Professor Günther Enderlein, Doctor of Philosophy

Creator of a New Theory of Bacteria and Health

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In 1916, the biologist and zoologist *Günther Enderlein* (1872-1968), at that time curator of the Zoological museum of the University of Berlin, lecturing before the members of the Gesellschaft Naturforschender Freunde [Society of Friends of Natural-Science Research], presented for the first time his revolutionary reshaping of bacteriology, which he had worked an and refined during the war years [W.W.1]. Due to the circumstances of the times, he was not able to get his Monograph *„Bakterien-Cyclogenie - Prolegomena zu Untersuchungen über Bau, geschlechtliche und ungeschlechtliche Fortpflanzung und Entwicklung der Bakterien“* [Bacterial Cyclogeny: a Prolegomena to Investigations into the Structure, Sexual and Asexual Reproduction and Development of Bacteria] published until 1925.

Ever since *Cohn* (1870), *Koch* (1876) and *Pasteur* (1880), monomorphism - i.e. the unchangeable form of bacteria - has been dogmatically fixed, even though at first, this theory had been of a provisional nature, intended to serve as a framework for continued research. Even its proponents of the time talked about morphological variations of the microbes discovered or described by them - and, in the foreword to his *Bakterien-Cyclogenie* [Bacterial Cyclogeny], *Enderlein* names a number of predecessors and contemporaries who acknowledged the developmental cyclical process which he had described and generalized into a principle. By dint of his tireless investigations and interpretations, he found not only an explanation of many microbial findings published before him (some heterogeneous, others identical, all differently named), but also the key to many hitherto - and in some cases still - inexplicable processes involving the origin and transmission of diseases, healing and immunity.

The Law of Changes Applies Universally

According to *Enderlein*, all microbes go through a species-specific cycle, which standard bacteriology quite naturally accepts in the case of malaria, but which it continues to resist in the case of bacteria and fungi - even though there is not, in all of nature, an exception to the law of eternal change, nor to the unity of the macrocosm and the microcosm.

“Cyclogeny“ means the transformation and traversing of all pathogenic and nonpathogenic germs through all phases (valences), from the limits of visibility and below (the realm of the virus), through the higher-valence phases of the textbook cocci and bacilli, and an up to the fulminant phases of the fungi and their mycelia. The bacterial nucleus (Mych) plays an important role, which was known to *Enderlein*, but whose function he misinterpreted. Its reduplication corresponds to the length of the bacterial body. According to the “Basic Anartatic Law“ which *Enderlein* formulated, valence intensification depends an the prevailing pH value of blood or tissue. Bacteria reproduce (and this, too, is a fundamental insight of *Enderlein*’s) either asexually by binary fission or budding („Auxanogeny“) or sexually after preceding nuclear fusion („Probaenogeny“). The latter is always the precondition for an upward or downward phase development.

The principle of polymorphism and sexual reproduction (i.e., via nuclear fusion) of bacteria was confirmed 40 years after *Enderlein* by the Nobel Prize winners *Lederburg*, *Taumg* and *Hayes* (cited in *Seeger*, *P.G. „Immungeschehen und Krebs“* [The immunological process and cancer], Verlag Semmelweis Institut, Bremen 1980). Before *Enderlein*, the microbiologist *Mori* in Naples had come to the same opinion.

Of the many new terms which *Enderlein* coined for his theory, only those with particular significance to oncology can be mentioned here. All this new terminology was justified and necessary, because using current standard bacteriological nomenclature, or the designations used by microbial researchers prior to *Enderlein*, would only have led to continued misunderstandings or misinterpretations.

Enderlein calls the smallest and lowest bacterial level the „Protits“. They consist of naked nuclei („Mych“) without a protoplasmic coat („Trophosom“). Their one-dimensional reproduction leads to the formation of fine threadlets, the „Filits“; two- and three-dimensional reproduction creates „Symprotits“. All together, these three phases represent „Chondritosis“, within which continually alternating phase transitions take place. The Chondrits lie in the viral region (15-300 nm) and are only

(barely) visible in the darkfield. The bacteriophages, which *Enderlein* interprets quite differently from standard theory, belong to this stage. Bacterial flagella are likewise Filits.

Environmental conditions are decisive for pathogenicity

Higher developmental stages arise - always depending on environmental conditions - through the formation of dual- and multinuclear cells with Trophosoms, in which each reduplication of the nuclei corresponds to the next higher step, and to bacterial length and valence. The names, in sequence, are: „Basit“, „Phytit“, „Rbabdit“, „Linit“, „Ascit“, „Synascit“ and, as the highest developmental form, the Culminante of the „Amoebit“, representing the fully developed fungus with all its characteristic properties, such as thread and mycelium formation, etc..

In addition to explaining these morphological phenomena, *Enderlein* succeeded in identifying the most important vertebrate (not invertebrate!) symbiont as „Mucor racemosus fresen 1870“ (synonym „Mucor or Micrococcus neoformans Doyen 1902“) in all its developmental stages from virus to fungus. In the Chondrit range (see above), it lives in the blood and tissues of healthy people as a physiologically harmless, probably even beneficial, symbiont. However, as soon as the biochemical equilibrium changes, the Chondrits ascend into the higher phases or valences and thereby take on a pathogenic character. This applies to all civilization-induced diseases, and particularly to cancer. One can also term this **obligate Mucor parasitism**.

Retrograde formation of lower valences can only take place sexually via nuclear fusion, and only if Chondrits are present in sufficient numbers. This process is blocked for sick people. To overcome this, *Enderlein* created the Chondrit vaccine Chondritin, with which a catalytically self-perpetuating retrograde formation is initiated. In order to eliminate the masses of Protits, which result (which process can be traced in the darkfield), a serum is used with higher valences from immunized rabbits.

The accompanying changes, which can be observed in the blood during phasal ascent are characterized by increased to massive infestation of the erythrocytes and leukocytes, as well as the plasma, by balled-together Protits („Symplasts“), Basits, Ascits and even higher valences. The anemia induced by erythrocyte decay in these stages is usually unmistakable, even externally - an alarming indication of a pre-cancerous or even manifest malignant growth, provided that none of the other diseases are present that are likewise bound up with pathological endobiosis, such as polyarthritis, hepatitis, multiple sclerosis, radiation poisoning, focal diseases, especially dental, and similar such. With the use of adjuvant dietary modification, holistic stimulation treatment, sanitation, and with the help of *Enderlein* preparations, these conditions - even in the presence of not too advanced carcinosis - can, in time, be induced to reverse themselves.

About the nature of a second polymorphism

In 1932, *Enderlein* recognized the black-spored mold „Aspergillus niger van Tieghen“ as the agent of a second facultative pathogenic endobiosis (unlike Mucor racemosus, however, not physiologically present), which, in its overall polymorphism and phase-dependent pathology, is the agent for tuberculosis. In this context, *Fontes* had in 1910 supplied the proof by transmitting the disease via bacteria free filtrates. The Chondrit and Basit phases create disease pictures, which were given all sorts of names by *Enderlein*'s contemporaries (without recognizing their membership in the bacterial cycle), such as: scrofula, lymphatism, camouflaged tuberculosis (Patromikolas), tuberculotoxocosis, paratuberculosis. To this can be added Much's granules and Spenglers fragments. Other researchers have dedicated themselves to the useful application of these phenomena, such as: *Pirquet*, *Ponndorf* and *Spengler*, mentioned above.

The Basit, Linit and Ascit stages of Aspergillus are the short and long rods of „Sclerothrix tuberculosis Koch 1882“, acid proof and non-acid proof, whose culturing *Enderlein* describes precisely in all phases from Protit up to the sporeforming Aspergillus.

To treat tubercular and pre-tubercular diseases, *Enderlein* proposed various possibilities, each of which, in different concentrations, were to be administered subcutaneously, intramuscularly or orally, depending an the disease picture.

1. The stabilized, hence non-pathogenic, Aspergillus, or tuberculosis, Chondritin, whose effect is as described for the Endobiont Chondritin.
2. The Caretta Chondritin as the phase of the cycle of the culture of „Sclerothrix antituberculosis Friedmann 1920“, of the tuberculosis agent for the giant sea-turtle, „Thalassochelis caretta“. It is not pathogenic in man, but rather acts therapeutically in humans as a kind of homeopathic nosode. To *Friedrich Franz Friedmann*, who was subject to many attacks and slanders during his life, we owe a debt of gratitude for researching and instituting this therapeutic agent, which has fallen into obscurity only because of the rise of chemotherapy against tuberculosis.
3. The vaccine of Sclerothrix tuberculosis Koch, containing higher valences than the Chondritin, and thus only usable percutaneously.
4. The sea-turtle tuberculosis vaccine, acid proof and non-acid proof.
5. The tuberculosis sera from rabbits immunized against Sclerothrix tuberculosis Koch. Mode of action is like that of the Endobiont sera.
6. In cases where endobiontic and tubercular parasitosis are present simultaneously, the Pliogen Chondritin consisting of Mucor and Aspergillus Chondrits.

Fundamental views of blood processes

Besides these preliminary research results and therapeutic consequences with regard to the Mucor and Aspergillus cycles, *Enderlein* published, after 1937, his views concerning the cancer-specific (or carcinogenic) character of the higher developmental stages of the Mucor Endobiont. His argument was structured thus:

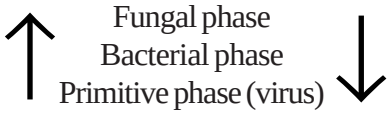
1. Human blood is not sterile, as had been previously supposed, but rather harbored, in all cases, a minuscule parasite. It had not been detected up to now because it existed primarily in an unusual, not-yet described microbial form, namely in the submicroscopic Chondrit stage. This most primitive developmental stage is on the order of magnitude of bacterial flagella - which, according to *Enderlein*, likewise belong to the species specific cycle. The seeming sterility of standard blood cultures is explained by the fact that these stages, with their parasitic characteristics, are extremely difficult to culture in artificial culture media, and only develop very slowly and poorly. However, in blood taken under sterile conditions and then incubated or even held at room temperature, it will develop over the course of several weeks into lively growth.
2. One can recognize that parasites are living in the erythrocytes of fresh blood by their germination to free Chondrits into the blood serum.
3. The relationship between the infection of the erythrocytes and the disease of cancer is shown by the increase in:
   a) the number of infected erythrocytes,
   b) the number of parasites per infected erythrocyte and
   c) the valence (Dynamovalence) or size of the erythrocyte inclusions.
4. The lively mobility of the blood's bacterial form confirms its existence as a special organism in native preparation.
5. Free and nucleus enclosed or cell-plasma enclosed Symprotits and Symprotit barbells are also to be found in tumors, usually in vast numbers.
6. Bacterial rods can also be found (albeit rarely) growing out of tumor cells and tumor nuclei.
7. Higher forms of bacterial development, such as Cystits, Thecits, etc. can also be cultured in blood (or nutrient glucose broth) and can be found in massive numbers in tumors, either free or in cell bodies.
8. In tumor sections, one can observe the highest developmental forms found in the human body of the developmental cycle of the parasite, namely the fungal mycelium (*„Entwicklungsgeschichte der Bakterien“* [Developmental history of bacteria, Book I, Vol. 3).

All microbes exhibit alternating manifestation forms

Enderlein observed in blood and in tumors three types of organisms: bacterial rods, mycelia and Chondrits or Symprotits. He considered the latter to be the most primitive developmental stage of microorganisms. In his seminal work, *„Bakterien-Cyclogenie“* [Bacterial Cyclogeny], Berlin & Leipzig 1925, he described his discovery that viruses, bacteria and fungi are nothing but alternating manifestation forms of a particular microbe.

They had been considered to be different species only, because in the short incubation times normally used, only one Phase of the microbes would have time to develop. If one were to brood the culture of a certain bacterium for a longer time, then one could observe the bacteria developing, over various intermediate steps, into a fungus (previously thought erroneously to be due to "contamination").

The triggering energy for this process comes, according to *Enderlein*, from increasing acidification (falling pH) of the nutrient medium by bacterial metabolic products. In an alkaline environment, the fungal phase would immediately revert to a primitive phase. This closed circular upward and downward development of the microorganisms is what he termed Cyclogeny, reversible thus:



The Endobiont, as he called the cancer-causing microorganism, had, of all the bacteria he had thus far classified, the most manifold developmental phases. *Enderlein* considered it to be a cohabiting organism living in mutual dependence with animal cells. The bacterium could attain certain developmental stages only within animal cells, which in turn could not live without the metabolic assistance of the Endobiont. Each is mutually dependent on the other. *Enderlein* saw malnutrition as the actual factor leading the Endobiont to change from a useful cell occupant to the instigator of all diseases.

Enderlein chose as the mono for some of his studies a saying from Lao-Tse which applied exactly to the bacterial cycle:

"When things attain to their fullest development, each one returns to its origins."

The isopathic preparations developed by *Enderlein* were produced under his personal supervision in his laboratory in Hamburg-Aumühle until shortly before his death in 1968. SANUM-Kehlbeck took over production and management in 1975. The earlier names of the preparations were then changed, and some new preparations have since been added as well.

Comparison of the new and former names of the preparations cited in this article:

IBICA's former name of preparation	Active ingredient	SANUM-Kehlbeck's name of preparation
SYMBIONT-CHONDRITIN (formerly Endobiont-Chondritin, Mutalin)	Mucor racemosus	**MUCOKEHL** injections, tablets, drops, eye drops, suppositories, capsules, ointment
TBC-CHONDRITIN (formerly Nivellantin)	Aspergillus niger	**NIGERSAN** injections, tablets, drops, suppositories, capsules
PENICILLIUM 50-CHONDRITIN (formerly Plattoxin)	Penicillium chrysogenum (synonym of Penicillium notatum)	**NOTAKEHL** injections, tablets, drops, suppositories, capsules, ointment
LATARRH-CHONDRITIN	Penicillium roquefortii	**FORTAKEHL** injections, tablets, drops, suppositories, capsules
ENDERLEIN 30-CHONDRITIN (formerly Pliogen-Chondritin Enderlein, Permeatin, Sclerothrix)	Mucor racemosus/ Aspergillus niger	**SANKOMBI** drops
SVS.-ENDERLEIN	Mycobacterium phlei	**UTILIN „S"** injections, drops, suppositories, capsules
SV.-ENDERLEIN	Bacillus subtilis	**UTILIN** injections, drops, suppositories, capsules

Publications

Of the many scientific works of *Enderlein*'s (they are said to run to more than 500, of which 377 deal with entomological themes from the years 1891-1942), we can here only cite the ones having to do with Endobiosis research and its relevance to cancer. A list of these titles, as well as those of contributions from other authors to the same topic, was published in the 1960´s by AKMON-Verlag (at that time located in Aumühle, near Hamburg. Reference is also made here to new printings of some *Enderlein* works and other publications by the Semmelweis-Verlag, 27318 Hoya.

Grundelemente der vergleichenden Morphologie und Biologie der Bakterien. Sitzungsberichte der Gesellschaft der Natuforschenden Freunde. [Basic elements of the comparative morphology and biology of bacteria. Session reports of the Society of Friends of Natural Science Research], Berlin 1916.

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Zu den Hypothesen über die parasitäre Krebsentstehung einerseits und den seit eineinhalb Jahrhunderten entwickelten Erkenntnissen der parasitären Krebsnatur andererseits. [A consideration of the hypotheses concerning parasitic origins of cancer one the one hand, and the findings of the past 1 1/2 centuries concerning the parasitic nature of cancer an the other] Die Volksheilkunde [The People's Medicine] 3/1949.

Vom Urheber aller chronischen Erkrankungen. [Concerning the cause of all chronic diseases] Die Volksheilkunde [The People's Medicine] 8/1955.

Über das Wesen der chronischen Erkrankungen, speziell von Krebs und Drüsenkrebs. [Concerning the nature of chronic diseases, specifically of cancer and glandular cancer] Private clinic and sanatorium 4/1955.

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Contents: 23 articles by Enderlein, 12 by other authors.

Folia isopathica. [Isopathic Sheets] Vol. 1/1961, corrected 2nd Edition 1970, AKMON Verlag Aumühle.This series was not continued.

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