THE UNIVERSITY of TEXAS
HEALTH SCIENCE CENTER AT HOUSTON
Office of Technology Management

IMMUNO-DIAGNOSIS OF LYME DISEASE

Market: Approximately 20,000 cases of Lyme disease in humans are reported per year in the United States. Lyme disease is the most common tick-borne disease in the US and is also a significant veterinary problem due to a high infection rate of dogs and other domestic animals in endemic regions. The European market is equal to or greater than the US market. Because of the shared manifestations with other disorders, the diagnostic market is not limited to Lyme disease cases, but is much larger. There is a commercial demand for vaccines and diagnostic kits for Lyme disease, both for human and veterinary use.

Competitors and Current Problems: Lyme disease is often difficult to diagnose because of shared manifestations with other disorders. If undetected and untreated, Lyme disease can cause life long debilitating symptoms. Western blot and ELISA are the two most common tests for Lyme disease. However, current Lyme disease diagnostics have proven to be unreliable. One problem with current methods is the inaccuracy of detection during the early stages of the disease – if detected early, antibiotic treatment is effective. The earlier the treatment begins, the more effective antibiotics are in prevention of later stage complications. Thus, there is a clear need for novel methods in the diagnosis of Lyme disease.

The Technology: Researchers at the University of Texas Health Science Center at Houston (UTHSC-H) have developed methods and compositions for the diagnosis for Lyme disease. More specifically, immunoreactivity of patient blood or serum samples to VlsE peptides or antibodies has been discovered to be a highly sensitive diagnostic test for Lyme disease. The UTHSCH patent portfolio includes VlsE DNA, protein (full length and fragments thereof), antibodies, and diagnostic uses of VlsE peptides and antibodies. UTHSCH is offering non-exclusive licenses to this patent portfolio for use in humans.

NON-CONFIDENTIAL TECHNOLOGY DESCRIPTION

The preceding is intended to be a non-confidential summary of a novel technology created at the University of Texas Health Science center at Houston (UTHSCH), for which the University has obtained patent protection.

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Inventors: Norris et al.
Patent Status: United States Issued Patent Nos. 6,437,116; 6,719,983; 6,740,744; 7,135,176; European Patent No. 0 894 143 (published as EP1589109); European Patent Publication number: EP1572714
License Available: world-wide; non-exclusive use in humans.

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