scientific works (SEE for example the magazine 'Fitoterapia' in English, available on the INTERNET. http://www.indena.it/fitoterapia_index.asp).

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ALLEGATED 9: Open Letter to the Government

from : http://www.psrast.org/psrlet.htm

We, the undersigned scientists and physicians, demand that all genetically engineered (GE) foods be withdrawn from the market unless they have undergone rigorous safety assessment including long term testing on animals and humans. This includes all GE foods that have been approved on the basis of the principle of "substantial equivalence". In practice, all GE foods on the market have been insufficiently tested and should thus be withdrawn.
The reasons are as follows:

The principle of "*Substantial equivalence*" is based on the assumption that if a GE food and its natural counterpart are compared for a limited number of chosen traits, and are found to be similar, then there is no reason to submit the GE food to careful testing.

This assumption has no basis in science. It does not take into account the possibility that in each separate case, insertion of genes into DNA may cause metabolic disturbances, or unpredictably generate potentially harmful substances. This has been predicted on molecular biological grounds [1] [2] [3] and also demonstrated in experimental cases [4]. Especially slowly acting harmful substances may be very difficult to detect. Thus there is a considerable risk they will be overlooked if the superficial tests used for "establishing substantial equivalence" are applied.

The insufficiency of the principle of substantial equivalence is briefly summarized in a web document [5] and is explained in more detail in a recent article in the science journal "Nature" [6]. Only by applying rigorous food safety testing, including long term testing on animals (preferably lifetime) and humans (at least 3-5 years), is it possible to minimize the risk of missing unpredicted harmful substances [7].

Conclusion

The principle of substantial equivalence has no scientific basis. Since this is the standard which has been used for approving GE foods, it follows that none of the GE foods on the market today can be considered safe. In the worst case exposure of the population may have disastrous consequences. Therefore, GE foods at present on sale should be withdrawn from the market immediately. No new GE foods should be introduced until proper methods of assessment have been applied.

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ALLEGATED 10 : **November 2005: The last letter from America**

We received this letter via e-mail before our WEB site www.lecurenaturali.com and its very important section in English (www.lecurenaturali.com/natural_cures) were closed. In particular, our site gave space to the American pacific opposition to GMOs and Chemotherapy since 2003.
Here we report the letter, in order to let people know the truth….

Dear Dr Nacci,

Thank you for the very fine piece on GMO. It is the best I have seen because it is simple and can be understood by all.

We certainly stand with you and call for an elimination of all GMO activities.

I send you information which we send to patients who are interested in Alternative Cancer Therapies for cancer.

Sincerely,
Frank D Wiewel
Former Chairman,
Pharmacological and Biological
Treatments Committee
Office of Alternative Medicine (OAM)
National Institutes of Health (NIH)
Founder,
People Against Cancer

People Against Cancer - Who we are - What we do

Thank you for your inquiry about the work of People Against Cancer.

This year 1,500,000 Americans will be diagnosed with cancer and 750,000 will die despite the best standard therapy.

People Against Cancer is a non-profit membership organization dedicated to new directions in the "war on cancer."

Standard Therapy
The standard therapy for cancer includes surgery, radiation, chemotherapy and hormonal therapy. These are, at best, short term fixes.

Address the Problem
None of these options addresses the problem. Only the symptom. The symptom is the tumor. The true problem is the failure of the immune system to patrol, identify, isolate and eliminate the cancer cells as they routinely arise in the body.

Innovative and Wholistic Therapy
We prefer innovative and wholistic concepts which include comprehensive detoxification by eliminating toxins from the food, air, water, environment - and the body. We believe it is essential to address the fundamental issues of diet, nutritional supplements all the way through the state-of-the-art innovative biological therapies.

For People With Cancer, we have developed a program called **The Alternative Therapy Program** to help identify the finest comprehensive treatment options throughout the world.

We will be happy to help you find the best specific individualized cancer therapy for you, your friend or your loved one through our **Alternative Therapy Program.**

The Alternative Therapy Program Simple Steps:

1) **Join People Against Cancer** as a Sustaining Member. You can join on the Website at:
http://www.peopleagainstcancer.net/detail.asp?product_id=075

2) **Complete our Medical History Questionnaire.** Collect and send us all of your medical records. You can download Membership information, our Questionnaire and our Medical Records Release form to get your records at:
http://www.peopleagainstcancer.net/cancer_inforequest.asp

3) **We submit your records to the International Physicians Network** - the finest innovative and conventional physicians from around the world;

4) **We collect their extensive consultations, opinions and recommendations**;

5) **We send you an extensive written report and you set up a personal telephone consultation** and have access to ongoing consultations throughout the year.

To Access The Alternative Therapy Program By Mail

If you filled in our form and requested a written copy of our information, and you included your name, address, phone, fax and email, we will send you additional information by Priority Mail about who we are and what we do.

To Access The Alternative Therapy Program By Fax

You can fax us at 515-972-4415 (On 24 hours). If you include your fax number, we will fax you information about all of our programs, including **The Alternative Therapy Program** and details of how to access our programs or get further information.

To Access The Alternative Therapy Program On The Web

1) Go to: http://www.peopleagainstcancer.net/cancer_inforequest.asp

1) **Read:** The details of the Alternative Therapy Program at:
http://www.peopleagainstcancer.net/cancer_alternative.asp

3) **Go to:** http://www.peopleagainstcancer.net/cancer_inforequest.asp
Download The Medical History Questionnaire after filling out our simple form at:

4) **Print:** The Medical History Questionnaire (Link in Blue) (SEE Note below)

5) **Complete:** the Medical History Questionnaire and use the Medical Records Release Form to get all of your medical records

6) **Join:** People Against Cancer for best treatment options and consultation in the world.

To Access The Alternative Therapy Program By Phone

If you have any questions feel free to call us at 515-972-4444, between the hours of 10-5 Central Daylight Time (CDT) Monday -Friday.

People Against Cancer
604 East St
PO Box 10
Otho, IA 50569-0010
Phone: 515-972-4444
Fax: 515-972-4415
email: Info@PeopleAgainstCancer.com
web: www.PeopleAgainstCancer.com

Foreign Friends: Sadly, we can not send "Free Information" by mail to our friends outside of the US, because of the tremendous number of requests and costs. Please click on the URL below to download "Free Information" from People Against Cancer information form on the web at
http://www.peopleagainstcancer.net/cancer_inforequest.asp

The importance of a Healthy and Self-sufficient Agriculture

Agriculture is the most important activity as it allows to satisfy the primary need of man, i.e. eating. A country self-sufficient in the agricultural sector is not subjected to blackmails of the supplying countries. A self-sufficient country with regard to food can print banknotes and increase the currency thus raising salaries and pensions without causing inflation – because the products are abundant and are obtained to be sold. This can take place thanks to a monetary policy; Italy renounced this policy and delegated it first to the Bank of Italy – a private bank – and then to Europe.
There are two kinds of monetary problems:

1) abundance of products and lack of money; in this case the Government must stamp banknotes thus increasing the currency, salaries and pensions, in order to support the national production system which needs money to go ahead.

2) lack of goods and abundance of money; this situation causes inflation and then the Government must increase taxes to decrease the currency.

If in a country, agriculture is not enough productive, the State will not raise salaries in order to avoid an increase in prices of food, whose consumption is daily indispensable. A shortage of foodstuffs is the main cause of inflation.
The following objection could be raised: *"I could buy low-priced foodstuffs abroad taking advantage of national industry profits and so I have no problems"*.
The problem is that world agricultural production is insufficient and there is a risk of political-economic dependence on supplier countries.
Furthermore, in order to maintain or establish its control, the supplier country sabotages client's agricultural production through a secret chemical and biological war and laws against agriculture, which were promulgated by blackmailed – and bribed – political executives of the client country.
All is possible in a world where – instead of Christian brotherhood – the crudest cynicism and the attempt of some people to rule ideologically and economically other people are spreading.

ALLEGATED 12: Jason Vale : an American Hero

Jason Vale risks prison for apricot seeds

FROM:

http://www.newmediaexplorer.org/sepp/2003/07/12/fda_vs_jason_and_vitamin_b17.htm

Jason Vale, a cancer survivor, former arm wrestling world champion and self-described entrepreneur, who is on trial for allegedly violating a government order that he stop promoting the use of apricot seeds as a cure for cancer faces a possible prison sentence, according to an article be Nathan C. Masters, correspondent of CNSNews.

The trial, which lasted from Monday 14 July through Thursday, is now adjourned and the jury is expected to deliver its verdict in a matter of days.

Update 22 July 2003

Jason Vale held without bail, pending sentencing, after a jury found him guilty of ... selling apricot seeds.

FDA Commissioner McCLELLAN stated that *"The FDA takes seriously its responsibility to protect patients from unproven products being peddled on the internet by modern day snake oil salesmen such as the defendant in this case. There is no scientific evidence that Laetrile offers anything but false hope to cancer patients."*

Cancer Survivor Faces Possible Prison for Selling Apricot Seeds

By Nathan C. Masters
CNSNews.com Correspondent
July 18, 2003

(CNSNews.com) - Federal jurors in Brooklyn, N.Y., must decide the fate of Jason Vale, a cancer survivor, former arm wrestling world champion and self-described entrepreneur, who is on trial for allegedly violating a government order that he stop promoting the use of apricot seeds as a cure for cancer.

Closing arguments in the case were held Thursday with Vale serving as his own attorney and accusing the government of setting him up. But Vale's alleged defiance of the Food and Drug Administration's (FDA) consent decree, issued in 2000, could land him with a 20-year prison sentence. The FDA claims the Apricot pits, more than 100,000 of which federal agents reportedly seized in a raid on Vale's basement, have no therapeutic value.

Vale was diagnosed with terminal cancer in 1986 and suffered from the disease for eight years, enduring chemotherapy, radiation treatments and an operation to remove a tumor. But in 1994, Vale saw a video touting apricot seeds as a cure for cancer and began taking the seeds, which release organic cyanide into the system. Vale claims his use of the seeds along with his faith in God eliminated the tumor and saved his life.

"I have watched first-hand as apricot seed consumption has helped to shrink tumors in almost every cancer patient [with whom] I've dealt," said Vale. *"I have also followed horror stories from many of those using highly toxic chemo and radiation therapies."*

Vale's legal troubles began when he started selling a concentrated form of the vitamin found in apricot seeds, known as laetrile or amygdalin, to other cancer patients over the Internet.

The FDA is currently refusing comment on this matter, but according to a warning letter sent to Vale in 1998, the agency stated that it considered laetrile to be a "new drug," and as such, was not approved for sale or importation. The FDA obtained an injunction in November 2000, forbidding Vale and his company, Christian Brothers Contracting Corporation, from selling or promoting the use of laetrile as a cancer treatment.

Following undercover investigations by the FDA, the agency alleged that Vale had continued to sell and promote laetrile in violation of the consent decree and recommended in March 2002 that Vale be prosecuted for criminal contempt.

Eliezer Ben-Joseph, a doctor of naturopathy and host of the Natural Solutions talk radio show in El Paso, Texas, describes the government's efforts as "ludicrous."

"It's a vindictive prosecution," said Ben-Joseph. *"We're talking about apricots , and yet the government is so drastically opposed to having this information out."*

The U.S. government maintains that because Vale made therapeutic claims about his laetrile products, the apricot seeds should be treated as drugs and therefore require FDA approval before they could be sold or distributed within the United States. Furthermore, the government maintains that laetrile has no medicinal benefits. A National Cancer Institute report obtained by CNSNews.com concluded that, *"laetrile has shown little anti-cancer activity in animal studies and no anti-cancer activity in human clinical trials."*

Ben-Joseph doubted the credibility of those clinical trials, and noted that, *"several concerns have been expressed about the way the study was conducted."* He pointed out that some recently developed cancer treatments use artificial cyanide, which is very similar to the organic cyanide that laetrile emits.

"It's not a cure; there is no cure for cancer, but there are things that we can do that augment how metabolism works," he noted. *"These are chemicals that the body would use to detoxify or get rid of cancer."*

Regardless of their efficacy, Ben-Joseph argues, apricot seeds are no more dangerous than other natural remedies, and he believes they should be legal for use as a cancer treatment.

Vale is not alone in touting laetrile as a cure; Donald Factor, the son of cosmetic tycoon Max Factor, sought natural cancer treatment in Mexico 17 years ago. After being treated with laetrile and other natural remedies, Factor's cancer disappeared, and he is still alive today.

And Vale claims that his apricot seed products have helped over 30,000 cancer patients, many of whose personal testaments are documented on Vale's website .

Ben-Joseph considers Vale's case a "freedom issue" and calls the government's prosecution an inappropriate use of the judicial system.

"To make a law that says that the public cannot eat an apricot pit, because they think it might keep people from going to regular cancer therapy, I think is a ludicrous jump in jurisdiction," he said.

Vale also faced legal troubles in 1998 when America Online sued him for allegedly sending over 20 million "spam" e-mail messages to its subscribers. A federal judge awarded AOL $631,585 in damages. Vale and his attorneys could not be reached for comment regarding the AOL case.

****

FDA vs. Jason - and vitamin B17

Categories
Health

New York - on Monday 14 July, the FDA instigated action against former arm-wrestling champion Jason Vale for selling apricot seeds and telling his story of how he got cured of cancer will have its day in court. (SEE Call for help - FDA vs Jason on 14 July)

Jason was apparently set up by the FDA, whose primary function might seem to be the protection of pharmaceutical interests from competition by effective, food-based natural alternatives to drug treatment, rather than the protection of Joe Doe Public from being taken advantage of.

"They are trying to hold me in contempt of the original injunction because I referred FDA plants a phone number where to get the seeds. It's funny because in the tapes ... the FDA agents are repeatedly trying to get me to tell them they'll be cured ... and I kept saying that this is not a cure, that they had to pray and juice and do other things .. "

Apart from the various legal technicalities and even the obvious constitutional implications, the more basic question this case brings to the fore is whether there should be a legal and court-backed monopoly by pharmaceutically controlled medicine on "healing" or whether all systems of prevention and therapy should be allowed to compete on an equal footing.

Unless we put medical freedom into the Constitution, the time will come when medicine will organize into an undercover dictatorship ... To restrict the art of healing to one class of men and deny equal privileges to others will constitute the Bastille of medical science. All such laws are un-American and despotic and have no place in a republic ... The Constitution of this republic should make special privilege for medical freedom as well as religious freedom."

Benjamin Rush, M.D., signer of The Declaration of Independence, physician to George Washington.

from *THE AUTOBIOGRAPHY OF BENJAMIN RUSH*

The International Council for Health Freedom, in its latest newsletter, takes up the case of Jason Vale.

FDA unleashes an apricot kernel probe; NY's Jason Vale sticking with Bible and Constitution

USA - A 35-year-old New York entrepreneur whose various websites have probably done more than any other medium to keep interest in the "vitamin B17" theory of cancer prevention and treatment alive in modern times, goes on trial on July 14 in a tangled legal snarl initiated by the FDA five years ago.

Jason Vale, through whose "Christian Brothers Contracting Corp." Internet outlets many thousands of pounds of apricot kernels were sold throughout the USA - and along with them but in lesser amounts other products construable as laetrile in tablet and liquid form - has been mounting his own response to a federal charge of "criminal contempt" for alleged violations of preliminary and permanent injunctions issued in 2000 by a New York federal district court.

Vale, an exuberant former arm-wrestling champion and ardent Christian who cites the Bible in defense of his espousal of apricot kernels in the prevention and management of cancer, and various attorneys who have worked with him, believes there are so many Constitutional problems with the handling of his investigation by the FDA that prospects for ultimate victory in court are still very much alive.

Vale, who has described in detail how alternative methods - particularly consuming large amounts of "vitamin B17"-laden apricot kernels as well as the Catapano typhoid vaccine approach - literally cured him of a rare "form" of cancer with which he was first diagnosed at age 18, has made various "B17" products available to 35,000 people, he told ICHF, although he is no longer selling them "just to play it safe". He never uses the word "laetrile".

To date, after about 35,000 customers, not one has come back and said that they or their family member came down with cancer even though they were taking the seeds - not one," he told ICHF.

The highly articulate New Yorker, whose educational background is psychology (Queens College) and who stated he does not "play doctor" and has never claimed that apricot kernels or their presumed active ingredient amygdalin cures cancer, states of the earlier civil order "that I reluctantly signed":

" ... I [agreed] not to sell apricot seeds in violation of FDA statutes, also that I would not promote [them] in violation of FDA statutes. I never agreed to stop telling my story or for that matter telling people what it does. I never agreed to stop selling apricot seeds that were not in violation of FDA statutes."

He reached national prominence when he appeared on the television show "Extra" as the arm wrestler apparently self-cured of cancer with apricot kernels, provoking a response so great that the episode was run a second time.

Some observers believe that his catapulting into high-profile levels is what particularly stimulated the FDA investigation of his websites.

In an April 17 letter to New York Rep. Eliot Engel, a Texas believer in Jason Vale wrote: *" ... Jason has inspired and helped over 100,000 people, many of [whom] were handed the same death sentence Jason was given over 17 years ago. These people are from all walks of life and have had various types of cancers. Through proper diet, nutrition, and the implementation of apricot seeds in their daily diets, they have one-by-one created their own success stories that they will now live to tell ...*

"I am praying for your wisdom and advice regarding the basic fundamental rights of an American citizen to share such an amazing story and to give those who choose alternative treatments an opportunity to get better when modern medicine abandons them."

Vale, who has undergone raids, undercover investigations, the confiscation of computers, files and records but as of this writing has never had a "bill of particulars" presented to him to explain exactly what it is he is alleged to have done improperly, faced a bond of more than $ 800,000 let alone undetermined amounts to be spent in an ever more complicated legal battle.

They are trying to hold me in contempt of the original injunction because I referred FDA plants a phone number of where to get the seeds. It's funny, because in the tapes that they turned over for evidence, the FDA agents are repeatedly trying to get me to tell them they'll be cured ... and I kept saying that this is not a cure, but that they had to pray and juice and do other things," he said.

In the meantime, Vale's current major website is a repository of first-person anecdotal reports of impressive responses in cancer, high blood pressure and other things primarily due to the consumption - and, in FDA eyes, the frequent over-consumption - of apricot kernels.

While Vale learned of the kernels/seeds through reading the book and watching the videotape of laetrile activist G. Edward Griffin (*World without Cancer*) over time he came to believe that the seeds are far more potent in preventing and managing cancer than the refined laetrile products, he told ICHF.

The laetrile wars of the 1970s and early 1980s - during which 24 states decriminalized the use of laetrile in its various forms as an anti-cancer treatment - became the greatest medical controversy in the USA in the 20th century with the possible exception of chiropractic.

The effort to decriminalize laetrile and protect doctor/patient access to what amounted to an unpatentable natural extract of apricot kernels led to the development of a sociopolitical movement - for freedom of choice with informed consent for doctor and patient - and the burgeoning natural medicines outbreak of the 1980s/1990s and the current millennium (*SEE Culbert, Griffin, Kittler, Halstead*).

Jason Vale, whose own incurable cancer seemed to have been wiped out and kept at bay ever since, primarily by apricot kernels, joined forces with two friends to set up the ChristianBrothers Website in the 1990s to make both information and certain products available.

His problems began Oct. 28, 1998, when the area FDA office sent him a three-page "warning letter" concerning "your promotion and distribution of the unapproved drug Laetrile in the form of your products 'apricot seeds', 'vitamin B17 tablets' and 'amigdalina' ampoules. Labeling for these

products make[s] therapeutic claims which cause the products to be drugs as defined in Section 201 (g) of the Federal Food, Drug and Act ..."

Vale and his attorneys have argued that among problems with the polyfaceted federal probe of Jason Vale and ChristianBrothers are the facts that he was never formally indicted by a Grand Jury, that some of the evidence FDA seized in their investigation has not been returned, that Vale has never received a full accounting ("bill of particulars") of his alleged wrongdoings, and that there are implicit conflicts of interest in the fact that an attorney serving as a criminal prosecutor also serves as a civil attorney representing the FDA.

Earlier this year, Vale and his attorneys failed to convince the court that Hon. John Gleeson, judge of the Eastern District Court of New York and attorney Charles Kleinberg should be dismissed on Constitutional grounds, that Vale should be provided a bill of particulars and that certain statements made in civil deposition should be dismissed on Constitutional grounds.

Undaunted, Vale told ICHF that *"I know there will be victory and I love fighting. The Good Lord has let me fight a good fight."*

A legal defends fund has been set up at www.seedoffaith.org

Related articles

IS CANCER MERELY A VITAMIN DEFICIENCY DISEASE? Vitamin B17 Laetrile Cancer Treatment Available in Australia

Call for help

The Nature of Cancer

How does B17 Kill Cancer?

The Medical Mafia

Morris Fishbein - AMA Enemy Of American Health

Speaking out against the Cancer industry

The Politics of Cancer Therapy

Sentencing Delay In Vale Case Involving Criminal Contempt

Jason Vale has the following message:

Dear Friends and Family,

The jury we begin deliberating again on Monday morning. The court house is at 225 Cadman Plaza East, Brooklyn, N.Y. 11201. Please pray. Sunday morning starts the fast until the jury is out. Some will go until the jury comes back with a verdict and some will fast only for Sunday. I need your

prayer as does the many that will be helped after the Lord gives the victory. He has delivered me from death, surely He will deliver me from this situation. The Battle is the Lord's!

Prayer

1. That the jury's mind is protected from all the influence of the govt.
2. That ministering angels, minister to them along with the Holy Spirit for revelation during their deliberation.
3. That the Lord turn the heart of Judge Gleeson. He told me straight out at a side bar that apricot seeds were a scam and that I was taking advantage of vulnerable cancer victims. He was bias from the beginning for certain reasons. This made it very difficult during trial. I have seen apricot seeds stop cancer in every single case from prevention to stage two. After stage two cancer more intense health therapy is needed. At the site apricotsfromgod.org you can read more about it.
4. That this situation is used to bring God the glory and healing to the nation.
5. For strength and faith

Jason David, Vale

Jason Vale and the Cancer Mafia

From:
http://www.laleva.org/eng/2004/02/jason_vale_and_the_cancer_mafia.html

Jason Vale, a former arm wrestling champion who cured his cancer with natural means and who felt he should help others cure themselves as well, has run afoul of - the Cancer Mafia.

Vale was tried and is awaiting sentencing - expected for March 5, 2004 - for violating an FDA order to cease selling apricot seeds and any extract from them such as laetrile, while promoting them as a cure for cancer.

The FDA's approach practically makes treatment with laetrile or vitamin B 17 illegal, because no pharmaceutical company can make enough money selling them to make it worth going through the registration process. As we see, the pharmaceutical monopoly on disease is eliminating a cure that is not in its financial interest.

Why is Laetrile Treatment Illegal ?
Why doesn't the whole world know about this ?
The Answer : $ money $

(The original article with some further links is here)

Because the pharmaceutical multinationals are unable to patent or claim exclusive rights to the vitamin B17, as it is derived from a natural source (The Prunus Amygdalis Rosacea family), the multinational pharmaceuticals launched and have continued to launch attacks of unprecedented vicious propaganda

against B17 despite the hard proof of its effectiveness in controlling all forms of cancer which is available in overwhelming abundance.

The cancer industry is a $200 Billion a year industry. That's right not $200 million but $200 BILLION !!!

Now if you had a large interest in such a huge market wouldn't you try to protect your industry and market share? Of course you would. And that's exactly what has happened and is happening today. Unfortunately we find ourselves living in a time where lies and deceit have been and are being used by government national bodies and foundations which were designed to research cures and treatments for cancer, not to focus on protecting their significant financial interest.

Did you know the wealthiest non profit institution on this planet is the American Cancer Society ?

Did you know the worlds largest private cancer center Sloan-Kettering Memorial Hospital (SKMH) was established by Wall Streets top Banks and Corporations including a large interest from the Rockefellers. In today's society do the major corporations and banks place people before profit? Of course not!! Every day our newspapers in Australia tell us a story where our Banks and major corporations are putting profit before people.

Did you know that the major generous donators and financial contributors to the Sloan-Kettering Memorial Hospital include all the major chemical companies that actually supply the chemotherapy and drugs used to treat patients at the hospital !

Companies such as Bristol Myers spend over $1 billion dollars annually on cancer research to improve or introduce new chemo drugs. Bristol Myers supplies over half the worlds chemotherapy drugs. So they have a significant interest in the cancer industry. So significant is their interest that the board members that chair the largest cancer drug and chemical companies also chair or are board members of all the major cancer institutes. Funny that, one would think there is a conflict of interest here. They get around this simply by either not taking a salary or making it a voluntary position with the cancer centres. After all, the chemical companies pay them more than enough for being board members of the chemical companies themselves. For example Paul A Marks who is president and CEO of the Sloan-Kettering Memorial Hospital and is also Director of Pfizer which manufactures chemotherapy and cancer related drugs.

Also James Robinson is a board member of the Sloan-Kettering Memorial Hospital and also a Director of Bristol Myers one of the largest suppliers of cancer chemotherapy and other cancer drugs. You will find most of the executives that chair or are board members of all the top cancer organizations also chair or are affiliated with one or more of the major cancer drug multinationals. As mentioned, they get around this conflict of interest most of the time by not taking a salary from either the research center or the drug company. Either way its a huge conflict of interest in my view.

This is why the Sloan-Kettering Memorial Hospital (SKMH), National Cancer Institute (NCI), American Cancer Society (ACS), Food and Drug Administration (FDA) & the American Medical Association (AMA) are involved together to ensure they persecute and squeeze out any threats to their market. Even if it costs millions of lives and even if the therapy works, if its a threat they will stamp it out...

It is scary to know that the very government regulatory agencies themselves, such as the US Food & Drug Administration and Britain's Medicines Control Agency, which are supposed to protect the public from potentially dangerous products coming onto the market are horribly compromised because of ties with the chemical/drug industries that make cancer drugs.

A USA TODAY analysis of financial conflicts at 159 FDA advisory committee meetings from 1st January - 30th June 2000 found that at 55% of their meetings, more than half of the FDA advisors had conflicts of interest!!!

These cancer organizations are run by business leaders, bankers and board members of the cancer drug companies that supply chemotherapy drugs to the market. Because many of today's known carcinogens are by-products of profitable industries of which these same board members have financial interests in, their aim is to prevent cancer preventions and prevent any natural or non chemical therapy from entering the market. It's a perfect Cartel between these giants of big business. John Reed a director of SKMH is also a director of tobacco giant Philip Morris.

For example... The way the current system is setup thanks to the FDA and AMA, did you know it now costs over $100 million to develop a new drug in America. They have literally setup a monopoly situation. It's a poker game and the ante is $100 million if you want to play.

In 1982 Dr Richard Crout of the FDA made his agency's position very clear: *"I never have and never will approve a new drug to an individual, but only to a large pharmaceutical firm with unlimited finances"*.

The problem here is the processing of Laetrile cannot be patented. It's a natural product. you can't make millions or huge profits like cancer drugs generate. As Edward G Griffin puts it *"So no substance from nature will ever be legally available for cancer unless its source can be monopolized. No matter how safe and effective it may be, and no matter how many people may have benefited, it will forever be relegated to the category of unproven therapies making them illegal to prescribe, to promote and to use"*.

Laetrile and all other natural products, used in treating cancer are a threat to their profits.

SEE also earlier articles on Vale's battle with the FDA

Another:

http://www.laleva.org/eng/2004/02/in_defense_of_the_cancer_industry.html

ALLEGATED 13

Hazards of CaMV Promoter

Joe Cummins - Dept. of Plant Sciences, University of Western Ontario, Ontario, Canada
Mae-Wan Ho and Angela Ryan, Department of Biological Sciences, Open University, Walton Hall, Milton Keynes, MK7 6AA

(To appear in *Nature Biotechnology* April 2000)

This is a rebuttal to an article in *Nature Biotechnology* (Jan. 2000) attacking an earlier article, now published (Ho, M.W., Ryan, A., Cummins, J. (1999) The cauliflower mosaic viral promoter – a recipe for disaster? *Microbial Ecology in Health and Disease* 11, 194-197).

Keywords, CaMV 35S promoter, horizontal gene transfer, precautionary principle, hazards of GM crops

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In your account (Jan. 2000) (1) of our pre-publication manuscript, you quote the criticisms but ignore completely our full rebuttal, which was posted on the web last November. We shall outline the main points made in reply to the criticisms. The full details and references are available on our website (2).

Our manuscript (3) reviews and synthesizes the scientific literature on the 35S promoter of the cauliflower mosaic virus (CaMV) used to give constitutive over-expression of transgenes in practically all GM crops already commercialized or undergoing field trials. The promoter functions efficiently in all plants, as well as green algae, yeast and *E. coli*. It has a modular structure, with parts common to, and interchangeable with promoters of other plant and animal viruses. It also has a recombination hotspot, flanked by multiple motifs involved in recombination, similar to other recombination hotspots including the borders of the *Agrobacterium* T DNA vector most frequently used in making transgenic plants. The suspected mechanism of recombination – double-stranded DNA break-repair - requires little or no DNA sequence homologies. Finally, recombination between viral transgenes and infecting viruses has been demonstrated in the laboratory (4).

The findings suggest that transgenic constructs with the CaMV 35S promoter may be structurally unstable and prone to horizontal gene transfer and recombination. The potential hazards are mutagenesis, carcinogenesis, reactivation of dormant viruses and generation of new viruses. These considerations are especially relevant in the light of recent findings that certain transgenic potatoes - containing the CaMV 35S promoter - may be unsafe for young rats, and that a significant part of the effects may be due to "the construct or the genetic transformation (or both)" (5).

Our critics believe the CaMV 35S promoter is not harmful because people have been eating the virus in infected cabbages and cauliflower for many years. What we have been consuming is predominantly intact virus and not naked viral genomes. Naked viral genomes have been found to give full-blown infections in non-host species that are not susceptible to the intact virus (6). Moreover, the 35S promoter in the CaMV is a stable, integral part of the virus, and cannot be compared to the 35S promoter in artificial transgenic constructs. Artificial constructs are well-

known to be structurally unstable (7). We know that the 35S promoter in the virus does not transfer into genomes because pararetroviruses, such as CaMV, do not integrate into host genomes to complete their lifecycle; and viral replication takes place in the cytoplasm (8). But that says nothing about the 35S promoter in transgenic constructs that are integrated into host genomes.

Proviral sequences are present in all genomes, and as all viral promoters are modular, and have at least one module – the TATA box - in common, if not more, it is not inconceivable that the 35S promoter in transgenic constructs can reactivate dormant viruses or generate new viruses by recombination. The CaMV 35S promoter has been joined artificially to the cDNAs of a wide range of viral genomes, and infectious viruses produced in the laboratory (9). There is also evidence that proviral sequence in the genome can be reactivated (10).

The fact that plants are "loaded" with potentially mobile elements can only make things worse. Most, if not all of the elements will have been ‘tamed’ in the course of evolution and hence no longer mobile. But integration of transgenic constructs containing the 35S promoter may mobilize the elements. The elements may in turn provide helper-functions to destabilize the transgenic DNA, and may also serve as substrates for recombination to generate more exotic invasive elements.

In signing on to the International Biosafety Protocol in Montreal in January, more than 150 governments agreed to implement the precautionary principle. The available evidence clearly indicates that there are serious potential hazards associated with the use of the CaMV promoter. All GM crops and products containing the CaMV promoter should therefore be withdrawn both from commercial use and from field trials unless and until they can be shown to be safe.

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ALLEGATED 14

Recent Evidence Confirms Risks of Horizontal Gene Transfer

by Mae-Wan Ho, Institute of Science in Society

Sexually reproducing organisms pass their DNA only "vertically," from one generation to the next. But bacteria and viruses exchange bits of DNA "horizontally," from one organism to another. What happens when artificially introduced genes get transferred horizontally? Mae-Wan Ho of the Institute of Science in Society summarizes the evidence.

The oft-repeated refrain that "transgenic DNA is just like ordinary DNA" is false. Transgenic DNA is in many respects optimized for horizontal gene transfer. It is designed to cross species barriers and to jump into genomes, and it has homologies to the DNA of many species and their genetic parasites (plasmids, transposons and viruses), thereby enhancing recombination with all of them. [1] Transgenic constructs contain new combinations of genes that have never existed, and they also amplify gene products that have never been part of our food chain. [2]

The health risks of horizontal gene transfer include:

- Antibiotic resistance genes spreading to pathogenic bacteria;
- Disease-associated genes spreading and recombining to create new viruses and bacteria that cause diseases;
- Transgenic DNA inserting into human cells, triggering cancer.

The risk of cancer is highlighted by the recent report that gene therapy—genetic modification of human cells—claimed its first cancer victim. [3] The procedure, in which bone marrow cells are genetically modified outside the body and re-implanted, was previously thought to avoid creating infectious viruses and causing cancer, both recognized major hazards of gene therapy.

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The transgenic constructs used in genetic modification are basically the same whether it is of human cells or of other animals and plants. An aggressive promoter from a virus is often used to boost the expression of the transgene—in animal and human cells from the cytomegalovirus that infects mammalian cells, and in plants the 35S promoter from the cauliflower mosaic virus (CaMV) that infects Cruciferae plants.

Unfortunately, although the CaMV virus is specific for plants, its 35S promoter is active in species across the living world, human cells included, as we discovered in the scientific literature dating back to 1989. Plant geneticists who have incorporated the promoter into practically all GM crops now grown commercially are apparently unaware of this crucial information. [4]

In 1999, another problem with the CaMV 35S promoter was identified: it has a “recombination hotspot” where it tends to break and join up with other DNA. [5] Since then, we have continued to warn our regulators that the CaMV 35S promoter will be extra prone to spread by horizontal gene transfer and recombination [6–8]. The recent controversy over the transgenic contamination of the Mexican landraces [9] hinges on observations suggesting that the transgenic DNA with the CaMV 35S promoter is “fragmenting and promiscuously scattering throughout the genome” of the landraces, observations that would be consistent with our expectations. [10]

Research results released early in 2002 by the Food Standards Agency [11] indicate that transgenic DNA from GM soya flour, eaten in a single hamburger and milk shake meal, was found transferred to the bacteria in the gut contents from the colostomy bags of human volunteers.

…although the CaMV virus is specific for plants, its 35S promoter is active in species across the living world…

The Agency dismissed the findings and downplayed the risks. The comments, “it is extremely unlikely that genes from genetically modified (GM) food can end up in bacteria in the gut of people who eat them,” and “the findings had been assessed by several Government experts who had ruled that humans were not at risk,” are seriously misleading.

First the experimental design stacked the odds heavily against finding a positive result. For example, the probe for transgenic DNA covered only a tiny fraction of the entire construct. So only a correspondingly tiny fraction of the actual transfers would ever be detected, especially given the well-known tendency of transgenic constructs to fragment and rearrange.

Second, there was no attempt to check for transgenic DNA in the blood and blood cells, although scientific reports dating back to the early 1990s indicated transgenic DNA could pass through the intestine and the placenta, and become incorporated into the blood cells, liver and spleen cells and cells of the foetus and newborn. [12]

The observation in the FSA report [13] that no transgenic DNA was found in the faeces of the “healthy volunteers,” far from being reassuring, raises the worrying possibility that the transgenic DNA has all been taken up into the intestinal cells and/or passed into the bloodstream.

Research results…indicate that transgenic DNA from GM soya flour, eaten in a single hamburger…was found transferred to the bacteria in the gut…

Third, no attempt was made to address the limitations of the detection method and the scope of the investigation failed completely in assessing the real risks. False assurances were made that “humans were not at risk.”

Another research project on horizontal gene transfer commissioned by the Ministry of Agriculture, Fisheries and Food (MAFF), the predecessor to the Food Standards Agency, concerns *Agrobacterium tumefaciens*, the soil bacterium that causes crown gall disease, which has been developed as a major gene transfer vector for making transgenic plants. Foreign genes are typically spliced into T-DNA—part of a plasmid called Ti (tumour-inducing)—that’s integrated into plant genome.bh.

It turns out that *Agrobacterium* injects T-DNA into plant cells in a process that strongly resembles conjugation, i.e., mating between bacterial cells, and all the necessary signals and genes involved are interchangeable with those for conjugation [14].

That means transgenic plants created by the T-DNA vector system have a ready route for horizontal gene escape, via *Agrobacterium*, helped by the ordinary conjugative mechanisms of many other bacteria that cause diseases. [14]

A report submitted to MAFF in 1997 had indeed raised the possibility that *Agrobacterium tumefaciens* could be a vector for gene escape [15, 16]. The researchers found that it was extremely difficult to get rid of the *Agrobacterium*.

…transgenic plants created by the T-DNA vector system have a ready route for horizontal gene escape, via Agrobacterium, helped by the ordinary conjugative mechanisms of many other bacteria that cause diseases.

High rates of gene transfer are known to be associated with the plant root system and the germinating seed. [17] *Agrobacterium* could multiply and transfer transgenic DNA to other bacteria, as well as to the next crop plant. Agrobacterium was also found to transfer genes into several types of human cells [18], and in a manner similar to that which it uses to transform plant cells.

All the risks of horizontal gene transfer described above are real, and far outweigh any potential benefits that GM crops can offer. There is no case for allowing any commercial release of GM crops and food products.

The following experiments and tests should be done to address the risks of horizontal gene transfer:

1. Feeding experiments similar to those carried out by Dr. Arpad Pusztai's team should be done, using well-characterized transgenic soya and/or maize meal feed, with full, adequate monitoring for transgenic DNA in the faeces, blood and blood cells, and post-mortem histological examinations that include tracking transfer of transgenic DNA into the genome of cells. As an added control, nontransgenic DNA from the same GM feed sample should also be monitored.

2. Feeding trials on human volunteers should be carried out using well-characterized transgenic soya and/or maize meal feed, with full, adequate monitoring for transgenic DNA in the faeces, blood and blood cells. Also as an added control, nontransgenic DNA from the same GM feed sample should also be monitored.

3. The stability of transgenic plants in successive generations should be systematically investigated, especially for those containing CaMV 35S promoter, using adequate quantitative molecular techniques.

4. Full molecular characterization of all transgenic lines must be carried out to establish uniformity and genetic stability of the insert(s).

5. All transgenic plants created by the *Agrobacterium* T-DNA vector system should be tested for the persistence of the bacteria and vectors. The soil in which they have been grown should also be monitored for gene escape to soil bacteria. And the potential for horizontal gene transfer to the next crop via the germinating seed and root system should be carefully monitored.

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This article can be found on the I-SIS website at http://www.i-sis.org.uk/FSAopenmeeting.php

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ALLEGATED 15

OGM crops increase pesticides

by Niccolo Sarno — last modified 2008-02-07

A new report shows that planting genetically modified (GM) crops is causing an increased use of harmful pesticides in major biotech crop producing countries.

MEDIA ADVISORY : Friends of the Earth International

New report: OGM crops increase pesticide use

In 2007 GM crops still failed to tackle hunger and poverty in developing countries

BRUSSELS (BELGIUM), LAGOS (NIGERIA), KUALA LUMPUR (MALAYSIA) – February 13, 2008 – A new report released on February 13th shows that planting genetically modified (GM) crops is causing an increased use of harmful pesticides in major biotech crop producing countries. [1]

The 2008 edition of the Friends of the Earth International "Who Benefits from GM crops?" report series is titled "The Rise in Pesticide Use" and concludes that GM crops on the market today have on the whole caused an increase rather than a decrease in toxic pesticides use, and have failed to tackle hunger and poverty. [2]

After more than a decade of GM crop cultivation, more than 70% of the area cultivated with biotech crops is still concentrated in only two countries: the US and Argentina. To date, GM crops have done nothing to alleviate hunger or poverty in Africa or elsewhere.

"The biotech industry is telling Africans that we need GM crops to tackle the food needs of our population. But how can we believe such statements when the majority of GM crops are used to feed the animals of rich countries, produce industrial products like agrofuels, and overall don't yield more than conventional crops?", said Nnimmo Bassey of Friends of the Earth Nigeria/ERA.

"GM crops still fail to deliver the long-promised benefits. They are not good for the environment, as they are increasing pesticide use. In addition, they do not benefit small farmers or consumers in terms of quality or price," added Bassey.

The new report launch coincides with the annual release of the "Global Status of Commercialized Biotech" report of the industry-sponsored International Service for the Acquisition of Agri-biotech Applications (ISAAA) which promotes GM crops as beneficial for the environment and a key solution to hunger and poverty.

The GM crops industry continues to misleadingly claim that GM crops reduce pesticide use and play a role in tackling poverty and hunger. The main conclusions of the 2008 report "The Rise in Pesticide Use" include :

1) GM crops are not 'green'. The adoption of Roundup Ready (RR) crops, the most extensively grown GM crop today, has led to an increase in pesticide use:

- In the United States, data from the U.S. Department of Agriculture (USDA) shows that RR crops drove a more than 15-fold increase in the use of glyphosate –the herbicide associated with RR crops- on major field crops from 1994 to 2005. In 2006, the last year for which data is available, glyphosate use on soybeans jumped a substantial 28%. The intensity of glyphosate use has also risen dramatically. From 1994 to 2006, the amount of glyphosate applied per acre of soya rose by more than 150%.

The increase in glyphosate herbicide is no longer displacing other herbicides in the US. From 2002 to 2006 the use of 2,4-D –one of the most widely used herbicide in the world- on soybeans more than doubled, and the use of atrazine (an herbicide banned in Europe due to links to health problems) on corn increased by 12 per cent from 2002 to 2005.

- In major RR soybean producer countries, like Brazil and Argentina, glyphosate use and weed resistance have risen. A 2007 study by a Brazilian governmental agency shows that the use of glyphosate increased 79,6% between 2000 to 2005, much faster than the expansion in area planted with RR soya. In 2007 a glyphosate-resistant weed called Johnson Grass infested over 120,000 ha in Argentina. An estimated 25 million litres of herbicides other than glyphosate will be needed, resulting in increasing production costs of between $160 to 950 million per year. In India, a 2007 study from Andhra University concluded that Bt cotton uses the same amount of pesticides as conventional cotton.

2) GM crops do not tackle hunger or poverty. Most GM crops commercialized so far are destined for animal feed, not for food, and none have been introduced to address hunger and poverty issues. GM crops are not providing help to small farmers in developing countries. In South Africa, for example since the adoption of Bt cotton, the number of small cotton farmers have plummeted from 3229 in 2001/02 to just 853 in 2006/07.

3) Overall, current GM crops do not yield more than other existing crop varieties:

- RR Soybeans, the most widely planted GM crop in the world, does not have a higher yield performance than conventional soya. On the contrary, many studies show that RR soya has on average 5-10% lower yield than equivalent conventional varieties.

- Bt cotton does not have higher yields than conventional cotton. In most countries where Bt cotton was adopted -such as the U.S., Argentina, Colombia, and Australia – overall cotton yields remained constant . In other countries, like India and China, the yield increase is mainly due to weather conditions and other production factors not related to GM technology. For example Xinjiang, the Chinese province with the highest cotton production and the highest average yield in China, grows mostly conventional cotton, not Bt varieties.

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NOTES TO EDITORS:

[1] DOCUMENTS AVAILABLE ONLINE:

A Question and Answer document on GM crops and the Millennium Development Goals of halving hunger and poverty by 2015 is available at:
http://www.foeeurope.org/GMOs/Who_Benefits/QA_FINAL_FEB08.pdf

The executive summary of the report is available online at
http://www.foei.org/en/publications/pdfs/gmcrops2008execsummary.pdf/

The executive summary of the report is available IN SPANISH online at:

http://www.foei.org/es/publications/pdfs/gmcrops2008execsummary.pdf/

The executive summary of the report is available IN FRENCH online at:

http://www.foei.org/fr/publications/pdfs/gmcrops2008execsummary.pdf/

The full report is available online at http://www.foei.org/en/publications/pdfs/gmcrops2008full.pdf/

[2] Previous editions of the ‘Who Benefits from GM crops’ series are online at:

http://www.foei.org/en/campaigns/gmo/publications

ALLEGATED 16

American Academy of Environmental Medicine (AAEM) : *a Moratorium on Gentically Manipulated (GMO) Food*

Amy Dean (D.O) and Jennifer Armstrong (M.D.)

(22/5/2009)

According to the *World Health Organization*, Genetically Modified Organisms (GMOs) are "organisms in which the genetic material (DNA) has been altered in such a way does not occur naturally ([1]).

This technology is also referred to as "*genetic engineering*", "*biotechnology*" or "*recombinant DNA technology*" and consists of randomly inserting genetic fragments of DNA from one organism to another, usually from a different species. For example, an artificial combination of genes that includes a gene to produce the pesticide Cry1Ab protein (commonly known as Bt toxin), originally found in Bacillus thuringiensis, is inserted in to the DNA of corn randomly. Both the location of the transferred gene sequence in the corn DNA and the consequences of the insertion differ with each insertion. The plant cells that have taken up the inserted gene are then grown in a lab using tissue culture and/or nutrient medium that allows them to develop into plants that are used to grow GM food crops ([2]).

Natural breeding processes have been safety utilized for the past several thousand years. In contrast, "*GE crop technology abrogates natural reproductive processes, selection occurs at the single cell level, the procedure is highly mutagenic and routinely breeches genera barriers, and the technique has only been used commercially for 10 years*" ([3]).

Despite these differences, safety assessment of GM foods has been based on the idea of "substantial equivalence" such that "*if a new food is found to be substantially equivalent in composition and nutritional characteristics to an existing food, it can be regarded as safe as the conventional food*" ([4]). However, several animal studies indicate serious health risks associated with GM food consumption including infertility, immune dysregulation, accelerated aging, dysregulation of genes associated with cholesterol synthesis, insulin regulation, cell signalling, and protein formation, and changes in the liver, kidney, spleen and gastrointestinal system.

There is more than a casual association between GM foods and adverse health effects. There is causation as defined by Hill's Criteria in the areas of strength of association, consistency, specificity, biological gradient, and biological plausibility ([5]). The strength of association and consistency between GM foods and disease is confirmed in several animal studies ([2,6,7,8,9,10,11]).

Specificity of the association of GM foods and specific disease processes is also supported. Multiple animal studies show significant immune dysregulation, including upregulation of cytokines associated with asthma, allergy, and inflammation ([6,11]).

Animal studies also show altered structure and function of the liver, including altered lipid and carbohydrate metabolism as well as cellular changes that could lead to accelerated aging and possibly lead to the accumulation of reactive oxygen species (ROS) ([7,8,10]).

Changes in the kidney, pancreas and spleen have also been documented ([6,8,10]). A recent 2008 study links GM corn with infertility, showing a significant decrease in offspring over time and significantly lower litter weight in mice fed GM corn ([8]).

This study also found that over 400 genes were found to be expressed differently in the mice fed GM corn. These are genes known to control protein synthesis and modification, cell signaling, cholesterol synthesis, and insulin regulation. Studies also show intestinal damage in animals fed GM foods, including proliferative cell growth and disruption of the intestinal immune system ([6]).

Regarding biological gradient, one study, done by Kroghsbo, et al., has shown that rats fed transgenic Bt rice trended to a dose related response for Bt specific IgA ([11]).

Also, because of the mounting data, it is biologically plausible for Genetically Modified Foods to cause adverse health effects in humans.

In spite of this risk, the biotechnology industry claims that GM food can feed the world through production of higher crop yields. However, a recent report by the Union of Concerned Scientists reviewed 12 academic studies and indicates otherwise: "*The several thousand field trials over the last 20 years for genes aimed at increasing operational or intrinsic yield (of crops) indicate a significant undertaking. Yet none of these field trials have resulted in increased yield in commercialized major food/feed crops, with the exception of Bt corn*" ([12]). However, it was further stated that this increase is largely due to traditional breeding improvements.

Therefore, because GM foods pose a serious health risk in the areas of toxicology, allergy and immune function, reproductive health, and metabolic, physiologic and genetic health and are without benefit, the AAEM believes that it is imperative to adopt the precautionary principle, which is one of the main regulatory tools of the European Union environmental and health policy and serves as a foundation for several international agreements ([13]).

The most commonly used definition is from the 1992 Rio Declaration that states: "*In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*" ([13]).

Another often used definition originated from an environmental meeting in the United States in 1998 stating : "*When an activity raises threats to the environment or human health, precautionary measures should be taken, even if some cause and effect relationships are not fully established scientifically. In this context, the proponent of an activity, rather than the public, should bear the burden of proof (of the safety of the activity) "* ([13]).

With the precautionary principle in mind, because GM foods have not been properly tested for human consumption, and because there is ample evidence of probable harm, the AAEM asks :

1. Physicians to educate their patients, the medical community, and the public to avoid GM foods when possible and provide educational materials concerning GM foods and health risks.
2. Physicians to consider the possible role of GM foods in the disease processes of the patients they treat and to document any changes in patient health when changing from GM food to non-GM food.
3. Our members, the medical community, and the independent scientific community to gather case studies potentially related to GM food consumption and health effects, begin epidemiological research to investigate the role of GM foods on human health, and conduct safe methods of determining the effect of GM foods on human health.
4. For a moratorium on GM food, implementation of immediate long term independent safety testing, and labelling of GM foods, which is necessary for the health and safety of consumers. (This statement was reviewed and approved by the Executive Committee of the American Academy of Environmental Medicine on May 8, 2009)

Submitted by Amy Dean, D.O. and Jennifer Armstrong, M.D.

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FRANCAIS : OGM mise en garde de AAEM

L'*American Academy of Environmetal Medicine* (AAEM) vient juste de publier un appel en faveur d'un moratorie immediat sur la nourriture genetiquement modifiee

http://www.mondialisation.ca/index.php?context=va&aid=13709

http://aaemonline.org/pressrelease.html

ALLEGATED 17

SANA Conference – Bologna 2008, 13th September

Promoted by: AAM Terra Nuova

Scientific coordination: Studio Agernova

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"The Threat of GMOs (Genetically Modified Organisms) on alimentary models accompanying the immune and detoxifying therapy"

Cancer is a degenerative disease caused by a lack of vitamins and poisoning from chemical substances present in food.

One can estimate the number of vitamins and pro-vitamin substances present in natural plants commonly used as food by humans as more than 13,000 – 15,000 types.

The introduction into modern agriculture of Genetically Modified Organisms (GMOs) is an unjustified and very dangerous alteration of what Evolution has produced in plants over hundreds of millions of years:
plants on which the subsequent biochemical evolution of superior complex animal organisms has been based, culminating with the advent of mammals in the last 65 million years and then with the arrival of Man.

Therefore the delicate biochemical balance of the human race depends on plant species remaining integral, just as evolution created them, because the health of every one of us is based on the biochemical human cell, and this depends, through the complexity of the DNA, on the use of thousands of vitamins and of the herbal-chemical compounds present in nature.

Plants are complex organisms as well, they are the fruit of hundreds of millions of years of biological evolution:

every genetic modification caused in plants by Man (with radiation such as Chernobyl, or with retroviruses such as presently used in GMO), however small that modification is, will cause damage, irreparable damage which often cannot be seen, because man only knows a limited number of safe vitamins and pro-vitamin substances.

However, there are tens of thousands of vitamins and other substances present in plants, and it is these which are responsible for the correct working of the biochemical human complex and the human genome (DNA).

To (supposedly) achieve greater agricultural production today we resort to changing the genetic patrimony of natural plants, with the aim of:

1) changing their structure,

2) making them sterile (thus farmers have to buy new seeds every year),

3) patenting the transformation induced and

4) re-selling the thus obtained product all over the world.

Actually it has never been demonstrated that GMO cultivations produce a larger amount of products. In fact, some independent scientific studies carried out by ISIS proved quite the opposite.

Furthermore it can be affirmed that there is a substantial equivalence between:

1) the genetically modified product (GMO)

2) and that obtained by selecting genetic characteristics (that is by means of naturally crossbreeding plants as has been done by man over the course of thousands of years).

However, this "substantial equivalence" cannot be sustained because:

1) the natural crossbreeding of plants uses natural seeds of the same species, while genetic manipulation (GMO) crosses all barriers, and introduces genes from other types of vegetable species or even bacteria, viruses and animal genes.

2) in fact the majority of genes used in genetic engineering come from living species which have never been a part of the human food chain and actually come from DNA not of plants but of animals, bacteria or viruses and/or transgenic retroviruses.

EIGHT immediate threats can therefore be identified:

FIRST POINT: *The impoverishment of vitamin and pro-vitamin complexes in the plants*

SECOND POINT: *genetic mutations of plants and the subsequent alteration of human biochemistry*

THIRD POINT: *the failure of the anti-cancer diet*

FOURTH POINT: diseases induced by transgenic viruses

FIFTH POINT: *intoxication by poisons synthesized from transgenic plants*

SIXTH POINT: *danger of worldwide famine due to "TERMINATOR" technology*

SEVENTH POINT: *transgenic pollution of natural plants*

EIGHTH POINT: *the irreversible disappearance of the genetic inheritance of natural plants*

FIRST POINT OF THE THREAT OF GMOs:

The impoverishment of vitamin and pro-vitamin complexes in the plants

The deliberate attempt to deactivate the natural substances contained in the plants is very serious: in this way fresh fruit and vegetables – greatly impoverished of many vitamins – can be carried over long distances and long periods of time because their oxidation does not take place.

These vitamins are able to enter into complex enzymatic mechanisms inside mammals' DNA, inducing the APOPTOSIS (suicide) phenomenon in these mammal cells if they are suffering from infections or above all CANCER or LEUKAEMIA.

This deliberative vitamin impoverishment will ensure commercial profits and represents a serious act of deliberate damage inflicted on the Ecosystem by means of GMOs.

Fresh plants contain thousands of vitamins which are able to activate our immune system against germs, viruses or tumour cells, or even to induce apoptosis (cell suicide or programmed cell death) in tumour cells.

Amounts of vitamins needed to induce apoptosis in a certain number of tumour cells in the laboratory without damaging healthy human cells are really very small.

Several studies from **medical and scientific literature**, almost all in PDF format, show the actual ability of these vitamins to induce APOPTOSIS in the cancerous cell line considered. Amounts needed are measurable in:

micromoles (i.e. micromoles/litre, i.e. nanomoles/millilitre, i.e. picomoles/microlitre).

SEE: http://www.erbeofficinali/dati/nacci/allpdf.php from **chapter 6 of the e-book "*Thousand Plants against Cancer without Chemo-Therapy*"** http://www.thenhf.com/about_us.html; **http://www.mednat.org/cancro/nacci_english.pdf** ("*Plants which make Cancers suicide*")

SECOND POINT OF THE THREAT OF GMOs:

Genetic mutations of plants and the subsequent alteration of human biochemistry

Because of the introduction of foreign genes (for example from animals, bacteria, viruses and retroviruses) into the DNA of plants, an alteration in the normal genomic sequence of the plant occurs, with the appearance of new proteins and/or the loss of other proteins of a genomic sequence.

Therefore new substances similar to natural vitamins have appeared, but which actually have enzymatic and biochemical characteristics different to natural ones, and therefore introduce changes in their component of biochemical activity on the human genome, once they have been introduced through food.

There is therefore the potential risk of new diseases of an "artificial" type, caused by the genetic manipulation (GMO) of vegetable organisms, genetically polluted by new vitamin-like molecules with inductive effects on the human DNA and on its complex biochemistry which are totally unknown, but probably heralding serious damage given the extreme complexity and hence vulnerability of the human DNA.

For example, the only test on a long-term basis (24 months) carried out by an Italian research group demonstrated that GMOs may modify some internal organs. Feeding mice with the famous maize *Roundup Ready* changed the structure and the functioning of their liver, pancreas and testicles cells. (Malatesta M.: *Fine structural analyses of pancreatic acinar cell nuclei from mice fed on GM soybean*. Eur. J. Histochem., 47: 385-388, 2003; http://www.mednat.org/alimentazione/Malatesta.pdf),

A second study was conducted by Pusztai: he found out that mice fed with transgenic potatoes showed damage to organs, thickening of the small intestine and scarce brain development. Potatoes were genetically modified in order to contain lectin, which makes plants resistant to pesticides. (Pusztai: *Effect of diets containing genetically modified potatoes expressing Galanthus nivalis lectin on rat small intestine*, The Lancet Vol. 354, October 16, 1999) (http://www.mednat.org/alimentazione/Pusztai.pdf),

A third study was carried out by Prescott, who analysed GMO peas (Prescott: *Transgenic expression of bean-amylase inhibitor in peas results in altered structure and immunogenicity*, J. Agric. Food Chem., 53, (23), pages: 9023-9030, 2005.
http://www.mednat.org/alimentazione/Prescott.pdf.

A fourth study was made by Dr Irina Ermakova in Russia, at the Institute of Higher Nervous Activity and Neurophysiology of the Russian Academy of Sciences (RAS) in Moscow.
http://eco-irina-ermakova.narod.ru/eng/index.htm

THIRD POINT OF THE THREAT OF GMOs:

The failure of the anti-cancer diet

As already demonstrated by Gerson (**www.gerson.org**) and other authors, many substances contained only in fruit and biologically grown raw vegetables are able to induce the IMMUNE CASCADE against tumours, detoxification and the particular phenomenon of apoptosis (suicide) of diseased cells making it unnecessary to conduct difficult and expensive research.

153 patients suffering from the worst form of cancer known (melanoma) followed Dr Gerson's anti-cancer diet, and after 5 years the percentage of recovery varied from:

70-90% (if the tumour was localized)

to 40-70% (if the tumour had metastasized),

provided that the patients had not previously undergone chemotherapy.

Hildebrand, G.L.: *Five year survival rates of melanoma patients treated by diet therapy after the manner of Gerson: a retrospective review*, in Alternative Therapies, vol.1 [4], September 1995, pages 29-37).

www.gerson-research.org/docs/HildenbrandGLG-1996-1/index.html

On the contrary, using chemotherapy the percentage of recovery from melanoma after 5 years is 6% or – according to other sources – is zero per cent.

Morgan G.: *The contribution of cytotoxic chemotherapy to 5-year survival in adult malignancies*, Clinical Oncol., 2004, 16, pages: 549-560 http://www.mednat.org/cancro/MORGAN.PDF

In the latest study of MORGAN, based on more than 270,000 patients undergoing CHEMOTHERAPY, this zero survival value is confirmed even in the case of:

cancer of the pancreas,
sarcoma,
womb cancer,
cancer of the prostate,
bladder cancer,
kidney cancer,
and multiple myeloma.

This percentage goes up to 1% in case of:
stomach and colon cancer,

about 2% in case of breast or lung cancer,

3-5% in case of rectum cancer,

4-5% in case of brain cancer,

5% in case of esophagus cancer,

9% in case of ovary cancer,

10% in case of NON-Hodgkin lymphoma,

12% in case of cervical cancer,

about 40% in case of testicular cancer and Hodgkin lymphoma.

The explanation of the effectiveness of these vegetarian diets lies in:

not consuming food containing all the potential factors which promote cell growth,

in particular AVOIDING **the simultaneous consumption (1-3 hours) of ALL 9 essential amino acids**

(Valin, Isoleucin, Leucin, Lisin, Metionin, Hystidine, Tryphtophan, Phenylalanine, Treonine).

These should not be taken simultaneously as through them cancer cells can build PROTEINS, i.e. other ill cells.

The intake of the following substances must also be avoided:

nucleic acids,
vitamin B12 and
folic acid.

(as they cause the DNA replication of the cancer cell)

In the past,…before the GMO Era, this rule was very simple to respect:

the foods which contained all of these were of animal origin (meat, fish, eggs, yeast, milk, cheese, butter…).

Both Gerson and other authors (including Chinese and Indian medicine) forbade the consumption of these foods for at least a year.

A vegetarian diet, based only on fruit and vegetables, cereals and legumes, was, thus, the winning diet.

However, cereals and legumes are rich in ESSENTIAL AMINO ACIDS and thus their use in cancer therapy by many other Western, Chinese and Indian schools of natural medicine might seem surprising.

The success of these therapies, which are so distant from each other as far as the THEORY is concerned but are so similar in the effectiveness against CANCER, can be explained by the modern BIOCHEMISTRY:

NO CEREALS and *NO* LEGUMES, taken singularly,
contained ALL 9 essential amino acids.

These foods, however, if consumed together at the same meal determined the assimilation of all 9 amino acids.

The human body can thus synthesize PROTEINS and build cells – cancer cells.

Comparing these new therapies, it is clear that

it is ABSOLUTELY FORBIDDEN to eat CEREALS + LEGUMES together,

i.e. pasta (or polenta, or bread [even if unleavened] or rice) + legumes,

because according to the modern BIOCHEMISTRY there would be the integration of the 9 essential amino acids

(8 of them are contained in cereals and the other one, i.e. Lisin, is contained in legumes)

(8 of them are contained in legumes and the other one, i.e. Metionin, is contained in cereals)

with a similar nutritional effect as that obtained from eating meat

(after all, once a plate of pasta and beans was called … "poor man's meat").

Today, however, because of the introduction on the market of cereals, legumes and other vegetables which have been genetically modified (GMO), many of these foods contain ALL the essential amino acids (Day P.R.: *Genetic modification of plants: significant issues and hurdles success*, Am.J.Clin.Nutr., 63(4), pp.: 651S-656S, 1996 http://www.mednat.org/alimentazione/DAY.pdf), effectively rendering cancer NO LONGER curable in the way it is described in this study and according to the therapy of Gerson and many other authors.

FOURTH POINT OF THE THREAT OF GMOs:

diseases induced by transgenic viruses

The transgenic viruses with which genetically modified organisms (GMO) are created today enter into the DNA of the plant, modifying it in a way which is unknown to us.

These viruses are supposed to lie dormant but there is nothing to prevent them from reactivating themselves in a manner similar to the well known RNA tumour viruses (Oncornaviruses) or DNA tumour viruses (both inducers of leukaemias, sarcomas, carcinomas, gliomas...).

These viruses can also be the carriers of new diseases or diseases similar to syndromes whose dynamics are unfortunately very little understood (AIDS, Mad Cow Disease, etc…), and whose origin is still very vague (perhaps transgenic viruses?).

There is ample bibliography on viruses used in GMOs.
(SEE chapter 8 of the E-Book "*Thousand Plants against Cancer without Chemo-Therapy*" http://www.thenhf.com/about_us.html; http://www.mednat.org/cancro/nacci_english.pdf):

It is well known that CaMV (*Cauliflower Mosaic Virus*) is used today in the replication of retroviruses introduced in the plants by GMO multinationals in order to modify their DNA (GMO plants).
This virus is active both in angiosperms and gymnosperms, i.e. in all plants.

This virus is used by GMO multinationals to modify genetically plants because it contains particular *promoters*, which are "motors" which drive genetic activation.

CaMV has two *promoters*: **19S and 35S.**
Of these two the **35S** promoter is most frequently used by multinationals.

The **35S promoter** is a DNA sequence of about 400 bases (units of genetic sequence of four different molecules: Adenine, Cytosine, Guanine or Thymine).

The CaMV promoter is preferred above other potential promoters used by GMO multinationals to modify plants because it is not influenced by the different conditions of vegetable cell tissue types and thus it can act.

Unfortunately it is able to penetrate and replicate in animal cells, including mammalian and human cells, as demonstrated by Vlasak in a study published in 2003. Vlasak J.: *Comparison of hCMV immediate early and CaMV 35S promoters in both plant and human cells*, Journal of Biotechnology No. 103, pages: 197-202, 2003)
http://www.dirittolibertadicura.org/images/OGM/vlasak.pdf
http://www.mednat.org/alimentazione/vlasak.pdf

These artificial pararetroviruses are created and used by multinationals to modify the DNA of plants. They are similar to *retroviruses* already present in nature, such as:

HIV retrovirus of AIDS,
HUMAN LEUKAEMIA retrovirus,
Hepatitis B retrovirus

(Bonneville: *Retrovirus, Viroids and RNA recombination*, RNA Genetics, Vol. 11, pages: 23-42, 1988).

According to scientific literature, CaMV is closely related to the virus of human hepatitis B and AIDS.

(Doolitte: Quart. Rev. Biol. 64, 2, 1989); (Xiong and Eickbush, *Origin and evolution of retroelements based upon their riverse transcriptase sequences* EMBO Journal 9, pages 3353, 1990)
(Doolitte: Quart.Rev.Biol. 64, 2, 1989) ; (Xiong and Eickbush, *Origin and evolution of retroelements based upon their riverse transcriptase sequences* EMBO Journal 9, pp. 3353, 1990
http://www.mednat.org/alimentazione/EMBO%20JOURNAL%201990.pdf)

Using CaMV in plants eaten by humans and/or animals can be very dangerous and hazardous because of the GENETIC RECOMBINATION of DNA chromosomes in the plants. This can lead to the recombination of the 35S promoter itself with the DNA of the person or animal that has eaten fruit, vegetables, pasta or GMO soya containing these pararetroviruses.

Through GENETIC RECOMBINATION, the viruses can also include cell genes present in the animal that has previously eaten that GMO plant. These can reach the man who has eaten that animal causing totally unknown genetic effects.

One the most likely consequences is the outbreak of **cancers** and **leukaemias**.

Genetic modifications to progeny can be another consequence.
In these cases, the DNA system would be disrupted as happens in the case of exposure to ionizing radiations.

However, differently from ionizing radiations, there would be also the risk of new infectious diseases.

NEW INFECTIOUS DISEASES: it has been demonstrated that the CaMV genes incorporated into the plant (canola) chromosomes recombine with infecting viruses to produce new, much more virulent diseases.

This experimental model concerning the safety of transgenic plants containing viral genes such as CaMV was presented by GAL in a study published in 1992:

Gal S.: *Agroinfection of transgenic plants leads to viable Cauliflower Mosaic Virus by intermolecular recombination*, Virology, No.187, pages: 525-533, 1992 http://www.dirittolibertadicura.org/images/OGM/gal.pdf
http://www.mednat.org/alimentazione/Gal.pdf

About recombination between CaMV and viruses involving the promoter see also Vaden's paper published in 1990:

Ray Vaden: *Recombination sites in Cauliflower Mosaic Virus DNAs; implications for Mechanisms of recombination*, Virology, No.177, pages: 717-726, 1990 http://www.dirittolibertadicura.org/images/OGM/ray%20vaden%20.pdf
http://www.mednat.org/alimentazione/Ray%20Vaden%20.pdf

Other scientific studies demonstrated that recombination of these retroviruses may take place either between DNA and DNA or RNA and RNA, thus creating new viral infections.
(Mol.Plant-Microbe Interactions 5, 48, 1992).

Similar related experiments suggest that altered plants may cause deadly diseases, as shown by Greene in 1994:
Greene A.E.: *Recombination between viral RNA and transgenic plant transcripts*, Science, Vol. 263, 11 march 1994
http://www.dirittolibertadicura.org/images/OGM/greene.pdf
http://www.mednat.org/alimentazione/Greene.pdf

Very dangerous viral DNA chains produced by normal RNA viruses are frequently propagated in the vegetable environment (GMO plants) using the CaMV 35S promoter to drive the production of RNA viruses which otherwise could not propagate in the plant DNA. From here they could pass to the animal DNA (man included) or in the bacteria or viruses DNA.

Boyer J.C.: *Infectious transcripts and cDNA clones of RNA Viruses*, Virology, No. 198, pages: 415-426, 1994
http://www.dirittolibertadicura.org/images/OGM/boyer.pdf; http://www.mednat.org/alimentazione/Boyer.pdf

In conclusion: promoters recombine with the infecting viruses to produce virulent new diseases.

CaMV viruses and its promoters **19S** and **35S** may incorporate genes from the host plant or animal or bacterium DNA – or even from a DNA virus – creating virulent new diseases.

In case of a DNA virus, CaMV can recombine with insect DNA viruses, thus propagating in the insect cells.
(Zuidema D.: J.Gen.Vir. 71, pages 312, 1990).
http://www.mednat.org/alimentazione/zuidema.pdf

As a consequence, it is likely that by eating tomatoes genetically modified with CaMV (recombined for example with hepatitis B viruses) a large number of people could create a SUPERVIRUS able to propagate in plants commonly used as food and in insects – such as mosquitoes – and then reach the man.
Allison R.F.: *Recombination in plants expressing viral transgenes*, Seminars in Virology, Vol. 7, pages: 417-422, 1996
http://www.dirittolibertadicura.org/images/OGM/allison.pdf; http://www.mednat.org/alimentazione/Allison.pdf

Wintermantel W.M.: *Isolation of recombinant viruses between Culiflower Mosaic Virus and a viral gene in transgenic plants under conditions of moderate selection pressure*, Virology, No. 223, pages: 156-164, 1996
http://www.dirittolibertadicura.org/images/OGM/wintermantel.pdf
http://www.mednat.org/alimentazione/Wintermantel.pdf

Latham J.: *GM Gene Flow (B): Horizontal gene transfer of viral inserts from GM plants to viruses*, Technical paper, February 2004

J.T.Dessens: *Cauliflower mosaic virus 35S promoter-controlled DNA copies of cowpea mosaic virus RNAs are infectious on plants*, Journal of General Virology, No.74, pages: 889-892, 1993
http://www.mednat.org/alimentazione/dessens.pdf

Steinbrecher R.A.: *The CaMV 35S Promoter Government and Corporate Scientific incompetence: failure to assess the safety of GMO crops*, Econexus Briefing, December 2002

Mae Wan Ho: *The CAMV 35S Promoter fragmentation hotspot confirmed, and it is active in animals*, Microbial Ecology in Health and Disease 2000, 12, págs: 189
http://www.mednat.org/alimentazione/MaeWanHo1.pdf

Mae Wan Ho: *Cauliflower Mosaic Viral Promoter – a recipe for disaster*, Microbial Ecology in Health and Disease 1999, 11, pp: 194-197
http://www.mednat.org/alimentazione/MaeWanHo2.pdf

There are some natural retroviruses which are able to cause leukaemia, lymphomas, sarcomas or breast cancer in animals and human beings (from chapter 8 of the book "*Thousand Plants against cancer without Chemo*".)

They are very dangerous and a casual recombination with the **promoter 35S** of *Cauliflower Mosaic Virus* is very likely to happen once GMO plants are introduced in the animal or/and human diet.

Search for GMO retroviruses in human tumours

It is the author's view that research should be conducted in patients suffering from tumour, to check any possible hybridation between the polysomal RNA (of suspected GMO viral origin, probably related to the modified Oncornavirus used in GMO plants to produce food) obtained from human tumours of patients who have eaten GMO

food, and the DNA created in laboratory with reverse transcriptase from Oncornaviruses which have been modified to produce GMOs.

Note: all this, however, requires access to restricted, maybe patented information on retrovirus models used by GMO multinationals and modifications they made before putting GMO plants on the market.

It is much more difficult to find the specific tumour DNA viruses used by GMO multinationals to modify the DNA of commonly eaten plants, since these DNA viruses (Poxviruses, Herpesviruses, Papovaviruses, Adenoviruses) – differently from GMO Oncornaviruses – cannot be found in the serum or in the urine of patients.

It has nevertheless been demonstrated that a very specific and small part of messenger-RNA remains in the cytoplasm of mammalian tumour cells infected and modified by these tumour DNA viruses. This part of messenger-RNA does not exist in normal cells nor in tumour cells infected with other DNA viruses.

It is necessary, then, to verify the possible hybridation between this RNA-messenger – of suspected GMO viral origin, i.e. produced by a DNA virus modified to produce GMO foods – obtained from the cytoplasm of tumour cells in patients who have eaten GMO food, and the DNA created in laboratory with the same DNA viruses modified to produce GMOs.

Also in this case, access to restricted, maybe patented information on retrovirus models used by GMO multinationals and modifications they made before putting GMO plants on the market is needed.

If the hybridation takes place, thus creating a radioactive (^{32}P) hybrid DNA, it will show the presence of viral DNA sequences in the modified cells (Green, Perspect Biol. Med., 1978).

Secret information

Nowadays multinationals are spreading “classified” GMOs all over the world, whose modification is not known as is protected by industrial secrecy.

Not having this information, no analyses and controls are possible.

This is a matter of grave concern as these GMOs are produced in the USA and in other countries where they are not kept separate from GMO-free products and so the exportations can be contaminated.

What should be done?

First of all, it is necessary to ask the Istituto Superiore di Sanità (Italian Health Institute), the Istituto Zooprofilattico (Animal Disease Control Centre) in Rome, the Ministry of Agriculture and the European Commission for information and launch a parliament enquiry.

The European Commission is favouring the authorization of GMO foods in Europe, in order to avoid a complete block of importations from the USA.

It amounts to say since GMOs are in any case imported secretly, it is better to accept them in Europe so that maybe they can be controlled…

But a stronger political action in virtue of the precaution principle of Maastricht Treat is very likely to prevent GMOs from being licensed and any industrial “secrets” about genetic manipulations from being hidden.

In fact this "secret" information could regard not only the imported products but also the seeds…thus causing an irreversible and indiscriminate contamination of the European agriculture.

FIFTH POINT OF THE THREAT OF GMOs:

intoxication by poisons synthesized from transgenic plants

Chronic poisoning of foods caused by the toxic substances in insecticides which are used on plants to make them resistant to parasites such as *Bacillus touringiensis*, with a likely consequent increase in cancers, miscarriages, genetic mutations in descendants, Acquired Immunodeficiency Syndromes, degenerative diseases and diseases caused by toxic substances, etc.

For example, it has been demonstrated that GMO maize causes lesions in the oral cavity of sheep and ruminants.

A study published in 2003 showed that eating GMO maize damages the oral cavity wall and is associated with inexplicable death in experiment animals: sheep and ruminants.

Duggan et al, *Fate of genetically modified maize DNA in the oral cavity and rumen of sheep*, British Journal of Nutrition, 89 (2): 159-166, 2003 http://www.mednat.org/alimentazione/Duggan_GMO_Mais.pdf

SIXTH POINT OF THE THREAT OF GMOs:

danger of worldwide famine due to "TERMINATOR" technology

Passing to natural "indigenous" species of wheat, rice, sweet corn, potatoes, legumes, because vegetables themselves cannot reproduce themselves the normal way due to "TERMINATOR" technology; this is caused by cross pollination, and it also causes irreversibly the loss of natural vegetables that are nowadays used as food by humans, as these will be polluted by the transgenic genes coming from transgenically cultivated areas (GMO) where "TERMINATOR" technology is used.
Therefore there is a potential menace of global famine in the future, something that cannot be controlled, as the world will not have sufficient quantities of wheat, rice, sweet corn, legumes, the way they are in nature, or in any case not of the "NON-TERMINATOR" kind.

SEVENTH POINT OF THE THREAT OF GMOs:

transgenic pollution of natural plants

The transmission to "indigenous" natural species of artificial toxic substances such as *Bacillus touringiensis* or others by means of cross pollination, with a potential threat also to the plants and herbs used today in herbal remedies, because the latter will also become polluted by the transgenic genes coming from the agricultural areas devoted to transgenic cultivation (GMO).

EIGHTH POINT OF THE THREAT OF GMOs:

the irreversible disappearance of the genetic inheritance of natural plants

The gradual and irreversible disappearance of biological diversity, that is of the normal, natural flora. This phenomenon is already taking place in the USA as a consequence of modern cultivation practises, which prefer transgenic monoculture (GMO) to differentiated cultivation techniques. Transgenic cultivation will pose a serious threat to those areas which are rich in biodiversity (natural genomes): the transgenic flow which will go from modified plants to natural plants will be inevitable when the numerical ratio between areas cultivated with artificial plants exceeds the areas of natural plants, thus causing the irreversible loss of a great part of the natural genetic patrimony of all the plants existing in the world: at present there are about 442,000 species already classified out of an estimated total of 600,000 – 800,000 species.

In short:
Numerous plants have already disappeared during the last few years because farmers have abandoned natural plants to adopt artificial plants, that is, genetically modified plants, because they are uniform in their genome and they yield high production (but are poor in vitamins). They are intrinsically sick (because they are incapable of surviving without pesticides), they are made sterile for economic reasons, and finally they are genetically manipulated to resist to insects and other animals because they themselves are capable of producing poisons, i.e. toxic substances which are eaten by farmyard animals and so passed on to man.

Even in the forests genetic variety is threatened today by the loss of habitat, not only caused by incorrect deforestation practices, but also by the contamination of the genetic patrimony (which has adapted to local situations) by hybrids created by large seed companies which produce GMOs.

Transgenic products *per se* therefore aim at underlining the unilaterality of monocultures, which lead to the disappearance of the natural genetic inheritance existing from hundreds of millions of years.
In a not so distant future, all the varieties of plants – used as food or not – which are typical of a region or country will not exist any more.

Environmental genetic contamination induced by hybrids created by large companies producing GMO seeds – which inevitably will cross with varieties present in nature – will cause the irreversible loss of the natural genetic inheritance and of all particular features gained by the plant genome during the long processes of adaptation to the different environmental situations.

Even natural environments such as forests are seriously threatened by this loss. Substantially the very foundations of the human Biochemistry – the human DNA – are threatened today by the reckless use of these artificial plants, without any possibilities of regaining a genetic inheritance of more than 440,000 classified species out of 600,000-800,00 estimated species. Most of these will disappear within few hundred years because of genetic damage caused by man.

Agro-alimentary Multinationals (GMO, Biotech)

For some years we have been witnessing the birth of multinationals which define themselves as “science of life multinationals”, which are active in the pharmaceutical market, agri-business (seeds and pesticides) and the veterinary business.

They are, in themselves, different sectors, but they are linked by the use of biotechnology (GMO) to produce their products.

These multinationals are using unscrupulous and aggressive economic strategies: since the beginning of the 90s they have been working towards buying companies, even large companies.

One of these, *Monsanto*, within the space of a few years has acquired *Asgrov*, *Agracetus*, *De Calb*, and *Cargill* investing 10 billion euros.

Another big group, *Dupont*, has acquired *Pioneer*, investing about 8 billion Euros.

These investments do not seem to have any economic logic: they pay much more for the companies than their actual value, as if they were trying to eliminate a potential competitor rather than obtain a short term economic result.

Alongside the acquisitions we also have the mergers: *Ciba Geigy* and *Sandoz* created *Novartis* (with a turnover of 20 billion euros in the year 1997-98).

From the merger of the French company *Rhone Poulenc* and the German company *Hoechst* we have the new company *Aventis*.

Still within this context, *Syngenta*, the first worldwide agrochemical group was founded in October 2000. It is the result of a merger between the Swiss company *Novartis* (a company well-known for producing medicines for chemotherapy) and the Anglo-Swedish company *Astra-Zeneca* (a company also well-known for producing medicines for chemotherapy), and will have a turnover of about 8 billion euros. *Monsanto*, after its merger with *Pharmacia & Upjohn*, a large pharmaceutical industry (this too is well-known as a producer of medicines for chemotherapy) now concerns itself only with agriculture, with a turnover which in 2000 reached 5.5 billion dollars.

The current situation stands thus: a few multinationals (*Syngenta*, *Monsanto*, *Novartis*, *Dupont* and *Aventis*) have 25-30% of the seed market (but more than 90% of the transgenic seed market) and behind these big groups there is a plethora of smaller companies which makes one think that this trend can only get stronger in the future, since medium size companies cannot compete with these big groups. The objective seems clear: to convert the traditional seed market into a biotechnical one, i.e. GMO. But the worrying fact is that we find the same names in the field of pesticides, where the same companies control 55% of the market, and in the pharmaceutical field where the *same* companies play a dominant role.

Chemical-pharmaceutical Multinationals (Big-Farma)

The history of the chemical-pharmaceutical multinationals is incredible because of their rapid development, and today they are connected to the agro-alimentary sector in an extremely dangerous way.

The chemical-pharmaceutical industry started in Europe in the second half of the nineteenth century: in many cases they were dyeing industries which, moving away from basic chemistry, moved towards the new and more promising fields of specialized chemistry in key economic fields.

Before the Second World War, a powerful international pharmaceutical cartel developed in Germany. It controlled global pharmaceutical companies and chemical plants and was active in 93 countries, representing a powerful economic and political force in each of them. It was known as I.G. Farben.

It would become the main supporter of Hitler's chemical production during the years of war, offering products such as high explosives, toxic gases and the ignominious *Zyklon-B*, the lethal substance used by Nazis in the death camps.

In 1928, however, before the outbreak of war, the American monopolist manufacturer John D. Rockfeller had merged his international empire in America with I.G. Farben, creating the largest and most powerful pharmaceutical cartel ever seen.

The Military Nuremberg Tribunal established in 1946/47 that the Second World War would not have taken place without this petrochemical cartel called *I.G. Farben*.

As a consequence of the sentence passed by the Tribunal, *I.G. Farben* was divided into *Bayern*, *BASF* and *Hoechst*, and some executives were condemned for initiating a war against international law, genocide, the exploitation and looting of private and public properties in foreign countries and other crimes against humanity.

The events leading to the war and linked to this powerful cartel are reported in Joseph Borkin's *The Crime and Punishment of IG Farben*.

After the war, Germany, with its three large companies *Bayer, Hoechst* and *BASF* (which encouraged the rise of Hitler's national socialism), played an important role. So did Switzerland, which, in Basle, saw the founding and the development of companies *Ciba*, *Sandoz* and *Roche* – all of which later spread throughout the world.

But it was in the 1990s that the really big mergers started: in 1989, in the United Kingdom two big pharmaceutical companies merged to form *Smith Kline-Beecham*: later they merged with *American Home* (with an annual turnover of about 25 billion euros).

In 1993 the Swedish company *Pharmacia* bought the Italian company *Farmitalia-Carlo Erba*, then it merged with the American company *Upjohn* in 1995, and then again with *Monsanto*, before being bought by *Pfizer* which had previously bought the American company *Parke Davis*.

In 1995 there was the *Glaxo-Wellcome* merger (with an annual turnover of about 14 billion euros).

In 1998 *Smith-Kline-Beecham* (with an annual turnover of 62 billion euros) merged with *Glaxo-Wellcome* (with an annual turnover of about 90 billion euros) to make an annual turnover of more than 150 billion euros.

In the meantime the English company *Imperial Chemical Industries* merged with the Swedish company *Astra*, forming the company *Astra-Zeneca*.

These mergers have continued among the same companies operating in the same field: *Sandoz* and *Ciba Geigy* (Novartis, 1996), *Astra-Zeneca* (1998).

These huge companies have not been founded for the good of patients but out of the need to create monopolies and hence ever bigger profits.

Latest data:
June 2002: *Aventis* was taken over by *Bayer*. This allowed *Bayer* to enter the sector of GMO seeds. The merger brought to the foundation of *Bayer CropScience*, which is composed of three main commercial groups: *Crop Protection*, *Bio Science* and *Environmental Science*.

June 2005: *Sementis* was taken over by *Monsanto*.

The perverse alliance

One can thus affirm that the two cardinal points of the economy and the life of the individual, agriculture and pharmaceuticals, are substantially under the control of a few multinational groups.

CONCLUSIONS

We are faced with a choice: accepting biochemical modifications of plants leading to immense damage to human health or taking a stand together with the democratic institutions of our society against GMO and chemo-pharmaceutical multinationals, which in their perverse alliance are responsible for the reckless invasion of GMOs all over the world.

The solution is simple but there are only four months left to prevent GMOs from causing an IRREVERSIBLE event, as Prof Altieri rightly defined it:

1) Total ban on GMO cultivation

2) Total ban on experiments in the fields (risk of horizontal genetic transfer)
3) Promotion of organic farming (it produces a higher yield)
4) Defence of bio-diversity, in particular with the re-establishment of the freedom to exchange seeds.

If this does not take place, the world will need to consider the possibility of a SECOND NUREMBERG TRIALS…

Thank you

ALLEGATED 18

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Giuseppe Nacci y Giuseppe Altieri

"La amenaza OMG (Organismos Modificados Genéticamente) en los modelos alimenticios de acompañamiento a la terapia inmunitaria y desintoxicante"

El Cáncer es una enfermedad degenerativa que se debe a carencia de vitaminas e intoxicaciones de sustancias químicas presentes en la comida.

Las vitaminas y las provitaminas presentes en las plantas naturales que se usan en la alimentación humana común se pueden estimar en un número superior a 13.000-15.000 tipos.

La introducción en la agricultura moderna de los Organismos Modificados Genéticamente (O.M.G.) no tiene justificación y resulta ser una alteración muy peligrosa de lo que la evolución ha producido en las plantas durante más de ciento millones de años: son plantas sobre las que se ha basado la sucesiva evolución bioquímica de los complejos organismos animales superiores, culminados con la llegada de los Mamíferos en los últimos 65 millones de años y luego con la llegada del Hombre.

Por lo tanto, el delicado equilibrio bioquímico de la especie humana depende de la integridad de las especies vegetales así como la Evolución las ha traído hasta nosotros, porque la Salud de todos nosotros se basa sobre la Bioquímica celular humana y ésta depende, en su propia complejidad genómica (ADN), del uso de miles de vitaminas y de compuestos fitoquímicos presentes en la Naturaleza.

La planta también es un organismo complejo, fruto de la evolución biológica de millones de años: cada modificación genética provocada por el Hombre (por radiaciones como pasó en Chernóbil, o con retrovirus como actualmente pasa con los OMG), producirá en todo caso un daño, daño irreparable que a menudo no podrá ser reconocido, porque el Hombre conoce con seguridad sólo a pocas decenas de vitaminas y de otras provitaminas.

Viceversa, las vitaminas y las demás sustancias contenidas en las plantas son decenas de millones y son las responsables del correcto funcionamiento de la compleja bioquímica humana y del genoma humano (ADN).

Hoy en día, para obtener la ventaja de una (supuesta) mayor producción agrícola, se recurre al método de modificar el patrimonio genético de las plantas naturales, para:

1) modificar su estructura,

2) convertirlas en estériles (para obligar los agricultores a comprar nuevas semillas cada año),

3) patentar la transformación inducida,

4) vender en todo el mundo el producto que se obtiene.

En realidad nunca se ha llegado a demostrar que los cultivos OMG producen mayores cantidades de productos, sino menores, como se demuestra en las obras científicas independientes redactas por el Instituto británico ISIS.

Se afirma además que existe una substancial equivalencia entre:
1) el producto modificado genéticamente (OMG)
2) el producto obtenido con la selección de los caracteres genéticos (o sea, mediante el cruce natural de plantas como la naturaleza hace desde siempre en el curso de millones de años).

Nosotros afirmamos sin embargo que la "*equivalencia substancial"* es absolutamente insostenible, porque:
1) el cruce natural de plantas ocurre con semillas naturales de la misma especie, mientras que la manipulación genética (OMG) ocurre sobrepasando las barreras de especies vegetales o, incluso, bacterias, virus o animales.
2) Es por ese motivo que la mayor parte de los genes usados por la ingeniería genética provienen de especies vivientes que nunca han formado parte de la alimentación humana o incluso provienen de ADN que no pertenecen a plantas, sino a animales, bacterias o virus y/o retrovirus transgénicos.

Es posible entonces distinguir OCHO amenazas inmediatas:

PRIMERO: *pérdida de los complejos provitamínicos y vitamínicos de las plantas*

SEGUNDO: *mutaciones genéticas de las plantas y consecuente alteración de la bioquímica humana*

TERCERO: *fracaso de la dieta-anti-cáncer*

CUARTO: *enfermedades inducidas por virus transgénicos*

QUINTO: *intoxicación causada por venenos sintetizados desde plantas transgénicas*

SEXTO: *posibles carestías a nivel mundial por causa de la tecnología "TERMINATOR"*

SEPTIMO: *modificación transgénica de plantas naturales*

OPTAVO: *desaparición irreversible del patrimonio genético de las plantas naturales*

PRIMER PUNTO DE LA AMENAZA OMG:

Pérdida de los complejos provitamínicos y vitamínicos de las plantas

En efecto, es gravísimo el intento deliberado de desactivar las substancias naturales contenidas en las plantas para hacer posible el transporte en largas distancias y durante tiempos muy largos de fruta y de verduras frescas en realidad empobrecidas de muchas vitaminas, cuya ausencia permite evitar la oxidación de tales comidas.

Sin embargo las vitaminas entran en complejos mecanismos enzimáticos del ADN de los mamíferos e inducen el fenómeno de la APOPTOSIS (suicidio) en estas células de mamíferos si estas mismas están enfermas por causas infectivas o, sobre todo, de CÁNCER O LEUCEMIA.

Ese fenómeno de deliberado empobrecimiento vitamínico, unicamente para la explotación comercial es un acto gravísimo de daño deliberado infligido al ecosistema mediante los OMG.

Millones de vitaminas, contenidas en plantas frescas, son capaces de inducir fenómenos de activación de las defensas inmunitarias contra gérmenes, virus o células tumorales o incluso de provocar fenómenos de apoptosis (suicidio celular o muerte programada) en las mismas células tumorales.

La cantidad de vitaminas necesaria para provocar en laboratorio la apoptosis de una cierta cantidad de células tumorales sin provocar algún daño a las células humanas sanas es verdaderamente mínima.

En muchas obras, casi todas en PDF, provenientes de **literatura médico-científica oficial**, se indica la cantidad de vitaminas capaz de inducir el fenómeno de apoptosis en la específica línea celular neoplástica considerada, cantidad que se expresa en:

micromol (o sea micromol/Litro, o sea nanomol/miliLitro,o sea picomol/microLitro).

En efecto es gravísima la desaparición de muchas vitaminas naturales anti-cáncer (Antocianinas, Flavonoides, Polifenoles, sesquiterpene lactone Parthenolide, penta-acetil Geniposide, Camellina B, beta-Criptoxantina, Esperidina, Emodina, ácido ursólico, sulfuro de alilo, Eriodictoiolo, ácido protocatéquico, Indoli, Isotiocina, Resveratrol, Elemene, Acutiaporberina, Capsaicina, Wogonina, Fisetina, ácido carnósico, Germanio sesquióxido, Epigallocatequina gallato, Limonene, Axeroftolo palmitato, alfa y beta Carotene, ácido trans-Retinoico, Tocoferoles, Cinaropicrina, Licopene, Proantocianidina, Damnacanthal, Baicalina, Baicaleina, ácido hidrocinámico, sesquiterpenoides como Atractilone o como Atractilenolides I, II, III,

alcaloides del Gelsemio, otros flavonoides, Sinigrina, ácido ferúlico, ácido elágico, ácido cumarinico...) que inducen la apoptosis (suicidio) de los tumores.

Para más información sobre el tema de la apoptosis, se vea el artículo en italiano "MECCANISMO DI APOPTOSI" en el capítulo 5 del libro in INTERNET "Mille Piante per guarire dal Cancro senza Chemio" (http://www.medicinetradizionali.it/nacci.htm http://www.erbeofficinali.org/dati/nacci/index.php ; http://www.alternativemed.eu/cancro/1000%20piante_cancro.pdf ; http://www.mednat.org/Nacci%20libro.pdf ; http://www.medicinetradizionali.it/nacci.htm
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Del sitio Internet http://erbeofficinali/dati/nacci/allpdf.php (o de www.erbeofficinali.org/dati/nacci/tisaneantitum.php o de http://erbeofficinali.org) es posible bajarse gratis unos 100 artículos científicos en inglés sobre la apoptosis inducida por las vitaminas naturales.

Estas vitaminas están producidas por las plantas propiamente para protegerse de virus, bacterias y hongos cuando falta la protección química de los PESTICIDAS.

Estas vitaminas dan "sabor" y "gusto" a la fruta y a la verdura biológica, con respecto a la fruta y a la verdura tratada con pesticidas (fito-fármacos).

Además de estas obras sobre las calidades anti cáncer de las vitaminas naturales que inducen el fenómeno del suicidio del cáncer, es oportuno entonces indicar datos de bibliografía científica sobre las distintas modificaciones genéticas aportadas por las Multinacionales OMG.

Esta desaparición puede ocurrir a causa de la modificación genética de las plantas: por ejemplo, en el caso de la *Pueraria species*, es posible notar su riqueza en Antocianinas, que inducen la apoptosis de los tumores, pero en el caso de la Pueraria-GMO (modificada genéticamente por error), su contenido de Antocianinas se reduce del 40%. (**Véase anexo "PUERARIA":** Joung JY.: *An overexpression of chalcone reductase of Pueraria montana var. Lobata alters biosynthesis of anthocyanin and 5'-deoxyflavonoids in transgenic tobacco,* Biochem Biopsys Res. Commun 2003, 303, págs.: 326-331. http://www.mednat.org/alimentazione/PUERARIA.pdf)

En el trabajo de Woitsch y Romer de 2005 (*Impact and interaction od liophilic antioxidants in mutants and transgenic plants,* Journal of Plant Physiology, 162, 2005, págs: 1197-1209 http://www.mednat.org/alimentazione/Nacci_Vitamins_in_GMO_Plants.pdf) se demuestra además que fuera de los laboratorios, en las verdaderas condiciones ambientales de estrés climático (oscilación térmica día-noche, viento, rayos solares ultravioletas, etc...) las plantas OMG pierden la capacidad de producir vitaminas, aunque se hayan creado en laboratorio propio para esta finalidad. La razón de tales fracasos es la total ignorancia de la Ciencia frente a la activación de complejos mecanismos bioquímicos de reparación que la planta tiene que actuar en condiciones de estrés ambiental de varias orígenes, a diferencia de las plantas naturales cuya evolución ha durado más de 500 millones de años y se ha caracterizado por una natural y espontánea capacidad de

producir decenas y decenas de vitaminas (algunas todavía desconocidas) para protegerse del estrés ambiental, de las radiaciones ultravioletas, de la oscilación térmica día-noche y de las infecciones virales, bacterianas o de hongos.

Gravísima es la falta de semillas en los frutos OMG.
La importancia de las semillas cono factores anti cáncer se debe a que contienen la famosa vitamina B17 (se vea, por ejemplo, el trabajo del doctor "MORRONE" sobre diez pacientes americanos en 1962 – http://www.mednat.org/cancro/morrone.pdf – o el trabajo del doctor Tasca de 1958 sobre 21 pacientes italianos – http://www.mednat.org/cancro/tasca.pdf – y todo el capítulo 5 del libro

in INTERNET "Mille Piante per guarire dal Cancro senza Chemio"
(http://www.medicinetradizionali.it/nacci.htm http://www.erbeofficinali.org/dati/nacci/index.php ; http://www.alternativemed.eu/cancro/1000%20piante_cancro.pdf ; http://www.mednat.org/Nacci%20libro.pdf ; http://www.medicinetradizionali.it/nacci.htm).

Sin embargo, es muy grave la introducción por parte de las grandes empresas de semillas OMG en el mercado agrícola mundial de los mismos frutos sin semillas, en particular de *Cucumis melo*, *Citrus limonum*, *Citrullus vulgaris*, *Solanum lycopersicum*, *Vitis vinifera.*

SEGUNDO PUNTO DE LA AMENAZA OMG

Mutaciones genéticas de las plantas y alteración de la bioquímica humana.

A causa de la introducción de genes extraños (por ejemplo de animales, bacterias, virus, retrovirus) en el ADN de la planta, se verifica en ella la alteración de la normal secuencia genómica y comparecen nuevas proteínas y/o se pierden otras proteínas de la secuencia genómica.

Han comparecido, además, nuevas sustancias similares a las vitaminas naturales, que en realidad tienen características de reactividad enzimática y bioquímica diferentes de las naturales, con inducción de modificación de su componente de actividad bioquímica sobre el genoma humano, una vez que se han introducido con la alimentación.

Se denota la comparecencia de nuevas enfermedades nacidas de manera "artificial" a causa de la manipulación genética (OMG) de organismos vegetales, contaminados genéticamente por nuevas moléculas simil-vitamínicas con efectos inductivos sobre el ADN humano y sobre la compleja bioquímica del todo desconocida, pero que probablemente anuncia graves daños dada la extrema complejidad y vulnerabilidad del ADN humano.

Por ejemplo, el único test a largo plazo (24 meses), conducido por un grupo de italianos ha demostrado che los OMG pueden modificar algunos órganos internos. La nutrición de los ratones con la famosa variedad de maíz *Roundup Ready* cambió la estructura y el funcionamiento de las células del hígado, del páncreas y de los testículos. (Malatesta M.: *Fine structural analyses of pancreatic acinar cell nuclei from mice fed on GM soybean.* Eur. J. Histochem., 47:385-388, 2003) http://www.mednat.org/alimentazione/Malatesta.pdf

La segunda obra que citamos es la de Pusztai: el autor descubrió que los ratones alimentados con patatas transgénicas manifestaban daños a los órganos, espesamiento del intestino delgado y escaso desarrollo cerebral. Las patatas habían sido modificadas genéticamente para contener lectina, para que las plantas se convirtieran resistentes a los pesticidas. (Pusztai: *Effect of diets cointaining genetically modified potatoes expressing Galanthus nivalis lectin on rat small intestine*, The Lancet Vol. 354, October 16, 1999 : http://www.mednat.org/alimentazione/Pusztai.pdf)

La tercera obra es la de Prescott sobre los guisantes-OMG :
(http://www.mednat.org/alimentazione/Prescott.pdf)

La cuarta obra es la de la doctora rusa Irina Ermakova, *Institute of Higher Nervous Activity and Neurophysiology* de la *Russian Accademy of Sciences (RAS)* en Moscú.
Este estudio de la Agencia Nacional Rusa de la Investigación sugiere que una dieta a base de alimentos modificados genéticamente puede causar daños a la descendencia.

Tal estudio fue presentado a un simposio del *American Academy of Environmental Medicine* sobre las modificaciones genéticas el 10 de octubre de 2005, por la *National Association for Genetic Security* (NAGS). El estudio fue realizado por un grupo de investigadores conducido por la doctora Irina Ermakova, bióloga del *Institute of Higher Nervous Activity and Neurophysiology* de la *Russian Accademy of Sciences* (RAS). Durante el experimento, la doctora rusa añadió soja OMG a la comida de los ratones hembra dos semanas antes de la concepción y durante la lactancia. No se añadía nada a la comida de los ratones hembra del grupo de control. A los tres grupos de ratones se subministraba una dieta diferente: un grupo de control no recibía soja, el segundo recibía soja OMG y el tercer grupo recibía soja convencional (o sea, NO OMG). Los científicos contaron los nacimientos y las muertes de los animales sometidos a este experimento. Tres semanas después del nacimiento de los pequeños, se contaron los muertos. Se llegó a descubrir la siguiente cosa: la soja convencional y la soja OMG no influenciaban el número de ratones muertos nacidos por cada madre. Sin embargo, el número de los muertos tras 3 semanas fue muy diferente. Los resultados indicaron que la soja convencional (o sea, NO OMG) no tiene algún efecto sobre el porcentaje de los ratones muertos, mientras que la soja OMG aumenta el porcentaje de los ratones muertos, en relación de uno cada 8 nacimientos. Además, el 30% de los nacidos en el grupo de ratones alimentados con soja OMG, pesaba 20 gramos menos de lo normal. Estos hechos han de considerarse muy graves, ya que la morfología y la estructura de los ratones son muy parecidas a las del hombre. (Artículo original en: *GM Food Dangers Directly Affect Biological Descendants and Future Generations*, publicado por Robin Good, MasterNeMedia.org el día 1 de noviembre de 2005.
Se vea, además: Ermakova IV, "*Genetically modified soy leads to the decrease of weight and high mortality of rat pups of the first generation", preliminare studies.* EcosInforms 2006, 1, 4-9 (en Ruso). Un documento completo se publicará a breve: Ermakova IV, *Genetics and ecology*, en: *Actual problems of science*, Moscú, 2005, págs. 53-59 (en Ruso). http://eco-irina-ermakova.narod.ru/eng/index.htm

TERCER PUNTO DE LA AMENAZA OMG

Fracaso de la dieta anti-cáncer

Como ya ha sido demostrado por Gerson (www.gerson.org) y por otros médicos, muchísimas sustancias contenidas sólo en la fruta y en la verdura cruda y biológica pueden inducir una CASCADA INMUNITARIA contra el cáncer, una detoxificación y el singular fenómeno de la apoptosis (suicidio) de las células enfermas, sin tener que recurrir a investigaciones complicadas y muy caras.

De este modo, según un experimento que subministraba a 153 pacientes afectos por la peor forma de cáncer conocida (Melanoma) la dieta anti cáncer del Doctor Gerson durante un periodo de cinco años se llegaba a porcentajes de cura del

70-90% (si el tumor todavía se localizaba)

y del 40-70% (si el tumor ya había producido metástasis)

siempre que los pacientes no se hubieran sometido antes a Quimioterapia.

Hildebrand, G.L.: *Five year survival rates of melanoma patients trated by diet therapy after the manner of Gerson: a retrspective review*, in Alternative Therapies, vol. 1 [4], September 1995, págs. 29-37. www.gerson-research.org/docs/HildenbrandGLG-1996-1/index.html

La clave de la eficacia curativa de estas singulares dietas vegetarianas está en que no asimilan nunca alimentos que contienen todos los potenciales de crecimiento celular,

en particular: EVITAN **la asimilación contemporánea (1-3 horas) de TODOS los 9 aminoácidos esenciales (Valina, Isoleucina, Leucina, Lisina, Metionina, Histidina, Triptófano, Fenilalanina, Treonina)**

Porque sólo mediante ellos las células del cáncer pueden construir PROTEÍNAS, o sea otras células enfermas.
Además, hay que evitar la asimilación de: **ácidos nucleicos, vitamina B12, ácido fólico** (porque determinan la duplicación del ADN de la célula del cáncer)

hace tiempo, ...antes de la era de los alimentos OMG, esta norma se ponía en práctica muy fácilmente: los alimentos que contenían todas esas sustancias eran sólo de origen animal (carne, pescado, huevos, levadura, leche, queso, mantequilla...) que Gerson y otros autores (así como las medicinas china e india) prohibían consumir por lo menos durante 1 año.

De este modo, la alimentación más adecuada era la sólo la vegetariana, o sea a base sólo de fruta y de verdura, incluidos los cereales y las legumbres.

Los cereales y las legumbres son ricos en AMINOÁCIDOS ESENCIALES,

y por este motivo puede sorprender que muchas otras escuelas occidentales, indias y chinas de medicina natural los utilizaran en la terapia contra el Cáncer.

El éxito de estas terapias así lejanas en lo que concierne a TEORÍA, pero tan similares en su eficacia práctica contra el CÁNCER se podría explicar basándose en la moderna BIOQUÍMICA con el hecho de que *NINGÚN* CEREAL y *NINGUNA* LEGUMBRE contenía solo TODOS los 9 Aminoácidos Esenciales

Sin embargo, si unimos estos alimentos en la misma comida, determinan la asimilación de los 9 Aminoácidos Esenciales.

Y el cuerpo humano puede de tal modo sintetizar PROTEÍNAS y construir células (...cancerígenas).

Comparando las viejas terapias, entonces, se denota la PROHIBICIÓN ABSOLITA de comer CEREALES Y LEGUMBRES juntas, o sea Pasta (o Polenta o Pan [aunque sea ázimo] o arroz) con legumbres, porque, con la moderna BIOQUÍMICA, hoy en día sabemos que se integran los nueve Aminoácidos Esenciales: (los cereales contienen sólo 8, falta la Lisina, presente en las legumbres) ; (las legumbres contienen sólo 8, falta la Metionina, presente en los cereales)

de este modo el efecto nutricional es similar al de la carne.

Sin embargo, hoy en día a través de la introducción en el comercio de cereales, legumbres y otros vegetales modificados genéticamente (OMG), muchos de estos alimentos contienen TODOS los Aminoácidos Esenciales (Day P.R.: *Genetic modification of plants: significant issues and hurdles success,* Am.J.Clin.Nutr., 63(4), págs: 651S-656S, 1996 http://www.mednat.org/alimentazione/DAY.pdf) convirtiendo de tal modo el Cáncer en NO curable según lo descrito en este trabajo, por la terapia de Gerson, y en los trabajos de muchos otros autores.

CUARTO PUNTO DE LA AMENAZA OMG

Enfermedades inducidas por virus transgénicos

Los virus transgénicos con los que hoy en día se obtienen los Organismos Modificados Genéticamente (O.M.G.) entran en el ADN de la planta y la modifican de modo desconocido.

Se supone que estos virus quedan latentes, pero nada puede excluir que puedan reactivarse de manera parecida a los ya bien conocidos virus tumorales de ARN (Oncornavirus) o como virus tumorales de ADN (ambos causan leucemias, sarcomas, carcinomas, gliomas...).

Estos virus pueden incluso introducir nuevas enfermedades o enfermedades bastante parecidas a síndromes muy conocidas y cuya dinámica todavía no ha sido del todo entendida (SIDA, Vaca Loca, etc....) y cuya origen es todavía muy vaga (¿causadas por virus transgénicos?).

Para más información sobre los virus usados para obtener OMG aconsejamos el libro in INTERNET "Mille Piante per guarire dal Cancro senza Chemio"
(http://www.medicinetradizionali.it/nacci.htm http://www.erbeofficinali.org/dati/nacci/index.php ; http://www.alternativemed.eu/cancro/1000%20piante_cancro.pdf ; http://www.mednat.org/Nacci%20libro.pdf ; http://www.medicinetradizionali.it/nacci.htm

Es de conocimiento común que el CaMV (*Cauliflower Mosaic Virus – Virus del Mosaico de la Coliflor)* hoy en día se usa para replicar *retrovirus* introducidos en las plantas por las multinacionales OMG para modificar el ADN de las plantas (y convertirlas en plantas OMG).
Este virus está activo en todas las plantas (*Angiospermas* y *Gimnospermas*).

El uso de este virus por parte de las Multinacionales OMG para modificar genéticamente las plantas se debe a los singulares *promotores* ("motores" de activación genética) que contiene.

El CaMV tiene dos de estos *promotores*: el **19S** y el **35S**.
De estos dos, el **35S** es el *promotor* más usado por las Multinacionales.

El **promotor 35S** es una secuencia de ADN con más o menos 400 bases (unidades de secuencia génica, caracterizada por 4 distintas moléculas: Adenina, Citosina, Guanina o Timina)

El *promotor* CaMV es el preferido entre todos los *promotores* utilizados por las Multinacionales OMG para modificar las plantas, porque las distintas condiciones de

los tipos de tejido celular vegetal no lo influencian, de modo que es eficaz indistintamente.

Desafortunadamente, el CaMV puede penetrar y replicarse incluso en las células de los animales, como en las de los mamíferos y en las de los humanos, como se demuestra en la obra de Vlasak, del 2003 (Vlasak J.: *Comparison of hCMV immediate early and CaMV 35S promoters in both plant and human cells*, Journal of Biotechnology No. 103, págs: 197-202, 2003 http://www.dirittolibertadicura.org/images/OGM/clasak.pdf http://www.mednat.org/alimentazione/vlasak.pdf

Estos para-retrovirus artificiales, creados y usados por las Multinacionales para modificar el ADN de las plantas, se parecen a los *retrovirus* ya presentes en la naturaleza como: el *retrovirus* VIH del SIDA, el de la LEUCEMIA HUMANA, o el de la Hepatitis B humana.
(Bonneville: *Retrovirus, Viroids and RNA recombination*, RNA Genetics, Vol. 11, págs: 23-42, 1988).

De hecho, se sabe por la literatura científica, que el CaMV está estrechamente ligado al virus de la Hepatitis B humana y al del SIDA.
(Doolitte: Quart.Rev.Biol. 64, 2, 1989); (Xiong and Eickbush, *Origin and evolution of retroelements based upon their riverse transcriptase sequences* EMBO Journal 9, pág. 3353, 1990 http://www.mednat.org/alimentazione/EMBO%20JOURNAL%201990.pdf)

El riesgo usando el CaMV en plantas usadas para la alimentación animal y/o humana se caracteriza por la RECOMBINACIÓN GENÉTICA de los cromosomas (ADN) de las plantas, pero esto determina la posible recombinación del mismo promotor 35S incluso con el ADN del animal o de la persona que se ha comido la fruta, la verdura, la pasta o la soja OMG y que, de esta forma, contienen esos *para-retrovirus artificiales*.

Los virus pueden incorporar, en la RECOMBINACIÓN GENÉTICA, genes celulares presentes en la planta o en el animal que en precedencia se nutrieron de esa planta OMG, para pasar al hombre (nutriéndose del animal), con efectos genéticos del todo desconocidos.

Una de las más probables consecuencias es la manifestación de **cánceres** y de **leucemias**.

Otra consecuencia es la **modificación genética en la descendencia**.
En ambos casos, el sistema del ADN "saltaría" de manera similar mediante la exposición a las radiaciones ionizantes, con la diferencia que se presentaría incluso la amenaza de la manifestación de nuevas enfermedades infectivas.

NUEVAS ENFERMEDADES INFECTIVAS: se ha demostrado la manera en que los genes del CaMV incorporados en los cromosomas de plantas (Canola) se

recombinan con virus infectivos para producir enfermedades virales mucho más virulentas.

Gal, en una obra de 1992, ilustra ese modelo experimental sobre la cuestión de la seguridad de las plantas transgénicas que contienen genes virales transgénicos como el CaMV. Gal S.: *Agroinfection of transgenic plants leads to viable Cauliflower Mosaic Virus by intermolecular recombination,* Virology, No. 187, págs: 525-533, 1992 http://www.dirittolibertadicura.org/images/OGM/gal.pdf http://www.mednat.org/alimentazione/Gal.pdf

Sobre la recombinación entre CaMV y otros virus que implican el promotor se vea también el trabajo de 1990 de Vaden Ray Vaden: *Recombination sites in Cauliflower Mosaic Virus DNAs; implications for Mechanisms of recombination,* Virology, No.177, págs: 717-726, 1990 http://www.dirittolibertadicura.org/images/OGM/ray%20vaden%20.pdf

Otros estudios científicos han demostrado que estos *retrovirus* pueden intercambiar entre ellos cadenas de ADN con otro ADN y ARN con otro ARN, creando nuevas infecciones virales. (Mol.Plant-Microbe Interactions 5, 48, 1992).

Experimentos similares sugieren como las alteraciones de las plantas puedan provocar enfermedades mortales como se puede leer en el trabajo de Greene de 1994.
Greene A.e.: *Recombination between viral RNA and transgenic plant transcripts,* Science, Vol. 263, 11 march 1994
http://www.dirittolibertadicura.org/images/OGM/greene.pdf
http://www.mednat.org/alimentazione/Greene.pdf

Muy peligrosas cadenas de ADN viral producidas por normales virus a ARN se propagan muy rápidamente en el ambiente vegetal (plantas OMG) usando el promotor 35S del CaMV para conducir la producción de virus de ARN que de otra manera no se podrían propagar en el ADN de las plantas. Pero desde aquí pueden pasarse al ADN de animales (incluso el hombre) o en el de bacterias y/o virus.

Boyer J.C.: *Infectious transcripts and cDNA clones of RNA Viruses,* Virology, No. 198, págs: 415-426, 1994 http://www.dirittolibertadicura.org/images/OGM/boyer.pdf ; http://www.mednat.org/alimentazione/Boyer.pdf

Steinbrecher R.A.: *The CaMV 35S Promoter fragmentation hotspot confirmed, and it is active in animals,* Microbial Ecology in Health and Disease 2000, 12, págs: 189

Mae Wan Ho: *The CAMV 35S Promoter fragmentation hotspot confirmed, and it is active in animals,* Microbial Ecology in Health and Disease 2000, 12, págs: 189
http://www.mednat.org/alimentazione/MaeWanHo1.pdf

Mae Wan Ho: *Cauliflower Mosaic Viral Promoter – a recipe for disaster*, Microbial Ecology in Health and Disease 1999, 11, pp: 194-197
http://www.mednat.org/alimentazione/MaeWanHo2.pdf

En conclusión, el *promotor* CaMV se recombina con los virus infectivos para producir nuevas enfermedades virulentas.

El virus CaMV y sus *promotores* **19S** y **35S** pueden incorporar genes del ADN de la planta-huésped, del animal-huésped o de la bacteria huésped, o de otro virus (con tal que sea de ADN), creando nuevas enfermedades virulentas.

En este último caso (virus de ADN), el CaMV se puede recombinar con los virus de ADN de los insectos y propagarse así en las células de los insectos.
(Zuidema D.: J.Gen.Vir. 71, págs.312, 1990). http://www.mednat.org/alimentazione/zuidema.pdf

De este modo, es plausible que gran parte de la población humana, consumiendo tomates modificados genéticamente con el CaMV (recombinado por ejemplo con el virus del Hepatitis humana B), pueda crear un SUPER-VIRUS capaz de propagarse así en las plantas de uso alimenticio, en los insectos (como, por ejemplo, los mosquitos) y de este modo llegar al hombre.
Allison R.F.: *Recombiantion in plants expressing viral transgenes*, Seminars in Virology, Vol. 7, págs: 417-422, 1996
http://www.dirittolibertadicura.org/images/OGM/allison.pdf ; http://www.mednat.org/alimentazione/Allison.pdf

Wintermantel W. M.: *Isolation of recombinant viruses between Culiflower Mosaic Virus and a viral gene in transgenic plants under conditions of moderate selection pressure*, Virology, No. 223, págs: 156-164, 1996
http://www.dirittolibertadicura.org/images/OGM/wintermantel.pdf
http://www.mednat.org/alimentazione/Wintermantel.pdf

Latham J.: *GM Gene Flow (B): Horizontal gene transfer of viral inserts from GM plants to viruses*, Technical paper, February 2004 http://www.dirittolibertadicura.org/images/OGM/latham.pdf

J.T. Dessens : *Cauliflower mosaic virus 35S promoter-controlled DNA copies of cowpea mosaic virus RNAs are infectious on plants*, Journal of General Virology, No.74, págs: 889-892, 1993
http://www.mednat.org/alimentazione/dessens.pdf

Existen retrovirus naturales que en los animales o en el hombre provocan leucemia, linfomas, sarcomas o el cáncer de mama (véase, para más información, el alegado 5 del libro on-line “Mille Piante per guarire dal Cancro senza Chemio-ottobre 2008”).
(http://www.medicinetradizionali.it/nacci.htm http://www.erbeofficinali.org/dati/nacci/index.php ; http://www.alternativemed.eu/cancro/1000%20piante_cancro.pdf ; http://www.mednat.org/Nacci%20libro.pdf ; http://www.medicinetradizionali.it/nacci.htm).

Tales retrovirus son muy peligrosos y una recombinación causal con el **promotor 35S** del *Cauliflower Mosaic Virus* tiene que considerarse muy probable, si se introducen las plantas modificadas genéticamente en la alimentación animal y/o humana.

Búsqueda de retrovirus OMG en los tumores humanos

Se considera necesaria la búsqueda, en pacientes enfermos de tumor, de eventuales hibridismos entre el ARN polisomial (de sospecha origen viral OMG, de Oncornavirus modificado para producir plantas OMG de uso alimenticio) obtenido

por tumores humanos de pacientes que se habían alimentado de comida OMG y el ADN sintetizado en laboratorio por transcripción inversa por los mismos Oncornavirus modificados para producir OMG.

Nota: todo esto requiere el acceso a informaciones reservadas, a lo mejor patentadas, por lo que concierne a modelos de retrovirus empleados por las multinacionales OMG y por lo que concierne a las modificaciones aportadas a los retrovirus por parte de las mismas empresas antes de la introducción en el comercio de las mismas plantas OMG.

Resulta mucho más difícil encontrar virus tumorígenos de ADN empleados por las multinacionales OMG para modificar el ADN de las plantas de uso alimenticio, ya que estos virus (Pox-virus, Herpes-virus, Adeno-virus), a diferencia de los Oncornavirus, no se pueden encontrar en el suero o en la orina del paciente.

De todas formas, se ha demostrado como en el citoplasma de células tumorales de mamífero infectadas y modificadas por estos virus de ADN queda una pequeña fracción, altamente específica, de ARN mensajero, que no se encuentra ni en células normales, ni en células tumorales infectadas por otros tipos de virus oncogénicos de ADN.

Se trata entonces de averiguar la eventual hibridación entre este ARN mensajero (de sospecha origen viral OMG, o sea de virus de ADN modificado para producir plantas OMG de uso alimenticio) obtenido del citoplasma de células tumorales de pacientes que se habían alimentado de comida OMG, y ADN sintetizado en laboratorio por los mismos virus de ADN modificados para producir OMG.

Aquí también se requiere el acceso a informaciones reservadas, a veces patentadas, por lo que concierne a modelos de virus a ADN empleados por las multinacionales OMG y a las modificaciones aportadas a los virus por las mismas empresas antes del acceso al comercio de las mismas plantas OMG.

Una hibridación positiva, revelada por la formación de ADN híbrido radioactivo (P32) indica la presencia de secuencias de ADN viral en las células transformadas (Green, Perspect Biol. Med., 1978).

La cobertura de informaciones

Las Multinacionales están invadiendo el mundo con Omg “secretos”, o sea cuya modificación se desconoce ya que está cubierta por secreto industrial.

Esto significa que, no teniendo a disposición la información de base, no podemos ni preparar métodos de análisis y control.

Todo esto es muy grave porque tales se producen en Estados Unidos y en otros países donde no se separan las hileras OMG free y las exportaciones pueden resultar contaminadas.

¿Qué hacer?

Por primera cosa, pedir informaciones al *Istituto Superiore di Sanitá*, al *Istituto Zooprofilattico* de Roma, al *Ministero dell'Agricoltura* y a la Comisión Europea para que activen una interrogación y una investigación Parlamentar.

Sin embargo, la Comisión Europea solicita la autorización para el comercio de tales OMG en Europa con objeto alimenticio, amenazando el cierre completo de las importaciones provenientes de Estados Unidos...

o sea, ya que los Omg nos los mandan a escondidas, si los aprobamos, podremos controlarlos...

Sin embargo, es muy probable que una acción política fuerte, en virtud del principio de precaución del tratado de Maastrischt, pueda evitar la pantentabilidad de los Omg y cada forma de “secreto” industrial sobre las manipulaciones genéticas.

Incluso porque tales “secretos” podrían interesar no sólo los alimentos importantes, sino también las semillas... abriendo camino a una contaminación irreversible e indiscriminada de la agricultura europea.

QUINTO PUNTO DE LA AMENAZA OMG

Intoxicación por medio de venenos sintetizados a partir de plantas transgénicas

Intoxicación crónica de alimentos a causa de sustancias tóxicas contenidas en las plantas para convertirlas en resistentes a los parásitas como el *Bacillus tourigiensis*, con un posible incremento de Cánceres, Abortos espontáneos, Mutaciones genéticas en la descendencia, SIDA, enfermedades degenerativas y causadas por sustancias tóxicas, etc....
Por ejemplo, se ha demostrado como el Maíz Omg provoca lesiones a la cavidad bucal de ovejas y de rumiantes.
Este estudio, de 2003, demostró como la consumición de Omg perjudica la pared de la cavidad bucal y se asocia a las muertes inexplicables de animales de experimentos: ovejas y rumiantes.
Duggan et al, *Fate of genetically modified maize DNA in the oral cavity and rumen of sheep*, British Journal of Nutrition, 89(2): 159-166, 2003 http://www.mednat.org/alimentazione/Duggan_GMO_Mais.pdf

SEXTO PUNTO DE LA AMENAZA OMG

Peligro de carestías a nivel mundial a causa de la tecnología "TERMINATOR"

Pasaje a especies "indígenas" naturales de trigo, arroz, maíz, patatas, legumbres, de la incapacidad por parte de las plantas mismas de reproducirse normalmente a causa de la tecnología "TERMINATOR", provocada por la polinización cruzada, con la pérdida irreversible incluso por parte de las plantas de uso alimenticio, hoy en día empleadas en la alimentación humana, porque estas últimas fueron contaminadas por genes transgénicos provenientes de zonas agrícolas a cultivo transgénico (OMG) de tipo "TERMINATOR".
De este punto nace la potencial amenaza de futuras carestías a nivel global, de tipo descontrolado, ya que no habrá cantidad suficiente de trigo, arroz, maíz o de legumbres de tipo "natural" o de todos modos NO-TERMINATOR.

SÉPTIMO PUNTO DE LA AMENAZA OMG

Modificación transgénica de plantas naturales

Pasaje a especies "indígenas" naturales de las sustancias tóxicas artificiales, como por ejemplo el "*Bacillus thuringiensis*" o de otro tipo, a través de polinización cruzada, con potencial amenaza incluso para las plantas y las hierbas médicas hoy en día empleadas en Fito-terapias ya que estas últimas se contaminarán por genes transgénicos provenientes de las zonas agrícolas a cultivo transgénico (omg).

OCTAVO PUNTO DE LA AMENAZA OMG

Desaparición irreversible del patrimonio genético de las plantas naturales

Gradual e irreversible desaparición de las diversidades biológicas, o sea de la normal flora natural: fenómeno que ya se está evidenciando en Estados Unidos a causa de las modernas prácticas de cultivo que enfatizan el monocultivo transgénico (OMG) con respecto a los métodos de cultivo diferenciados. Los cultivos transgénicos amenazarán mucho las zonas ricas en biodiversidad (genomas naturales): el flujo transgénico que irá desde las plantas modificadas a las plantas naturales será inevitable cuando la relación numérica entre áreas cultivadas con plantas artificiales supere la superficie cubierta por las plantas naturales, determinando de este modo la pérdida irreversible de gran parte del patrimonio genético natural de todas las plantas existentes en el mundo, actualmente equivalentes a más o menos 442.000 especies ya clasificadas, sobre un total que se estima ser de más o menos 600.000-800.000 especies.

En sustancia:
En los últimos años ya un gran número de plantas han ido desapareciendo porque los agricultores han abandonado las plantas naturales, para adoptar variedades de plantas artificiales, o sea genéticamente modificadas, ya que se han uniformado por lo que se refiere al genoma, se han convertido en plantas con un alto rendimiento de producción (aunque pobres de/en vitaminas), enfermas intrínsecamente (ya que capaces de sobrevivir en ausencia de pesticidas), convertidas en estériles por razones de mercado y manipuladas genéticamente para convertirlas en resistentes a los insectos y a otros animales ya que capaces de producir venenos, o sea sustancias tóxicas que la ganadería comerán, arriesgando la vida del hombre.

Hasta en las selvas la variedad genética está hoy en día amenazada por la pérdida del habita, no solo por prácticas incorrectas de deforestación, sino también por la contaminación del patrimonio genético que se ha adaptado a situaciones locales por parte de híbridos creados por las grandes empresas de semillas que producen los omg.

Los productos transgénicos representan entonces, propiamente por como se conciben, un empuje formidable a la acentuación de las características de unilateralidad de los monocultivos, o sea de desaparición del patrimonio genético natural que existe desde hace millones de años.
En un futuro lejano o prójimo no tendremos más todas las variedades de plantas (alimenticias o no), características de cada particular región nacional o local.

La contaminación genética ambiental inducida por parte de híbridos creados por las grandes empresas de semillas de los omg, que inevitablemente se cruzarán con las variedades presentes en la naturaleza, llevará a una pérdida en el patrimonio genético natural (pérdida no recuperable), de todas las singulares características que han

entrado en el genoma de las plantas en el curso de los largos procesos de adaptación a las diferentes situaciones ambientales.

Tal pérdida hoy en día resulta muy grave hasta para los ambientes naturales como las selvas. Fundamentalmente, la misma base de la bioquímica humana hoy en día está amenazada en su más íntima esencia (ADN humano) por el uso desconsiderado de estas plantas artificiales, sin alguna posibilidad de recuperar un patrimonio genético de más de 44.000 especies de plantas clasificadas (sobre un total de 600.000-800.000 estimadas), cuya buena parte desaparecerá en pocos centenares de años, minadas a la base de daños genéticos introducidos por el hombre.

Multinacionales agroalimentarias (Biotech, OMG)

Desde hace ya unos años están naciendo multinacionales que se definen "Multinacionales de ciencias de la vida" activas en el mercado farmacéutico, en lo que concierne al negocio agrícola (semillas y pesticidas) y veterinario.

Se trata de sectores diferentes, aunque ligados por el uso de biotecnologías (OMG) para realizar sus productos.

Estas multinacionales están utilizando estrategias económicas bastante inescrupulosas y agresivas: desde principios de los noventa operan para comprar empresas incluso de grandes dimensiones.

Asgrow, *Agracetus*, *De Calb* y *Cargil* fueron adquiridas en pocos años por una de ellas, *Monsanto*, con la inversión de unos actuales 10 millones de euros.

Dupont, otro gran grupo, adquirió *Pioneer* con una inversión de 8 millones de euros actuales.

Estas inversiones parecen tener una lógica anti-económica: terminan adquiriendo las empresas por un precio mucho más alto de su valor real, como si intentaran eliminar un potencial competidor y no obtener un resultado económico a corto plazo.

Al lado de las adquisiciones tenemos las fusiones: *Ciba Geigy* y *Sandoz* crean *Novartis* (facturado de 20 mil millones de Euros actuales en 1997-1998).

De la fusión entre la francesa *Rhone Poulenc* y la alemana *Hoechst,* nace *Aventis*.

Siempre en este contexto nace, en octubre de 2000, el primer grupo mundial de agroquímica, *Syngenta*, - resultado de la fusión entre la suiza *Novartis* (Empresa

conocida por la producción de fármacos para la Quimioterapia) y la anglo-sueca *Astra-Zeneca* (conocida también por la producción de fármacos para la Quimioterapia), que realizará un negocio de aproximadamente ocho mil millones de euros. *Monsanto*, tras la fusión con *Pharmacia & Upjohn*, una gran empresa farmacéutica (también conocida por la producción de fármacos para la Quimioterapia), se ocupa ya sólo de agricultura, con un negocio que en el año 2000 alcanzó los cinco mil millones y medio de dolares.

La situación actual es la siguiente: muy pocas multinacionales (*Syngenta*, *Monsanto*, *Novartis*, *Dupont*, *Aventis*) detienen el 25-30% de la producción de semillas (pero más del 90% del mercado de las semillas transgénicas) y detrás de estos grandes grupos se denota una tal pulverización que nos induce a pensar que este curso en futuro podrá sólo reforzarse, ya que las medias empresas no pueden contrastar la competencia de grandes grupos económicos. El objetivo parece claro: reconvertir el sector tradicional de las semillas en biotecnológico (o sea, OMG). Pero el dato impresionante es que volvemos a encontrar los mismos nombres en el sector de los pesticidas, donde las mismas empresas detienen el 55% del mercado y sobre todo en el sector farmacéutico, donde las *mismas* multinacionales tienen una posición dominante.

Multinacionales químico-farmacéuticas (Big-Farma)

La historia de las multinacionales químico-farmacéuticas es increíble por su desarrollo vertiginoso, hoy en día saldado de manera extremadamente peligrosa con el mundo agro-alimentar.

La industria químico-farmacéutica nació en Europa en la segunda mitad del siglo XIX: en muchos casos se trataba de industrias de colorantes que, separados de la química de base, se dirigían hacia los nuevos y más prometedores sectores de la Química especializada, que ocubaba sectores clave de la economía.

En los años antes de la Segunda Guerra Mundial, se formó un cártel internacional de fármacos, con sede en Alemania, que dominaba las industrias químicas y farmacéuticas de todo el mundo. El cártel había difundido sus actividades en 93 países y en cada uno representaba una potente fuerza económica y política. Se conocía con el nombre de IG Farben.

IG Farben se iba a convertir en el pilar de la producción química de Hitler durante los años de la guerra, abasteciendo de productos que comprendían potentes explosivos, gas tóxicos y el ignominioso *Zuklon-B*, la sustancia mortal usada por los nazis en los campos de exterminio.

Si embargo, antes de la guerra, en 1928, el industrial monopolista americano John D. Rockerfeller estableció una concentración industrial entre su imperio internacional con sede en América y la IG Farben, dando origen al más grande y más potente cártel farmacéutico que el mundo hubiera conocido.

El Juzgado militar de Núremberg en 1946/47 estableció que la Segunda Guerra Mundial no hubiera sido posible sin este cártel petrolquímico llamado *IG Farben*.

Tras la sentencia pronunciada por el juzgado, *IG Farben* se dividión en *Bayer, BASF* y *Hoechst* y algunos de sus dirigentes fueron condenados por haber empezado una guerra contraria al derecho internacional, por genocidio, explotación y saqueo de propiedades públicas y privadas en países extranjeros y otros crímenes contra la humanidad.

La historia de los antecedentes empresariales detrás de la segunda guerra mundial está documentada en el libro de Joseph Borkin "*The Crime and Punishmenti of IG Farben*" (*El Crimen y Castigo de IG Farben*).

Tras la guerra, Alemania con sus tres gigantes *Bayer, Hoechst, BASF* tuvo lo mismo un papel importante, junto a Suiza que, en Basilea, vio nacer y desarrollarse a *Ciba, Sanzoz* y *Roche*: tres empresas que se afirmarán en el mundo.

Sin embargo, fue en los noventa que empezaron las grandes fusiones: en Reino Unido, en 1989 dos grandes empresas farmacéuticas se fundieron en *Smith Kline-Beecham*: más tarde se fundirán también con *American Home* (aproximadamente 25 mil millones de euros de facturado anual).

En 1993 la sueca *Pharmacia* compró la italiana *Farmitalia – Carlo Erba*, y en 1995 con la americana *Upjon* y más tarde con *Monsanto*, antes de que *Pfizer* (que ya había comprado la americana *Parke Davis*) la comprara.

En 1995 se lidera la fusión *Glaxo-Wellcome* (aproximadamente 14 mil millones de euros de facturado anual).

En 1998 *Smith Kline – Beecham* (aproximadamente 62 mil millones de Euros de facturado anual) se funde con *Glaxo-Wellcome*, con un capital resultante de más de 90 mil millones de euros de facturado anual.

Mientras tanto, la inglesa *Imperial Chemical Industries* se había fundido con la sueca *Astra*, creando a *Astra-Zeneca.*

Las fusiones han seguido liderándose entre las mismas empresas farmacéuticas presentes en el mismo tipo de mercado: *Sandoz* y *Ciba Geigy* (*Novartis*, 1996), *Astra-Zeneca* (1998).

Estas potencias no nacen de la exigencia de los pacientes, sino de la exigencia de crear un monopolio y provechos siempre mayores.

Últimos datos:
Junio de 2002: compra de *Aventis* por parte de *Bayer*; este acuerdo consiente a *Bayer* de entrar en el campo de las semillas modificadas genéticamente. La fusión lleva a la creación de *Bayer CropScience*, que llega a tener tres grupos comerciales principales: *Crop Protection, Bio Science* y *Environmental Science.*

Junio de 2005: compra de *Sementis* por parte de *Monsanto.*

La unión

Es posible por tanto afirmar que los dos fundamentos de la economía y de la vida de cada individuo, o sea la agricultura y la farmacéutica, están controladas en una situación de substancial oligopolio por parte de muy pocos grupos multinacionales.

CONCLUSIÓN

Estamos frente a una encrucijada entre la aceptación de las modificaciones bio-químicas de las plantas, con daños inmensos a la salud de la humanidad, o la postura de las Instituciones democráticas de nuestra sociedad contra las Multinacionales OMG y químico-farmacéuticas que, con su unión, están detrás de la invasión irresponsable del mundo a través de OMG.

La solución es simple, pero tenemos sólo 4 meses para parar los OMG de la que justamente el Profesor Altieri define un evento IRREVERSIBLE:

1) Prohibición absoluta de permitir el cultivo de plantas OMG
2) Prohibición absoluta de experimentar en los campos (peligro de transferencia génica horizontal)
3) Revaluación de la Agricultura Biológica (que incluso tiene mayor rendición)
4) Defensa de la bio-diversidad, en particular restablecimiento de la libertad de intercambio de las semillas campesinas.

Si todo esto no pasará, habrá que pensar en un SEGUNDO NÚRNBERG...

Gracias.

ALLEGATED 19

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“Die GVO-Bedrohung (Genetisch Veränderte Organismen) für begleitende Ernährungsmodelle zur Immun- und Entgiftungstherapie ”

Krebs ist eine degenerative Krankheit, deren Ursprung im Vitaminmangel und in einer durch chemische Substanzen vergifteten Nahrung liegt.

Man schätzt, dass in den natürlichen Pflanzen der allgemeinen menschlichen Ernährung ca. über 13.000 bis 15.000 Vitamine und Provitamin-Substanzen enthalten sind.

Die Einführung von genetisch veränderten Organismen (GVO) in der modernen Landwirtschaft stellt eine ungerechtfertigte und äußerst gefährliche Veränderung dessen dar, was die Evolution in hunderten Millionen Jahren in den Pflanzen hervorgebracht hat:
Pflanzen, auf denen die nachfolgende biochemische Evolution der komplexen Organismen der höheren Lebewesen basiert, die mit dem Auftreten der Säugetiere in den letzten 65 Millionen Jahren und schließlich mit dem Erscheinen des Menschen ihren Höhepunkt findet.

Das sensible biochemische Gleichgewicht der Spezies Mensch hängt daher ab von der Integrität der Pflanzenarten, so wie sie die Evolution bis zu uns herauf gesteuert hat, denn die Gesundheit von jedem von uns basiert auf der Biochemie der menschlichen Zellen, und diese hängt in ihrer eigenen genomischen Komplexität (DNA) vom Einsatz von tausenden Vitaminen und in der Natur präsenten phytochemischen Komplexen ab.

Auch die Pflanze selbst ist ein komplexer Organismus, das Ergebnis einer hunderte Millionen Jahre dauernden biologischen Evolution.

Jede durch den Menschen hervorgerufene genetische Veränderung (durch Strahlungen wie in Tschernobil oder mit Retroviren, wie sie momentan mit den GVO passieren) provoziert auf jeden Fall Schäden, irreparable Schäden, die oft nicht erkannt werden können, weil überhaupt nur wenige Dutzend Vitamine und andere Provitamin – Substanzen mit Sicherheit nachgewiesen sind.

Umgekehrt gibt es zig-tausend Vitamine und andere in den Pflanzen enthaltene Substanzen, die für das korrekte Funktionieren der komplexen menschlichen Biochemie und des menschlichen Genoms (DNA) verantwortlich sind.

Um den Vorteil einer (vorgeblichen) höheren landwirtschaftlichen Produktion zu erzielen, bedient man sich heute der Methode, das genetische Erbgut der natürlichen Pflanzen zu verändern, wobei folgende Ziele verfolgt werden:

1) Strukturveränderung der Pflanzen,

2) Sterilisation der Pflanzen (um die Landwirte zu zwingen, sich jedes Jahr neues Saatgut zu kaufen),

3) Patentierung der vorgenommenen Veränderungen,

4) weltweiter Wiederverkauf des so erhaltenen Produkts.

In Wirklichkeit ist nie bewiesen worden, dass die GVO Kulturen größere Produktmengen hervorbringen, ganz im Gegenteil, wie aus den unabhängigen wissenschaftlichen Arbeiten der ISIS hervorgeht.

Überdies wird behauptet, dass es eine wesentliche Äquivalenz gibt zwischen:
1) dem genetisch veränderten Produkt (GVO)

2) und dem Produkt, das man durch Selektion der genetischen Merkmale erhält (das heißt durch natürliche Kreuzung von Pflanzen, wie der Mensch dies eben seit Tausenden Jahren durchführt).

Wir hingegen behaupten, dass die Aussage „wesentliche Äquivalenz“ absolut unhaltbar ist, denn:

1) Die natürliche Kreuzung von Pflanzen erfolgt mit natürlichen Samen derselben Art, während die Genmanipulation (GVO) über die Grenzen der Pflanzenarten hinaus erfolgt, und zwar mittels Einführung von Genen anderer Pflanzenarten oder sogar von Bakterien, Viren oder Tieren.

2) Der Großteil der in der Gentechnik verwendeten Gene stammt in der Tat von lebenden Arten, die nie ein Teil der menschlichen Nahrung gewesen sind und stammen noch dazu sogar von DNAs, die nicht zu Pflanzen, sondern zu Tieren, Bakterien oder Viren und /oder gentechnisch veränderten Retroviren gehören.

Auf diese Weise können wir ACHT unmittelbare Bedrohungen unterscheiden:

ERSTENS: *Verlust der Provitamin- und Vitaminkomplexe in den Pflanzen*

ZWEITENS: *Genmutationen der Pflanzen und daraus resultierende Veränderung der menschlichen Biochemie*

DRITTENS: *Scheitern der Krebs-Diät*

VIERTENS: *Krankheiten, die von transgenen Viren ausgelöst werden*

FÜNFTENS : *Intoxikation durch Gifte, die von transgenen Pflanzen synthetisiert werden*

SECHSTENS: *Gefahr von weltweitem Mangel an natürlichen Pflanzen aufgrund der "TERMINATOR" Technologie*

SIEBTENS: *transgene Veränderungen von natürlichen Pflanzen*

ACHTENS*: unwiederbringlicher Erbgutverlust der natürlichen Pflanzen*

PUNKT EINS DER GVO- BEDROHUNG:

Verlust der *Provitamin- und Vitaminkomplexe in den Pflanzen*

Das vorsätzliche Deaktivieren der in den Pflanzen enthaltenen natürlichen Substanzen, mit dem Zweck, frisches Obst und Gemüse für einen zeitlich und räumlich langen Transport haltbar zu machen, ist gravierend. In Wirklichkeit wird die Oxidierung dieser nun vitaminarmen Nahrungsmittel durch das Fehlen von eben vielen dieser Vitamine vermieden.

Diese Vitamine aber gelangen in komplexen enzymatischen Mechanismen in die DNA der Säugetiere und führen dabei in diesen Säugetierzellen im Falle von Infektionen, vor allem aber bei KREBS- oder LEUKÄMIE-Befall zum Phänomen der APOPTOSE (Zell-Selbstmord).

Dieses Phänomen absichtlicher Vitaminverarmung aus puren kommerziellen Zwecken ist ein äußerst gravierender, vorsätzlicher Schadensakt, der dem Ökosystem mittels GVO zugefügt wird.

Tausende in Frischpflanzen enthaltene Vitamine sind in der Lage, Immunabwehrreaktionen gegen Keime, Viren oder Tumorzellen auszulösen oder sogar Apoptose-Phänomene (Zelltod oder programmierter Tod) in den Tumorzellen selbst hervorzurufen.

Die Vitaminmengen, die notwendig sind, im Labor die Apoptose einer bestimmten Anzahl von Tumorzellen auszulösen, ohne in den gesunden Zellen irgendwelche Schäden zu provozieren, sind wirklich minimal.

In vielen Beiträgen - die meisten im PDF Format verfügbar – der **offiziellen medizinisch wissenschaftlichen Literatur** sind die Vitaminmengen angegeben, die in der Lage sind, auf der spezifischen neoplastischen Zelllinie eine APOPTOSE auszulösen; http://www.erbeofficinali/dati/nacci/allpdf.php

Die Mengenangabe wird ausgedrückt in:

Mikromol (d.h. Mikromol /l, d.h. Nanomol/ ml, d.h. Pico-Mol/Mikro-Liter).

PUNKT ZWEI DER GVO-BEDROHUNG:

Genmutationen der Pflanzen und daraus resultierende Veränderung der menschlichen Biochemie

Durch die Einführung von Fremdgenen (z.B. von Tieren, Bakterien, Viren, Retroviren) in die Pflanzen-DNA wird in dieser eine Veränderung der normalen Genomsequenz hervorgerufen, es treten neue Proteine auf, und/oder andere Proteine aus der Genomsequenz gehen verloren.

Wir erhalten also neue, den natürlichen Vitaminen ähnliche Substanzen, die in Wirklichkeit jedoch enzymatische und biochemische Reaktionsvermögen aufweisen, die sich von den natürlichen unterscheiden, und die daher, sobald sie einmal mit der Nahrungsaufnahme in den Körper gelangt sind, eine Veränderung der biochemischen Aktivität der Zellen auslösen.

Das wiederum führt möglicherweise zum Auftreten neuer, durch Genmanipulation (GVO) pflanzlicher Organismen "künstlich" entstandener Krankheiten. Die pflanzlichen Organismen werden durch neue Vitamin-ähnliche Moleküle genetisch verunreinigt mit induktiven Auswirkungen auf die menschliche DNA und auf ihre komplexe, noch völlig unbekannte Biochemie, die jedoch eben aufgrund ihrer extremen Komplexität und daher Verwundbarkeit sehr wahrscheinlich gravierende Schäden davontragen wird.

Der einzige langfristig (24 Monate) angelegte, von einem italienischen Team durchgeführte Test ergab, dass GVO Veränderungen bei einigen inneren Organen hervorrufen können. Die Fütterung von Mäusen mit dem berühmten *Roundup Ready* Mais führte zu einer Struktur- und Funktionsveränderung in den Zellen von Leber, Pankreas und Hoden.

(Malatesta M.,.: *Fine structural analyses of pancreatic acinar cell nuclei from mice fed on GM soybean*. Eur. J. Histochem., 47:385-388, 2003)
http://www.mednat.org/alimentazione/Malatesta.pdf)

Eine zweite Untersuchung, die hier aufgezeigt werden soll, stammt von Pusztai: Er entdeckte, dass Mäuse, die mit transgenen Kartoffeln gefüttert wurden, Zeichen von Organschäden, Verdickung des Dünndarmes und geringe zerebrale Entwicklung aufwiesen. Die Kartoffeln waren genetisch verändert worden, um durch den Lektingehalt resistenter gegen Pestizide zu werden.

(Pusztai : *Effect of diets containing genetically modified potatoes expressing Galanthus nivalis lectin on rat small intestine*, The Lancet Vol. 354, October 16, 1999)
http://www.mednat.org/alimentazione/Pusztai.pdf)

Als dritte soll die Prescott-Studie über GVO-Erbsen genannt werden.

(Prescott: *Transgenic expression of bean-amylase inhibitor in peas results in altered structure and immunogenicity*, J. Agric. Food Chem., 53, (23), pp.: 9023-9030, 2005) http://www.mednat.org/alimentazione/Prescott.pdf

Eine weitere Untersuchung wurde in Russland von Dr. Irina Ermakova am *Institute of Higher Nervous Activity and Neurophysiology* der Russischen Akademie der Wissenschaften / *Russian Academy of Sciences* (RAS) in Moskau durchgeführt.
http://eco-irina-ermakova.narod.ru/eng/index.htm .

PUNKT DREI DER GVO-BEDROHUNG:

Scheitern der Krebs-Diät

Wie schon von Gerson oder auch von anderen Ärzten bewiesen, sind sehr viele, nur in rohem und biologischem Obst und Gemüse enthaltene Substanzen in der Lage, eine IMMUNKASKADE gegen Tumor, Detoxifikation und das besondere Phänomen der Apoptose (Zellsuizid) der kranken Zellen auszulösen, ohne dass auf arbeitsintensive und kostspielige Untersuchungen zurückgegriffen werden muss.

Auf diese Art und Weise erreichte die Gerson-Krebsdiät, die an 153 Patienten angewendet wurde, die an dem schlimmsten bekannten Krebs (Melanom) erkrankt waren, nach 5 Jahren folgende, in Prozent ausgedrückte Heilungserfolge:

70-90% (wenn der Tumor noch lokalisiert war)

40-70% (wenn derTumor schon metastasiert war),

vorausgesetzt, dass die Patienten vorher keiner Chemotherapie unterzogen wurden.

(Hildebrand, G.L.: *Five year survival rates of melanoma patients treated by diet therapy after the manner of Gerson: a retrospective review*, in Alternative Therapies, vol.1[4], september1995, pp.29-37).
(www.gerson-research.org/docs/HildenbrandGLG-1996-1/index.html)

Im Gegensatz dazu stehen die Heilungschancen bei Melanomen mit Chemotherapie in 5 Jahren bei 6%, ein Wert, der anderen Quellen zufolge mit Null Prozent angegeben wird.
(Morgan G.: *The contribution of cytotoxic chemotherapy to 5-year survival in adult malignancies*, Clinical Oncol., 2004, 16, pp.: 549-560) . www.mednat.org/cancro/MORGAN.PDF
Eine Überlebenschance von NULL % , die in dieser neuesten australischen Studie von MORGAN, die mit über 270.000 Chemo-Patienten durchgeführt wurde, auch bestätigt wird bei:

Pankreaskrebs
Sarkom
Gebärmutterkrebs
Prostatakrebs
Blasenkrebs
Nierenkrebs
Multiplem Myelom.

Dieser Prozentsatz erhöht sich dann auf

1% bei Magen- und Kolonkrebs,

2% ca. bei Brust- und Lungenkrebs,

3-5% bei Rektumkrebs,

4-5% bei Gehirntumoren,

5% bei Speiseröhrenkrebs,

9% bei Eierstockkrebs,

10% bei NON Hodgkin Lymphom,

12% bei Gebärmutterhalskrebs, und

steigt auf ca. 40% bei Seminom des Hodens und beim Hodgkin Lymphom.

Der Schlüssel zum Erfolg bzw. die Erklärung für die heilende Wirkung dieser besonderen vegetarischen Diäten liegt darin:

niemals Speisen zu assimilieren, die alle potentiellen Faktoren zum Zellwachstum enthalten, **insbesondere** sind zu VERMEIDEN: **die gleichzeitige Assimilierung (1-3 Stunden) ALLER 9 essentiellen Aminosäuren**

(Valin**,** Isoleucin**,** Leucin**, Lysin,** Methionin**, Istydin,** Tryptophan**,** Phenylalanin**,** Threonin**),**

denn nur mit ihnen können die Krebszellen PROTEINE d.h. weitere kranke Zellen aufbauen.

Zu vermeiden ist auch die Assimilierung von:

Nukleinsäuren,
Vitamib B12,
Folsäure

(da sie die DNA-Replikation der Krebszelle auslösen)

einst, …vor dem GVO - Zeitalter, war diese Regel ganz leicht in die Praxis umzusetzen:

Nahrungsmittel, die all dies enthielten, waren einzig allein tierischen Ursprungs,
(Fleisch, Fisch, Eier, Hefe, Milch, Käse, Butter…)

und sowohl Gerson als auch andere Autoren (einschließlich der chinesischen und indischen Medizin) verboten deren Einnahme für mindestens 1 Jahr.

Als erfolgreich erwies sich also die ausschließliche vegetarische Ernährung, d.h. auf Basis von Obst und Gemüse, inklusive Getreide und Hülsenfrüchte.

Die letzteren Nahrungsmittel (Getreide und Hülsenfrüchte) sind jedoch reich an ESSENTIELLEN AMINOSÄUREN,

und es wird verwundern, dass sie trotzdem von vielen anderen Schulen der Naturmedizin im Westen und in der indischen und chinesischen Naturheillehre in der Krebstherapie verwendet wurden.

Der Erfolg dieser in der THEORIE so unterschiedlichen, in ihrer praktischen Wirkung gegen den Krebs jedoch so ähnlichen Therapien könnte durch die moderne Biochemie erklärt werden, nämlich aufgrund dessen, dass:

KEIN GETREIDE und *KEINE* HÜLSENFRUCHT
alleine ALLE 9 essentiellen Aminosäuren enthalten.

Werden diese Nahrungsmittel jedoch während einer Mahlzeit gemeinsam zu sich genommen, verursachen sie die Assimilierung von allen 9 essentiellen Aminosäuren,

und der Körper kann auf diese Weise PROTEINE synthetisieren und daher (Krebs-)Zellen aufbauen.

Aus dem Vergleich dieser alten Therapieformen geht das ABSOLUTE VERBOT hervor, GETREIDE UND HÜLSENFRÜCHTE zusammen zu essen.

d.h. Nudelgerichte (oder Polenta, oder Brot [auch ungesäuertes] oder Reis) + Hülsenfrüchte,

denn dank der modernen BIOCHEMIE wissen wir heute, dass damit eine Integration der neun Essentiellen Aminosäuren hervorgerufen wird:

Sind nur 8 im Getreide enthalten, so ist die fehlende [Lysin] in den Hülsenfrüchten enthalten,

sind nur 8 in den Hülsenfrüchten enthalten, so ist die fehlende [Methionin] im Getreide enthalten.

Der Nähreffekt ist dem des Fleisches ähnlich – und im Grunde genommen wurde eine Mahlzeit aus Nudeln (Getreide) und Bohnen (Hülsenfrüchte) auch das *Fleisch der Armen* genannt

Durch das Einführen in den Handel von gentechnisch veränderten Hülsenfrüchten, Getreide und anderen Gemüsesorten (GVO) sind jedoch heute in vielen dieser Lebensmittel ALLE Essentiellen Aminosäuren vorhanden, wodurch der Krebs effektiv so wie in dieser Arbeit und von anderen beschrieben, in der Gerson-Therapie NICHT mehr geheilt werden kann.
(Day P.R.: *Genetic modification of plants: significant issues and hurdles success*, Am.J.Clin.Nutr., 63(4), pp.: 651S-656S, 1996 http://www.mednat.org/alimentazione/DAY.pdf).

PUNKT VIER DER GVO-BEDROHUNG:

Krankheiten, die von transgenen Viren ausgelöst werden

Die transgenen Viren, mit denen man heute die Genetisch Veränderten Organismen (GVO) herstellt, gelangen in die DNA der Pflanze, wobei sie diese in einer uns völlig unbekannten Art und Weise verändern.

Eigentlich sollten diese Viren latent bleiben, doch kann nicht ausgeschlossen werden, dass sie sich in Analogie zu den sehr wohl bekannten RNA - Tumorviren (Onkornaviren) oder den DNA- Tumorviren (beide sind Induktoren für Leukämie, Sarkome, Karzinome, Glyome…) reaktivieren können.

Diese Viren können auch Träger neuer Krankheiten oder von Krankheiten sein, die jenen berühmten Syndromen, die in ihrer Dynamik leider noch gering erfasst sind, recht ähnlich sind (AIDS, Rinderwahn, etc…), und deren Ursprung heute noch sehr vage ist (vielleich sind es die transgenen Viren?).

Bezüglich der Viren, die zur Herstellung von GVO verwendet werden, steht eine umfangreiche Bibliographie zur Verfügung.

Es ist wohl bekannt, dass heute das CaMV (*Cauliflower Mosaic Virus*) zur Replikation der Retroviren verwendet wird, die von den GVO- Multis in die Pflanzen eingebracht werden, um deren DNA zu verändern (GVO-Pflanzen).
Dieses Virus ist sowohl in den so genannten "*Angiospermen"* als auch in den „*Gymnospermen*", d.h. also praktisch in allen Pflanzen enthalten.

Die Verwendung dieses besonderen Virus seitens der GVO-Multis zur genetischen Modifizierung der Pflanzen ist auf die in ihnen enthaltenen besonderen Promotoren („Motoren" zur genetischen Aktivierung) zurückzuführen.

Das CaMV hat zwei dieser *Promotoren*: den **19S** und den **35S**.
Von diesen zwei wird von den GVO-Multis hauptsächlich der **35S** verwendet.

Der ***Promotor* 35S** ist eine DNA Sequenz von ca. 400 Basen (Einheit der genetischen Sequenz, die durch 4 verschiedene Moleküle gekennzeichnet ist: Adenin, Cytosin, Guanin oder Tymin)

Der P*romotor* CaMV wird deshalb von den GVO-Multis allen anderen verwendeten Promotoren zur Pflanzenmodifikation vorgezogen, weil er im Unterschied zu anderen in die Zellen aller Pflanzen eindringen und hier dann agieren kann.

Leider ist er auch imstande, in tierische Zellen, Säugetiere eingeschlossen, und daher auch in menschliche Zellen einzudringen und sich da zu replizieren, wie Vlasek in seiner Studie 2003 deutlich darlegt.
(Vlasak J.: *Comparison of hCMV immediate early and CaMV 35S promoters in both plant and human cells*, Journal of Biotechnology No. 103, pp.: 197-202, 2003).
http://www.mednat.org/alimentazione/vlasak.pdf

Diese künstlichen Para-Retroviren, die auf diese Weise von den GVO-Multis erzeugt und zur Modifizierung der Pflanzen-DNA verwendet werden, sind den schon in der Natur vorkommenden Retroviren wie :

dem *Retrovirus* HIV von AIDS,
dem Retrovirus der MENSCHLICHEN LEUKÄMIE,
oder jenem der menschlichen Hepatitis B
sehr ähnlich.
(Bonneville : *Retrovirus, Viroids and RNA recombination*, RNA Genetics, Vol. 11, pp: 23-42, 1988).
http://www.mednat.org/alimentazione/boneville.pdf

Aus der wissenschaftlichen Literatur weiß man ja, dass das CaMV mit dem menschlichen Hepatits B Virus und dem AISD Virus eng korreliert.
(Doolitte: Quart.Rev.Biol. 64, 2, 1989) ; (Xiong and Eickbush, EMBO Journal 9, pp. 3353, 1990)
http://www.mednat.org/alimentazione/EMBO%20JOURNAL%201990.pdf)

Das enorme Risiko bei der Verwendung von CaMV in Nutzpflanzen als Tierfutter und/oder für den Menschen besteht in der GENETISCHEN REKOMBINATION der Chromosomen (DNA) der Pflanzen, dies verursacht jedoch die mögliche Rekombination des Promotors 35S selbst auch mit der DNA des Tieres oder der Person, die die GVO- Frucht, das GVO-Gemüse, die GVO-Nudeln oder die GVO-Soja, die eben solche *künstliche Para-Retroviren* enthalten, eingenommen hat.

Die Viren können in der GENETISCHEN REKOMBINATION auch in der Pflanze oder in dem Tier, das vorher mit einer GVO Pflanze ernährt wurde, enthaltene zelluläre Gene aufnehmen, um dann in den Menschen zu gelangen (der sich von dem Tier ernährt hat), mit genetischen Auswirkungen, die uns noch völlig unbekannt sind.

Eine der wahrscheinlichsten Konsequenzen daraus ist das Auftreten von **Krebskrankheiten** und **Leukämien**.

Eine weitere Folge ist die **genetischen Veränderung in der Nachkommenschaft.**

In beiden Fällen würde das DNA-System "ausfallen", analog zu den Auswirkungen durch ionisierende Strahlen.

Im Unterschied zu den ionisierenden Strahlen bestünde hier aber auch die Gefahr vom Auftreten neuer Infektionskrankheiten.

NEUE INFEKTIONSKRANKHEITEN: Es ist bewiesen, dass die in die Pflanzenchromosome (Canola) inkorporierten CaMV-Gene mit Infektviren rekombinieren, um viel virulentere Viruskrankheiten zu produzieren.

Ein disbezügliches experimentelles Modell über die Frage der Sicherheit der transgenen Pflanzen, die transgene Viralgene wie das CaMV enthalten, wird von GAL in einer Studie aus dem Jahr 1992 vorgelegt.
(Gal S.: *Agroinfection of transgenic plants leads to viable Cauliflower Mosaic Virus by intermolecular recombination*, Virology, No.187, pp.: 525-533, 1992)
http://www.mednat.org/alimentazione/Gal.pdf

Über die Rekombination von CaMV und verschiedenen Viren unter Miteinbeziehung des Promotors siehe auch die 1990 durchgeführte Vaden Studie.
(Ray Vaden: *Recombination sites in Cauliflower Mosaic Virus DNAs; implications for Mechanisms of recombination*, Virology, No.177, pp: 717-726, 1990)
http://www.mednat.org/alimentazione/Ray%20Vaden%20.pdf

Andere wissenschaftliche Untersuchungen weisen darauf hin, dass diese Retroviren untereinander DNA-Ketten mit anderer DNA und RNA mit anderer RNA austauschen und so neue virale Infektionen erzeugen können.
(Mol.Plant-Microbe Interactions 5, 48, 1992).

Ähnliche Experimente haben ergeben, dass Veränderungen der Pflanzen tödliche Krankheiten auslösen können, wie in der Studie von Green 1994 gezeigt wird.
(Greene A.e.: *Recombination between viral RNA and transgenic plant transcripts*, Science, Vol. 263, 11 march 1994)
http://www.mednat.org/alimentazione/Greene.pdf

Durch die Verwendung des CaMV Promotors 35S zur Produktion von RNA Viren, die sich sonst in der DNA der Pflanzen nicht ausbreiten könnten, sind nun höchst gefährliche, aus normalen RNA-Viren produzierte virale DNA-Ketten häufig in den Pflanzen (GVO-Pflanzen) verbreitet. Aber von da können sie auch in die DNA von

Tieren (Mensch eingeschlossen) oder in jene von Bakterien und /oder Viren gelangen.
(Boyer J.C.: *Infectious transcripts and cDNA clones of RNA Viruses*, Virology, No. 198, pp.: 415-426, 1994)
http://www.mednat.org/alimentazione/Boyer.pdf

Der CaMV *Promotor* geht also mit Infektionsviren eine Rekombination ein und ruft dabei neue, virulente Krankheiten hervor.

Das CaMV Virus und seine *Promotoren* **19S** und **35S** können Gene der DNA der Gast-Pflanze, des Gast-Tieres oder eines Gast-Bakteriums oder eines anderen Virus (vorausgesetzt ein DNA-Virus) inkorporieren und so neue, virulente Krankheiten erzeugen.

Im letzten Fall (DNA-Virus), kann es zu einer Rekombination des CaMV mit den DNA-Viren von Insekten kommen und sich so in den Zellen der Insekten ausbreiten.
(Zuidema D.: J.Gen.Vir. 71, pp.312, 1990). http://www.mednat.org/alimentazione/Zuidema.pdf

Es ist also durchaus plausibel, dass ein großer Teil der menschlichen Bevölkerung sich durch den Konsum von Tomaten, die mit CaMV gentechnisch verändert wurden (in Rekombination zum Beispiel mit dem menschlichen Hepatitis B-Virus) mit einem VIRUS infizieren kann, das in der Folge auch auf Insekten (z.B. Steckmücken) übertragen werden kann.
(Allison R.F.: *Recombination in plants expressing viral transgenes*, Seminars in Virology, Vol. 7, pp.: 417-422, 1996)
http://www.mednat.org/alimentazione/Allison.pdf

(Wintermantel W.M.: *Isolation of recombinant viruses between Culiflower Mosaic Virus and a viral gene in transgenic plants under conditions of moderate selection pressure*, Virology, No. 223, pp.: 156-164, 1996)
http://www.mednat.org/alimentazione/Wintermantel.pdf

(Latham J.: *GM Gene Flow (B): Horizontal gene transfer of viral inserts from GM plants to viruses*, Technical paper, February 2004)
http://www.dirittolibertadicura.org/images/OGM/latham.pdf

(J.T.Dessens : *Cauliflower mosaic virus 35S promoter-controlled DNA copies of cowpea mosaic virus RNAs are infectious on plants*, Journal of General Virology, No.74, pp.: 889-892, 1993)
http://www.mednat.org/alimentazione/Dessens.pdf

Es existieren natürliche Retroviren, die in Tier und Mensch Leukämie, Lymphome, Sarkome oder Brustkrebs auslösen können (aus Kapitel 8 des Buches "*Diventa Medico di te stesso*" ("*Werde dein eigener Arzt*").

Diese sind sehr gefährlich, und eine zufällige Rekombination mit dem **Promotor 35S** des *Cauliflower Mosaic Virus* muss als höchst wahrscheinlich angesehen werden, wenn GVO-Pflanzen erst einmal in die Ernährung von Tieren und/oder Menschen eingeführt worden sind.

Erforschung von GVO-Retroviren in menschlichen Tumoren

Als dringend notwenig erachtet wird die Erforschung an Krebspatienten bezüglich des Nachweises einer eventuellen Hybridisierung zwischen Polysomal-RNA (wahrscheinlich GVO-viralen Ursprungs, von veränderten Onkorna-Viren zur Herstellung von GVO-Nahrungspflanzen) aus den Tumoren von Patienten, die sich von GVO-Nahrungsmitteln ernährt haben, und der DNA, die aus denselben, für die GVO-Produktion modifizierten Onkornaviren durch Reverse Transskriptase im Labor synthetisiert wurde.

Anmerkung: All dies erfordert jedoch den Zugang zu vertraulichen, vielleicht auch Patent geschützten Informationen, bezüglich der Modelle von Retroviren, die von den GVO-Multis verwendet werden und bezüglich der an ihnen von eben diesen Unternehmen vorgenommenen Veränderungen, bevor die GVO-Pflanzen in den Handel kommen.

Viel schwieriger ist es, tumorigene DNA-Viren ausfindig zu machen, die von den GVO-Multis zur DNA-Veränderung der Nahrungspflanzen verwendet werden, denn diese Viren (Poxviren, Herpesviren, Papovaviren, Adenoviren) sind im Unterschied zu den Onkorna-Viren im Blut oder im Urin des Patienten nicht feststellbar.

Erwiesen ist hingegen, dass im Zytoplasma von infizierten und mit diesen DNA Viren modifizierten Tumorzellen von Säugetieren ein kleiner, höchst spezifischer Teil einer Boten-RNA übrig bleibt, der weder in normalen Zellen, noch in von anderen Arten onkogener DNA-Viren infizierten Tumorzellen zu finden ist.

Es geht also darum, eine eventuelle Hybridisierung festzustellen zwischen dieser Boten-RNA (wahrscheinlich GVO-viralen Ursrungs, d.h. von modifizierten DNA-Viren stammend, um GVO Nahrungspflanzen zu erzeugen) die aus dem Zytoplasma von Tumorzellen von Patienten, die sich mit GVO-Nahrung ernährt haben, stammen, und der DNA, die aus denselben, zur Herstellung von GVO modifizierten DNA-Viren im Labor synthetisierter wurde.

Auch hier ist jedoch der Zugang zu vertraulichen, vielleicht auch Patent geschützten Informationen erforderlich, bezüglich der Modelle von DNA-Viren, die von den GVO-Multis verwendet werden und bezüglich der an ihnen von eben diesen Unternehmen vorgenommenen Veränderungen, bevor die GVO-Pflanzen in den Handel kommen.
Eine aus der Bildung von hybrider radioaktiver DNA (^{32}P) ersichtliche, positive Hybridisierung weist auf die Präsenz von viralen DNA Sequenzen in den veränderten Zellen hin. (Green, Perspect Biol. Med., 1978).

Die Zurückhaltung von Informationen

Die multinationalen Unternehmen überschwemmen die Welt mit "geheim gehaltenen" GVO, oder besser gesagt mit GVO, von denen man die an ihnen vorgenommenen Änderungen nicht kennt, weil sie durch das Industriegeheimnis geschützt sind.

Stehen jedoch keine Basisinformationen zur Verfügung, können folglich auch keine Analyse- und Kontrollmethoden entworfen werden.

Die Angelegenheit ist extrem ernst, denn diese GVO werden in den USA und in anderen Ländern, in denen die Produktionsketten nicht nach GVO-frei getrennt werden, produziert und die Exporte könnten deshalb kontaminiert sein.

Was können wir also tun?

Zunächst einmal Informationen einholen, und zwar beim Ist. Superiore di Sanità (Höheres Institut für Gesundheitswesen), beim Istituto Zooprofilattico in Rom, beim Landwirtschaftsministerium und bei der Europäischen Kommission und eine Parlamentarische Anfrage und Untersuchung starten.

Die Europäische Kommission fördert jedoch die Genehmigung solcher GVO zu Lebensmittelzwecken in Europa, und droht anderenfalls mit einem kompletten Einfuhrstopp aus den USA…
So als würde man sagen: Da sie uns die GVO sowieso versteckt schicken, genehmigen wir sie halt…so können wir sie vielleicht kontrollieren…

Es ist aber auch sehr wahrscheinlich, dass eine politische Aktion, kraft des Vorsichtsprinzips des Maastrichtvertrages, die Patentierbarkeit der GVO und jede Form von „Industriegeheimnis" für genetische Manipulation platzen lassen könnte.

Auch weil derartige "Geheimnisse", außer importierten Nahrungsmitteln auch das Saatgut betreffen könnten…und eine irreversible und wahllose Kontamination der europäischen Landwirtschaft einleiten würden.

PUNKT FÜNF DER GVO-BEDROHUNG:

Intoxikation durch Gifte, die von transgenen Pflanzen synthetisiert wurden

Anhaltende Intoxikation von Nahrungsmitteln aufgrund toxischer insektizider Substanzen, die in den Pflanzen enthalten sind, um sie resistenter gegen Parasiten wie den *Bacillus thuringiensis* zu machen, was möglicherweise zu einer Zunahme von Krebskrankheiten, Fehlgeburten, genetischen Mutationen in der Nachkommenschaft, Syndromen erworbener Immunodefizienz, degenerativen, von toxischen Substanzen ausgelösten Krankheiten, etc führen wird.
Es wurde beispielsweise bewiesen, dass GVO-Mais bei Schafen und Wiederkäuern Verletzungen der Mundhöhle hervorruft.
Diese Studie aus dem Jahr 2003 zeigte, dass die Aufnahme von GVO Mais die Mundhöhlenwand beschädigt und wird mit dem unerklärlichen Tod von Versuchstieren in Zusammenhang gebracht: es handelte sich dabei um Schafe und Wiederkäuer.
(Duggan et al, *Fate of genetically modified maize DNA in the oral cavity and rumen of sheep,* British Journal of Nutrition, 89(2): 159-166, 2003)
http://www.mednat.org/alimentazione/Duggan_GMO_Mais.pdf

PUNKT SECHS DER GVO-BEDROHUNG:

Gefahr von weltweitem Mangel an natürlichen Pflanzen aufgrund der "TERMINATOR"-Technologie

Übergang zu "heimischen" Naturarten von Weizen, Reis, Mais, Kartoffeln, Hülsenfrüchten, die nicht mehr in der Lage sind, sich aufgrund der "TERMINATOR"-Technologie selbst zu reproduzieren, was durch die gekreuzte Bestäubung hervorgerufen wird und mit dem unwiederbringlichen Verlust auch für die heute zur Ernährung des Menschen verwendeten natürlichen Lebensmittelpflanzen verbunden ist, denn diese werden von den transgenen Genen aus den Anbaugebieten mit transgener Landwirtschaft (GVO) vom Typ „TERMINATOR" kontaminiert werden. Von daher also besteht die potentielle Gefahr, dass wir in Zukunft einen weltweiten, unkontrollierten Mangel an natürlichen Pflanzen zu verzeichnen haben werden, da es auf der Welt keine ausreichenden Mengen an Weizen, Reis, Mais, Hülsenfrüchten „natürlicher" oder zumindest „von „NICHT-TERMINATOR" –Art geben wird.

PUNKT SIEBEN DER GVO BEDROHUNG:

Transgene Veränderungen der natürlichen Pflanzen

Wir befinden uns durch die gekreuzte Bestäubung vor einem Übergang zu natürlichen, "heimischen" Pflanzenarten, die künstliche toxische Substanzen wie z.B. den "*Bacillus thuringiensis*" oder Substanzen anderer Art enthalten, was mit einer potentiellen Gefahr auch für die heute in der Pflanzenheilkunde verwendeten medizinischen Pflanzen und Kräuter verbunden ist, denn auch diese werden von den transgenen Genen aus den Anbaugebieten der transgenen Landwirtschaft (GVO) kontaminiert werden.

PUNKT ACHT DER GVO-BEDROHUNG:

Unwiederbringlicher Erbgutverlust der natürlichen Pflanzen

Wir werden ein graduelles und irreversibles Verschwinden der biologischen Vielfalt d.h. der normalen natürlichen Flora erleben: Ein Phänomen, das sich in den USA schon aufgrund der modernen Anbaupraktiken manifestiert, die die transgene Monokultur (GVO) im Gegensatz zum differenzierten Anbau fördert. Der transgene Anbau wird in der Tat eine enorme Gefahr für Gebiete mit hoher Biodiversität (mit natürlichen Genomen) darstellen: Der transgene Fluss von den modifizierten Pflanzen zu den natürlichen Pflanzen wird unvermeidlich sein, wenn das numerische Verhältnis zwischen Anbauflächen von künstlichen Pflanzen und denen natürlicher Pflanzen zugunsten der ersteren ausfallen wird, und es so zu einem unwiederbringlichen Verlust eines Großteils des Erbguts aller auf der Welt existierender Pflanzen kommen wird. Derzeit sind von den insgesamt 600.000 – 800.000 geschätzten Pflanzenarten ca. 442.000 klassifiziert.

Der Kern der Sache ist:
Zahlreiche Pflanzen sind im Laufe der letzten Jahre schon verschwunden, da Landwirte die natürlichen Pflanzen zugunsten von Varietäten künstlicher, d.h. genetisch veränderter Pflanzen aufgegeben haben. Diese sind in ihrem Genom uniform, versprechen hohe Produktionserträge (mit geringem Vitamingehalt), sind in sich krank (weil sie ohne Zugabe von Pestiziden nicht überleben können), aus marktwirtschaftlichen Gründen steril, und schließlich sind sie genetisch manipuliert, um gegen Insekten und andere Tiere resistent zu sein. Sie sind nämlich fähig, selbst Gifte, d.h. toxische Substanzen zu produzieren, die am Ende von den Zuchttieren und vom Menschen selbst als Nahrung aufgenommen werden.

Sogar in den Wäldern ist die genetische Vielfalt von einem Verlust ihres Habitats bedroht, und zwar nicht nur aufgrund falscher Abholzungsmethoden, sondern auch durch die Kontaminierung des natürlichen Erbgutes durch die Pollen der GVO-Pflanzen.

Die transgenen Produkte stellen gerade dadurch, wie sie hergestellt werden, einen gewaltigen Anstoß dar, um die Merkmale der Einseitigkeit der Monokulturen zu betonen und daher das Verschwinden des natürlichen, nun seit hunderten Millionen Jahren existierenden Erbguts verursacht. In mehr oder weniger naher Zukunft werden wir also all diese Pflanzenvielfalt (auch von Lebensmittelpflanzen) nicht mehr haben, die für jedes nationale und lokale Gebiet charakteristisch ist.

Die durch die von den großen GVO-Saatgutfirmen erzeugten Hybride (die sich unvermeidlicherweise mit den in der Natur vorkommenden Varietäten kreuzen werden) ausgelösten genetischen Umweltkontaminierungen, werden zu einem Verlust des natürlichen Erbguts (das in keinster Weise wieder erlangt werden kann) führen, zum Verlust all dieser besonderen Merkmale, die im Laufe von langen Anpassungsprozessen an die verschiedenen Umweltbedingung in das Pflanzengenom eingegangen sind.

Ein solcher Verlust ist heute sogar für natürliche Lebensräume wie die Wälder schwerwiegend. Im Grunde genommen ist die Grundlage der menschlichen Biochemie selbst in ihrer innersten Essenz (in der menschlichen DNA) durch die leichtsinnige Verwendung dieser künstlichen Pflanzen bedroht, ohne irgendeine Möglichkeit, das Erbgut von über 440.000 klassifizierten Pflanzenarten (von über 600.000- 800.000 geschätzten) wieder zu erlangen, und von denen ein großer Teil im Lauf von wenigen hundert Jahren verschwinden wird, an der Wurzel unterminiert von den durch den Menschen ausgelösten genetischen Schäden.

Multinationale Agrar- und Ernährungsunternehmen (Biotech, GVO)

Seit einigen Jahren erleben wir das Entstehen von multinationalen Großkonzernen, die sich selbst als "Multinationale Unternehmen für Lebenswissenschaften" definieren und auf dem pharmazeutischen Markt, im Agrarbusiness (Saatgut und Pestizide) und im Veterinärbereich aktiv sind.

Diese Sektoren sind an und für sich untereinander verschieden, das verbindende Element stellt die Verwendung von Biotechnologie (GVO) in der Produktherstellung dar.

Diese Multis verfolgen äußerst skrupellose und aggressive Wirtschaftsstrategien: Seit den 90er Jahren sind sie dabei andere Unternehmen, darunter auch bedeutende, aufzukaufen.

Einer dieser multinationalen Konzerne, *Monsanto*, hat im Laufe weniger Jahre mit einer Investition von 10 Mrd. Euro (aktueller Wert) *Asgrov*, *Agracetus*, *De Calb* und *Cargill* erworben.

Eine andere Gruppe, *Dupont*, hat mit einer Investition von ca. 8 Mrd. Euro (aktueller Wert) das Unternehmen *Pioneer* aufgekauft.

Diese Investitionen scheinen einer antiökonomischen Logik zu folgen: Sie zahlen für die Firmen, die sie übernehmen, einen überhöhten Preis in Bezug auf ihren realen Wert, so als ob sie eher einen potentiellen Konkurrenten ausschalten als kurzfristig einen wirtschaftlichen Erfolg erzielen wollten.

Neben den Firmenkäufen gibt es dann auch noch die Fusionen: aus *Ciba Geigy* und *Sandoz* entsteht *Novartis* (Umsatz von 20 Mrd. Euro (aktueller Wert) im Jahr 1997-98).

Aus der Fusion der französischen *Rhone Poulenc* mit der deutschen *Hoechst* entsteht *Aventis.*

Weiters entsteht in diesem Zusammenhang im Oktober 2000 die erste weltweite Gruppe auf dem Agrarchemiesektor, *Syngenta*, - als Ergebnis der Fusion des Schweizer Unternehmens *Novartis* (bekannt für seine Chemotherapeutika), mit der anglo-schwedischen Firma *Astra-Zeneca* (auch bekannt für ihre Chemotherapeutika), die einen Umsatz von 8 Mrd. Euro erwirtschaften wird. Nach der Fusion mit *Pharmacia & Upjohn*, einem großen pharmazeutischen Unternehmen (ebenfalls bekannt für seine Chemotherapeutika), beschäftigt sich *Monsanto* nur mehr mit Landwirtschaft, wobei der Umsatz im Jahr 2000 5,5 Mrd. Dollar erreicht hat.

Die heutige Situation stellt sich folgendermaßen dar: Sehr wenige multinationale Konzerne (*Syngenta*, *Monsanto*, *Novartis*, *Dupont*, *Aventis*) halten 25-30% des Saatgutmarktes (aber über 90% Marktanteil bei transgenem Saatgut) und nach diesen großen Gruppen gibt es nur mittlere und kleine verstreute Firmen, so dass man unweigerlich zum Schluss kommt, dass sich diese Tendenz in der Zukunft nur verstärken kann. Natürlich können Firmen mittlerer Dimension der Konkurrenz der Wirtschaftsriesen nicht standhalten. Das augenscheinliche Ziel ist die Umstellung des traditionellen Saatgutsektors auf Biotechnologie (also GVO). Das Ungeheuerliche an der Sache ist aber, dass wir immer wieder auf dieselben Namen stoßen: dieselben Namen finden wir auf dem Pestizidsektor, wo dieselben Unternehmen 55% des Marktanteils halten, und vor allem auf dem pharmazeutischen Sektor, wo wieder *dieselben* multinationalen Unternehmen eine dominierende Position einnehmen.

Multinationale Konzerne im chemisch-pharmazeutischen Bereich (Big-Pharma)

Die chemisch-pharmazeutischen Weltkonzerne haben eine unglaubliche, kometenhafte Entwicklung erfahren und sind heute in äußerst gefährlicher Weise an den Agrar- und Ernährungsbereich gekoppelt:

Die chemisch-pharmazeutische Industrie in Europa entstand in der zweiten Hälfte des 19. Jahrhunderts: In vielen Fällen handelte es sich um Farbenindustrie, die sich nach der Abspaltung von der Basischemie in die Richtung neuer und Erfolg versprechender Gebiete der spezialisierten Chemie für wirtschaftliche Schlüsselsektoren hin entwickelte.

In den Jahren vor dem Zweiten Weltkrieg entstand ein internationales Pharmakartell mit Sitz in Deutschland, das die chemische und pharmazeutische Industrie der ganzen Welt beherrschte. Dieses Kartell hatte seine Aktivitäten auf 93 Länder ausgedehnt und in jedem dieser Länder stellte es eine bedeutende wirtschaftliche und politische Macht dar. Das Kartell war als IG Farben bekannt.

IG Farben sollte schließlich im zweiten Weltkrieg zur tragenden Säule von Hitlers chemischer Produktion werden – mit der Herstellung von potenten Sprengstoffen, Giftgasen und dem entsetzlichen *Zyklon-B*, der tödlichen Substanz, die die Nazis in den Vernichtungslagern einsetzten.

Dennoch hatte vor dem Krieg, nämlich 1928, der amerikanische Monopolist und Industrielle John D. Rockefeller eine Industriekonzentration zwischen seinem internationalen Imperium mit Sitz in Amerika und der IG Farben bestimmt, und so das größte und mächtigste Pharmakartell, das die Welt je gesehen hatte, ins Leben gerufen.

Das Nürnberger Militärgericht erklärte 1946/47, dass der Zweite Weltkrieg ohne dieses Petrochemische Kartell IG Farben nicht möglich gewesen wäre.

Als Folge des Gerichtsurteils wurde die IG Farben in Bayer, BASF und Hoechst aufgeteilt und einige leitende Vertreter wurden wegen Krieg gegen das internationale Recht, wegen Völkermord, Ausbeutung und Plünderung öffentlichen und privaten Eigentums in fremden Staaten und wegen anderer Verbrechen gegen die Menschheit verurteilt.

Die Vorgeschichte des Unternehmens im Hintergrund des Zweiten Weltkrieges ist in einem Buch von Joseph Borkin "*The Crime and Punishment of IG Farben*" (*Die unheilige Allianz der I.G. Farben. Eine Interessensgemeinschaft*) dokumentiert.

Nach dem Krieg hatte Deutschland dennoch wieder, nun mit seinen drei Giganten *Bayer, Hoechst und BASF* eine wichtige Rolle inne, und das gemeinsam mit der Schweiz, wo sich in Basel *Ciba, Sandoz* und *Roch* entwickelten - alles Unternehmen, die sich bekanntlich auf dem Weltmarkt behaupten konnten.

Die großen Fusionen begannen dann aber in den 90er Jahren: In Großbritannien fusionieren 1989 zwei große Pharmaunternehmen zur *Smith Kline-Beecham* und in der Folge geht dieses mit dem Unternehmen *American Home* zusammen (Jahresumsatz von ca. 25 Mrd. Euro).
1993 kauft die schwedische Firma *Pharmacia* die italienische *Farmitalia-Carlo Erba*, fusioniert dann 1995 mit dem amerikanischen Unternehmen *Upjon* und dann noch mit *Monsanto*, bevor sie vom *Pfizer* Konzern aufgekauft wird, der zuvor die amerikanische Gesellschaft *Parke Davis* übernommen hat.

1995 kommt es zur Fusion *Glaxo- Wellcome* (ca. 14 Mrd. Euro Jahresumsatz).

1998 fusioniert *Smith Kline - Beecham* (ca. 62 Mrd. Euro Jahresumsatz) mit *Glaxo-Wellcome*, mit einem daraus resultierenden Kapital von über 90 Mrd. Euro Jahresumsatz.

In der Zwischenzeit fusionieren die englischen *Imperial Chemical Industries* mit dem schwedischen Konzern *Astra* und gründen somit *Astra-Zeneca*.

Und weiterhin handelt es sich um Fusionen zwischen denselben Pharmaunternehmen, die auf ein und demselben Markt präsent sind: *Sandoz* und *Ciba Geigy* (*Novartis*, 1996), *Astra- Zeneca* (1998).

Diese Kolosse entstehen jedoch nicht aus dem Bedürfnis heraus, einen Vorteil für Patienten zu schaffen, sondern allein aus dem Bedürfnis heraus, Monopole zu kreieren und immer größere Profite zu erzielen.

Die neuesten Daten:
Juni 2002: *Bayer* übernimmt *Aventis*; diese Vereinbarung erlaubt Bayer den Einstieg in den GVO-Saatgut-Markt. Durch die Fusion entsteht das Unternehmen *Bayer CropScience,* das sich nunmehr aus drei Haupthandelsgruppen zusammensetzt: *Crop Protection*, *Bio Science* und *Environmental Science*.

Juni 2005: *Monsanto* übernimmt *Sementis*.

Die Allianz

Man kann also behaupten, dass die zwei Angelpunkte der Wirtschaft und des Lebens jedes einzelnen Individuums, die Landwirtschaft und die Pharmazeutik, im Wesentlichen von einem, aus einer Handvoll multinationaler Konzerne bestehenden Oligopol kontrolliert werden.

SCHLUSSFOLGERUNG

Wir befinden uns nun an einem Scheideweg: Entweder wir akzeptieren die biochemischen Modifizierungen an Pflanzen und damit die immensen Schäden für die menschliche Gesundheit, oder die demokratischen Institutionen unserer Gesellschaft beziehen eine klare Stellungnahme gegen die multinationalen GVO- und chemo-pharmazeutischen Konzerne, die in ihrer Allianz hinter der unverantwortlichen Invasion der Welt mit den GVO stecken.

Die Lösung ist einfach, doch wir haben nur 4 Monate Zeit, um die GVO aufzuhalten, was Prof. Altieri so treffend und zurecht als ein IRREVERSIBLES Ereignis bezeichnet:

1) Absolutes Anbauverbot von GVO Pflanzen
2) Absolutes Verbot von Freilandversuchen (Gefahr von horizontalem Gentransfer)
3) Aufwertung des Biologischen Landbaus (der darüber hinaus bessere Erträge erzielt)
4) Schutz der Biodiversität, besonders mit der Wiedereinführung der Freiheit für Bauern, Saatgut untereinander auszutauschen.

Wenn das alles nicht geschieht, so fordern wir ein Gerichtsverfahren - Europa gegen die GVO-Multis- , das im Herzen Europas, unter deutschem Vorsitz stattfinden soll!
Danke

ENDE

Allegato 20

"***La minaccia OGM (Organismi Geneticamente Modificati) sui modelli alimentari di accompagnamento alla terapia immunitaria e detossificante***".

Relazione presentato al SANA di Bologna il 13 settembre 2008

http://www.fiorigialli.it/dossier/view/1_biononbio/1317_la-minaccia-ogm-sui-modelli-alimentari-di-accompagnamento

http://www.circolovegetarianocalcata.it/?s=Relazione+OGM+Sana+Bologna+

http://www.greenplanet.net/index.php?option=com_content&view=article&id=22028

SANA – BOLOGNA 13 /9/08. English, Espanol, Deutsch, Italiano at
http://www.erbeofficinali.org/dati/nacci/index.php

Allegated 21

SEIKO

America's disastrous health care system is heaving the country head-first into near-certain economic collapse. Just about everybody's either financially strained or going broke due to spiraling health care costs: the people, the employers, state governments and even the federal government. Multinational corporations are fleeing the United States due to health care costs, taking jobs and economic productivity with them. Meanwhile, 50 percent of personal bankruptcies in the U.S. are due to medical expenses.

But not everybody's doing badly. The drug companies, surgeons, medical specialists, health insurance companies and private hospitals are making out like bandits, raking in multi-million dollar CEO salaries and -- I'm not making this up -- greater than 500,000% markups on prescription drugs. And while the American people get sicker, the drug companies, insurance companies and many health "care" providers (it's really more like "sick care providers") are rolling in cash. Drug companies are now among the richest corporations in the world, and they got there by inventing fictitious diseases, then selling drugs to people who mostly don't need them. See my CounterThink cartoon, Disease Mongers, Inc. to learn more about this topic.

Meanwhile, the American people are the most diseased people in the world among advanced nations. We spend more on health care than anyone, we pay the highest prices for medications, and we're constantly told that we have the best medical technology in the world. But if our health care system is really so good, why do 50 million Americans have no health insurance? Why are hospitals literally dumping uninsured patients on the street, abandoning the sick to protect profits while our politicians actually negotiate on behalf of Big Pharma to make sure Americans keep paying the highest prices in the world for medications? (Click here to see our CounterThink cartoon on President Bush's price negotiations with drug companies.)

What's wrong with America's health care system?

SiCKO is a must-see documentary
SiCKO creator Michael Moore answers that all-important question in his best documentary yet. Forget whatever criticism you may have heard about SiCKO -- this is a Michael Moore masterpiece: A courageous, impactful and outrageous documentary that exposes the arrogance of modern medicine and the utter failure of America's corporate-controlled sick care system to provide decent health care to the people. Watching this movie will leave you either steaming mad or shedding tears (or both). It reveals the deep-rooted corruption in America's health care system and explains why the whole system was actually designed to deny health care to the American people.

I've been ranting about America's health care failures for years, and as I've consistently stated to the amazement of some, the health care corporations actually have a plan to keep people sick. There's no money in preventing disease, especially in the cancer industry. Click here to read my recent report on the American Cancer Society's refusal to help prevent 77% of all cancers using affordable, scientifically-proven vitamin D supplements.

In SiCKO, what Moore does very effectively is tells this story to a mass audience, weaving together the emotionally-charged stories of American citizens who lost husbands, daughters and other family

members to preventable disease, all thanks to intentional, well-planned payment denials by health insurance companies. In one segment in the film, he features archival footage of former President Nixon, who strongly approves of a new 1970's health care concept called the "HMO" where the more patients are denied health care services, the more money the hospitals and health insurance companies rake in!

In contrast to all this, Moore shows us the universal health care systems in countries like Canada, the UK, France and even Cuba... all countries where health care is free to everyone. It's called universal health care (or "socialized medicine"), and it's a system followed by nearly every modern nation in the world... and even some not-so-modern nations. Only America practices medicine in the Dark Ages, tied to a hopelessly corrupt system of financial exploitation and monopoly price controls, where Big Pharma gets richer, the FDA gets more powerful, and the American people get the shaft.

See my CounterThink cartoon, The Disease Economy, for a visual representation of this mess we're in, or read my book Natural Health Solutions and the Conspiracy to Keep You From Knowing About Them to see just how evil and corrupt our modern health care system really is.

Why Moore is being so vicious attacked

Moore, as usual, is being targeted by all sorts of critics who would like nothing better than to see this guy disappear and stop rocking the Good 'ol Boys boat that seems to be floating just fine in America (as long as you're part of the wealthy elite, anyway). For starters, U.S. government officials are investigating Moore for violating travel restrictions to Cuba. And why? Because Moore gathered a dozen Americans who were denied health care in the U.S. and brought them to Cuba where they received free, quality health care in a modern Cuban hospital.

The message is hard to miss: Cuba takes better care of its citizens than America does. In fact, Cuba is willing to take care of a few American citizens that America abandoned! That kind of "in-yo-face" embarrassment to U.S. officials isn't appreciated much in police-state America these days, where practically anyone who dares question the wisdom of the government is branded a terrorist. Moore is clearly being targeted not merely because he took some 9/11 heroes to Cuba and got them health care, but because he dared to make it all public. Humiliating the King is a quick way to find your head on a chopping block. Just ask all the scientists who publicly disagree with the Bush Administration's hopelessly politicized view on climate change...

Other critics of Moore are either the greedy, corrupt corporations impacted by his film (drug companies, health insurance providers, hospitals and so on) or juvenile stay-at-home back-seat Internet critics who don't like Moore for the simple fact that he dares to stand up and say "The Emperor Has No Clothes!" Nearly all the criticism leveled against Moore is without substance. People attack Moore personally, but they won't dare debate what he's presenting in the movie. Why? Because Michael Moore is right. America's health care system is an embarrassment to the nation, and to the world. It's so bad that most informed world citizens wouldn't be caught dead in this country, unless of course they actually visit America and have an accident that lands them in the U.S. health care system.

Personally, I opted out of the American health care system long ago. I'm a holistic nutritionist, and I exercise, eat right, get lots of sunshine and gorge on superfoods and raw berries. I have no need for a doctor, or a pharmaceutical, or a health insurance policy. I don't get annual physical exams, and I have zero risk of cancer, heart disease, diabetes or other common health conditions. (I posted my health statistics at www.HealthRanger.org if you want to see my blood workup.)

At the same time, I realize that not everybody is in such a fortunate health position. Most people simply don't take care of their own health, and while I could argue for days about the need for more patient responsibility alongside corporate responsibility, the fact is that relentless advertising from drug companies and food manufacturers has bred a mindset of disease, junk food consumption, pharmaceutical dependence and patient victimization. We have a health crisis in this country, and it's going to take genuinely radical reforms to turn this around and save America from a financial wipeout exacerbated by runaway health care spending.

What's missing from SiCKO

The material that's in SiCKO is hard-hitting, and it accomplishes what it sets out to do. But there's something missing from the film: A serious discussion about how a nation can prevent disease using nutrition, medicinal herbs, sunshine, clean water, avoidance of toxic chemicals, smart dietary choices, banning the advertising of junk foods and pharmaceuticals, and so on. Of course, that's not really what SiCKO set out to do, and this topic would require another film all by itself, but personally I wouldn't have minded a stronger nod towards solving our nation's health care problems through genuine prevention (rather than the current policy which is basically centered around waiting for everybody to get sick and then treating their symptoms while ignoring the true causes of their disease).

Of course, it might be tricky for Moore to argue for disease prevention given that he is obviously not the poster boy for ideal physical health. But he never claims to be. So the critics who attack Moore's own personal health are missing the whole point of the film. Moore is simply pointing out what's wrong with America's health care system, and he does so brilliantly and convincingly, regardless of his own personal health status. And besides, if you want to argue about the health of "experts," just walk into any hospital and take a look at the health of all the people who work there. Many aren't any healthier than Moore, and they work in the industry! The average lifespan of a U.S. doctor is less than a Cuban peasant. That's not a joke.

Regardless of Moore's present physical fitness challenges, he's obviously operating with a great degree of healthy skepticism about the way the U.S. operates today. Moore is an independent thinker who simply refuses to follow the crowd, and with this film, he's doing the job that the American people should have been doing all along -- questioning the sanity of our health care system. But sadly, the truth is that most Americans are sheeple who just follow the herd and do what they're told. A recent poll revealed that nearly 45% of Americans still trust the FDA! That's astounding, given that I've solidly established the Food and Drug Administration is far more dangerous to the health and safety of the American people than all the terrorists in the world. To learn more, read my article The lawlessness of the FDA, Big Pharma immunity, and crimes against humanity.

How will SiCKO play?

I think SiCKO's timing is perfect, and I think the movie will be a significant factor in the upcoming 2008 elections. Those politicians who run on a platform of radical health care reforms are likely to pick up a lot more support than those unwise enough to try to defend the current system.

This is a tough call for Republicans, since most Republicans support Big Pharma and the corporate control of modern medicine, usually at the expense of the people. Democrats, though, are also on Big Pharma's payroll, as was obvious with the recent voting record on the FDA Revitilization Act co-sponsored by Sen. Edward Kennedy. The truth is, Big Pharma owns virtually all the politicians in Washington (except Rep. Ron Paul, of course).

The movie will definitely get America talking about serious health care reforms. But as I've pointed out in a previous article, Where's the Health In Health Care Reform?, almost nobody is considering proposals that would genuinely solve the health care problem in America today. You can't "treat" your way out of a nation that has become so over-drugged, over-fed and over-diseased that even the little children are now being put on speed (also called "Ritalin"). Nearly 50 percent of American adults are now taking pharmaceuticals, most of which are utterly unnecessary from a medical point of view. Drug advertising has taken over the media, the FDA has suppressed natural alternatives, and the American Medical Association continues to peddle such health nonsense that it's amazing the AMA hasn't yet been invited to join the Smithsonian's Museum of Outdated American History.

The American Cancer Society, in my opinion, is a supremely corrupt, big-business front group that actually takes steps to ensure more cases of future cancer by "preventing prevention," the American Diabetes Association takes money from candy and soda manufacturers, and the American Psychiatric Association is so steeped in Big Pharma money that they've practically become inseparable. (Click here to see my CounterThink cartoon on this topic.)

The future of America looks dim

Clearly, something has to change in this country if we're going to survive as a nation. Under the current system of massive debt spending, widespread political corruption, war mongering and health care failures, the United States of America will simply not survive another generation. No nation that abandons the health of its people can expect to have a future. As Moore points out, however, there is a chance to save America, but only if we make significant changes starting now.

Truly radical changes must be put into place. I've offered many suggestions in a popular article, The health care reform legislation that Congress should pass, but won't. Lawmakers, you see, have no interest in actually saving America from financial demise. They're only concerned about the next election, and raising campaign reelection funds means kow-towing to the interests of the powerful corporations that really run Washington.

Personally, I don't see that meaningful reform is possible under the current system of politics in America. The Big Business sick care industry has a stranglehold on the American political system, and the whole ugly thing will mostly likely have to collapse and be rebooted before we'll see significant change.

And make no mistake: that's what's coming. I predict America will not survive its health care crisis. It won't be the first empire to crumble from arrogance and corruption. In fact, it will join a long (and growing) list of civilizations that have risen and fallen, securing its place in the pages of history as yet another imperialist nation that thought it could rule the world while abandoning the needs of its own people.

The bottom line on SiCKO

It's a must-see documentary. It's surprisingly even-handed and well grounded, never resorting to unsubstantiated claims merely to shock the audience. In fact, as a person who has been writing about America's health care problems for four years, I didn't detect a single false statement in the film. It's all true, and it's pretty damn scary. Go see it. It opens on June 29th.

And if, like one person featured in the film, I ever have to choose between reconnective surgery for my middle finger at $60,000 vs. my ring finger at $12,000, I'll choose to have my middle finger

sewn on first just so I can visually demonstrate to U.S. Senators precisely how I feel about America's health care system today.

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About the author: Mike Adams is a natural health author and technology pioneer with a mission to teach personal and planetary health to the public He has authored more than 1,500 articles and dozens of reports, guides and interviews on natural health topics, reaching millions of readers with information that is saving lives and improving personal health around the world. Adams is an independent journalist with strong ethics who does not get paid to write articles about any product or company. In 2007, Adams launched EcoLEDs, a manufacturer of mercury-free, energy-efficient LED lighting products that save electricity and help prevent global warming. He's also a noted technology pioneer and founded a software company in 1993 that developed the HTML email newsletter software currently powering the NewsTarget subscriptions. Adams volunteers his time to serve as the executive director of the Consumer Wellness Center, a 501(c)3 non-profit organization, and practices nature photography, Capoeira, Pilates and organic gardening. Known by his callsign, the 'Health Ranger,' Adams posts his missions statements, health statistics and health photos at www.HealthRanger.org

ALLEGATED 22 : Thirty Clinical Cases of Dr. Gonzales and Dr. Isaac

CASE 1

Patient IG: A 12+ Year Survivor of SARCOMA
Patient IG is a 58-year old woman who in the summer of 1993 first noticed a mass above her right ear. After the lesion became chronically irritated by her eyeglass frames, in August 1993 she opted to have it removed. The nodule, measuring about 1 cm in diameter, was found consistent with "malignant neoplasm, probably metastatic." The slides were sent for review at the Mayo Clinic, where the pathologist classified the cancer as an epithelioid sarcoma. A subsequent third review of the slides confirmed the diagnosis of epithelioid sarcoma.
The patient then underwent a metastatic work-up. A bone scan in September 1993 revealed: "Single abnormal focus of uptake in the left occipital-parietal region, worrisome for metastatic neoplasm."
A skull series the same day showed a "9 mm geographic lucency in the left occipital bone, possibly representing a calvarial metastasis." The report of a CT scan of the head a week later stated: "Images of the skull demonstrated one small lytic area…in the left occipital bone…It measures under a centimeter in size. It is in the medullary space of the bone but appears to affect the cortex also. No soft tissue component is noted."
A CT scan of the neck and chest showed a probable right thyroid cyst, and two areas of decreased attenuation in the liver compatible with either cysts or metastatic disease.
IG then met with a head and neck surgeon, who proposed wide excision with removal of much of her jaw followed by reconstruction. But when she was told she most likely would die of her disease anyway, she refused surgery. After investigating alternative approaches to cancer, she learned of our therapy and consulted with Dr. Isaacs in late September 1993. She thereafter followed her program diligently.
In June 1994, nine months after she began her nutritional regimen, she noticed a lump above her right ear in the same location as the original tumor. The nodule stabilized for two years, before it was resected in August 1996. The pathology report describes once again an epithelioid sarcoma. After Dr. Isaacs made some adjustments in the protocol, IG continued her therapy faithfully as before.
Over the years, IG has been very compliant with her regimen, and enjoyed improvement in her overall energy and sense of well being. Since the surgery of 1996, the disease has not recurred. When last seen by Dr. Isaacs in August 2006 she was in good health with no visible evidence of cancer.
Epithelioid sarcomas tend to be fairly aggressive. If localized, as with most sarcomas, surgery can be curative, but once metastatic, survival is usually measured in months. A review of epitheloid sarcomas reported that "Median post-distant metastasis survival was 8 months."
We don't think the lesion that appeared after she began her therapy indicates global treatment failure. As mentioned previously, we find at times that tumors will recur in areas of prior surgery, though nowhere else. We suspect that in areas of such tissue disruption, the resulting fibrosis and scarification compromise blood supply to the area, and create a protected area where residual cancer cells can grow unhindered. We suspect such a scenario in this patient's case. Regardless, today, 13 years from her original diagnosis of metastatic cancer she is in excellent health with no clinical evidence of her disease.

CASE 2

Patient AL: A 10-Year Survivor of OVARIAN CANCER

Patient AL, prior to developing cancer, had a long history of neuro-muscular symptoms dating to 1979, when she first developed a mass in her left calf, associated with muscle pain, atrophy, and numbness. In the intervening years, as the symptoms worsened, she consulted numerous physicians at numerous centers. Though multiple muscle biopsies had all been unrevealing, she was nonetheless treated empirically and unsuccessfully with a variety of drugs including prednisone. In 1985, she sought another evaluation at the Mayo Clinic, where a muscle biopsy confirmed polymyositis. After she was also diagnosed with motor and sensory neuropathy, type II, AL began another course of prednisone but with little improvement, followed by six months on Imuran. The latter drug did nothing for her disease, but did lead to weight gain, insomnia and anxiety.

As her symptoms worsened, AL, who knew of my work from a family member, decided to seek treatment with me for her neuromuscular problems. When she first came to my office in 1989, she had been off all medications for some three years, during which time her symptoms of weakness, nerve pain and numbness continued to progress. When I first saw her, she had no gynecological problems other than the history of a hysterectomy for uterine fibroids.

I designed a protocol to treat this patient's muscle and neurological problems, without the high doses of enzymes we use against cancer. Subsequently, AL complied well with her program, and when I saw her for a return visit in August 1989, she reported her condition that had worsened without respite over the previous 10 years had improved significantly. She described a "20%" overall gain in motor strength and calf thickness, a marker her previous doctors had used to track her decline. The proximal muscle weakness in both legs had reversed to the point she could stand from a sitting position for the first time in years. However, on exam I detected a small pelvic mass and told her she needed to follow up with a gynecological evaluation upon returning home.

Some weeks later, in early fall, an ultrasound revealed a 7 x 8 cm cystic lesion posterior to the bladder. Then in early November 1989, at the Moffitt Cancer Center in Tampa, she underwent exploratory laparotomy and was found to have extensive malignant disease throughout her pelvis and abdomen. Her surgeon proceeded with bilateral oophorectomy, omentectomy, and extensive lymphadenectomy of pelvic, periaortic and precaval lymph nodes. The pathology report describes "Omentum diffusely infiltrated by papillary serous carcinoma" of ovarian origin, as well as tumor in both ovaries that involved both fallopian tubes. Cancer had infiltrated into all 21 of 21 nodes evaluated, and peritoneal washings were positive for "metastatic adenocarcinoma consistent with ovarian primary."

After surgery, AL met with an oncologist who strongly recommended intensive chemotherapy, but she decided to refuse all conventional treatment, instead choosing to begin the cancer version of my therapy. At that point, I redesigned her regimen to include high doses of pancreatic enzymes throughout the day.

In December 1989 her oncologist wrote a summary note to me, which accompanied the records of her recent hospitalization. In his letter, he states:

"She is diagnosed as having a Stage IIIC Grade I papillary serous cystadenocarcinoma of the ovary. I have recommended that she receive chemotherapy. She would be a candidate for GOG Protocol 104 intravenous Cisplatinum and Cyclophosphamide versus intraperitoneal Cisplatinum and Cyclophosphamide. Mrs.---- unfortunately did not wish to pursue the idea of chemotherapy…"

She thereafter followed her program diligently for six years. By the mid 1990's, her muscle weakness began to progress once again, making return trips to New York difficult, though she continued on the regimen and we worked together by phone. We last spoke in August of 1999, when she wrote after hearing me on the radio. She was 78 at the time, able to walk with a leg brace, and otherwise was doing fine, apparently cancer free nearly 10 years out from her diagnosis of extensive ovarian malignancy.

DeVita reports, regarding ovarian cancer patients such as this:

"patients with stage III disease have a 5-year survival rate of approximately 15-20% that is dependent in large part on the volume of disease present in the upper abdomen…"
In this patient's case, the disease did extend into the upper abdomen at the time of diagnosis. Furthermore, these survival statistics refer to patients treated with aggressive chemotherapy, which AL refused, choosing to follow only my regimen. Her prolonged disease free survival can only be attributed to her nutritional program.

CASE 3

Patient JR: A 13-Year Survivor of OVARIAN CANCER
Patient JR is a 57 year-old woman whose father developed both rectal and primary liver cancer, and whose mother survived breast cancer before dying of pancreatic cancer. She herself had a history of gynecological problems dating back to 1981 when at age 31 she was first diagnosed with bilateral ovarian cysts. Over the years, her gynecologist followed her with sequential ultrasounds and recommended surgery when she developed persistent severe pelvic pain. JR refused his suggestion, instead deciding to treat herself with alternative approaches, including several visits to the Hippocrates Institute, a live-in facility offering a raw vegetarian approach to various diseases. She believed her nutritional interventions did help her overall health, though the cysts did not regress.
In March 1993, during a period of extreme personal stress, the patient herself felt that the cysts had enlarged. An ultrasound at Johns Hopkins Hospital revealed:
"…a large approximately 14 X 10 x 12 cm mass in the mid line pelvis….Multiple foci of hyper-echogenicity are noted…Therefore, this mass likely arises from the left ovary.
"…Within the right ovary, there are two hypoechoic regions and a focus of calcification…The largest hypoechoic region measures approximately 1.5 x 1.6 x 1.5 cm…."
At that point, her gynecologist insisted she undergo exploratory surgery, but JR instead returned to the Hippocrates Institute for a several week stay. Despite the aggressive dietary intervention, the mass continued to grow.
In mid-October 1993, JR returned to her gynecologist, with the large pelvic mass clearly evident. Another ultrasound revealed that the mass had grown considerably since March, now measuring "20 x 22 x 15 cm." The radiology report states "This has moderately increased in size since the last examination…A normal right ovary is identified…."
JR then proceeded with surgery at Johns Hopkins Hospital after her physician agreed to remove only the mass and the associated ovary, not the uterus or right ovary. During the procedure, she was found to have a huge tumor that had penetrated into the recto-sigmoid area of the colon. Though the surgeon did preserve the uterus and right ovary, his resection was quite extensive as documented in the Discharge Summary:
"The patient …underwent surgery on November ---1993, undergoing an exploratory laparotomy…resection of ureterosacral tumors, resection of left parametria, omentectomy, resection of rectosigmoid, left common iliac node dissection and para-aortic lymph node dissection…"
The pathology report describes an enormous tumor, "measuring "17 x 12 x 7 cm" consistent with "Adenocarcinoma probably serous," though the tumor was finally classified as a clear cell subtype of ovarian adenocarcinoma. The lymph nodes appeared free of cancer, as did the right ovary. Since the disease appeared to be largely limited to the left ovarian mass, as big as it was and though the tumor had penetrated the colon, she was assumed to have "localized" stage I cancer.
Postoperatively, JR met with an oncologist at Johns Hopkins who strongly recommended chemotherapy. She initially agreed to the treatment, but after her discharge from Hopkins – with plans to return to start therapy - she then consulted with a second oncologist at George Washington University Medical Center, who was less insistent about the need for immediate treatment. JR

therefore decided to refuse conventional approaches, though she did agree to return for routine surveillance. Note that a CA 125, a blood marker for ovarian cancer, was 16.1 at the time, within normal limits.
After learning of my therapy, she first came to my office in January 1994 and subsequently followed her nutritional therapy faithfully. When she returned for her first follow-up visit in April 1994, three months after she had begun treatment with me, she reported feeling "better than I have in years," with significant improvement in her energy, stamina and well being. Shortly after that session, she experienced mild midcycle bleeding and consulted her local gynecologist, who felt a mass in the pelvis on exam. JR detailed the interaction with her oncologist in a note to me in late April:
"I continue to feel great. What is so frustrating, though, is going to the doctor and being told something might be wrong when I am feeling the best I have in years. I think that on some level, Dr ----(the oncologist) hopes that something will be wrong so that he can prove to me that my program will not work."
Despite the concern, an ultrasound in May showed no lesions on the ovary, no fibroids, and a follow up exam with her gynecological oncologist was normal. Subsequent CA 125 tests all fell within the normal range.
JR continued doing well until mid-December 1995, nearly two years after she had started her nutritional program, when she developed sudden onset abdominal pain associated with nausea and vomiting. When the CA 125 came back elevated at 52 (normal less than 36), her oncologist immediately suggested radiographic studies. Before any testing could be done, her symptoms became so severe she went to the local emergency room, where an intestinal obstruction was ruled out. After intravenous hydration, she improved and went home, with a diagnosis of gastroenteritis. A repeat CA 125 in December came within the normal range at 22, and a CT scan showed a right ovarian cystic area, but nothing suspicious.
Since that time, JR has diligently followed her nutritional program, and is in excellent health. Her CA 125 has been within the normal range, the most recent level from 2005 coming in at 7. She excels at a stressful job that requires considerable travel, but nonetheless manages her nutritional program efficiently and effectively. Today, nearly 13 years after she began with me, she has no evidence of cancer, and has been able to avoid the intensive chemotherapy her doctors at Johns Hopkins aggressively pushed so long ago. Her long-term disease free survival to me is certainly intriguing.
In fact the two patients I have discussed with a history of ovarian cancer – AL and JR – both refused the chemotherapy that was strongly suggested after the initial surgery documented extensive disease. We find that patients with a diagnosis of ovarian cancer who have received, before consulting with us, multi-agent chemotherapy tend to have a more difficult course, with many ups and downs.

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CASE 6

Patient IL: A 15-Year Survivor of Non-Hodgkin's Lymphoma
Patient IL is a 64 year-old woman from the Southwest who in the fall of 1987 first developed vague abdominal discomfort. When the pain persisted, in January 1988 her physician referred her for a CT scan, which revealed several large abdominal tumors. In January 1988 she underwent exploratory surgery, hysterectomy and bilateral salpingo-oophorectomy, with resection of two large masses attached at the mesentery together measuring 9 x 8 x 8 cms in diameter. The pathology report describes the lesions as consistent with diffuse mixed lymphoma, mixed small and large cleaved cell type, a very aggressive form of the disease.
IL then completed six months of chemotherapy with MACOP-B, an intensive regimen consisting of five different chemotherapy drugs and the steroid prednisone. Repeat CT scans in August 1988, at the completion of treatment, were negative and her doctors assumed her to be in remission. Subsequent scans were clear until May of 1991 when a CT picked up two nodules in the lungs, the largest in the lingula measuring 1.6 cm, the smaller in the left lower lobe measuring 0.6 cm. In addition, the report describes "small periaortic lymphadenopathy at the level of the kidneys" which had been noted on prior scans. A chest CT in July 1991 revealed a 2.5 by 2 cm. mass in the left hilar area, an abnormality of the lingula, and a left lower lobe mass:
"1. Left hilar mass and posterior left lower lobe nodule.
2. Progressing mass and associated atelectasis or infiltrate in the lingula."
Although her doctors discussed resuming chemotherapy, IL as she says had "had enough." After learning of our work from a friend, she then decided to pursue our program.
When I first saw IL in my office in September 1991, she generally felt well, and thereafter proved to be a very compliant patient. Six months after beginning her regimen, in March 1992, a repeat CT scan of the chest demonstrated a small pleural based density associated with the anterior left cardiac margin, approximately 1 by 1.5 cm in size, that had significantly regressed since the scans

of 1991. And, the additional lesions previously described were not evident. An abdominal CT scan revealed "slightly prominent nodes on the para-aortic area measuring up to 1 cm in diameter" but no other worrisome lesions.
In September 1992, after she had been on her program a full year, CT studies of the abdomen and pelvis were clear, but the chest CT showed a "3.5cm x 2 cm density in the left mid lung and lower lung field which, according to the previous dictation, has increased in size significantly and, therefore, must be considered an active lesion…"
When I discussed the findings with IL she seemed determined to continue with her nutritional program only, expressing no interest in pursuing any other treatment. After I made some adjustments in her protocol, she decided to forgo future CT scan studies. She said not only did they create enormous anxiety, but she had no intention of changing treatment whatever the tests showed.
Over the next decade, IL continued her regimen, with excellent compliance. She generally enjoyed good health, despite some ongoing problems I relate to her earlier chemotherapy, such as a persistent irregular heart rhythm and episodic respiratory symptoms, including shortness of breath with exertion. One of the drugs in the MACOP-B regimen, daunorubicin, has long been associated with heart damage in a significant number of patients, and bleomycin often provokes pulmonary fibrosis, sometimes years after treatment. In January 2004, she did undergo both cardiac and pulmonary evaluations which revealed no significant underlying disease. A chest x-ray at that time – her first radiographic study since the CT scan of 1992 – showed a "small left apical pneumothorax. Chest x-ray is otherwise radiographically normal." The previously described masses seen on CT were gone, and I relate the area of collapse to bleomycin use years earlier.
IL today, now on her nutritional regimen over 15 years, continues in good health with apparent total resolution of her once aggressive disease. She enjoys her life, is grateful that she has lived to see her children grow, marry, and raise their own children.
The diffuse and diffuse mixed types represent particularly aggressive forms of lymphoma that frequently come back after even the most aggressive of chemotherapy regimens. Harrison's reports that the disease recurs in nearly 50% of treated patients with this diagnosis, and of these, fewer than 10% will respond to additional chemotherapy.2 Certainly this patient faced a grim future, once the CT scan studies in 1991 confirmed new disease.

CASE 7

Patient LL: An 11-Year Survivor of Non-Hodgkin's Lymphoma
Patient LL is a 54 year-old man who previously had been in good health when in July 1995 he developed severe chronic indigestion, abdominal pain and constipation. His symptoms did not improve despite a variety of medications and dietary changes. After he developed swelling of the left testicle in September 1995, he was referred to a urologist who ordered a CT scan of the abdomen and pelvis. The tests, done in October 1995, revealed:
"extensive retroperitoneal adenopathy including retrocrural, periaortic, mesenteric and paracaval adenopathy. The nodes measure up to 5 cm in diameter individually and in conglomerate measure nearly 15 cm in transverse diameter and 8-10 cm AP…"
An excisional biopsy of an enlarged cervical lymph node revealed nodular non-Hodgkin's lymphoma (mixed lymphocytic/histiocytic type).
After the diagnosis, he received no orthodox treatment, instead choosing to follow our regimen. He was first seen by Dr. Isaacs in November 1995, and as he subsequently followed his nutritional regimen, he experienced a gradual improvement in his overall health. For a number of years, he

avoided all testing until May 2001, when a CT of the abdomen and pelvis showed "Resolution of previously noted adenopathy. The study at this time is essentially unremarkable."
This patient's course has been very simple and straightforward. He was diagnosed initially with extensive stage IV moderately aggressive histology disease, refused all standard treatments, followed his nutritional program appropriately, and enjoyed complete regression of his cancer and long term survival. He is now 11 years from diagnosis, still in good health.

CASE 8

Patient DC: a 12-Year Survivor of Non-Hodgkin's Lymphoma
Patient DC is a 63-year old woman who 1992 first noticed a robin's egg sized lesion in the right lower abdominal wall. She consulted her primary care physician, who suspecting a benign lipoma, suggested no testing be done.
Over the next three years, as the nodule remained stable, DC continued in good health, with no symptoms other than a single episode of night sweats and occasional pruritis. At one point, when she was found to be mildly anemic, her physician prescribed iron supplements.
In the fall of 1994, her gynecologist, after a routine exam, suggested a diagnostic evaluation of the abdominal wall lesion. A CT scan revealed a solid mass on the right lower abdominal wall, but no other abnormalities. Then in November 1994 the nodule was excised and described in the pathology report as 4.5 x 4.0 x 1.8 cm, consistent with "malignant lymphoma, diffuse, small lymphocytic type (well differentiated lymphocytic lymphoma) of abdominal wall."
After referral to an oncologist, a subsequent bone marrow biopsy was clear, but she was again found to be anemic, with a hemoglobin of 11.8. In January 1995, she underwent repeat CT studies which revealed new nodularity in the left pelvis side wall and in the cul-de-sac, thought most likely representing new pelvic malignant lymphadenopathy.
The hospital Tumor Board then discussed the case and recommended a conservative approach initially, with regular follow up CT scans to assess disease progression. A bone scan in October 1995 was negative. CT scans in January 1996 demonstrated two lesions within the right lobe of the liver, the largest measuring 2.0 cm in diameter, that were thought to have been present on the prior exams. In addition, the radiologist noted "redemonstration of a large, inhomogeneous central pelvic mass with prominence in both adnexal regions," as well as "thickening of and some inhomogeneity to the appearance of the left piriformis muscle when compared to the right…"
Though her physicians still recommended a conservative approach, DC began investigating alternative approaches, learned of our work, and in April 1996 first consulted with me. When first seen, she reported no significant symptoms.
DC proved to be a determined and compliant patient, whom I don't think has missed a dose of supplements in the 10.5 years she has been my patient. Periodically, I have recommended CT scans, which generally have showed no change in the pelvis lesions. Her most recent scan in May 2006 revealed the same "two small low density lesions within the liver…unchanged and measuring up to 1 cm." In terms of the pelvic mass, the report states:
"There is large lymphadenopathy contiguous with the left piriformis muscle, unchanged in size measuring 9 cm in length x 4.5 cm. in width. Again noted are areas of linear enhancement… There is a 4.5 cm. in length x 2.7 cm in width soft tissue mass in the proximal aspect of the left thigh which is slightly decreased in size…"
The diffuse forms are among the more aggressive of the lymphomas, usually calling for aggressive chemotherapy. In this particular case, the consulting oncologists opted for a conservative approach, holding chemotherapy in reserve for a time the disease would inevitably progress. However, during the 10.5 years DC has followed her nutritional program, the disease has remained generally stable, with some recent regression.
In many of our patients, regardless of the cancer type, tumors resolve, as in the case of Patient LL above. At other times, as with Patient DC, the tumors can remain stabilized for years. I have never

been able to offer a reasonable scientific explanation why this should be so, why sometimes large tumors regress remarkably, at other times in other patients the tumors don't grow or spread, but don't disappear either.

CASE 9

Patient DK: A 7-Year Survivor of Non-Hodgkin's Lymphoma
Patient DK is a 48 year-old woman who prior to developing cancer had a long history of lower back pain treated conservatively with acupuncture, massage, yoga and swimming, modalities which offered some relief. In 1993, when her pain worsened, she underwent laminectomy of the L2-L3-disc. Postoperatively her back pain, although reduced, did not resolve completely. In November 1993 she underwent an MRI of the lumbar spine which showed L5-S1 disc bulging, and some degeneration in several other lumbar discs. In addition, the radiologist noted left para-aortic adenopathy. The patient then consulted with an oncologist at New York Hospital-Cornell, who recommended a CT scan, which, in December 1993, confirmed enlarged left para-aortic lymph nodes, though the patient was not informed of the findings.
Since she didn't hear from her oncologist, DK assumed "everything must be fine." Thereafter, she did well until mid 1998, when she developed gradually worsening fatigue, associated with recurrent upper respiratory infections. In the fall of 1998, she consulted her primary care physician, who detected a right parotid mass as well as cervical lymphadenopathy. Initially, her internist was not concerned, assuming the enlarged nodes related to her most recent bout of the "flu." But, when the adenopathy failed to regress, DK consulted the oncologist she had seen years earlier at New York Hospital. The physician referred her for an MRI of the neck in March 1999, which revealed two 1 cm lesions in the right parotid gland as well as enlarged upper cervical nodes. A CT scan of the chest in April 1999 demonstrated abnormal hilar nodes, the largest measuring 17x12 mm. CT scan of the abdomen revealed:
"a chain of enlarged nodes (2-3 cm…) in the left paraaortic region from the level of left renal hilar vessels….extending into the proximal left common iliac chain. Largest node at L3 level measures 3x2 cm."
A biopsy of the parotid lesion then confirmed malignancy "consistent with a B cell (non-Hodgkin's) lymphoma." A bone marrow biopsy was clear.
With the diagnosis established, the oncologist recommended a "watch and wait" approach, holding off chemotherapy for a time when the disease worsened. DK then sought a second opinion at Memorial Sloan-Kettering, where the slides were reviewed and the diagnosis confirmed. The Memorial oncologist suggested two options, the conservative, no immediate treatment approach, or a course of aggressive chemotherapy.
DK then met with a third oncologist, a lymphoma specialist at New York Hospital, who recommended no treatment initially, but that the scans be repeated in October 1999 to assess disease status.
DK, with a long interest in alternative medicine, knew about my work and decided to consult with me. When we first met in June 1999, she had obvious cervical adenopathy. Thereafter, she followed her nutritional regimen initially with great determination and good compliance. Follow-up CT scans in March 2000, when she had been on her therapy only nine months, showed substantial improvement. The report for the CT scan of the neck states:
"Appearance of regression in intraparotid nodes on the right."
The CT of the chest showed:
"Interval complete regression in adenopathy. There is no evidence for active lymphoma."
The CT scan of the abdomen indicated:
"Interval virtually complete regression in adenopathy. There is no evidence of active lymphoma."

The CT scan of the pelvis revealed:
"Interval complete regression in adenopathy. There is no evidence for active lymphoma."
As DK continued her nutritional therapy, she experienced a gradual improvement in her overall energy and well being. When in mid 2001 she went through a period of severe personal and professional stress, her compliance with therapy fell off somewhat. On exam, I could see clearly that the neck disease had worsened. CT scans in October 2001, 19 months after the documented disease regression, showed little change in the chest, abdomen and pelvis, but increased "pathological adenopathy in the right neck." After I lectured her about the need for diligent compliance, for a time she seemed more determined, but the stress continued unabated and her compliance varied. At times, she might have been doing 50% of the therapy and a CT of the neck scan in January 2002 revealed continued progression in the adenopathy. The report of the abdominal and pelvic CT scans describes:
"Mixed behavior of nodes with periaortic nodes slightly less prominent and hyperplastic nodes in the small bowel mesentery more prominent…Interval appearance of focal splenic lesions…"
This time, we talked about the need for complete compliance with all aspects of the regimen, regardless of the difficulties in her life. Fortunately, her oncologist did not insist that chemotherapy begin at once, since she had previously responded so well to my treatment. DK renewed her dedication to the regimen, with repeat CT scans in January 2003 confirming the benefit. The neck CT showed "Substantial decrease in the extensive adenopathy in the right neck." The abdominal CT scan indicated:
"Interval disappearance of small splenic lesions and slight decrease in sight of spleen…No pathologic adenopathy is seen in the abdomen or pelvis."
Thereafter, she followed the therapy as prescribed, and continued doing well. A neck CT in March 2004 revealed:
"Complete regression in pathologic and borderline sized neck nodes."
The CT scans of the abdomen and pelvis were completely clear, as the official report describes:
"There is no other interval change and no evidence for active lymphoma in abdomen and pelvis."
Unfortunately, her stress level subsequently increased markedly and after a long-term relationship dissolved, for a number of months she went off her program completely. Her energy worsened, her sleep became disturbed. Predictably, a CT scan of the neck in February 2006 showed "New and progressive adenopathy along the right jugular chain and posterior triangle." CT scans of the chest, abdomen and pelvis showed recurrent disease.
She is now again on her program, determined once again to get well, and clinically the enlarged neck nodes are regressing. She feels stronger, more energetic, more positive.
Though DK has not followed a straight and narrow path, her course does say much about our treatment. When she complied fully, her extensive disease regressed completely. When her compliance fell off, the disease recurred, then again regressed when she resumed her full protocol. Over the years, her disease status has correlated precisely with her compliance.
Patients, including mine, do not lead perfect lives. Often, they must deal with many life-stresses above and beyond their cancer, stresses which can influence mood, motivation and dedication to treatment. But DK, despite her lapses, has generally done very well over the past 7.5 years on her nutritional program, has successfully avoided all chemotherapy and radiation, and currently feels strong and healthy.

CASE 10

Patient LR: An 11.5-Year Survivor of Non-Hodgkin's Lymphoma
Patient LR is a 60-year old woman with a history of an insulinoma, diagnosed in 1977, treated effectively with partial pancreatectomy. Her doctors recommended neither chemotherapy nor radiation after surgery, and thereafter she did well until December 1993 when she first noticed

swollen lymph nodes under her chin. When the swelling did not regress, in January 1994 she consulted her internist who suspected the problem related to infected gums. She was referred to a periodontist who performed gum debridement, but when the lymph nodes enlarged further in February 1994, she returned to her internist who prescribed penicillin, without effect. About that time, she first developed significant night sweats that persisted for a week, as well as abdominal pain. Her physician referred her for an ultrasound, which revealed a large 7 cm cystic mass in the tail of the pancreas which a CT scan confirmed. The radiologist thought the lesion consistent with a benign pseudocyst, and when a needle biopsy proved inconclusive, her doctors recommended no further testing.

Because of the persistent enlarged lymph nodes in her jaw, in April 1994 LR consulted an ENT specialist who did not initially suggest biopsy, but in June, LR noted new inguinal adenopathy. At this point, the patient's internist prescribed a course of Cipro for what was now thought to be cat scratch fever, which antigen testing did confirm. Although the nodularity persisted even after she completed a course of Rifampin, her primary physician remained unconcerned. When the adenopathy progressed throughout September, LR again returned to her doctor, who again told her "not to worry." In one of the physician's notes from the time, he described her as "borderline hysterical."

Finally, LR decided to consult the surgeon who years earlier had resected the insulinoma. In October 1994, this physician – somewhat more disturbed by the adenopathy - removed a nodal mass from the posterior neck-right shoulder junction that proved to be "Follicular lymphoma, predominantly small cleaved cell type (nodular poorly differentiated lymphoma)." Experts at the Pathology Laboratory of the National Institutes of Health reviewed the slides and confirmed the diagnosis.

In late October a CT scan of the chest revealed "marked lymphadenopathy in multiple mediastinal, left hila (sic), retrocrural and axillary areas…consistent with the clinical diagnosis of lymphoma." An abdominal CT scan showed: "There is extensive adenopathy in the abdomen and pelvis, with lymph nodes ranging up to 3x4.4 cm and 4.6x6 cm." A gallium scan documented extensive uptake in the mediastinum and abdomen.

Shortly thereafter, in November 1994, LR began chemotherapy with CHOP, a standard lymphoma protocol, at a local academic medical center. In late December, after she had completed three cycles of the proposed course, CT scans demonstrated improvement, but not resolution, in both the chest and abdomen, reported as: "Interval decrease in size of adenopathy within the right paratracheal group, subcarina, left axillary and retrocrural nodes…" In the abdomen the radiologist noted "lymphadenopathy has decreased by more than 50% since exam of 10---94 consistent with partial response to chemotherapy."

In March 1995, after LR had completed the full six cycles of the regimen, CT scans indicated some continued response to therapy, but definitely not complete remission. The chest CT showed "Slight continued improvement in right paratracheal lymph node disease with stability of disease elsewhere…" The abdominal CT revealed:

"When compared to previous examination, the lymphadenopathy appears stable except for an apparent worsening in the region of the root of the mesentery…"

With chemotherapy completed but her disease not in remission, LR began investigating alternative approaches, learned of my work, and first consulted with me in April 1995. Her exam was unrevealing, except for multiple palpable right cervical lymph nodes.

She thereafter began her program with great determination. In November 1995, restaging with CT scans of the chest, abdomen and pelvis confirmed significant improvement:

"No significant mediastinal or hilar adenopathy is identified. The lungs are clear without evidence for masses…Retrocrural adenopathy seen on the previous examination is now not identified. Small periaortic and mesenteric lymph nodes are identified which have decreased in size since the previous examination…"

CT studies in February 1996 showed no evidence of recurrent disease, as did subsequent scans

over a period of two years. Throughout this time, she was noted to have, on exam, several small right cervical nodes. In May 1998, the oncologist who followed her along with me suggested a biopsy of one of the neck nodes, which did reveal residual lymphoma described as "Follicular, mixed small cleaved and large cell type…" At that point, the oncologist recommended, along with my therapy, a course of Rituxan, a monoclonal antibody treatment designed specifically to attack lymphoma cells. I felt the treatment unnecessary since she had already responded so well to my regimen, but the oncologist was persuasive and I did not push the case. So, in the spring and early summer, she completed four cycles of the drug, which she tolerated with minimal difficulties. On exam, her cervical nodes regressed completely. CT scan studies of the chest, abdomen and pelvis in September 1998 reported "No evidence of recurrence." CT scan of the neck showed "Multiple small subcentimeter lymph nodes bilaterally which have decreased in size and number since the previous study."

Since 1998, LR has done exceptionally well, now 12 years from her original diagnosis of stage IV lymphoma, and 11.5 years from her first visit with me. She has enjoyed generally excellent health with no recurrence of her once widespread disease. The most recent PET/CT scan in April 2006 documented:

"There is no PET/CT scan evidence of recurrent or metastatic disease."

Her course is unusual, both in terms of the long-term survival and the near total resolution of the disease as documented by CT scans after only six months on her nutritional therapy. In 1998, before she completed a course of Rituxan, scans of the chest, abdomen and pelvis had been clear. I suspect her neck nodes eventually would have resolved without Rituxan. Studies do show that 35-50% of patients with follicular lymphoma that relapse after chemotherapy will have some response to the drug, though the duration of effect is variable with few long-term remissions.2 In any event, in this case the disease had nearly completely resolved before her oncologist urged in 1998 she proceed with Rituxan, at the time a fairly new, and highly promoted, drug.

CASE 11

Patient FV: A 3-Year Survivor of Lung Cancer

Patient FV is a 63-year old man with a history of myasthenia gravis diagnosed in 1993, which forced him to retire from his high stress profession. Since then, his myasthenia has waxed and waned, with exacerbations treated with Tensilon.

In June 2003, while playing tennis, he developed significant shortness of breath. At a local emergency room, a chest x-ray showed several pleural-based densities in the left lung and a CT scan revealed several nodular lesions in the left chest pleura up to 2 cm in diameter. Posterior pleural thickening was also noted, thought consistent with mesothelioma. When his symptoms worsened, a second chest x-ray documented a left pleural effusion, subsequently treated with chest tube placement and drainage. After recovering from the acute episode, a second CT scan in July demonstrated a collapsed left lung, a persistent left pleural effusion and numerous large tumors. The official report states: "the largest pleura bases (sic) mass in the left upper lobe laterally measures 2.976 cm…The largest mass in the left lower lobe posteriorly measures 5.39 cm…There are at least 18 pleural based masses present on the left."

FV then underwent bronchoscopy, left video assisted thoracotomy with pleural biopsies, and pleurodesis. The initial pathology report of the biopsy specimen suggested most likely mesothelioma, but a review at The Armed Forces Institute of Pathology confirmed not mesothelioma, but, as the note describes:

"Pleura, left, biopsy: Metastatic papillary adenocarcinoma, of pulmonary origin."
His local doctors also sent the pathology slides to Brigham and Woman's Hospital in Boston, a research center for mesothelioma, where, in July the tumor was thought most likely a papillary adenocarcinoma of the lung, staged at IIIB.
In late July 2003 FV decided to consult with Dr. David Sugarbaker, a thoracic surgeon and expert in pleural lesions at Brigham and Women's. At Brigham, CT scans of the abdomen and pelvis were clear. A total body PET scan confirmed the extensive left pleural lesions but showed no evidence of distant metastatic disease. Since the disease seemed localized to the chest, Dr. Sugarbaker proposed the tumor be treated as if it were a pleural lesion like a mesothelioma with extensive surgery, including removal of the entire left lung, the pericardium and the left side of the diaphragm.
This debilitating approach seemed excessive, so FV, upon returning home, consulted with an oncologist in the Washington DC area who believed the situation should be approached initially not with surgery but instead with an aggressive chemotherapy regimen. If the tumors regressed significantly, a less aggressive procedure might be feasible. The oncologist also consulted with three additional thoracic surgeons, including one within the NIH system, who felt the surgical approach suggested in Boston overly aggressive, and that the tumor should be treated as a primary lung cancer, not as a pleural tumor like mesothelioma. All believed chemotherapy should be the initial therapy of choice.
FV then traveled to New York for a consultation with the Chief of Thoracic Surgery at Memorial Sloan-Kettering, who concurred that the disease appeared to be lung cancer that had spread to the pleura, not the other way around. She recommended chemotherapy as the first line treatment, perhaps followed by surgery.
With the debate resolved, in September 2002 FV began a four-cycle course of Gemzar and carboplatin. After he completed his last treatment in November 2002, a CT scan revealed some slight worsening in the largest tumor, despite the chemotherapy:
"The cystic structure in the posterior left upper lung…measuring 4.8 x 6 cm, compared to prior measurements of 4.5 and 5.9 cm. The pleural based lateral left upper lung lesions are also essentially unchanged, measuring 2.6 and 2.9 cm, compared to prior measurements of 2.8 and 2.9. The rest of the pleural-based masses and left basilar pulmonary nodules are unchanged…"
Since the disease had progressed, even if slightly, FV began investigating alternative approaches, learned of our work and consulted with me in mid December 2003. At the time, he generally felt well and seemed to have recovered from chemotherapy quickly. Thereafter, he began his nutritional regimen with great dedication and superb compliance. When I saw him for a return office visit three months later, in April 2004, he reported feeling "great." Two months later, in June 2004, PET/CT scan testing confirmed improvement in his disease, as he followed only his nutritional regimen. The CT describes:
"CT-CHEST: Numerous pleural-based masses, and small ones adjacent to the pericardial surface are present…Most of these lesions appear marginally smaller than they previously did (note: compared to the November 2003 CT scan), by a few millimeters. The largest lesion, located posteromedially in the mid-chest, again appears largely necrotic…
"Soft tissue abnormality in the left upper quadrant of the abdomen, anterior to the splenic flexure, appear slightly smaller in overall bulk as compared to the prior study…"
Note that the prior radiology reports had not described the lesion in the abdomen, a metastatic focus which would confirm stage IV, not stage III disease. Apparently the lesion had been evident on prior scans, but not described in the official report.
The overall summary of the June PET/CT states:
"IMPRESSION: PET scans shows numerous pleural-based pathologic foci in the left hemithorax, consistent with numerous foci of metastatic neoplasm. A lesion at the anterior aspect of the left upper quadrant of the abdomen, or immediately adjacent diaphragmatic surface is present….
"CT examination of the chest shows minimal decrease in the overall size of the numerous pleural-

based masses in the left hemithorax, and in the region located either in the left upper quadrant of the abdomen…"
So, while the PET confirmed residual active cancer, the CT scan indicated universal, though slight, reduction in the many tumors with advancing necrosis in the largest remaining tumor.
Since that time, FV has continued his nutrition regimen vigorously, and has done extremely well. He has declined all invitations for follow up CT and PET/CT scanning, stating he wouldn't change his treatment regardless of what the tests show. So, while we don't have clear evidence of additional tumor regression, his continued survival, now at three years since he began his nutritional regimen, and his excellent general health speak for themselves.
His course has had only one complication. In the spring of 2006, FV felt well enough to take a trip to Europe with his wife. Upon arriving abroad, he developed severe headaches requiring hospitalization. After CT scans and MRI's of the head showed nothing, he was eventually diagnosed with a cerebrospinal fluid leak. He returned to the United States, the problem eventually resolved and once again, FV is back to his usual state of well being.
In analyzing this case, it's important to keep in mind that although the disease was originally classified as stage IIIB lung cancer, the PET/CT scans in June 2004 clearly showed an abdominal lesion that would indicate stage IV metastatic disease. Though evident on prior scans, this lesion was not mentioned in the formal reports. Also, a CT scan done weeks after FV completed his four cycles of aggressive chemotherapy showed no reduction in any of the tumors, and some enlargement. Only after he had followed nutritional program some six months did the PET/CT scans document regression in all tumors, and the appearance of significant necrosis in the largest. For patients with stage IV non-small cell lung cancer, studies show chemotherapy improves average survival by about one month over supportive care only. Even with the newest most aggressive chemotherapy regimens, median survival is still only 9-10 months, with, depending on the regimen, a mere 25-40% of patients living 1 year.3 Virtually none survive 5 years. FV's 3-year survival and excellent health are even at this point extraordinary.

CASE 12

Patient RZ: Lost to Follow-up After Tumor Regression of Lung Cancer
Patient RZ was one of the first patients I treated with a diagnosis of metastatic lung cancer after I opened my practice in late 1987. He had smoked cigarettes heavily for 28 years, before quitting some 15 years prior to developing cancer. Otherwise his health had generally been good when in early 1987, he first developed persistent chest pain and cough. When his symptoms did not resolve, he consulted his local physician. After an x-ray revealed a right lung mass, in March 1987 he underwent bronchoscopy with biopsy confirming adenocarcinoma of the lung. A CT showed two tumors, one in the right apex, the second in the right hilum, though the left lung appeared clear. Since the disease appeared limited to the right lung, surgery was immediately suggested. RZ initially refused all conventional intervention but when his symptoms worsened he agreed to proceed with surgery. In July 1987 he underwent a right pneumonectomy, with the pathology report describing a 2.5 cm lesion, consistent with poorly differentiated adenocarcinoma, extensively invading the hilar lymph nodes. He was staged at III, and proceeded postoperatively with a course of radiation to the chest totaling 4500 rads.
RZ subsequently did well until September 1988, when he developed persistent headaches and olfactory hallucinations described as putrid foul smells. A CT scan of the head in October 1988 revealed multiple tumors located in the temporal, right frontal and left occipital areas with associated edema. His doctor prescribed the steroid Decadron to reduce the cerebral swelling but the symptoms did not improve. In early November 1988 he proceeded with a ten-day course of

radiation to the head, ultimately receiving a total of 3000 rads, with some improvement in his symptoms. In December 1988, a month after completing radiation, a CT scan of the head revealed the situation had worsened despite treatment:
"Multiple, bilateral intracerebral ring-enhancing lesions, consistent with metastases. In addition there appears to be an early left cerebellar hemisphere lesion. Many of these were noted on Oct---1988. However, several new small areas of abnormality are identified on the present exam, not previously seen…"
At this point, with his disease progressing, RZ, who already had been investigating alternative approaches to cancer, came to New York for a consultation with me. He reported severe neurological symptoms, including headaches, that had recently recurred despite Decadron. He thereafter began his nutritional program with initial great enthusiasm, and in January 1989, after he had completed but a month on his nutritional program, a CT scan showed significant improvement:
"When compared to the last previous exam of 12—88, there has been diminution both in the size and number of the visualized intracranial lesions. No new areas of abnormality are seen."
According to his oncologist's notes, a bone scan in March 1989 showed clearing of previous noted bone lesions, though I do not have the actual radiology report.
At that point, RZ was symptom-free and strong enough to return to his stressful job. Unfortunately, he felt so well he became careless with his supplement regimen and diet, and by April 1989 was by his own admission less than 50% compliant with his overall protocol. Not surprisingly, after his neurological symptoms returned with a vengeance, a CT scan in May 1989 revealed worsening disease:
"Increased intracranial edema and size of previously reported intracranial metastases when compared to 3---89."After a discussion with me about the need for perfect compliance, RZ resumed his full program as prescribed. His symptoms rapidly improved and a CT scan in July 1989 demonstrated reduction in all his brain tumors:
"The three metastatic lesions on the 5---89 CT have decreased in size. No new metastatic lesions are seen…."
With the return of his good health, RZ again became careless with his program. I last saw him in September 1989, nine months since our first session, when after several weeks of poor compliance his neurological symptoms had returned. Thereafter, he was lost to follow-up. He had no family that I knew of, and despite my efforts, I could never learn what happened to him
In this case, the patient's disease, before he had consulted with me, had progressed despite intensive radiation to the brain. After he began his nutritional program the brain (and apparently the bone) lesions regressed, only to worsen when compliance fell off. When RZ became more adherent to the prescribed regimen, the brain tumors again improved. Ultimately, he lacked the dedication and discipline to stick to the program as required.
DeVita reports a median survival of 15-18 weeks for patients with multiple metastatic brain lesions from non-small cell lung cancer treated with intensive radiation.4 So, despite his compliance problems, this patient's 36+ weeks of survival beat the odds.
And, again despite his lapses, I thought this patient of interest since he remains one of the few I have ever treated with brain metastases from a primary lung neoplasm. Though in recent years occasional patients in this situation have contacted our office seeking information about our therapy, most are so far into the terminal stages of their illness we can't justify trying to treat them. For better or worse, in this age of aggressive oncology, patients facing this diagnosis invariably get shunted frantically and immediately into multi agent chemotherapy and radiation. Only after months of futile treatment, when the disease explodes and the patient weakens, do they begin looking into alternative options. By then, it is too late. I believe we could help many diagnosed with this terrible condition if, like RZ, they came earlier in their course, but over the last decade this has simply not been the case. And we do not accept patients for treatment whom we believe we can't help.

CASE 13

Patient SV: A 5.5-Year Survivor of Lung Cancer

Patient SV is a 44-year old woman who had been in good health when in 1998, she first noticed the need to repeatedly clear her throat, a symptom she attributed to persistent postnasal drip. By 1999, she had developed a mild non-productive cough associated with a gradual decline in energy, attributed to the demands of tending to her new baby.

During 1998 and 1999, SV repeatedly consulted her primary care physician because of ongoing respiratory symptoms, but she was reassured she had nothing more serious than a recurrent viral syndrome that warranted no further testing. When the cough and fatigue persisted, she was ultimately referred to an allergist who thought the symptoms were unrelated to allergies. However, no chest x-ray was suggested.

The cough and associated problems continued into 2000. At one point in 2000 during a family visit, after hearing the cough, the patient's sister, a medical professional, insisted a chest x-ray and TB testing be done. Subsequently, when a TB skin test was negative, SV chose not to follow up with the chest x-ray. A month later, in October 2000, SV developed a significantly worsening cough associated with a high fever and severe fatigue. She visited her doctor who after an exam announced she once again had a viral infection. When, at end of November 2000, the cough worsened, she requested an x-ray, which her doctor told her showed pneumonia. When the symptoms did not improve after a second course of antibiotics, a repeat chest x-ray revealed a persistent left lung infiltrate. A CT at that point then showed a large lesion in the left lower lung consistent with primary lung cancer.

SV was referred to a pulmonologist for bronchoscopy and biopsy, which confirmed adenocarcinoma of the lung. With the diagnosis finally made, the patient met with a local oncologist who ordered a full metastatic work-up. A CT scan of the abdomen and pelvis showed a porta hepatis mass that was considered insignificant. In January 2001 SV decided to consult with an oncologist and lung cancer specialist at the Mary Hitchcock Medical Center in New Hampshire. At Hitchcock, after a PET scan revealed only the large lung tumor, with no evidence of metastatic disease, the physician recommended surgery for resection of the lesion as soon as possible.

In January 2001 SV then met with the Chief of Thoracic Surgery at Memorial Sloan-Kettering in New York. Repeat bronchoscopy at Memorial with transbronchial biopsy confirmed moderately differentiated mucin secreting adenocarcinoma. Repeat PET scan showed a 5.5 cm lesion in the left lung as well as a 1 cm secondary satellite lesion, but CT scans of the head, abdomen and pelvis were clear. Subsequently, in February 2001 at Memorial, SV underwent left lower lobectomy with the pathology report describing a tumor 6.2 cm in diameter, consistent with moderately differentiated mucinous adenocarcinoma. Tumor had invaded three of eight lymph nodes evaluated, a very dire prognostic indicator.

According to the patient, the Memorial surgeon warned that neither chemotherapy nor radiation would be very helpful long term and should be held in reserve until the disease recurred, as it most likely soon would. SV decided she nonetheless wished to meet with an oncologist, so she consulted at Memorial with a physician pursuing a vaccine research study designed for patients with stage III lung cancer. At the same time, she began investigating our work, which a friend had discussed with her. The same day she first consulted with me in March 2001 she also visited Memorial Sloan-Kettering to discuss both chemotherapy and the vaccine trial. The physician's note from that day clearly expresses the poor prognosis SV faced:

"I had a lengthy discussion with the patient and her husband regarding the situation. The patient already understands that because of her stage, she is at risk for recurrence in the future. We discussed in detail the role of adjuvant chemotherapy and radiation therapy. In one meta-analysis published in 1995, cisplatin based chemotherapy improved the rate of survival by 5% after five

years. Radiation typically has been described as improving local control without improvement in survival due to the risk of systemic metastases. One recent trial published in the New England Journal indicated that the addition of chemotherapy with etoposide and cisplatin to adjuvant radiation did not improve survival."
In the same note, though the oncologist clearly admits that radiation and intensive chemotherapy essentially do little, two sentences later he nonetheless recommends the patient be aggressively treated anyway!
"For this patient, who is quite young, I would probably favor aggressive treatment, providing her with some adjuvant chemotherapy with a cisplatin-based regimen…In addition, I also discussed with her clinical trials..."
The vaccine trial, offered as an option to aggressive chemotherapy, turned out to be a preliminary pilot study. Then, after her consultation with me and the Sloan-Kettering physician, SV met with her local oncologist, who told her that even with aggressive chemotherapy and radiation, only one in five patients with her specific diagnosis and stage lived beyond a "couple years."
Since little data favored any of the orthodox treatments, SV decided to forgo all conventional approaches and begin our nutritional regimen. When we met for our second session some days later, she handed me a copy of the consent form for the Memorial Sloan-Kettering clinical study. I found it informative in that the researchers clearly discuss the aggressive nature of lung cancer, and its notorious resistance to standard approaches:
"Non-small cell lung cancer is a difficult disease to treat. Even after curative surgery, there is a high likelihood of the cancer returning. Chemotherapy and radiation are sometimes given after surgery to decrease the chance that the cancer will come back; however it is unclear whether this really helps. In this study, we are trying to develop a different approach to treat patents with non-small cell lung cancer after surgery. We are testing a new vaccine designed to boost your immune system against your cancer…"
SV then began my therapy with great determination and great dedication. A follow up CT scan from February 2003 did reveal a 2-3 mm nodule in the periphery of the right lung. A follow up scan in September 2003 showed that "The nodule in the periphery of the right lung posteriorly….remains unchanged and stable." Repeat CT scans in August 2004 reported "A stable 2-3 mm pulmonary nodule is seen in the right lower lobe. No new nodules are seen…" Her most recent scans in October 2005 were completely clear.
Today, more than 5.5 years first beginning her nutritional therapy, SV remains compliant and in good health with no evidence of recurrent disease. She continues to follow up periodically with her local oncologist, who seems very supportive of the road she has taken.

CASE 14

Patient DQ: a 15-Year Survivor of Renal Cell Carcinoma
Patient DQ is a 82 year-old man who had past history pertinent for celiac disease, gout and chronic borderline anemia. In October of 1990 his primary physician noted an abdominal mass during a routine yearly physical examination. Subsequent MRI and CT scan studies revealed a 14 cm tumor in the left kidney, with no evidence of metastases. Chest X-ray and bone scan were both clear, and in late October 1990 DQ underwent exploratory laparotomy and left nephrectomy. Pathology studies confirmed renal cell carcinoma, with 1/1 adjacent nodes positive for invasive cancer.
DQ was then referred to a major New York medical center for additional evaluation and treatment. There, in December 1990 he agreed to enter a clinical trial testing alpha-interferon, an immune stimulant, against kidney cancer. After repeat chest and abdominal CT scans showed no evidence of

residual or recurrent disease, DQ then began an eight-cycle course of intensive interferon, which he completed in August of 1991.
Thereafter, DQ did well until November 1991, when he noticed a lump in the left parietal-occipital region of the skull that rapidly enlarged over a period of several days. In early December needle aspiration of the mass confirmed "Adenocarcinoma, consistent with metastatic renal tubular carcinoma."
A subsequent CT of the head indicated that the tumor had penetrated through the skull into the cranium, as the report states:
"There is a lytic lesion within the left parietal bone with an associated enhancing soft tissue mass, consistent with a metastasis. There is intracranial extension of the enhancing soft tissue, as well as extension into the subcutaneous tissues of the left parietal scalp."
A bone scan revealed "a large focal area of increased radiopharmaceutical uptake with a photopenic center consistent with metastatic disease in the left occipital region of the skull." A CT scan of the chest indicated "Small nodule at the left lung base…which may be an area of fibrosis as described. Two other smaller densities in the middle lobe and the left lower lobe as described of questionable significance." However, these lung findings had not been reported on the chest CT of December 1990.
DQ then began a one month course of radiation to the skull mass, totaling 4000 rads and completed in January 1992. Despite the treatment, the tumor regressed only marginally. DQ, having been told he had incurable disease, began looking into alternative approaches, learned of my work and decided to pursue my protocol. When we first met in January 1992, only a week after he had finished radiation, DQ reported significantly diminished energy, along with a 20 pound weight loss occurring during the previous six weeks. On exam, I immediately noticed a lemon sized mass sticking out of his skull in the left parietal area.
Shortly thereafter, DQ began his nutritional protocol, complied well and within weeks reported a significant improvement in his energy and well being, as well as a 20 pound weight gain. After three months on his nutritional protocol, the previously noted large skull mass completely resolved. A repeat bone scan in June 1993, after DQ had completed some 16 months of treatment, revealed "No evidence of bony metastatic disease." Not only had the lesion disappeared, but the underlying skull had healed. Today, nearly 15 years since he first consulted me, DQ remains completely adherent to his treatment, is in excellent health and cancer-free.
Several points need mentioning. Renal cell carcinoma once metastatic is a very deadly disease: DeVita reports a median survival of only 50 days for patients with stage IV kidney cancer, despite treatment.4 This neoplasm resists not only chemotherapy and immunotherapy, but radiation as well. In this case, DQ's doctors suggested radiation not as a potential cure but as palliation, hoping to slow the spread of the tumor into the brain. In any event, the response was negligible. While some radiation oncologists report that at times, the benefit of radiation therapy might continue for up to two months, DQ showed significant response only after his third month on his nutritional program. Furthermore, although his radiologists initially downplayed the new findings on the chest CT in late 1991, in retrospect these lesions may have indicated the beginnings of explosive spread.

CASE 15

Patient UB: A 6.5-Plus Year Survivor of Renal Pelvic Cancer
In July of 1989, Patient UB, at the time a 66-year old Caribbean woman, first developed hematuria. Cystoscopy revealed only a benign urethrocoele, and a right retrograde pyelogram showed no abnormalities. Subsequent urine cytology in January 1990 was negative but in May 1991 she consulted her urologist again after noticing blood in her urine. According to the physician's notes, this time "urine cytology showed atypical cells on 2 occasions and malignant cells in one specimen.

Repeat IVP showed a defect in the right renal pelvis."
When repeat cystoscopy in June 1991 revealed a normal bladder mucosa, but significant blood in the right ureter, her urologist suspected she "most likely has a right renal pelvis tumor and have advised her family that she will most likely need nephro-ureterectomy." The patient then agreed to a needle biopsy of the right renal tumor, which showed, according to the patient and her family, renal pelvic cancer – though we do not have the actual pathology report of this test in our possession.
When UB learned of our approach from her daughter who lives in the United States, she cancelled surgery despite the urgings of her urologist and decided to proceed with our treatment. During our first session in July 1991, she reported intermittent right flank pain and urethral burning on urination, but no other symptoms. I urged her to reconsider surgery, which I explained could be curative if the disease proved localized. She adamantly held her course, stating that she had had enough surgery in her life – she had years early undergone hysterectomy - and would not allow any more, whether I would accept her as a patient or not. So, with her point well made, we agreed to proceed.
She proved to be a very compliant patient and did well clinically, with rapid resolution of her flank pain and no further episodes of hematuria. On her home island, she studiously avoided contact with all other doctors despite my wish she consult with them at least on occasion. Since she had no insurance, frequent testing to monitor her progress was simply out of the question – not that she would have agreed to it anyway. But in October 1995, after she completed four years on our treatment, she did allow an abdominal ultrasound, which revealed a normal right kidney except for a 2.3 cm simple cyst in the pole. Otherwise, the report states: "No solid tumor mass seen. The left kidney and the remainder of the abdominal organs were normal in appearance."
During the first four years on therapy, UB did return periodically to New York for re-evaluations. After 1995, she could not afford the expense of the trips, so I agreed to follow her by phone. My last contact with her was in 1998, after she had been on the program for 6.5 years. At that time she was feeling well, with no complaints.
In this patient, her resolution of signs and symptoms, her lack of disease spread and her long survival all indicate a good response to treatment, particularly since she refused all orthodox interventions including surgery. Furthermore, ultrasound studies after four years on treatment confirmed the previously documented renal pelvis tumor had resolved completely. Unfortunately, we never received the actual pathology report of the needle biopsy, so her records are in that sense incomplete. But the patient and family members carefully described the procedure and the results that had been reported to her. And, we do have the urologist's discussion of the positive cytology and IVP findings to confirm the diagnosis of cancer. Despite the one missing document, I included her because she did so well following only our nutritional regimen.

CASE 16

Patient IL: A 4.5-Year Survivor of Colon Cancer
Patient IL is a 57 year-old man with a family history pertinent for a brain cancer in his mother, colon cancer in an uncle, and lung cancer in a second uncle.
He himself had generally been in very good health when beginning in 2000, he noticed a change in his bowel habits, including increased mucus in his stools, chronic indigestion, bloating and what he described as gas pains. He adopted a whole foods, vegetarian way of eating hoping for some relief, but over time his symptoms only worsened.
In mid 2001, he first noticed intermittent bright red blood in his stools. Some months later, in October 2001, he developed symptoms consistent with a bowel obstruction, including severe pain, bloating, abdominal distension, and an inability to move his bowels. When the symptoms resolved

after several hours, he chose not to seek medical attention.
Several weeks later, in November 2001, the symptoms returned with a vengeance. He hoped once again to ride out the crisis, but over a three-day period the pain, bloating and distension worsened to the point he finally went to the local emergency room. A barium enema revealed an "apple core" lesion in the sigmoid colon indicating a tumor. When a subsequent sigmoidoscopy revealed a complete obstruction, the patient underwent emergency laparotomy, resection of the sigmoid colon along with the tumor, and placement of a temporary colostomy. The surgeon also discovered, as his operative note reports, "palpable nodules in the liver, which I felt to be more cystic than solid, but there were a couple studs that were solid." He removed one of the liver lesions for evaluation.
The pathologist's summary describes a large colon tumor, but doesn't give exact dimensions, though it states "The mass locally grossly appears to extend to the underlying adipose tissue," and defines the tumor as "moderately differentiated adenocarcinoma, extending through the bowel wall, and present on the serosal surface." Though cancer had infiltrated two of nine lymph nodes examined, the liver tissue seemed most consistent with a benign hemangioma.
Postoperatively, a CEA test, a tumor marker for colon cancer, came back elevated at 5.1 (with normal less than 3), an indication of remaining malignant activity. No CEA had been done before surgery, so there were no results for comparison.
IL did subsequently meet with an oncologist who suspected the tumor had invaded the liver, despite the negative biopsy. He insisted chemotherapy needed to begin quickly, but upon questioning admitted if the cancer had indeed spread, treatment would do little. IL, who already had a strong interest in alternative medicine, decided to refuse conventional treatment and instead began self-medicating with a variety of nutritional supplements. After learning about our work from a local chiropractor, he chose to proceed with our treatment. He contacted our office in early January 2002, but we suggested he come in only after reversal of his colostomy.
Since the patient has been rushed into surgery in crisis from an obstruction, no preoperative CT scan had been done. Finally, in mid January, his doctors pushed for a scan, which revealed evidence of multiple metastatic lesions in the liver as the official report describes:
"Unfortunately, within the liver there are numerous small hypo-enhancing lesions, some of these are very hypo enhancing to the point where one might consider cysts, but others are more intermediate density. 5 mm thick slices were obtained to increase the sensitivity. The largest of these lesions is only about 1 x 1.5 cm. These are suspicious for metastatic disease…."
The radiologist also noted "very minimal subpleural densities seen at the mid left lung field" which he felt "should be rechecked within several months." In his summary, he reports that "I suppose the liver findings increase suspicions of the left lower lobe findings however my feeling is that the lung changes will prove to be benign…" Quite likely, based on the CT findings, cancer had spread into the liver and possibly to the lungs. The negative liver biopsy, the patient was told, might only indicate that the liver contained both benign and malignant nodules, as the CT scan seemed to show.
In late January 2002, the patient returned to surgery for reversal of the colostomy and lysis of adhesions that had formed since the first operation. During the procedure, unfortunately, none of the liver lesions were biopsied.
When IL was first seen in my office in mid March 2002, he seemed enthusiastic about the therapy and subsequently followed the regimen faithfully. Today, more than 4.5 years on treatment and five years from his original diagnosis, he remains fully compliant and enjoys excellent health.
Over the years that he has been my patient, IL has chosen not to undergo any further CT scans, a decision I have respected. He says no matter what the scans show, he wouldn't agree to chemotherapy nor would he change his treatment. He doesn't want the radiation exposure, which is significant, the worry, or the expense. So, I have no idea what has happened to the liver, or its lesions, I only know the patient is alive and well.
Even if we disregard the CT liver findings for a moment, a number of salient signs point toward a dismal prognosis. The literature reports that patients who initially present with an obstructing

lesion have a far worse prognosis than those who don't, even if the disease is otherwise localized. DeVita states in this regard:
"The presence of obstruction has been found to reduce the 5-year survival rate to 31%, as compared with 72% for patients without obstruction."
Furthermore, in this patient's case, the fact that the tumor had already invaded through the bowel wall and infiltrated into two lymph nodes signaled future trouble. The CEA level after surgery, though only mildly elevated, nonetheless also warned of a future recurrence – regardless of what may have been going on in the liver. Harrison's reports that a high CEA before surgery, whatever the stage, suggests a poor prognosis:
"Regardless of the clinicopathological stage, a preoperative elevation of the plasma carcinoembryonic antigen (CEA) level predicts eventual tumor recurrence."
IL's elevated postoperative CEA served as an even more worrisome prognostic indicator. But finally, if we accept the expert radiologist's conclusion that cancer had infiltrated the liver, the prognosis turns dire. DeVita reports median survivals in the range of 4.2 to 8.7 months for patients diagnosed with metastatic colon cancer receiving aggressive chemotherapy.2 In a large-scale study. Manfredi et al report 1- and 5-year survival rates were 34.8% and 3.3% for synchronous liver metastases (meaning liver metastases occurring at the time of the original diagnosis of colon cancer).4 These statistics include patients with solitary liver lesions, which can at times be resected along with the primary colon tumor, allowing for long term survival. In this case, IL, with multiple malignant appearing tumors on CT scan, not only has far outlived the predicted lifespan but has successfully avoided the toxic treatments his oncologist insisted five years ago needed to be done.

CASE 17

Patient FK: A 19-Year Survivor of Breast Cancer
Patient FK is a 71 year-old woman who had been in good health when in mid-1984, she first noticed a right breast mass. She was referred for a breast biopsy, which proved to be benign. However, within a month of the procedure, her health began to decline rapidly: she developed gradually worsening fatigue, paresthesias and chronic wheezing. Her internist reassured her, telling her "not to worry."
After FK suffered a gradual weight loss in early 1985, in April her right breast and axillary region suddenly enlarged, turned red and painful. Her physician, assuming she had an infected breast, prescribed antibiotics, but the breast swelling only worsened and in August 1985 she was admitted to a local hospital for evaluation. On exam, FK was found to have a malignant appearing 8 by 8 cm mass, confirmed as cancer by biopsy. Hormone receptors were negative.
The tumor was thought far too large for resection, so in September 1985, FK began radiotherapy to the chest wall, eventually receiving a total of 5100 rads. After completing treatment, she underwent a right modified radical mastectomy, with the pathology report describing infiltrating ductal carcinoma of the breast, involving 17/17 axillary nodes at all levels.
Shortly after surgery, FK began chemotherapy with CMF, a protocol she continued for the next two years. In August 1987, while still on treatment, she developed pain in her ribs and sternum. A bone scan in September 1987 documented increased activity in the sternum and two right anterior ribs consistent with metastatic disease. X-ray studies confirmed probable sternum metastases.
Since she had developed recurrent disease while receiving aggressive chemotherapy, FK began investigating alternative approaches to cancer. She learned of my work and first came to my office in December 1987, while she still continued chemotherapy. At that time, she complained of fatigue and severe depression, particularly worse after each dose of chemotherapy.
After beginning her nutritional therapy in late 1987, she proved to be a very determined and compliant patient. Initially, because her oncologist had so frightened her with his dire prognosis, she continued on single agent chemotherapy, methotrexate. Since she had already failed the CMF

regimen which included the drug, this approach didn't make much sense to me, but her oncologist, who already announced her disease had reached a terminal phase, apparently hoped the treatment might extend her life a few months. Usually, we discourage patients from beginning our program if they will be continuing chemotherapy, but in this case, I agreed to the combined approach. Once on her nutritional regimen, FK reported a dramatic improvement in her general health, with resolution of her bone pain and depression. She continued chemotherapy intermittently for five years with methotrexate and later vincristine, before finally giving it up entirely and continuing only on my therapy.

For many years, she avoided radiographic testing until May 2001, when a bone scan showed that the previously evident lesions had resolved completely. The official reports "No definite abnormal uptake of radiotracer suggesting skeletal metastasis." Today, 19 years after her recurrence, and 21 years since her original diagnosis of aggressive disease, she remains in excellent health with no evidence of cancer.

Although her course was initially complicated because she continued chemotherapy, at her oncologist's insistence, any drug effect can be discounted since she had developed metastatic disease while completing a two year course of chemotherapy. Also, chemotherapy, no matter the type, does not cure metastatic breast cancer into the bone. To put this unusual survival in perspective, in a comprehensive evaluation of women diagnosed with invasive breast cancer, all receiving conventional treatment, Elder reports a 2.4 year median survival after diagnosis of bone metastases.3

CASE 18

Patient IK: A 16-Year Survivor of Breast Cancer

Patient IK is a 64 year-old woman with a strong family history of breast cancer. She had previously been in good health when in the fall of 1986, routine mammography revealed a suspicious mass in the left breast, confirmed by biopsy as ductal carcinoma in situ. Although her surgeon suggested a modified radical mastectomy, IK insisted a lumpectomy be done. The surgeon agreed, and removed the cancerous tumor. Since she had no evidence of metastatic disease, her doctors did not recommend additional adjuvant treatment.

She subsequently did well until July of 1989, when her physician detected a mass in the right breast. She underwent lumpectomy as well as excision of a 3 cm right axillary mass that proved to be a poorly differentiated adenocarcinoma, estrogen and progesterone receptor negative, invading and largely replacing the adjacent lymph node. After surgery, an abdominal ultrasound revealed a density on the right lobe of the liver consistent with metastatic disease. A needle biopsy of the hepatic lesion confirmed metastatic carcinoma, and a bone scan showed "multiple focal areas of increased activity in the spine consistent with metastatic carcinoma."

IK then began chemotherapy with CAF, a very aggressive protocol which she tolerated poorly. In late 1989, after completing three cycles, she refused further treatment and for several months, she did nothing before visiting Stanford in the spring of 1990 for a second opinion. There, after reviewing the previous biopsies and scans, the physicians concurred with the diagnosis of metastatic disease to the liver. The Stanford note reports "The diagnosis is confirmed and the liver involvement has been documented by the Stanford Pathology Laboratory."

Her doctor at Stanford recommended she immediately resume chemotherapy with CAF, but once again, IK refused to consider further orthodox therapy. Instead, after learning of my work, she decided to pursue my program and was first seen in my office in April of 1990.

She was quite ill at the time, suffering chronic pain in her liver. After returning home and beginning her regimen, the liver pain was so severe she required MS Contin for comfort. She also suffered fatigue and malaise lasting many months, before she finally began to improve. When I saw her for a

return evaluation in May 1991 - a year after she had begun her nutritional protocol - she felt much stronger and her abdominal pains had largely resolved. Unfortunately, she began to feel so well that without my knowledge, she subsequently discontinued her protocol, assuming she was "cured." In early July 1991, she called me very distraught, having just suffered a grand mal seizure, and admitted she had been off her protocol for several months. A CT scan of the brain revealed a high-density epidural mass in the left sphenoidal ridge and a small low density area in the right temporoparietal region. The radiology report reads "Both areas were heterogeneously enhanced with contrast medium and appear to be metastatic brain lesions."

Her doctors immediately recommended radiation to the brain, which IK refused. Instead, she resumed her full nutritional program with renewed dedication, quickly improved and never had another seizure. Follow up CT scans of both the head and abdomen in April 1992, less than a year after her recurrence, were completely normal – the previously noted liver and brain tumors were gone. The report of the head CT reads "There is no mass or mass effect…There is no evidence of metastatic disease…Normal CT scan of the head." The summary of the abdominal scan states: "Normal CT scan of the abdomen."

Since that time, IK has had an up and down history on my program, with periods of good compliance and periods of less than good compliance. I haven't seen her in my office in some years, but heard from friends that she is still doing well and still taking enzymes. Our last formal contact with her was in October of 2005, when she appeared to be doing fine, 15 years after her diagnosis of terminal metastatic breast cancer.

Her course with such terrible disease is certainly unusual. IK also served as her own "control;" when she followed the program she did well, and when she didn't comply, the cancer came back with a vengeance. The disease then completely regressed when adherence to therapy improved.

We usually tell new patients coming to us with a history of metastatic cancer that they need to follow their nutritional regimens indefinitely, and must never assume they are completely free and clear. Dr. Isaacs and I think of cancer as a chronic degenerative disease, akin to diabetes, that can be managed successfully for years as long as patients follow their diet and take their enzymes. When a patient falls off the wagon, as in this case, cancer can return and cause havoc. Renewed dedication to the treatment can usually get the situation back under control.

Regardless of her compliance lapses, IK's survival is extraordinary. As the medical literature documents, breast cancer, when metastatic to either the brain or liver, is a deadly disease. In a series of patients with brain metastases specifically, Lentzsch et al report a median survival of 23 weeks for those with more than one lesion, despite aggressive conventional treatment.4 In a group of patients with at least one lesion receiving supportive care only, the authors describe a median survival of 5 weeks.

Eichbaum et al studied a group of 350 women with breast cancer that had metastasized to the liver.5 The authors describe a median survival, regardless of the conventional treatment given, of 14 months, somewhat better than the numbers for brain metastases, but still dismal.

In this case, IK had evidence of liver, brain and bone metastases, as deadly a combination as can be imagined.

CASE 19

Patient AR: A 16-Year Survivor of Breast Cancer

Patient AR is a 72 year-old woman who had generally been in good health when in July 1990, she detected a left breast mass. Mammography revealed, as the official report states, "several areas of increased density with the upper outer aspect of the left breast which appear markedly asymmetric as compared to the right breast and which have the appearance of mass densities with irregular margins." After an ultrasound confirmed a 1.8 cm density in the left breast, the patient was

scheduled for a lumpectomy.
A routine preoperative chest X-ray showed nothing, but a chemistry blood screen demonstrated markedly elevated liver functions tests with an alkaline phosphatase of 154 (normal less than 140), AST of 89 (normal less than 50) and a ALT of 138 (normal less than 55). But an abdominal ultrasound revealed a normal liver with "no metastases." Then in September 1990, AR underwent excisional biopsy (lumpectomy) for what proved to be a much larger tumor than had been expected based on the mammography and ultrasound findings, measuring 4 X 3 X 3.2 cms. The mass, which could not be completely removed, was found consistent with a well-differentiated mucinous adenocarcinoma of the breast, estrogen and progesterone receptor positive. The pathology report states ominously "The lesion extends to the margins of the specimen submitted on the lateral and undersurface."
After a bone scan revealed only arthritic changes, AR met with her surgeon who insisted a mastectomy was now necessary since residual cancer remained in the breast. He suggested that after the procedure, she undergo a course of intensive multi-agent chemotherapy. AR also met with a radiation oncologist and a medical oncologist, who both agreed that because of the size of the tumor, she required, after surgery, radiation followed by chemotherapy.
However, AR, as she later was to tell me, had seen "too many people cut to pieces and poisoned only to die," for her to agree to any further conventional treatment. She refused additional surgery, chemotherapy, and radiation, and instead investigated alternative approaches. After learning of my work through a friend, she first consulted with me in October 1990 and thereafter followed her program with great determination. As an quick benefit, within weeks her liver function tests normalized.
AR followed her program diligently for some eight years, until 1998, when I last saw her in my office. During this time, she refused all testing other than routine blood analysis, saying she wouldn't change her therapy regardless of what the studies showed. Sixteen years out from her original diagnosis, she is in excellent health, active with various activities and hobbies. She follows components of the program, as much as her finances allow, and still refers patients to me regularly.
AR, though lacking evidence of metastatic spread at the time of her original diagnosis, certainly represents a remarkable success. The size of the original tumor, coupled with the fact that residual cancer remained after the original lumpectomy, portended a troubling prognosis, even had she agreed to the proposed chemotherapy and radiation. On my program, however, she has enjoyed a healthy and cancer free life.
I included her because we have in our practice a number of women who despite evidence of substantial residual cancer in the breast after a positive biopsy, refused any further conventional intervention, instead choosing only our program for treatment. Though these women have generally done very well for very long periods of time – 16 years in the case of AR – we no longer accept patients with localized breast cancer who do not proceed with recommended surgical procedures. Our decision has not been dictated by a negative clinical experience, but rather the extraordinarily hostile legal environment that exists for alternative practitioners such as ourselves. Standard-of-care criteria require a woman like AR undergo further aggressive surgery, and the world would need a consciousness shift before we would consider taking on such patients again.

CASE 20

Patient VE: A 14.5-Year Survivor of Breast Cancer
Patient VE is a 62-year old woman with had a long history of fibrocystic breast disease, first diagnosed when she was 19 years old. Thereafter, her doctors followed her closely with frequent mammography, and two biopsies showing benign changes.
In 1991, mammography again indicated dense fibrocystic breasts as well as a new "1 cm nodular

density in the upper and axillary portions of the right breast…This contains internal microcalcifications in a diffuse pattern, and represents a new finding…." Her doctors recommended biopsy, which VE, already interested in alternative approaches, refused, instead choosing to follow a nutritional program under the supervision of a local practitioner. However, repeated mammography in March 1992 showed a worsening picture:
"Once again, I note small nodule in the upper outer right breast, in association with many microcalcifications. Number of microcalcifications has increased slightly during the interval."
At that point, in the spring of 1992, VE underwent needle biopsies of eight lesions, four of which proved positive for ductal carcinoma. Since she had diffuse disease throughout the breast, her surgeon insisted she needed mastectomy. However, the patient decided to refuse all further surgery and any other conventional treatment, instead opting for our regimen.
When VE first consulted me in 1992, she had, on exam, very dense nodular breasts but seemed otherwise in good health. During our lengthy initial interview, I encouraged her to reconsider surgery, which for early stage breast cancer can often be curative. In a calm and determined way she explained her decision to refuse disfiguring surgery or toxic conventional treatment, whether I chose to be her doctor or not, so I agreed to treat her.
She subsequently followed her regimen diligently, and over the years has done extremely well, though declining all further testing. Today, she adheres to a maintenance protocol and appears to be in excellent health, now 14.5 years from her biopsy diagnosis.
As in the case of AR, Dr. Isaacs and I most likely would not agree to treat a patient like this today. The legal climate for alternative medicine remains repressive, the power and authority of conventional medicine, despite its well documented and rather glaring limitations, is formidable. However, I am gratified by the success of patients AR and VE, and the others like them in our practice, who were able to avoid all aggressive surgery as well as toxic drug and radiation treatments. They still have their breasts, their lives, and their health.

CASE 21

Patient BV: A 15-Year Survivor of Breast Cancer
Patient BV is a 67 year-old woman who had been in good health when routine mammography in October of 1991 revealed a suspicious breast mass. In late 1991 she underwent biopsy and lumpectomy, with removal of a 2.1 cm. tumor confirmed as in situ and infiltrating ductal carcinoma. Though no nodes were sampled, a bone scan in December 1991 as part of routine follow-up testing demonstrated increased uptake in the right proximal femur. An MRI in January 1992 documented a lesion on the right greater trochanter consistent with metastatic disease. The official report reads "A solitary lesion is noted distal to the right greater trochanter…most likely representing a metastatic lesion…"
The patient did meet with an orthopedic surgeon who suggested a course of aggressive surgery with hip replacement followed by radiation to the hip. Her breast surgeon insisted BV proceed with mastectomy and subsequent radiation to the chest wall. However, after learning of our approach, BV refused all further conventional interventions, instead choosing to proceed with my treatment.
When I first saw BV in early 1992, she reported severe fatigue and chronic right hip pain, severe enough that she had gone on disability from her job. After beginning her nutritional regimen, she proved to be a very determined, compliant patient. During her first months on therapy, she suffered migratory aches and pains, particularly severe in the right shoulder and hip, but these gradually resolved. In fact, after a period of some months she felt so well she returned to work full time.
Repeat bone scans in May 1992 – five months after BV began her treatment with me – showed, according to the report, "No definite evidence of metastatic disease." A follow-up scan in June 1993 was again clear, and today, nearly 15 years after she first consulted me, BV remains

compliant with her full regimen, and disease free.
Her case is very straightforward. At the time of diagnosis, a bone scan and MRI documented a large tumor in her hip that regressed while she followed only her nutritional program.
Elder et al report a median survival of 2.4 years for women with breast cancer metastatic to bone,3 somewhat better statistics than for those diagnosed with brain or liver metastases. However, these numbers reference patients aggressively treated with conventional modalities such as surgery, chemotherapy and radiation, all of which BV refused.

CASE 22

Patient GX: A 9-Year Survivor of Breast Cancer
Patient GX is a 70+ woman with a family history pertinent for both colon and breast cancer. She had been in good health when in 1986, after a suspicious mammography, a biopsy confirmed infiltrating ductal carcinoma. She underwent right mastectomy, and three nodes were found infiltrated with metastatic cancer. She subsequently completed a six-week course of radiation to the chest wall, but received no chemotherapy. She did begin tamoxifen.
In early 1989, after she developed rectal bleeding, sigmoidoscopy revealed a 2 cm lesion in the sigmoid colon that was biopsied and found consistent with moderately differentiated adenocarcinoma. Prior to the planned colon surgery, CT scans showed no abnormalities in the abdomen, but a lesion in the lower right lung not evident on prior X-rays. The following day, the patient underwent exploratory laparotomy and resection of the lower sigmoid colon for what proved to be Dukes' C disease, meaning the cancer had spread into regional lymph nodes. At that time, the lung finding was discounted as insignificant.
GX then completed six weeks of chemotherapy with 5-FU, followed by six weeks of radiation to the lower abdomen, then another six weeks of 5-FU. In addition, she continued on tamoxifen for her previously diagnosed breast cancer. Certainly, at this point, GX faced potential disaster, with two different cancers, each metastatic to local lymph nodes – a poor prognostic indicator for either. But she actually did fairly well, with subsequent CT scans confirming that the solitary pulmonary nodule had stabilized. In 1996, after she had been on tamoxifen for ten years, her doctors suggested the drug be discontinued, however a year later, in March 1997, a routine chest X-ray showed several new lesions. The radiology report describes "Suspicion of right lung nodules as above…a CT scan is recommended."
A CT scan in April 1997 revealed "Several 1 cm or smaller non-calcified pleural based lung nodules are noted on today's examination in the region of the right upper and lower lobes…"
Her surgeon, a long time friend, told GX she had metastatic disease that might have originated from either the breast or colon primaries. He did not advocate for biopsy of the lung lesions since he felt the findings were clearly indicative of cancer. Nor did he press the case for additional conventional treatment when GX made it clear she would never agree to such an approach again. She had already learned of our work, and had chosen to proceed with us.
I first saw GX in my office in April of 1997, shortly after her diagnosis of recurrent disease. A determined, compliant and dedicated patient, I don't think she has missed a supplement in nine and a half years. And the results have been gratifying; a chest X-ray in April of 1998, a year after she had begun her nutritional program, showed no change in the left nodular density, but resolution of a right lower lung lesion and partial regression of a third right lower lobe nodule. In March of 1999, after GX had completed two full years of treatment, the report of a chest x-ray describes "Clear lungs." All the previously noted lesions were gone.
After those clear scans, GX continued doing well. In 2004, seven years after beginning our therapy, mammography revealed calcifications and nodularity in the left breast that on review, had been

present on earlier studies dating back to 1993. After biopsy confirmed carcinoma, I agreed that she should proceed with mastectomy since the left breast had been problematic for more than a decade. The breast contained a very small, 0.3 cm area of carcinoma, with no lymph node involvement. I don't believe this to have been a new lesion, but suspect her breast was so dense and fibrotic, with multiple long standing calcifications, that the blood supply to the area had probably been compromised, allowing this small cancer to exist though her metastatic disease resolved. I have made some changes in her protocol, which she continues to follow faithfully. Two years later, now nine and a half years since her diagnosis of metastatic disease, she continues doing well.
I have decided to include GX among my breast cancer survivors, though ultimately we don't know whether the lung lesions were breast or colon in origin. In either case, such spread invariably proves fatal, usually quickly. This patient's long term survival, coupled with radiographic evidence of tumor regression while following her nutritional protocol, certainly demonstrate a rather remarkable course for what would normally be a deadly situation.

CASE 23

Patient EZ: A 7-Year Survivor of Breast Cancer
In July 1987, after Patient EZ first noticed a left breast mass, she underwent first a needle biopsy confirming carcinoma, then a modified radical mastectomy. The pathology report describes mixed colloid carcinoma and intraductal and infiltrating duct carcinoma, with 1/7 nodes positive for malignancy. A metastatic work-up, including a bone scan, was negative. When estrogen receptor studies came back positive, she started on tamoxifen.
EZ did well until September 1988 when routine blood testing revealed an elevated CEA at 14. A CT scan showed two lesions in the liver, and a bone scan demonstrated a right rib lesion, all thought consistent with metastatic disease.
In November 1988 EZ began chemotherapy with CMF, which she tolerated poorly. After six cycles, a repeat abdominal CT scan in April 1989 showed worsening disease. Though the previously noted two hepatic lesions remained unchanged, the radiologist noted a third new lesion, 2 cm in diameter. Since her disease had progressed, her oncologist added vincristine to the regimen, but EZ suffered such severe side effects, including debilitating nerve pain, she decided to discontinue all further chemotherapy. At that point, she was told to consider calling in hospice.
Instead, EZ began looking into other approaches, learned of our treatment and first consulted with me in June 1989. After returning home, an abdominal CT scan before she began her nutritional regimen revealed that the liver disease had only worsened despite vincristine added to the chemotherapy mix:
"There are several low attenuation lesions about the liver, the largest measuring 3 cm. In the lateral segment of the left lobe of the liver. This lesion appears enlarged since the prior examination. Additionally, a new lesion is noted about the right lobe of the liver. These likely represent metastatic disease."
Subsequently, EZ pursued her program with great dedication. Her local oncologist agreed to follow her since she lived some distance from our office, and after she had completed nearly a year on her protocol, a CT scan of the abdomen in April 1990 revealed significant improvement as documented in the written report:
"Comparison is made to the prior examination on 7/12/89. Since then, the metastatic lesions in the liver have decreased slightly in size. The low attenuation lesion in the medial segment of the left lobe now measures 2 cm in diameter as compared to 3 cm on the previous examination. That in the anterior segment of the right lobe now measures 2 cm as compared to previous measurement of 2.5 cm in diameter. No new lesions are identified."
A bone scan in November of 1990 showed resolution of the previously noted rib lesion:
"Comparison is made with the patient's last similar examination performed in October 1988. The

only substantive interval change is the apparent resolution of an inferior right rib lesion…"
EZ thereafter continued on her nutritional protocol and in April 1991, nearly two years after beginning her program, a CT scan revealed continued improvement:
"Multiple small liver lesions most of which measure less than 5 mm in diameter in the medial segment of left lobe as well as anterior and posterior segments of right lobe."
A CT scan 14 months later, in June 1992 – after she had completed three years of treatment with us - demonstrated that the largest tumor, which previously had been solid, now appeared to be cystic:
"Three hypodense hepatic lesions remaining, the largest of which is located in the posterior segment of the right lobe of the liver, measuring approximately 1 cm in diameter, and has the CT characteristics of a simple cyst. The other hepatic lesions are smaller on the current study compared with the prior study (of 4/5/91)."
However, during the summer of 1993, EZ – after enjoying excellent health for four years while pursuing her nutritional program – reported gradually worsening fatigue. An ultrasound of the liver in July 1993 revealed new progression of the liver lesions, with one now measuring 7.5 cms in diameter.
The sudden worsening I find perplexing even today, years later. Over time, as patients improve, in some cases as cancer becomes less frightening, compliance can falter. As best as I could tell, EZ seemed to be compliant. I do know that her doctor, although willing to follow her, never supported her choice of treatment and repeatedly expressed his belief my therapy couldn't work. Such comments can, we have found, influence a patient's determination to stay with the treatment.
Also, though I did make some adjustments to her program, today I would have pushed the dose of enzymes far more aggressively than I did in 1994. Often, such a change turns the situation around.
In any event, EZ continued on her program until April 1994 when she decided to stop all therapy, nearly five years after she had started with me. She wrote me a gracious note, thanking me for the years of generally healthy good life she had never expected, based on the terminal prognosis given her in 1989. I didn't hear from her again, until learning of her death more than two years later in August 1996 – some seven plus years after she had first consulted me in June of 1989.
Eichbaum et al describe a median survival, regardless of the conventional treatment given, of 14 months for women with evidence of metastatic breast cancer into the liver, despite aggressive conventional treatment.5 In this case, EZ had documented bone metastases as well as multiple liver lesions. Certainly, with her stage IV condition, the evidence of progressive disease despite aggressive chemotherapy, at the time she began our nutritional therapy EZ faced a lifespan that would normally be measured in months. Her seven plus years survival, her generally excellent health during much of that time, and the documented regression of liver and bone lesions over a four year period while pursuing only my regimen represents a most unusual course for a most unusual patient.

CASE 24

Patient GR: A 7-Year Survivor of Breast Cancer
Patient GR received radiation to the chest as a teenager for treatment of keloids but otherwise had been in good health when in late 1986 she developed a left breast mass. After a biopsy confirmed carcinoma, in January 1987 she underwent a modified radical mastectomy for what proved to be adenocarcinoma, estrogen receptor positive, with metastatic disease in 8 of 23 nodes – a very poor prognostic indicator. However, chest X-ray, bone scan and abdominal ultrasound showed no evidence of metastatic disease. Postoperatively, GR completed a six-month course of adjuvant chemotherapy with CMF, followed by tamoxifen.
GR did well until late 1990 when she developed pleuritic chest pain which her local doctor treated with antibiotics. She improved somewhat, but then her symptoms worsened in the spring of 1991.

After a chest x-ray in April 1991 revealed a left pleural effusion, she underwent thoracentesis, with cytology positive for the presence of malignant cells. A bone scan was negative. Tamoxifen was discontinued in favor of Megace, a synthetic progesterone analog used to treat breast cancer, but her respiratory symptoms only worsened. A repeat chest x-ray in May 1991 demonstrated a persistent pleural effusion, as a note from her oncologist confirms:

"Chest x-ray today reveals significant amount of fluid, certainly reaccumulation since her post-tap film...The patient will stay on Megace 80 mgs b.i.d.…..She was encouraged not to take unapproved medications for her cancer."During a follow-up visit in July 1991, her situation seemed to be worsening:

"The patient has a significant amount of fluid which would make be (sic) think that the Megace is not working particularly well…"

A chest x-ray in August 1991 showed some slight improvement, described as "Moderately large left pleural effusion, smaller than on the previous examination." Since hormonal therapy had failed to control her disease, her doctors suggested aggressive chemotherapy, which GR refused.

GR began investigating alternatives, learned of my work and first came to my office in September 1991. At that time, she continued on Megace, and reported severe shortness of breath as well as a persistent cough. After returning home, she discontinued the drug, began her nutritional protocol and within weeks noted a significant improvement in her breathing and overall well being. She thereafter followed her program faithfully, and when I saw her in my office for a follow-up visit in April 1993, she reported feeling "wonderful," better than she had in years. Her respiratory symptoms had resolved and her pulmonary examination was normal. A repeat chest x-ray in April 1993 showed no evidence of pleural effusion or mass lesion. The report states:

"Lungs are slightly hyperinflated compatible with chronic obstructive pulmonary disease. There has been a right mastectomy…No acute pulmonary infiltrates…"

For the first five years on therapy, GR enjoyed excellent health. However, she frequently reported severe personal stress, including a very difficult divorce involving aggressive legal actions. Over the years, she admitted the haggling with lawyers had begun to wear her out. By late 1996, she had developed fatigue, pelvic pain and chronic nausea that impeded her compliance with the regimen. A CT scan in November 1996 revealed bilateral ovarian masses obstructing the ureters, as the radiologist reported: "These are complicated appearing masses and the differential could include tumors, endometrioma or abscesses."

A chest CT showed no distinct masses, but:

"Loculated low density fluid-like collection in the lower left thorax pleural space.…This could be consistent either with empyema or possibly an area of previously treated pleural metastatic disease with thickened pleura."

After ureteral stents were placed to decompress the kidneys, a biopsy of an ovarian mass confirmed recurrent, metastatic breast cancer. Though her doctors insisted GR begin chemotherapy at once, she refused, instead choosing to resume, as best as she could, her nutritional program. Within weeks, she began to improve in terms of her energy and well being. Unfortunately, eventually the stents obstructed again, and the nausea, anorexia and fatigue returned. By the spring of 1997 GR could no longer follow the full program and at my suggestion and that of her local doctors restarted tamoxifen.

Subsequently, as she struggled to continue my regimen, she was seen by a nephrologist at the Mayo Clinic in Arizona, but despite repeated stent changes, her kidney function never returned to normal. Nonetheless, to her doctors' surprise, she survived another year, ultimately dying in April 1998, nearly seven years after she had first consulted me.

Though this patient did ultimately succumb, it's important to emphasize that breast cancer recurring after aggressive chemotherapy and hormonal blockade, particularly when invading an organ system such as the lung, usually kills within months. In this patient's case, after developing severe pleural effusions in the spring of 1991, she responded only slightly to Megace. However, while being treated solely with our therapy, she had a quick clinical response with resolution of

effusions as documented by x-ray studies in April 1993. Her seven years of life after her recurrence, and her excellent health until the last year, certainly illustrate a remarkable course.
Sometimes it's productive to look for explanations why one patient survives terrible disease, and another doesn't. In her case, she herself said repeatedly the terrible stress in her life "was killing me." Perhaps ultimately it did. Perhaps her body just wore out, after all she had been through, with the disease and the previous toxic treatment. But her family remains to this day grateful for the unexpected years she had with them.

CASE 25

Patient AR: A 14+ Year Survivor of Breast Cancer
Patient AR is a 74 year-old woman who had been generally in excellent health when she first detected a left breast nodule in August 1991. She did not immediately seek medical attention, instead deciding to self medicate with a number of nutritional supplements and dietary changes. When the mass did not regress, in March 1992, at the urging of a friend, she underwent mammography, which revealed a suspicious left breast lesion.
In April 1992, AR proceeded with a left modified mastectomy. The pathology report describes two distinct lesions, one 2.0 cm in diameter, the other 1.6 cm, both consistent with infiltrating ductal carcinoma, estrogen receptor positive, progesterone receptor negative. Two of 13 evaluated lymph nodes were infiltrated with invasive carcinoma.
Her surgeon strongly recommended a one-year course of chemotherapy because of the positive lymph nodes, but the patient, already intent on proceeding with an alternative approach, declined further conventional treatment including hormonal blockade as well as chemotherapy. Then, after learning of my work, she was first seen in my office in August 1992.
Since that time, AR has been a dedicated, compliant, and very grateful patient. She still diligently follows her regimen, for which she credits the excellent health she has experienced over the past 14+ years. She remains very active, travels, and enjoys a number of outdoor activities.
Her course was very straightforward: after refusing the recommended chemotherapy and hormonal blockade, she has since followed only my nutritional regimen. Though she had no evidence of distant metastasis when she began with me, multicentric disease coupled with lymph node involvement augered for a poor prognosis. I believe she is an informative case, one of a series of women in our practice diagnosed with node positive disease, who avoided chemotherapy, radiation and hormonal blockade, and the attendant side effects, and experienced long-term disease free survival.

CASE 26

Patient RY: A 7-Year Survivor of Breast Cancer
Patient RY is a 53-year old woman who in January 1999 consulted her primary care physician because of persistent exhaustion. Blood work studies were unrevealing, but during a follow-up physical exam in April 1999 her physician detected a lump in the left breast. Mammography revealed a worrisome area, confirmed by ultrasound as two distinct suspicious nodules. A biopsy followed, documenting, as the pathology report describes, "At least three of these five biopsy specimens are involved by infiltrating carcinoma of ductal type."
A surgeon then suggested immediate mastectomy, but RY, with a long interest in alternative healing techniques, decided to delay surgery and instead traveled abroad for a stay at a healing retreat. She admits she hoped that intensive meditation coupled with a wholesome diet might generate a spontaneous remission.

When she returned home she sought a second opinion at a major teaching hospital in the Canadian city in which she lives. After the doctors again discussed surgical options, she agreed to a double lumpectomy in the left breast for excision of the two lesions identified on ultrasound, along with axillary dissection. In late December 1999, she underwent surgery as planned. The pathology report describes a 2.2 cm tumor, high grade III, estrogen receptor positive, with lymphatic vascular invasion. The tumor extended nearly to the surgical margins, and two additional areas distant from the main lesion proved to be cancerous. Cancer had also infiltrated into 13 of 16 lymph nodes, an indication of a dire prognosis.

In mid January, at a follow-up visit, her surgeon urged that because of the lymph node involvement, she consent to a course of aggressive chemotherapy. At that point RY, who had learned of our work, decided to proceed with our therapy. When we met for the first time in mid January, only several weeks after her surgery, she seemed to have weighted the options carefully and said bluntly she would refuse all conventional treatments.

After returning home to Canada, she began my program, which she followed with diligence. In March 2000 she did meet, as had already been planned, with an oncologist, whom she reported "went nuts" when she told him she was refusing chemotherapy. After he calmed down, he admitted that even with aggressive chemotherapy, he could promise perhaps a 5% chance of long term survival due to the extensive lymph node involvement at the time of diagnosis.

In April 2000, after she had been on our therapy for three months, she detected a new nodularity in her upper left breast. An ultrasound revealed:

"Two solid nodules are seen in the left upper outer quadrant....I feel they should be viewed with suspicion, as they may represent involved lymph nodes. Sonographically guided biopsy is recommended."

RY chose not to proceed with biopsy, but instead concentrated on her nutritional program. Thereafter, she declined further radiographic testing, stayed faithfully on her nutritional regimen, and today, nearly seven years from our first meeting, enjoys generally excellent health. The left breast nodularity long ago regressed.

The Adjuvant! Online website provides survival statistics for a variety of cancers, broken down by specific stage. I was able, on the site, to find numbers that would apply to someone like RY. In women undergoing surgery for breast cancer who have nine or more positive nodes but no evidence of distant spread, and who receive no adjuvant therapy, only 5.7% will be alive and disease free at ten years.6 So, the numbers are better than what experts report for those with breast cancer that has invaded distant organs, such as the liver, brains or bones, but they are still not great.

In this case, the nature of the tumor - grade III/III on the Bloom/Richardson scale – itself portended a potentially poor prognosis, as did the 13 involved nodes. Importantly, during the initial months on therapy, on exam and as confirmed by ultrasound, RY had evidence of recurrent suspicious nodularity which subsequently regressed. In any event, in the seven years that she has been our patient, RY has successfully avoided chemotherapy and any other conventional treatment.

CASE 27

Patient RA: A 4.5-Year Survivor of Breast Cancer

Patient RA has a family history pertinent for multiple cases of cancer, including breast cancer. She herself had a long history of fibrocystic breast disease, followed closely by her doctors at the major academic center in the city in which she lives. In 1990, she developed a new left breast mass, that was initially not thought to be problematic, based on ambiguous mammography findings. When the mass persisted, in May 1991 she underwent aspiration of the nodule, which yielded cells suspicious for malignancy. Because of the worrisome findings, coupled with her strong family history of breast cancer, RA decided to proceed with prophylactic bilateral mastectomies. So, in May of 1991, she

underwent a left modified mastectomy and a right simple mastectomy with lymph nodes left intact. The right breast appeared to be cancer free, but a 1.2 cm lesion in the left breast proved to contain both infiltrating and lobular carcinoma, and four of 18 axillary nodes were positive, a negative prognostic indicator.

After surgery, an oncologist suggested RA enter a clinical trial comparing standard chemotherapy for node positive breast cancer against a new regimen consisting of Cytoxan, epirubicin and 5-FU, for six full cycles. After RA agreed to participate, she was assigned to the epirubicin arm of the study. She tolerated the protocol poorly, experiencing not only chronic nausea and fatigue but a persistent peripheral neuropathy. Despite the side effects, she completed the regimen on schedule in December 1991.

Thereafter, RA reports her health deteriorated significantly. She describes an unending series of various infections, including chronic cystitis, sinusitis and upper respiratory infections. Then in July of 2001, nearly ten years after she had completed chemotherapy, her oncologist noted enlarged bilateral axillary lymph nodes. Her physicians, for reasons I don't understand, initially suggested neither biopsy nor treatment. When the lymph nodes did not regress, in December 2001 her primary care physician ordered ultrasound studies of axillary regions, which showed eight enlarged nodes on the right, two on the left.

In January 2002 a biopsy of a right axillary node confirmed metastatic carcinoma consistent with a breast primary, estrogen and progesterone receptor positive. Follow up studies, including a liver-spleen scan, chest X-ray and bone scan were all clear.

RA then consulted her former surgeon, who suggested that both axillae be "cleaned out," a procedure she declined. When in February 2002 her oncologist then recommended not chemotherapy but a trial on tamoxifen, she agreed to the plan. But she also began looking into alternative approaches and learned of our work.

When I first saw RA in May of 2002, she was still taking tamoxifen, but anxious to quit because of ongoing severe side effects. On physical exam, she had evidence of enlarged bilateral axillary nodes. She thereafter began her nutritional regimen, discontinued the tamoxifen, and noted gradual improvement in her overall health. A variety of chronic symptoms and problems, including fatigue, neck pain, malaise and severe allergies have largely resolved. Today, more than four and a half years since starting her nutritional regimen, she remains a determinedly compliant patient, and is in good health with no evidence of enlarged nodes anywhere, including in the axillae. Since stopping tamoxifen, she has received no conventional therapy.

Her case is unusual for a number of reasons. Her bilateral axillary disease developing after aggressive chemotherapy predicted a dismal prognosis. On her nutritional program, the tumors regressed and remain so today.

CASE 28

Patient ZA: A Four Plus Year Survivor of Breast Cancer

Patient ZA had a family history pertinent for two first-degree relatives with breast cancer, and a third who died of stomach cancer. She had herself been in good health, with a distant history of localized melanoma, when in early 1989 she first noticed a painful lump in her right breast. Mammography was unrevealing, but after a biopsy in May 1989 confirmed carcinoma of the right breast, she underwent right modified mastectomy. The tumor consisted of infiltrating ductal carcinoma and in situ carcinoma, estrogen receptor and progesterone receptor negative, but all lymph nodes were cancer free. After a postoperative bone scan and CT scan of her abdomen were both clear, she then began a nine-month course of chemotherapy with methotrexate and 5-FU

ZA did well until March 1993, when she noticed a nodule on the right upper chest wall that both

her oncologist and surgeon thought was insignificant. Her primary care physician, less sanguine about the situation, referred ZA to another surgeon who in July 1993 biopsied the lesion, which proved to be recurrent moderately differentiated adenocarcinoma. A bone scan showed suspicious activity in the right third rib, but x-ray studies did not confirm the finding. A CT scan of the chest in late July 1993 revealed normal lungs but "Multiple tiny areas of low attenuation in the liver….although some of which are intrahepatic vasculature, others are felt to be due to metastasis."

A CT scan of the liver in August documented "Occasional areas of low attenuation throughout the liver… these most likely represent an early metastatic process."

In August 1993, at the urging of her oncologist, ZA began a course of radiation to the chest wall for "local control," an approach that makes little sense since the disease had already spread into the liver and possibly into the bones. Unfortunately, she suffered such significant side effects from radiation, including severe burns, that the treatment had to be prematurely discontinued. Her oncologist then insisted she resume aggressive chemotherapy, but the patient, realizing her disease was now incurable by conventional standards, refused the drug treatment and began investigating alternatives. After learning of my work, she decided to proceed with our treatment and first consulted with me in October 1993. At the time, she had recovered from her radiation experience, and seemed to be feeling quite well despite her liver disease.

Thereafter, for a time she was an extremely dedicated and compliant patient, aware her life was on the line, and initially she did quite well. A CT scan in February 1994, after she had followed her nutritional regimen for only five months, showed "Overall improvement in the metastatic process in the liver with some residual areas of low attenuation compatible with a metastasis." The patient's oncologist, who had so firmly insisted ZA resume chemotherapy after the positive CT scan findings in August, now claimed she couldn't possibly have had cancer in the liver, since it was inconceivable my "bizarre" treatment could have provided any benefit. ZA at that point got herself another physician to monitor her local care.

When I saw her again in New York in June 1994, eight months after her first visit, she was feeling remarkably well, with excellent energy and well being. However, I saw the first signs of trouble when she admitted she had gotten careless with the critically important supplements. After I lectured her at length about the need in her case for not good, but perfect compliance, she returned home with renewed dedication.

A bone scan in October 1994 was interpreted as "Essentially unremarkable," indicating the previously noted rib lesion had resolved. I next saw her in the office in July 1995, at which time she reported no problems and said she felt "wonderful."

She had no further testing until October 1995, when she had completed two full years on her nutritional protocol. A chest x-ray was normal, and a CT scan of the abdomen with and without contrast showed total resolution of the lesions in her liver. The report reads "Normal CT of abdomen without and with I.V. contrast." Her diffuse liver metastases were gone.

During the first several years of therapy, we require that all our out of town patients return to New York every six months, for a lengthy in-office reevaluation. I find I can learn more about what's going on with a patient after ten minutes face to face, then in a two-hour phone consultation, particularly regarding such life and death issues as compliance. In ZA's case, though she was next due for a return visit in the spring of 1996, in February she called saying she could not come to New York because of financial considerations. Unfortunately, insurance companies pay only for "standard of care" treatments, and in this case, ZA's company paid nothing for her nutritional regimen – despite her several appeals based on the documented response to our regimen. Already, by 1996, her financial constraints – tragically – raised red flags. When strapped, patients tend to cut back on the supplements – an invitation to disaster with advanced deadly cancer.

When we spoke by phone in early March 1996, she admitted she had again been feeling so well she had become sloppy with all aspects of the therapy. She had resumed eating sweets, forbidden food on the therapy, and was consuming far more animal protein than we had allowed on her particular

diet. She had cut down the frequency of the coffee enemas, which we find essential for success, and she had been missing doses of supplements, including the enzymes – the main anti-cancer element of the therapy. I lectured at length about the need for vigilant compliance and she promised she would do better.
In early July 1996 a bone scan revealed a new lesion in the right seventh rib, consistent with a metastasis. Shortly after, she returned to New York for a visit in the summer of 1996, nearly three years after she had begun my program. Although she reported she felt "great," her compliance was far off track and I could see that she had been lulled into complacency. To make matters worse, not only was she inadequately compliant with my regimen, but a local "holistic" practitioner had suggested, without consulting me, that she begin taking a variety of supplements, including the hormone DHEA, which I never would have prescribed for someone with her history.
After returning home, in September she developed open sores on her chest wall, I believe directly as a result of damage from the earlier radiation therapy. I urged her to be fully compliant, stick with my protocol and throw away the supplements from her local doctor. For a time, she did seem to be more determined, and by mid January, the residual chest lesion had regressed somewhat, to the size of a small pea. However, in February, biopsies of a chest wall and right neck nodule confirmed adenocarcinoma.
I was due to see her for a return office visit in February 1997, but she again said she couldn't afford to come to New York. During early 1997, we talked frequently by phone, and though her energy was generally quite good, she developed a chronic cough. A bone scan in June showed new areas of involvement, and by July 1997, she had been diagnosed with pleural effusions. These were drained with some symptomatic improvement, but the fluid tested positive for malignant cells. I never saw ZA in my office after the August 1996 visit, though we kept in touch at least on a weekly basis throughout much of 1997. As her situation deteriorated, she required multiple thoracenteses for reaccumulating effusions. By mid fall, she had great difficulty sticking to her nutritional program and she finally died in late December of 1997 – four years, two months after she had first come to my office, and nearly four and a half years since her diagnosis of recurrent disease in the chest and liver.
Although she ultimately died, ZA far outlived the usual prognosis for breast cancer recurring in multiple sites (in her case, the liver and bone) after a course of aggressive chemotherapy. After two years of good compliance on treatment, CT and bone scans confirmed resolution of her previously widespread disease. Thereafter, for any number of reasons – finances, the influence of local doctors, her overconfidence – her adherence to the regimen fell off considerably. Nonetheless, this patient's significantly improved clinical status on therapy, the radiographic findings of tumor regression in the liver, and the long term survival indicate a significant response to treatment.
Eichbaum et al studied a group of 350 women with breast cancer that had metastasized to the liver.4 The authors describe a median survival, regardless of the conventional treatment given, of 14 months.

CASE 29

Patient FQ: A 9-Year Survivor of Breast Cancer
Patient FQ is a 57-year-old women who had been in generally excellent health when in October 1997, her gynecologist detected a large right breast mass, subsequently described on mammography as a suspicious lesion approximately 5 X 4 cms in diameter. The patient was referred to a surgeon who noted dimpling in the mass, a sign of aggressive disease, and suggested mastectomy followed by radiation and chemotherapy as his note reports:
"I discussed the treatment options with the patient from lumpectomy and axillary node sampling with postoperative radiation to modified radical mastectomy. We also discussed the probable need for adjunctive therapy with radiation and/or chemotherapy. I think with the size of the patient's

lesion and its proximity to the nipple that a modified radical mastectomy will in all probability be the best treatment for her lesion."
The patient, who was already quite familiar with my work, initially wanted to refuse all conventional approaches and begin my treatment. When she called our office wishing to make an appointment, we insisted she proceed at least with surgery. So, in December 1997 she underwent a lumpectomy and axillary node sampling. The pathology report describes a "4.09 x 3.0 x 3.0 tumor mass," consistent with moderately differentiated infiltrating tubulolobular carcinoma. The margins appeared tumor free, but cancer had invaded two of nine sampled nodes.
Other than a clear preoperative chest x-ray, no other radiographic studies were pursued. Her surgeon however, insisted she consult with an oncologist and proceed with both radiation to the chest and chemotherapy. His notes state:
"I have reinforced the need for the patient to see an oncologist as soon as possible and proceed on with chemotherapy and radiation therapy as appropriate following her oncologic evaluation."
FQ, having already decided to proceed only with my treatment, never did meet with the local oncologist. When we first met in my office in January 1998, she insisted she would not submit to chemotherapy. Subsequently, she proved to be a very determined and compliant patient and today, nine years later she follows a modified nutritional protocol, enjoys excellent health and leads a full and productive life. In all this time, she has remained cancer free.
I thought I would include this case for several reasons. Though she had no evidence of active disease at the time she started with me, her large tumor and involvement in two lymph nodes portends for a poor prognosis long term. The standard treatment for such node positive disease has been for more than twenty years, aggressive "adjuvant chemotherapy" after surgery. Such treatment, as the studies going back 30 years show, offers an improvement in disease free survival compared to surgery of some 10-15% – not an extraordinary advantage, but a mathematically significant one nonetheless. Today, oncologists invariably add intensive radiation to the chest wall as well, and if the tumor is estrogen receptor positive, long term hormonal blockade.

CASE 30

Patient JK: A 16-Year Survivor of Uterine (Endometrial) Cancer
Patient JK is a 62 year-old women who had been in good health when in the fall of 1990, she required hospitalization for two episodes of deep venous thrombosis. She was placed on Coumadin, but shortly thereafter suffered an episode of severe vaginal hemorrhage. When the bleeding persisted, in December 1990 she underwent a D&C, which revealed endometrial carcinoma. After a CT scan in January 1991 showed extensive abdominal and pelvic lymphadenopathy, she underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy.
The pathology report describes endometrial adenocarcinoma with areas of squamous differentiation, high nuclear grade (FIGO grade III), and papillary serous carcinoma, one of the most lethal of uterine malignancies. The tumor had spread to the left ovary, obliterating the fimbriated end of the left Fallopian tube. Biopsies of the peritoneal cul de sac as well as the rectal serosa confirmed metastatic disease, and due to the extent of metastasis, her doctors warned of a very poor prognosis.
Postoperatively, JK met with a radiation oncologist who insisted treatment begin at once. Before agreeing to any therapy, JK decided to consult with a second oncologist in a Southern tertiary care center. Once again, radiation was aggressively pushed as essential to delay spread of her aggressive disease. However, JK decided to refuse all orthodox treatments, instead choosing to medicate herself with a variety of nutritional supplements including high dose vitamin C and red clover tea.
An abdominal MRI in March 1991 showed a "decrease in degree of periaortic lymphadenopathy

with persistent evidence of matted lymph nodes…" Pelvic MRI documented "decrease in the degree of diffuse pelvic lympadenopathy although there is persistent evidence of pelvic mass lesion most notable in the left hemipelvis. There is evidence of surgical defect presumably from previous hysterectomy…" So with surgery, there had been improvement, though clearly extensive disease remained.

About that time, after learning of our work, JK decided to pursue my therapy. When first evaluated in my office in April 1991, she reported persistent fatigue, a substantial recent weight loss of 15 lbs, "terrible night sweats," and poor sleep.

JK subsequently followed her regimen with great determination. Seven months later, in December 1991, repeat MRI's showed no change in the periaortic lymphadenopathy as compared with the study of March 1991, but significant regression of the pelvic adenopathy and the pelvic mass in the left hemipelvis. The official report states:

"Compared to the study of 3---91, there is continued improvement with near complete resolution of previously seen pelvic lymphadenopathy. Currently, there is no appreciable residual mass lesion present within the left hemipelvis…."

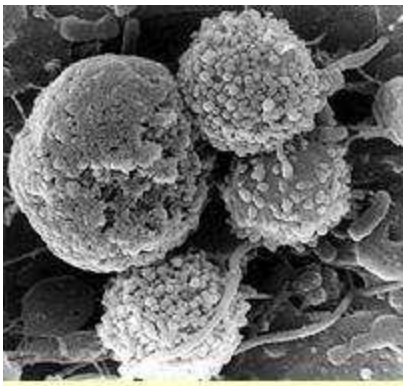
Thereafter, JK continued her nutritional program diligently, with reported improvement in her general health. MRI studies of the abdomen and pelvis in January 1993, after she had completed some 20 months on therapy, indicated that the previously noted extensive disease had completely resolved. The pelvic scan revealed "There is no identified pelvic lymphadenopathy." The official report of the abdominal MRI states "There is no evidence of significant periaortic or periportal lymphadenopathy."

MRI studies completed 14 months later, in March 1994 confirmed "There is no distinct evidence of metastatic or recurrent disease."

JK followed her regimen faithfully until early 1997, when I last had formal contact with her. At that time, six years from her diagnosis of metastatic aggressive histology endometrial cancer, she remained disease free and generally in good health. She subsequently continued her therapy in a reduced way, and at last report, now nearly 16 years from diagnosis, is alive and apparently doing well.

This case is straightforward: the patient was diagnosed with extensive, aggressive histology uterine cancer, including papillary serous, one of the most deadly subtypes. The surgeon could not excise all the visible cancer, as MRI studies after surgery documented. She then experienced complete regression of her advanced disease while following her nutritional program, and remains alive 16 years later.

Allegated 23: Dott. Waisbren


Human lymphocyte-tumor cell interaction. A scanning electron microscopy study. JAMA 1979;241:2631-2.

About the Waisbren Clinic

The Waisbren Clinic was established in Milwaukee in 1951. Here empathetic, traditional and investigative internal medicine has been practiced ever since. The need for our investigative studies surfaced among our patients and those seen in our teaching activities at Marquette Medical School and the Medical College of Wisconsin.

The guiding principles of this clinic are: We first listen carefully to the patient on a one to one basis in the privacy of the physician's office; we then ask them how they think we can help them; and we point out to patients who have been told there is nothing to do that there is always something to do and that we will search for it.

We have described the practice of the Waisbren Clinic as that of "investigative internal medicine". We base this on the premise that difficult and unusual cases may represent "experiments of nature". The intense study of these often reveals information of general interest.

In this vein, we have been able to discover and report some important findings. They include:

1) Gram negative shock
2) Deafness due to aminoglycosides
3) Platelet destruction due to ristocetin
4) Potentiation of antibiotics by gamma globulin
5) The utility of multiple antibiotics in severe burns
6) Human lymphocyte-tumor cell interaction (see picture)
7) The probable efficacy of combined immunotherapy in cancer.
8) Some people with ALS have elevated Lyme disease antibody titers.
9) Swine flu vaccine and hepatitis B vaccine were associated with autoimmune complications.

Currently, the clinic focuses on both the practice of internal medicine and the diagnosis and treatment of problem diseases.

Further information regarding the above subjects can be found in our publications, which are available if you email waisbrenclinic@ameritech.net.

About Dr. Waisbren

Burton A. Waisbren, Sr., M.D. is a native Milwaukean who received his B.S. and M.D. degrees from the University of Wisconsin Medical School in Madison, Wisconsin. He served his internship at the Harvard Service at Boston City Hospital. His military service was at the Navy Medical Research Institute, Bethesda, Maryland and the Biological Warfare Center, Camp Dietrick, Maryland. His residency and fellowship was served at the University of Minnesota Hospitals where he was an instructor in the medical school. He received a master's degree in bacterial genetics from the University of Minnesota in 1951. He moved to Milwaukee, his hometown, in 1951 and

established a private practice in internal medicine, infectious disease and immunology. At that time, he also headed the infectious disease control unit at the Milwaukee County Hospital. From 1951 to 1969, he was the director of the infectious disease division of first the Marquette Medical School and then the Medical College of Wisconsin. During that time, he was appointed associate clinical professor of medicine. He was the medical director of the St. Mary's Hospital Burn Center from 1962 to 1982. He has directed a cancer immunotherapy clinic in Milwaukee since 1973. He has published numerous articles in the peer reviewed medical literature and has authored books on systematic methods of critical care and on medical emergencies.

Dr. Waisbren is board certified by the American Board of Internal Medicine and also is a fellow of the American College of Physicians and the Infectious Disease Society of America. He is a founding member of the Infectious Disease Society of America, the American Burn Association, and the Critical Care Society of America.

Immunotherapy for cancer which includes: Coley's vaccine, mixed bacterial vaccine, transfer factor, BCG, and lymphoblastoid lymphocytes.

A scientific essay regarding a 25-year experience in the treatment of cancer with multiple immunotherapy modalities.

http://www.waisbrenclinic.com/artinfo.html

http://www.waisbrenclinic.com/chronic-lyme-disease-case-reports.html

Three anecdotal case reports regarding chronic lyme disease with a hypothesis that might explain how they came about *

Introduction

Professor Teddo Adderatti of the medical school in Bolgna Italy introduced case reports as a medical teaching tool in the mid-thirteenth century. Although they have fallen into some disrepute due to present feelings about the lack of importance of anecdotal evidence, they still can be seen in many prestigious medical journals.

The Jewish King Solomon who lived in the tenth century B.C. is credited by some for the biblical quote “there is nothing new under the sun-what happens will happen again.” It is in these contexts these three reports and a hypothesis that might explain them is being presented.

Case One: The patient is a 63-year old retired male science teacher who spent his summers in a farm in Wisconsin that was in an area known to be infested with deer tics. At age 55 he developed a progressive syndrome that consisted of generalized muscle cramping and spasm. Over the next 4 years these symptoms grew to include severe fatigue, difficulty in concentration, neuropathic numbness and pain both of this feet and severe testicular pain. Low body temperature, generalized fasciculations over his torso and extremities and an unexplained sudden central retinal vein occlusion in his left eye.

During the ensuing six years after the onset of the syndrome all of the symptoms gradually increased until they came to the point that he could no longer function. Visits to many physicians and specialty clinics failed to provide an explanation for this clinical picture.

He searched the web and came to the conclusion that he might have Lyme disease. He consulted me in this regard in April of 2005 and I agreed that this was a possibility. HE agreed to my suggestion that we try an empirical course of intravenous Ceftriaxone to see if it helped him. Prior to the antibiotic regimen, the patient was tested for Lyme disease by Western Blot test performed by Igenex Laboratories. These results were suggestive but not conclusive for the presence of Lyme disease. He also underwent an experimental Lyme test performed by Bowen Labs of Florida. This test strongly indicated Lyme infection.

Accordingly, he was given an eight-week course of intravenous Ceftriaxone and Flagyl. The Flagyl was given to help his gastrointestinal tract tolerate the Ceftriaxone and for the theoretical concept that Flagyl might kill cystic forms of Borrelia. The Flagyl was discontinued when it seemed to increase the neuropathic pain and numbness in his feet and legs. He suffered no Herxheimer reaction but made gradual improvement during the initial program. After the Ceftriaxone he was maintained on 3000 mg of oral penicillin daily for three weeks followed by 50 days of 200 mg of Diflucan. This regimen of penicillin followed by Diflucan was repeated one additional time. His improvement continued and within weeks he was essentially asymptomatic. The oral antibiotic treatment was complete din January of 2006. Additionally, in January of 2007 Mr. C. was put on a daily course of low dose Naltrexone (4.5 mg daily). Mr. C. reported that this greatly decreased the occasional return of fatigue, depression and testicular and neuropathic pain. In December 2007 he felt well and was functioning normally.

Case 2: This highly intelligent and active registered nurse was 50 years old when in 19922 she suffered a tic bite that was followed by a bull's eye rash and a positive blood test for Lyme disease. She was treated for 10 days with doxycycline. She as told that this cured her Lyme disease. She lived in Minnesota in an area known to have deer tics.

Several months after the 1992 incident she developed a progressive symptom complex that included severe fatigue, muscle weakness and episodes that suggested to some narcolepsy and to others a mysterious virus. During the ensuing ten years all symptoms increased and the physicians she consulted could not find an explanation for them.

She saw me in 2002 with a chief complain of severe debilitating chronic fatigue. She had come to the conclusion that she had this syndrome after she looked it up on the Internet and made a self-diagnosis of Lyme disease. She had never mentioned the fact that she had had Lyme disease to her doctors nor had she ever been asked about this disease. She had accepted the original opinion that she had been cured. After hearing her entire story, I concluded that while indeed she was chronically fatigued that something else was wrong.

Knowing that she came from Minnesota in an area in which deer tics were present, my first question to her was whether she had been exposed to tic bites. She told me about her case of Lyme disease in 1992. After the initial preliminary tests were done and were normal I suggested to her that she might have chronic Lyme disease. I suggested an empirical treatment program tailored to not only treat the Lyme disease but to treat her chronic fatigue in spite of the fact, that all tests for Lyme disease were negative.

I suggested this because she shared with me "she had reached the limit of her endurance'. The program consisted of the following:
1. Ceftriaxone, 4 grams given intravenously through a pic line for 4 weeks
2. Flagyl, 500 mgs daily to be taken by mouth. This was to help her tolerate the Ceftriaxone bowel-wise and also to treat the theoretical cystic forms of Borellia which some think will be effective in this regard

3. To treat her fatigue, Gamma Globulin 4cc i.m., twice a week for 4 weeks, to perhaps provide some blocking antibodies that would inhibit autoimmunity
4. Isoprimosine, 50 mgs by mouth four times a day to stimulate T-cells
5. Valtrex, 1000 mgs, twice a day by mouth to treat the Epstein Barr virus which I felt might be involved in her disease (see the hypothesis that follows the case reports)

When there seemed to be a marked salutatory response of her entire symptom complex we continued the oral and intra muscular elements on an intermittent basis. There was marked gradual improvement in all her symptom complex starting after the intravenous Ceftriaxone. This continued as we tapered the medication over the next four years. A complete examination in January 2008 revealed that she was symptom-free and living a very busy productive life. This consisted of taking care of her three children and running programs dedicated to the care of foster children who had developmental problems.

Case 3-AR; A case of chronic Lyme disease that mimicked multiple sclerosis

This case is another incidence of the truth of the biblical saying "there is nothing new under the sun. What happens once will happen again." Soon after I had finished bringing up to date this website a young physical therapist who had two small children presented her self for an examination with the following story: I will present it in her own words, modifying only her feelings about the delay in diagnosis and treatment. *"I am a physical therapist. I know my body. I was healthy and fit until June 9, 2007 when I attended an outdoor party in Richmond, Illinois. A day after the party, I noticed a red, circular rash about the size of a quarter on my lower right abdomen. I knew immediately this bite was different than the typical bug bit—it was angrier looking, and had a distinctly defined center. I immediately thought of Lyme disease. But everyone I knew who lived in Richmond and all the medical professionals I knew, said no way. It couldn't be Lyme disease. They had never heart of it in Richmond, or Illinois for that matter. So I put it out of my mind.*

About four days later I suddenly felt very sick, faint and out of it. I had several bouts of diarrhea. My husband rushed to my side and took me to see the obstetrician who had delivered my second baby four weeks before. He said the symptoms were probably nothing or blood poisoning. About the bite he said he had had one also on his arm, probably from a mosquito.

The feeling of being sick remained so a week later I saw an internist. He said I absolutely did not have Lyme disease because I hadn't seen the tick and the tic would have ballooned up with blood to enormous size. He also said that there was no Lyme disease in our area. He did not advise treatment or studies. Then the muscle twitches began along with the strange traveling paresthesia. Then I noted electric type currents through my extremities and migrating joint pain.

I continued to seek help and saw two other physicians in my area. They empirically prescribed antibiotics but said that the blood tests that they had run were negative so I could not have Lyme disease. My symptoms continued and got worse, and then a brain fog set in. I couldn't seem to concentrate. I felt mentally weighed down and fuzzy headed and mentally depressed and frightened.

I sought another internist who when my Lyme tests came back negative told me I couldn't have Lyme disease and that I should discontinue the antibiotics. My symptoms remained. I began wondering if it's not Lyme, then what is it? A pinched nerve, carpal tunnel, fibromyalgia, some progressive neurological disease? I was researching and researching and still, the only thing that made any sense was Lyme. Eventually, and logically, my mind wandered towards MS. By this point, I had developed a positive l'hermittes sign. I referred myself to a chiropractor. I saw him 3 times and he was stumped. But we did discuss the possible justification for an MRI. So I didn't appear to be a hypochondriac, I referred myself to a neurologist at another one of Chicago's premier hospitals prior to requesting any MRI. This neurologist, I could tell somewhat reluctantly

gave me the referral. The MRIs revealed the cause of many of my symptoms-4 white lesions, 2in the brain and 2 in the cord. He then referred me for a lumbar puncture, which came back positive for antibodies to "something" and 2 oligoclonal bands. He diagnosed me with, most likely, relapsing-remitting MS. My "Lyme tests" were again negative. My family and I were crushed. We discussed beginning MS drugs. I soon thereafter had my first full-blown neurological event, partially brought on by the stress of this nightmare..diffuse numbness and muscle spasms, and ended up in the ER, and then in the hospital for a night.

The patient continued her search for help and more consideration of the possibility of her findings being due to Lyme disease and through this website decided to come to see me about her problems. Her history, the white lesions on her MRI, the picture of her tic bite that she showed me, her hyperreflexia, paresthesia, ataxia and absent abdominal reflexes convinced me that she had Lyme disease masquerading as multiple sclerosis. An empirical course of anti Lyme disease therapy was started through a "pic line." It consisted of a six week course 4 grams of intravenous Ceftriaxone and flagyl, 500 mgs given twice a day by mouth. She is being continued on oral doxycycline and erythromycin. Blood tests done at her first visit did come back suspicious for Lyme disease. They were done by Quest laboratories and confirmed by Bowen Laboratories. She also had antibodies against Bartonella Henselae and Bartonella Quintana which confirmed exposure to tics. Four months after the completion of the intravenous Ceftriaxone she describes her situation as follows:

"*I complete a 6 week course of IV antibiotics, coupled with some oral medications and am now in my fourth month of treatment for chronic Lyme disease. I feel immeasurably better. My brain fog has completely cleared. I'm not tripping over my words or losing my train of thought anymore. MY paresthesias and muscle twitches are few and far between. My energy level is up. All in all, I feel almost back to normal and most definitely vindicated. And I'm now on a mission to educate others about this often misdiagnosed and mistreated disease. This is a "silent epidemic", as many like to call it. Had I listened to the highly regarded and overly confident neurologist who diagnosed me with MS I would now be much sicker, getting precisely the wrong treatment, and headed for more debility.*

Comment: Of course a few anecdotes do not establish anything but each case of an unusual nature that presents itself to an inquiring physician should not be ignored. The third case buttresses my opinion that is outlined on this website that cases of MS-like nature that appear after tic exposure deserve an empirical course of Lyme treatment. Finally, it is to be noted that each of these three cases was self-referred after they had studied the Internet. They indicate that we all should listen carefully to patients who come in with reams of Internet material. Some, but certainly not all, may have been able to arrive at correct diagnoses.

A Hypothesis which might explain what happened to these three patients.

This hypothesis is based on the work of Westall and Root-Bernstein.* They proposed in the mid 1980s that an autoimmune disease can occur when a host is exposed to two chemically complementary antigens one of which exhibits molecular mimicry with the host tissues. In addition, the host must have a certain HLA pattern and an immunological adjunct must be present. They named their syndrome "multiple antigenic mediated autoimmunity", the MAMA syndrome. Root-Bernstein proposed that this syndrome occurred in some AIDS patients because they were exposed to multiple viral and bacterial antigens. This exposure occurred because of their T-cell problems. I propose that the three patients described developed a MAMA syndrome because their Borrellia antigens were chemically complementary to the Epstein Barr virus to which they had had evidence of being exposed. That Epstein Barr virus shows molecular mimicry with human tissue was shown by Root-Bernstein. The immunologic adjunct necessary for this syndrome was provided by indigenous myramyl peptides produced by the host's indigenous mononuclear cells. Finally, the initial clones stimulated by the MAMA syndrome became rogue clones and attacked tissues in addition to those involved in their being developed.

Discussion and conclusions: Certainly these anecdotal case reports do not prove anything. They are presented because of the large numbers of individuals who appear to be struggling with similar syndromes after they have been exposed to tic bites. This number seems to reveal itself when one takes even a cursory look at websites and chat rooms on the Internet.

*See the discussion about this syndrome and references in the section in this website on MS following Hepatitis B vaccination

Surely all of these concerned suffering individuals are not suffering from “extraordinary popular delusions and madness of crowds, so brilliantly described by Charles Makay in 1841.

It is my hope that the hypothesis presented here will stimulate interest in methods to help unfortunate individuals who suffer from chronic Lyme disease. It seems that the procedures described here may help some of these but if as I propose chronic Lyme disease has an autoimmune aspect attempts to treat this aspect empirically may be in order.

It would appear to me that intense consideration should be given to the possibility that multiple antigenic exposure can cause autoimmune disease because of the multitude of vaccines that are now being introduced into general use. The experiments that can be done to prove or disprove this hypothesis are presented later on pages on this website where we explain autoimmunity that occurs after vaccintations in a similar manner.

Read More About Chronic Lyme Disease

The Management of Chronic Lyme disease

Treatment of Amyotrophic Lateral Sclerosis and Multiple Sclerosis with Anti-Lyme Disease Antibiotics with Antibiotics

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ALLEGATED 24

Fifteen clinical cases of the Kroiss Center (Vienna, Austria)

The Kroiss-Cancer-Center for Alternative Cancer Therapy run by Dr. Thomas Kroiss in Vienna, Austria is especially known for treating breast cancer, cancer of lung, colon/rectum, prostate, brain tumor, leukemia, liver metastases, bone metastases, and ovarial tumors, using Their website is http://www.kroisscancercenter.com/ and they can be reached by phone at 43-1-982 57 67 or by fax: 43-1-982 69 92.

Examples of successful therapies:

Here we present therapy results and successes to show that even very progressed cancer cases can be cured. Usually we make individual therapy protocols that consist of a number of therapies - just to make sure. Yet the following therapy results and successes have been produced by one single therapy of those. We show you those because of the many years of experience with this.
Anyway: Please do not wait until such a progressed stage. The earlier you start with the therapy the better your chances.

(Please let us remind you that this treatment modality is most promising when at its beginning the patient's expected time of survival is at least six months. The following examples, however, refer to more seriously afflicted patients. They are taken from a textbook of the 1930s and 1950s. Last edited in 1980, it is now out of print; some of the medical terms used in the original descriptions have been replaced with more colloquial equivalents)

Case 1: Inoperable tumor of left half of the brain. Patient was in very poor state, could not speak, did not respond, was totally incontinent (urine and feces). X-ray showed an enormous enlargement of the right ventricle of the brain, the left ventricle could not be visualized. Therapy was begun. Three months later, patient had much improved, half a year later patient had no symptoms whatsoever. Continued to live in good state for many years.

Case 2: An angiography was performed on a patient admitted to the neurological university hospital. It revealed a constricting process reaching from the cerebral cortex down into the brain stem. Patient suffered from jacksonian-type seizures every day. Radiation therapy failed entirely. Following radiation, patient even had up to 17 seizures a day. It was difficult for patient to walk or talk, eyeballs were bulging. Treatment started in 1971. After six weeks, patient was without seizures, has remained in good state until now (1980).

Case 3: Ovarian carcinoma, was diagnosed by histological findings, inoperable, had grown into the rectum. X-ray confirmed intestinal stenosis. Patient was terminally ill, required morphine four times a day. Treatment began in 1953. After six months, patient was symptom-free. Treatment was continued by her general practitioner. Treatment was discontinued in 1965. Patient was still alive in 1977.

Case 4: Patient diagnosed with cancer-induced intestinal stenosis in 1956. Improved under therapy, but then withdrew. A year later blood was found in the urine. Bladder had cauliflower-like tumor (x-ray). After regular treatment hardly any complaints half a year later (clear x-rays of 1975 prove this point). Patient was still alive in 1980 at age 87 (only had some problems with hip, but was otherwise in a good state).

Case 5:An 18-year-old young man was operated on by a brain surgeon in 1933. A large glioblastoma (i.e. a malignant brain tumor, generally considered to be incurable) of the cerebellum was found, which could not be excised. The patient was about to die. Because of the increasing

intracranial pressure, the patient underwent a trepanation (i.e. a hole had to be drilled into the skull to alleviate the pressure). When the patient started treatment, he was dying. He could neither stand up, nor sit down, was confined to bed, vomited all the time and was only able to babble. He was emaciated and had lost his sense of balance. During the first therapy sessions, he had to vomit every time. This improved only gradually within half a year. Only then was the patient responsive and better able to retain some food. Treatment was continued daily, and the patient's state improved very slowly, he gained weight (10 kg). After one and a half years he had gained 20 kg. He was able to resume his former job. He started traveling and had almost no symptoms, except for some balance disorder which forced him to walk with a cane. Also, there was a minor speech disorder. This was due to the fact that prior to treatment major portions of the cerebellum had been destroyed. The patient was 18 years old when treatment began. He died at age 59.

Case 6: In 1947, a 46-year-old patient had a tumor on the right ovary, which was surgically removed. In 1952, a carcinoma developed on the uterus. A sample taken revealed this to be a "papillary adenocarcinoma". Since this tumor was inoperable, the patient underwent radiation, but to no avail. In March 1953, doctors diagnosed that the tumor had grown into the rectum. On 1 August 1953, the tumor was seen to have grown into the other side of the intestines as well. The patient lost weight and was under severe pain. In October of the same year, her state was hopeless. Her husband was informed accordingly. She was given morphine, and her stool was thin and hemorrhagic. Therapy was started on this bedridden patient. Six weeks into therapy, she did no longer lose weight, her weight remained the same for two months, whereupon she started to gain weight ever so slowly. After eight weeks she did not need any pain killers any more. After two months, it was possible to enter the previously too contracted rectum with one finger. Four weeks later you could even introduce a rectoscope to see that the rectal wall was covered in tumor masses for up to 10 cm (from bottom). The patient remained without symptoms until 1970. Her gynecological findings had improved as early as in 1960. Since then no more treatment.

Case 7: On 17 May 1960, the patient underwent an operation to remove a colon carcinoma. This was an orange-size, mucous-producing cylindro-adenoma. At the base of the intestines several bean-size hard glands were palpable. Examinations revealed that those were the metastases of a gelatinous cancer. Treatment began at the end of September. Patient was in very good state until 1974. No further follow-up.

Case 8: A 27-year-old patient was diagnosed with thyroid carcinoma in 1967, which was surgically removed in August 1968. She then underwent 28 cobalt radiation sessions (i.e. radiation therapy) without success. Roughly one year later, she had breathing difficulties. Laminograms of the lungs showed extensive round shadows around the two lung roots, which grew rapidly. Treatment started on 30 September 1968. The following year, no shadows could be detected any more. The patient had gained weight. The hard lumps, which had previously been palpable in the right supraclavicular fossa, went back. The patient's findings improved. Since then she has felt absolutely well.

Case 9: The 60-year-old farmer Z. was a similar story. He came for consultation because of labored breathing, blood in his sputum and considerable weight loss. The radiologist found a roughly goose egg-sized shadow in the right lung close to the hilar region. The patient seemed to be inoperable. Under our therapy, the shadow became smaller and smaller and was hardly discernible after six months. The patient had gained 18 kg and was able to work in his fields. When he moved to another place in 1952, treatment had to be discontinued. A year later, the tumor had started to grow again. A bronchoscopic examination showed it to be a malignant carcinoma (cancer). This relapse resulted in the patient's death. (This example shows that patients should not completely withdraw from such a therapy.)

Case 10: The 60-year-old farmer L.J. came for consultation in 1952. He suffered from labored respiration, and his skin was bluish, a condition that had developed over the past months. He was coughing, and there was blood in his sputum. He was unable to negotiate a five-step staircase without help, and even when assisted his respiration was extremely labored. X-ray findings of 10 September 1952: diaphragms with indistinct margins on both sides; in the right lower area small cloudy shadow containing several softer round shades; the right root of the lung was swollen and protruding, the left root was widened; in the right medium and lower part of the lung there was an inhomogeneous mucous cloudiness containing several cherry-size round shadows; in the first upper part of the lung, close to the root and below the clavicle between the first and second anterior ribs, there were two cherry-size round shadows. Diagnosis: cancer-filled lung roots, atelectasis on the left and cherry-size metastases in the right lower part and in the left middle, lower and upper part. No histological examination was performed to clarify the nature of the shadows seen, but several eminent radiologists confirmed that they could only refer to cancerous growths, probably metastases of some undetected primary tumor. Whatever their nature, it is worth noting that those shadows fully disappeared within five years of treatment. In fact, the patient was almost without complaints after a mere six months and could resume his work as a farmer. Whenever treatment was discontinued for several weeks in the first three years, his breathing difficulties re-occurred and only disappeared after two to three weeks of resumed therapy. Patient lived for another ten years in good state and died in an accident.

Case 11: Also in the 50-year-old physician, Dr. C., discontinuation of successful treatment led to a relapse. He arrived with mucous effusion in the lung area. A bronchial carcinoma was diagnosed by bronchographic and bronchoscopic examinations performed in the surgical ward of a university hospital. The patient was in a very poor condition. He responded to our therapy within a few weeks, i.e. his status improved and the effusion disappeared against all expectations, as up until then we had not been successful in cancerous processes involving the accumulation of fluid. He even gained enough strength to be able to resume working in his practice and driving his car over greater distances. After six months, he was absolutely symptom-free. Despite repeated warnings he withdrew from therapy. Three months later cancer reoccurred, as predicted, and led to the patient's death

Case 12: Heinrich He., born in 1893, farmer and innkeeper. In July 1956, sudden constipation, tearing pain in the hypogastric region, intestinal bleeding. ESR 68/89, delayed evacuation of the large intestines under x-ray. Impossible to fill one section with contrast medium. Treatment started in May 1958, whereupon general condition and bowel movement improved. In September 1958, renewed contrast radiograph of the bowel passage which showed that there was still an area in the sigmoid colon that could not be fully filled with the contrast medium; there was no visualization and an irregular margin of the defect. Incomplete opacification also in the upper part of the descending colon. Treatment was continued, and towards the end of 1959 the patient was symptom-free. Treatment was discontinued because the patient's health fund refused any further reimbursement of treatment-related travel costs. In September 1960, he was again afflicted. In addition, he had trouble with his bladder, cramps in the bladder region, intermittent micturition, flakes and blood in his urine. A cystoscopy revealed polypous, villous growths in the bladder. A follow-up examination performed in the surgical ward confirmed these findings. Rectoscope could not enter more than 15 cm. Clinical diagnosis: carcinoma (cancer) in the colon. Operation was recommended but refused by patient in view of the high risk. in March 1961, cystocscopy: around the right ureteral orifice cauliflower-like soft, slightly hemorrhaging masses without structure, which filled the whole upper side of the bladder. Treatment was resumed in March 1961, whereupon symptoms improved within eight weeks. Patient was then able to pass water without difficulty, he took mild laxatives to have regular bowel movement. Towards the end of November 1962, the patient was symptom-free and able to work again. No pathological changes could be

detected in an x-ray performed in 1974 on his intestines. This good status could be maintained - except for an inflammation of the hip joint - to this very day (1980). Patient is still alive.

Case 13: A patient, born on 24 September 1920, noticed intestinal bleeding in spring 1975. He lost much weight. In 1976, he was diagnosed with rectal cancer, which greatly constricted the lumen. The patient underwent surgery on 24 March 1976 and was given a preternatural anus. A biopsy showed that he had an adenocarcinoma. Also a second surgical intervention on 14 April 1976 did not succeed in removing the tumor. It adhered irremovably to its environment. The left and right lobes of the liver had hard nodes, the artery was surrounded by many smaller nodules. The tumor reached down to the hypogastric region, the lesser pelvis was not accessible to the palpating hand. On 11 May 1976, the patient had lost 12 kg. Nothing but some thin broth left the anal orifice. Within 4 cm, hard nodes all around the rectum. Therapy started on 11 May 1976, first at the hospital and then by the patient's general practitioner. Already on 18 May 1976, he had gained weight (85 kg versus 83 kg), and on 16 July he had 89 kg. Very good condition, anus evacuated normal stool, only the fingertips could still palpate one small nodule. On 29 June 1977 the patient's general practitioner reported: general condition is very good, patient is fit, can drive larger distances himself with his own car. The only remaining symptoms are winds and occasional constipation. Since then no further news.

Case 14: That "cancer of the lymph nodes" also responds to this treatment is illustrated by the following case: a young woman, born on 13 October 1937, noticed in 1960 greatly enlarged glands on the neck, which first became smaller under red light irradiation. Following a biopsy, she was diagnosed with Hodgkin's disease and given deep x-ray treatment and Endoxane injections (chemotherapy). On 13 June 1962, several soft, not clearly defined lymph nodes were detected on the right side of the neck, while the left side showed a scar from the previous biopsy. The spleen was no longer palpable. The erythrocyte sedimentation rate (ESR) was 21/42, i.e. the blood picture was tell-tale. Regular treatment began in June 1962. Since then, no more enlarged glands. The patient married and gave birth to a healthy child. She feels well. Her ESR was 8/25 last time, her hematology measures were normal.

Case 15: Even in very severe cases, it is sometimes possible to help: the 76-year-old M. El. was hospitalized on 19 June 1958. He was emaciated and in a very poor state. There was blood in his feces, he suffered from severe anemia with 1.8 million erythrocytes, he had to be given blood transfusions. Under our therapy his general condition and hematology measures gradually improved. It took him eight weeks to recover enough to be able to undergo an x-ray examination. It revealed a large recess on the inner curve of the stomach, which could still be seen (though much smaller) in an examination one year later. The patient's condition improved so much that he was again able to care for himself and even go on some errands. Being symptom-free, he did not return for treatment after one year. Two years later he died at the age of 79.