

ANNUAL MEETINGNovember 20–24, 2019 | astmh.org | ajtmh.org | [#TropMed19](https://twitter.com/TropMed19)

GAYLORD NATIONAL RESORT AND CONVENTION CENTER | NATIONAL HARBOR, MD, USA

ASTMH is an international society committed to equity and global impact through the treatment and prevention of tropical infectious diseases. Our diverse membership comes from more than 115 countries... we are committed to the open exchange of ideas, freedom of thought and expression, and productive scientific debate... open and diverse environment that is built on dignity and mutual respect for all... free of discrimination based on personal attributes including race, ethnicity, color, national origin, age, religion, socioeconomic status, disability, sexual orientation, gender, and gender identity or expression. ASTMH is an international society committed to equity and global impact through the treatment and prevention of tropical infectious diseases. Our diverse membership comes from more than 115 countries... we are committed to the open exchange of ideas, freedom of thought and expression, and productive scientific debate... open and diverse environment that is built on dignity and mutual respect for all... free of discrimination based on personal attributes including race, ethnicity, color, national origin, age, religion, socioeconomic status, disability, sexual orientation, gender, and gender identity or expression.

Arbovirology Pre-meeting Course:**Arboviroemics: How 'omics' Technologies are Advancing Arbovirus Research and Control**

November 20, 2019; 7 a.m. – 3:15 p.m.

Gaylord National Resort and Convention Center, National Harbor, Maryland

An improved understanding of arbovirus biology and transmission dynamics is essential to the development of disease prevention strategies. A comprehensive view of arbovirus life cycles requires integration of multiple time and length scales, which was often technically limited until recently. In the last decade, advances in 'omics' technologies such as high-throughput sequencing and mass spectrometry are providing unprecedented opportunities to advance arbovirus research through increased resolution of observations at multiple temporal and spatial scales. This pre-meeting course will provide an overview of omics techniques applied to arbovirus research and illustrate how the knowledge generated can inform arbovirus prevention and control.

Course Co-Chairs:*Felix Hol, PhD, Department of Bioengineering, Stanford University, Stanford, California, USA**Louis Lambrechts, PhD, HDR, Department of Virology, Institut Pasteur, Paris, France***AGENDA**

- 7 a.m. Light Continental Breakfast
- 7:30 a.m. **Welcome and Introduction by Course Organizers**
Felix Hol, PhD, Department of Bioengineering, Stanford University, Stanford, California, USA
Louis Lambrechts, PhD, HDR, Department of Virology, Institut Pasteur, Paris, France
- 7:45 a.m. **The NGS Toolbox for Arbovirologists: Do I Need a Screwdriver or a Hammer?**
Nathan Grubaugh, PhD, MSc, Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, Connecticut, USA
- 8:30 a.m. **The ZiBRA Project**
Nuno Faria, PhD, MSc, BSc, Department of Zoology, Balliol College, University of Oxford, Oxford, United Kingdom

- 9:15 a.m. **Using Mobility Data and Sequence Data to Reconstruct Transmission Chains and Understand the Spatial Spread of Arboviruses**
Henrik Salje, PhD, Department of Global Health, Institut Pasteur, Paris, France
- 10 a.m. Coffee Break
- 10:15 a.m. **Intrahost Population Dynamics of Arboviruses: High Throughput Approaches and New Molecular Tools**
Gregory Ebel, ScD, Department of Microbiology, Immunology and Pathology, Arthropod-Borne and Infectious Diseases Laboratory, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, Colorado, USA
- 11 a.m. **Zika Virus Evolutionary Dynamics in Host Adaptation**
Matthew Aliota, PhD, Department of Veterinary and Biomedical Sciences, College of Veterinary Medicine, University of Minnesota, Twin Cities, St. Paul, Minnesota, USA
- 11:45 a.m. Lunch (on your own)
- 1 p.m. **Understanding Flavivirus Replication and Pathogenesis Through Virus-Host Interaction Mapping**
Priya Shah, PhD, Department of Chemical Engineering, Department of Microbiology and Molecular Genetics, University of California – Davis, Davis, California, USA
- 1:45 p.m. **Arthropod Metagenomics: Characterizing the Diversity of Viruses in Mosquitoes to Advance Knowledge of Mosquito Microbiomes and Vector-Borne Infectious Diseases**
Shannon Bennett, PhD, BSc, Institute for Biodiversity Science and Sustainability, California Academy of Sciences, San Francisco, California, USA
- 2:15 p.m. **Metagenomics of the Mosquito Virome: Practicum**
Panpim Thongsripong, PhD, MS, BSc, Institute for Biodiversity Science and Sustainability, California Academy of Sciences, San Francisco, California, USA
- 3:15 p.m. Course Adjourns