## **Health Science News Page**

Exclusive Information from the Dr. Rath Research Institute

## **NEW FINDINGS IN**

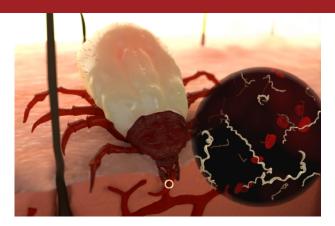
## DISEASE RESEARCH

Lyme disease (LD) is the most common vector-borne disease in the USA (approximately 30,000 cases annually) and in Europe (approximately 65,000-80,000 cases annually). However, current statistics reflect only reported cases, and the actual numbers may be even 5-10 times higher due to frequent misdiagnosis of the disease.

Lyme disease manifests itself as an inflammatory disease that can affect many organs in the body. In its early stage (localized) it affects mainly the skin. In later stages (disseminated and chronic) the inflammation spreads to the joints, nervous system and, to a lesser extent, the heart, muscles or other organs.

The human transmission of Lyme disease starts from ticks, which are external insects that feed on blood sucked from humans and animals. The tick becomes infected by pulling bacteria of the genus Borrelia from the infected host (animal, human). Borrelia sp. exists in three morphological forms which allow them to withstand and survive changing and even hostile environments. These are: active form (i.e., spirochetes), and latent forms (i.e., rounded forms and biofilm).

There is a common perception that patients treated with antibiotics at the early stages of Lyme disease recover rapidly and completely, and that the later disease stages can also be treated effectively, although recovery is slower. However, in reality, approximately 10-20% (and even up to 50%) of the patients who follow appropriate antibiotic treatment may face significant, persistent or recurrent symptoms of Lyme



disease such as joint and/or muscle aches/pains and fatigue. The symptoms can last for many months or even years, lowering the patient's quality of life and making subsequent treatments more difficult to succeed. Long-term antibiotic treatments are often associated with serious side effects and not recommended by many physicians. The fact that these treatments do not prevent reoccurrence of the disease indicates that antibiotics cannot effectively eliminate or disable these bacteria in the body.

In search of effective LD therapy, we have tested 45 natural compounds against two species of Borrelia: Borrelia burgdorferi sensu stricto (the pathogen causing Lyme disease in the USA) and Borrelia garinii (the pathogen causing Lyme disease in Europe) taking into consideration all their morphological forms. The results have shown that all tested compounds inhibited bacterial growth of spirochetes. The most effective substances that induced death of latent rounded forms of Borrelia were cis-2-decenoic acid, rosmarinic acid, baicalein, monolaurin, luteolin, and kelp (iodine). Five of the compounds, baicalein, luteolin, monolaurin, cis-2-decenoic acid, and kelp (iodine), could also reduce biofilm-like colonies formed by Borrelia burgdorferi, although only baicalein and monolaurin could reduce biofilm formation by Borrelia garinii. The details of our work can be viewed in our publication in the Journal of Applied Microbiology 2015

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The ground-breaking nature of this research poses a threat to the multi-billion dollar pharmaceutical "business with disease". It is no surprise that over the years the drug lobby has attacked Dr. Rath and his research team in an attempt to silence this message. To no avail. During this battle, Dr. Rath has become an internationally renowned advocate for natural health. Says he: "Never in the history of medicine have researchers been so ferociously attacked for their discoveries. It reminds us that health is not given to us voluntarily, but we need to fight for it."

This information is based on scientific research results. It is not intended to substitute for medical advice to treat, cure, or prevent any disease. © 2015 Dr. Rath Research Institute | Santa Clara, California, USA. We encourage the distribution of this News Page, provided its content remains unaltered

