

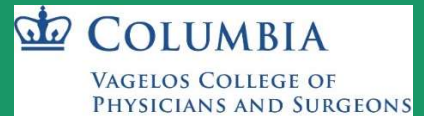
September 21 & 22, 2019

Jointly Provided By LDA/Columbia University:

2019 Annual CME Scientific Conference

Lyme & Other Tick-Borne Diseases: 20th Annual Scientific Update for Clinicians & Researchers

Philadelphia, PA at the Hilton Penn's Landing



Designed for physicians, other health care professionals & researchers. The public is also invited to register.

The conference features faculty consisting of clinicians and researchers from across the USA & other countries.

Paige Armstrong, MD, MHLCDR, CDC; Rickettsial Diseases: Epidemiologic Trends, Clinical Diagnosis and Management

Adrian Baranchuk, MD, FACC, FRCPC, FCCS, Queen's University; Systematic Approach for the Diagnosis and Treatment of Lyme Carditis

Choukri Ben Mamoun, PhD, Yale University; Continuous In Vitro Culture of *Babesia duncani* in Human Red Blood Cells: An Inflection Point in Diagnosis and Therapy of Human Babesiosis

George Chaconas, PhD, University of Calgary; An Inside Look at the Life of a Pathogen: Intravital Imaging to Study Hematogenous Dissemination of the Lyme Disease Spirochete

Charles Chiu, MD, PhD, University of California (San Francisco); Multi-Omics Approaches to Diagnosis of Lyme Disease and Other Tick-Borne Infections

Madeleine W. Cunningham, PhD, University of Oklahoma; From Bench to Bedside: Anti-Neuronal Autoantibodies in Lyme Disease and Beyond

J. Stephen Dumler, MD, Uniformed Services University; Human Granulocytic Anaplasmosis-Emerging Faster than Lyme Disease

Ingeborg Dziejcz, MD, ABAARM, Pleasant Vision Ophthalmology Practice; Potential Late Ophthalmic Consequences of Lyme Disease

Brian Fallon, MD, MPH (Conference Director), Columbia University; Clinical Trials: Biologic & Clinical Measures of Change

Holly M. Frost, MD, University of Colorado; The Pitfalls of Serologic Assays for the Diagnosis of Tick-Borne Diseases: A Case Series and Review of the Literature

Osama Haddad, MD, Mayo Clinic; Mitral Valve Endocarditis: A Rare Manifestation of Lyme Disease

Emir Hodzic, DVM, MSc, PhD University of California (Davis); Post-Treatment Persistence of Antimicrobial Tolerant Replicatively-Attenuated *Borrelia burgdorferi* in a Mouse Model

Lance A. Liotta, MD PhD, George Mason Univ; Shedding of Urinary Tick Pathogen-Specific Proteins in Patients with Tick-Borne Diseases

Joanna Lyon, PharmD, MEd, MHS, CHES, BCGP, University of Maryland; The Possible Association Between the Human ABCB1 Gene and Post-Treatment Lyme Disease Syndrome

Margaret R. MacDonald, MD, PhD, The Rockefeller University; Powassan Virus: An Emerging Tick-Borne Threat

Robert K. Naviaux, MD, PhD, Univ. of California (San Diego); Metabolomic Features of Acute and Chronic Lyme Disease-Early Results from the UCSD Lyme-ME/CFS Comparison Study

Peter Novak, MD, PhD, Harvard University; Neurological Correlates of Post-Treatment Lyme Disease Syndrome

Mark J. Soloski, PhD, Johns Hopkins University; Host Immune Response in Lyme Borreliosis

Daniel E. Sonenshine, PhD, Old Dominion University; How Climate Change Affects Range Expansion of Tick Vectors and Spread of Tick-Borne Disease in North America

Eric Storch, PhD, Baylor College of Medicine; Obsessive Compulsive Disorder

Philip Strandwitz, PhD, Northeastern University; The Gut-Brain-Axis – Potential Therapeutic Targets

Registration Fees

Continuing Medical Education (CME) Registration

- \$460 (7-15-19 through 9-19-19)
- \$490 (9-20-19 through 9-22-19 @ door) *

Regular (Non-CME) Registration

- \$275 (7-15-19 through 9-19-19)
- \$290 (9-20-19 through 9-22-19 @ door) *

*At door prices, if space available, begins 9-20-19

*Deadlines are based on Eastern Time.

Saturday, September 21, 2019 8:00 a.m. - 6:00 p.m.

Reception 6:00 p.m.-8:00 p.m.

Sunday, September 22, 2019 8:00 a.m. - 3:00 p.m.

Conference Summary:

Topics: Rickettsial diseases; Lyme carditis; *Babesia*; intravital imaging of Lyme spirochete; multi-omics approaches to diagnosis; anti-neuronal autoantibodies; anaplasmosis; late ophthalmic consequences of Lyme; clinical trials; pitfalls of serologic diagnosis; mitral valve endocarditis; Post-Treatment persistence; shedding of urinary tick pathogen-specific proteins; PTLDS-human ABCB1 gene; neurological correlates of PTLDS; Powassan; metabolomic features of acute & chronic Lyme; host immune response in Borreliosis; climate change & spread of tick-borne disease in North America; Obsessive-compulsive disorder; Gut-Brain-Axis

Learning Objectives:

Clinicians should have better ability to use current diagnostic tests and to understand the difference between direct & indirect testing; Clinicians should be able to describe the manifestations and tests for *Babesia duncani*, spotted fevers, Powassan virus, and *Anaplasma*; Clinicians should be able to explain to patients that changes in the microbiome may impact brain function; Clinicians should be able to describe some of the key immune biomarker findings in Lyme disease; and Clinicians should be able to describe the possible ocular, neurologic, and cardiac effects of Lyme disease.

This activity has been approved for *AMA PRA Category 1 Credit™*

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Steven & Alexandra Cohen Foundation

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IGeneX Labs, Inc.

