



SIXTY-EIGHTH

## PRE-MEETING COURSES AT THE ANNUAL MEETING

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

GAYLORD NATIONAL RESORT AND CONVENTION CENTER

NATIONAL HARBOR, MARYLAND, 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 but not limited to **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 but not limited to **ethnicity, color, national origin, age, religion, socioeconomic status, disability, sexual orientation, gender, and gender identity or expression**.



## 2019 PRE-MEETING COURSES

Registration will open

**June 17**



ASTMH membership reflects a wide range of expertise in tropical medicine. For this reason, Society subgroups provide unique forums for members to engage in core scientific, educational, advocacy and policy issues related to a specific expertise with fellow stakeholders of similar interests. Benefits of becoming a subgroup member include receiving information on networking, pre-meeting course and symposia activities planned for Annual Meetings to enhance career development.

### THIS YEAR FOUR UNIQUE PRE-MEETING COURSES WILL BE OFFERED ON WEDNESDAY, NOVEMBER 20.

- Tropical Diseases Encountered in Non-Travel Clinics (Clinical Group)
- Imaging Parasites from Single Molecules to Entire Organisms (Parasitology)
- Arbovirotics: How 'omics' Technologies are Advancing Arbovirus Research and Control (Arbovirology)
- Field Applications for Stopping Infectious Disease Threats at International Points of Entry (Global Health)

The Annual Meeting will be held Wednesday, November 20 through Sunday, November 24, 2019 at the Gaylord National Resort and Convention Center in National Harbor, Maryland, USA.

#### CLINICAL PRE-MEETING COURSE

##### Tropical Diseases Encountered in Non-Travel Clinics

Wednesday, November 20, 7 a.m. – 4:15 p.m.

This full-day course will cover a broad range of tropical diseases that are commonly encountered in the primary care setting. The course is designed for clinicians who are already familiar with clinical tropical and travel medicine. We will focus on problems in tropical and travel medicine that are commonly seen by a primary care provider caring for either migrants, ill travelers, or travelers at risk for infectious exposures. The overall objective will be to help practitioners update their knowledge base in these areas, and improve their comfort level in managing these types of problems. There will be relatively little discussion of topics which are typically managed by specialty referral centers. The speakers will emphasize new or controversial aspects of diagnosis and management. The target audience includes any clinician who wants to develop a deeper understanding of tropical and travel medicine.

#### PARASITOLOGY PRE-MEETING COURSE

##### Imaging Parasites from Single Molecules to Whole Organism

Wednesday, November 20, 7 a.m. – 4:15 p.m.

Parasitic infections in humans are caused by a diverse range of eukaryotic pathogens, including both single-celled and multi-cellular organisms. Microscopy has provided an enormous wealth of information about the pathogenesis of these infections, the life cycle of the causative parasites, and the molecular mechanisms that underpin their growth and replication. In this course, we will discuss cutting-edge techniques to visualize parasites – from the single molecule to the whole organism. Recent advances to the classic techniques of light and electron microscopy, together with computer-based algorithms to understand these data, have pushed the frontiers of imaging parasites. In this course, we will discuss these techniques and how they can be applied to divergent parasitic organisms to gain new levels of understanding about their basic cell biology and molecular pathogenesis. We will cover advances in 2D and 3D imaging techniques, advances in single molecule structural studies, and use of artificial intelligence as well as high-throughput imaging to elucidate parasite biology.

“It’s like an all-you-can-eat buffet of brain food! So much to learn about all the interesting things that are happening around the world.”

~2018 Attendee

## 2019 PRE-MEETING COURSES

### ASTMH Inclusion/Respect Statement

The 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 and engages with an enormous array of infectious diseases, cultures, ethnicities, and countries. We come from academia, research institutes, implementation programs, industry, multilateral organizations, foundations, and governments, gathering annually to exchange data, share learning, and honor contributions from the field and the lab.

As a Society, we are committed to the open exchange of ideas, freedom of thought and expression, and productive scientific debate that are central to our mission. These require an open and diverse environment that is built on dignity and mutual respect for all members, participants, and staff, free of discrimination based on personal attributes including but not limited to ethnicity, color, national origin, age, religion, socioeconomic status, disability, sexual orientation, gender, and gender identity or expression. We affirm the key principles of inclusion, diversity, and respect for all people. In a world of rich diversity, the advancement of science depends on the intellectual breadth and depth of a diverse ASTMH, one that informs and enriches the shape and content of scientific discourse. These principles guide the actions of ASTMH's leaders, members, and staff in advancing the goals of the Society.

### ARBOVIROLOGY PRE-MEETING COURSE Arboviroemics: How 'omics' Technologies are Advancing Arbovirus Research and Control

**Wednesday, November 20, 7 a.m. – 3:15 p.m.**

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. Below are some of the topics that will be covered during the course.

#### Intracellular Arbovirus-Host Interactions

High-throughput techniques, including transcriptomics, proteomics and lipidomics, offer unique opportunities to understand how viruses hijack the host cell machinery and resources to replicate. This can be done through changes in gene expression or through direct physical contact with host machinery.

#### Arbovirus Within-Host Evolution

Because of their high mutation rate, arboviruses typically exist within their host as a heterogeneous population of related genetic variants, which is considered critical for their fitness and adaptive potential. The advent of high-throughput sequencing has allowed the study of arbovirus genetic diversity and evolution at the within-host level with unprecedented resolution.

#### Arbovirus Surveillance and Genomic Epidemiology

Tracking the spread of arbovirus outbreaks can assist in their control. Owing to the declining cost and increasing portability of high-throughput sequencing technology, combined with advances in virus phylogenetics, arbovirus outbreaks can be monitored in real-time from initial detection and characterization to transmission chain tracking and outbreak mapping.

### About ASTMH

The American Society of Tropical Medicine and Hygiene, founded in 1903, is the largest international scientific organization of experts dedicated to reducing the worldwide burden of tropical infectious diseases and improving global health. We accomplish this through generating and sharing scientific evidence, informing health policies and practices, fostering career development, recognizing excellence, and advocating for investment in tropical medicine/global health research.

ASTMH is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

[Join ASTMH](#)

## 2019 PRE-MEETING COURSES

### GLOBAL HEALTH PRE-MEETING COURSE

#### Field Applications for Stopping Infectious Disease Threats at International Points of Entry

**Wednesday, November 20, 7:30 a.m. – 4:15 p.m.**

The Ebola outbreak, which originated in Guinea in December 2013 and spread to Liberia, Sierra Leone, Nigeria and other countries, was due in part to a failure to adequately implement aspects of the International Health Regulations 2005 (IHR), which urges state parties (i.e., signatory states/countries of the IHR) to promptly detect and respond to infectious disease threats at international points of entry (PoE). Public health emergency preparedness at international ground crossings, airports and seaports requires a well-coordinated effort among public and private service providers and operators, public health officials, law enforcement and border control units, and local healthcare facilities. The pace and connectedness of international air travel and transportation today represents an unprecedented global public health risk. Workforce development, multisectoral planning and exercise activities for communicable disease preparedness at international airports, based on the IHR and guidelines from the International Civil Aviation Organization (ICAO), have been a priority for Public Health authorities in many countries as a component of the Global Health Security Agenda. This workshop will provide attendees an opportunity to understand the challenges faced by national authorities and international response organizations by providing a theoretical framework for implementation of the IHR at international PoE, as well as by providing practical experience through facilitated discussions and exercises. Participants can expect to be able to begin developing global health-related competencies that are essential to respond to public health events that impact travel across international borders.

#### At the end of the activity, participants will be able to:

- Understand the tenets of the International Health Regulations (2005) - 3rd edition, 2016-;
- Describe how IHR and other relevant health regulations and agreements (e.g., Global Health Security Agenda) relate to the daily work of health professionals posted at PoE;
- Identify the capacities that must be in place at PoE in order to prevent, detect and respond to infectious diseases;
- Analyze the decision-making process on implementing health measures that are commensurate with the risk, avoiding unnecessary interference with international traffic and trade;
- Discuss measures and tools that may be used at PoE to meet the objectives of the IHR;
- Consider the lessons learned and discuss the strengths and limitations of tools used at points of entry; and
- Develop and demonstrate a mastery of skills-based competency by participating in a tabletop exercise.

### Hotel Information

**The Gaylord National Resort and Convention Center is the site for Annual Meeting activities.**

#### FOR RESERVATIONS:

#### The Gaylord National Resort and Convention Center

201 Waterfront Street

National Harbor, MD 20745 (just outside of Washington, DC)

Phone +1-877-491-0468

**Reservation Cutoff Deadline October 17, 2019**

**Meeting dates: November 20 – 24, 2019**

**Make your reservation online**

Mention that you are an ASTMH attendee to receive the conference rate of \$267/night single or double plus all applicable taxes.

ASTMH has also reserved a limited number of rooms at the current government rate. This is a large meeting and hotel rooms go fast. We encourage you to make your hotel reservation early.



### HOUSING SCAM ALERT!

Unauthorized third parties are contacting previous Annual Meeting attendees and offering discounted hotel rooms for the ASTMH 2019 Annual Meeting. These solicitations ask for credit card information and have resulted in fraudulent charges. If you have been approached by anyone offering a special hotel rate for the ASTMH Meeting, please contact [info@astmh.org](mailto:info@astmh.org).