Lyme disease is often misdiagnosed as chronic fatigue syndrome, multiple sclerosis, fibromyalgia, rheumatoid arthritis, or other autoimmune and neurological diseases, leaving the infection untreated. Unfortunately, standard laboratory testing is often unable to give clear information on whether a patient is infected or not. The MELISA® test has been developed to improve the diagnosis of Lyme disease. The test will show if the patient’s health problems are related to Lyme disease and if treatment is needed. To date, hundreds of patients have been tested and successfully treated.

**Lyme disease is a bacterial infection** caused by a spirochete, a type of bacteria, called *Borrelia burgdorferi*. The most recognised symptom is a skin rash called *erythema migrans*, which may look like a bull’s eye. Other symptoms include fever, headache, fatigue and neck pain. If the disease is untreated, infection can spread to the joints, heart, and nervous system, causing a variety of symptoms, such as arthritis, which may persist over months or years. This is called “chronic Lyme”. If the neurological form of Lyme is not treated for years, it may lead to severe ill-health.

**Lyme disease diagnosis** is based on symptoms and exposure to infected ticks. Laboratory testing on the blood can then be performed to confirm the infection (presence of antibodies as measured by ELISA, Western Blot and PCR). The MELISA® test will diagnose the active form of the disease: Lyme Borreliosis.

**MELISA® measures the actual disease** caused by the infection. MELISA® is a lymphocyte transformation test which measures the reactivity of white blood cells to active infections of *Borrelia burgdorferi* (using the three antigens found in Europe and North America *Borrelia afzelii, Borrelia garinii, Borrelia burgdorferi sensu stricto*).

If a MELISA® test is positive, this indicates that there is a connection between the patient’s current symptoms and Lyme disease. Also, MELISA® can be used before and after antibiotic treatment to show if the treatment was successful.