Some words about our company

Crystal Institute Kft. was founded in September of 1989. Three Hungarian private people established It, who are still actively taking part in managing the company today. Crystal Institute has specialized on exploiting the opportunities provided by nature, holding together research & development, production and sales. Its most important mission is that of drawing people's attention to the healthy way of living and the importance of proper nutrition. The products made in our factory are such that foods contain natural and concentrated energies and substances. These substances, being physiologically important, enhance the body's defending, self-healing and resistance. They help the body in a natural way to regenerate itself. These components thus help preserve its harmony on the long run. A person who lives in harmony is able to successfully defeat the factors harming his health. The products of Crystal Institute are consumed and used by people:

- Who are open to new ideas and want partly or wholly to shape their own health
- For whom the product they use is important to contain natural substances only
- For whom it is important to have a simple use of the product,
- For whom it is important to have results soon and the root of the problem disappear
- For whom it is important to have a production supervised by a trustful company that continuously checks the quality and develops its products.

We are in constant connection with our colleagues who provide tailor-made advice regarding the best methods of using the products. It stresses the naturalness of the products and the positive features derived by there usage. Our distributors have tried the products and realized their excellent characteristics. According to the WHO "health is nothing more than the welfare status of the body, spirit and social life." Accordingly, Crystal Institute stays abreast of new opportunities hiding in nature, tirelessly searches the globe and develops new products based on research results; then passes these new products to consumers throughout the world.

Flavin7®

Don't underestimate the power of nature.

Extract and molecule separated concentrate of selected fruits from selected areas. These contain special immunoactive agents extracted from plants; resveratrole, flavonoides and plant antioxidants in very high proportions.

Flavin7 has been developed by László Szabó of Crystal Institute Kft. with the help of university researchers. Flavin7 is not a medicine. It is purely made of natural ingredients, free from preservatives or chemicals.

The role of flavonoides in maintaining health and in the prevention of diseases has been irrefutably shown by recent studies. These have revealed that flavonoids protect the heart and the blood system, strengthen the immune system, work against tumour, have anti-inflammatory and anti-allergic effect and help liver restoration. Clinical animal experiments show that the product is effective against factors affecting the heart and blood system (triglycerides, LDL and HDL cholesterol) and alleviates vascular stenosis and artherosclerosis.

The biological action of plant antioxidants counteracts the destruction by free radicals. Plant antioxidants are our allies in the protection of our health. Studies have revealed the importance of resveratrole as an antioxidant and anti-mutagen as well as a mode of tumour prevention and an agent counteracting the development of tumours in all three phases. Plant antioxidants regenerate cells and reduce the occurrence of side effects of traditional treatment. Studies are being conducted to test Flavin7 in a number of Hungarian hospitals.

Directions: Shake well before use. Keep the required quantity under your tongue for two minutes, and then swallow. Best if taken after meals. You can mix it with your favourite beverage as well. **Recommended use:** 5 ml daily for prevention; four to six months every year or use regularly. Accompanying therapy of diagnosed diseases: 2 times 5 ml daily. Take no more than 2 times 10 ml daily. Once opened, keep in the refrigerator. **Flavin7** can be taken with other medications.

Flavin7 Curative fruits

The dramatic story of Mr. Szabó Sr. began 20 years ago. He had three cardiac infarcts and his blood-forming functions stopped. The only way to keep him alive, was to supply him with blood every year. He was in hospital eight months a year but his son, László Szabó, wanted to help. As a teacher of mathematics and technology he spent the nights in his laboratory, which was formally the cellar. He was always interested in chemistry and this time he could not stop reading technical books



and encyclopaedias. He pressed fruits, cooked and condensed them; he wanted to save his father. Mr. Szabó Sr. is now 64 years old and he has not seen the doctor for several years: he was cured. Nevertheless, László Szabó continued studying these natural substances for years to help others.

Then, due to further research a fruit concentrate was made, which contained flavonoids, antioxidants and vegetal immune substances. Shortly, the "cellar-lab" proved to be small and today the success of this fruit concentrate is becoming greater owing to the experience and work of almost one hundred doctors.

"We would not like to say it is a panace<mark>a, rather a substance that may considerably reduce the side effects of chemotherapy."</mark>

Nearly one hundred county oncologists and GP's look after the flavonoid and resveratrol consumption of patients suffering from malignant tumours and they record the results. According to the observations, the liquid proved to mitigate or even cease the symptoms (e.g. liver malfunction) of traditional treatments. It improves general feeling and state of health of the patient as well as it strengthens the immune system.

A patient with breast tumour, who could not be operated for her cardiac complaints, drank this special fruit concentrate only beside hormone therapy. After three months, her state of health was stabilized. Since then, a year has passed and the tumour of 3 cm is only 14 mm now. And, it is really hard to believe unless you see it for yourself that the metastatic lymphatic gland in the armpit is surrounded by a capsule or frame of 3 mm.

In order to summarize all knowledge, a large-scale conference was summoned in Szolnok where doctors and scientists gave an account of their observations. Experiments on animals prove that phenolic compounds found in fruit drops do not only prevent the formation of blood clots, but they protect the vein wall by reducing the cholesterol and blood fat content of blood. Doctors found it important to point out that these substances may have a great role in preventing



illnesses. If we come to realize that we can complete our nourishment with flavonoids and at the same time the symptoms of illnesses become bearable or cease, or a patient lives further than was predicted, or certain illnesses do not even appear, then we have to say that flavonoids are most significant substances.

Flavin7 is a non-medicine, nourishment supplementary product containing special vegetal immune substances, resveratrol, flavonoids, and antioxidants in large quantities.

Flavin

Besides the many excellent experiences acquired when dealing with Sun Crystal through years, further research based on the factor that vegetal crystals should get into optimal medium, in order to take part in photosynthesis and to store effectively free solar energy.

Taking into consideration the observations conducted for decades by Hungarian and international research teams, utilising the most recent research results, we concentrated on the following vegetal agents: flavonoids, antocyanidins, antioxidants and resveratrol. Applying the appropriate concentration and combination of these substances and crystals, they synergically strengthen the biological activity of one another!

By this we would like to emphasise that in our everyday eating habits our aim is that we should consume quality food, which would represent maximum usefulness for our body. In people's thinking, when distinguishing between medicine and non-medicine the crucial factor is whether health or the lack of it serves this basis. Useful substances getting into our body can fundamentally determine the maintenance or the restoration of our health. The bioactivity of some natural substances can effectively be used to maintain or improve our health. The bioactivity factor of plants can closely be connected to that basic construction process through which they turn solar energy, into chemical energy. For plants and the biosphere the only significant source of energy is represented by the radiation of the Sun, which reaches the Earth in rays of different wavelengths. More than half of this radiation is light, a smaller part of it is thermal, and a few percent of it is ultra-violet radiation. Only 0.01% of the total energy of the Sun reaches the surface of the Earth. Nevertheless, it is still capable of nourishing and vitalising many things. The amount of energy arriving annually to the Earth is the equivalent of the energy gained by burning 60 billion tons of crude oil.

The Sun is our primary source of energy!

Solar energy represents many advantages: it will not run out in the near future, it is nonpollutant, it does not require transport, and it will not increase in price. Light reaching the surface of the Earth consists of direct and diffuse radiation. Direct light contains a great deal of long wave-length radiation, which has a strong warming effect. Diffuse radiation on the other hand contains more energy, which has a favourable effect on photosynthesis. Light radiation is by no means equally distributed in the biosphere. The light relations of a given area are determined by the ratio, strength and time span of the direct- and the diffuse radiation. This changes according to geographical latitude. The most basic construction process is photosynthesis during which green plants bind and transform solar energy into chemical energy. For this procedure light of 400 - 800 nanometers wavelength is the most suitable. Apart from the reagents which bind solar energy and enzymes, pigments / organic colourful compounds / are also required which contain conjugated double bonds made up by unstable electrons which are capable of taking up the energy of the arriving light and getting into an induced state as a result. This induced state may last only for a short period of time, and if it could not transmit its energy, then nothing happens. However, if it could, the light-binding molecule oxidises by losing electrons, the receptor goes through reduction. Binding solar energy in such a way can be traced back to the chemical structure of light-absorbing pigments. The aggregate of the different bio-chemical procedures happening in the cells are called metabolism, i.e. flow of material, energy, and information.

These three procedures are inseparable from one another. Living organisms consist of highly structured substances. The order and structure created by them can only be maintained if the living organism takes up the energy necessary for its operation. Our body is supplied with pure

energy by those substances produced during the metabolic procedures of plants.

Flavonoids are vegetal metabolic products, which can be found in various plants and fruits. These phenic compounds impede the oxidation of low-density lipoproteins, exclude the sclerosis of vein walls thus diminishing vascular-, cerebral-, and coronary disasters.

According to a study, flavonoid-rich nutriment decreased the risk of vascular disasters by 73%. The experiment conducted with the participation of 552 men revealed that flavonoids impede thrombosis. Moreover, acting as antioxidants they are capable of decreasing the harmful effect of free roots on the vascular system.

According to the expert conducting the experiment and other researchers, the blood thinning and anti-thrombocid effect of flavonoids is outstanding and as antioxidants, certain flavonoids are 20-50 times more effective than even vitamins C or E. The history of flavonoids started in 1928 when Dr. Albert Szentgyörgyi, Nobel-prize winning professor produced chemically pure vitamin C. Later it was also he who produced those bioflavonoids which he called vitamin P. Although later on the structural difference in flavonoids excluded them from the range of individual vitamins. So far, scientists have managed to identify some 4000 sorts of different flavonoids.

Flavonoids, antocianidines

Higher plants are rich in aromatic compounds the major group of which are poliphenic compounds (the molecule contains several aromatic rings). One type are the flavonoid phenols and the antocianines as their sub-group. The name "flavonoids" signifies a group of compounds the members of which have a similar basic structure (flavon, isoflavon etc.) and to which OH (hydroxyl) or CH3O (metoxi) groups are connected at various places. These compounds occur in plants partially freely, partially in forms of their glycosides (attached to carbohydrate components). The glycosides generally connect by the replacement of the hydrogen of the n.3,n5,n7 carbon atom of the hydroxyl groups with sugar. They are dissolvable in water and they cannot be broken down by hydrolysis (they are not ester-like compounds). The flavonoids can be found mainly in the skin and seed of the fruits, or e.g. in the tendril of grapes. So far, more than 250 flavonoids have been isolated. Their structures have been discovered and proved by synthesis.

Most of these compounds have pharmacological effect and several of them are applied in medicine. Their capability for reduction can be traced back to their unsaturated quality and the oxidation-reduction mechanism of hydroxyl groups of various position and quantity. They can exert their antioxidant effect in an indirect way, as well as bind the oxidant catalyzing metal ions during their complex formation. Their pharmacological effect manifests itself in decreasing the permeability of blood and the capillaries, this is why they are successfully applied in curing capillary control diseases (retina- and kidney bleeding, etc.). Antocianidines with its glycosides and the antocianes are chemically related compounds to the substances introduced above.

The basic framework of antocianidines is the flavilium-cation:

Pelargonidine: R=R"=H, R"=OH
Cianidine: R=R"=OH, R'=H
Delfinidine: R=R'R""=OH
Apigenidine: R=R'R""=OH
Petunidine: R=CCH3, R'=OH
Malvidine: R=CCH3
Peonidine R=OCH3+,R'=H

In the flora the anticyanes represent a group of blue, violet or red pigment substances, which are colouring the given flowers, fruits, sometimes leaves. It has been observed that their colour changes according to chemical environment. The colour of a red rose and cornflower comes from the same pigment (cyanine). In acidic environment the flavilium framework has ionic structure (e.g. in the form of chloride salt). The anticyanines are mainly situated in the 3-4 rows of cells under the skin of fruits.

The antocianines are dissolvable in water, antocianidines on the other hand are not (they are aglycones). The sugar part consequently improves water solubility or protects the sensitive antocianidine from various chemical and enzyme effects.

Approximately 1/60 part of carbon bound in photosynthesis is expended on flavonoid production. The significance of these compounds can be deducted from this ratio. The biosynthesis of poliphenic compounds can take place in several ways in plants. Generally, three main steps can be distinguished:

Firstly, a C6-C3-C6 framework is formed to which the formerly produced aromatic compounds serve as starting point.

Then certain compounds are produced during which the formation of OH,-OCH3 groups and binding sugars mean the main reactions.

The regulation of flavonoid bio-synthesis in plants is **in harmony with the energy status of the cell.** During ripening and developing stages, the quantitative and qualitative flavonoid content changes in fruits and other crops.

Most people think, that only high blood pressure can tear veins, in actual fact decreased capillary resistance and increased permeability are the factors which cause bleeding blood-vessels and weaken them so much that they are finally torn. The capillary vessels are very important because they transport nourishment to cells and take away refuse material from them. The permeability of capillary vessels should be optimal because they should allow liquids through the capillaries so that they can mix with the liquid which surrounds the cells and then they can return to the veins. If the permeability of the capillaries is too high, thus too much liquid and protein can infiltrate, which can cause oedemas, plus red blood cells also can ooze through which in turn can result in bruises and red spots.

The importance of breathing is communicated to us at the level of perception when food happens to be swallowed the wrong way or while swimming and water is swallowed by accident, in both cases we nearly choke. Although it is still true however, strange as it sounds, that we risk our health by taking each breath

The reason this is so, is that 60 million oxygen molecules get into our lungs and body whenever we take a breath. These molecules are essential for life but they also have a destructive effect, since they damage the tissues of the body.

How can this substance that is so essential for life be harmful for health? A certain percentage of oxygen molecules, which can be found in nature, belong to the strongest free roots that are electrically unstable and *try to react with anything they come into contact with. These free roots*

can be harmful "at large".

Free roots can damage molecules / lipids, proteins, DNA / or cell-membrane. This procedure can be avoided by the application of vegetal antioxidants. *All reagents are considered free roots, among others oxygen which can be harmful for the cells of the body.* These harmful effects can be experienced from wrinkled skin to various kinds of cancer or heart disease nearly anywhere.

Since our body creates energy on a cellular level, the structure of oxygen changes through the course of metabolism. During this procedure, the oxygen molecule lose an electron that becomes a free root. When the bonds of the oxygen molecules break up, it begins reacting at an alarming rate and searches out another substance to react with. According to laboratory experiments, cells of human conjunctive tissue can multiply by duplication 50 times (without a sign of exhaustion). Then a strange thing happens: a genetic 'fatal programme' comes into being. All of a sudden, the multiplication slows down and the cell dies. This biological clock is only characteristic of humans and corresponds to 120 years. However, we cannot live up to this age young and healthy. Ageing and diseases are consequences of a "genetic maintenance accident".

The basic reasons for untimely ageing are that errors may occur in the process of cell regeneration. After a time the structure of DNA changes but the copying process continues. The consequence is that some instructions of the "scheme" will simply be left out. The lack of some necessary construction information is fatal for those important enzymes, which take care of the instant correction of cells and turn the destructive free roots into harmless materials. For some time, the cells continue regenerating themselves, but the errors accumulate and the degenerated cells will multiply at the next occasion.

That is how cell mutation is created, which results in ageing and diseases. Free roots (radiation, harmful substances, medicines, etc) constantly attack our cells. They rip molecules out of the cells or wherever they are bound on them, they punch the membrane and cause harm to the hereditary material.

Effective antioxidants

Free roots are extremely harmful. They damage our cells, which may cause untimely ageing, decreased immune activity, inflammations, and finally degenerative diseases. Antioxidant nutrients seem to be our primary preventative alternatives. *The biological activities of the antioxidants possess enormous significance in terms of health*. Each cell has to defend itself in the battle with the free roots day by day.

Antioxidants are invaluable allies in the battle. According to contemporary science, flavonoids prevent the activity of cancer inducing materials by blocking the appropriate enzyme system. That is how they protect e.g. DNA from "chemical attacks".

Resveratrol

Among non-flavonoid polyphenols that can be found in plants, trans-resveratrol has prominent significance (3,5,4' trihydroxi stilben)

This compound has two geometrical isomers: trans- and cis resveratrol, if the trans state is effected by light it goes through isomerization and turns into cis. However, owing to the light protecting effect of flavonoids it stays in the trans state in plants and fruits.

In trans reservatrols found in nature, the phenyl groups are situated diagonally and thus they are further away from one another. The cis isomer is unstable since the phenyl groups are situated on the same side in it (steric inhibition). In plants containing resveratrol this compound

can mainly be found in the skin or in the seed, e.g. in red grapes and in the wine made of it. The plant produces it as an immune reaction to various infections, increases its resistance thus its concentration is dependent on climate and cultivation. According to research studies, resveratrol has a double physiological effect: as vegetal protective substance it has an important role in the protective mechanism (vegetal immune substance) against pathogens (fungal infections).

The phenic compound called resveratrol is a stilben phytoalexin.

Resveratrol decreases the adherence of blood plaques and thus the risk of thrombosis as well. Published (Science, 1997, 275) laboratory and animal experiments justify the fact that it stops the effect of carcinogenic substances and impedes the formation and development of tumours. Resveratrol was discovered after hundreds of research processes for anticarcinogenic materials and it has preventative effect when consumed as nutriment supplement.

FLAVIN

Concerning the composition of FLAVIN among its natural vegetal substances the followings are the most outstanding: flavonoids, antioxidants, antocianidines, reservatrol, fructose, and glucose. *Naturally, FLAVIN3* and Flavin7 contain these substances in different concentration!

FLAVIN3

A concentrate containing the substances enlisted above strengthens the usual components of the Sun Crystal drink.

Flavin 7

It contains 7 kinds of fruits of selected species and habitat, enlisted on the label, the flavonoid, antioxidant and resveratrol content of which is the most outstanding.

FLAVIN

On the basis of surveys concerning the above mentioned components and compared them with the similar vegetal agent measurements conducted in France, Italy and other European countries, in Australia and in the USA this one greatly surpasses their level.

All CRYSTAL products contain vegetal crystals since our basic concept has not changed, it only become constantly extended by new information, which confirm our previous results. It is a justifiable fact that the important molecules of living organisms with water or with other solvents under certain circumstances and effects create phase. Thus in the bodily fluids the system of crystals play very important informational and structural role.

FLAWIN 7

Fruitful health 7X7

It is a commonly known fact that some 100 cancerous cells are generated in all of us every day. Luckily, our immune system finds and eliminates these faulty cells. However, if for some reason the immune system weakens, the cancerous cells proliferate, and the immune system is not able to eliminate them.

There might be several reasons for the failure of the immune system: on the one hand, the negative effects of the environment (diet, coming into contact with carcinogenic materials, radiation); on the other hand, stress may weaken the protective immune system. The environmental damage, continuous connection with carcinogenic agents (e.g. smoking) results in the emergence of a far greater number of faulty cells than what the body is able to eliminate. Effects of stress weaken the immune system, decreasing the "cancerous cell elimination" capacity of the immune cells. In the case of those who produce both factors simultaneously, they are obviously exposed to multiple risks from the point of view of cancer.

Free radicals entering the body or emerging there have a significant role in the emergence of cancer illnesses: as the free radicals are trying to replace their lost electrons from the neighbouring tissue, they extract electrons, thus damaging the structure of the cell walls. The cell walls are partly constructed of fat molecules that due to their chemical structure get damaged (get oxidised) easily during the attack of the free radicals. The result of the damaging processes is the deterioration of the cells and damage to the tissue.

What are antioxidants?

Anti-oxidants are stable molecules which are attached to and neutralise unstable oxidants. There are two types of anti-oxidants that protect against the unwanted (bad) effect of oxidants: these are endogen and exogen anti-oxidants. Endogen antioxidants are produced in the body. These natural anti-oxidants are effective but are not sufficient against the present environmental effects. Therefore, the help of exogen anti-oxidants is also needed (these are produced outside the body). These oxidants have always been seen as connected with heart diseases, cancer and premature aging. One frequent reason for heart conditions is atherosclerosis, that is, the closing of those arteries that bring food and nutrition to the heart. According to the most recent research, the oxidants activate, that is, turn on the LDL cholesterol; therefore, the molecules of LDL cholesterol become more likely to stick to the walls of the arteries. By activating the genes (DNA) of the otherwise healthy cells, oxidants play a role in the development of cancer in two ways. The genes activated by the oxidants may cause increasingly fast cell development, or might prevent the cells from dying a natural death.

Due to their structure, the flavonoid type compounds, which are contained in the Flavin product family in great concentration, have a significant radical-binding and anti-oxidant effect. Therefore, the regular consumption of these decreases the destructive effect of oxidative free radicals entering the system as a result of the environmental effects, or emerging there, thus protecting the cells and ensuring their undisturbed operation. Therefore, they are of outstanding importance from the point of view of prevention; at the same time in case of diseases that have already developed, they decrease the side effects of the treatments and boost their healing effect.

Zsuzsanna Kovács

THE ROLE OF FLAVONOIDS IN MAINTAINING HEALTH AND IN THE CURE OF CANCER

Dr. Sándor Erdos - László Szabó

In the 1990s and in 2001, proceedings in connection with antioxidants, flavonoids and resveratrol dealt particularly with malignant tumours beside arteriosclerosis, coronary and circulatory diseases.

The International Cancer Research Agency (head office is in Lyon) made quite a remarkable declaration in December 1997. They claimed that the risk of malignant tumours was indisputably lower among populations consuming great amount of vegetables and fruit.

However, it has not been proved convincingly that a particular component of the foodstuffs consumed would have a preventive effect in itself.

Director of chemical cancer prevention department of the Agency said "Delusion of people that cancer can be safely prevented by some sorts of nutrients or supplementary products can by no means be proved. Nevertheless, the role of natural supplementary nourishments has increased in the profilaxis of cancer.

Recent scientific studies about flavonoids and resveratrol confirmed that these natural vegetal substances have the ability to prevent the formation of free roots, they reduce oxidative stress and that they have anti-mitotic effect in carcinogenesis.

Resveratrol is a natural vegetal immune substance that prevents metastasis and the reproduction of tumour cells and has an anti-angiogenetic effect in neovascularisation. (1.)

According to Hungarian authors, it also induces apoptosis in human tumour cells and reduces mitotic activity.

Resveratrol and quercetine prevent effectively the expansion and proliferation of epidermal tumours. It is supposed to be an effective tool of chemo-prevention. (2.)

Resveratrol prevents COX-2 transcription in cancerous breast cells. (3.) Observations also confirm its preventive anti-inflammatory effect.

The flavonoids apigenine and quercetine both prevent the expansion and invasiveness of melanoma and for that, their application in therapeutic protocol is supposed to be justified.

Quercetine prevents P21-RAS-expression in primer human colon carcinoma. It plays also a chemo-preventive role in colorectalis carcinogenesis. (4-5).

Silyamrin has an anti-angiogenetic effect as well as it prevents lipo-peroxidation by its anti-peroxidative ability that it can bind free roots. It also prevents damages in the cell membrane. In the nucleus it increases ribosomal RNA synthesis by the activity of RNA 1-polymerase.

Because of the exasperating malignant tumour mortality data in Hungary, new profilactic treatments, tools and curing methods should be introduced, so the official, conventional curing methods should be applied together with scientific homeopathic complementary, holistic medicine and not separately.

Homeopathic supplementary treatment of cancer is accepted even by western medicine. Accepted complementary methods are the use of mistletoe and thyme extract, cell-, peptide- and enzyme therapy, physiotherapy, fitotherapy, symbiosis control, the organization of bacterium flora of the intestines, local and whole-body hyperthermia, ortomolecular treatment, and the use of antioxidants, which is essential in the daily treatment of patients with tumours in order to make empirical clinical observations.

The motto of our work can be the principles of "nil nocere" (Do not harm anybody) and "salus aegroti suprema lex" (Our guiding principle is to heal sick people).

Favourable scientific observations about flavonoids, resveratrol and anti-oxidants drew our

attention towards their application against malignant tumours.

Chance so ordained, that we could observe considerably slighter or no side effects of aggressive chemotherapy at all stomatitis, mucosity, vomitus, diarrhoea, allopecia or depression at several patients in our chemotherapeutic practice.

As it turned out, later these patients took capsules containing flavonoids and vitamin E.

- Scientifically proved effects of flavonoids:
- anti-tumour effect
- prevent mitosis and mutation
- anti-atherosclerotic effect
- anti-phlogistic effect
- anti-viral effect
- anti-allergetic effect.

They prevent LDL oxidation, reduce the risk of coronary and circulatory catastrophes, and thrombocyte aggregation.

Searching for home products we found one containing flavonoids, anti-cyanids, resveratrol and other antioxidants. László Szabó and his colleagues developed a product like this. Flavin7 is a non-medicine nourishment, supplementary product that is molecule-separated concentrate of fruits gathered from areas free from environmental harm and are sorted upon place and type.

Beside resveratrol, Flavin7 contains twelve flavonoids (e.g. crisine, galangine, apigenine, luteoline, fisetine, quercetine, hesperidine) and anticyanidines. As a fruit juice concentrate, it contains vitamins, trace elements, and minerals as well.

Clinical experiences in connection with the application of Flavin7:

We have observed in the case of more than 20 patients, mainly suffering from breast, digestive, abdominal, colonic or rectal cancer. According to the technical regulation beside physical examination, we applied laboratory parameters, tumour markers, staging examinations and special diagnostic methods with thorough analysis of the quality of life functions. This data can be found in the documentation of the patients.

We emphasize that in the complex, individual treatment strategy of malignant tumours the dominant factors are the modern academic medicine and the surgical, irradiational and medicinal (cytostatic, hormone, immune, supportive) therapy, but supplementary homeopathic activities and complementary medicine are also important factors. Moreover, the application of comprehensive, holistic method and treatment is the most important in the case of malignant tumours.

The first surprise of clinical experiences was the following. A patient with breast tumour, who could not be operated for her cardiac complaints, drank this special fruit concentrate only beside hormone therapy. After five months, regression was seen by a mammography. Since then, a year has passed and the lobular malignant tumour of 30 mm is only 14 mm now. Besides, the axillary metastatic lymphatic gland has been reduced. A cortical frame of 2-3 mm surrounds detectable lymphatic glands. The patient is in a balanced condition. She takes Flavin 72x5 ml daily and her cardiac status is quite well.

In the case of patients suffering from a breast tumour, we experienced that the side effects of chemotherapy were ceased or reduced by a degree mentioned above.

One of our patients took Flavin for three months. Her high G-GT is now only a tenth of what it was in size before the application of Flavin7.

In another case, decompensated cirrhosis of the liver has been compensated. In another inoperable patient suffering from abdominal cancer, a explorative laparotomy was done. After the application of Flavin7, regression could be indicated by abdominal examination. Since September, 2000 the patient is in good condition, he has gained 10 kg, works and drives car.

We have good experiences concerning other illnesses like Alzheimer's-disease, psoriasis, gravis arteriosclerosis, diabetes, and viral infections. Almost 100 GPs and 20 experts make further observations.

Application is per os only, contraindication is not known. Applied amount is 5 ml (2x5 ml from 40 years onwards) daily for prevention. In the case of illnesses, individual diagnosis is required depending on the particular illness. In the case of circulatory diseases, the applied amount is 2x5 ml. In the case of malignant tumours after radical operation, the applied amount is 2x5 ml only, while if the tumour is metastatic or extended, the normal dose is 2x10 ml, which can be increased to 3x10 ml.

Application of Flavin7 helps in coronary and circulatory diseases and malignant tumours and it reduces both morbidity and mortality.

BIBLIOGRAPHY

- -Kimura, Y. Okuda, H.: J., Nutr 131/6/1844-9., June 2001.
- -Szende, B., and his colleagues: Exp. Mol Med., 30. 32/2/88-92., June 2000.
- -Subbaramik, K. et al.: Ann-N-Y Acad. Sci., 889214-23., 1999.
- -Ranelletti, F. O. et al.: Int.-J. Cancer, 1. 85/3/438-45. February 2000.
- -Caltagrione, S., et al.: Int.-J. Cancer, 15. 87/4/595-600., August 2000.
- -Zhao. J. et al.: Carcinogenesis, 21/4/811-6., April 2000.

Dr. Sándor Erdos László Szabó

The place and role of complementary medicine in the complex treatment of patients with malignant tumours

The World Health Organization (WHO) calls the 21st century, as the century of integrative medicine and assumes the development of complementary medicine as well as conventional, academic medicine. They also assume that the two medical systems will not compete against each other, but collaborate on behalf of the patients.

The new paradigm of medical science unites academic, conventional medicine and complementary medicine that is scientific homeopathy.

Prof. Dr. Kálmán Rák, president of the Scientific Health Council, tried to ease the tension between complementary traditional, and conventional medicine in his balanced study. (Orvostovábbképz Szemle, November, 1999) Not integration and fusion of the two systems are required, he writes, but strict screening, regular and intentional research and listing of real values into medicine.

Confrontation and sharp separation of the two medical systems are as incorrect as talking about two types of medicine.

Prof. Rák makes a suggestion for doctors that they should support, strengthen and protect the official, so-called conventional medicine, which is taught in medical schools, practised in their institutions and which is compatible with medical laws and regulations and with the patient care systems of developed countries.

Nevertheless, we have to be aware of the state, performance, judgement, and social demand of complementary medicine in our country and in the developed countries of the world.

In addition, we also have to be aware of the modern application of complementary medicine.

However, scientific homeopathy is by no means as undisturbed, as it could have been expected on the basis of the decree of the Ministry of Social Welfare issued in 1997 (11/1997. NM).

At the same time, the scopes of activity of homeopathy were determined that may only be performed by doctors:

- -Homeopathic methods
- -Manualtherapeutic methods
- -Traditional Chinese medicine
- -Ayurvedic medical methods
- -Traditional Tibetan medicine
- -Biological dental treatment
- -Therapies based on oxygenation of blood
- -Neuraltherapeutic methods
- -Detoxification methods
- -Antroposophical methods
- -Methods based on bioresonance
- -Homeopathic examination methods with diagnostical purposes only

After the change of regime, disharmony of the homeopathic practice and the activity of unskilled, materialistic, and self-appointed homeo-therapists evoked a massive resistance among the doctors of conventional medicine and this resistance is still felt today.

Dr. József Tamasi, founder and chief editor of *Komplementer Medicina (Complementary Medicine)* writes in his editorial (Issue 4, Volume V., 2001): "The natural-scientific paradigm like one of the correct therapeutic approaches still dominates the thinking of medical society in a quite one-sided way.

Our leading doctors think this sort of approach to be indisputably valuable; however it excludes other ways of thinking to be present at the same time. They believe that with the appearance of holistic, psychosomatic, cybernetic, and multicausal methods the principles of science would be damaged."

They expect verification however; the most evident proofs are the recovery and the considerable change in the process of illnesses.

Homeopathic supplementary treatment of cancer is accepted even by western medicine. Accepted complementary methods are the use of mistletoe and thyme extract, cell-, peptide-and enzyme therapy, physiotherapy, fitotherapy, symbiosis control, the organization of bacterium flora of the intestines, local and whole-body hyperthermia, ortomolecular treatment and the use of antioxidants, which is essential in the daily treatment of patients with tumours in order to make empirical clinical observations.

However, the national legitimate regulation of scientific homeopathic activities permits the application of holistic medical methods of complementary medicine.

Nevertheless, we emphasize that in the complex, individual treatment strategy of malignant tumours, the dominant factors are the modern academic medicine and the surgical, irradiational and medicinal (cytostatic, hormone, immune, supportive) therapy, but there are also reasons for the existence of supplementary homeopathic activities and complementary medicine.

"For the diagnosis and therapy of a tumour we have to be aware of all supplementary methods as well as to apply them beside traditional medicine." Prof. Dr. S. Eckhardt

The chance of recovery from cancerous tumours has been improved in the last few decades. In spite of the successes of classical cancer therapy however, it is not as effective as it would be expected after more and more expensive diagnostical and therapeutic methods. Homeopathic methods should be applied with traditional methods as supplementary treatments during cancer therapy, which methods are suitable for prevention, for reducing the side effects of medical treatments and for restoring and maintaining health on a higher level.

Proper conventional methods cannot be replaced by the numerous supplementary methods we know of, but they make them much more effective.

It is rather difficult to know the ins and outs of homeopathic products (Avemar, Cat's Claw, Shark Cartilage, Culevit, Q10, Preventa, etc.) circulated in Hungary. It would be appropriate that the *Komplementer Medicina* should systematize these homeopathic products and inform the doctors and patients about their application and indication in summarizing studies.

After completing a course (*New trends in medicine complementary medicine*) at Imre Haynal Medical School, Faculty of Postgraduate Doctors we searched for home products and found this non-medicine nourishment supplementary product (licence number: 130/2/98.) that contains Flavin3 and *Flavin7* flavonoids, other antioxidants, antocyanidines and resveratrol.

Flavin7 is a molecule-separated concentrate of the juice and skin of black grape, black bramble, black currant, black cherry, plum, and apple. These fruits are gathered from areas free from environmental harm and are sorted upon place and type.

Flavin7 contains twelve flavonoids (e.g. crisine, galangine, apigenine, luteoline, fisetine, quercetine, hesperidine). As a fruit juice concentrate it contains vitamins, trace elements and minerals as well.

There is no such technology that would involve 140 kg fruit. The great discovery of the last few decades is the application of antioxidants and particularly flavonoids against various illnesses like in the prevention of malignant tumours. Moreover, flavonoids are most significant in the treatments as well.

Flavonoids are secondary products of vegetal metabolism. Their role in preventing illnesses and maintaining a general healthy condition was proved in laboratory and epidemiological studies. (1.)

In vegetal foodstuffs, flavonoids function as natural colouring agents, flavour components, or antioxidants. (2.)

Flavonoids are not nutritive components of foodstuffs so they do not have nutritive value for a human body.

Today about 4000 different structures of flavonoids are known. (3.) Flavonoid is a general name indicating 1,3 diphenyl-propane derivatives. 1,2 diphenyl-propane compounds are isoflavonoids and 1,2 dihenyl-propane derivatives are neoflavonoids.

Almost every plant synthesizes flavonoids. We can find quercetin and kempferol in fruits and in the leaves of vegetables while antocyanidines and their glycosides, antocyans give red colour to berried fruits like elder-berry, bramble, morello, grape, cherry, plum, aubergine and beetroot. (4.)

We have data of the flavonoid content and composition of numerous vegetal foodstuffs. An interesting observation is that apigenine and quercetine were indicated in pollen and in the mixed honey of the bees. (5.)

Flavonoids are relatively stable compounds. They are not sensitive to heat, oxygen or slight PH fluctuation. However, they can be damaged during the various methods of cooking. (6.)

Numerous American, Dutch and Danish work teams studied the flavonoid content of foodstuffs. The latest survey was done in Finland, where 24 different flavonoid contents were measured in more than 370 vegetal foodstuffs. Their absorption and metabolic processes were observed and the determination of optimal serum levels was found necessary.

Flavonoids are not toxic for animals of higher order, and neither for human beings; no teratogenic effect has been indicated so far, neither they are genotoxic in vivo. (7.)

Biological effects of flavonoids have been studied in several observation systems. Scientifically proven effects:

- -Antioxidant effect and/or ability of binding free roots
- -Immune-modulant and anti-phlogistic effect
- -Anti-allergenic effect
- -Modification of the activity of enzymes usually preventive effect
- -Anti-viral and anti-bacterial effect
- -Preventive effect in influencing mutagenesis and carcinogenesis
- -Hepatoprotective effect
- -Anti-atherosclerotic effect that increases vascular permeability

The above-mentioned abilities are sometimes bound up with each other: the ability of binding free roots results in hepatoprotective effect, antioxidant effect is the result of xantinoxidant prevention and from 5 lipo-oxygenase prevention it follows that flavonoids have anti-allergenic and anti-asthma effects.

The power of antioxidant ability is dependent on the structure of the molecule and shows positive relation with the degree of hydroxilation. (9.)

Before the turn of the millennium and also in 2001 scientific proceedings in connection with antioxidants, flavonoids and resveratrol were extended over malignant tumours as well as arteriosclerosis and coronary and circulatory disturbances.

We made a detailed description with bibliography about the role of flavonoids in the carcinogenesis in our last article. (*Komplementer Medicina*, Issue 4, Volume V., 2001)

The general state of health has been ever getting worse in the last three decades in Hungary. In 1999 life expectancy was 66.4 years in the case of men and 75.2 years in the case of women. It is far behind EU average, where in 1997 life expectancy was 74.8 and 81.2 years respectively.

Mortality in coronary diseases is triple while mortality, in arteriosclerotic diseases is the quadriple of EU average in Hungary.

Mortality in malignant tumours is almost the double of EU average. It is interesting that the mortality multiplier in the case of lung cancer is 2.5 while in the case of cervical cancer it is 3.5 when comparing with EU average. However, both morbidity and mortality are increasing in colorectalis cc. among either sex. A special problem in Hungary, that chronic liver diseases can mainly be traced back to a alcoholic origin, mortality is 7-8 times greater than it was 30 years ago.

Because of this exasperating mortality data, new profilactic treatments, tools, and curing methods should be introduced. Official and conventional curing methods should be applied together with scientific homeopathic complementary, holistic medicine and not separately.

We have already given an account of the experiences we have in connection with the application of *Flavin7* against malignant tumours. (*Komplementer Medicina*, 4 Issue, V., Volume, 2001)

Application of Flavin7 aids coronary and circulatory diseases and malignant

tumours and it reduces both morbidity and mortality.

However, we emphasize that the methods of conventional medicine are still dominant in the case of diagnostic algorithms, therapeutic protocol, and rehabilitation.

The goal of this article is to draw attention to complementary medicine, which is considered important by the WHO as well.

A homeopathic activity should not be rejected or turned down especially if it helps the patients' recovery.

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Bibliography

- 1. Luckner, M.: Secondary metabolism in plants and animals Chapman and Hal, London, 1972.
- 2. Harbone, J. B.: (ed. The Flavonoids) Advances in Research, Vol. 2. Chapman and Hal, London, 1988.
- 3. Singleton, V. L.: Flavonoids..., in Advances in foods research (ed. Childester. C.O. et al.) Academic Press, New York, pp 149-242 Vol. 27., 1981.
- 4. Herman, K.: On the occurrence of flavonol and flavone glycosides in vegetables Z. Lebensm. Unters Forsch., pp 1-5; 186., 1988.
- 5. Koryer, G. T.: Flavonoids and phytosterols as bioactive substances in dietary applied pollen products, in Functional foods A new challenge for the food chemists (ed. Laszity R. et al.)

Hungarian Chemical Society, Budapest, pp 102-108, 1999.

- 6. Pierpoint, W. S.: Flavonoids in the human diet Prog. Clin. Boil. Res. pp 125-140; 213., 1986.
- 7. Willhite, C. C.: Teratogenic potential of quercetine in the rat Food. Chem. Toxicol., pp 75-79; 20., 1982.
- 8. Kandaswani, C. Mindleton, E.: Free radical scavening and antioxidant activity of plant flavonoids

Adv. Exp. Med. Biol. pp 351-376; 366., 1994.

9. Kellis J. T. - Vickery, L. E.: Inhibition of human estrogen sinthetase (aromatase) by flavones Sci. pp 1032-1034; 225., 1984.