Immune Biomarkers in Lyme Disease

Dr. Aucott is a graduate of the University of California at Berkeley and attended the Johns Hopkins University School of Medicine. He trained at University Hospitals of Cleveland and is a diplomate of the American Board of Internal Medicine with board certification in Infectious Diseases.

Dr. Aucott is an Assistant Professor of Medicine at Johns Hopkins University School of Medicine and is the Director of the Lyme disease Clinical Research Center in the Division of Rheumatology and Department of Medicine at Johns Hopkins Hospital. He is currently the Principal Investigator for the SLICE studies, examining the impact of Lyme disease on long term health outcomes and immune function. The biorepository of samples from the SLICE studies are a nationally recognized resource that has formed the basis of numerous collaborations studying the microbiology and immune pathophysiology of Lyme disease.

Dr. Aucott is an internationally recognized leader in the field of Lyme disease and the long term health outcomes associated with Lyme disease. He lectures widely on the accurate diagnosis of Lyme disease and the understanding of chronic illness associated with post-treatment Lyme disease syndrome. He is the Director of the Johns Hopkins Lyme Disease
Annual Physician CME Course.

He has published numerous articles in the field of infectious diseases that have examined the clinical manifestations, diagnostic challenges, and public health impact of Lyme disease. In collaboration with Maryland Department of Health he has developed innovated educational tools designed to help health practitioners more accurately diagnose Lyme disease. Under Dr. Aucott’s leadership the Johns Hopkins Lyme Disease Research Center has developed numerous education tools to help patients and physicians in the fight against the Lyme disease epidemic (hopkinslyme.org).

Conference Lecture Summary

Progress in molecular immunology combined with a focus on translational research has resulted in a unique opportunity for discovery of immune biomarkers for Lyme disease. The SLICE study at Johns Hopkins has enrolled hundreds of patients with well validated and meticulously characterized Lyme disease at all stages of illness. The careful clinical analysis of these patients allows the formation of distinct subgroups of patients with unique characteristics. These subgroups have more homogenous features that increase the ability to find biologic markers of illness.

The SLICE studies large biorepository of blood samples is analyzed by different methods in order to identify different types of immune biomarkers. The types of biomarkers include the genetic blueprints for the immune response, the immune proteins themselves as well as the immune cells in our blood.

This talk will review several immune biomarkers that may be important for diagnostic, prognostic and treatment guidance for the future.