

The following article is a translated version of the original article by Dr. Dietrich Grün, M.D. that appeared in the famous German Magazine *raum & zeit* (Space and Time) in February 2007. Translation by P.Moulin, 2008.

How Electromagnetic Smog is Harming Us

New experiments confirm the Tesla research

by Dr. Dietrich Grün, M.D., Winnenden, Germany

Scientists have been denying the harmful effects of electromagnetic smog even today. Space and Time Magazine has repeatedly published critical researchers' results, which could have helped the mainstream scientists to re-evaluate their opinion. Dr. Dietrich Grün, a medical doctor, brings forward some new revealing information to reheat the discussion. His research, with the help of electro-acupuncture, gives surprising new insights of the effects of radiation on humans.

By Dr. Dietrich Grün, M.D., Winnenden, Germany

Electromagnetic fields are present everywhere in our modern civilisation and they are continuously increasing in their intensity. When comparing them to the naturally occurring electromagnetic fields, which have always been present, one observes that artificially generated fields can be million times stronger in certain frequency ranges. Science has investigated the biological effects of electromagnetic fields since the discovery of electricity and the Galvani-Experiment on a leg of a frog back in the 18th century. However, it received more attention only with the widespread use of mobile phone technology and the emerging health problems.



The pioneer of electro-chemistry: Luigi Galvani, 9. September 1737 – 4. December 1798, Italian doctor, anatomist and biophysicist.

About 5% of the population have been affected by it so far. There are many published articles discussing how scandalously mobile phone companies and Governments deal with the health hazards caused by

the use of mobile phone technology. But this is another topic beyond the scope of this article here. The blocked situation requires, however, to find alternative problem-solving strategies.

As a doctor who uses alternative therapies, I had the opportunity to measure how the various types of electromagnetic smog affect the energetic system of the acupuncture meridians. Since a negative effect was occurring repeatedly, I had the desire to do more research. The resulting discoveries have fundamentally changed my understanding of the phenomenon of electromagnetic smog.

Nicola Tesla, 10. 7. 1856 – 7. 1. 1943, was an important Serbian inventor and electro-engineer. The longitudinal waves (Tesla waves), which were discovered by him, can explain the effects of electromagnetic smog on humans.



I would like to discuss here a few essential discoveries, because I see in them a fruitful approach to solve this environmental problem, which goes beyond the currently known

standard solution strategies.

Please note that the electro-acupuncture system used here is the Quint system, which is a further development of the electro-acupuncture system after Voll.

Measuring the electrical skin resistance on selected acupuncture points enables one to make a statement about the current bioenergetic state of the meridian system. This state changes immediately when the skin gets in contact with a homoeopathic product, a water sample or some food item. It changes also in the environment of some powered on electrical device, such as a wireless phone, a floor

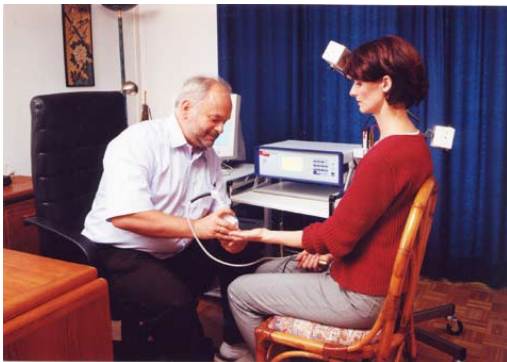
lamp, etc. One can show then on a scale, which currently has 315 levels, how strong the positive or negative influence is.

Constant Damaging Effects

A normal floor lamp reduces the initial measurement level, depending on the time and day of the week, by 20 to 50 levels. This effect disappears after the lamp is plugged off from the wall outlet. The effects are significantly stronger during the day than in the evenings or on holidays. A short mobile phone call by a person who is not especially electrosensitive reduces the measured state by about 30 levels. This lowering effect does not disappear after the mobile phone is turned off and put away. It accumulates with further consecutive phone calls. It also grows with longer phone calls by about 20 levels per minute. One can see here already that the electromagnetic smog caused by a mobile phone device is of another and longer lasting quality than normal electricity coming from a wall outlet. Residing near a microwave transmitting tower has a similarly lasting effect but to a much lower degree. On the other hand, one might spend significantly more time in the vicinity of such a tower.

It has been repeatedly stated it is the pulsing of the microwaves in the wireless phone communication, which is disturbing the health. This is accurate as Figure 1 shows to the right.

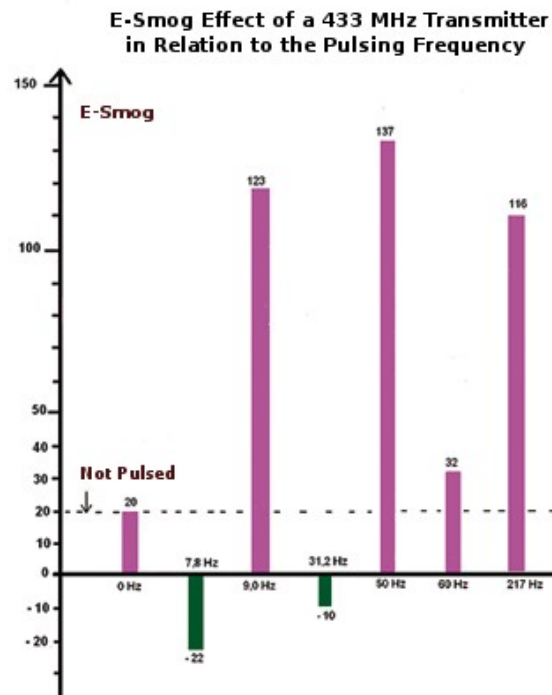
A small microwave transmitter was used with about 15 mW power, a frequency of 433 MHz and some



How mobile phones affect the organism can be shown with Voll's electro acupuncture system.
©Quintysteme GmbH

rectangular signals of different frequencies. It is interesting to observe that a pulsing with the natural frequency of earth's electromagnetic field of 7.8 Hertz and its octaves neutralises the negative effects of the transmitter to such an extent that it begins to show positive effects. Whereas the pulsing frequency of 217 Hertz emitted by a mobile phone causes the high-frequency radiation of 433 MHz to be significantly more disturbing.

Figure 1



It would be interesting to see, whether the ascertained frequencies by Global Scaling could be verified as biologically compatible or not.

In view of the generally known health hazards caused by the use of mobile phone technology, it is generally recommended to limit the use of mobile phones and to voice a demand to lower the emission limits. Both would reduce the risks, but it would not eliminate them. And both recommendations are not translated into action even today.

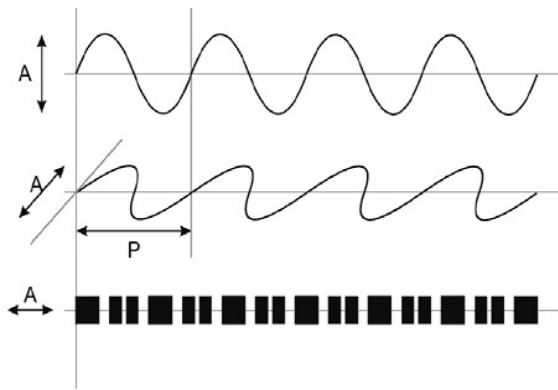
That is why I have chosen another approach and tried to influence the radiation of the mobile phone in such a way that the biologically harmful effects disappear. I was aware that there were already products on the market that tried to neutralise the harmful radiation. Like many other specialists, I also considered them at that time (2001) for some kind of charlatanism, because I could not understand the physics of their functioning. Strangely enough, those neutralisation chips proved to be effective in electrical acupuncture tests and my patients lost the discomforts, which they previously had using their mobile phone.

Biologically Affecting Radiation That Is Not Detectable By Conventional Methods

Using a normal field measuring device, I could paradoxically still measure the same intensity of radiation coming from a mobile phone that contained such a neutralisation chip. Normally, such chips are then considered to

have no effect. This is because one assumes that the measured radiation is also the biologically active principle and that it has to disappear using some shielding. However, in the experiment with the mobile phone, the biologically negative effects of the electromagnetic waves disappeared, while the measurable waves were still present and undiminished in their strength. This apparent contradiction leads to two conclusions.

1. The radiation of a mobile phone – and this, according to my research, applies equally to any other electrical device – has to contain some kind of radiation, which is not detectable with my



Transversal waves (above and middle) vibrate vertically to their direction of expansion. Scalar-waves are longitudinal waves (below) and have been considered so far as hypothetical.

Electromagnetic Waves

Electromagnetic waves are transversal waves. They consist of connected electrical and magnetic fields. The corresponding field vectors vibrate vertically to the direction of the expanding electromagnetic wave. They are physically detectable and are theoretically described by Maxwell's equations. On the other hand, electromagnetic longitudinal waves have not been verified. They are being proposed by Nicola Tesla and Konstantyn Meyl. Longitudinal waves vibrate parallel to the direction of the expanding electromagnetic wave. According to physics they always need a medium in order to spread. Examples of longitudinal waves are sound waves and pressure waves.

technical equipment. Precisely this part of the radiation, however, is the biologically active one. The measurable waves begin to have a biological effect only above a certain intensity through their exothermic qualities. This is why threshold values have been established. The effects, which appear far below this limit, are called non-thermal effects and are known already for a long time (Schliephake, 1932). Their existence is nowadays not disputed any longer.

2. The detectable waves have no biological effects below the exothermically effective threshold. In other words, most research into the nature of electromagnetic smog is based on a wrong assumption that the detectable waves, i.e. the transversal waves (also called Hertz waves), are responsible for the biologically negative effects.

If you take this simple experiment and the resulting conclusions serious, it would revolutionize the research into the hazards of electromagnetic radiation.

On the other hand, one has to state that the biologically effective radiation is generally always appearing together with detectable electromagnetic waves. One can assume therefore that wherever one measures electromagnetic fields using standard field measuring devices

that the biologically affecting fields must also be present. Insofar it is legitimate to work with currently available field measuring devices. But they cannot give you more than circumstantial evidence of possible biological effects. This is why the often voiced demand for precision in measurement is superfluous, because it will lead to wrong conclusions.

The next question then is: what kind of radiation is it that is responsible for the biologically damaging effects of electromagnetic fields? What are the laws of nature that rule them?

Since I was able to quantify the biologically damaging effects of this radiation by using the system of electro-acupuncture, I had at my disposal an almost ideal research method to conduct further experiments, in order to analyse the nature of this radiation and the laws under which it functions.

Testing Shielding Devices: The Faraday Cage

First Experiment

One normally shields unwanted electromagnetic fields with the use of metal grids, metal foil or sheet metal. In addition, persons who live near a microwave tower and started to have discomforts – most often beginning with sleeping disorders – use with success the principle of

the Faraday cage. One suspected that such a shielding could indeed reduce the biologically harming effects of the microwaves emitted by a mobile phone. But something completely different happened. The biological effects of the radiation behind such a shielding became, according to my measurements, suddenly positive. In other words, contrary to the currently known principles of electrophysics, this particular type of radiation penetrates the metal shielding and reverses its biological effects. This is how I began to understand, why the use to the principle of Faraday cages can be practical and helpful with persons who display high levels of electro-sensitivity. It showed why this solution was also not satisfactory on the long run, because the biologically active radiation was not stopped. Only the detectable radiation was stopped, but this one is not really the real source for the complaints.

Water Stores Electromagnetic Smog

Second Experiment

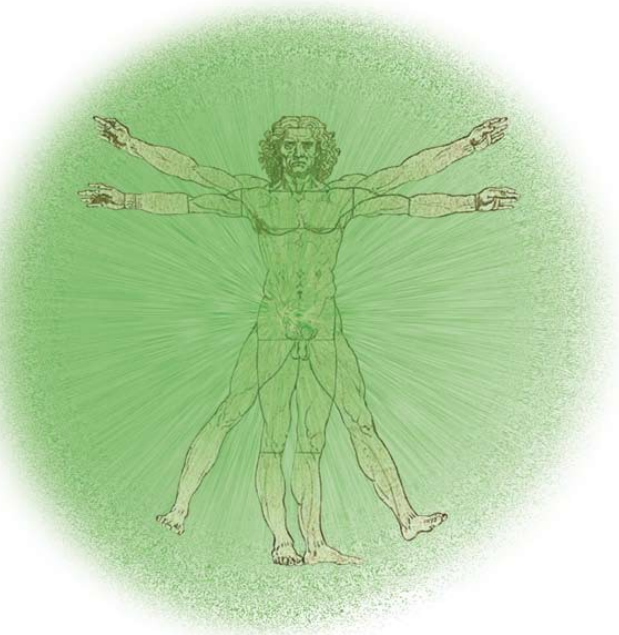
The electro-acupuncture test shows that when normal water has been exposed to radiation by a mobile phone (30 seconds is sufficient), it also starts to exhibit the negative effects. If one applies the previous experiment and puts normal water into a thick metal container, then

the negative effect inverts into a positive effect. There is no effect, however, when a mobile phone together with one of the disputed neutralisation chips is used. Due to the fact that water exhibited the ability to store information, it became possible to conduct a series of experiments, which otherwise would have been very difficult to set up. We could measure the effects of electromagnetic smog in the vicinity of power lines, adapter stations and microwave towers, and test relevant procedures for neutralisation. The water samples had somehow to be isolated and shielded, for which the Faraday cage, as shown in the previous experiment, was not suitable. Some further experiment described below provided the solution. One has to note here that certain types of water, such as a selection of mineral water and water, which was energised with the help of some revitalisation device, did not exhibit the effect of a negative charge. One could say that they were electromagnetic smog resistant. Testing with water samples proved to be very helpful in the course of my further research.

Tree Leaves Are Shielding

Third experiment

The third experiment showed that the radiation in question could not penetrate through water of 2.5cm depth or more. Some electrosensitive person who lived nearby a microwave tower and where also several trees were in between, observed that he felt better in the summer than in the winter when the trees did not carry any leaves. If you measure the radiation emitted by such a microwave tower on tree leaves and fruits facing the tower and on the ones that are not facing the tower, then both are showing a negative charge, because they contain water (as seen in the previous experiment). However, one can observe a significantly less negative effect on the leaves and fruits on



Electro-acupuncture measurements reveal astonishing relationships. For example, humans literally attract the radiation.

the side that is not facing the tower.

Metal As A Good Conductor

Fourth experiment

These waves get transferred well up to 50 metres through electrically conducting media, such as metal constructions and cables. When you apply a neutralisation device to the main power line of a house, then the light bulb, which gets its power from a wall outlet in the house on the opposite side of the street, is free from electromagnetic smog. The electronic devices that contribute normally to the electromagnetic smog in the house will largely be free from it. However, it would not be sufficient for laptop computers that have their own adapter.

Humans Attract Radiation

Fifth Experiment

The investigated radiation is being actively absorbed by a biological organism. It is as if a biological organism is attracting this radiation. In this experiment we installed an

experimental high frequency transmitter of 6.8 MHz and about 100mW at a distance of 2 meters from a test person. Electroacupuncture measurements indicated a certain electromagnetic smog effect.

If one placed a second test person just 50cm next to the transmitter without obstructing the direct view of the first person to the transmitter, then the electromagnetic smog effect disappeared completely in the first person. Similarly, the effect on water, which sits in a Faraday cage and is placed nearby the transmitter (about 80cm away), is significantly reduced, when a second person is present in the room (about 2 metres away from the transmitter).

We were able to make similar observations with electrosensitive persons.

I know of case, in which both the mother and the daughter are considered electrosensitive. However, the mother was more sensitive than the daughter. When both stroll in the vicinity of a microwave tower, then the mother has significant

discomforts, while the daughter doesn't. When, however, the daughter is on the way on her own, then she gets again the known discomforts. The body of the mother is a better resonator for the biologically effective radiation and absorbs them to the degree, where the daughter does not feel them any more.

This behaviour contradicts the known laws of expansion of Hertz waves and indicates that we are dealing here with another kind of electromagnetic waves. At the same time, we find, however, a direction for suitable neutralisation devices. They must possess a stronger resonating ability than the human body, or they should be placed as close as possible near the source of the electromagnetic smog emissions.

Crystals and Geometric Forms Change Electromagnetic Information

Sixth Experiment

Crystals (in the most simple case a salt crystal) and certain geometric forms (such as spirals) can change the biological effects of the investigated waves. A number of neutralisation devices is based on this principle. One can hypothesize here that it is not the energy of the waves, which is being absorbed. Instead, the information content, which is carried by the waves, is



Nicola Tesla in his laboratory in Colorado (USA) at around 1900.

being modified in such a way that the waves do not disturb any longer.

If such radiation that is generated by artificial electromagnetic fields displays a biologically harmful effect, then the fundamental question arises, whether there exists some radiation that has a biologically positive effect. The experiment where a high frequency radiation is modulated by the Schumann frequency of 7.8 Hz – the resonating frequency of earth – hints already at this possibility. In fact, this is already being therapeutically used today in many bioresonance devices.

One should emphasize at this point that it may be elusive to find in this way a quick solution for electro-sensitive people. The ability of their body to resonate with the radiation is often stronger than the common neutralisation devices.

This leads to the situation that the body continues to absorb the whole radiation and the complaints continue to be felt. The health problem of these people, who generally have ample other health related problems, requires special medical care. For example, if an organism contains a lot of heavy metals, then it is not able to handle the ad-

Electromagnetic Longitudinal Waves

In 1890, Nicola Tesla conducted an experiment in Colorado Springs (USA), in which he built a 10 kilowatt longitudinal wave transmitter. He then set up a receiver for longitudinal waves about 40 km away and, similarly to the tuning of a radio, had it set into resonance. Once the receiver was in this way set up, the entire 10 kilowatt transmitting power was received and a whole battery of light bulbs could be powered.

Parallel to this, a very strange phenomenon was observed on cows and horses on the meadows in the vicinity. They showed an abnormal behaviour, which only disappeared, once the receiver was tuned in and had absorbed the entire transmitting power. One wonders what is happening with us humans and nature around us, when we are widely exposed to such longitudinal waves, albeit waves of a lesser intensity than the ones created in the historic experiment of Nicola Tesla.

ditional stress of electromagnetic smog. The result is an oversensitivity, which appears to be similar to allergies. (see also the magazine *raum&zeit*, number 140, "Wahnsinn Mobilfunk – Studien bestätigen Elektrosensible"). In addition to this, there is, amongst other studies, a rightfully shocking collection of case studies reported by Dr. Cornelia Waldmann-Selsam, M.D., from Bamberg (Germany).

Salt Crystal Lamp Neutralises Mobile Phone Radiation

Seventh Experiment

A seventh experiment uses the properties of a salt crystal to neutralize the harmful mobile phone radiation. Electro-acupuncture tests indicate that salt crystals give a positive effect when one touches them. Equally, when one turns on a salt crystal lamp in a room, one can measure a positive bioenergetical effect, which otherwise does not exist, when the lamp is turned off.

The question that arises here is, whether the light emitted by the lamp is able to transmit the neutralising effect, which is inherent in the salt crystal. Indeed, making a phone call with a mobile phone nearby the lamp, which was already



turned on, showed that the biologically harmful effects were being neutralised. This poses a fundamental question, whether that, which is possible with light, is also applicable to other electromagnetic waves. Relevant tests could confirm this also for the frequencies of mobile phone communication.

There was an alarming observation. If one exposes a homoeopathic high potency preparation to the radiation of a normal mobile phone, then the homoeopathic product loses completely its effect within 10 seconds. If one takes a suitable homoeopathic high potency preparation, whose effects become clearly visible with electro-acupuncture tests, then these effects disappear again after just a short phone call using a mobile phone. This can be avoided by using an e-smog neutralising device.

The above mentioned properties of these unknown waves, especially the ability to pass through the shielding of a Faraday cage, fit very well to characteristics of the waves that were described by Nicola Tesla over 100 years ago. These waves are known as Tesla waves, scalar waves or longitudinal waves. Tesla could demonstrate in a memorable experiment the property of resonance and, involuntarily, the ability of biological organisms to absorb these waves (see box on the previous page).

Irradiated Water Obstructs Growth

There is a lot in favour that the waves, which are responsible for the electromagnetic smog, are identical to the waves which Nicola Tesla discovered and which were later named after him. It was his observation that these waves pass through a Faraday cage and that a suitable resonator could absorb the entire amount of the emitted radiation. It is these principles of resonance, which – contradicting the

properties of Hertz waves – cancel the biologically disturbing effects of the Tesla waves.

However, the method of electro-acupuncture, with which all the above mentioned experiments were conducted, has been scientifically not accepted so far. It was therefore necessary to demonstrate some of these above mentioned relationships through another biological model.

For this, wheat seeds were brought to germinate by supplying normal tap water, which had been exposed to mobile phone radiation for about one minute. Its growth was compared to a sample of wheat seeds, which received non-irradiated tap water. The samples that received the irradiated water showed a significantly slower growth. Other researchers have conducted similar experiments. Amongst them is Professor Herbert Klima from Vienna (Austria) and Professor Bernd Kröplin from Stuttgart (Germany). Both researchers got similar results. This type of experiment can easily be replicated by lay-men. One has to take into account a few details, which, however, can be obtained from the author of this article.

A third group of wheat seed samples also received normal tap water, which was previously exposed to mobile phone radiation. In this case, the mobile phone was equipped with a neutralisation chip. No obstructing influences to the plant growth could be observed. This experiment has been successfully replicated by other researchers.

From this very simple experiment one can make again some far reaching conclusions. The wheat seeds were not exposed to any radiation during the experiment. It

was the information contained in the water that created the effect. However, most researchers assume that there must be a direct physical effect of electromagnetic waves. This may apply to thermal effects and also to situations, where electrical current runs

through biological tissues. On the other hand, biological effects were already observed in intensities that were 500'000 times below the thermally effective limits. Nevertheless, a majority of researchers follows the hypothesis

that we deal here with physical effects of directly measurable radiation that happens to be dependent on the intensity of the radiation.

In this context it is interesting to mention the REFLEX study of Professor Franz Adlkofer. A strange phenomenon was observed in his study, where human cell cultures, which were exposed to mobile phone radiation, suffered from chromosome damages. When one gradually increases the intensity of radiation, then the occurrence of damages started at a certain level of intensity, but unexpectedly, damages began to decrease after a certain higher level of intensity of radiation was reached and gradually disappeared.

Biological Window

This phenomenon is known as biological window. It does, however, not fit with the understanding of a purely physical and therefore intensity dependent cause and effect. Some have been debating, whether it is related to an activation of self-repair mechanisms that are dependent on certain amounts of radiation. When experimenting

If one exposes a homoeopathic high potency preparation to the radiation of a non-protected mobile phone, then the high potency will be destroyed within 10 seconds.



Wheat seeds are hampered in their growth when they are watered with tap water, which has been exposed to mobile phone radiation. If one neutralises, however, the radiation then growth remains normal. © D.Grün

with wheat seeds, one could observe this effect particularly well with wheat seeds that had already some kind of damage. Healthy wheat seeds, which were exposed to mobile phone radiation, may sometimes show no significant difference in strength of growth to non-irradiated samples. In some cases they may grow even faster, at least in the first 5 days, which was the length of the experiment.

This phenomenon may help to understand, why some people become very ill when exposed to mobile phone radiation, while others appear to be not affected at all. The predisposition of how well the biological system can adapt itself to outside influences is an important factor, when one is conducting such experiments. This phenomenon may also explain, why some even carefully designed experiments seem not to be able to find a biologically harming effect of electromagnetic waves.

All these factors are not unknown, at least amongst practitioners of alternative medicine. They also prefer to make use of the biologically positive aspects of the Tesla waves. Unfortunately, this knowledge is nowadays mostly ignored by conventional physicists, or worse, it is even attacked by them.

An insight into this situation is given by Professor Ulrich Warnke at Saarbrücken University in Germany. In his lecture “Macht Mobilfunk krank?” he says in his closing words: “Did we fundamentally choose the wrong approach when dealing with electromagnetic smog, because only the transversal electromagnetic wave is measured and observed, but not the longitudinal wave? The future will bring here a decision.”


“Fundamentally ... the wrong approach?” is a very clear statement. One should consider in addition that electromagnetic smog is an omnipresent ecological problem, whose dimension currently cannot be fully determined. The currently known harmful effects are, however, alarming enough. After all, these are sleeping disorders, headache, problems with concentration, a variety of vegetative disorders and higher risk for cancer in the vicinity of microwave towers. Not only humans are affected, but animals and plants as well.

My opinion is that these above discussed laws of nature can bring to an end the political debate of possible health hazards of mobile phone radiation. One could develop concrete solutions, which go far beyond the currently discussed possibilities of shielding and minimi-

zation of exposure to radiation.

Summary

The biologically harming effects of the electromagnetic fields in the non-thermal range is caused by longitudinal or Tesla waves that appear within the field of measur-



The Author

Dr. Dietrich Grün, M.D., born in 1940, studied Medicine in Munich, Germany.

Since 1978, he has been practicing as a doctor specialised in natural medicine in Munich, and since 1984 in Winnenden, Germany. Since 1998 he is using the system of electro-acupuncture to conduct research in the area of information medicine, revitalisation of water, electro smog, and scalar wave medicine.

Dr. Grün developed in the process of his research neutralisation devices for geopathogene zones and electromagnetic smog.

able transversal waves. Their effects are not based on energetic or physical properties, but are based on their ability to carry information. So far, one cannot measure Tesla waves with conventional field measuring devices. One needs therefore biological measurements.

Using such a method, we could study the laws, which seem to control these Tesla waves. Nicola Tesla described already some of these laws. The application of these laws enables us to neutralise the biologically harming effects of these longitudinal waves, without influencing the transversal waves which are being utilized by technical devices. An experimental approach, which enabled us to discover these laws was discussed. The result is that one can solve the problem of electromagnetic smog by using a suitable technology that can handle the longitudinal waves.