Welcome to the final Issue #12 of “The Bridge” newsletter for 2013! In this Issue we finalize the seven part series of articles by the esteemed Prof. Dr. Harmut Heine on The Ground Regulation System. Here one final time are the titles of all seven articles:

Part 1 – The Ground Regulation [A History and Background] – Published Issue #3
Part 2 – GRS as a non-linear system – structure, function and determined chaos – Published Issue #5
Part 3 – GRS as a non-linear system – structural components of the extracellular matrix (ECM) – Published Issue #7.
Part 4 – Spatial structure of the ECM and material transport within the system – Published Issue #9
Part 5 – Contact, limitation and clogging up: Cell adhesion, basal membrane and glycosylation – Published Issue #10
Part 6 – Functional relations of the ground regulation with the central nervous system – Published Issue #11
Part 7 – The Ground Regulation and the Circadian Rhythm
– The Ground Regulation and Alzheimer Dementia
Published in this Issue #12

And, from our honored Medical Advisor Dr. Tony Scott-Morley we have these words: “At last, as promised, my article. I am feeling very guilty about the long delay so to make up for it I am sending two articles. The first one (Biological Index) is aimed for relative newcomers to BioResonance, and the latter part of the second article on "Spin" is aimed at more advanced practitioners.” This delay that Dr. Tony feels so badly about was caused through a delayed surgery and we were happy to wait patiently to assure he experienced a full recovery – but, we got two great articles instead of one! What a great bonus.

So, this is a really dynamite final 2013 issue folks. Three full articles plus announcements, new seminar and tour dates and of course our usual updates and reminders.
Reminder: All Volume 9 Issues of “The Bridge” will also be published on our website and are available to download in pdf/print format. Follow this link to download your PDF copy of Issue #12.

Renewal to “The Bridge” newsletter for 2014 will again be a paid subscription of $35. Renew before 30 December 2013 and take advantage of the early renewal fee of $30! You can simply call the office today with c/c information, or we will post a short subscription form online shortly which you can mail or fax with your details.

The Special 40th Anniversary Biological Medicine Tour to Germany program is history. Altogether twelve practitioners joined us for the three separate portions of the two week tour through Germany and Switzerland – and what a great group it was! We had good food, many good conversations and discussions and – most importantly – heard educational and enlightening lectures from numerous famous Biological Medicine practitioners and researchers. We even visited three different but complementary biological medicine clinics.

I have written a Germany Tour Report about all the events and activities from that tour program and included some of the many pictures taken during our adventures and travels. It has been posted online and should ‘whet your whistle’ (so to speak) to join us next year.

I have already been contacted by several speakers and a clinic who want to speak to the 2014 tour group. Dates for the 48th Medicine Week Congress have been confirmed for Oct. 29 through Nov. 2, and thus dates for our 41st Biological Medicine Tour program to Germany will run Oct. 28 through Nov. 3, 2014. You can’t say I haven’t given you enough time to plan!

Also now confirmed are the dates for our Biological Medicine Symposium 2014. As you know, we have worked together with Dr. Simon Yu and the Prevention and Healing organization in St. Louis, Missouri to sponsor an international conference in alternate years. Last year’s conference in St. Louis was attended by about 120 practitioners and featured an exceptional exhibit area.

For OIRF’s turn this year, the conference will again be held in Vancouver, BC, Canada on September 12-14, 2014. Invited speakers include:

- **Dietrich Klinghardt**, MD, PhD, USA/Germany
- **Karim Dhanani**, ND, Canada
- **Dan Beilin**, OMD, USA
- **Silvia Binder**, ND, PhD, USA/Germany
- **Ted Cole**, DO, USA
- **Tina Först**, HP, MA, Germany
- **Gary Gordon**, MD, DO, MD(H), USA
- **Arndt Kalinke**, HP, Germany
- **Marguerite Lane**, ND, Australia
- **Hans-Jürgen Schwartz**, DDS, Canada
- **Simon Yu**, MD, USA

Watch the website for full registration, speaker, venue and exhibitor details, and plan now to attend.

So, here are your newsletter items for this Issue #12:
Over a long period of time the ancient theory of the [bodily] humors has changed to the Ground Regulation System (GRS). The oldest and most effective theory of the history of medicine thus became a theory of complementary medicine. Here school [orthodox] medicine and complementary medicine find a common denominator. In the previous parts the historical background was explained (Part 1), the GRS was introduced as a non-linear system (Parts 2 and 3), a structural analysis of the extracellular matrix was carried out (Part 4), and aspects of cell adhesion, the basal membrane and glycosylation were reported (Part 5). After the representation of the working principles of the neuronal network (fuzzy logic) and a view of the importance of the perineuronal extracellular matrix for learning and memory performance in people (Part 6) in this concluding 7th Part a consideration of the relationships of the ground regulation to the circadian rhythm as well as to Alzheimer Dementia follows.

Circadian Rhythm and the Ground Regulation

As was described in the example of entrainment between cell associations, the underlying basal membrane and the ECM connected with it (Part 3), the coordination of all extra-intracellular metabolism processes occurs rhythmically. Periodic processes in biological systems serve the temporal and spatial organization of the life processes and increase the reliability of information transfer.
Rhythms are order-creating; hence, the efficiency of an organism essentially depends on the synchronization of its biorhythms. This is also the scientific background of “Ordnungstherapie” [possibly translates as “regulation therapy” – see Translator’s Notes*], Traditional Chinese Medicine (TCM) and Ayurveda [11].

The division into periods of long-term rhythmical functions is important for human beings. In the long wave range the daily, weekly and yearly rhythms are found. The short wave range is located at the molecular level. The functional clamp between both ranges forms the rhythmic system of the circulation and respiration; generally more from tension and relaxation. Added to that, all rhythms show a sympathetically-steered activity phase during the day and a nightly parasympathetically-steered recovery and development phase. An impressive example is established by the phases linking between heart rhythm and arterial pulse. After 3:00 AM at night the linkage drops precipitously and reaches the daily minimum around 9:00 AM. Correspondingly the incidence distribution of angina pectoris attacks and cardiac infarctions shows a clear increase in numbers in the early morning hours (Overview in [11]). In the middle of the night the linkages regenerate. Hence the cardiac infarction assumes not only an organ specific disturbance, but also a disturbance of the circadian rhythmic regulation foundation [11].

The most important of all order-creating rhythms for human beings is the day-night rhythm (circadian rhythm) (Fig. 1, 2). This body clock determines all organ functions. The circadian rhythm can gradually adapt itself with a longer stay in another time zone. Nevertheless, frequent short-term day-night changes can detrimentally affect the organ functions (among others things “jetlag”, heart-circulation disturbances and stomach-intestinal problems) (Overview [11]). Animal experiments could be shown that on rats in each case a frequent 3-day persistent light-dark change can considerably disturb the circadian rhythm, among other things with a reduction of the blood leukocyte numbers and with a decrease of defensive performance [15] (this could explain the infection susceptibility and other somatoform disturbances e.g. with “jetlag”). Inoculated tumors began better on mice under these changing circumstances than with the controls. Melatonin doses can nearly neutralize against the effects of the experimental photo-periodic changes [15].

The suprachiasmatic nucleus of the circadian rhythm lies at the basis of an autoregulatory feedback loop to the hypothalamus as the neuro-endocrine control center and to the

**Translator’s Notes:**
* The term Ordnungstherapie was introduced by Bircher-Benner as an umbrella term in 1937 to describe a complex concept of naturopathic therapies. It comprises, with certain limitations for phytotherapy, the therapies which nowadays define European naturopathy. Yet, in European naturopathy today Ordnungstherapie is mostly considered as one out of 5 constituents of naturopathy (dietotherapy, hydrotherapy, exercise therapy, phytotherapy, Ordnungstherapie). The classification of Ordnungstherapie as one of the 5 pillars of the Kneipp therapy was only done by Kneipp physicians in the middle of the 20th century and needs to be thought over.
rhythmic clock (Fig. 1). From here exist not only connections to the retina of the eyes (retinohypothalamic bundle), but also to the rhythmic activity of the “clock proteins” (ospin) just as they are found in all cells [2, 5, 11]. Clock proteins appear in a diurnal and a nocturnal form and show at the same time transcription factors which switch on or switch off the genes for the brightness phase or the darkness phase. Examples are the cortisol necessary for the start of the early morning activity phase with a morning maximum activity at around approx. 7:00 AM [19], or the nightly inhibition of the immune system [13].

Figure 1: The suprachiasmatic nucleus as the clock of all rhythmically controlled metabolism processes in the body (from [11]). [See translator's notes for translation of terms.]

Translator’s Note Figure 1:
For Figure 1 I simply did not want to “mess” with this precise and meticulous diagram. Please see the chart on the next page for a translation of the terms which you can utilize to follow these connections.
The nightly formation of melatonin in the pineal gland (epiphysis) is of particular importance because it intervenes in all functions of the endocrine glands. Melatonin coordinates external stimuli like temperature, light, electromagnetism, immune reactions and climate with internal conditions (among others, sleep-waking rhythms, psychogenic stimuli, gonad antioxidation development and function, and aging processes) [4, 20]. The epiphysis not only has connections to the optics, but also to the limbic system and with it intervenes in our affective tone [emotional tone, feeling tone] [20]. Too little light leads to increased melatonin secretion and with it among other things to the reduction of serotonin with a corresponding depressive mood situation, lethargy, concentration weakness, attack-like phases of eating addiction and overweight. During the light-weak winter months these condition disturbances increasingly appear (photoperiodicity). Nevertheless as appeared in the Scandinavian countries, there is accessibility to light therapy (Overview in [13]).
The ECM also exhibits a distinctive circadian rhythm in the quality and quantity of PG/GAGs (Fig. 2). At night the PG/GAGs of the blood plasma show a maximum about 3:00 AM, also in the degree of their sulphation and protein binding. Correspondingly at night water binding and electrolyte binding are increased. Until 8:00 AM in the morning this maximum changes over into a minimum with a corresponding maximum in urine excretion. Already Quincke (1883) [17] had observed a reverse rhythm in sick people, which was confirmed afterwards with chronically ill people (Overview in [14]). The nightly minimum in glucocorticoids (among others cortisol) and catecholamines promotes the synthesis and sulphation of the PG/GAGs and at the same time lowers the phagocytosis performance of the macrophages, neutrophils and the reticuloendothelial systems [8, 18]. The normal, like carcinogenic cell proliferation, is obviously correlated with the plasma concentration in the chondroitin sulfate PG [19, 21]. Increased nightly sulphation of the PG/GAGs leads additionally to increased radical capture, e.g. to increased inflammation inhibition [1]. This corresponds completely to the nightly parasympathetic regenerative phase. The antibody (gamma globulin) producing B-lymphocytes are obviously less inhibited at night. Then their serum level reaches a maximum about 4:00 AM (Fig. 2) (Overview in [11]).

**Figure 2:** Biorhythms of the Ground Regulation

a) The lines passing through indicate the circadian rhythm of the sympathicotonic, ergotropic performance phase. This line follows the phagocytes, T-suppressor cells, catecholamine, cortisol and the blood pressure. The dotted line makes the parasympathetic regenerations phase clear. This line follows the cell proliferation, inhibition of the NK cell activity, T-Helper cells, immunoglobulin, skin temperature.

b) PG/GAGs and their sulphation level reach a maximum about 4:00 AM, a minimum about 8:00 AM, accompanied by water, electrolyte and protein binding (densitometry of isoelectric focusing for values of plasma PG/GAGs of healthy adults) (from [8]).

The PNIEE (psycho-neuro-immuno-entero-endocrine) complex is quite decisively involved in circadian rhythm events [12]. With bio-psycho-social stress like individual worries (e.g. occupation, family, social position, environment and nutrition) the complex leads to unspecific reactions of the body. This somatoform expresses itself above all in
disturbances of the stomach-intestinal function (up to gastric/peptic ulcers and intestinal inflammations/enteritis) and the heart-circulatory function (Overview in [13]). The serotonin (5-hydroxytryptamine, 5HT) forming the enteroendocrine (“enterochromaffin”) cells of the small intestine epithelium has particular importance in the PNIEE complex. Serotonin is formed from the amino acid tryptophan contained in food and intervenes in a huge number of control circuits of the intestinal mucous membrane, among other things intestinal peristalsis and intestinal blood circulation as well as in their immunological tolerance. Serotonin delivered into the bloodstream effects the regulation of the blood pressure, body temperature, endocrine activity, eating behavior, sexual behavior, vomiting, nociception, and motor activity [15].

In the brain serotonin formed neurons only occur in the area of the rhombencephalons. From there outgoing axon bundles reach all centers of the psychic experience: the hypothalamus, the amygdala, the limbic system and the cerebral cortex. Serotonin deficiency is connected with the appearance of depression [22]. The serotoninergic system connects the “intestinal brain” with the CNS and hence intervenes quite substantially in the ground regulation.

Alzheimer Dementia (AD) and the Ground Regulation

AD is the most widespread neurodegenerative illness in the aged. Two thirds of all dementia patients are affected by AD (Overview in [11]). In the investigation of AD the focus of attention is the hereditary components, which the neurons exclusively allow as suppliers of the plaque forming amyloid-beta. However hereditary AD constitutes only about 3-5% of AD cases [6, 7]. Nevertheless the knowledge obtained is simply applied to the non-hereditary (“sporadic”) AD. Because about 97% of the plaque-formed amyloid-beta is formed through appican by astrocytes, the focus of attention for AD is the astrocytes and not the neurons [9, 10, 11, 16]! “This means that the knowledge obtained for hereditary AD may not simply be transferred to sporadic AD” [13]. In spite of all efforts up to date there are only symptomatic therapy attempts [13].

As described above collagen and elastin are substituted in the PECM by appican. Because old age represents a proinflammatory process, among other things with increased generation of plasmin the chondroitin sulfate side chains are fissioned off from appican; falling behind the plaque formed amyloid-beta proteins (Aβ proteins). The necessary plasmin level is supplied by the microglial cells [3, 11, 16].

By means of microdialysis of the water in the ECM of brain injured people, as well as experimentally on animals, it can be shown that the Aβ proteins are a normal component of the PECM. They first increase in the proinflammatory aging process. The molecule is obviously important for the preservation of the normal oncotic pressure in the PECM.
This guarantees the preservation of “tensegrity” (tissue tension) of the PECM and is of extraordinary importance for the maintenance of the nurse function of the astrocytes with regard to the neurons. Then synapses between the neurons are guarded by the astrocyte processes (Fig. 3). In the remaining space (about 20 to 50 nm) the HSPGs are in connection with the astrocyte and neuronal cell membranes across the homophilic bindings (common hydrate membranes). The micro-domains formed thereby allow a shuttle traffic between astrocytes and neurons. Important enzymes of the citric acid cycle, such as the α-ketoglutarate dehydrogenase and glutamine synthetase, enzymes of the fatty acid metabolism as well as choline for membrane metabolism, are thereby supplied to the neurons. The neurons depend on it in order to even be able to form membranes or neurotransmitter substances because they lack these enzymes and materials. Nevertheless the surplus cell toxic attacking glutamate and ammonia must however be immediately removed from the neurons and brought back to the astrocytes. Then they can again be regenerated there to important substances, e.g. for ammonia detoxification the foundation stone for the PG/GAG synthesis, glucosamine, can be formed from glutamate by the use of ammonia (all nerve cells lack the enzymes of the urea cycle) [3, 10, 16].

Figure 3: Schematic representation of the Nurse Function of the Astrocytes on the Synapses.

a) Normal function. The synapse (double arrow) between the nerve cell process (dendrite) (N1) and (N2) becomes stabilized through widened ends of the astrocytes (A1, A2) with micro-domain formation (arrow head). On the left side the shuttle-process between the astrocyte and the nerve cell process is represented (dots). The arrow turned to the left shows the shuttle-operation between the nerve cell process and the astrocytes (squares). The arrow in the longitudinal direction of N1 points to the transport of the absorbed molecules in the direction of the cell body of the accompanying neurons. SpS synapses in a dendrite spine, secured through astrocyte processes with micro-domains.

b) Destroyed micro-domains and synapses in the area of an Alzheimer plaque (according to [13]).

With increasing age the protein chains of the PGs become shorter on the basis of increased proteolytic effects, caused by decreased glutamine synthetase and also the polysaccharide side chains. In the end the astrocytes can no longer sufficiently detoxify the ammonia delivered to the neurons, which then have a toxic effect on the neurons and micro-domains. Together with the increased appican fission the Alzheimer plaques finally originate from the fission products of perished cells and Aβ proteins (Fig. 4). The tensegrity of the PECM is thereby damaged on and on in a vicious circle, and with it also the nurse function of the astrocytes. In particular with it the increasing ammonia level can additionally be further increased by age-caused intestinal and liver function disturbances. In addition metabolism difficulties come in the area of the blood-brain barrier, because
the basal membrane strongly widens between the capillaries and the adjoining astrocyte processes (by 80 years of age around about 50%) (Overview in [11]).

**Figure 4:**


b) Light microscopic diagram of an Alzheimer plaque. Surrounding an amorphous center of Aβ proteins and destroyed PECM components a courtyard of microglial cells (M) are located which follow astrocytes (A) outwardly. In with them irregular astrocyte processes. Peripherally neurons (N) in the process of destruction with intracellular tissue (“tangle”) formation (arrow head) are located. Magnification approx. 500 fold.

All present therapy efforts up to now are directed exclusively to the preservation and improvement of disturbed synapse functions between the neurons, however without success. It would be very much recommended to follow up the described ammonia theory because there are simple side effect free preparations for ammonia detoxification (Overview in [13]).

**Literature**

5. FOSTER RG, KREITZMAN L. Rhythms of Life. The Biological Clocks that Control the Daily Lives of Every Living Thing. London: Profile; 2004
Literature (continued):

13. HEINE H, HEINE E. Befindensstörungen - Chronische Krankheiten - Altern. CO’MED
   Verlagsgesellschaft, Hochheim 2009
   Verlagsgesellschaft; 1984
15. LI JC, Xu F. Influence of light-dark shifting on the immune system. Tumor growth and life span of rats,
   mice and fruit flies as well as on the counteraction of Melatonin. Biol Sci 1997; 6: 77-89
16. McGEER PL, McGEER EG. The inflammatory response system of brain: implications for therapy of
17. QUINCKE H. Arch exp Path Pharmak 1883; 31 (zit. n. LEMMER 1984)
18. ROBERT L, MOCZAR M. Age-related changes of proteoglycans and glycosaminoglycans. In: VARMA
   RS. et al. (Eds.). Glycosaminoglycans and Proteoglycans in Physiological and Pathological Processes
19. SCHÖBER R. Über die Beteiligung des Mesenchyms bei der experimentellen Erzeugung von
   Hautkarzinomen der Maus durch Benzpyren. Z Krebsforsch 1951/52; 58: 28-35
   Microbiol. Scand 1955; 26: 327-341
   Springer; 1998

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The Biological Index
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Preface

In this article I would like to pass on some of the observations that I have been able
to make during the past thirty-eight years. Having reached the age of seventy I am
in the lucky position of being able to choose to retire if I so wish but before doing so
I would like to share some of the things that I have learned over the years. Having
completed a five year training in classical Chinese acupuncture I was lucky to be
invited by Dr. Reinhold Voll to study with him, and later I was fortunate to meet
and study with Dr. Franz Morell, and also with Dr Helmut Schimmel. I am
privileged to be able to say that both Dr. Morell and Dr. Schimmel became good
friends as well as being my teachers.
Why do patients come to a doctor or complementary therapist for BioResonance treatment, especially in a country like the UK where orthodox medical treatment is free? Why would an individual prefer to pay for treatment when conventional treatment is freely available? When discussing this with my own patients the answer is almost always “to find the cause of my problem.” Orthodox medicine is good at alleviating symptoms, especially in acute situations, but it is less efficient at diagnosing the cause of the problem and aiming treatment at the cause. With many chronic illnesses conventional medicine has made very little progress. We appear to be good at management of the disease but less good at treating it. Patients want to know what the deep underlying cause of their problem is, and whether anything can be done to help it. This is why they seek out a good practitioner of BioResonance Therapy (and other complementary therapies).

We have the tools and hopefully the ability to make a good diagnosis, to find the deep underlying cause and then to aim treatment at the cause rather than palliating the symptoms. We have been given the tools such as EAV (Dermatron, RM10/S), BioResonance (MORA), Vegatest (Vega, RM10/S), and others. Hopefully we have taken the time and made the effort to learn how to use these tools to good effect. However, the problem of good training is becoming increasingly problematic. There are very few good training programs that offer truly in depth training in these methods. This is a sad state of affairs because we have the tools and the diagnostic methods are capable of very accurate and sophisticated results but there are very few experienced practitioners who are able to teach how to get the best out of these tools. It is also saddening that many younger and newer practitioners do not appear to want to go through the discipline of proper training and appear to be looking for machines that do the work for them. In my own humble opinion these machines do not yet exist. There are machines that look good, that appear to take electronic data from the body, that have impressive looking graphics, but which are simply not accurate. Please, let us learn to take good data and then to have the courage to stand by our findings.

It might surprise some readers to learn that the one country where BioResonance methods are finding increasing acceptance is Russia. The Russian army has now trained 450 medical doctors to use these methods. Conscripts are checked for drug addiction and for transmittable diseases such as HIV, T.B., Herpes, etc. and treatment is then given. The Russian Ministry of Education has also authorised the use of these methods for testing young people at university for similar problems. It is a pity that western nations do not wake up to the many possibilities offered!

The Biological Index

Let us start by looking at the Biological index. This is probably the first test that the practitioner will perform. The biological index provides an indication of the sum total of
the effects of energetic disturbance in the body. These disturbances indicate the overall function of the body and also the efficiency or function of specific organs. The biological index was devised by Dr. Helmut Schimmel as a means of measuring the overall disturbance in the body. The information is gained from the signals of potentized mesenchyme tissue in various strengths.

The mesenchyme is the matrix of tissue that connects every cell in the body. The mesenchyme contains the extra cellular fluid and it acts as a channel between capillaries, cells, and the lymphatic system. If we compare the cells to house bricks, then the mesenchyme may be compared to the cement that holds everything together. It contains both chemical and electro-magnetic information about every part of the body. The extra cellular fluid acts as a liquid crystal and, because of this, any change anywhere in the network will be instantly transferred to every part of the body.

The mesenchyme network can become slowly clogged with impurities and toxins thus decreasing the transport of materials between blood vessels, cells, and lymph. In addition, the ageing process causes a thickening and rigidity of the walls of both cells and vessels which further reduces oxygenation, nutrient exchange, and excretion to and from the cells.

The biological index is represented as a 21 point scale. Each degree of this scale indicates progressive toxicity within the mesenchyme, thus indicating a measure of the toxic levels of the body in general. An index of 1 on this scale indicates the least degree of toxicity and 21 the highest degree of toxicity. It is known that electromagnetic disturbances occur well in advance of morphological or pathological changes and thus, the biological index acts as an indication of general health and also as an early warning signal for potential or future disease. The biological index can also be used to monitor the progress of therapy. A progressive downward movement of the biological index to a lower value indicates the successful removal of toxic disturbances.

**Interpretation of the Biological Index**

- The childhood range is considered to be from 1-7
- Adult range from 8-14
- Old age from 15-21.

The childhood range corresponds to chronological age from biological index up to 14 years; adulthood from 15 to 65 years; old age from 65 to death.

Index range 1-6:

This represents a range of normal cellular respiration. Except for very young children and other rare cases, treatment is not normally required.
Scale points 7 onward indicates disturbance of health through to serious disease:
   Index range 7-10
   Indicates pre-clinical phases or functional disturbances that cannot normally be clinically identified.

Index range from 10 onwards represents the beginning of clinically identifiable disease:
   Index range 11-13
   Represents clinically recognisable disease.

Index range 14-15
   Indicates the beginning of chronic degenerative tendencies and/or pre-malignant tendencies. Note that a clinically defined disease may mask a pre-malignant state.

Index range 16-17
   Indicates possible micro-malignancies or other chronic degenerative states that may possibly be clinically verifiable.

Index range 18-21
   Indicates macro-malignancies that should be clinically verifiable, or may indicate other degenerative states.

The patient will rarely have only one biological index. There are usually two or more index points spaced at least two values apart. The higher value represents the level of degeneration of the most stressed or most damaged organ whereas the lower value, represents the overall or average degree of degeneration of toxicity in the body.

**Spacing between the index values**

When the index values are three points apart (e.g. 10 and 13) this represents a heavy degree of toxicity in the body. If the values are four or more points apart then the possibility of malignancy or degenerative changes should be considered.

A space of three points between the last two index values (e.g. 8, 10, 13) indicates toxic acquisition that has occurred later in life. A space of three points between the first two indices (e.g. 8, 11, 13) indicates toxicity acquired earlier in life.

**General Remarks on Interpretation**

The concept of the biological index is rather more complex than first supposed. A relatively high biological index does not necessarily indicate a malignant or
pre-malignant state. Rather, it may indicate such possibilities. A high biological index usually indicates degenerative change but there are situations where a previously low biological index may suddenly show a dramatic increase. Such cases suggest either a sudden toxic release (possibly as a result of excess treatment or as a result of intake of pharmaceutical medicines), or the increase may be the result of mental or emotional stress. Other pre-tests should be able to determine the cause for the sudden increase. It is also advisable to question the patient about recent changes in lifestyle or about the possibility of recent stressful events. Very often excess stress or anxiety will increase the biological index. The biological index provides us with a means of demonstrating to the patient the physiological effects of stress that some patients may be otherwise reluctant to accept.

Remember that we are measuring the energetic information contained within the mesenchyme. If the energetic function is impaired and prolonged over a sufficiently long period of time then it may lead to cellular degeneration and possibly to malignant states. Thus, it becomes the responsibility of both the patient and the practitioner to work towards a healthy lifestyle and to maintain the body as toxic free as possible.

**Determining the affected organ(s)**

The organs affected by each positive biological index can be determined by cross-filtering. Suppose that a biological index of 17 has been found. By cross filtering organ preparations against this index the most damaged or stressed organ can be determined. Similarly, by filtering indications for virus, bacteria, mycosis, geopathic stress, emotional stress, etc., the cause of the high biological index will be indicated.

Finally, it is helpful in designing treatment to filter meridian indicators (e.g. meridian complexes) against the highest biological index. This will indicate which meridian carries the dominant amount of faulty or toxic information. This is normally the meridian that should be treated first.

**The Optimum and Ideal Biological Index**

Test for Optimum biological index (↓) and then filter the indices against this filter. The index value that restores the measurement (↑) indicates the optimum biological index for this patient. This is the value that should be attainable from good treatment. However, please note that we should not try to reduce a high biological index to the optimum value in one step. The toxic release would be too great. It is far better to reduce the biological index by small amounts at each therapy step.
There is also a filter for the ideal biological index with psychological influences. Test this indicator. If the measurement ($\downarrow$) then it can be assumed that there is a psychological stress present. It is quite possible that the patient will deny this, which suggests that the stress factor may be unconscious. Filter the index values against this indicator. The index that returns the measurement value ($\uparrow$) is the ideal value for the patient if the psychological stress factor is also resolved. Usually the ideal value will be one or two points lower than the optimum value.

**Testing for Several Biological Indices**

For more than two biological indices use the filter Molybdenum D800. Natrium muriaticum D30 indicates the presence of 4 or more indices. Coenzyme Q10 at 1x indicates the presence of 5 or more indices.

**Using the highest biological index as a filter.**

1. **Toxic information**
   Use the highest determined biological index as a filter ($\downarrow$). Then test various toxic agents to find which restores the measurement value ($\uparrow$). Now switch off the index and, in turn, use each toxin that tests positive as a filter (toxin ($\downarrow$)). Use the biological index against the toxin to determine which biological index restores the measurement value ($\uparrow$). The toxin that effects the greatest reduction in biological index is the most potent toxin.

2. **Medications**
   The testing of medications is, in principle, similar to testing toxic agents. Switch on the highest biological index ($\downarrow$). Now, test various suitable medications against the index. Any medication that returns the measurement value ($\uparrow$) is potentially a useful medication. Next, use the medication as the base filter and test the reduction in biological index against the medicine. Any medication that reduces the biological index by one or two points indicates that successful therapy is possible. If the medication reduces the biological index by three or more points then it will, in all probability, be too strong and will overload the excretory and defensive mechanisms of the patient causing treatment aggravation. This should be avoided.

**Note**

A rough approximation with age can be calculated by multiplying the biological index by 4. Thus, a biological index of 10 equates with 40 years old. Obviously this should not be taken too literally but it may give a comparative guide that the patient can understand.
An interesting technique has been evolved that uses this calculation for determining the chronology of disease. By filtering the various disease toxins against these age brackets the chronology of the disease processes can be found. Thus, the toxins that correspond to the highest "age" are the more recent toxins and are also the ones that should be removed first.

**Example**

Let us take a simple example of using the biological index. The following indices were found for a patient:

- Maximum biological index = 13
- Average biological index = 10
- Ideal value = 8

From other tests it had been found that the following organs were stressed:

- Pancreas
- Duodenum
- Gall-bladder
- Rectum

By testing these organs against the highest index it was found that the gall-bladder was the only one to restore the measurement value (†). Thus it is the gall-bladder that corresponds to the index value of 13. (A possible inference is that there is some chronic inflammation of the common bile duct that is in turn causing irritation of the wall of the duodenum around the opening of the bile duct. It is also possible that this irritation is affecting the pancreas via the pancreatic duct.)

Further testing indicated the stomach meridian as corresponding to the index value of 13. Thus, the problem should be treated via the stomach meridian.

We also note that the value of 13 is three points higher than the next value (10). From this it may be inferred that this is probably a fairly recent problem. This was confirmed by the patient.

I hope that in this article intended for less experienced practitioners I have given an insight into some of the possibilities offered by the Biological Index in the Vegatest. The Vegatest Method of Dr. Schimmel is a very informative test when properly mastered. Many practitioners rely solely on the Vegatest assuming that it is easier to learn than EAV because it relies only on one or two measurement points rather than the very many required for EAV diagnosis. While EAV may have more appeal to the experienced acupuncturist who is already familiar with point location I do not believe that the Vegatest Method is less difficult or less time consuming. It takes very much practice with both systems to obtain consistent and reliable results but with experience the results can be outstanding. The two systems complement each other and information that is not clear in one system can be clarified with the other. For this reason I urge any younger practitioner to try to learn and master both systems. May I wish you all success. [Please see the Testing Summary chart on the next page.]
Testing Summary

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<th>Biological index 21-1</th>
<th>(↓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existence of two or more indices</td>
<td>Molybdenum D800 (↓)</td>
</tr>
<tr>
<td>Existence of four or more indices</td>
<td>Natrium muriaticum D30 (↓)</td>
</tr>
<tr>
<td>Existence of five or more indices</td>
<td>Coenzyme Q10 Dl (↓)</td>
</tr>
</tbody>
</table>

Test for stressed organs

<table>
<thead>
<tr>
<th>Organ preparation</th>
<th>(↓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organ preparation (↓)</td>
<td>Index value ↑- indicates stress value for each organ.</td>
</tr>
</tbody>
</table>

Most stressed organ

<table>
<thead>
<tr>
<th>Highest index value (↓)</th>
<th>Organ preparation (↑)</th>
</tr>
</thead>
</table>

Test for Meridian

<table>
<thead>
<tr>
<th>Highest index value (↓)</th>
<th>Meridian preparation (↑) This represents the key meridian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meridian preparation (↓)</td>
<td>Index value (↑)</td>
</tr>
</tbody>
</table>

Test for medicaments

<table>
<thead>
<tr>
<th>Highest index value (↓)</th>
<th>Medicament (↑) Suggests possible medicament for use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicament (↓)</td>
<td>Optimum or ideal index (↑) Indicates the medicament that has the best action.</td>
</tr>
</tbody>
</table>

*Another exclusive article for Affiliates, published December 2013 by Occidental Institute Research Foundation . . .*

**Electromagnetic Fields and Polarisation**

By Dr. Anthony Scott-Morley

(OIRF Medical Advisor)

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Before presenting my paper on some interesting observations of the past few years it is necessary to first present a short description of polarity of electromagnetic fields.

**Introduction**

One of the problems that the EAV practitioner sometimes finds is that all measurement values on the Control Points and the Terminal points are exceptionally high with or without indicator drops. This pattern of measurements is what I call a “chaotic” measurement picture. It does not mean that the patient is ill, but that the potential for illness exists. Typically, geopathic stress and electromagnetic stress produce such a picture. This picture appears to be a result of reversed electromagnetic polarisation.
Electromagnetic Fields and Polarisation

First, let us define an electromagnetic field: An electromagnetic field is a field produced by moving electrically charged particles. It is one of the four fundamental forces of nature.

The electromagnetic field is a combination of an electric field and a magnetic field. The electric field is produced by stationary charges and the magnetic field by moving charges. The electrical field contains electrical energy. Energy density is proportional to the square of the field amplitude. Disturbances in the electromagnetic field are called photons and photon particles represent a disturbance in the electromagnetic field. Electromagnetic interactions arise from the exchange of photon particles. Since biological organisms communicate internally through photons there must therefore be electromagnetic interactions arising from the photon activity, and the photon activity must arise from disturbances in the electromagnetic fields. In this sense the electromagnetic field can be thought of as an information field.

Matter is made up of atoms and molecules. In living matter the atoms and molecules are continually moving. Also, the electrons of each atom and molecule are constantly in motion. Thus, the organism is giving off (and sensitive to) an infinite number of electromagnetic information fields. Some of these fields are life-sustaining (healthy) and some are detrimental to life (harmful). It is my suggestion that this is what we are indirectly observing and measuring when making an EAV, Vega or VRT diagnosis.

At present we are unable to display these minute fields in the form of wave information on a computer screen because the signal-to-noise ratio is too high. In other words, the noise produced by the electronic circuitry of the computer (or oscilloscope) is much greater than the signal that we wish to observe. This has the result of masking the desired signal. However, Dr. Cyril Smith of Salford University, UK, has suggested that biological organisms may be able to read through
the noise and the human organism may be sensitive to near quantum fluctuation levels of energy, which is about the smallest level of energy imaginable. Undoubtedly, in the future we will be able to directly display and analyse these signals.

One of the curious features in chemistry is that of stereo-isomers where the molecular structure of two substances appears to be identical, except that one molecule is the mirror image of the other. There are some chemicals that have an identical molecular structure when written as a chemical formula, but if the structure is represented diagrammatically one structure is a mirror image of the other. The curiosity is that although they outwardly appear to be the same substance, the chemical properties differ to the extent that it is not possible to predict the chemical behaviour of the mirror image from knowledge of one of the substance. For example, lactic acid formed in the muscles can exhibit a "dextro" structure that is easily metabolised by the body; it can also form as "laevo" lactic acid, which is not easily metabolised and produces muscle cramps. A similar situation occurs with electromagnetic fields. This is a phenomenon known as polarisation. There are two kinds polarisation: linear and circular.

![Diagram of polarised fields](image)

Left Polarised Field (from the point of view of the receiver)  Right Polarised Field (from the point of view of the receiver)
The characteristic that we are interested in is circular polarisation. With a circular polarised antenna the plane of polarisation rotates in a corkscrew pattern making one complete revolution per wavelength. A circular polarised wave radiates energy in horizontal and vertical planes and in every plane between. In radio engineering there is no signal loss with a circular polarised antenna and there is a very wide frequency band.

So what has this got to do with BioResonance? Well, it appears that biological signals are polarised both clockwise and anticlockwise. In the late 1970's a brilliant Ph.D. student studying under the guidance of the well-known biophysicist Dr. Fritz-Albert Popp, suggested that polarised signals might play an important role in biology. The name of the student was Ludger Mersmann. (Sadly, he is now dead). Mersmann went on to design a suitable antenna for detecting such signals that could be used with BioResonance instruments. The rotation test – or Spin Tester – is a conical antenna wound in a clockwise or anti-clockwise direction. A conical antenna is sensitive to a wide range of frequencies, which also has the property of providing a slight amplification to the signal. The antenna is wound from the centre outwards. Thus, the LD spiral is anti-clockwise when traced from the centre towards the periphery, whilst the RD spiral is clockwise from the centre outwards. The RD spiral is sensitive to dextro rotation signals and the LD spiral is sensitive to laevo signals. [Please see pictures on next page.]

Dr. Franz Morell, working with this antenna (Spin Tester) made some very important observations. He discovered that almost all toxic agents such as bacteria, waste excretions, chemical toxins, etc. have a laevo or counter-clockwise field rotation while biologically supportive agents have a dextro or clockwise field rotation. Thus, body fluids that contain waste materials, for example urine, should have a laevo rotation, while vital fluids such as blood should have a dextro rotation.

In many cases these polarised fields can become reversed. If BioResonance treatment is given without first correcting polarisation reversals then results are usually disappointing. Either there is little or no effect, or any benefits of treatment are short lived.

The four biological products to test are blood, saliva (both dextro or RHS); urine, faeces (LHS.). The situation can arise where more than one product has reversed polarisation. It is probable that the more products reversed the more serious the illness is. Cancers will invariably show reversed polarisation of one or more fluids. It is important to note that reversed polarisation of blood and or other secretions does not indicate cancer but may indicate cancer potential.

Testing for field rotation

Place a spot of the fluid to be tested onto a piece of clean tissue or filter paper. One spot of fluid is sufficient. If testing blood, clean the skin surrounding the area to be lanced and then dry thoroughly so that the fluid from the cleaning swab does not contaminate the blood. Prick the skin and collect one spot of blood onto a piece of clean tissue.
• Blood is normally taken from a finger tip or from the earlobe.
• For saliva, ask the patient to moisten a small piece of tissue by placing it on or under the tongue.
• When testing urine a few drops of urine can be placed into a clean, sterile glass beaker.
• Faecal smears can be taken from toilet tissue, which is then wrapped in aluminium foil. The foil does not appear to interfere with the test.
• When the sample has been obtained, it should be placed into a clean sterile glass beaker to avoid contaminating the rotation tester.

Connect the rotation tester to the input of the measuring instrument (MT).
Example

Let us suppose that we are testing for blood rotation. Place the beaker containing the spot of blood into the LD spiral and re-measure the terminal and or CMP's. If the blood is laevo rotatory then most or all of the measurements should show improved measurement values in the direction of 50. This applies to both high measurements and to pathologically low measurement values.

If the beaker is now taken out and placed into the RD spiral the measurement values will revert back to the original values. We now have confirmation that the blood has a laevo rotation factor that requires correction.

In a very few cases it may be found that neither spiral improves the measurement values. In such cases it will be found that one of the other fluids has reversed rotation that is masking state of the blood.

Practical

- Collect a spot of fresh venous blood from a finger or earlobe onto a piece of clean tissue or onto a clean microscope slide.
- Place into RH spiral and use A inverse (A Bar, Ā or Inverted A)
- Re-measure points.
- If they have improved then the polarisation is normal.
- If there is no improvement then place the spot of blood into the LH spiral and re-measure.
- This should result in improved measurement values. In a few cases the results may be indeterminate. In such cases check other body fluids.

In all cases it is good practice to check the urine. When testing urine it should be placed into the LH spiral.

Correction

Correction is only required if there is a reversal in polarity. Leave the substance in the antenna that produced the correction. (For example, blood in LH spiral.)

- Use A inverse and connect output electrodes to all four quadrants (hand and foot electrodes).
- Give impulses of seven seconds with three second pause, 60 – 100 cycles.
- Before correcting, test for geopathic stress and advise the patient about protection.
- When the urine is reversed then test for electromagnetic stress.

Refinement to Testing and Treatment

This refinement can only be used with suitable instruments (BioResonance/MORA). It is a more refined treatment and suited to more experienced practitioners.
A low pass filter allows frequencies up to a set limit to pass through, but blocks any frequencies above that limit. For example, if set to 1.0 KHz (1000 Hz) then all frequencies below 1.0 KHz will pass through, but frequencies above 1.0 KHz will be blocked.

![Low Pass Filter Diagram](image)

A high pass filter is the reverse. All frequencies above the set limit will pass through while frequencies below the limit will be blocked. Thus, if the limit is set at 1.0 KHz all frequencies above will pass but frequencies below 1.0 KHz will be blocked.

![High Pass Filter Diagram](image)

A Band Pass filter will block frequencies either side of the upper and lower set limits. For example, if the lower limit = 0.8 KHz and the upper limit = 1.0 KHz then only frequencies in the range 0.8 - 1.0 KHz will pass through. [See next page.]
The use of limit filters allows us to "tune" the treatment more precisely to the patient.

**Example**

Using a blood spot and the polarisation antenna, measure a point e.g. value = 90.

Set Low Pass to 1.0 KHz. Value now measures 64. This indicates that the sensitive frequency range is 1.0 KHz or less.

Set High Pass to 1.0 KHz. Value measures 90. There is no change. The precise correction frequency must, therefore, be less than 1.0 KHz.

Set High Pass to a value less than the Low Pass (in this example set to 0.95 KHz). Measurement value is now 54.

The conclusion is that the correction frequency lies between 0.95 and 1.0 KHz. The Band Pass filter is now used set at these limits. Measurement is stable at 50. This is now the optimum frequency range for treatment.

If the instrument allows, similar adjustment can be made for signal amplitude. This provides further fine tuning. In this way by using frequency limits and signal amplitude, treatment can be made highly specific for the patient.

(Note: the frequency-amplitude combination can be used when giving normal treatment without the use of a polarising antenna. However, basic therapy is significantly improved when such fine-tuning is applied.)
Interesting Case Application.

A patient presented who was fundamentally in good health. All control measurement points were stable with values ranging between 50 and 60. She produced eight different brands of vitamins C and wished to know which was the best. Each brand was placed in turn on the test plate. Of the eight, seven samples made the measurement values worse. Only one improved some values. Further testing revealed that seven bad ones all exhibited LH polarisation. The one good one showed RH polarisation.

A Japanese experiment on characteristics of growth and development of plants subjected to right polarised microwaves and laser radiation has been shown to alleviate biological efficiency.

The question therefore arises: is biological health and efficiency a characteristic of RH polarised signals and disease characteristic of LH polarised signals?

Recognising Geopathic and Electromagnetic Stress

Presenting symptoms will often include sleep disturbances: difficulty in getting to sleep, restless sleep, restless leg syndrome, waking at night, excessive dreaming, sometimes a deep sleep but waking unrefreshed, fatigue. There may also be mood swings such as irritability, feeling emotionally low but for no apparent reason. When questioned, patients will frequently respond that these symptoms describe them perfectly.

If using the “VRT” test ampoules, geopathic or em stress will test positive. EAV testing will reveal that most or all of the nail points measure 80 scale points or more, with or without an indicator drop. Most or all of the CMP’s will also measure very high. If one observes any of these patterns then the blood and/or urine rotation should be tested. One or both will be found to have reversed, i.e. blood will test as LH rotation and urine as RH rotation. The first treatment must be to correct the rotation factor in order to bring stability to the body. Only after such correction can reliable test data be taken.
Graph 1: The first thing to look at is the overall pattern of measurements. It is immediately noticeable that every measurement value is considerably outside the normal range (50-64). Many of the values also show indicator drops. Any pattern similar to this should immediately alert the practitioner to the possibility of geopathic or electromagnetic stress. This should be confirmed using the “VRT” test ampoules: Silicea D60 (geopathic stress); Lithium carb. D60 (geopathic stress); Phosphorus D60 (em stress). In this example, Silicea gave no indication but Lithium carb. returned a positive indication. When a positive indication of geopathic stress is found then the blood rotation should be tested. It will invariably show as Left rotation when using the rotation test. This patient was tested and treated in February 2011.

Perhaps the efficacy of such treatment is summed up by the following e-mail received from a patient about three days after the treatment:
“*You are an amazing Man – I feel bloody marvellous. Long may it continue. Grateful thanks.*”

Director’s Note: There is a long list of training and educational materials including books, reports, manuals, videos and DVD’s available through OIRF concerning BioResonance Therapy, MORA Therapy, EAV testing, Vega Testing and homeopathy. Private training sessions can be arranged with each of the OIRF Board of Medical Advisors, and OIRF sponsors and participates in seminars, conferences and workshops on all of these topics. Contact OIRF offices for further details and information or visit our website at www.oirf.com/resources.html.

Follow this link to our website to see Issue #12 in print/PDF format.

**Conferences and Conventions:** Please watch for announcements of the speakers, venues and details of these exciting OIRF activities and events for the year 2014:


- **Med-Tronik BioResonance Distributors’ Meeting**, Friesenheim, Germany, April 25-27, 2014: OIRF will be represented by Carolyn Winsor-Sturm at this important meeting.

- **Biological Medicine Symposium 2014**, Vancouver, BC, Canada, September 12-14, 2014: Will feature top practitioner/researcher lectures. Co-Sponsored with Prevention and Healing (Dr. Simon Yu). Watch the website for full registration, speaker, venue and exhibitor details, and plan now to attend.

- **Biological Medicine Tour #41 to Germany**, October 28-November 3, 2014 (dates for the 48th Baden-Baden Medicine Week Congress have been confirmed). Join us for our 41st group tour including the world famous “Medicine Week” Congress in Baden-Baden. Tour program also includes private OIRF English language lectures from renowned German clinicians and researchers as well as pharmacy and clinic visits.
### December Instrumentation Features

**OXYGEN ION 3000**  
**VNS DIAGNOSIS 3000**  
By CS Tronic

Inhaled Ionized Oxygen Therapy  
According to **Prof. Dr. Ivan Engler**

Order both units as a set for $11,000

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**BIOPHOTON LIGHT THERAPY**  
By Medical Electronics

Therapy with Energy

A modern overall therapy of the future using biophoton (hyper red) light delivered through a HeNe laser carrier.

Order for $12,750

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**The MORA NOVA**  
By Med-Tronik

The professional model with down-loadable upgrades for extensive remedy software.

Order Base model for $28,000

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**The “M 3”**  
By BioKat

Mr. Andre Rasche with the newly introduced “M 3” BioResonance Device.

Contact OIRF for order and pricing information.

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### Updates, Reminders and Announcements:

- Time to renew your subscription to “The Bridge” newsletter! Call 1-800-663-8342 today to arrange the $35 fee and don’t miss any of the 2014 issues (which will not be posted free online next year!).

- **MORA Nova** devices were featured at the recent 47th Medicine Week Congress in Baden-Baden, Germany. These proven devices are available for immediate delivery and the professional level model provides immediate “out-of-the-box” therapy applications while you take the time to familiarize yourself with the many possibilities of BioResonance Therapy. Contact Elaine or Carolyn for ordering details.
Updates, Reminders and Announcements (Continued):

➢ Descriptive and pricing information for the "M 3" and "M 5" BioResonance devices from BioKat GmbH will be available shortly. Contact Elaine or Carolyn for advance details.

➢ For those of you who missed that great MORA Nova training seminar/workshop in St. Louis, MO in June 2013, high quality professional video recordings of some of the sessions are now available. The guest instructor was Nuno Ruivo, DO from Med-Tronik, Germany who is a long time MORA user and one of the technology and software developers of the Nova device. Order the 5 DVDs for $100 and then deduct it from your MORA Nova order.

➢ I took nearly 400 pictures during the Biological Medicine Tour #40 through Germany and Switzerland. I have picked out some of the best photo memories to include in my annual Germany Tour Report. Follow that link to join us from at home to follow our adventures and activities. Dates for next year’s Tour #41 have been confirmed for October 28 through November 3, 2014 (Medicine Week Congress dates have also been confirmed).

➢ Watch for the 2014 Volume 10, Issue #1 of the “The Bridge” newsletter to arrive in your Inbox around mid-January – provided you remember to subscribe! That issue will feature a new translation from the German journals – you know how Carolyn will be spending the Christmas Holidays!

➢ Visit our Facebook page – will you be our friend?

➢ For a complete listing of resource materials, including publications, reports, books and videos please follow this link to our website. There are full descriptions of all printed and recorded materials online.

➢ For a complete listing of recommended instrumentation, including diagnostic, therapeutic and BioResonance devices please follow this link to our website. There are full descriptions of all instrumentation online.

I trust you have found much of interest in these pages. We look forward to meeting you during our 2014 activities and programs. As always your comments are welcome. Remember that this is your newsletter – your suggestions, article contributions, critiques, FAQ’s and compliments – are gratefully accepted.

Yours in health,

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