ASTMH THANKS THE 55TH ANNUAL MEETING SUPPORTERS

Burroughs Wellcome Fund

GlaxoSmithKline

Focus Diagnostics, Inc.

Holleypharm

International Association for Medical Assistance to Travelers

Medicines for Malaria Venture

National Institutes of Health/ National Institute of Allergy and Infectious Diseases

Panbio Inc.

sanofi pasteur

TechLab Inc.

WWW.ASTMH.ORG
See the ASTMH 55th Annual Meeting Abstract Book, included with your registration packet, to view the full text of abstracts presented at the annual meeting.
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# About the American Society of Tropical Medicine and Hygiene (ASTMH)

ASTMH is the principal organization in the United States representing scientists, clinicians and others with interests in the prevention and control of tropical diseases based on research and education. The interests of the society are in tropical medicine, including the varied parasitic and viral diseases of the tropics, as well as other infectious diseases, such as enteric and mycobacterial infections. ASTMH members include those with clinical, epidemiological and basic biochemical, immunologic and molecular approaches to both diseases and pathogens. Within the society are various active subgroups with specific interests, such as medical entomology, molecular parasitology and clinical tropical diseases. The mission of ASTMH is to promote world health by the prevention and control of tropical diseases through research and education.

# Join the American Society of Tropical Medicine and Hygiene

We invite you to join ASTMH and benefit from membership in the premier international organization for scientists involved in tropical medicine and global health. ASTMH provides a forum for sharing scientific advances, exchanging ideas, fostering new research and providing professional education. See the membership application on page 233.

# Questions

If you have any questions regarding the program or registration, visit the ASTMH registration desk in the Marquis Foyer.
### Friday, November 10

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>4:00 p.m. – 6:00 p.m.</td>
<td>Pre-Meeting Course Registration</td>
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### Saturday, November 11

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>7:00 a.m. – 1:30 p.m.</td>
<td>Pre-Meeting Course Registration</td>
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<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Registration for Certificate of Knowledge Examination</td>
</tr>
<tr>
<td>8:00 a.m. – Noon</td>
<td>Certificate of Knowledge Examination</td>
</tr>
<tr>
<td>8:30 a.m. – 4:30 p.m.</td>
<td>Pre-Meeting Course: Knockouts (and Knock-Ins) in Parasites: Promises and Challenges</td>
</tr>
<tr>
<td>Noon – 5:00 p.m.</td>
<td>Speaker Ready Room</td>
</tr>
<tr>
<td>1:00 p.m. – 5:30 p.m.</td>
<td>Pre-Meeting Course: 100 Years of Rickettsia: Howard Taylor Ricketts Centennial Commemorative</td>
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### Sunday, November 12

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<thead>
<tr>
<th>Time</th>
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<tr>
<td>7:00 a.m. – 6:00 p.m.</td>
<td>Speaker Ready Room</td>
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<td>7:30 a.m. – 3:00 p.m.</td>
<td>Pre-Meeting Course: 100 Years of Rickettsia: Howard Taylor Ricketts Centennial Commemorative</td>
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<tr>
<td>8:00 a.m. – 3:30 p.m.</td>
<td>ASTMH Council Meeting</td>
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<tr>
<td>10:30 a.m. – 6:00 p.m.</td>
<td>Registration</td>
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<tr>
<td>11:00 a.m. – 3:30 p.m.</td>
<td>Young Investigator Award Presentations</td>
</tr>
<tr>
<td>Noon – 2:00 p.m.</td>
<td>ACAV SIE Subcommittee Meeting</td>
</tr>
<tr>
<td>1:00 p.m. – 6:00 p.m.</td>
<td>Cyber Café</td>
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<tr>
<td>2:15 – 3:15 p.m.</td>
<td>ACAV SIRACA Subcommittee Meeting</td>
</tr>
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<td>3:30 p.m. – 5:00 p.m.</td>
<td>ACME council Meeting</td>
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<td>3:30 p.m. – 5:00 p.m.</td>
<td>Young Investigator Award Committee Meeting</td>
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<td>ACMCIP Council Meeting</td>
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<td>3:30 p.m. – 5:30 p.m.</td>
<td>ACAV Council Meeting</td>
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<td>4:00 p.m. – 5:00 p.m.</td>
<td>Student Reception</td>
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<tr>
<td>5:30 p.m. – 7:30 p.m.</td>
<td>Opening Plenary Session and Awards Ceremony</td>
</tr>
<tr>
<td>7:30 p.m. – 9:30 p.m.</td>
<td>Opening Reception</td>
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<td>7:30 p.m. – 9:30 p.m.</td>
<td>Exhibits Open</td>
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### Monday, November 13

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<tr>
<td>7:00 a.m. – 6:00 p.m.</td>
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<td>7:00 a.m. – 8:00 a.m.</td>
<td>Corporate Liaison Committee Meeting</td>
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<td>7:00 a.m. – 8:30 a.m.</td>
<td>Clinical Group Council Meeting</td>
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<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Meet the Professors: Fireside Chat</td>
</tr>
<tr>
<td>8:00 a.m. – 9:45 a.m.</td>
<td>Scientific Sessions/Symposia</td>
</tr>
<tr>
<td>9:30 a.m. – 10:30 a.m.</td>
<td>Exhibits Open</td>
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<tr>
<td>9:45 a.m. – 10:15 a.m.</td>
<td>Break</td>
</tr>
<tr>
<td>9:45 a.m. – 10:15 p.m.</td>
<td>Poster Session A Setup</td>
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### Tuesday, November 14

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<td>7:00 a.m. – 5:00 p.m.</td>
<td>Cyber Café</td>
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<tr>
<td>7:00 a.m. – 6:00 p.m.</td>
<td>Speaker Ready Room</td>
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<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Journal Editorial Board Meeting</td>
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<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Clinical Group Past Presidents Meeting</td>
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<tr>
<td>8:00 a.m. – 9:45 a.m.</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>9:30 a.m. – 10:30 a.m.</td>
<td>Exhibits Open</td>
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<td>9:45 a.m. – 10:15 a.m.</td>
<td>Poster Session B Setup</td>
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<tr>
<td>9:45 a.m. – 10:15 a.m.</td>
<td>Break</td>
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<tr>
<td>10:15 a.m. – Noon</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>10:15 a.m. – Noon</td>
<td>Poster Session B Viewing (#394–645)</td>
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<tr>
<td>Noon – 1:30 p.m.</td>
<td>Exhibits Open</td>
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<tr>
<td>Noon – 1:30 p.m.</td>
<td>Poster Session B Presentations</td>
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<tr>
<td>12:15 p.m. – 1:15 p.m.</td>
<td>Meet the Professors and Mid-Day Sessions</td>
</tr>
<tr>
<td>1:30 p.m. – 3:15 p.m.</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>1:30 p.m. – 7:00 p.m.</td>
<td>Plenary Session III</td>
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<tr>
<td>7:00 p.m. – 8:00 p.m.</td>
<td>Poster Session B Dismantle</td>
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<tr>
<td>7:00 p.m. – 9:00 p.m.</td>
<td>Late Breakers in Basic Science/Molecular Biology</td>
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<tr>
<td>7:00 p.m. – 9:00 p.m.</td>
<td>Late Breakers in Clinical Tropical Medicine</td>
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### Wednesday, November 15

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<th>Time</th>
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<td>7:00 a.m. – 9:00 a.m.</td>
<td>Exhibits Open</td>
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<td>7:00 a.m. – 9:00 a.m.</td>
<td>Scientific Sessions/Symposia</td>
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<td>7:00 a.m. – 9:00 a.m.</td>
<td>Break</td>
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<tr>
<td>7:00 a.m. – 9:00 a.m.</td>
<td>Poster Session B Viewing</td>
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<tr>
<td>8:00 a.m. – 9:45 a.m.</td>
<td>Exhibits Open</td>
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<tr>
<td>9:30 a.m. – 10:30 a.m.</td>
<td>Break</td>
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<tr>
<td>9:45 a.m. – 10:15 a.m.</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>9:45 a.m. – 10:15 a.m.</td>
<td>Poster Session B Setup</td>
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<tr>
<td>10:15 a.m. – Noon</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>10:15 a.m. – Noon</td>
<td>Poster Session B Viewing (#394–645)</td>
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<tr>
<td>Noon – 1:30 p.m.</td>
<td>Exhibits Open</td>
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<tr>
<td>Noon – 1:30 p.m.</td>
<td>Poster Session B Presentations</td>
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<tr>
<td>12:15 p.m. – 1:15 p.m.</td>
<td>Meet the Professors and Mid-Day Sessions</td>
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<tr>
<td>1:30 p.m. – 3:15 p.m.</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>1:30 p.m. – 3:45 p.m.</td>
<td>Plenary Session II</td>
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<tr>
<td>3:15 p.m. – 5:00 p.m.</td>
<td>Plenary Session II</td>
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<tr>
<td>3:45 p.m. – 5:00 p.m.</td>
<td>Plenary Session II</td>
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### Thursday, November 16

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<tr>
<td>7:00 a.m. – 9:00 a.m.</td>
<td>Exhibits Open</td>
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<td>7:00 a.m. – 9:00 a.m.</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>7:00 a.m. – 9:00 a.m.</td>
<td>Break</td>
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<tr>
<td>7:00 a.m. – 9:00 a.m.</td>
<td>Poster Session B Viewing</td>
</tr>
<tr>
<td>8:00 a.m. – 9:45 a.m.</td>
<td>Exhibits Open</td>
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<tr>
<td>9:30 a.m. – 10:30 a.m.</td>
<td>Break</td>
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<tr>
<td>9:45 a.m. – 10:15 a.m.</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>9:45 a.m. – 10:15 a.m.</td>
<td>Poster Session B Setup</td>
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<tr>
<td>10:15 a.m. – Noon</td>
<td>Scientific Sessions/Symposia</td>
</tr>
<tr>
<td>10:15 a.m. – Noon</td>
<td>Poster Session B Viewing (#394–645)</td>
</tr>
<tr>
<td>Noon – 1:30 p.m.</td>
<td>Exhibits Open</td>
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<tr>
<td>Noon – 1:30 p.m.</td>
<td>Poster Session B Presentations</td>
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<tr>
<td>12:15 p.m. – 1:15 p.m.</td>
<td>Meet the Professors and Mid-Day Sessions</td>
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<tr>
<td>1:30 p.m. – 3:15 p.m.</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>1:30 p.m. – 3:45 p.m.</td>
<td>Plenary Session III</td>
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<tr>
<td>3:15 p.m. – 5:00 p.m.</td>
<td>Plenary Session II</td>
</tr>
<tr>
<td>3:45 p.m. – 5:00 p.m.</td>
<td>Plenary Session II</td>
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Program Changes
The time and/or location of any activity or session is subject to change. Notices of program changes will be posted in the ASTMH registration area. A Program Update is included in your registration packet.
### Schedule-at-a-Glance

**Wednesday, November 15**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 a.m. – 5:00 p.m.</td>
<td>Registration</td>
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<tr>
<td>7:00 a.m. – 5:00 p.m.</td>
<td>Cyber Café</td>
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<tr>
<td>7:00 a.m. – 6:00 p.m.</td>
<td>Speaker Ready Room</td>
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<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Diploma Course Directors Meeting</td>
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<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>ASTMH Past Presidents Meeting</td>
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<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Cyberspace/Web Site Committee Meeting</td>
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<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Scientific Program Committee Meeting</td>
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<tr>
<td>8:00 a.m. – 9:45 a.m.</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>9:30 a.m. – 10:30 a.m.</td>
<td>Exhibits</td>
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<tr>
<td>9:45 a.m. – 10:15 a.m.</td>
<td>Poster Session C Setup</td>
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<tr>
<td>9:45 a.m. – 10:15 a.m.</td>
<td>Break</td>
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<tr>
<td>10:15 a.m. – Noon</td>
<td>Poster Session C Viewing</td>
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<tr>
<td>10:15 a.m. – Noon</td>
<td>Scientific Sessions/Symposia</td>
</tr>
<tr>
<td>Noon – 2:30 p.m.</td>
<td>Exhibits Open</td>
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<tr>
<td>Noon – 1:30 p.m.</td>
<td>Poster Session C Presentations (#738–966)/Light Lunch</td>
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<td>1:30 p.m. – 3:15 p.m.</td>
<td>Meet the Professors and Mid-Day Sessions</td>
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<td>1:30 p.m. – 1:15 p.m.</td>
<td>CME/Courses Committee Meeting</td>
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<td>12:15 p.m. – 1:15 p.m.</td>
<td>Certificate Exam Committee Meeting</td>
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<td>1:30 p.m. – 7:00 p.m.</td>
<td>Poster Session C Viewing</td>
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<tr>
<td>3:15 p.m. – 3:45 p.m.</td>
<td>Break</td>
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<tr>
<td>3:45 p.m. – 5:30 p.m.</td>
<td>Scientific Sessions/Symposia</td>
</tr>
<tr>
<td>6:00 p.m. – 7:30 p.m.</td>
<td>Plenary Session IV: Presidential Address and Annual Business Meeting</td>
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<tr>
<td>7:00 p.m. – 8:00 p.m.</td>
<td>Poster Session C Dismantle</td>
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**Thursday, November 16**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 a.m. – 10:30 a.m.</td>
<td>Registration</td>
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<td>7:00 a.m. – 10:30 a.m.</td>
<td>Cyber Café</td>
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<td>7:00 a.m. – Noon</td>
<td>Speaker Ready Room</td>
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<td>7:30 a.m. – 9:30 a.m.</td>
<td>ASTMH Council Meeting</td>
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<td>8:00 a.m. – 9:45 a.m.</td>
<td>Scientific Sessions/Symposia</td>
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<td>Break</td>
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<tr>
<td>9:45 a.m. – Noon</td>
<td>Scientific Sessions/Symposia</td>
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<tr>
<td>Noon</td>
<td>Meeting Adjourns</td>
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**Program Changes**

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<table>
<thead>
<tr>
<th>Time</th>
<th>International Level</th>
<th>Marquis Ballroom</th>
<th>Summit</th>
<th>Copenhagen/Stockholm/Amsterdam</th>
<th>Sydney/Zurich</th>
<th>Marquis 2</th>
<th>Bonn/London</th>
<th>10th Floor Foyer</th>
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**Schedule-at-a-Glance**

**www.astmh.org**

**Sunday, November 12**
### Schedule-at-a-Glance

**Sunday, November 12 (continued)**

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Visit the Cyber Café on the Garden Level South

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Need a place to meet?
Sign up for meeting time in the Trinidad and Madrid rooms on the Convention Level.
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## Schedule-at-a-Glance

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**Schedule-at-a-Glance**

**Tuesday, November 14 (continued)**

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*Visit the Cyber Café on the Garden Level South*

**Need a place to meet?**
Sign up for meeting time in the Trinidad and Madrid rooms on the Convention Level.*

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*www.astmh.org*
### Wednesday, November 15

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### Thursday, November 16

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<td>New Fixed-dose ACTs P. 194</td>
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<td><strong>Fogarty International Center Infectious Disease Research Networking Meeting</strong>&lt;br&gt;9 a.m. – 5 p.m.&lt;br&gt;Copenhagen/Stockholm/Amsterdam/Bonn/Sydney</td>
<td><strong>Bill and Melinda Gates Foundation</strong>&lt;br&gt;8 a.m. – 6 p.m.&lt;br&gt;Room 3824</td>
<td><strong>GlaxoSmithKline Conference Rooms</strong>&lt;br&gt;8 a.m. – 6 p.m.&lt;br&gt;Rooms 3814, 3929</td>
<td><strong>The Public Library of Science Neglected Tropical Diseases Editorial Board Meeting</strong>&lt;br&gt;7 a.m. – 8 a.m.&lt;br&gt;Room 3834</td>
<td><strong>Bill and Melinda Gates Foundation</strong>&lt;br&gt;8 a.m. – 6 p.m.&lt;br&gt;Room 3824</td>
<td><strong>Bill and Melinda Gates Foundation</strong>&lt;br&gt;8 a.m. – 6 p.m.&lt;br&gt;Room 3824</td>
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<td><strong>Fogarty International Center Global Infectious Disease Grant Workshop</strong>&lt;br&gt;9 a.m. – 5 p.m.&lt;br&gt;Room 3814</td>
<td><strong>UMass Medical School-Sponsored Annual Investigators’ Meeting</strong>&lt;br&gt;8 a.m. – 5 p.m.&lt;br&gt;Room 3934</td>
<td><strong>Institute for OneWorld Health Project Teams: Malaria, VL and Diarrhea</strong>&lt;br&gt;9 a.m. – 5 p.m.&lt;br&gt;Rooms 904, 907, 910</td>
<td><strong>Institute for OneWorld Health Reception and Dinner</strong>&lt;br&gt;6 p.m. – 10 p.m.&lt;br&gt;Hilton Hotel Crystal Ballroom</td>
<td><strong>Institute for OneWorld Health Project Teams: Malaria, VL and Diarrhea</strong>&lt;br&gt;9 a.m. – 5 p.m.&lt;br&gt;Rooms 904, 907, 910</td>
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<td><strong>WHO Task Force on Clinical Trials of Dengue Vaccines</strong>&lt;br&gt;9 a.m. – 6 p.m.&lt;br&gt;Consulate</td>
<td><strong>WHO Task Force on Clinical Trials of Dengue Vaccines</strong>&lt;br&gt;9 a.m. – 6 p.m.&lt;br&gt;Consulate</td>
<td><strong>London School of Hygiene and Tropical Medicine Alumni Reception</strong>&lt;br&gt;7 p.m. – 9 p.m.&lt;br&gt;Hilton Hotel Point of View Lounge</td>
<td><strong>London School of Hygiene and Tropical Medicine Alumni Reception</strong>&lt;br&gt;7 p.m. – 9 p.m.&lt;br&gt;Hilton Hotel Point of View Lounge</td>
<td><strong>PATH MVI/GlaxoSmithKline Steering Committee Meeting</strong>&lt;br&gt;4 p.m. – 7 p.m.</td>
<td><strong>Bill and Melinda Gates Foundation</strong>&lt;br&gt;8 a.m. – 6 p.m.&lt;br&gt;Room 3824</td>
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<td><strong>MR4 Science Advisory Committee</strong>&lt;br&gt;10 a.m. – 3 p.m.&lt;br&gt;Cabinet</td>
<td><strong>Malaria Vaccine Initiative Technical Advisory Group</strong>&lt;br&gt;Noon – 5 p.m.&lt;br&gt;Room 3908</td>
<td><strong>Institute for OneWorld Health Project Teams: Malaria, VL and Diarrhea</strong>&lt;br&gt;9 a.m. – 5 p.m.&lt;br&gt;Rooms 904, 907, 910</td>
<td><strong>WRAIR/GlaxoSmithKline Dengue Meeting</strong>&lt;br&gt;2 p.m. – 8 p.m.&lt;br&gt;Room 4029</td>
<td><strong>WRAIR Meet and Greet the Commanding Officer</strong>&lt;br&gt;5 p.m. – 7 p.m.&lt;br&gt;Consulate</td>
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<td><strong>Malaria Vaccine Initiative Technical Advisory Group</strong>&lt;br&gt;Noon – 5 p.m.&lt;br&gt;Room 3908</td>
<td><strong>Institute for OneWorld Health Project Teams: Malaria, VL and Diarrhea</strong>&lt;br&gt;9 a.m. – 5 p.m.&lt;br&gt;Rooms 904, 907, 910</td>
<td><strong>WRAIR/GlaxoSmithKline Dengue Meeting</strong>&lt;br&gt;2 p.m. – 8 p.m.&lt;br&gt;Room 4029</td>
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<td><strong>GeoSentinel Site Directors Meeting</strong>&lt;br&gt;2:30 p.m. – 5 p.m.&lt;br&gt;Room 4029</td>
<td><strong>Malaria Vaccine Initiative Technical Advisory Group</strong>&lt;br&gt;3 p.m. – 5 p.m.&lt;br&gt;Room 3924</td>
<td><strong>Liverpool School of Tropical Medicine MIP Working Group</strong>&lt;br&gt;6 p.m. – 8 p.m.&lt;br&gt;Room 925</td>
<td><strong>Liverpool School of Tropical Medicine MIP Working Group</strong>&lt;br&gt;6 p.m. – 8 p.m.&lt;br&gt;Room 925</td>
<td><strong>Malaria Vaccine Initiative CTPC Meeting</strong>&lt;br&gt;12:30 p.m. – 8 p.m.&lt;br&gt;London</td>
<td><strong>Malaria Vaccine Initiative CTPC Meeting</strong>&lt;br&gt;8 a.m. – 6 p.m.&lt;br&gt;Sydney</td>
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**NOTE:** Affiliate group meetings are by invitation only.
ASTMH Council, Committee and Subgroup Meetings

Sunday, November 12

ASTMH Council Meeting
Summit
8:00 a.m. – 3:30 p.m.

American Committee on Arthropod-Borne Viruses (ACAV) SIE Subcommittee
Room 3829
11:00 a.m. – Noon

American Committee on Arthropod-Borne Viruses (ACAV) SIRACA Subcommittee
Room 3829
Noon – 2:00 p.m.

American Committee on Arthropod-Borne Viruses (ACAV) SALS Subcommittee
Room 3829
2:15 p.m. – 3:15 p.m.

American Committee of Medical Entomology (ACME) Council Meeting
Room 904
3:30 p.m. – 5:00 p.m.

American Committee on Arthropod-Borne Viruses (ACAV) Council Meeting
Room 3829
3:30 p.m. – 5:30 p.m.

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Council Meeting
Room 907
3:30 p.m. – 5:00 p.m.

Young Investigator Award Committee Meeting
Bonn/London
3:30 p.m. – 5:00 p.m.

Monday, November 13

Clinical Group Council Meeting
Room 3829
7:00 a.m. – 8:30 a.m.

Public Policy Working Group
Room 3908
7:00 a.m. – 8:00 a.m.

Clinical Group Education Curriculum Committee Meeting
Room 3914
Noon – 1:30 p.m.

Clinical Group Board Certification Committee Meeting
Room 3934
12:15 p.m. – 1:15 p.m.

Certificate Exam Executive Committee Meeting
Room 3908
12:15 p.m. – 1:15 p.m.

Tuesday, November 14

Clinical Group Past Presidents Meeting
Summit
7:00 a.m. – 8:00 a.m.

Journal Editorial Board Meeting
Room 3908
7:00 a.m. – 8:00 a.m.

Burroughs Wellcome Fund — ASTMH Fellowship Committee Meeting
Room 3908
7:00 p.m. – 9:00 p.m.

Wednesday, November 15

ASTMH Past Presidents Meeting
Summit
7:00 a.m. – 8:00 a.m.

Cyberspace/Web Site Committee Meeting
Room 3908
7:00 a.m. – 8:00 a.m.

Diploma Course Directors Meeting
Room 3834
7:00 a.m. – 8:00 a.m.

Scientific Program Committee Meeting
Consulate
7:00 a.m. – 8:00 a.m.

Certificate Exam Committee Meeting
Room 3908
12:15 p.m. – 1:15 p.m.

Continuing Medical Education/Courses Committee Meeting
Room 3914
12:15 p.m. – 1:15 p.m.

Thursday, November 16

ASTMH Council Meeting
Summit
7:30 a.m. – 9:30 a.m.

Committee Meetings
The Trinidad room and Madrid room on the Convention level, are designated for committee meetings and other group meetings. Meeting room reservations are available on a first-come, first-served basis. Use the sign-up sheets located outside these rooms to reserve meeting time for your group.

ASTMH Subgroup Tables
Visit the American Committee of Medical Entomology (ACME) and the American Committee on Arthropod-Borne Viruses (ACAV) information tables in the exhibit hall to learn about their programs and activities.
ASTMH 55th Annual Meeting

Officers

President
Myron (Mike) Levine

President-Elect
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Mark Eberhard
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David McNeeley
Barbara Herwaldt

Late Breakers in Molecular Biology
Stefan Kappe
Rebeca Rico-Hesse

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Chair: Carol Sibley
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Sanjai Kumar
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Chair: Thaddeus Graczyk
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Upinder Singh

Tick-Louse-Flea-Mite-Borne Diseases
Chair: Stephen Dumler
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Chair: Jean Nachega
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Chair: Daniel Carucci
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Chair: Mike Levine (2006)

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Rodney Adam; Kathryn Aultman; Ynes Ortega

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John David; Thomas Monath; Frank Neva

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Chair: Don Krogstad

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Chair: Robert Tesh
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Chair: Joe Vinetz
John Adams; Barbara Burleigh; Michael Cappello; Barbara Mann; Diane McMahon-Pratt
Program Certification
Chair: James Maguire
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James Kazura; Donald Krogstad; Larry Laughlin; Anne McCarthy; Alan Spira;
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Daniel Colley; Ed Cupp; Duane Gubler; David Kaslow; Evan Secor

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Co-Chairs: Jay Keystone and Alan Magill

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Chair: Peter Zimmerman
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Anthony James; Christopher King; Nicholas Komar; Julian Rayner;
Evan Secor

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Affiliate Membership & Travel Awards

Affiliate (Organizational) Membership
Affiliate membership is an opportunity for a company, corporation, foundation or other type of organization to support ASTMH and its mission. Affiliate members designate one individual to serve as the main contact and receive society mailings. Affiliate membership benefits include:

- Recognition in ASTMH publications and at the annual meeting, and
- Discounts on annual meeting exhibit space fees, journal advertising rates and list rentals

Affiliate membership is available at the Patron, Donor and Contributor levels. Contact ASTMH headquarters for details or to request an application.

ASTMH Affiliate Members

Patron
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Contributor
Merck Research Laboratories
Panbio Inc.

2006 Travel Awards
Supported with funding from the National Institutes of Health/National Institute of Allergy and Infectious Diseases

Ibne Karim M. Ali
Stanford University
Stanford, California USA
Abstract 621

Tran Chau Nguyen
Hospital for Tropical Diseases, Clinical Research Unit
Ho Chi Minh City, Vietnam
Abstract 1005

Rushina Cholera
National Institutes of Health/National Institute of Allergy and Infectious Diseases
Bethesda, Maryland USA
Abstract 996

Josue da Costa Lima, Jr.
Fundação Oswaldo Cruz
Rio de Janeiro, Brazil
Abstract 198

Judith Easterbrook
The Johns Hopkins Bloomberg School of Public Health
Baltimore, Maryland USA
Abstract 678

Joseph Fair
Tulane University
Ft. Detrick, Maryland USA
Abstract 277

Darryl Falzarano
University of Manitoba
Winnipeg, Manitoba Canada
Abstract 660

Yvette A. Girard
University of Texas Medical Branch
Galveston, Texas USA
Abstract 120

Moses R. Kamya
Makerere University
Kampala, Uganda
Abstract 320

Rebekah Kent
The Johns Hopkins Bloomberg School of Public Health
Baltimore, Maryland USA
Abstract 1060

Mark Kuniholm
The Johns Hopkins Bloomberg School of Public Health
Baltimore, Maryland USA
Abstract 659

Daniella Martins
Federal University of Rio Grande del Norte
Natal, Brazil
Abstract 685

Kriti Mittal
Clemson University
Clemson, South Carolina USA
Abstract 942

Luciano Moreira
Centro de Pesquisas René Rachou
Belo Horizonte, Brazil
Abstract 582

Kija Ng’habi
Ifakara Health Research and Development Centre
Morogoro, United Republic of Tanzania
Abstract 1055

Denise Njama-Meya
Makerere University
Kampala, Uganda
Abstract 343

Jonathan M. Sherman
Mayo Medical School
Rochester, Minnesota USA
Abstract 1082

Ratawan Ubalee
Armed Forces Research Institute of Medical Sciences (AFRIMS)
Bangkok, Thailand
Abstract 164

Tsin Wen Yeo
Menzies School of Health Research
Darwin, Australia
Abstract 339

Karine Zevallos Villegas
Universidad Peruana Cayeto Heredia Peru
Iquitos, Peru
Abstract 1083

2006 American Committee of Medical Entomology (ACME) Travel Awards

Luca Facchinelli
University of Rome “La Sapienza”
Rome, Italy
Abstract 256

Sonja Kjos
Texas A&M University
College Station, Texas
Abstract 40
Continuing Medical Education
Accreditation
The American Society of Tropical Medicine and Hygiene is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Continuing Medical Education Credits
The American Society of Tropical Medicine and Hygiene designates this educational activity for a maximum of 35.5 AMA PRA Category 1 Credit(s)™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

Register for CME Credit
The CME documentation fee is $100. CME certificates will be mailed six-to-eight weeks after the annual meeting.

Complete your CME evaluation form online! Visit the ASTMH Cyber Café and complete your online CME Attendance and Evaluation Form while at the meeting. Or use your own computer to access the evaluation form at www.astmh.org/cme.

Full Disclosure Policy Affecting CME Activities
Consistent with ASTMH policy, faculty for this meeting are expected to disclose any economic or other personal interests that create, or may be perceived as creating, a conflict related to the material discussed. All conflicts of interest must be resolved prior to the annual meeting.

In addition, consistent with ASTMH policy, faculty are expected to disclose to attendees at the beginning of their presentation(s) any product mentioned during their presentation that is not labeled for the use under discussion or is still investigational. This policy is intended to allow you to form your own judgments about such material.

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General Meeting Information

Registration Hours
Marquis Foyer

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday, November 12</td>
<td>10:30 a.m. – 6:00 p.m.</td>
</tr>
<tr>
<td>Monday, November 13</td>
<td>7:00 a.m. – 5:00 p.m.</td>
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<tr>
<td>Tuesday, November 14</td>
<td>7:00 a.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>Wednesday, November 15</td>
<td>7:00 a.m. – 5:00 p.m.</td>
</tr>
<tr>
<td>Thursday, November 16</td>
<td>7:00 a.m. – 10:30 a.m.</td>
</tr>
</tbody>
</table>

Messages and Emergency Calls
A message board will be available near the ASTMH registration desk. Check the message board often to retrieve your messages. Phone calls should be directed to 404-521-0000, the main switchboard of the Atlanta Marriott Marquis. Callers should ask to be connected to the ASTMH registration desk. Faxes can be sent to the hotel at 404-586-6299.

Badges/Access Control
Participation in the ASTMH annual meeting is limited to registered attendees. The official badge is required for admission to all sessions, social activities and the exhibit area. Do not place a business card into the badgeholder as identification. If there is an error on a badge, please have it corrected at the registration desk.

Replacement Badge
If your badge is lost, you must purchase a replacement badge for a fee of $15. Bring your photo I.D. with you to the registration desk to have a new badge issued. This fee will not be refunded if you find your original badge.

Spouse/Guest Registration
(Only for those outside the tropical medicine field)
Spouse/guest registration includes admission to the opening reception on Sunday, admission to the exhibit hall, plenary sessions and poster sessions only.
Food Functions
The following food functions are included in the registration fee:
• Opening reception (Sunday)
• Student reception (Sunday)
• Meet the Professors student session continental breakfast (Monday)
• Poster session lunches (Monday, Tuesday and Wednesday)
• Coffee breaks

Hotel Information
The Atlanta Marriott Marquis is the headquarters hotel and site of the majority of annual meeting activities. Due to unforeseen construction, some sessions will be held at the Hilton Atlanta Hotel, located directly across the street from the Marriott.

Atlanta Marriott Marquis
265 Peachtree Center Avenue
Atlanta, GA 30303
404-521-0000
Fax: 404-586-6299

Hilton Atlanta Hotel Downtown
255 Courtland Street, N.E.
Atlanta, GA 30303
404-659-2000
Fax: 404-221-6368

Hotel Parking
Parking at the Atlanta Marriott Marquis is currently available for $22 per day, plus taxes for either self-parking or valet parking.

Americans with Disabilities Act
ASTMH fully complies with the legal requirements of the ADA and the rules and regulations thereof.

Exhibits
Exhibit Hall
The ASTMH 55th Annual Meeting features an exposition of displays by leading suppliers and vendors. A complete exhibitor and supporter directory is included in the registration packet.

Exhibit Hours
Sunday, November 12 7:30 – 9:30 p.m.
Monday, November 13 9:30 – 10:30 a.m.
Noon – 1:30 p.m.
3:00 – 4:00 p.m.
Tuesday, November 14 9:30 – 10:30 a.m.
Noon – 1:30 p.m.
3:00 – 4:00 p.m.
Wednesday, November 15 9:30 – 10:30 a.m.
Noon – 2:30 p.m.

Solicitations
Sales and promotional activities are restricted to exhibitors and must take place in their assigned exhibit area. Solicitations by unauthorized persons are strictly prohibited.

Cyber Café
Visit the Cyber Café on the Garden Level South (dining level above lobby level). As a courtesy to other attendees, we ask that you limit your computer use to ten minutes per visit.

Wednesday and Thursday Coffee Breaks at the Hilton Hotel
On Wednesday and Thursday, some sessions will be held at the Atlanta Hilton, directly across the street from the Atlanta Marriott Marquis. Coffee breaks at the Hilton for Wednesday and Thursday will be stationed on the second floor pre-function area.

Press Room
The press room is located in the Calgary Room on the Convention Level. ASTMH press kits are available. Press announcements and other details can be found in the Calgary Room. Press room hours of operation are as follows:
Monday, November 13 8 a.m. – 6 p.m.
Tuesday, November 14 8 a.m. – 6 p.m.
Wednesday, November 15 8 a.m. – 6 p.m.
Thursday, November 16 8 a.m. – 2 p.m.

Employment Opportunities
Bulletin boards for posting employment opportunities are available in the ASTMH registration area.

Career Center
Our new online Career Center is now available at www.astmh.org, featuring a fresh, user-friendly design and enhanced functionality. In addition to viewing a wide range of available positions in the tropical medicine and hygiene field, members can now post resumes anonymously and search for jobs by keyword, location and job type. Employers can now set up an account, post open positions on the ASTMH Web site, buy classified ad space in the Journal of Tropical Medicine and Hygiene and search the ASTMH resume bank for qualified applicants.

Camera Restrictions/Recording Devices
Only registered members of the press and attendees who receive approval from ASTMH staff may take cameras into the exhibit hall or use recording devices during sessions.

Disclaimer
ASTMH is not responsible for the opinions expressed by speakers or the content of speaker handout materials.

Meeting Evaluation
ASTMH needs your input to enhance future meetings. An online meeting evaluation survey will be e-mailed to you shortly after the meeting. Your participation in this survey is greatly appreciated.

The scientific program committee welcomes your input concerning the format and planning of this and future ASTMH meetings. Organization of symposia and participation in educational program planning through the program committee is encouraged for all interested ASTMH members.
The American Journal of Tropical Medicine and Hygiene

Trial Journal Subscriptions
The American Journal of Tropical Medicine and Hygiene has included a complimentary trial subscription number in your registration packet. Non-members can activate this 90-day trial to enjoy the benefits of an online journal subscription at no charge. Members already enjoy a subscription to the online journal and can pass the trial subscription number along to a non-member colleague.

AJTMH Symposium
Mid-Day Session 21A
Monday, November 13
12:15 – 1:15 p.m.
Copenhagen/Stockholm/Amsterdam

This session is designed to educate attendees about the journal and the publishing process as a whole. Discussion will focus on how manuscripts are reviewed, edited and processed by the journal, and will include pointers on preparation and review of manuscripts. See the handout in your registration packet for more information. We encourage you to ask questions at this session and would like to hear your feedback on the journal.

Stop by the ASTMH booth in the exhibit hall to view sample copies of the journal, or to see a demonstration of the journal’s submission/review site and AJTMH Online.

Program Information
Late Breaker Abstracts

Late Breakers in Clinical Tropical Medicine
Monday, November 13
7 – 9 p.m.
Copenhagen/Stockholm/Amsterdam

Late Breakers in Basic Science/Molecular Biology
Monday, November 13
7 – 9 p.m.
Marquis 1

These sessions are designed for brief presentations of important, new data obtained after the closing date for abstract submission. Oral late breaker presentations will take place on Monday evening. Poster late breaker presentations will take place during the poster sessions on Monday, Tuesday and Wednesday. A schedule of late breaker abstract presentations can be found in your registration packet.

Special Events for Students, Fellows and Residents

Student Reception
Sunday, November 12
4 – 5 p.m.
10th Floor Foyer

The ASTMH council invites students, postdoctoral fellows and residents to the student reception. This reception is an opportunity to meet fellow trainees and interact with society leaders.

Session 1: Meet the Professors A
Fireside Chat: Personal Experiences, Words of Wisdom and Institutional Perspectives
Monday, November 13
7 – 8 a.m.
International 5/6

Designed for students and trainees as the next generation of tropical medicine leaders, a panel of professors will share information on their backgrounds, weaving their life experiences in tropical medicine from undergraduate days through their current activities, incorporating their favorite science along the way. Breakfast will be served.

Meet the Professors
Meet the Professors sessions are small, interactive programs held on Monday, Tuesday and Wednesday. A special student session will be held on Monday at 7 a.m. Other sessions will be held on Monday, Tuesday and Wednesday from 12:15 - 1:15 p.m. The sessions are open to all meeting participants and lunch will be provided. While the professors will lead the program and have some prepared remarks, the sessions will be largely question and answer format.

ACMCIP Abstracts
Throughout this book, you will notice that some abstracts are followed by the notation “(ACMCIP abstract).” This notation means the abstract submitter indicated that the abstract pertains to molecular, cellular or immunoparasitology. ACMCIP refers to the American Committee of Molecular, Cellular and Immunoparasitology, an ASTMH subgroup. For more information, go to http://www.astmh.org/sic/acmcip.cfm.
### Poster Sessions

**International Level and Skyline Level/10th Floor**

Three poster sessions will be held at the ASTMH 55th Annual Meeting on the International Level (exhibit hall level) and Skyline Level (10th Floor). There are additional times for poster viewing (presenters need not be in attendance during these time periods).

We encourage attendees to visit the poster hall throughout the day. Poster viewing time is scheduled each day in the morning and afternoon.

### Poster Session Schedule

| Poster Session A | Presentations: | Monday, November 13
|                 | Noon – 1:30 p.m. | Dismantle: | Monday, November 13 7:00 p.m. – 8:00 p.m. |
| Setup: | Monday, November 13 9:45 a.m. – 10:15 a.m. |
| Viewing: | Monday, November 13 10:15 a.m. – Noon 1:30 p.m. – 7:00 p.m. |

| Poster Session B | Presentations: | Tuesday, November 14 Noon – 1:30 p.m. |
|                 | Dismantle: | Tuesday, November 14 7:00 p.m. – 8:00 p.m. |
| Setup: | Tuesday, November 14 9:45 a.m. – 10:15 a.m. |
| Viewing: | Tuesday, November 14 10:15 a.m. – Noon 1:30 p.m. – 7:00 p.m. |

| Poster Session C | Presentations: | Wednesday, November 15 Noon – 1:30 p.m. |
|                 | Dismantle: | Wednesday, November 15 7:00 p.m. – 8:00 p.m. |
| Setup: | Wednesday, November 15 9:45 a.m. – 10:15 a.m. |
| Viewing: | Wednesday, November 15 10:15 a.m. – Noon 1:30 p.m. – 7:00 p.m. |

### Workers in Tropical Medicine Video Sessions

Take note of the following sessions highlighting prominent workers in tropical medicine:

#### Mid-Day Session 65

**Workers in Tropical Medicine Video: “Karl M. Johnson, MD: Life and Legend of a Leader in Tropical Virology”**

- **Tuesday, November 14**, 12:15 p.m. – 1:15 p.m.
- **International 4**

This 60-minute film presents an interview of Dr. Karl Johnson, focusing on his career in tropical medicine. The interview was conducted by Barnett L. Cline, MD, PhD.

#### Mid-Day Session 103

**Workers in Tropical Medicine Video: “The Life and Work of Bill Collins: A Laboratorian’s 50-Year Battle against Malaria”**

- **Wednesday, November 15**, 12:15 p.m. – 1:15 p.m.
- **International 4**

This 50-minute video features an interview of William Collins by Mark Eberhard. Dr. Collins discusses the past, present and future of malaria research, including his 50 years of contributions to the field. Produced by the Centers for Disease Control and Prevention.

### Online Program Options

Following the meeting, search the annual meeting program online by abstract word, title, subject, author and presentation time at [http://www.astmh.org](http://www.astmh.org).

Late breaker abstracts and post-publication changes in the program and abstracts can be found on the ASTMH Web site.

### Speaker Ready Room and Audiovisual Facilities

**International B/C**

Audiovisual preview and submission facilities are provided beginning Saturday, November 11 at noon in the International B/C room, located on the International Level (exhibit hall level).

All oral presentations must use PowerPoint. Slides and overheads are not permitted, as slide projectors and overhead projectors will not be available at the annual meeting.

Pre-load your presentation in the Speaker Ready Room 24 hours prior to your session. If you are unable to do so, and you have a morning presentation, please go directly to the meeting room to load your presentation at least one-half hour before your session. If you have an afternoon presentation and are unable to load your presentation the day before, visit the Speaker Ready Room on the morning of your talk.

**Special Notice for Hilton Presenters**

For speakers scheduled to present in a meeting room at the Hilton on Wednesday or Thursday, note that **there is NOT a Speaker Ready Room at the Hilton.** It is very important that you visit the Speaker Ready Room at the Marriott 24 hours prior to your session in order to drop off your presentation disk with an AV technician.

Your presentation should be saved on a floppy disk, CD-R or memory stick. The CD-R should be in a version that can be read on any PC CD-ROM. If you use a Mac, make sure that your presentation is readable via PC PowerPoint.

A computer and LCD projector will be set up in each presentation room. You cannot present your talk from your own laptop. Your presentation will be run from the AV technician’s PC-based computer.

We strongly encourage you to pre-load your presentation in the Speaker Ready Room 24 hours prior to presentation time.

### Speaker Ready Room Hours

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday, November 11</td>
<td>Noon – 5 p.m.</td>
</tr>
<tr>
<td>Sunday, November 12</td>
<td>7 a.m. – 6 p.m.</td>
</tr>
<tr>
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</tr>
<tr>
<td>Thursday, November 16</td>
<td>7 a.m. – Noon</td>
</tr>
</tbody>
</table>
MARK YOUR CALENDAR!

ASTMH 56th Annual Meeting
November 4–8, 2007
Philadelphia Marriott Downtown
Philadelphia, Pennsylvania USA

www.astmh.org

Philadelphia, PA

American Society of Tropical Medicine and Hygiene
60 Revere Drive
Suite 500
Northbrook, IL 60062 USA
Phone: 847/480-9592
Fax: 847/480-9282
info@astmh.org
http://www.astmh.org
Workers in Tropical Medicine Video Presentation

Marquis Foyer

Workers in Tropical Medicine: Oral History Project Re-Initiated

Selected biographical videos of ASTMH members who have made important contributions to the field of tropical medicine will be shown at the annual meeting. The original tapes of the interviews have been converted to DVD format. A viewing station in the Marquis Foyer has been reserved where interested visitors can view DVDs of their choice. DVD histories available include:

- Jordi Casals
- K.F. Meyer
- William Reeves
- Albert Sabin
- Thomas Weller
- Telford Work
- And others......
In addition, the society has begun to produce new video biographies, with the intent of publishing these pieces in the ASTMH journal with links to the video/audio versions on the Web.

The first video of the new series is “Karl M. Johnson, MD: Life and Legend of a Leader in Tropical Virology,” to be screened at the conference on Tuesday, November 14 at 12:15 p.m. – 1:15 p.m. This project has obvious importance to the field of tropical medicine and the society. We urge you to visit the viewing area and value your comments and suggestions.
Friday, November 10

Pre-Meeting Course Registration

100 Years of *Rickettsia*: Howard Taylor Ricketts
Centennial Commemorative

Knockouts (and Knock-Ins) in Parasites:
Promises and Challenges

Marquis Foyer
Friday, November 10
4:00 p.m. – 6:00 p.m.

Saturday, November 11

Speaker Ready Room Open

International B/C
Saturday, November 11
Noon – 5:00 p.m.

Pre-Meeting Course Registration:

Knockouts (and Knock-Ins) in Parasites:
Promises and Challenges

Marquis Foyer
Saturday, November 11
7:00 a.m. – 10:00 a.m.

Registration for ASTMH Certificate of
Knowledge Examination

Marquis 4
Saturday, November 11
7:00 a.m. – 8:00 a.m.

ASTMH Certificate of Knowledge Examination

Marquis 4
Saturday, November 11
8:00 a.m. – Noon

Parasitology Pre-Meeting Course:

Knockouts (and Knock-Ins) in Parasites:
Promises and Challenges

Marquis 2
Saturday, November 11
8:30 a.m. – 4:30 a.m.

This one-day workshop will target scientists, physicians, clinicians, graduate students and educators with interests in the rapidly evolving field of transfection technologies and gene disruption in parasites of tropical disease importance. Topics will include an overview of transfection technologies, disrupting or adding gene function and future approaches to manipulating gene function in complex organisms such as parasites. The course will benefit those who want to stay abreast of recent advances in the understanding of the transfection and gene regulation technologies.

8:30 a.m.
LIGHT CONTINENTAL BREAKFAST

9 a.m.
INTRODUCTION — COURSE GOALS AND OUTLINE
Daniel J. Carucci
Foundation for National Institutes of Health, Bethesda, MD, United States

9:30 a.m.
OVERVIEW OF TRANSFECTION TECHNOLOGIES I:
GENE KNOCKOUT/GENE MODIFICATION
Andrew Waters
Leiden University Medical Centre, Leiden, The Netherlands

10:30 a.m.
OVERVIEW OF TRANSFECTION TECHNOLOGIES II:
TRANSGENE EXPRESSION (GFP/INDUCIBLE EXPRESSION)
Brendan Crabb
Walter & Eliza Hall Institute of Medical Research, Parkville, Victoria, Australia

11:15 a.m.
NON-TRANSFORMATION-BASED SYSTEMS
Elisabetta Ullu
Yale University School of Medicine, New Haven, CT, United States

Noon
LUNCH ON YOUR OWN

1:30 p.m.
LEISHMANIA
Stephen Beverley
Washington University School of Medicine, St. Louis, MO, United States

2:15 p.m.
TOXOPLASMA
David Sibley
Washington University School of Medicine, St. Louis, MO, United States

3 p.m.
PLASMODIUM
David Fidock
Albert Einstein College of Medicine, Bronx, NY, United States

3:45 p.m.
PANEL DISCUSSION

Pre-Meeting Course Registration:

100 Years of *Rickettsia*: Howard Taylor Ricketts
Centennial Commemorative

Marquis Foyer
Saturday, November 11
11:00 a.m. – 1:30 p.m.
100 Years of *Rickettsia*: Howard Taylor Ricketts
Centennial Commemorative

Supported with funding from Focus Diagnostics, Inc. and Panbio Inc.

Marquis 1

Saturday, November 11  1:00 p.m. – 5:30 p.m.

This two-day seminar commemorates the 100th anniversary of Ricketts’ first publication describing the “virus” of Rocky Mountain spotted fever in ticks in the Bitterroot Valley of western Montana. The major goals of the seminar are to review the historical record of Ricketts’ discoveries and to detail the major advances that have occurred since his discovery in the field that now bears his name: rickettsiology. Included will be in-depth discussions of old and new clinical disease entities, pathogenic mechanisms of *rickettsiae* and related bacteria, vector biology, diagnosis, preventive measures, and immunity and vaccine development.

1 p.m.
INTRODUCTION — COURSE GOALS AND OUTLINE
J. Stephen Dumler
*The Johns Hopkins University School of Medicine, Baltimore, MD, United States*

David Walker
*University of Texas Medical Branch at Galveston, Galveston, TX, United States*

1:10 p.m.
*Ricketts’ Contributions to Science: A History of Rickettsiology*
Victoria Harden
*National Institutes of Health, Bethesda, MD, United States*

2 p.m.
*Rocky Mountain Spotted Fever (Rickettsia rickettsii)*
Daniel J. Sexton
*Duke University Medical Center, Durham, NC, United States*

2:45 p.m.
*Mediterranean Spotted Fever (Rickettsia conorii)*
Phillippe Brouqui
*Unite des Rickettsies, Marseille, France*

3:30 p.m.
BREAK

4 p.m.
*Rickettsial Diseases and Acute Pyrexias of Unknown Origin in the Tropics Murine Typhus (Rickettsia Typhi) and Scrub Typhus (Orientia Tsutsugamushi)*
Khachornsakdi Silpapojakul
*Prince of Songkhla University, Hat Yai, Songkhla, Thailand*

5 p.m.
*Rickettsial Infections in Travelers*
Daniel J. Sexton
*Duke University Medical Center, Durham, NC, United States*

100 Years of *Rickettsia*: Howard Taylor Ricketts
Centennial Commemorative

Marquis 1
Sunday, November 12  7:30 a.m. – 3:00 p.m.

7:30 a.m.
LIGHT CONTINENTAL BREAKFAST

8 a.m.
*Louse-Borne Typhus (Rickettsia Prowazeki)*
David Walker
*University of Texas Medical Branch at Galveston, Galveston, TX, United States*

8:45 a.m.
*Ehrlichiosis and Related Rickettsial Infections*
J. Stephen Dumler
*The Johns Hopkins University School of Medicine, Baltimore, MD, United States*

9:30 a.m.
BIOLOGY OF VECTOR-RICKETTSIAE INTERACTIONS
Kenneth Gage
*Centers for Disease Control and Prevention, Atlanta, GA, United States*

Noon
LUNCH ON YOUR OWN

1:30 p.m.
*Rickettsial Immunity and Vaccines*
Gustavo Valbuena
*University of Texas Medical Branch, Galveston, TX, United States*

2 p.m.
*Diagnosis of Rickettsial Infections*
J. Stephen Dumler
*The Johns Hopkins University School of Medicine, Baltimore, MD, United States*

2:30 p.m.
*Epidemiology and Prevention of Rickettsial Infections*
James E. Childs
*Yale University of Medicine, New Haven, CT, United States*
Sunday, November 12

Speaker Ready Room Open

International B/C

Sunday, November 12 7:00 a.m. – 6:00 p.m.

ASTMH Council Meeting

Summit

Sunday, November 12 8:00 a.m. – 3:30 p.m.

Registration

Marquis Foyer

Sunday, November 12 10:30 a.m. – 6:00 p.m.

Cyber Café Open

Garden Level South

Sunday, November 12 1:00 p.m. – 6:00 p.m.

ACAV SIE Subcommittee

Room 3829

Sunday, November 12 11:00 a.m. – Noon

Young Investigator Award Presentations

In Honor of William A. Petri, Sr.

Supported with funding from TechLab Inc.

ASTMH will present the Young Investigator Award to outstanding young researchers during the 55th Annual Meeting. This award encourages developing young scientists to pursue careers in various aspects of tropical disease research.

Young Investigator Award Session A

Copenhagen/Stockholm/Amsterdam

Sunday, November 12 11:00 a.m. – 3:30 p.m.

CHAIR

Caryn Bern

Centers for Disease Control and Prevention, Atlanta, GA, United States

Stephen Davies

Uniformed Services University of the Health Sciences, Bethesda, MD, United States

W. Evan Secor

Centers for Disease Control and Prevention, Atlanta, GA, United States

11 a.m.

MODULATION OF EARLY HUMAN IMMUNE RESPONSES BY LEISHMANIA CHAGASI

Nicholas A. Ettinger1, Mary Wilson2

1University of Iowa Carver College of Medicine, Interdisciplinary Program in Cellular and Molecular Biology/Medical Scientist Training Program, Iowa City, IA, United States, 2University of Iowa and the VAMC, Iowa City, IA, United States

11:15 a.m.

IS NALIDIXIC ACID-RESISTANCE LINKED TO CLINICAL VIRULENCE IN SALMONELLA ENTERICA SEROTYPE TYPHI INFECTIONS?

Tamilarasu Kadhiravan, Naveet Wig, K. Renuka, Arti Kapil, Sushil K. Kabra, Anoop Misra

All India Institute of Medical Sciences, New Delhi, India

11:30 a.m.

PRAZIQUANTEL BINDS SCHISTOSOMA MANSONI ADULT WORM ACTIN

Hatem A. Tallima, Rashika El Ridi

Cairo University, Faculty of Science, Cairo, Egypt

11:45 a.m.

CASE-CONTROL AND RETROSPECTIVE-COHORT STUDIES IN OUTBREAK INVESTIGATIONS, 1986-2005: AN UPDATE OF A CLASSICAL STUDY

Andres G. Lescano, Joshua M. Michaud, Gabriela Salmon-Mulanovich, Victor Gonzaga, David L. Blazes

US Naval Medical Research Center Detachment (NMRCID), APO AA, United States

Noon

HIGH PREVALENCE OF ENTEROAGGREGATIVE ESCHERICHIA COLI (EAEC) IN AIDS PATIENTS WITH DIARRHEA IN HAITI

Kathryn Dupnik1, Rebecca Dillingham1, Paul Leger2, Carole Anne Beautharnais2, Leah Barrett1, Daniel W. Fitzgerald2, Richard L. Guerrant1

1University of Virginia, Charlottesville, VA, United States, 2GHESKIO Centers, Port au Prince, Haiti, 3Weill Medical College, Cornell University, New York, NY, United States
12:15 p.m.  

**LINKING LANDSCAPE ECOLOGY AND ECHINOCOCCUS MULTILOCULARIS TRANSMISSION IN CHINA**

D. Pleydell¹, F. Raoul², A. Vaniscotte¹, P. Torgerson², F. M. Danson³, Q. Wang⁴, J. Qu⁴, P. S. Craig⁴, P. Giraudoux⁴

¹Université de Franche-Comté, Besançon, France, ²Universität Zürich, Zurich, Switzerland, ³University of Salford, Greater Manchester, United Kingdom, ⁴Sichuan Provincial Center for Disease Control and Prevention, Chengdu, China

12:30 p.m.

**HUMAN HOOKWORM VACCINE TRIAL: MODELING TRIAL EFFICACY AND HEALTH IMPACT**

Lorenzo Sabatelli¹, Azra Ghani¹, Peter Hotez², Laura Rodrigues¹, Simon Brooker³

¹London School of Hygiene and Tropical Medicine, London, United Kingdom, ²The George Washington University, Washington, DC, United States

12:45 p.m.

**LEISHMANIA CHAGASI T CELL ANTIGENS IDENTIFIED THROUGH A DOUBLE LIBRARY SCREEN**

Daniella R. Martins¹, Selma M. Jeronimo², John E. Donelson³, Mary E. Wilson⁴

¹Federal University of Rio Grande do Norte, Natal, RN, Brazil, ²Federal University of Rio Grande do Norte, Natal, Brazil, ³University of Iowa, Iowa City, IA, United States, ⁴University of Iowa and VAMC, Iowa City, IA, United States

1 p.m. – 1:30 p.m.

**BREAK**

1:30 p.m.

**A FUNCTIONAL POLYMORPHISM IN THE MACROPHAGE MIGRATION INHIBITORY FACTOR PROMOTER (MIF -173 G/C) INCREASES SUSCEPTIBILITY TO HIGH DENSITY PARASITEMIA IN CHILDREN WITH PLASMODIUM FALCIPARUM MALARIA**

Gordon A. Awandare¹, Collins Ouma², Yamo Ouma², Christopher C. Keller¹, Tom Were³, Richard O. Otieno³, Gregory C. Davenport¹, James B. Hittner³, John Michael On’gecha², Robert R. Ferrell³, Douglas J. Perkins¹

¹University of Pittsburgh Graduate School of Public Health, Department of Infectious Diseases and Microbiology, Pittsburgh, PA, United States, ²University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases, Center for Vector Biology and Control Research, Kisumu, Kenya, ³Department of Psychology, College of Charleston, Charleston, SC, United States, ⁴University of Pittsburgh Graduate School of Public Health, Department of Human Genetics, Pittsburgh, PA, United States

1:45 p.m.

**DIVERSITY OF TLR SNPS IN MALARIA ENDEMIC AREAS**

Jennifer Greene, Christopher Yohn, Ann Moormann, Peter Zimmerman, James Kazura

Case Western Reserve University, Cleveland, OH, United States

2 p.m.

**INVATION INHIBITION OF P. VIVAX BY ANTI-DUFFY BINDING PROTEIN ANTIBODIES**

Brian Grimberg¹, Rachanee Udomsangpetch², Jia Xianli¹, Kara Martin¹, Tasanee Panichaku², John Erickson¹, Christopher L. King¹, Peter A. Zimmerman¹

¹Case Western Reserve University, Cleveland, OH, United States, ²Mahidol University, Bangkok, Thailand

2:15 p.m.

**SPATIAL DISTRIBUTION OF INSECTICIDE-TREATED NETS: IMPLICATIONS FROM A TRANSMISSION MODEL FOR THE DESIGN AND EVALUATION OF INTERVENTIONS**

Manish A. Desai¹, Joseph N. Eisenberg²

¹University of California at Berkeley, Berkeley, CA, United States, ²University of Michigan, Ann Arbor, MI, United States

2:30 p.m.

**MOLECULAR EPIDEMIOLOGY OF CRYPTOSPORIDIOSIS IN CHILDREN IN KENYA**

Wangeci Gatei¹, C.A. Hart², C. Mbae³, N. Wamae³, E. Mulinge³, M. Nderitu⁵, S.K Kamwati³, G. Revathi⁶, Lihua Xiao⁷

¹Centers for Disease Control and Prevention-AREF, Atlanta, GA, United States, ²University of Liverpool, Liverpool, United Kingdom, ³Kenya Medical Research Institute, Nairobi, Kenya, ⁴Kenyatta National Hospital, Nairobi, Kenya, ⁵Centers for Disease Control and Prevention, Atlanta, GA, United States

2:45 p.m.

**LIVER FIBROSIS ASSOCIATED WITH EXPERIMENTAL FASCIOLA HEPATICA INFECTION: IN VIVO AND IN VITRO STUDIES**

Luis A. Marcos¹, Angelica Terashima², Pedro Yi³, Rosangela Teixeira⁴, Javier Cubero⁵, Carlos Alvarez⁶, Marco Canales², Patricia Herrera⁶, Eduardo Gotuzzo², Jose R. Espinoza³, Scott L. Friedman³, Efsevia Albanis⁵

¹Liver Disease Center, Mount Sinai School of Medicine, New York, NY, UNITED STATES, ²Institute of Tropical Medicine Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru, ³Institute of Tropical Medicine Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru, ⁴Facultad de Veterinaria y Zootecnia, Universidad Peruana Cayetano Heredia, Lima, Peru, ⁵School of Medicine/IAG-Federal University of Minas Gerais, Minas Gerais, Brazil, ⁶Liver Disease Center, Mount Sinai School of Medicine, New York, NY, UNITED STATES, ⁷Laboratorios de Investigación y Desarrollo, Universidad Peruana Cayetano Heredia, Lima, Peru
3 p.m. 26
THE EFFECT OF PRAZIQUANTEL TREATMENT ON IMMUNE RESPONSES AGAINST SCHISTOSOMIASIS MANSINI DURING PREGNANCY: CYTOKINE AND ANTIBODY RESPONSES IN PREGNANT WOMEN AND THEIR INFANTS
Robert Tweryongyere1, Patrice A. Mawa2, Prosccovia B. Namujju2, Frances M. Jones3, Juliet Ndibazza2, Nicholas Omoding2, Lawrwnce Muhangi2, Narcis B. Kabaterine4, Birgitle J. Vennervald5, David W. Dunne2, Eli Katunguka-Rwikishya6, Alison M. Elliott7
1Makerere University, Cambridge, United Kingdom, 2Medical Research Council/Uganda Virus Research Institute Uganda Research Unit on AIDS, Kampala, Uganda, 3University of Cambridge, Department of Pathology, Cambridge, United Kingdom, 4Vector Control Division, Ministry of Health, Kampala, Uganda, 5Denish Bilharzia Laboratory - Institute for Health Research and Development, Copenhagen, Denmark, 6Makerere University, Kampala, Uganda, 7London School of Hygiene and Tropical Medicine, London, United Kingdom

3:15 p.m. 18
DIFFERENTIAL GENE EXPRESSION BETWEEN M AND S FORMS OF ANOPHELES GAMBIAE
Bryan J. Cassone1, Matthew W. Hahn2, Karine Mouline1, Bradley J. White1, Nora J. Besansky1
1University of Notre Dame, Notre Dame, IN, United States, 2Indiana University, Bloomington, IN, United States
Young Investigator Award Session B
Sydney/Zurich
Sunday, November 12 11:00 a.m. – 3:30 p.m.
CHAIR
Brenda T. Beernsten
University of Missouri-Columbia, Columbia, MO, United States
Michael S. Diamond
Washington University School of Medicine, St Louis, MO, United States
Nicholas Komar
Centers for Disease Control and Prevention, Fort Collins, CO, United States

11 a.m. 459
LARVAL COMPETITION AFFECTS DENGUE VIRUS INFECTION IN ADULT Aedes aegypti AND A. albopictus
Barry W. Alto, L. Philip Lounibos, Christopher N. Mores, Michael H. Reiskind
University of Florida, Vero Beach, FL, United States

11:15 a.m. 1040
DISPLACEMENT OF THE INTRODUCED GENOTYPE OF WEST NILE VIRUS IN NEW YORK STATE
Robin M. Moudy, Alan Dupuis, Gregory D. Ebel, Laura D. Kramer
Arbovirus Laboratories, Wadsworth Center, Slingerlands, NY, United States

11:30 a.m. 1046
PRELIMINARY INVESTIGATION INTO THE COMPARATIVE EFFICACY OF THREE WEST NILE VIRUS (WNV) VACCINES IN EXPERIMENTALLY INDUCED WNV CLINICAL DISEASE IN HORSES
Kathy K. Seino
University of Florida, Gainesville, FL, United States

11:45 a.m. 223
CLONING AND CHARACTERIZATION OF TWO NOVEL CARBONIC ANHYDRASES FROM THE LARVAL ANOPHELES GAMBIAE MIDGUT
Kristin E. Smith, Paul J. Linser
University of Florida Whitney Laboratory, Saint Augustine, FL, United States

Noon 15
DISTRIBUTION OF TWO ESSENTIAL AMINO ACID TRANSPORTERS IN THE LARVAL ALIMENTARY CANAL OF THE AFRICAN MALARIA MOSQUITO AN. GAMBIAE (DIPTERA: CULICIDAE)
Bernard A. Okech, William R. Harvey, Dmitri Y. Boudko
Whitney Laboratory for Marine Bioscience, University of Florida, St. Augustine, FL, United States

12:15 p.m. 1013
PATTERN RECOGNITION DIVERSITY IN THE ANOPHELES GAMBIAE INNATE IMMUNE SYSTEM
Yuemei Dong, George Dimopoulos
The Johns Hopkins University, Baltimore, MD, United States

12:30 p.m. 230
DISTRIBUTION OF CULEX PIPIENS COMPLEX IN MEXICO CITY AND THE POTENTIAL OF WEST NILE
Alvaro Diaz-Badillo1, Jorge P. Martinez-Muñoz2, Barry Beatty3, William Black3, María de Lourdes Muñoz4
1Department of Genetics and Molecular Biology, Centro de Investigación y de Estudios Avanzados del IPN, Mexico City, Mexico, 2Laboratorio Estatal de Salud Pública del Estado de Oaxaca, Oaxaca City, Mexico, 3Department of Microbiology, Immunology, and Pathology, Colorado State University, Fort Collins, CO, United States
12:45 p.m.  1014

POPULATION GENOMICS OF CHROMOSOMAL INVERSIONS IN ANOPHELES GAMBIAE
Bradley J. White1, Matthew W. Hahn2, Karine Mouline1, Bryan J. Cassone1, Marco Pombi3, Frederic Simard4, Allesandra della Torre3, Nora J. Besansky1
1University of Notre Dame, Notre Dame, IN, United States, 2University of Indiana, Bloomington, IN, United States, 3University of Rome La Sapienza, Rome, Italy, 4IRD-UR016/OCEAC, Yaounde, Cameroon

1 p.m. – 1:30 p.m.
BREAK

1:30 p.m.  19

GENETIC LINKAGE MAPPING AND EVIDENCE OF POPULATION EXPANSION IN THE WEST NILE VIRUS VECTOR CULEX TARSALIS
Meera Venkatesan1, M. Claire Hauer1, Catherine J. Westbrook2, Jason L. Rasgon1
1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States

1:45 p.m.  911

ALTERNATIVE SPLICING OF THE Aedes triseriatus INHIBITOR OF APOPTOSIS 1 (ATIAP1) GENE
Eric T. Beck, Bradley J. Blitvich, Carol D. Blair, Barry J. Beaty
Colorado State University, Fort Collins, CO, United States

2 p.m.  729

VARIATION IN VECTOR COMPETENCE FOR DENGUE 2 VIRUS AMONG COLLECTIONS OF Aedes aegypti FROM THE YUCATAN AND VERA CRUZ REGIONS OF MEXICO
Scott A. Bernhardt1, William C. Black1, Barry J. Beaty1, Michael F. Antolin1, Ken E. Olson1, Jose A. Farfan-Ale4, Ildefonso Fernandez-Salas1, Carol D. Blair1
1Colorado State University, Fort Collins, CO, United States, 2Universidad Autonoma de Yucatan, Merida, Mexico, 3Universidad Autonoma de Nuevo Leon, Monterrey, Mexico

2:15 p.m.  253

IMPLICATIONS OF HYBRIDIZATION, FEEDING BEHAVIOR AND PARITY RATES OF Culex pipiens ON WEST NILE VIRUS ACTIVITY AT A STABLE ENZOOTIC STUDY SITE
Linda-Lou O’Connor1, John B. Gingrich1, Dina Fonseca2, Thomas R. Unnasch3
1University of Delaware, Newark, DE, United States, 2Academy of Natural Sciences, Philadelphia, PA, United States, 3University of Alabama at Birmingham, Birmingham, AL, United States

2:30 p.m.  277

DEVELOPMENT AND CHARACTERIZATION OF RECOMBINANT ARENAVIRUS PROTEINS AND VIRUS-SPECIFIC MONOCLONAL ANTIBODIES FOR USE IN DIAGNOSTIC AND THERAPEUTIC APPLICATIONS: AN INTEGRATED APPROACH TO PUBLIC HEALTH AND BIODEFENSE
Joseph N. Fair1, Luis Branco2, Darryl Sampey1, Alex Matschiner9, Corina Monagin3, Kathleen Cashman4, Philip Ferro5, Augustin Goba7, Daniel Bausch2, Russell Wilson6, Robert Garry6, Mary Guttieri6
1Tulane University, Ft. Detrick, MD, United States, 2Biofactura, INC, Rockville, MD, United States, 3Tulane University, New Orleans, LA, United States, 4USAMRIID, Ft. Detrick, MD, United States, 5Lassa Fever Laboratory, Kenema Government Hospital, Kenema, Sierra Leone, 6Autoimmune Technologies, INC, New Orleans, LA, United States

3 p.m.  665

A ROLE FOR THE CRIMEAN-Congo HAEMORRHAGIC FEVER VIRUS (CCHFV) NUCLEOPROTEIN IN MEDIATING PARTICLE ASSEMBLY AND RELEASE
Adrienne F. Meyers1, Paul Hazeltine2, Hideki Ebihara3, Martin J. Vincent4, Stuart T. Nichol5, Heinz Feldmann6, Harvey Artsb7
1Public Health Agency of Canada, University of Manitoba, Winnipeg, MB, Canada, 2University of Manitoba, Winnipeg, MB, Canada, 3Japan Science and Technology Agency, Saitama, Japan, 4Centers for Disease Control and Prevention, Atlanta, GA, United States, 5Public Health Agency of Canada, Winnipeg, MB, Canada

3:15 p.m.  660

CHARACTERIZATION OF MARBURG VIRUS FROM A RECENT OUTBREAK IN ANGOLA
Darryl Falzarano1, Friederike Feldmann2, Sandra Martin2, Joan Geisbert3, Allen Grolla2, Lisa Fernando5, Ute Ströher2, Hideki Ebihara1, Jim Strong1, Steven Jones1, Heinz Feldmann2, Thomas W. Geisbert3
1Department of Medical Microbiology, University of Manitoba, Winnipeg, MB, Canada, 2Special Pathogens Program, National Microbiology Laboratory, Winnipeg, MB, Canada, 3Virology Division, United States Army Medical Research Institute for Infectious Diseases, Fort Detrick, MD, United States, 4Institute of Medical Science, University of Tokyo, Tokyo, Japan
Young Investigator Award Session C

Marquis 2
Sunday, November 12 11:00 a.m. – 3:30 p.m.

CHAIR
Roland A. Cooper
Old Dominion University, Norfolk, VA, United States

Michael Ferdig
University of Notre Dame, Notre Dame, IN, United States

Julian C. Rayner
University of Alabama at Birmingham, Birmingham, AL, United States

11 a.m.

915
PHYLOGEOGRAPHY OF THE NEOTROPICAL MALARIA VECTOR ANOPHELES DARLINGI USING MITOCHONDRIAL AND NUCLEAR DNA: IMPLICATIONS FOR ITS SPECIES STATUS AND CONTINENTAL-SCALE BIOGEOGRAPHY
Lisa Mirabellò, Jan E. Conn
State University of New York at Albany, Slingerlands, NY, United States

11:30 a.m.

297
MULTIPLE INDEPENDENT ORIGINS OF ATOVACQUONE-PROGUANIL FALCIPARUM RESISTANCE
Lise Musset1, Jacques Le Bras2, Jérôme Clain3
1Hôpital Bichat Claude Bernard, Paris Cedex, France, 2Hôpital Bichat Claude Bernard, Paris, France, 3Université Paris, Paris, France

11:45 a.m.

294
DISRUPTION OF PLASMODIUM TRANSCRIPTION FACTOR HMGB2 IMPAIRS OOCYST FORMATION
Mathieu Gissot1, Li-Min Ting1, Photini Sinnis2, Kami Kim1
1Albert Einstein College of Medicine, Bronx, NY, United States, 2New York University School of Medicine, New York, NY, United States

Noon

40
GENETIC CHARACTERIZATION OF TRYPSANOSOMA CRUZI ISOLATES FROM TRIATOMA SPP. IN THE UNITED STATES BASED ON SSU RIBOSOMAL RNA GENE SEQUENCES
Sonia A. Kjos1, Joseph J. Gillespie2, Kathleen S. Logan1, Jimmy K. Olson1, Karen F. Snowden1
1Texas A&M University, College Station, TX, United States, 2Virginia Bioinformatics Institute at Virginia Tech, Blacksburg, VA, United States

12:15 p.m.

339
L-ARGININE INFUSION INCREASES NO PRODUCTION AND REVERSES ENDOTHELIAL DYSFUNCTION IN ADULTS WITH MODERATELY SEVERE FALCIPARUM MALARIA IN PAPUA, INDONESIA
TW Yeo1, DA Lampah2, E. Kenangalem3, R. Gitawati4, E. Tjitra4, Y. McNeil1, D. Granger5, B. Lopansri5, D. Celermajer6, RN Price7, S. Duffull8, NM Anstey1
1Menzies School of Health Research, Darwin, Australia, 2National Institutes of HealthRD-MSHR Research Programme, Timika, Indonesia, 3Dinas Kesehatan Kabupaten, Mimika, Indonesia, 4National Institute of Health Research and Development, Jakarta, Indonesia, 5University of Utah, Salt Lake City, UT, United States, 6University of Sydney, Sydney, Australia, 7Oxford University, Oxford, United Kingdom, 8University of Queensland, Brisbane, Australia

12:30 p.m.

1082
USING TREATMENT FAILURE TO SCREEN FOR MDR TB IS ASSOCIATED WITH RECURRENT, DEATH, AND TRANSMISSION
Jonathan M. Sherman1, Marco Tovar2, Robert H. Gilman3, Giselle Soto4, Luz Caviedes5, Lilia Cabrera6, Mirko Zimic3, Antonio Bernabe2, Jaime Ortiz8, Richard Rodriguez3, Eduardo Ticona6, Jon S. Friedland1, Carlton A. Evans7
1Mayo Medical School, Rochester, MN, United States, 2Universidad Peruana Cayetano Heredia, Lima, Peru, 3Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, 4Asociación Benefica PRISMA, Lima, Peru, 5Hospital Maria Auxiliadora, Lima, Peru, 6Hospital Nacional Dos de Mayo, Lima, Peru, 7Department of Infectious Diseases and Immunity and Wellcome Trust Centre for Clinical Tropical Medicine, Imperial College, London, United Kingdom

12:45 p.m.

127
RAPID ASSESSMENT METHOD FOR PREVALENCE OF LOIASIS IN PARTS OF THE NIGER DELTA, IMO STATE, NIGERIA: A PRELIMINARY REPORT
Uchechukwu M. Chukwuocha1, I.N. Dozie2, B.E. Nowke2
1Federal University of Technology, Owerri, Nigeria, Owerri, Nigeria, 2Imo State University, Owerri, Imo State, Nigeria
THE ANTIMALARIAL EFFECT OF HIV NRTIS ON PLASMODIUM FALCIPARUM
Dylan R. Pillai, Philip J. Rosenthal, Joseph L. DeRisi
UCSF, San Francisco, CA, United States

THE ANTIPARASITIC DIAMIDINE DB75 TARGETS THE PLASMODIUM FALCIPARUM NUCLEUS
Anne Purfield1, Arunima Mukhopadhyay2, Michael P. Barrett2, Richard R. Tidwell1, Steven R. Meshnick1
1University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, 2University of Glasgow, Glasgow, United Kingdom

ASSESSING THE SPREAD OF DIHYDROFOLATE REDUCTASE AND DIHYDROPTEROATE SYNTHASE MUTANT ALLELES IN PLASMODIUM VIVAX POPULATIONS
Vivian N. Hawkins, Stephanie Suzuki, Carol H. Sibley
University of Washington, Seattle, WA, United States

IN VITRO SUSCEPTIBILITY OF PLASMODIUM FALCIPARUM TO MONODESETHYLAMODIAQUINE, DIHYDROARTESMISININ AND QUININE IN AN AREA OF HIGH CHLOROQUINE RESISTANCE IN RWANDA
Halidou Tinto1, Corine Karema2, Claude Rwagacondo2, Annette Erhart1, Humberto d’Alessandro3
1IRSS/Centre Muraz, Bobo Dioulasso, Burkina Faso, 2National Malaria Control Programme, Kigali, Rwanda, 3Institute of Tropical Medicine, Antwerp, Belgium

DYNAMICS OF PLASMODIUM FALCIPARUM MSP-19 GENETIC DIVERSITY AT A MALARIA VACCINE-TESTING SITE IN MALI
Shannon L. Takala1, Drissa Coulibaly2, Mahamadou A. Thera2, Allassane Dicko2, David L. Smith3, Ando B. Guido3, Abdoulaye K. Kone3, Amed Ouattara3, Abdoulaye Dijmde4, Paul Sehdev1, Kirsten E. Lyke1, Dapa A. Diallo2, Ogobara K. Doumbo3, Christopher V. Plowe1
1University of Maryland School of Medicine, Baltimore, MD, United States, 2Malaria Research and Training Center, University of Bamako, Bamako, Mali, 3Fogarty International Center, National Institutes of Health, Bethesda, MD, United States
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
<th>Speaker(s)</th>
<th>Institution(s)</th>
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</thead>
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<tr>
<td>11:30 a.m.</td>
<td>A CONTROLLED TRIAL ON EXTENDED INTERMITTENT PREVENTIVE TREATMENT WITH SULFADOXINE-PYRIMETHAMINE FOR MALARIA CONTROL IN INFANTS IN AN AREA OF INTENSE PERENNIAL TRANSMISSION</td>
<td>Robin Kobbe¹, Christina Kreuzberg¹, Samuel Adjei², Benedicta Thompson³, Iris Langefeld¹, Peter Apia Thompson¹, Harry Hoffman Abruquah¹, Benno Kreuels¹, Matilda Ayim¹, Wibke Busch¹, Florian Marks¹, Kwado Amoah¹, Ernest Opoku¹, Christian G. Meyer¹, Ohene Adjei¹, Jürgen May¹</td>
<td>Bernhard-Nocht-Institute for Tropical Medicine, Hamburg, Germany, Ministry of Health/Ghana Health Service, District Health Directorate, Agona, Ashanti Region, Ghana, Kumasi Centre for Collaborative Research in Tropical Medicine, Kumasi, Ghana</td>
</tr>
<tr>
<td>11:45 a.m.</td>
<td>SAFETY AND EFFICACY OF DOXYCYCLINE THERAPY WITH AND WITHOUT SINGLE DOSE ALBENDAZOLE/IVERMECTIN FOR THE TREATMENT OF MANSONELLA PERSTANS INFECTION</td>
<td>Yaya I. Coulibaly¹, Benoît Dembele¹, Abdallah A. Diallo¹, Ettie M. Lipner⁴, Michael Fay⁵, Dapa A. Diallo¹, Mady Sissoko¹, Daniel Yalcoue¹, Ogobara K. Douroubo¹, Abdel K. Traore¹, Thomas B. Nutman², Sekou F. Traore¹, Amy D. Kloni²</td>
<td>University of Mali, Bamako, Mali, National Institutes of Health, Bethesda, MD, United States, National Center for Disease Control, Bamako, Mali</td>
</tr>
<tr>
<td>Noon</td>
<td>HLA MAY CONTROL VIRUS SEROTYPE SPECIFIC IMMUNITY IN DENGUE INFECTION</td>
<td>Lan P. Nguyen¹, M. Kikuchi¹, Huong Q. Vu², Ngu T. Vu², Dao N. Hoang³, Tham D. Vo³, Dat V. Tran³, Ha Q. Do³, T. Oyama¹, K. Morita¹, M. Yasunami¹, K. Hiyama¹</td>
<td>Institute of Tropical Medicine, Nagasaki City, Japan, Pasteur Institute, Ho Chi Minh City, Vietnam, Pediatric Hospital No.2, Ho Chi Minh City, Vietnam, Center for Preventive Medicine, Vinh Long Province, Vietnam</td>
</tr>
<tr>
<td>12:15 p.m.</td>
<td>ROLE OF DC-SIGN AND FCGRII IN ANTIBODY DEPENDENT ENHANCEMENT OF DENGUE INFECTION</td>
<td>Kobporn Boonnak, Bonnie M. Slike, Mary A. Marovich The Henry M. Jackson Foundation, Rockville, MD, United States</td>
<td></td>
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<tr>
<td>12:30 p.m.</td>
<td>CD4 T COUNT AND HIV-1 INFECTION IN PATIENTS WITH UNCOMPPLICATED MALARIA</td>
<td>Jean-Pierre Van geertruyden Prince Leopold Instituut voor Tropische Geneeskunde, Antwerpen, Belgium</td>
<td></td>
</tr>
</tbody>
</table>
2:15 p.m.  

**USE OF ULTRASOUND TECHNOLOGY TO INVESTIGATE THE TEMPORAL RELATIONSHIP BETWEEN MATERNAL MALARIA INFECTION AND IN UTERO FETAL GROWTH**

Sarah H. Landis1, Joseph Atibu2, Candé V. Ananth3, Victor Lokomba2, Antoinette Tshefu2, Robert W. Ryder4, Katherine E. Hartmann5, Steven R. Meshnick4

1University of North Carolina-Chapel Hill, Carrboro, NC, United States, 2University of North Carolina-Democratic Republic of Congo Programme, Kinshasa, Democratic Republic of the Congo, 3UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ, United States, 4University of North Carolina-Chapel Hill, Chapel Hill, NC, United States

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2:30 p.m.  

**MALARIA AND HELMINTH CO-INFECTION IN A SEMI-URBAN POPULATION OF PREGNANT WOMEN IN UGANDA**

Stephen D. Hillier1, Mark Booth2, Lawrence Muhangi1, Macklyn Kihembo2, Kakande Mohammed1, Moses Sewankambo2, Kizindo Robert2, Moses Kizza2, Moses Muwanga4, Mark Bambury5, Alison Elliott6

1The University of Birmingham Medical School, Birmingham, United Kingdom, 2The University of Cambridge Department of Parasitology, Cambridge, United Kingdom, 3Medical Research Council/Uganda Virus Research Institute, Entebbe, Uganda, 4Entebbe Hospitals, Entebbe, Uganda, 5West Midlands Cancer Intelligence Unit, Birmingham, United Kingdom, 6London School of Hygiene and Tropical Medicine, London, United Kingdom

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2:45 p.m.  

**HUMAN SYNCYTIOTROPHOBLAST CELLS PLAY AN ACTIVE ROLE IN THE IMMUNE RESPONSE TO PLACENTAL MALARIA**

Naomi W. Lucchi, David S. Peterson, Julie M. Moore

University of Georgia, Athens, GA, United States

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3 p.m.  

**ARTEMISININ DERIVATIVES LOCALIZE WITHIN DIGESTIVE VACUOLE-ASSOCIATED NEUTRAL LIPID BODIES IN PLASMODIUM FALCIPARUM**

Carmony L. Hartwig1, Andrew S. Rosenthal2, Gary H. Posner2, Roland A. Cooper1

1Old Dominion University, Norfolk, VA, United States, 2Department of Chemistry and Malaria Research Institute, Johns Hopkins University, Baltimore, MD, United States

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3:15 p.m.  

**INHIBITION OF YEAST HEXOKINASE ACTIVITY BY ARTEMISININ: AN IN VITRO MODEL OF DRUG-PROTEIN BINDING**

Jennifer S. Spence1, Jigar Patel2, Michael T. Ferdig2, Roland A. Cooper3

1Old Dominion University, Suffolk, VA, United States, 2University of Notre Dame, South Bend, IN, United States, 3Old Dominion University, Norfolk, VA, United States

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2:30 p.m.  

**ACAV SIRACA Subcommittee**  
Room 3829  
Sunday, November 12 Noon – 2 p.m.

**ACAV SALS Subcommittee**  
Room 3829  
Sunday, November 12 2:15 p.m. – 3:15 p.m.

**ACME Council Meeting**  
Room 904  
Sunday, November 12 3:30 p.m. – 5 p.m.

**ACAV Council Meeting**  
Room 3829  
Sunday, November 12 3:30 p.m. – 5:30 p.m.

**ACMCIP Council Meeting**  
Room 907  
Sunday, November 12 3:30 p.m. – 5:30 p.m.

**Young Investigator Award Committee**  
Bonn/London  
Sunday, November 12 3:30 p.m. – 5 p.m.

**Student Reception**  
10th Floor Foyer  
Sunday, November 12 4 p.m. – 5 p.m.

The ASTMH council invites students, postdoctoral fellows and residents to the student reception. This reception is an opportunity to meet other trainees and interact with society leaders.

**Plenary Session I and Society Awards**  
Marquis Ballroom  
Sunday, November 12 5:30 p.m. – 7:30 p.m.

**CHAIR**  
Myron M. Levine  
University of Maryland School of Medicine, Baltimore, MD, United States

Edward T. Ryan  
Massachusetts General Hospital, Boston, MA, United States

**CHARLES FRANKLIN CRAIG LECTURE**  
The Charles Franklin Craig Lecture is an honor bestowed on a distinguished worker in the field of tropical medicine.

**NEGLECTED DISEASES CONTROL AND THE MILLENNIUM DEVELOPMENT GOALS: TOWARDS EQUITY, ACCESS AND DEMOCRACY FOR THE MAJORITY OF THE POOREST**  
David Molyneux  
Liverpool School of Tropical Medicine, Liverpool, United Kingdom
6:15 p.m.
AWARDS CEREMONY
Hosted by Myron M. Levine
University of Maryland School of Medicine, Baltimore, MD, United States

RECOGNITION AWARD IN GLOBAL HEALTH
Victoria P. McGovern
On behalf of Burroughs Wellcome Fund, Research Triangle Park, NC, United States
Presented by Myron M. Levine
University of Maryland School of Medicine, Baltimore, MD, United States

TRAVEL AWARDS
James LeDuc
Centers for Disease Control and Prevention/National Center for Infectious Diseases, Atlanta, GA, United States

AMERICAN COMMITTEE OF MEDICAL ENTOMOLOGY (ACME) TRAVEL AWARDS
Shirley Luckhart
University of California at Davis, Davis, CA, United States

YOUNG INVESTIGATOR AWARDS
Peter Zimmerman
Case Western Reserve University, Cleveland, OH, United States

ROBERT E. SHOPE INTERNATIONAL FELLOWSHIP IN INFECTIOUS DISEASES
Charles Calisher
Colorado State University, Fort Collins, CO, United States

GORGAS MEMORIAL INSTITUTE RESEARCH AWARD
Rebeca Rico-Hesse
Southwest Foundation for Biomedical Research, San Antonio, TX, United States

BURROUGHS WELLCOME FUND — ASTMH POSTDOCTORAL FELLOWSHIP IN TROPICAL INFECTIOUS DISEASES
Terrie Taylor
Michigan State University, East Lansing, MI, United States

PFIZER CENTENNIAL TRAVEL AWARD IN BASIC SCIENCE TROPICAL DISEASE RESEARCH
Joseph M. Vinetz
University of California at San Diego, La Jolla, CA, United States

BENJAMIN H. KEAN TRAVELING FELLOWSHIP IN TROPICAL MEDICINE
Christopher V. Plowe
University of Maryland School of Medicine, Baltimore, MD, United States

COMMUNICATIONS AWARD
Claire Panosian
UCLA School of Medicine, Los Angeles, CA, United States

HONORARY MEMBERS
Michael Good
The Queensland Institute of Medical Research, Herston, Australia
Presented by Stephen L. Hoffman
Sanaria Inc., Rockville, MD, United States
John Horton
Tropical Projects, Hitchin, United Kingdom
Presented by Alan Magill
Walter Reed Army Institute of Research, Silver Spring, MD, United States

HARRY HOOGSTRAAL MEDAL
Mario Coluzzi
Universita di Roma, Rome, Italy
Presented by Stephen Higgs
University of Texas Medical Branch, Galveston, TX, United States

RICHARD M. TAYLOR AWARD
Douglas Watts
University of Texas Medical Branch, Galveston, TX, United States

JOSEPH AUGUSTIN LEPRINCE MEDAL
Stephen L. Hoffman
Sanaria Inc., Rockville, MD, United States
Presented by Thomas L. Richie
Naval Medical Research Center, Silver Spring, MD, United States
Thomas E. Wellens
National Institutes of Health/National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States
Presented by Louis Miller
National Institutes of Health, Rockville, MD, United States

BAILEY K. ASHFORD MEDAL
Jeremy Farrar
University of Oxford, Hospital for Tropical Diseases, Ho Chi Minh, Vietnam
Presented by Scott B. Halstead
Uniformed Services University of the Health Sciences, Bethesda, MD, United States
Thomas A. Wynn
National Institutes of Health/National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States
Presented by Alan Sher
National Institutes of Health/National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

Opening Reception in the Exhibit Hall
International Level
Sunday, November 12
7:30 p.m. – 9:30 p.m.
Scientific Session 2

Arthropods/Entomology
Sydney/Zurich
Monday, November 13
8:00 a.m. – 9:45 a.m.
CHAIR
Catherine A. Hill
Purdue University, West Lafayette, IN, United States
Daniel E. Sonenshine
Old Dominion University, Norfolk, VA, United States

8 a.m.

1

SEQNCING THE GENOME OF IXODES SCAPULARIS —
THE LYME DISEASE TICK
Catherine A. Hill1, Vishvanath M. Nene2, Bruce Birren3, Stephen K. Wikel4, Frank H. Collins5
1Purdue University, West Lafayette, IN, United States, 2The Institute for
Genomic Research, Rockville, MD, United States, 3The Broad Institute,
Cambridge, MA, United States, 4University of Connecticut Health Center,
Farmington, CT, United States, 5The University of Notre Dame, Notre Dame,
IN, United States

8:15 a.m.

2

A BORRELIACIDAL FACTOR FOUND IN THE SALIVA OF
AMBLYOMMA AMERICANUM TICKS
Nordin Zeidner1, Amy Ullmann1, Elizabeth Gabitzsch1, Marc
Dolan1, Gabrielle Dietrich1, Donald Champagne2
1Centers for Disease Control and Prevention, Fort Collins, CO, United States,
2University of Georgia, Athens, GA, United States

8:30 a.m.

3

PROTEINS AND PEPTIDES INDUCED IN THE MIDGUTS OF
BLOOD-FED TICKS CONTRIBUTE TO CONTROL OF MICROBIAL
INFECTIONS: NEW INSIGHTS FROM A CDNA LIBRARY OF
MIDGUT TRANSCRIPTS IN DERMACENTOR VARIABILIS
Daniel E. Sonenshine1, Jesus Valenzuela2, Jennifer M. Anderson2
1Old Dominion University, Norfolk, VA, United States, 2Laboratory of Malaria
and Vector Research, National Institute of Allergy and Infectious
Diseases/National Institutes of Health, Rockville, MD, United States

(ACMCIP Abstract)

8:45 a.m.

4

NEW DEVELOPMENTS IN THE EPIDEMIOLOGY AND CONTROL
OF TICK-BORNE RELAPSING FEVER IN EAST AFRICA
PJ McCall
Liverpool School of Tropical Medicine, Liverpool, United Kingdom
9 a.m. .......................... 5

EFFECTS OF A HORIZONTAL VECTOR CONTROL STRATEGY ON TRIATOMA INFESTANS INFESTATION AND CHAGAS' DISEASE TRANSMISSION IN RURAL NORTHWESTERN ARGENTINA
Gonzalo M. Vazquez-Prokopec1, Cynthia Spillmann2, Mario Zaidenberg3, Uriel Kitron4, Ricardo E. Gürtler1
1University of Buenos Aires, Buenos Aires, Argentina, 2Ministerio de Salud y Ambiente de la Nación, Córdoba, Argentina, 3University of Illinois, Urbana, IL, United States

9:15 a.m. .......................... 6

EFFICACY OF ACTIVE UNDERGROUND RABBIT HOLES AROUND HOUSES FOR REDUCING THE INDOOR DENSITY OF PHLEBOTOMUS PAPATASI, VECTOR OF LEISHMANIA MAJOR, ETIOLOGIC AGENT OF ZOOONOTIC CUTANEOUS LEISHMANIASIS IN TUNISIA, NORTH AFRICA
Elyes Zhioua, Ifhem Chelbi
Pasteur Institute of Tunis, Tunis, Tunisia

9:30 a.m. .......................... 7

EVALUATION OF NOVEL LONG-LASTING, INSECTICIDE-IMPREGNATED MATERIALS TO CONTROL ADULT SAND FLIES IN IRAQ, KENYA AND EGYPT
Gabriela E. Zollner1, John L. Putnam2, Jason H. Richardson2, David Hoel3, Hanafi A. Hanafi4, Russell E. Coleman1
1Walter Reed Army Institute of Research, Silver Spring, MD, United States, 2Air Force Institute for Operational Health, San Antonio, TX, United States, 3US Army Medical Research Unit, Nairobi, Kenya, 4U.S. Naval Medical Research Unit No. 3, Cairo, Egypt

Symposium 3 .......................... 7

Teaching Clinical Tropical Medicine to the Next Generation

Monday, November 13 8:00 a.m. – 9:45 a.m.

Tropical diseases increasingly shape the social, political and economic outlook of local and regional communities and ultimately affect the entire world. Despite the obvious importance of tropical diseases, training health care providers for practice in tropical medicine is uncommon in the developed world. This symposium will address the current status of tropical medicine training and identify challenges facing the tropical medicine community as we race to keep pace with rapidly emerging tropical diseases.

CHAIR
David L. Blazes
US Naval Medical Research Center Detachment, Lima, Peru

8 a.m. .......................... 8

PROGRESS IN THE DEVELOPMENT OF DIAGNOSTICS FOR TUBERCULOSIS
Mark Perkins
Foundation for Innovative New Diagnostics, Geneva, Switzerland

8:25 a.m. .......................... 8

DIAGNOSTICS FOR LEISHMANIASIS
Phillip Desjeux
Institute for OneWorld Health, Geneva, Switzerland
8:50 a.m.
NEW INITIATIVE FOR DIAGNOSTICS FOR HUMAN AFRICAN TRYPANOSOMIASIS
Joseph Ndungu
Foundation for Innovative New Diagnostics, Geneva, Switzerland

Symposium 4A
The Current Status of Surveillance and Laboratory Diagnostics of Monkeypox as an Emergent Zoonotic Disease

8 a.m.
INTRODUCTION
Inger K. Damon
Centers for Disease Control and Prevention, Atlanta, GA, United States

8:05 a.m.
WHO RESPONSES TO MONKEYPOX OUTBREAKS — PAST, PRESENT AND FUTURE
Pierre Formenty
WHO, Geneva, Switzerland

8:25 a.m.
CONGO BASIN MONKEYPOX SURVEILLANCE: DEMOCRATIC REPUBLIC OF CONGO
Anne Rimoin
University of California, Los Angeles, CA, United States

8:45 a.m.
CONGO BASIN MONKEYPOX SURVEILLANCE: DEMOCRATIC REPUBLIC OF CONGO
Edith R. Lederman
Centers for Disease Control and Prevention, Atlanta, GA, United States

9:05 a.m.
ORTHOPOXVIRUS IMMUNODIAGNOSTICS, BREAKING THE COLD CHAIN
Kevin Karem
Centers for Disease Control and Prevention, Atlanta, GA, United States

9:25 a.m.
LABORATORY SUPPORT OF MONKEYPOX FIELD RESEARCH IN THE DEMOCRATIC REPUBLIC OF CONGO
Herman Meyer
Institute of Microbiology, Munich, Germany

Symposium 5
Clinical and Immunopathogenesis of Major Flaviviral Infections

8 a.m.
INTRODUCTION
Pedro F. Vasconcelos
Instituto Evandro Chagas, Belém, Brazil

8:15 a.m.
CLINICAL EPIDEMIOLOGY AND DENGUE PATHOGENESIS
Eva Harris
University of California, Berkeley, CA, United States

8:35 a.m.
JAPANESE ENCEPHALITIS: CLINICAL FEATURES AND PATHOGEN
Tom Solomon
University of Liverpool, Liverpool, United Kingdom

8:55 a.m.
TBE-CHARACTERIZATION OF OHFV AND RSSEV INFECTION
Mike Holbrook
University of Texas Medical Branch, Galveston, TX, United States
9:15 a.m.
YELLOW FEVER: ROLE OF CELLULAR AND HUMORAL RESPONSES
Pedro F. Vasconcelos
Instituto Evandro Chagas, Belém, Brazil

Symposium 6
Progress Toward the Development of GM Anopheles gambiae for Malaria Control
Copenhagen/Stockholm/Amsterdam
Monday, November 13 8:00 a.m. – 9:45 a.m.
The concept of controlling vectorborne diseases through the development and application of genetically modified (GM) vectors was first articulated in 1989. Since then a number of research laboratories across the world have been working on various aspects this strategy. In this symposium we aim to present to the tropical disease community recent progress in this area. Talks will cover a broad range of topics in the area of GM vectors. The focus will be on Anopheles gambiae, the principal vector of malaria in Africa. Scientific issues, including genetic transformation, gene drive, population genetics and An. gambiae Plasmodium interactions.

CHAIR
Gregory C. Lanzaro
University of California Mosquito Research Program, Davis, CA, United States
Shirley Luckhart
University of California at Davis, Davis, CA, United States

8 a.m.
INTRODUCTION
Gregory C. Lanzaro
University of California, Davis, CA, United States

8:05 a.m.
APPLICATIONS OF TRANSGENESIS TO VECTORS OF HUMAN MALARIA
Anthony A. James
University of California, Irvine, Irvine, CA, United States

8:30 a.m.
PROGRESS IN THE APPLICATION OF TRANPOSABLE ELEMENTS FOR GENE DRIVE
Peter Atkinson
University of California, Riverside, Riverside, CA, United States

9:10 a.m.
SEXUAL DEVELOPMENT IN PLASMODIUM AND TRANSLATIONAL REPRESSION: A FUNCTIONAL GENOMICS APPROACH
Gunnar Mair
Leiden University Medical Centre, Leiden, The Netherlands

9:20 a.m.
THE MOVEMENT OF GENES AMONG NATURAL POPULATIONS OF AN. GAMBIAE IN WEST AND CENTRAL AFRICA
Charles E. Taylor
University of California, Los Angeles, Los Angeles, CA, United States

Symposium 7
American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Malaria Research: Recent Advances Through Functional Genomics
Marquis 3
Monday, November 13 8:00 a.m. – 9:45 a.m.
The symposium will highlight recent advances in understanding the biology of the malaria parasites using molecular genetic approaches.

CHAIR
John H. Adams
University of Notre Dame, Notre Dame, IN, United States

8 a.m.
INVASION OF RED BLOOD CELLS BY MALARIA PARASITES
Brendan Crabb
Walter & Eliza Hall Institute of Medical Research, Parkville, Victoria, Australia

8:35 a.m.
THE ROLE OF CIRCUMSPOROZOITE PROTEIN IN PROTECTIVE IMMUNITY AGAINST MALARIA INFECTION
Victor Nussenzweig
New York University School of Medicine, New York, NY, United States

9:10 a.m.
MECHANISMS UNDERLYING SUSCEPTIBILITY AND REFRACTORINESS OF AN. GAMBIAE TO PLASMODIUM FALCIPARUM
Shirley Luckhart
University of California, Davis, Davis, CA, United States
Symposium 8

Percutaneous Treatments for Cystic Echinococcosis

Marquis 4

Monday, November 13  8:00 a.m. – 9:45 a.m.

PAIR (Puncture, Aspiration, Injection and Re-aspiration) and other percutaneous treatments are an increasingly accepted third option, after surgery and albendazole, for the treatment of abdominal cystic echinococcosis (CE). However, indications and contraindications, plus a stage specific approach still have to be defined precisely. Speakers from highly endemic areas will discuss their experience, including the use of PAIR in extrabdominal locations. They will report on teaching and diffusing the technique as a means of offering an alternative to more expensive options in their countries. An European clinician experienced in CE will discuss technical modifications of PAIR, developed to adapt the technique to cyst stages traditionally considered contraindicated for this procedure.

CHAIR
Enrico Brunetti
University of Pavia Scientific Institute for Research, Hospitalisation and Health Care S. Matteo, Pavia, Italy

Carlo Filice
University of Pavia, Pavia, Italy

8 a.m.
INTRODUCTION
Enrico Brunetti
University of Pavia, Pavia, Italy

8:05 a.m.
PERCUTANEOUS TREATMENTS FOR CE: LESSONS LEARNED
Carlo Filice
University of Pavia Scientific Institute for Research, Hospitalisation and Health Care S. Matteo, Pavia, Italy

8:30 a.m.
PERCUTANEOUS TREATMENT: THE TURKISH EXPERIENCE
Okan Akhan
Hacettepe University, Ankara, Turkey

8:55 a.m.
PAIR IN A HIGHLY ENDEMIC AFRICAN AREA, TURKANA
Eberhard Zeyhle
African Medical Research Foundation, Nairobi, Kenya

9:20 a.m.
PEVAC FOR PREDOMINANTLY SOLID AND COMPLICATED ECHINOCOCCAL CYSTS
Hans Schipper
Academic Medical Center Amsterdam University, Amsterdam, The Netherlands

Symposium 9

Non-Vaccine Interventions for Preventing Diarrheal Diseases and Deaths

Marquis 2

Monday, November 13  8:00 a.m. – 9:45 a.m.

Diarrheal diseases continue to exact an enormous burden on the health and life expectancy of populations in developing countries. Although new vaccines and vaccines that are currently under development hold promise for reducing disease caused by specific pathogens, low-cost, simple interventions to improve water and food safety, hygiene and sanitation can prevent a range of enteric diseases and their sequelae and yield dramatic health benefits in the near term. This symposium will update the audience on current developments in non-vaccine interventions to prevent diarrheal and other enteric infections and their consequences.

CHAIR
James M. Hughes
Emory University, Atlanta, GA, United States

Eric Mintz
Centers for Disease Control and Prevention, Atlanta, GA, United States

8 a.m.
INTRODUCTION
James M. Hughes
Emory University, Atlanta, GA, United States

8:05 a.m.
DIARRHEAL DISEASES: THE GAP BETWEEN THE DEVELOPED AND DEVELOPING WORLD
Richard L. Guerrant
University of Virginia, Charlottesville, VA, United States

8:30 a.m.
POINT-OF-USE WATER TREATMENT INTERVENTIONS: SCALING UP TO MEET THE MILLENNIUM DEVELOPMENT GOAL
Mark D. Sobsey
University of North Carolina, Chapel Hill, NC, United States

8:55 a.m.
MEETING THE MILLENNIUM DEVELOPMENT GOAL FOR SANITATION: THE FORGOTTEN CHALLENGE
Christine L. Moe
Emory University, Atlanta, GA, United States

9:20 a.m.
RECENT TRENDS IN DIARRHEA CASE MANAGEMENT AT HOME: ARE WE LOSING GROUND?
Pavani K. Ram
State University of New York, Buffalo, Buffalo, NY, United States
Detailed Program

Scientific Session 10

Malaria — Epidemiology I

Marquis 1

Monday, November 13 8:00 a.m. – 9:45 a.m.

CHAIR
Adiel Mushi
Ifakara Health Research & Development Centre, Dar es Salaam, United Republic of Tanzania
Joanna Schellenberg
London School of Hygiene & Tropical Medicine and Ifakara Health Research and Development Centre (IHRDC), Dar es Salaam, United Republic of Tanzania

8 a.m.

MALARIA VECTOR CONTROL IN SUB-SAHARAN AFRICA: INSECTICIDE-TREATED NETS VERSUS INDOOR RESIDUAL SPRAYING

Christian Lengeler1, Frank Tanser2, Joshua Yukich1, Brian Sharp2
1Swiss Tropical Institute, Basel, Switzerland, 2Medical Research Council, Durban, South Africa

8:15 a.m.

ANEMIA PREVALENCE AMONG CHILDREN AFTER INDOOR RESIDUAL SPRAYING (IRS) ON BIOKO ISLAND

Luis E. Benavente1, Immo Kleinschmidt1, Christopher Schwabe1, Miguel Torrez1, Brian Sharp2
1Medical Care Development Inc., Silver Spring, MD, United States, 2Medical Research Council, Durban, South Africa

8:30 a.m.

MONITORING INSECTICIDE-TREATED BEDNET POSSESSION AND USE: COMPARISON OF DATA COLLECTED VIA HEALTH FACILITY AND HOUSEHOLD SURVEYS — LINDI REGION AND RUFIJI DISTRICT, TANZANIA, 2005

Jacek Skarbinski1, Mili Patel2, Carla A. Winston1, S. Patrick Kachur1, Julius J. Massaga3, Peter B. Bioland1, Alexander K. Rowe1
1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2Emory University Rollins School of Public Health, Atlanta, GA, United States, 3Centre for Enhancement of Effective Malaria Interventions, Gates Malaria Partnership, Dar es Salaam, United Republic of Tanzania

8:45 a.m.

ESTIMATING MALARIA INCIDENCE RATES USING LONGITUDINAL DATA: AN ANALYSIS OF THE GARKI PROJECT USING A MICRO-SIMULATION MODEL

Derek Willis1, Burton H. Singer2
1Princeton University, Hickory, NC, United States, 2Princeton University, Princeton, NJ, United States

9 a.m.

MINORITY VARIANT PFCRT K76T MUTATIONS IN MALAWI SUGGEST LURKING CHLOROQUINE RESISTANCE

Jonathan J. Juliano1, Jesse Kwikie2, Victor Mwapasa3, Steven Meshnick2
1Division of Infectious Diseases, University of North Carolina, School of Medicine, Chapel Hill, NC, United States, 2Department of Epidemiology, University of North Carolina, School of Public Health, Chapel Hill, NC, United States, 3Department of Community Health, University of Malawi College of Medicine, Blantyre, Malawi

9:15 a.m.

INTERMITTENT PREVENTIVE MALARIA TREATMENT DELIVERED ALONGSIDE ROUTINE VACCINATIONS IN TANZANIAN INFANTS: COVERAGE AND IMPACT ON INDICATORS OF MALARIA AND ANAEMIA

Joanna Armstrong Schellenberg1, Werner Mayokola2, Kizito Shirima3, Hamissi Yuna4, Fatuma Manzi2, Mwifadhi Mrisho1, Pedro Alonso5, Hassan Mshinda2, Marcel Tanner4, David Schellenberg1
1Ifakara Health Research & Development Centre and London School of Hygiene & Tropical Medicine, Dar es Salaam, United Republic of Tanzania, 2Ifakara Health Research & Development Centre and London School of Hygiene & Tropical Medicine, Dar es Salaam, United Republic of Tanzania, 3Hospital Clinic i Provincial, Barcelona, Spain, 4Swiss Tropical Institute, Basel, Switzerland

9:30 a.m.

COMMUNITY LEVEL ACCEPTABILITY OF INTERMITTENT PREVENTIVE TREATMENT FOR MALARIA CONTROL IN TANZANIAN INFANTS.

Adiel Mushi1, Robert Pool2, Albert Majura1, Robert Wa-Shija3, Mwifadhi Mrisho1, Joanna Schellenberg2, Pedro Alonso5, Marcel Tanner4, Hassan Mshinda2, David Schellenberg1
1Ifakara Health Research & Development Centre, Dar es Salaam, United Republic of Tanzania, 2London School of Hygiene and Tropical Medicine, London, United Kingdom, 3Hospital Clinic, Barcelona, Spain, 4Swiss Tropical Institute, Basel, Switzerland

Exhibit Hall Open

International Level

Monday, November 13 9:30 a.m. – 10:30 a.m.

Coffee Break

International Level

Monday, November 13 9:45 a.m. – 10:15 a.m.

Poster Session A Setup

International and Skyline Levels

Monday, November 13 9:45 a.m. – 10:15 a.m.

Poster Session A Viewing

International and Skyline Levels

Monday, November 13 10:15 a.m. – Noon
Symposium 11
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Malaria Pigment: Biology, Antimalarial Inhibition and Malaria Immunopathogenesis
Sydney/Zurich
Monday, November 13 10:15 a.m. – Noon
Hemozoin, commonly known as the malaria pigment, is a unique crystalline biomolecule produced by the malaria parasite. Biogenesis of hemozoin is an essential physiochemical process linked to hemoglobin degradation and heme detoxification. However, the biological mechanisms involved in synthesis of hemozoin are still under debate. Interference with hemozoin is proven antimalarial drug target and a distinct malaria parasite biomarker. Hemozoin has been shown to have diverse immunomodulatory functions and may contribute to ineffective erythropoiesis. Review of current status of knowledge of the distinctive hemozoin functions of the malaria parasite would be useful in developing strategies for new antimalarial drug discovery and understanding the pathogenesis of the disease.

CHAIR
David J. Sullivan
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States
Babu L. Tekwani
University of Mississippi, University, MS, United States

10:15 a.m.
INTRODUCTION: HEME DETOXIFICATION PATHWAYS OF MALARIA PARASITE
Babu L. Tekwani
University of Mississippi, University, MS, United States

10:20 a.m.
HEMOZOIN STRUCTURE AND ITS CONSEQUENCES: DRUG TARGETS AND BEYOND
Scott D. Bohle
McGill University, Montreal, QC, Canada

10:40 a.m.
ASSAYS FOR IN VITRO HEME BIOCRYSTALLIZATION AND NEW ANTIMALARIAL DRUG DISCOVERY
David J. Sullivan
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

11 a.m.
HEME GENERATION: THE MALARIA PARASITES’ ACHILLES HEEL
Stephen A. Ward
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

11:20 a.m.
ROLE OF PFPHP II IN HEME DETOXIFICATION FUNCTIONS OF THE MALARIA PARASITE
Virander Chauhan
International Centre Genetic Engineering Biotechnology, New Delhi, India

11:40 a.m.
MODULATION OF MONOCYTE/MACROPHAGE FUNCTIONS BY HEMOZOIN
Paolo Arese
University of Torino, Torino, Italy

Symposium 12
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Public Health Training for the 21st Century — The Cutting-Edge of Preparation
Bonn/London
Monday, November 13 10:15 a.m. – Noon
This symposium presents an array of successful and sustainable public health training programs, including efforts from Centers for Disease Control and Prevention, WHO, DoD and academia. The symposium aims to illustrate the objectives, approaches, partners and target populations of selected public health training programs in the developed and developing world. Presentations will emphasize the diversity of the different training needs of epidemiologists, researchers, laboratorians and other public health workers. These experiences will hopefully serve as models for future programs and as a foundation to extend their reach to other countries and regions.

CHAIR
David L. Blazes
US Naval Medical Research Center Detachment, Lima, Peru
Barbara J. Sina
Fogarty International Center/National Institutes of Health, Bethesda, MD, United States

10:15 a.m.
INTRODUCTION
David Blazes
US Naval Medical Research Center Detachment, Lima, Peru
Barbara Sina
Fogarty International Center, National Institutes of Health, Bethesda, MD, United States

10:25 a.m.
CENTERS FOR DISEASE CONTROL AND PREVENTION’S EPIDEMIC INTELLIGENCE SERVICE — OVER 50 YEARS OF FIELD EPIDEMIOLOGY TRAINING
Douglas H. Hamilton
Centers for Disease Control and Prevention, Atlanta, GA, United States

10:50 a.m.
PUBLIC HEALTH TRAINING IN THE DEVELOPING WORLD — 20 YEARS OF ACADEMIC EXPERIENCE IN PERU
Robert H. Gilman
Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States
11:15 a.m.
WHO’S INTEGRATED CAPACITY DEVELOPMENT PROGRAMME FOR LABORATORY SPECIALISTS
Philippe F. Dubois
WHO Lyon Office for National Epidemic, Lyon, France

11:40 a.m.
Andres G. Lescano
US Naval Medical Research Center Detachment, Lima, Peru

Scientific Session 13
Mosquitoes — Biochemistry, Molecular Biology and Molecular Genetics I
International 4
Monday, November 13 10:15 a.m. – Noon

10:15 a.m.
DISTRIBUTION OF TWO ESSENTIAL AMINO ACID TRANSPORTERS IN THE LARVAL ALIMENTARY CANAL OF THE AFRICAN MALARIA MOSQUITO AN. GAMBIAE (DIPTERA: CULICIDAE)
Bernard A. Okech, William R. Harvey, Dmitri Y. Boudko
Whitney Laboratory for Marine Bioscience, University of Florida, St. Augustine, FL, United States

10:30 a.m.
MICROARRAY ANALYSIS OF DIFFERENTIAL GENE EXPRESSION IN THE MIDGUT OF ANOPHELES GAMBIAE LARVAE
Marco V. Neira Oviedo1, Leslie vanEkeris1, Maria del Pilar Corena2, Paul J. Linser1
1The Whitney Laboratory/University of Florida, St. Augustine, FL, United States, 2Mayo Clinic, Jacksonville, FL, United States

10:45 a.m.
THE DIFFERENTIAL GENE EXPRESSION OF DETOXIFICATION ENZYMES IMPLICATED IN INSECTICIDE RESISTANCE OF Aedes aegypti USING A SMALL SCALE MICROARRAY
Parakma S. Karunarate1, William C. Black2, Hilary Ranson3
1Liverpool School of Tropical Medicine, Liverpool, United Kingdom, 2Colorado State University, Colorado, CO, United States, 3Liverpool School of Tropical Medicine, Liverpool, United Kingdom

11 a.m.
DIFFERENTIAL GENE EXPRESSION BETWEEN M AND S FORMS OF ANOPHELES GAMBIAE
Bryan J. Cassone1, Matthew W. Hahn2, Karine Mouline1, Bradley J. White1, Nora J. Besansky1
1University of Notre Dame, Notre Dame, IN, United States, 2Indiana University, Bloomington, IN, United States

11:15 a.m.
GENETIC LINKAGE MAPPING AND EVIDENCE OF POPULATION EXPANSION IN THE WEST NILE VIRUS VECTOR CULEX TARSALIS
Meera Venkatesan1, M. Claire Hauer1, Catherine J. Westbrook2, Jason L. Rasgon1
1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, 2Walter Reed Army Institute of Research (Walter Reed Army Institute of Research), Silver Spring, MD, United States

11:30 a.m.
AGING, REPRODUCTION, AND INSULIN SIGNALING IN THE MOSQUITO Aedes aegypti
Michael Riehle, Jessica Brown, Frank Ramberg, Anam Javed
University of Arizona, Tucson, AZ, United States

11:45 a.m.
QUANTITATIVE ANALYSIS OF THE ANOPHELES GAMBIAE HEMOLYMPH IMMUNE PROTEOME
Frederick Oduol1, Jun Li1, LeeAnn Higgins1, Lori Anderson1, Beatrix Ueberheide2, Jianrong Xu1, Donald F. Hunt2, Kenneth D. Vernick1
1University of Minnesota, St Paul, MN, United States, 2University of Virginia, Charlottesville, VA, United States
Symposium 14

Likelihood of Human Transmission and Possibility of Elimination of *Leishmania infantum* From the US Foxhound Population

*International 7*

Monday, November 13 10:15 a.m. – Noon

Endemic canine visceral Leishmaniasis infection is a predominant risk factor for this same infection in humans. This symposium will review the complexities of zoonotic visceral Leishmaniasis in the United States, highlighting the risks of maintaining *Leishmania*-infected dogs within this country and outlining the diagnostic tests available to aid in elimination of this disease from North America. The speakers will discuss clinical visceral Leishmaniasis and how it compares to disease currently seen in U.S. foxhounds, the current status of diagnostcis available for this disease in dogs, the latest epidemiology of canine disease in the U.S. and review data-supported possibilities for disease transmission between canines and humans.

**CHAIR**
Christine Petersen
Iowa State University, Ames, IA, United States

10:15 a.m.
OVERVIEW AND INTRODUCTION TO CANINE VISCERAL LEISHMANIASIS IN U.S.
Christine A. Petersen
Iowa State University, Ames, IA, United States

10:20 a.m.
CLINICAL ASPECTS OF VISCERAL LEISHMANIASIS: A COMPARISON OF CANINE TO HUMAN DISEASE
James H. Maguire, Stephen C. Barr
University of Maryland, Baltimore, MD, United States

10:45 a.m.
COMPLEXITIES OF DIAGNOSING CANINE PROTOZOAL DISEASE IN THE UNITED STATES
Louis V. Kirchhoff
University of Iowa, Iowa City, IA, United States

11:10 a.m.
SURVEILLANCE OF CANINE LEISHMANIASIS IN US TO MONITOR RISK OF TRANSMISSION TO EITHER VECTOR SPECIES OR HUMANS
Peter M. Schantz
Centers for Disease Control and Prevention, Atlanta, GA, United States

11:35 a.m.
CANINE VISCERAL LEISHMANIASIS IN THE U.S: TRANSMISSION WITHOUT VECTOR INVOLVEMENT?
Edgar Rowton, Joan E. Jackson
Walter Reed Army Institute of Research, Silver Spring, MD, United States

Symposium 15

Global Filariasis Elimination: Do We Need to Refine the Strategies?

*International 5/6*

Monday, November 13 10:15 a.m. – Noon

The Global Program to Eliminate Filariasis is the largest drug distribution ever planned and is aimed at providing treatment to the 1.2 billion people at risk to this infection. As originally implemented, countries developed mass treatment administration (MDA) to reach all at-risk populations will annual treatment for 5 years. Readdressing the approaches being used is timely, as this annual mass drug administration program has now reached, in many countries, the important timeline of five years of implementation originally set as the period required for successful elimination of this devastating infection. This symposium will discuss the current status of the program and its effects, while reevaluating the original concepts and policies that the effort was based upon. This will provide a basis for planning the next phase of this major global drug distribution program. The panel members include representatives from the endemic countries, WHO, the donor institutions and the scientific community.

**CHAIR**
Charles Mackenzie
Michigan State University, East Lansing, MI, United States

Pat Lammie
Centers for Disease Control and Prevention, Atlanta, GA, United States

10:15 a.m.
THE PROGRESS OF THE GLOBAL PROGRAM
Dirk Engels
World Health Organization, Geneva, Switzerland

10:40 a.m.
FROM THE DONOR’S PERSPECTIVE
Mark Bradley
GlaxoSmithKline, London, United Kingdom

11:05 a.m.
EXPERIENCES FROM THE FIELD
Mwele N. Malecela
National Institute for Medical Research, Dar es Salaam, United Republic of Tanzania

11:30 a.m.
IS THE SCIENCE ADEQUATE?
Patrick J. Lammie
Centers for Disease Control and Prevention, Atlanta, GA, United States
Detailed Program

Scientific Session 16

Schistosomiasis I — Immunology

Copenhagen/Stockholm/Amsterdam

Monday, November 13 10:15 a.m. – Noon

CHAIR

W. Evan Secor

Centers for Disease Control and Prevention, Atlanta, GA, United States

David Williams

Illinois State University, Normal, IL, United States

10:15 a.m. 22

ELEVATED HEPCIDIN LEVELS ARE ASSOCIATED WITH ADVERSE BIRTH OUTCOMES IN SCHISTOSOME INFECTED PREGNANT WOMEN

Jonathan D. Kurtis1, Luz P. Acosta2, Jeannette Kanefsky1, Daria Manalo2, Jemaima Yu2, MaryPaz Urbina4, Gretchen C. Langdon5, Remigio Olveda2, Jennifer Friedman5

1Center for International Health Research, Rhode Island Hospital; Department of Pathology and Laboratory Medicine, Brown University Medical School, Providence, RI, United States, 2Research Institute for Tropical Medicine, Manila, Philippines, 3Center for International Health Research, Rhode Island Hospital, Providence, RI, United States, 4Research Institute for Tropical Medicine, Manila, Philippines, 5Center for International Health Research, Rhode Island Hospital, Brown University Medical School, Providence, RI, United States

10:30 a.m. 23

SCHISTOSOMA JAPONICUM REINFECTION AFTER PRAZIQUANTEL TREATMENT CAUSES ANEMIA OF INFLAMMATION

Tjalling Leenstra1, Hannah M. Coutinho2, Luz P. Acosta3, Gretchen C. Langdon3, Li Su3, Remigio M. Olveda4, Stephen T. McGarvey4, Jonathan D. Kurtis4, Jennifer Friedman5

1Department of Pediatrics, Brown University Medical School; Center for International Health Research, Lifespan Hospitals, Providence, RI, United States, 2Center for International Health Research, Lifespan Hospitals; Brown University, Providence, RI, United States, 3Research Institute for Tropical Medicine, Manila, Philippines, 4Center for International Health Research, Rhode Island Hospital, Providence, RI, United States, 5Center for Statistical Sciences, Brown University, Providence, RI, United States, 6International Health Institute, Brown University, Providence, RI, United States, 7Center for International Health Research, Lifespan Hospital, Department of Pathology and Laboratory Medicine, Brown University Medical School, Providence, RI, United States, 8Center for International Health Research, Department of Pediatrics, Brown University Medical School, Providence, RI, United States

10:45 a.m. 24

TH2 CYTOKINES ARE ASSOCIATED WITH PERSISTENT HEPATIC FIBROSIS IN HUMAN S. JAPONICUM INFECTION

Hannah M. Coutinho1, Luz P. Acosta2, Stephen T. McGarvey3, Li Su4, Gretchen C. Langdon5, Mario A. Jiz6, Blanca Jarilla7, Remigio M. Olveda5, Jennifer F. Friedman5, Jonathan D. Kurtis5

1Center for International Health Research, Rhode Island Hospital, Brown University Medical School, Providence, RI, United States, 2Research Institute of Tropical Medicine, Manila, Philippines, 3Epidemiology Section, Department of Community Health and International Health Institute, Brown University, Providence, RI, United States, 4Center for Statistical Sciences, Brown University, Providence, RI, United States, 5Center for International Health Research and Department of Pediatrics, Rhode Island Hospital, Brown University Medical School, Providence, RI, United States, 6Center for International Health Research and Department of Pathology and Laboratory Medicine, Rhode Island Hospital, Brown University Medical School, Providence, RI, United States

(ACMCIIP Abstract)

11 a.m. 25

SCHISTOSOMA MANSONI DERIVED HIGH MOBILITY GROUP BOX-1 (HMGB-1) PROTEIN MAY HAVE AN IMPORTANT ROLE IN EGG-INDUCED GRANULOMA IN SCHISTOSOMIASIS MANSONI

Gnanasekar Munirathinam, Velusamy Rangasamy, He Yi-Xun, Bernard Salafskey, Ramaswamy Kalyanasundaram

University of Illinois, Rockford, IL, United States

(ACMCIIP Abstract)

11:15 a.m. 26

THE EFFECT OF PRAZIQUANTEL TREATMENT ON IMMUNE RESPONSES AGAINST SCHISTOSOMIASIS MANSONI DURING PREGNANCY: CYTOKINE AND ANTIBODY RESPONSES IN PREGNANT WOMEN AND THEIR INFANTS

Robert Twayne$by$ere1, Patrice A. Mawa2, Proscovia B. Namujju2, Frances M. Jones3, Juliet Ndbizaza3, Nicholas Omoding3, Lawrence Muhangí3, Narcis B. Kabaterine3, Birgitte J. Venne$ral$d3, David W. Dunne3, Eli Katunguka-Rwakishaya5, Alison M. Elliott7

1Makerere University, Cambridge, United Kingdom, 2Medical Research Council/Uganda Virus Research Institute Uganda Research Unit on AIDS, Kampala, Uganda, 3University of Cambridge, Department of Pathology, Cambridge, United Kingdom, 4Vector Control Division, Ministry of Health, Kampala, Uganda, 5Denish Bilharzia Laboratory - Institute for Health Research and Development, Copenhagen, Denmark, 6Makerere University, Kampala, Uganda, 7London School of Hygiene and Tropical Medicine, London, United Kingdom
27

**Schistosoma mansoni** infection increases susceptibility to AIDS virus infection transmission and replication in non-human primates

Agnes-Laurence Chenine1, Ela Shai-Kobiler2, Lisa N. Steele2, Peter Augostini2, Ruth M. Ruprecht2, W. Evan Secor3

1Dana-Farber Cancer Institute and Department of Medicine, Harvard Medical School, Atlanta, GA, United States, 2Dana-Farber Cancer Institute and Department of Medicine, Harvard Medical School, Boston, MA, United States, 3Centers for Disease Control and Prevention, Atlanta, GA, United States

11:45 a.m.

**Resistance to S. japonicum** reinfection in mature women is not mediated by adaptive cytokine responses

Gretchen Langdon1, Hannah Coutinho1, Tjalling Leenstra2, Luz P. Acosta3, Jennifer Friedman2, Jonathan Kurtis4

1Center for International Health Research, Rhode Island Hospital, Providence, RI, United States, 2Center for International Health Research, Rhode Island Hospital; Department of Pediatrics, Brown University Medical School, Providence, RI, United States, 3Research Institute for Tropical Medicine, Manila, Philippines, 4Center for International Health Research, Rhode Island Hospital; Department of Pathology and Laboratory Medicine, Brown University Medical School, Providence, RI, United States

Symposium 17

**Malaria: Genetic Diversity in the Parasite and Human Host**

Marquis 3

Monday, November 13 10:15 a.m. – Noon

This symposium is designed to review and update progress toward understanding genetic diversity within *Plasmodium falciparum*, and how this information may be applied to understanding the biology of the parasite and the development of intervention strategies. The speakers will describe the development of a genome-wide diversity map for *P. falciparum*, our understanding of the population structure and evolution of the parasite, malaria pathogenesis and the genome, and how host genetic variation contributes to malaria pathogenesis.

**Chair**

Dyann Wirth

Harvard School of Public Health, Boston, MA, United States

10:15 a.m.

**Introduction**

Dyann Wirth

Harvard School of Public Health, Boston, MA, United States

10:20 a.m.

**Genome-wide map of diversity in** *Plasmodium falciparum*

Sarah K. Volkman

Harvard School of Public Health, Boston, MA, United States

10:45 a.m.

**Genome-wide genetic variation, population structure, and evolution of** *Plasmodium falciparum*

Xinzhuan Su

National Institutes of Health, Laboratory of Malaria and Vector Research, Rockville, MD, United States

11:10 a.m.

**Parasite diversity and the spectrum of disease due to** *Plasmodium falciparum*

Patrick E. Duffy

Seattle Biomedical Research Institute, Seattle, WA, United States

11:35 a.m.

**Host genetic diversity and malaria pathogenesis**

Abdoulaye A. Djimde

University of Bamako, Mali, Bamako, Mali

Symposium 18

**ACT’s: Principle into Practice — Not so Easy**

Marquis 4

Monday, November 13 10:15 a.m. – Noon

Public-private partnerships, such as that between Medicines for Malaria Venture (MMV) and GlaxoSmithKline (GSK), are developing next-generation artemisinin combination therapy (ACT) for uncomplicated *P. falciparum* malaria. As these new medicines approach the end of the drug development pipeline, overcome post-launch issues involving supply, access, ICE, distribution, pharmacovigilance, resistance monitoring, treatment of extra vulnerable groups, life cycle management, and new indications or formulations are critical in a successful drug deployment in order to ultimately make a public health impact. The symposium will discuss how a multi-faceted approach from the early stages of a drug’s development can ensure optimal use in malaria endemic areas.

**Symposium Organizer**

Peter G. Borrett

Hera.Com, Richmond, United Kingdom

**Chair**

Christopher Hentschel

Medicines for Malaria Venture, Geneva, Switzerland

10:15 a.m.

**Introduction**

Christopher Hentschel

Medicines for Malaria Venture, Geneva, Switzerland
10:20 a.m.
FORWARD PLANNING ENSURES REAL SUCCESS: DEPLOYMENT
Silvio Gabriel
Novartis AG, Basel, Switzerland

10:45 a.m.
BETTER SAFE THEN SORRY: PHARMACOVIGILANCE AND RESISTANCE MONITORING
Ambrose Talisuna
Ugandan Ministry of Health, Kampala, Uganda

11:10 a.m.
PLANNING FOR THE FUTURE: PHASE IV STUDIES
Umberto D’Alessandro
Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium

11:35 a.m.
CLINICAL CONUNDRUM — LIFE CYCLE MANAGEMENT
Theodore K. Mutabingwa
National Institute for Medical Research, Dar es Salaam, United Republic of Tanzania

Symposium 19
American Committee on Arthropod-Borne Viruses (ACAV): International Field Research on Arboviruses

Marquis 2
Monday, November 13 10:15 a.m. – 12:45 p.m.
The symposium will serve as a forum to highlight the importance of international field research on arboviruses to both U.S. and foreign countries, and to emphasize the need to sustain field research both nationally and internationally.

CHAIR
Douglas Watts
University of Texas Medical Branch, Galveston, TX, United States

10:15 a.m.
ACAV BUSINESS MEETING AND AWARDS PRESENTATION
Douglas M. Watts
University of Texas Medical Branch, Galveston, TX, United States

11:00 a.m.
SYMPOSIUM: INTRODUCTION TO INTERNATIONAL RESEARCH ON ARBOVIRUSES
Douglas M. Watts
University of Texas Medical Branch, Galveston, TX, United States

11:15 a.m.
ARBOVIRAL DISEASE OUTBREAK INVESTIGATIONS
T.G. Ksiazek
Centers for Disease Control and Prevention, Atlanta, GA, United States

11:40 a.m.
LONGITUDINAL ENTOMOLOGICAL AND EPIDEMIOLOGICAL RESEARCH ON DENGUE IN IQUITOS, PERU
Amy Morrison
University of California at Davis, Davis, CA, United States

12:05 p.m.
ARBOVIRUS RESEARCH IN ASIA — THE LIVERPOOL EXPERIENCE
Tom Solomon
University of Liverpool, Liverpool, United Kingdom

12:30 p.m.
OUTBREAK REPORT
Douglas M. Watts
University of Texas Medical Branch, Galveston, TX, United States

Scientific Session 20
Malaria — Epidemiology II
Marquis 1
Monday, November 13 10:15 a.m. – Noon

CHAIR
Catherine O. Falade
University of Ibadan, Ibadan, Nigeria
Peter Zimmerman
Case Western Reserve University, Cleveland, OH, United States

10:15 a.m.
BARRIERS TO PROMPT AND EFFECTIVE MALARIA TREATMENT IN RURAL TANZANIA: BETTER DRUGS IS NOT ENOUGH
Manuel W. Hetzel1, Christian Lengeler1, Brigit Obrist1, Ahmed M. Makemba2, Christopher Mshana2, Alexander Schulze3, Hassan Mshinda2
1Swiss Tropical Institute, Basel, Switzerland, 2Ifakara Health Research and Development Centre, Ifakara, United Republic of Tanzania, 3Novartis Foundation for Sustainable Development, Basel, Switzerland

10:30 a.m.
EARLY TREATMENT OF UNCOMPLICATED MALARIA WITH A COMBINATION INCLUDING AMODIAQUINE: FOLLOW UP OF 175 CLINICAL ATTACKS IN SENEGAL, 2004-2005
Fatoumata Diène Sarr1, Ronan Jambou1, Richard Paul1, Idrissa Tall2, Moussa D. Sarr3, Souleymane Ndour4, Delphine Aldebert1, Adama Tall1, Laurence Marrama Rakotoarivony1
1Institut Pasteur in Dakar (IPD), Dakar, Senegal, 2Ministerie de la Sante, Thies, Senegal, 3Service de Lutte Anti Parasitaire, Thies, Senegal, 4Ministere de la Sante, Kaba, Senegal
10:45 a.m.  
31  
EPIDEMOLOGY OF CONGENITAL MALARIA IN NIGERIA: A MULTI-CENTRE STUDY  
Catherine O. Falade1, Olugbenga Mokuolu2, Henrietta Okafor2, Adeola Orogbade3, Adegoke Falade4, O. Adedayo5, Tagbo M. Ogununu6, Davidson H. Hamer7, Micheal V. Callaham8  
1Department of Clinical Pharmacology, University College Hospital, Ibadan, Nigeria, 2Department of Paediatrics, University of Ibadan Teaching Hospital, Ibadan, Nigeria, 3Department of Paediatrics, University of Nigeria Teaching Hospital, Enugu, Nigeria, 4Department of Paediatrics, Ahmadu Bello University Teaching Hospital, Kaduna, Nigeria, 5Department of Paediatrics, University College Hospital, Ibadan, Nigeria, 6Department of Paediatrics, University of Nigeria Teaching Hospital, Enugu, Nigeria, 7Center for International Health and Development, Boston University School of Public Health, Boston, MA, United States, 8Division of Infectious Disease, Massachusetts General Hospital, Boston, MA, United States

11 a.m.  
32  
USE OF ULTRASOUND TECHNOLOGY TO INVESTIGATE THE TEMPORAL RELATIONSHIP BETWEEN MATERNAL MALARIA INFECTION AND IN UTERO FETAL GROWTH  
Sarah H. Landis1, Joseph Atibu2, Cande V. Ananth3, Victor Lokomba4, Antoinette Tshefu5, Robert W. Ryder6, Katherine E. Hartmann6, Steven R. Meshnick4  
1University of North Carolina-Chapel Hill, Carrboro, NC, United States, 2University of North Carolina-Democratic Republic of Congo Programme, Kinshasa, Democratic Republic of the Congo, 3UMDNI-Robert Wood Johnson Medical School, New Brunswick, NJ, United States, 4University of North Carolina-Chapel Hill, Chapel Hill, NC, United States

11:15 a.m.  
33  
CHANGING EPIDEMIOLOGY OF PLASMODIUM BLOOD-STAGE INFECTIONS IN THE WOSERA REGION OF PAPUA NEW GUINEA  
Ivo Mueller1, Laurin J. Kasehagen2, David T. McNamara2, Moses J. Bockarie2, Benson Kiniboro2, Lawrence Rare1, Kerry Lorry1, Will Kastens2, John C. Reeder1, James W. Kazura2, Blaise Genton3, Peter A. Zimmerman2  
1Papua New Guinea Institute of Medical Research, Goroka, Papua New Guinea, 2Case Western Reserve University, Cleveland, OH, United States, 3Swiss Tropical Institute, Basel, Switzerland

(ACMCIP Abstract)

11:30 a.m.  
34  
TOPOGRAPHY, LAND-COVER, AND ELEVATION PREDICT AREAS AT RISK FOR MALARIA WITHIN COMMUNITIES IN A HIGHLAND REGION OF WESTERN KENYA  
Justin M. Cohen1, Kacey C. Ernst1, Kim A. Lindblade2, John M. Vulule1, Chandy C. John1, Mark L. Wilson1  
1Department of Epidemiology, University of Michigan, Ann Arbor, MI, United States, 2Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, United States, 3Kenya Medical Research Institute, Kisumu, Kenya, 4Department of Pediatrics, University of Minnesota, Minneapolis, MN, United States

11:45 a.m.  
35  
THE USE OF PERSONAL DIGITAL ASSISTANTS FOR DATA ENTRY AT THE POINT OF COLLECTION IN TROPICAL MEDICAL RESEARCH  
Kizito Shirima1, Joanna Schellenberg2, Werner Maokola1, Oscar Mukasa3, Pedro Alonso4, Marcel Tanner5, Hassan Mshinda1, David Schellenberg2  
1Ivakara Health Research and Development Centre, Dar es Salaam, United Republic of Tanzania, 2London School of Hygiene and Tropical Medicine, London, United Kingdom, 3Hospital Clinic, Barcelona, Spain, 4Swiss Tropical Institute, Basel, Switzerland

Exhibit Hall Open/Light Lunch  
Monday, November 13 Noon – 1:30 p.m.

Poster Session A (#36–285)  
Skyline Level—#36–150

Monday, November 13 Noon – 1:30 p.m.

Arthropods/Entomology – Other  

PUBLIC HEALTH ISSUES AND FIRE ANT ENVENOMATION: NEW PERSPECTIVES ON AN AGE-OLD PROBLEM  
Paul Ijams1, David P. Adams2, Raimi Ewetola1  
1Armstrong Atlantic State University, Savannah, GA, United States, 2Armstrong Atlantic State University, MSc (Cand), London School of Hygiene and Tropical Medicine, Savannah, GA, United States

37  
CUTEREBRA CUTANEOUS MYIASIS — NEW HAMPSHIRE, 2004  
Rachel N. Plotinsky1, Elizabeth A. Talbot2  
1Centers for Disease Control and Prevention, Concord, NH, United States, 2New Hampshire Department of Health and Human Services, Concord, NH, United States

38  
RESPONSE OF Aedes albopictus TO SIX TRAPS IN SUBURBAN SETTINGS IN NORTH CENTRAL FLORIDA  
David F. Hoel1, Daniel L. Kline2, Sandra Allan2  
1U.S. Naval Medical Research Unit Number Three, Cairo, Egypt, 2Center for Medical, Agricultural, and Veterinary Entomology, Gainesville, FL, United States

39  
TICK INDUCED TH2 POLARIZATION OF HOST INTRACELLULAR CYTOKINES BY INFESTATION WITH IXODES SCAPULARIS NYMPHS  
Venkata D. Boppanna  
University of Connecticut Health Center, Farmington, CT, United States

(ACMCIP Abstract)
GENETIC CHARACTERIZATION OF TRYPSANOMA CRUZI ISOLATES FROM TRIATOMA SPP. IN THE UNITED STATES BASED ON SSU RIBOSOMAL RNA GENE SEQUENCES
Sonia A. Kjos¹, Joseph J. Gillespie², Kathleen S. Logan¹, Jimmy K. Olson¹, Karen F. Snowden¹
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DISTRIBUTION OF Culex pipiens COMPLEX IN Mexico City AND THE POTENTIAL OF WEST NILE

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COMPARATIVE FIELD EVALUATION OF BIFENTHRIN AND PERMETHRIN AS BARRIER TREATMENTS FOR MILITARY TENTS AGAINST MOSQUITOES IN QUEENSLAND, AUSTRALIA

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AN OVERVIEW OF VECTORBASE.ORG, A BIOINFORMATIC RESOURCE FOR INVERTEBRATE VECTORS OF HUMAN PATHOGENS

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PREDATION LIMITATION OF INVASIVE MOSQUITOES

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IDENTIFICATION OF DIFFERENTIALLY REGULATED MOSQUITO PROTEINS — POTENTIAL TARGETS AGAINST FLAVIVIRUSES

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THE DISTRIBUTION OF HATCHING TIME IN ANOPHELES GAMBIAE

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Malaria Research Training Center FMPOS, Bamako, Mali

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ECOLOGY, GENETICS, AND TRANSMISSION OF PLASMODIUM FALCIPARUM BY ANOPHELES ARABIENSIS IN NORTHERN ZAMBIA

Rebekah J. Kent¹, Sungano Mharakurwa², Philip Thuma², Douglas E. Norris¹
¹The Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, ²The Malaria Institute at Macha, Macha, Zambia

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IDENTIFICATION AND DISTRIBUTION OF THE MOLECULAR FORMS OF ANOPHELES GAMBIAE SENSU STRICHT CAPTURED RESTING OUTDOORS IN VARIOUS HABITATS OF KASSENA NANKANA DISTRICT (KND) IN THE UPPER EAST REGION OF GHANA

Kwadwo K. Frempong¹, Delali Donkor¹, Beverly Egyir¹, Charles Brown¹, Millicent Cobblah², Maxwell Appawu¹
¹Parasitology Department, Noguchi Memorial Institute for Medical Research, University of Ghana, Accra, Ghana, ²Zoology Department, University of Ghana, Accra, Ghana

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FLUCTUATING VERSUS CONSTANT TEMPERATURES: IMPACT ON DEVELOPMENT AND SURVIVAL OF Aedes Aegypti and Aedes Albopictus and Implications for Disease Modeling

Constantianus J. Koenraadt³, Hong-Fei Gong, Johnathan L. Licitra, Nishant Soni, Art DeGaetano, Laura C. Harrington
¹The Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

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BITING BEHAVIOR OF ANOPHELES DARLINGI (ROOT) IN THE SOUTHERN AMERINDIAN REGION OF SURINAME

Helene Hiwat, Sutrisno Mitro
Global Fund Malaria Program Suriname, Paramaribo, Suriname

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SPATIAL AND TEMPORAL PATTERNS IN THE RECOVERY OF Aedes Aegypti POPULATIONS AFTER INSECTICIDE TREATMENT

Constantianus J. Koenraadt¹, Jared Aldstadt², Udom Kijchaloe³, Ampornpan Kengluecha³, James W. Jones³, Thomas W. Scott⁴
¹University of California, Ithaca, NY, United States, ²San Diego State University, San Diego, CA, United States, ³Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, ⁴University of California, Davis, CA, United States

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FOCAL POPULATION GENETICS AND DENGUE VECTOR COMPETENCE OF Aedes Aegypti IN TRINIDAD, WEST INDIES

Ryan R. Hemme¹, Dave D. Chadee², Dave W. Severson³
¹Center for Tropical Disease Research and Training, Department of Biological Sciences, University of Notre Dame, Notre Dame, IN, United States, ²Department of Life Sciences, University of the West Indies, St. Augustine, Trinidad and Tobago

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BITING PATTERN OF A DENGUE VECTORS, Aedes Aegypti AND Aedes Albopictus IN URBAN AND RURAL GRADIENT IN CHIANG MAI PROVINCE, NORTHERN THAILAND

Wannapa Suwonkerd¹, Nantawan Suwannachote¹, Thum Boon³, Theeraphap Charoenviriyaphap²
¹Office of Disease Prevention and Control, Ministry of Public Health, Chiang Mai, Thailand, ²Department of Entomology, Faculty of Agriculture, Bangkean, Bangkok, Thailand

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COMPARATIVE RESPONSES OF MOSQUITO VECTORS OF WEST NILE VIRUS TO LIGHT TRAPS AUGMENTED WITH CHEMICAL ATTRACTANT AND TO HUMAN HOSTS

Donald Barnard, Sandra Allan, Ulrich Bernier, Daniel Kline, Gary Clark, Kenneth Linthicum
US Department Agriculture, Gainesville, FL, United States

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DEVELOPMENT AND CHARACTERIZATION OF A PANEL OF SINDBIS VIRUS-BASED TRANSDUCING SYSTEMS EXPRESSING DIFFERENT FLUORESCENT PROTEINS AS MARKERS OF INFECTION IN Aedes Aegypti Mosquitoes

Chris M. Cirimotich, Dennis J. Pierro, Ken E. Olson
Colorado State University, Fort Collins, CO, United States
## Mosquitoes – Vector Biology – Epidemiology

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Junkun He
Armed Forces Institute of Pathology, Rockville, MD, United States

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Joseph N. Fair1, Luis Branco2, Darryl Sampey2, Alex Matschiner2, Corina Monagin3, Kathleen Cashman4, Philip Ferro4, Augustin Goba5, Daniel Bausch3, Russell Wilson6, Robert Garry2, Mary Guttieri4
1Tulane University, Ft. Detrick, MD, United States, 2Biofactura, Inc, Rockville, MD, United States, 3Tulane University, New Orleans, LA, United States, 4USAMRIID, Ft. Detrick, MD, United States, 5Lassa Fever Laboratory, Kenema, Sierra Leone, 6Autoimmune Technologies, Inc, New Orleans, LA, United States

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Whitni Davidson1, Mary Reynolds1, Aaron Curns1, Craig Conover2, Gregory Huhn3, Jeffrey P. Davis4, Mark Wegner5, Donita Croft6, Alexandra Newman6, Nkolika Obiesie5, Gail Hansen3, Pat Haynes5, Pam Pantones6, Brad Beard6, Robert Teclaw6, James Howell6, Zachery Braden1, Robert Holman7, Kevin Karem1, Inger Damon1
1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2Illinois Department of Public Health, Chicago, IL, United States, 3Rush University, Chicago, IL, United States, 4Wisconsin Department of Health and Family Services, Madison, WI, United States, 5Kansas Department of Health and Environment, Topeka, KS, United States, 6Indiana State Department of Health, Indianapolis, IN, United States

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SMALLPOX RESEQUENCING GENECHIP HYBRIDIZATION CAN DETECT HUMAN COWPOX VIRUS
Irshad M. Sulaiman, Scott A. Sammons, Robert M. Wohlhueter
Centers for Disease Control and Prevention, Atlanta, GA, United States

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MULTIPLEX REAL-TIME RT-PCR SHOWS A WEAK RELATIONSHIP BETWEEN PLAQUE GROWTH AND VIRUS CONCENTRATION FOR BUGGY CREEK VIRUS
Jerome Foster1, Amy Moore1, Eric A. Edwards1, Nicholas Komar3, Kenton S. Miller1, Charles R. Brown1
1University of Tulsa, Tulsa, OK, United States, 2Division of Vector-borne Infectious Diseases, Centers for Disease Control and Prevention, Fort Collins, CO, United States

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PHYLOGENETIC ANALYSIS OF BUGGY CREEK VIRUS: EVIDENCE FOR MULTIPLE CLADES IN THE WESTERN GREAT PLAINS, U.S.A.
Martin Pfeffer1, Jerome Foster2, Eric A. Edwards1, Mary Bomberger Brown1, Nicholas Komar3, Charles R. Brown1
1Bundeswehr Institute of Microbiology, Neuherbergstrasse, Munich, Germany, 2University of Tulsa, Tulsa, OK, United States, 3Division of Vector-borne Infectious Diseases, Centers for Disease Control and Prevention, Fort Collins, CO, United States

(ACMCIP Abstract)
A CLINICAL STUDY TO ASSESS THE SAFETY AND IMMUNOGENICITY OF ATTENUATED MEASLES VACCINE ADMINISTERED INTRANASALLY TO HEALTHY ADULTS

Jakub K. Simon1, Marcela F. Pasetti1, Jean-François Viret2, Alma Muñoz3, Rosanna Lagos3, Myron M. Levine1, James D. Campbell1

1Division of Infectious Disease and Tropical Pediatrics, Department of Pediatrics, Center for Vaccine Development, University of Maryland School of Medicine, Baltimore, MD, United States, 2Berna Biotech Ltd., Bern, Switzerland, 3Center for Vaccine Development, Hospital Roberto del Rio, Santiago, Chile

ULTRASTRUCTURAL PATHOLOGY OF THE LUNGS OF SYRIAN HAMSTERS INFECTED WITH ANDES VIRUS

Ludmila V. Asher, Victoria Wahl-Jensen, Michael Zimmerman, Tom Larsen, Jay W. Hooper

U.S. Army Medical Research Institute of Infectious Diseases, Ft. Detrick, MD, United States

PREVALENCE OF IGG AGAINST SELECTED ARBOVIRUSES AMONG PATIENTS ADMITTED WITH FEBRILE ILLNESSES AT THREE HOSPITALS IN KENYA

Rodney L. Coldren1, Victor O. Ofuola2, Clayton Onyango2, Nicholas Adungo3, Jane Mbu1

1USAMC-Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, 2US Army Medical Research Unit – Kenya, Nairobi, Kenya, 3KEMRI Centre for Infectious and Parasitic Disease Control Research, Busia, Kenya, 4KEMRI Centre for Clinical Research, Nairobi, Kenya

Clinical Group Education Curriculum Committee Meeting

Room 3914

Monday, November 13 Noon – 1:30 p.m.

Certificate Exam Executive Committee

Room 3908

Monday, November 13 12:15 p.m. – 1:15 p.m.

Clinical Group Board Certification Committee Meeting

Room 3934

Monday, November 13 12:15 p.m. – 1:15 p.m.
12:35 p.m.
WHAT CONSTITUTES A WELL VERSUS POORLY WRITTEN MANUSCRIPT? RESPONDING TO REVIEWERS’ COMMENTS
James Kazura1, Joe Vinetz2
1Case Western Reserve University, Cleveland, OH, United States, 2University of California at San Diego, San Diego, CA, United States

12:45 p.m.
THE GOOD, BAD, AND UGLY OF THE REVIEW: EDITORIAL, CORRESPONDING AUTHOR AND REVIEWER PERSPECTIVES
James Kazura1, Joe Vinetz2, Cathi Siegel3
1Case Western Reserve University, Cleveland, OH, United States, 2University of California at San Diego, San Diego, CA, United States, 3American Journal of Tropical Medicine & Hygiene, Cleveland, OH, United States

12:55 p.m.
OPEN FORUM WITH AUDIENCE

Mid-Day Session 22
Tropical Medicine and the Media
Marquis 3
Monday, November 13 12:15 p.m. – 1:15 p.m.

Please note that CME credit is not offered for this session.

Popular books, newspaper, and magazine articles can have a powerful impact on the public’s understanding of global health. ASTMH has demonstrated its commitment to outstanding tropical medicine journalism through the creation of an annual Communications Award. This interactive session will feature two nationally-known journalists who have written extensively about diseases of the developing world, in some cases researching, interviewing and reporting directly from the field. Each panelist will discuss recent works and the process by which stories are developed, written and edited. The session will conclude with a question and answer period.

CHAIR
Claire Panosian
UCLA School of Medicine, Los Angeles, CA, United States

12:15 p.m.
INTRODUCTION
Claire Panosian
UCLA School of Medicine, Los Angeles, CA, United States

12:25 p.m.
MEDIA REPRESENTATIVE
Donald McNeil, Jr.
New York Times, New York, NY, United States

12:45 p.m.
ASTMH COMMUNICATIONS AWARD COMMITTEE MEMBER
Jon Cohen
Science Magazine, Cardiff-by-the-Sea, CA, United States

Mid-Day Session 23
AIDS at 25 and Beyond: Treat, Protect and Prevent
Supported with funding from GlaxoSmithKline
Marquis 4
Monday, November 13 12:15 p.m. – 1:15 p.m.

Varied social factors, such as sex and sexuality, gender and economic inequalities and drug use drive differences in the HIV epidemic. Despite availability of preventive measures, such as condoms, needle exchange, blood screening and antiretroviral therapy for the reduction of viral load and the prevention of mother to child transmission (pMTCT), alternatives are needed as HIV infections increase yearly. Public-private partnerships are a critical component to effectively treat and prevent HIV infection, progression and transmission in the resource poor setting.

SYMPOSIUM ORGANIZER
Peter G. Borrett
Hera.Com, Richmond, United Kingdom

CHAIR
Richard Harrigan
University of British Columbia, Vancouver, BC, Canada

12:15 p.m.
PREVENTION OF HIV TRANSMISSION: PLANNING FOR THE FUTURE
Richard Harrigan
University of British Columbia, Vancouver, BC, Canada

12:45 p.m.
EXPERIENCE IN HIV/AIDS AND TUBERCULOSIS IN RESOURCE-LIMITED SETTINGS
Humphrey Shao
Duke University, Durham, NC, United States

Mid-Day Session 24
Disaster Medicine
Marquis 1
Monday, November 13 12:15 p.m. – 1:15 p.m.

Dr. Christopher Sanford will discuss the medical operation at the New Orleans Airport immediately following Hurricane Katrina. Dr. Mark Oberle will describe his relief work on Phuket, Thailand, where he was vacationing at the time of the tsunami in December of 2004. Dr. Vernon Ansdell will discuss his recent work in the Philippines following a massive mudslide.

CHAIR
Christopher Allen Sanford
University of Washington, Seattle, WA, United States
12:15 p.m.
WHEN THE LEVEE BREAKS: LESSONS LEARNED FROM HURRICANE KATRINA
Christopher Allen Sanford
University of Washington, Seattle, WA, United States

12:35 p.m.
TSUNAMI IN SOUTHERN THAILAND
Mark W. Oberle
University of Washington, Seattle, WA, United States

12:55 p.m.
MEDICAL RESPONSE TO THE MUDSLIDE IN THE PHILIPPINES
Vernon Ansdell
Kaiser Permanente, Honolulu, HI, United States

Poster Session A Viewing
International and Skyline Levels
Monday, November 13 1:30 p.m. – 7 p.m.

Scientific Session 25
Bacteriology I — Diarrhea I
International 4
Monday, November 13 1:30 p.m. – 3:15 p.m.
CHAIR
Adam Armstrong
NAMRU-3, Cairo, Egypt
Mickey Bridges
Vanson Halosource Inc., Redmond, WA, United States

1:30 p.m. 286
EFFICACY OF DNA EXTRACTION AND REAL TIME PCR FOR DETECTION OF PLASMID **IPAH** OF **SHIGELLA SPP.** IN UNIDENTIFIED LYOPHILIZED STOOL SAMPLES
Aybek V. Khodiev1, Gulnara A. Ibadova1, R. Phasuk2, K. Nakjarung3, L. Bodhidatta4
1SRIEMID, Tashkent, Uzbekistan, 2Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand

(ACMCIP Abstract)

1:45 p.m. 287
HIGH RATES OF CARRIAGE OF DRUG-RESISTANT **ENTEROBACTERIACEAE** IN HEALTHY VOLUNTEERS IN HO CHI MINH CITY
Minh Vien T. Le1, My Linh Nguyen Le1, Jim Campbell1, Thanh Truong Nguyen2, Dung Nguyen Thi2, Christiane Dolecek3, Constance Schultz1
1Oxford University Clinical Research Unit, Hospital for Tropical Diseases, Vietnam, Ho Chi Minh, Vietnam, 2Hospital for Tropical Diseases, Vietnam, Ho Chi Minh, Vietnam

2 p.m.

2:15 p.m. 288
IS NALIDIXIC ACID-RESISTANCE LINKED TO CLINICAL VIRULENCE IN **SALMONELLA ENTERICA** SEROTYPE **TYPHI** INFECTIONS?
Tamilarasu Kadhiravan, Naveet Wig, K. Renuka, Arti Kapil, Sushil K. Kabra, Anoop Misra
All India Institute of Medical Sciences, New Delhi, India

2:30 p.m. 289
ENTEROINVASIVE **ESCHERICHIA COLI** ISOLATED FROM EGYPTIAN CHILDREN WITH ACUTE GASTROENTERITIS ARE MULTI-DRUG RESISTANT AND ENCODE FOR MULTIPLE VIRULENCE FACTORS
Rania A. Nada1, Zaynab Mohran1, John D. Klena1, Sohair A. Mostaafa2, Hind I. Shaheen1, Shannon D. Putnam1, Mark S. Riddle1, Marshall R. Monteville1
1NAMRU-3, FPO, AE, United States, 2Ain Shams University, Cairo, Egypt

2:45 p.m. 290
PROTEOMIC ANALYSIS OF **IN VIVO** EXPRESSED AND IMMUNOCOGNITIVE PROTEINS OF **VIBRIO CHOLERAE**
Regina C. LaRocque1, Jason B. Harris1, Bryan Krastins2, Edward T. Ryan1, David Sarracino2, Firdausi Qadri3, Stephen B. Calderwood1
1Massachusetts General Hospital, Boston, MA, United States, 2Harvard Partners Center for Genetics and Genomics, Boston, MA, United States, 3International Center for Diarrheal Disease Research, Dhaka, Bangladesh

3 p.m. 292
BROMINATED POLYSTYRENE-HYDANTOIN BEADS FOR LOW-COST, HOUSEHOLD DISINFECTION OF DRINKING WATER
Michael Bridges1, David Dunk1, Jose Santiago1, N. VanKirk1, B. Kawal1, A. Chen1, Charles D. Mackenzie2, Carol Flegler2, David Worley3, Jeffrey F. Williams1
1Vanson Inc., Redmond, WA, United States, 2Michigan State University, East Lansing, MI, United States, 3Auburn University, Auburn, AL, United States
Symposium 26

Coordination of Research to Achieve Successful Control of Malaria in Pregnancy

International 7
Monday, November 13 1:30 p.m. – 3:15 p.m.

This symposium is designed to present the current state-of-knowledge and key research gaps to successful control of malaria in pregnancy (MiP). The speakers represent a larger MiP working group that has been tasked to develop a prioritized research strategy for future MiP studies. This symposium will present an update on the current state of knowledge on MiP in the following areas: 1) epidemiology and burden of disease; 2) immunity and pathophysiology; 3) preclinical data and pharmacokinetics of antimalarial drugs; and 4) prevention.

CHAIR
Meghna Desai
Centers for Disease Control and Prevention, Atlanta, GA, United States
Robert D. Newman
Centers for Disease Control and Prevention, Atlanta, GA, United States

1:30 p.m.
INTRODUCTION
Meghna Desai, Robert Newman
Centers for Disease Control and Prevention, Atlanta, GA, United States

1:35 p.m.
THE MALARIA IN PREGNANCY CONSORTIUM
Feiko O. ter Kuile
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

1:55 p.m.
THE EPIDEMIOLOGY AND BURDEN OF MALARIA IN PREGNANCY
Meghna Desai
Centers for Disease Control and Prevention, Atlanta, GA, United States

2:15 p.m.
PATHOGENESIS AND IMMUNITY OF MALARIA IN PREGNANCY
Steven Rogerson
University of Melbourne, Parkville, Australia

2:35 p.m.
PHARMACOVIGILANCE, SAFETY AND PHARMACOKINETICS OF ANTIMALARIALS IN PREGNANCY
Steve Ward
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

2:55 p.m.
CONTROL OF MALARIA IN PREGNANCY
Clara Menendez
Center for International Health, Barcelona, Spain

Symposium 27

The Interdisciplinary Monitoring for Antimalarial Combination Therapy in Tanzania: Lessons from the Routine Use of Artemisinin-Containing Antimalarial Combination Therapy in Sub-Saharan Africa

International 5/6
Monday, November 13 1:30 p.m. – 3:15 p.m.

Since 2000, Centers for Disease Control and Prevention and the Ifakara Health Research and Development Centre have assisted the National Malaria Control Programme with investigating recommended and alternative treatment regimens. In late 2001, chloroquine was replaced by sulfadoxine/pyrimethamine (SP) for first line treatment. However, health officials were interested in gaining experience with artemisinin-containing combination therapies (ACT)s. Accordingly in early 2003, SP plus artesunate became the first-line treatment for malaria in Rufiji District, a holoendemic rural area with a population of 200,000 people. To date more than 1,000,000 doses have been provided. Trends in health facility utilization, malaria prevalence, morbidity and mortality from malaria have been tracked closely in Rufiji District, as well as adjacent districts where monotherapy has been used consistently since 2001. This symposium will provide the first comprehensive insight into the challenges and potential benefits that can be expected as ACTs roll out across the continent.

CHAIR
S. Patrick Kachur
Centers for Disease Control and Prevention/Ifakara Health Research and Development Centre (IHRDC) Malaria Program in Tanzania

1:30 p.m.
INTRODUCTION
S. Patrick Kachur, Peter Brent Bloland
Centers for Disease Control and Prevention Malaria Programme in Tanzania, Dar es Salaam, United Republic of Tanzania

1:45 p.m.
CHANGES IN HEALTH FACILITY UTILIZATION AND COMMUNITY PERCEPTIONS ASSOCIATED WITH THE ROUTINE AVAILABILITY AND USE OF ACT
Rashid Ali Khatib
Ifakara Health Research and Development Centre, Ifakara, United Republic of Tanzania

2 p.m.
INTRODUCTION AND MANAGEMENT OF ACT INTERVENTION IN RUFIFI DISTRICT, TANZANIA
S. Patrick Kachur
Centers for Disease Control and Prevention/Ifakara Health Research and Development Centre (IHRDC) Malaria Program in Tanzania, Dar es Salaam, United Republic of Tanzania
2:15 p.m.
PREVALENCE OF MALARIA PARASITEMIA, FEBRILE ILLNESS, AND MALARIA-RELATED ANEMIA AMONG POPULATIONS RECEIVING ACT OR CONVENTIONAL MONOTHERAPY
Salim M. K. Abdulla
Ifakara Health Research and Development Centre, Ifakara, United Republic of Tanzania

2:30 p.m.
TRENDS IN ANTIMALARIAL DRUG RESISTANCE AND MOLECULAR MARKERS FOR ANTIMALARIAL DRUG RESISTANCE BEFORE, DURING AND AFTER INTRODUCTION OF NEW MALARIA TREATMENT PRACTICES
Allen Malisa
Ifakara Health Research and Development Centre, Ifakara, United Republic of Tanzania

2:40 p.m.
TRENDS IN ANTIMALARIAL DRUG RESISTANCE AND MOLECULAR MARKERS FOR ANTIMALARIAL DRUG RESISTANCE BEFORE, DURING AND AFTER INTRODUCTION OF NEW MALARIA TREATMENT PRACTICES
Cally Roper
London School of Hygiene and Tropical Medicine, London, United Kingdom

2:50 p.m.
DISCUSSION
Symposium 28
Social and Political Issues in Tropical Medicine
Copenhagen/Stockholm/Amsterdam
Monday, November 13 1:30 p.m. – 3:15 p.m.

The members of the ASTMH logically focus the bulk of their scientific endeavors on entities that exist in tropical or “developing” countries. In addition to classic tropical disease pathogens, residents of these countries often combat a complicated host of social and political problems, including civil strife, unstable transitions of government and extreme poverty. In order to conduct our work ethically and efficiently, we must realize that these countries represent much more than simply sources of pathogens not commonly found in the industrialized world. In fact, the prevalent health issues and socio-political environment are often inextricably linked. This session is designed to provide an open forum for presentation and discussion of pertinent social and political issues related to tropical medicine research and development.

CHAIR
Frank Mannix
Tulane University School of Public Health and Tropical Medicine, New Orleans, LA, United States
Frederique A. Jacquerioz
Tulane University School of Public Health and Tropical Medicine, New Orleans, LA, United States

1:30 p.m.
INTRODUCTION
Frank Mannix, Frederique Jacquerioz
Tulane University School of Public Health and Tropical Medicine, New Orleans, LA, United States

1:40 p.m.
PROGRESS IN THE SOCIOPOLITICAL WAR ON TROPICAL DISEASES: 5 YEAR FOLLOW-UP TO A PRESIDENTIAL ADDRESS
Michele Barry
Yale University School of Medicine, New Haven, CT, United States

2:05 p.m.
THE CHALLENGE OF GLOBAL HEALTH: INFORMING THE MASSES, ENGAGING YOUTH, CHALLENGING NORMS
Kevin Chan
Harvard School of Public Health, Boston, MA, United States

2:30 p.m.
BIOTERRORISM PREPARATION: IS OVEREMPHASIS ON BIOTERRORISM A VEHICLE FOR SOCIAL INJUSTICE AND DESTRUCTION OF OUR PUBLIC HEALTH SYSTEM?
Vic Sidel
Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY, United States

2:55 p.m.
ETHIOPIAN COMMUNITIES IDENTIFYING AND ADDRESSING THEIR HEALTH PRIORITIES
Stanley O. Foster
Emory University Rollins School of Public Health, Atlanta, GA, United States

Scientific Session 29
American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) — Molecular Parasitology I
Marquis 3
Monday, November 13 1:30 p.m. – 3:15 p.m.

AN INTEGRATED GENOMIC APPROACH TO DISSECTING DRUG RESPONSE TRAITS IN PLASMODIUM FALCIPARUM
University of Notre Dame, Notre Dame, IN, United States
Symposium 30

American Committee of Medical Entomology (ACME) I: Genetic Manipulation of Mosquitoes for Arbovirus Control

Marquis 4
Monday, November 13 1:30 p.m. – 3:15 p.m.

Mosquito-borne viruses are responsible for millions of human infections every year, and are emerging/re-emerging in many parts of the world. In the absence of effective vaccines, the control of most mosquito-borne diseases relies on vector control. Recent technology and molecular tools have facilitated the genetic manipulation of mosquito vectors. The proposal to develop and use incompetent mosquitoes as a novel strategy to control mosquito-borne diseases is now becoming a credible goal. This symposium will discuss strategies to genetically manipulate the competence of vector mosquitoes to transmit arboviruses, their potential to reduce the impact of mosquito-borne diseases and issues related to the implementation of this control strategy.

CHAIR
Stephen Higgs
University of Texas Medical Branch, Galveston, TX, United States

1:30 p.m.
STRATEGIES TO DEVELOP ARBOVIRUS-RESISTANT MOSQUITOES
Anthony A. James
University of California at Irvine, Irvine, CA, United States

1:55 p.m.
ETHICAL, SOCIAL AND CULTURAL ISSUES RELATED TO VECTOR POPULATION REPLACEMENT
Jim Lavery
National Institutes of Health, Fogarty International Center, Bethesda, MD, United States

2:15 p.m.
PLANNING AND CONDUCTING SAFE FIELD TRIALS
Mark Q. Benedict
Centers for Disease Control and Prevention/National Center for Infectious Diseases, Chamblee, GA, United States

2:40 p.m.
CONDITIONS FOR RELEASE OF TRANSGENIC MOSQUITOES
Andrew Spielman
Harvard University School of Public Health, Boston, MA, United States
Scientific Session 31
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Malaria — Genetic Diversity in Parasite and Host
Marquis 2
Monday, November 13 1:30 p.m. – 3:15 p.m.
CHAIR
James Colborn
Tulane University, New Orleans, LA, United States
Johanna P. Daily
Harvard School of Public Health, Boston, MA, United States

1:30 p.m. 298
THE EVOLUTION OF GLYCERALDEHYDE-3-PHOSPHATE
DEHYDROGENASE IN PLASMODIUM
Sheila Akinyi1, Jenny Gaona2, Esmeralda V. Meyer1, John W. Barnwell3, Mary R. Galinski1, Vladimir Corredor2
1Emory Vaccine Center at Yerkes National Primate Research Center, Emory University, Atlanta, GA, United States, 2Unidad de Parastitologia, Departamento de Salud Publica, Facultad de Medicina, Universidad Nacional de Colombia, Bogota, Colombia, 3Malaria Branch, Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, United States

1:45 p.m. 299
GENOME-WIDE VARIATION AND IDENTIFICATION OF VACCINE
TARGETS IN THE PLASMODIUM FALCIPARUM GENOME
Jianbing Mu1, Philip Awadalla2, Junhui Duan1, Kate M McGee2, Jon Keebler2, Karl Siydel1, Gilean A. T. McVean3, Xin-zhuan Su1
1National Institutes of Allergy and Infectious Disease, Rockville, MD, United States, 2Department of Genetics, North Carolina State University, Raleigh, NC, United States, 3Department of Statistics, University of Oxford, Oxford, United Kingdom

2 p.m. 300
IDENTIFICATION OF GENETIC POLYMORPHISMS WITHIN THE
TNFα AND COMPLEMENT PATHWAYS INFLUENCING RESIST-
ANCE TO MALARIA-ASSOCIATED SEVERE ANEMIA IN KENYA
Donald M. Prather1, Lyna Zhang1, Jodi Vanden Eng1, Simon Kariuki2, Prescott Atkinson1, Feiko ter Kuile4, Bernard Hahnen1, Ya Ping Shi1, Venkatchalam Udhayakumar1
1Centers for Disease Control and Prevention, Chamblee, GA, United States, 2Kenya Medical Research Institute, Kismu, Kenya, 3University of Alabama, Birmingham, AL, United States, 4Liverpool School of Tropical Medicine, Liverpool, United Kingdom

(ACMCIP Abstract)

2:15 p.m. 301
QUANTITATIVE DETECTION OF TRANSCRIPTS OF
PLASMODIUM VIVAX MEROZOITE SURFACE PROTEIN-3
(PVMSP-3) ELEVEN GENE FAMILY MEMBERS BY REAL-TIME PCR
Jianlin Jiang1, John W. Barnwell2, Esmeralda V. Meyer1, Mary R. Galinski1
1Emory Vaccine Center at Yerkes National Primate Research Center, Emory University, Atlanta, GA, United States, 2Malaria Branch, Division of Parasitic Diseases, Centers for Disease Control and Prevention, Chamblee, GA, United States

2:30 p.m. 302
ANTISENSE RNA AND ANTIGENIC VARIATION IN
PLASMODIUM KNOWLESI
Stacey A. Lapp1, Vladimir Corredor2, Mary R. Galinski1
1Emory Vaccine Center at Yerkes National Primate Research Center, Emory University, Atlanta, GA, United States, 2Unidad de Parastitologia, Departamento de Salud Publica, Facultad de Medicina, Universidad Nacional de Colombia, Bogota, Colombia

2:45 p.m. 303
ASSOCIATION OF PATIENT CHARACTERISTICS AND P.
FALCIPARUM STEADY STATE MRNA ABUNDANCE
Johanna P. Daily1, Karine G. Le Roch2, Daouda Ndiaye3, Yingyao Zhou2, Omar Ndir4, Soulyemane Mboup3, Dan Scanfeld3, Pablo Tamayo4, Jill Mesirov4, Elizabeth A. Winzeler5
1Harvard School of Public Health, Boston, MA, United States, 2Genomics Institute of the Novartis Research Foundation, San Diego, CA, United States, 3Cheikh Anta Diop University, Dakar, Senegal, 4Broad Institute of MIT and Harvard University, Cambridge, MA, United States, 5The Scripps Research Institute, La Jolla, CA, United States

3 p.m. 304
CHANGES IN HUMAN GENE EXPRESSION DURING
UNCOMPLICATED PLASMODIUM FALCIPARUM MALARIA
James M. Colborn1, Joni J. Ylostalo1, Ousmane A. Koita2, Ousmane H. Cissé2, Donald J. Krogstad1
1Tulane University, New Orleans, LA, United States, 2University of Bamako, Bamako, Mali

(ACMCIP Abstract)
ARTEMETHER-LUMEFANTRINE VERSUS DIHY- DROARTEMISININ-PIPERAQUINE FOR TREATMENT OF UNCOMPLICATED MALARIA IN UGANDA: A RANDOMIZED CLINICAL TRIAL AT A SITE WITH HIGH TRANSMISSION INTENSITY

Yeka Adoke1, Hasifa Bukirwa1, Myers Lugemwa2, John B. Rwakimari2, Sarah G. Steadke3, Heidi Hopkins1, Moses R. Kamya4, Ambrose O. Talusana2, Philip J. Rosenthal5, Fred Wabwire-Mangen6, Grant Dorsey3

1Uganda Malaria Surveillance Project, Kampala, Uganda, 2Ministry of Health, Kampala, Uganda, 3University of California, San Francisco, CA, United States, 4Makerere University, Kampala, Uganda, 5Kumasi Centre for Collaborative Research in Tropical Medicine, Kumasi, Ghana, 6Kumasi Centre for Collaborative Research in Tropical Medicine, Blantyre, Malawi, Ghana

1:45 p.m.

ARTEESNATE (AS) PLUS AMODIAQUINE (AQ) FOR TREATING FALCIPARUM MALARIA — ASSESSING ITS EFFICACY AND TOLERABILITY DURING SIX YEARS OF FIELD DEPLOYMENT IN SOUTHERN SENEGAL

Philippe Brasseur1, Patrice Agnamey2, Moustafa Cisse3, Philippe Eldin De Pecoulas4, Jean-François Faucher5, Michel Vaillant6, Oumar Gaye7, Walter (Bob) R. Taylor8, Piero L. Olliaro9

1IRD, Dakar, Senegal, 2Laboratoire de parasitologie/mycologie, Université Paris V, Paris, France, 3Centre Hospitalier, Oussouye, Senegal, 4Faculté de Pharmacie, Université de Caen, Caen, France, 5Service des Maladies Infectieuses, Besançon, France, 6CRP-Santé, Luxembourg, Luxembourg, 7Faculté de Médecine, Université Cheik Anta Diop, Dakar, Senegal, 8UNICEF/UNDP/WB/WHO Special Programme for Research and Training in Tropical Diseases (TDR), Geneva, Switzerland

2:15 p.m.

A DOUBLE BUNDED RANDOMISED CONTROLLED TRIAL COMPARING SULFADOXINE-PYRIMETHAMINE (SP) + PLACEBO TO SP+CHLOROQUINE, SP+ARTESUNATE OR SP+AMODIAQUINE FOR THE TREATMENT OF UNCOMPLICATED MALARIA IN MALAWI

David J. Bell1, Mavuto Mukaka2, Suzoo Nyirongoro3, Edward Zijistra4, Chris V. Plowe4, Malcolm E. Molyneux5, Steve A. Ward6, Peter A. Winstanley7

1University of Liverpool, Liverpool, United Kingdom, 2Malawi-Liverpool-Wellcome Trust Clinical Research Programme, Blantyre, Malawi, 3College of Medicine, Blantyre, Malawi, 4Centre for Vaccine Development, University of Maryland, Baltimore, MD, United States, 5Liverpool School of Tropical Medicine, University of Liverpool, United Kingdom

2:30 p.m.

A CONTROLLED TRIAL ON EXTENDED INTERMITTENT PREVENTIVE TREATMENT WITH SULFADOXINE-PYRIMETHAMINE FOR MALARIA CONTROL IN INFANTS IN AN AREA OF INTENSE PERENNIAL TRANSMISSION

Robin Kobbe1, Christina Kreuzberg1, Samuel Adjei2, Benedicta Thompson3, Iris Langefeld1, Peter ApiA Thompson3, Harry Hoffman Abdukah1, Benno Kreuels1, Matilda Ayim3, Wibke Busch1, Florian Marks1, Kwado Amoah1, Ernest Opoku2, Christian G. Meyer1, Ohene Adjei3, Jurgen May1

1Bernhard-Nocht-Institute for Tropical Medicine, Hamburg, Germany, 2Ministry of Health/Ghana Health Service, District Health Directorate, Agona, Ashanti Region, Ghana, 3Kumasi Centre for Collaborative Research in Tropical Medicine, Kumasi, Ghana

2:45 p.m.

CHANGES IN HOSPITAL CASES OF MALARIA AFTER THE INTRODUCTION OF ARTEMISININ COMBINATION THERAPY IN ZAMBIA

Philip Thuma, Janneke van Dijk, Sungano Mharakurwa
Malaria Institute at Macha, Choma, Zambia

3 p.m.

COUNTERFEIT ARTESUNATE AND MALARIA IN ASIA AND AFRICA

Paul N. Newton1, Facundo Fernandez2, Michael Green3
1Mahosat Hospital, Viendant, Lao People’s Democratic Republic, 2Georgia Institute of Technology, Atlanta, GA, United States, 3Centers for Disease Control and Prevention, Atlanta, GA, United States

Exhibit Hall Open

International Level

Monday, November 13 3 p.m. – 4 p.m.
Coffee Break

International Level

Monday, November 13 3:15 p.m. – 3:45 p.m.

Symposium 33

The EDEN Project: European Diseases in a Changing Environment

Sydney/Zurich

Monday, November 13 3:45 p.m. – 5:30 p.m.

EDEN is a project funded by the European Commission to study the impacts of environmental, social and economic changes on distribution and dynamics of zoonoses affecting humans in Europe. The project includes 48 institutions from 24 countries. The symposium will give an overview and preliminary findings of the five sub-projects—leishmaniasis, malaria, rodent-borne, tick-borne and West Nile virus—plus the ‘horizontal’ component that includes data management and information systems, high and low resolution remote sensing, transmission modeling and biodiversity studies.

CHAIR
Paul Reiter
Institut Pasteur, Paris, France

Stephane de la Rocque
CIRAD (Centre de Co-operation Internationale en Recherche Agronomique pour le Developpement), Montpellier, France

3:45 p.m.
EDEN SUB-PROJECT: RODENT-BORNE PATHOGENS
Heikki Henttonen
Finnish Forest Research Institute, Vantaa, Finland

4:10 p.m.
EDEN SUB-PROJECT: TICK-BORNE PATHOGENS
Sarah Randolph
University of Oxford, Oxford, United Kingdom

4:35 p.m.
EDEN SUB-PROJECTS: WEST NILE VIRUS AND MALARIA
Paul Reiter
Pasteur Institute, Paris, France

4:55 p.m.
EDEN HORIZONTAL PROJECT: REMOTE SENSING COMPONENT
David Rogers
University of Oxford, Oxford, United Kingdom

Symposium 34

Toxics in the Tropics

Bonn/London

Monday, November 13 3:45 p.m. – 5:30 p.m.

Health impacts analysis and assessment from large industrial projects in low human development index settings. The role of the large multi-lateral funding agencies (e.g., World Bank Group, IFC) will be presented. Representative examples of current projects will be presented.

CHAIR
Gary R. Krieger
NewFields, LLC and University of Colorado, Denver, CO, United States

Juerg Utzinger
Swiss Tropical Institute, Basel, Switzerland

3:45 p.m.
INTRODUCTION
Gary Krieger1, Juerg Utzinger2
1University of Colorado, Denver, CO, United States, 2Swiss Tropical Institute, Basel, Switzerland

3:55 p.m.
FINANCING PROJECTS IN DEVELOPING COUNTRIES: POLICIES ON HEALTH AND ENVIRONMENT
Christopher Sheldon
World Bank Group, Washington, DC, United States

4:15 p.m.
INSTITUTIONALIZING HEALTH IMPACT ASSESSMENTS: HOW AND WHY
Burt Singer
Princeton University Office of Population Research, Princeton, NJ, United States

4:35 p.m.
HEALTH IMPACT ASSESSMENT OF THE NT 2 HYDROELECTRIC PROJECT IN CENTRAL LAO PDR
Juerg Utzinger
Swiss Tropical Institute, Basel, Switzerland

4:55 p.m.
AROUND THE WORLD IN TWENTY MINUTES: POTENTIAL HEALTH IMPACTS OF LARGE INDUSTRIAL PROJECTS: AFRICA, ASIA-PACIFIC AND SOUTH AMERICA
Gary Krieger
NewFields, LLC and University of Colorado, Denver, CO, United States

4:15 p.m.
DISCUSSION
Detailed Program

### Scientific Session 35

**Bacteriology II — Diarrhea II**

- **International 4**
- **Monday, November 13**
- **3:45 p.m. – 5:30 p.m.**

**CHAIR**
Andrea A. Kim  
Centers for Disease Control and Prevention, Atlanta, GA, United States

Stephen T. McGarvey  
International Health Institute, Brown University, Providence, RI, United States

**3:45 p.m.**

**312**

**SEVERE OUTBREAK OF DIARRHEAL DISEASE AND ACUTE MALNUTRITION AMONG YOUNG CHILDREN — BOTSWANA**

Andrea A. Kim1, Tracy Creek1, Lydia Lu1, Wences Arvelo1, Ondrej Mach1, Thomas Finkbeiner1, Laurel Zaks1, Margaret Davis2, Loeto Mazhani3, Japhet Masunge4, Nancy Purh1, Suzanne Beard1, Stephanie Johnston1, Alexandre da Silva1, Henry Bishopp1, Anna Bowen1  
1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2BOTUSA Project, Gabarone, Botswana, 3Botswana Ministry of Health, Gabarone, Botswana, 4Ngwangwe Hospital, Francistown, Botswana

**4 p.m.**

**313**

**CHANGES IN THE SPATIAL DYNAMICS OF SEASONAL DIARRHEA IN MEXICO IN 1979-2001**

Wladimir J. Alonso1, Louise A. Kelly-Hope1, Cecile Viboud1, Eduardo W. Hirano2, Mark A. Miller3  
1National Institutes of Health, Bethesda, MD, United States, 2Mechanical Engineering Department - UFSC, Florianópolis, Brazil

**4:15 p.m.**

**314**

**ETIOLOGY OF ACUTE DIARRHEA IN A POPULATION LIVING IN UZBEKISTAN**

Gulnara A. Ibadova, Gulnara K. Abdulkhalilova, Aybek V. Khodiev  
SRIEMID, Tashkent, Uzbekistan

**4:30 p.m.**

**315**

**DIARRHEAL DISEASE AND HOUSEHOLD DRINKING WATER QUALITY IN BONAO, DOMINICAN REPUBLIC**

Christine E. Stauber, Gloria M. Ortiz, Mark D. Sobsey  
University of North Carolina - Chapel Hill, Chapel Hill, NC, United States

### Symposium 36

**Targeting the NTDs (Neglected Tropical Diseases): Increased Awareness, Integrated Programs Promise a 'Best Buy' for Global Health**

- **International 5/6**
- **Monday, November 13**
- **3:45 p.m. – 5:30 p.m.**

**CHAIR**
Eric A. Ottesen  
Task Force for Child Survival and Development, Decatur, GA, United States

**4:45 p.m.**

**316**

**INTEGRATING PUBLIC HEALTH CONTROL STRATEGIES: BALANCING WATER SANITATION, AND HYGIENE INTERVENTIONS TO REDUCE DIARRHEAL DISEASE BURDEN**

Joseph N. Eisenberg1, James C. Scott2, Travis Porco3  
1University of Michigan, Ann Arbor, MI, United States, 2University of California, Berkeley, CA, United States, 3California Department of Health Services, Richmond, CA, United States

**5 p.m.**

**317**

**DETERMINANTS OF HOUSEHOLD WATER QUALITY IN COASTAL GHANA**

Stephen T. McGarvey1, Justin Buszin1, David C. Smith2, Holly Reed1, Kofi Awusabo-Asare3, Michael J. White1  
1Brown University, Providence, RI, United States, 2University of Rhode Island, Kingston, RI, United States, 3University of Cape Coast, Cape Coast, Ghana

**5:15 p.m.**

**318**

**CERAMIC FILTERS FOR HOUSEHOLD-SCALE DRINKING WATER TREATMENT IN RURAL CAMBODIA: INDEPENDENT APPRAISAL OF INTERVENTIONS FROM 2002-2005**

Joe Brown, Mark Sobsey  
University of North Carolina - Chapel Hill, Chapel Hill, NC, United States
3:45 p.m.
INTRODUCTION
Eric A. Ottesen
Task Force for Child Survival and Development, Decatur, GA, United States

3:50 p.m.
NTDS: TAKING THEIR PLACE ALONGSIDE THE ‘BIG THREE’
Peter J. Hotez
The George Washington University, Washington, DC, United States

4:15 p.m.
HOPE FOR THE NTDS: A U.S. GOVERNMENT-SPONSORED INITIATIVE TO INTEGRATE PROGRAM IMPLEMENTATION
Alan Fenwick
Imperial College London, London, United Kingdom

4:40 p.m.
IMPACT AND EFFICIENCY OF INTEGRATED NTD PROGRAMS: RESEARCH TOWARDS OPTIMIZATION
Jacob Kumaresan
International Trachoma Initiative, New York, NY, United States

5:05 p.m.
PROGRAM INTEGRATION IN TOGO: SUCCESSES, BUT NOT WITHOUT CHALLENGES
Yao Sodahlon
Ministry of Health, Togo, Atlanta, GA, United States

Scientific Session 37

HIV in the Tropics

Copenhagen/Stockholm/Amsterdam
Monday, November 13 3:45 p.m. – 5:30 p.m.
CHAIR
Davidson H. Hamer
Center for International Health and Development, Boston, MA, United States
Jean Nacheva
Johns Hopkins University, Baltimore, MD, United States

3:45 p.m.
DIAGNOSIS AND QUANTIFICATION OF PEDIATRIC HIV-1 INFECTION BY AN ULTRASENSITIVE HIV-1 P24 ASSAY ADAPTED TO DRIED BLOOD SPOT SPECIMENS
Marlyse C. Knuchel1, Boniphace Salustian Jullu2, Cyril Shah1, Zuzana Tomask1, Marcel P. Stoeckle2, Roberto F. Speck1, David Nadal1, Hassan Mshinda2, Jürg Böni1, Marcel Tanner1, Jörg Schüpbach1
1Swiss National Centre for Retroviruses, University of Zurich, Switzerland, Zurich, Switzerland, 1Ifakara Health Research and Development Centre (IHRDC), Morogoro, United Republic of Tanzania, 2Division of Infectious Diseases and Hospital Epidemiology, University Hospital Zürich, Zurich, Switzerland, 3Division of Infectious Diseases, University Children’s Hospital of Zürich, Zurich, Switzerland, 4Swiss Tropical Institute, Basel, Basel, Switzerland

(ACMCIP Abstract)
THE EFFECT OF HELMINTH INFECTIONS AND THEIR TREATMENT DURING PREGNANCY ON VERTICAL TRANSMISSION OF HIV INFECTION IN UGANDA: RESULTS OF A RANDOMISED, DOUBLE-BLIND, PLACEBO CONTROLLED TRIAL
Jacqueline Kyosimire-Lugemwa, Patrice A. Mawa, Dennison Kizito, James Oweka-Onyee, Lawrence Muhangi, Denise Akishule, Mildred Omara, Christine Ameke, Pontiano Kaleebu, Heiner Grosskurth, Alison M. Elliott

Medical Research Council/Uganda Virus Research Institute, Research Unit on AIDS, Entebbe, Uganda, London School of Hygiene & Tropical Medicine, London, United Kingdom

GENOME-WIDE DIVERSITY MAP OF PLASMODIUM FALCIPARUM

Harvard School of Public Health, Boston, MA, United States, Broad Institute of MIT and Harvard, Cambridge, MA, United States, Cheikh Anta Diop University, Dakar, Senegal, Harvard University, Cambridge, MA, United States

MICROSATELLITE DIVERSITY OF PLASMODIUM VIVAX ISOLATES FROM SRI LANKA
Nadira D. Karunaweera, Marcelo U. Ferreira, Daniel L. Hart, Dyann F. Wirth

Harvard University, Boston, MA, United States, Seattle Biomedical Research Institute, Seattle, WA, United States, University of Pittsburgh, Pittsburgh, PA, United States

TRANSFERRIN POLYMORPHISM INFLUENCES THE RISK OF SEVERE MALARIAL ANAEMIA IN GABONESE CHILDREN
Jean Bernard Lekana-Douki, Daniel Parzy, Pascal Christian Nze Obiang, Delphine Prieur, Pacôme Mouidi, Francis Fumoux, Maryvonne Kombila

University of Health Sciences, Libreville, Gabon, UR3P, IMTSSA, University of Marseille, Marseille, France, UPMB, Faculté de Pharmacie de Marseille, University of Marseille, Marseille, France

MOLECULAR CLONING OF A NOVEL TRYPANOSOMA CRUZI CELL SURFACE CASEIN KINASE II SUBSTRATE, TC-1, THAT MEDIATES EARLY CELLULAR INFECTION
Swinburne A. Augustine, Nia Madison, Yuliya Kleschenko, Pius Nde, Kanetra Simmons, Maria F. Lima, Fernando Villalta

Meharry Medical College, Nashville, TN, United States
Symposium 39

American Committee of Medical Entomology (ACME) II: Genetically Engineered Viruses and Vaccines in Vector Mosquitoes

Marquis 4

Monday, November 13 3:45 p.m. – 5:30 p.m.

Mosquito-borne viruses are responsible for millions of human infections every year, and are emerging/re-emerging in many parts of the world. There is a lack of fundamental information on vector-virus-vertebrate interactions, and the control of most mosquito-borne diseases relies on vector control. The development of infectious clone technology has enabled the genetic manipulation of several mosquito-borne viruses and the development of new live attenuated vaccine candidates. This symposium will discuss how these viruses are improving our understanding of viral interactions with mosquitoes, and vaccine virus attenuation in vectors.

CHAIR
Stephen Higgs
University of Texas Medical Branch, Galveston, TX, United States

3:45 p.m.

YELLOW FEVER 17D VIRUS AS A LIVE VECTOR FOR VACCINE DEVELOPMENT
Farshad Guirakhoo
Acambis, Cambridge, MA, United States

4:10 p.m.

STRATEGIES FOR DEVELOPMENT OF FLAVIVIRUS VACCINES: CAN YOU ACHIEVE ATTENUATION IN BOTH MAMMALIAN AND VECTOR HOSTS?
Stephen Whitehead
National Institutes of Health, Bethesda, MD, United States

4:35 p.m.

MOSQUITO INFECTIONS WITH CHIMERIC ALPHAVIRUSES AND FLAVIVIRUSES
Stephen Higgs
University of Texas Medical Branch, Galveston, TX, United States

5 p.m.

GENETIC DETERMINANTS OF MOSQUITO INFECTION BY ALPHAVIRUSES
Scott C. Weaver
University of Texas Medical Branch, Galveston, TX, United States

Scientific Session 40

Malaria — Drug Development

Marquis 2

Monday, November 13 3:45 p.m. – 5:30 p.m.

CHAIR
Jane X. Kelly
Portland VA Medical Center, Portland, OR, United States

Ousmane A. Koita
University of Bamako, Bamako, Mali

3:45 p.m.

NORMAL RANGES FOR CHEMISTRY AND HEMATOLOGY PANELS IN MALI
Ousmane A. Koita1, A. Touré1, M. Cissé1, Fawaz Mzayek2, Donald J. Krogstad2
1University of Bamako, Bamako, Mali, 2Tulane University, New Orleans, LA, United States

4 p.m.

IDENTIFICATION AND CHARACTERIZATION OF A NOVEL PLASMODIUM PROTEIN RESPONSIBLE FOR HEMOZOIN FORMATION-IMPLICATIONS FOR ANTIMALARIAL DRUG DEVELOPMENT
Dharmendar Rathore1, Dewal Jani1, Rana Nagarkatti1, Wandy Beatty2, Sanjai Kumar3, Geno Iannaccone4
1Virginia Bioinformatics Institute, Blacksburg, VA, United States, 2Washington University School of Medicine, St. Louis, MO, United States, 3Food and Drug Administration, Bethesda, MD, United States, 4Virginia Tech, Blacksburg, VA, United States

4:15 p.m.

STRUCTURE-BASED DRUG DESIGN TARGETING PLASMODIUM FALCIPARUM HSP90
Dylan R. Pillai1, Kevin C. Corbett2, Marc O. Anderson3, Joseph L. DeRisi1
1University of California San Francisco, San Francisco, CA, United States, 2University of California Berkeley, Berkeley, CA, United States, 3San Francisco State University, San Francisco, CA, United States

(ACMCIP Abstract)

4:30 p.m.

PHARMACOKINETIC STUDY OF INTRAMUSCULAR AND INTRARECTAL ARTEMETHER APPLICATION FOR THE ACUTE ATTACK TREATMENT OF MALARIA
Louis Penali1, FH Jansen2
1Institute Pasteur, Abidjan, Cote d’Ivoire, 2Dafra Pharma, Turnhout, Belgium

4:45 p.m.

EVALUATION OF ALKYLAMINOQUINOLINYL-METHANOLS AS NEW ANTIMALARIALS
Charlotte A. Lanteri1, Tiffany N. Heady1, Apurba K. Bhattacharjee1, Miriam Cabezas1, Diana Caridha1, Lucia Gerena1, Montip Gettayacamin2, Nicanor Obaldia1, Norma Roncal1, Todd Shearer1, Philip L. Smith1, Anchalee Tungtaeng1, Debra L. Yourick1, Kirsten S. Smith1, Geoffrey S. Dow1
1Walter Reed Army Institute of Research, Silver Spring, MD, United States, 2Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, 3Tropical Medicine Research/Gorgas Memorial Research Institute, Panama City, Panama
5 p.m.  336

EVALUATION AND LEAD OPTIMIZATION OF ANTIMALARIAL AROMATIC KETONES
Michael Riscoe1, Rolf Winter, Jane Kelly, Martin Smilkstein, Rosie Dodean, Dave Hinrichs  
Portland VA Medical Center, Portland, OR, United States

5:15 p.m.  337

NOVEL ANTIMALARIAL ACRIDONE DERIVATIVES WITH BOTH INTRINSIC POTENCY AND SYNERGY WITH SELECTED QUINOLINES: IN VITRO AND IN VIVO STUDIES
Marty Smilkstein, Jane Kelly, Rosie Dodean, David Hinrichs, Rolf Winter, Mike Riscoe  
Portland VA Medical Center, Portland, OR, United States

Clinical Session 41

Clinical Tropical Medicine II

Marquis 1  
Monday, November 13  
3:45 p.m. – 5:30 p.m.

CHAIR

Parsotam R. Hira  
Kuwait University, Kuwait City, Kuwait  
Kathryn Maitland  
KEMRI-Wellcome Trust Collaborative Programme, Kilifi, Kenya

3:45 p.m.  338

UPDATE ON MAKING CGMP INTRAVENOUS ARTESUNATE AVAILABLE IN THE UNITED STATES
Peter J. Weina1, R. Scott Miller1, Louis Cantilena2, Shon Remich3, Adam Haegerle1, Michael C. Lowe1, Wilbur K. Milhous1  
1Walter Reed Army Institute of Research, Silver Spring, MD, United States,  
2Uniformed Services University of the Health Sciences, Bethesda, MD, United States,  
3U.S. Army Medical Research Unit - Kenya, Kisumu, Kenya

4 p.m.  339

L-ARGININE INFUSION INCREASES NO PRODUCTION AND REVERSES ENDOTHELIAL DYSFUNCTION IN ADULTS WITH MODERATELY SEVERE FALCIPARUM MALARIA IN PAPUA, INDONESIA
TW Yeo1, DA Lampah2, E. Kenangalem3, R. Gitawati4, E. Tjitra4, Y. McNeil1, D. Granger2, B. Lopansri5, D. Celermajar6, RN Price1, S. Duffull8, NM Anstey7  
1Menzes School of Health Research, Darwin, Australia, 2National Institutes of HealthRD-MSHR Research Programme, Timika, Indonesia, 3Dinas Kesehatan Kabupaten, Mimika, Indonesia, 4National Institute of Health Research and Development, Jakarta, Indonesia, 5University of Utah, Salt Lake City, UT, United States, 6University of Sydney, Sydney, Australia, 7Oxford University, Oxford, United Kingdom, 8University of Queensland, Brisbane, Australia

4:15 p.m.  340

CLINICAL UTILITY OF MALARIA-SPECIFIC RETINAL FINDINGS IN PEDIATRIC CEREBRAL MALARIA
Rachel N. Bronzan1, Susan Lewallen2, Nicholas Beare2, Malcolm E. Molyneux9, Maganizo Chagomerana3, Terrie E. Taylor7  
1Michigan State University, East Lansing, MI, United States, 2Kilimanjaro Christian Medical Center, Moshi, United Republic of Tanzania, 3Malawi-Liverpool-Wellcome Trust Clinical Research Programme, Blantyre, Malawi, 4Liverpool School of Tropical Medicine, Liverpool, United Kingdom, 5Blantyre Malaria Project, Blantyre, Malawi

4:30 p.m.  341

COMPARISON OF RECTAL DIAZEPAM TO BUCCAL MIDAZOLAM IN TREATMENT OF PROLONGED CONVULSIONS IN UGANDAN CHILDREN
Arthur Mpimbaza1, Grace Ndeezi1, Sarah Staedke2, Philip J. Rosenthal2, Justus Byarugaba1  
1Makerere University, Department of Pediatrics and Child Health, Kampala, Uganda, 2University of California, San Francisco, CA, United States

4:45 p.m.  342

VERY LOW MORTALITY ASSOCIATED WITH ALBUMIN INFUSION IN KENYAN CHILDREN WITH SEVERE MALARIA
Kathryn Maitland1, Samuel Akech1, Samson Gwer1, Richard Idro1, Greg Fegan1, Charles R. Newton1, Mike Levin2  
1KEMRI-Wellcome Trust Collaborative Programme, Kilifi, Kenya, 2Department of Paediatrics and Wellcome Trust Centre for Clinical Tropical Medicine, Imperial College, London, United Kingdom

5 p.m.  343

PRESUMPTIVE ANTIMALARIAL TREATMENT OF FEBRILE EPISODES AMONG CHILDREN LIVING IN URBAN UGANDA. IS IT NECESSARY?
Denise Njama-Meya1, Moses R. Kamya1, Tamara D. Clark2, Bridget Nzurubara1, Catherine Maiteki-Sebuguzi1, Philip J. Rosenthal2, Sarah Staedke2, Grant Dorsey2  
1Makerere University, Kampala, Uganda, 2University of California San Francisco, San Francisco, CA, United States

5:15 p.m.  344

IMPACT OF BACTEREMIA ON HEMATOLOGICAL AND PARASITEMIC OUTCOMES IN KENYAN CHILDREN WITH PLASMODIUM FALCIPARUM MALARIA
Gregory C. Davenport1, Tom Were2, David Ounah2, Gordon A. Awandare1, Amos K’Oga1, John-Michael Ong’echa1, Douglas J. Perkins1  
1University of Pittsburgh, Pittsburgh, PA, United States, 2University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases, Kisumu, Kenya

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Plenary Session II
Marquis Ballroom
Monday, November 13  6:00 p.m. – 7:30 p.m.
CHAIR
Myron M. Levine
University of Maryland School of Medicine, Baltimore, MD, United States

6 p.m.
MENACES, MYSTERIES AND MARVELS:
COMBATING 21ST CENTURY MICROBES
Julie L. Gerberding
Director, Centers for Disease Control and Prevention, Atlanta, GA, United States

6:45 p.m.
NEW DIRECTIONS FOR THE FOGARTY INTERNATIONAL CENTER
Roger Glass
Director, Fogarty International Center, Bethesda, MD, United States

Poster Session A Dismantle
International and Skyline Levels
Monday, November 13  7:00 p.m. – 8:00 p.m.

Late Breakers in Clinical Tropical Medicine
Copenhagen/Stockholm/Amsterdam
Monday, November 13  7:00 p.m. – 9:00 p.m.
This session is specifically designed for presentations of new data obtained after the closing date for abstract submission. Presentations feature reports of clinical trials, preliminary data on new outbreaks of disease or individual case reports of interest. See the Late Breaker handout in your registration packet for the presentation schedule.

Late Breakers in Basic Science/
Molecular Biology
Marquis 1
Monday, November 13  7:00 p.m. – 9:00 p.m.
This session is specifically designed for brief presentations of new data obtained after the closing date for abstract submission. See the Late Breaker handout in your registration packet for the presentation schedule.

Tuesday, November 14
Registration
Marquis Foyer
Tuesday, November 14  7:00 a.m. – 5:00 p.m.

Cyber Café
Garden Level South
Tuesday, November 14  7:00 a.m. – 5:00 p.m.

Speaker Ready Room
International B/C
Tuesday, November 14  7:00 a.m. – 6:00 p.m.

Corporate Liaison Committee Meeting
Room 3829
Tuesday, November 14  7:00 a.m. – 8:00 a.m.

Clinical Group Past Presidents Meeting
Room 3914
Tuesday, November 14  7:00 a.m. – 8:00 a.m.

ASTMH Journal Editorial Board
Room 3908
Tuesday, November 14  7:00 a.m. – 8:00 a.m.

Symposium 42
Sailing Uncharted Waters: Problems with Difficult Cases of Cystic Echinococcosis
Sydney/Zurich
Tuesday, November 14  8:00 a.m. – 9:45 a.m.
The clinical spectrum of CE ranges from clinically silent to dramatically serious and life threatening. The most frequent locations are the liver and the lungs, but other locations are possible, for which decision-making may be very difficult. Clinicians from endemic and non-endemic areas will present examples from their clinical files in which management decisions are difficult to make, due to the relative rarity of such locations and to the lack of consensus as to what is the best treatment; this symposium aims to point out that research on this disease and coordination between centers are long overdue.
CHAIR
Enrico Brunetti
University of Pavia, Pavia, Italy

8 a.m.
INTRODUCTION
Enrico Brunetti
University of Pavia, Pavia, Italy
8:10 a.m.
THE HEIDELBERG EXPERIENCE
Thomas Junghanss
University Hospital Heidelberg, Heidelberg, Germany

8:30 a.m.
THE MADRID EXPERIENCE
Rogelio Lopez-Velez
Hospital Ramón y Cajal, Madrid, Spain

8:55 a.m.
THE TORONTO EXPERIENCE
Jay Keystone
Toronto Hospital, Toronto, ON, Canada

9:15 a.m.
THE BAGHDAD EXPERIENCE
Dhafir Dawood Sulieman
Al-Mustansriyah University, Baghdad, Iraq

Symposium 43
Rapid Diagnostic Tests (RDTs) for Malaria:
Where Do We Go from Here?

Bonn/London
Tuesday, November 14 8:00 a.m. – 9:45 a.m.

Lateral-flow immunochromatographic Rapid Diagnostic Tests for malaria because of commercial availability, changes in drug policies and an increasing need for biologic diagnosis are being used in ever increasing numbers. A variety of factors will affect the performance RDTs resulting in decreased sensitivity and specificity and consequently reduced reliability for diagnosis of malaria. A system of Quality Control/Quality Assurance (QC/QA) is needed to monitor RDT performance and stability and to guide manufacturers to produce the best products. These issues and a proposed QC/QA system will be addressed in this symposium.

CHAIR
Peter L. Chiodini
Hospital for Tropical Diseases, London, United Kingdom

John W. Barnwell
Centers for Disease Control and Prevention, Atlanta, GA, United States

8 a.m.
PERFORMANCE OF RDTS FOR THE DETECTION OF
HRP2 AND PLDH
Peter L. Chiodini
Hospital for Tropical Diseases, London, United Kingdom

8:25 a.m.
PERFORMANCE OF RDTS FOR THE DETECTION OF ALDOLASE
John W. Barnwell
Centers for Disease Control and Prevention, Atlanta, GA, United States

8:50 a.m.
ANTIGENIC VARIATION AND ITS EFFECT ON RDT
PERFORMANCE
Qin Cheng
Australian Army Malaria Institute, Brisbane, Australia

9:15 a.m.
WHO PLANS FOR PRODUCT ASSESSMENT AND QUALITY
ASSURANCE OF RDTS
D. Bell
WHO Regional Office for the Western Pacific, Manila, Philippines

Scientific Session 44
Filariasis I — Clinical/Epidemiology

International 5/6
Tuesday, November 14 8:00 a.m. – 9:45 a.m.

CHAIR
Els Mathieu
Centers for Disease Control and Prevention, Atlanta, GA, United States

Catherine Plichart
Institut Louis Malardé, Papeete, Tahiti, French Polynesia

8 a.m.
345
PREVALENCE OF LYMPHATIC FILARIASIS IN AMERICAN
SAMOA AFTER THREE YEARS OF IMPROVED SOCIAL
MOBILIZATION AND MASS DRUG ADMINISTRATION
Jennifer L. Liang1, Jonathan King1, Molisamo Pa’au2, Kazuyo Ichimori3, Patrick Lammie1
1Centers for Disease Control and Prevention, Atlanta, GA, United States,
2American Samoa Department of Health, Pago Pago, American Samoa,
3Pacific Program to Eliminate Lymphatic Filariasis, Tamavua, Fiji

8:15 a.m.
346
LONG TERM EFFECT OF MASS DRUG ADMINISTRATION ON
THE PRESENCE OF ANTIBODIES AGAINST BM14 AS A
MEASURE OF LYMPHATIC FILARIALISIS EXPOSURE AND
INFECTION IN PAPUA NEW GUINEA
Daniel J. Tisch1, Fred E. Hazlett1, Moses J. Bockarie2, Will Kastens2, James W. Kazura1
1Case Western Reserve University, Cleveland, OH, United States, 2Papua New
Guinea Institute of Medical Research, Madang, Papua New Guinea
8:30 a.m.  
347

IS THERE CONTINUING TRANSMISSION OF ONCHOCERCA VOLVULUS IN THE ESCUINTLA-GUATEMALA FOCUS OF GUATEMALA?
Kim A. Lindblade1, Rodrigo J. Gonzalez2, Jane Richards2, Byron Arana2, Nancy Cruz-Ortiz2, Nidia Rizzo2, Guillermo Zea-Flores3, Eduard Catu4, Robert E. Klein5, Frank O. Richards6
1Centers for Disease Control and Prevention Regional Office for Central America and Panama, Guatemala City, Guatemala, 2Centro de Estudios en Salud, Universidad del Valle de Guatemala, Guatemala City, Guatemala, 3Onchocerciasis Elimination Program of the Americas, Guatemala City, Guatemala, 4Ministry of Public Health and Social Welfare, Guatemala City, Guatemala, 5Centers for Disease Control and Prevention Regional Office for Central America and Panama, Guatemala City, Guatemala, 6Carter Center, Atlanta, GA, United States

8:45 a.m.  
348

PERSISTENCE OF BRUGIA MALAYI DNA IN VECTOR AND NON-VECTOR MOSQUITOES: IMPLICATIONS FOR XENOMONITORING AND TRANSMISSION MONITORING OF LYMPHATIC FILARIASIS
Peter Fischer1, Sara M. Erickson2, Kerstin Fischer1, Jeremy F. Fuchs3, Ramakrishna U. Rao1, Bruce M. Christensen2, Gary J. Weil1
1Washington University School of Medicine, St. Louis, MO, United States, 2University of Wisconsin-Madison, Madison, WI, United States

9 a.m.  
349

INVESTIGATION OF SYSTEMATIC NONCOMPLIANCE IN THE CONTEXT OF A MASS DRUG ADMINISTRATION PROGRAM FOR LYMPHATIC FILARIASIS
Jeffrey Talbot1, Abigail Viall2, Abdel Direny1, Madsen Beau de Rochars3, David Addiss2, Thomas Streit1, Els Mathieu4, Patrick Lammie2
1Emory University, Atlanta, GA, United States, 2Centers for Disease Control and Prevention, Atlanta, GA, United States, 3Ste. Croix Hospital, Leogane, Haiti, 4University of Notre Dame, Notre Dame, IN, United States

9:15 a.m.  
350

DIAGNOSIS OF LYMPHATIC FILARIASIS INFECTION: HOW MANY PEOPLE HAVE ADULT WORMS?
Wilma A. Stolk, Roya Sharafi, Hinta Meijerink, J. Dik F. Habbema
Erasmus MC, Rotterdam, The Netherlands

9:30 a.m.  
351

SAFETY AND EFFICACY OF DOXYCYCLINE THERAPY WITH AND WITHOUT SINGLE DOSE ALBENDAZOLE/IVERMECTIN FOR THE TREATMENT OF MANSONELLA PERSTANS INFECTION
Yaya I. Coulibaly1, Benoit Dembele1, Abdallah A. Diallo1, Ettie M. Lipner2, Michael Fay3, Dapa A. Diallo1, Mady Sissoko1, Daniel Yalcoue1, Ogobara D. K. Doumbo3, Abdel K. Traore3, Thomas B. Nutman2, Sekou F. Traore1, Amy D. Klion2
1University of Mali, Bamako, Mali, 2National Institutes of Health, Bethesda, MD, United States, 3National Center for Disease Control, Bamako, Mali

Symposium 45
Global Burden of Pneumonia

Copenhagen/Stockholm/Amsterdam

Tuesday, November 14 8:00 a.m. – 9:45 a.m.

Pneumonia is the leading infectious cause of death in children and adults. Pneumococcal conjugate vaccine has the potential to reduce this burden in both children and adults. Surveillance of the disease burden is frustrated by the lack of specificity of the diagnosis, particularly in malaria endemic countries, and etiological studies lack sensitivity, particularly in children where sputum is rarely available. This symposium will explore innovative approaches using conjugate vaccine to probe pneumonia burden, as well as describe the attempts by Centers for Disease Control and Prevention, PAHO and the GAVI pneumoADIP to define pneumonia burden in different parts of the world.

CHAIR
Keith Klugman
Emory University, Atlanta, GA, United States

Cynthia Whitney
Centers for Disease Control and Prevention, Atlanta, GA, United States

USE OF CONJUGATE VACCINE TO DEFINE THE BURDEN OF PREVENTABLE PNEUMOCOCCAL RESPIRATORY INFECTIONS
Keith Klugman
Emory University, Atlanta, GA, United States

PNEUMONIA BURDEN ESTIMATES FROM RURAL THAILAND
Sonya Olsen
Centers for Disease Control and Prevention, Atlanta, GA, United States

EFFORTS OF THE GAVI PNEUMOADIP TO DEFINE PNEUMONIA BURDEN IN DEVELOPING COUNTRIES
Orin Levine
Johns Hopkins University, Baltimore, MD, United States

STRATEGY FOR PNEUMOCOCCAL CONJUGATE VACCINE INTRODUCTION IN THE AMERICAS
Lucia Helena de Oliveira
Pan American Health Organization, Washington, DC, United States
Detailed Program

Scientific Session 46

Malaria — Immunology

Marquis 3
Tuesday, November 14 8:00 a.m. – 9:45 a.m.

CHAIR
Julie M. Moore
University of Georgia, Athens, GA, United States
Douglas Perkins
University of Pittsburgh, Pittsburgh, PA, United States

8 a.m.

FUNCTIONAL POLYMORPHISM IN THE IL-1 BETA -31 GENE PROMOTER (C-T) IS ASSOCIATED WITH PROTECTION AGAINST SEVERE MALARIAL ANEMIA IN INFANTS AND YOUNG CHILDREN
1University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases and Kenyatta University, Kisumu, Kenya, 2University of Pittsburgh Graduate School of Public Health, Department of Infectious Diseases and Microbiology, Pittsburgh, PA, United States, 3University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases and Kenyatta University, Nairobi, Kenya, 4University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases and Kenyatta University, Kisumu, Kenya, 5University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases, Kisumu, Kenya, 6Kenyatta University, Nairobi, Kenya, 7Kenyatta University, Nairobi, Kenya, 8University of Pittsburgh Graduate School of Public Health, Department of Human Genetics, Pittsburgh, PA, United States

(ACMCIP Abstract)

8:15 a.m.

INITIATION OF ANTI-SPOROZOITE IMMUNITY IN MALARIA IS EXTRA-HEPATIC, WHILE THE EFFECTOR PHASE OPERATES WITHIN THE LIVER
Sumana Chakravarty, Alexandre Morrot, Salih Kuk, Ian Cockburn, Fidel Zavala
Johns Hopkins School of Public Health, Baltimore, MD, United States

(ACMCIP Abstract)

8:30 a.m.

HUMAN SYNCYTIOTROPHOBLAST CELLS PLAY AN ACTIVE ROLE IN THE IMMUNE RESPONSE TO PLACENTAL MALARIA
Naomi W. Lucchi, David S. Peterson, Julie M. Moore
University of Georgia, Athens, GA, United States

(ACMCIP Abstract)

8:45 a.m.

PLACENTAL MALARIA DECREASED PLASMCYTOID DENDRITIC CELLS IN BLOOD FROM PREGNANT WOMEN IN WEST AFRICAN AREA
Delphine Aldebert1, Mouhamadou Diallo1, Jean Charles Moreau2, Mamadou Ndiaye1, Ronan Jambou1
1Institut Pasteur de Dakar, Dakar, Senegal, 2Hôpital Ledantec, Dakar, Senegal

(ACMCIP Abstract)

9 a.m.

MALARIA-EXPOSED MEN AND PREGNANT WOMEN DEVELOP DIVERGENT ANTIBODY RESPONSES TO VAR1CSA AND VAR2CSA PROTEIN DOMAINS
Andrew V. Oleinikov, Eddie Rossnagle, Theonest K. Mutabingwa, Michal Fried, Patrick E. Duffy
Seattle Biomedical Research Institute, Seattle, WA, United States

(ACMCIP Abstract)

9:15 a.m.

LIMITED GLOBAL DIVERSITY OF ANTIBODY EPITOPE EXPRESSED BY PLACENTAL BINDING PLASMODIUM FALCIPARUM VARIANTS
James G. Beeson1, Greg Kelly2, Sandra Hallamore2, Kristina Persson1, Joanne Chesson1, Alfred Cortes1, Stephen Rogerson2, John Reeder3, Graham Brown2, Kevin Marsh4
1Walter and Eliza Hall Institute of Medical Research, Parkville, Australia, 2Department of Medicine, University of Melbourne, Royal Melbourne Hospital, Australia, 3Papua New Guinea Institute of Medical Research, Madang, Papua New Guinea, 4Centre for Geographic Medicine Research, Kenya Medical Research Institute, Kilifi, Australia

(ACMCIP Abstract)

9:30 a.m.

CHARACTERISATION OF THE ANTIBODY RESPONSE AGAINST PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN-1 IN HUMAN VOLUNTEERS
Darren Krause1, Michelle Gatton1, Damon Eisen2, Michael Good1, Qin Cheng3
1Queensland Institute of Medical Research, Brisbane, Australia, 2Royal Melbourne Hospital, Brisbane, Australia, 3Australian Army Malaria Institute, Brisbane, Australia

(ACMCIP Abstract)
Symposium 47

Capacity Building in the Fight Against Malaria
Supported with funding from GlaxoSmithKline

Marquis 4
Tuesday, November 14 8:00 a.m. – 9:45 a.m.

International malaria control efforts will only have lasting benefit if they are part of a major capacity-building initiative, especially in sub-Saharan Africa. Malaria-endemic countries need improved health infrastructure and well-trained and paid staff in order to develop and implement sustainable control strategies on the ground. National and regional institutions must be supported in their efforts to build capacity to undertake clinical trials and, eventually, their own research and development activities.

SYMPOSIUM ORGANIZER
Peter G. Borrett
Hera.Com, Richmond, United Kingdom

CHAIR
Laurie Garrett
Council on Foreign Relations, New York, NY, United States

8 a.m.
CLINICAL TRIALS IN AFRICA: NETWORKING FOR SUCCESS
Fred Binka
INDEPTH Network, Accra, Ghana

8:25 a.m.
COMBATING MALARIA TOGETHER: SOUTH/SOUTH PARTNERSHIPS
Thomas Nyirenda
Europe Developing Countries Clinical Trials Partnership, Cape Town, South Africa

8:50 a.m.
BACK TO BASICS: STRENGTHENING AFRICA’S PUBLIC HEALTH SERVICES
Daraus Bukenya
African Medical and Research Foundation, Nairobi, Kenya

9:15 a.m.
SECURING THE FUTURE: SUSTAINABLE MALARIA RESEARCH IN AFRICA
Wen Kilama
Multilateral Initiative on Malaria (MIM), Dar Es Salaam, United Republic of Tanzania

Scientific Session 48

Ectoparasite-Borne Diseases

International 4
Tuesday, November 14 8:00 a.m. – 9:45 a.m.

CHAIR
Charles Apperson
North Carolina State University, Raleigh, NC, United States
Michael L. Levin
Centers for Disease Control and Prevention, Atlanta, GA, United States

8 a.m.

359
MITOCHONDRIAL DIVERSITY, GENE FLOW, AND PHYLOGEOGRAPHY IN THE TSETSE FLY GLOSSINA PALLIDIPES
J. Gerardo Marquez, Elliot S. Krafsur
Iowa State University, Ames, IA, United States

8:15 a.m.

360
LOSS OF GENETIC DIVERSITY FOR FRANCISELLA TULARENSIS INFECTING DOG TICKS WITH INCREASING EPIZOOTIC DURATION
Heidi K. Goethert, Sam R. Telford
Tufts University School of Veterinary Medicine, N. Grafton, MA, United States

8:30 a.m.

361
A NEW PROTOCOL FOR THE DETECTION AND IDENTIFICATION OF RICKETTSIAE IN TICKS REMOVED FROM MILITARY PERSONNEL
Ju Jiang1, Johanna G. Flyer1, Michael J. Fryauff1, Lauren M. Klee1, Shirley C. Chen1, Melissa K. Miller2, Ellen Y. Stromdahl3, Patrick J. Rozmajzl1, Allen L. Richards1
1Naval Medical Research Center, Silver Spring, MD, United States, 2U.S. Center for Health Promotion and Preventive Medicine-North, Fort Meade, MD, United States, 3U.S. Center for Health Promotion and Preventive Medicine, Aberdeen Proving Ground, MD, United States

8:45 a.m.

362
DURATION OF TICK ATTACHMENT NECESSARY FOR TRANSMISSION OF ANAPLASMA PHAGOCYTOPHILUM TO A SUSCEPTIBLE VERTEBRATE HOST
Michael I. Levin, Danielle R. Troughton
Centers for Disease Control and Prevention, Atlanta, GA, United States
9 a.m.

DEMOGRAPHIC HISTORY AND POPULATION STRUCTURE OF AN EMERGING DISEASE VECTOR, AMBLYOMMA AMERICANUM, AND ITS POTENTIAL COEVOLUTION WITH "RICKETTSIA AMBLYOMMII"
Tonya R. Mixson
Centers for Disease Control and Prevention, Atlanta, GA, United States

9:15 a.m.

RICKETTSIAL DISEASES IN NORTH CAROLINA: IS "RICKETTSIA AMBLYOMMII" A POSSIBLE CAUSE OF RICKETTSIOSIS REPORTED AS ROCKY MOUNTAIN SPOTTED FEVER?
Charles Apperson1, Barry Engber2, William Nicholson3, Danny Mead4, Michael Yabsley2, Jeffrey Engel5, Kathy Dail6, Joey Johnson5, Wes Watson1
1North Carolina State University, Raleigh, NC, United States, 2North Carolina Department of Environment and Natural Resources, Raleigh, NC, United States, 3Viral and Rickettsial Zoonoses Branch, Centers for Disease Control and Prevention, Atlanta, GA, United States, 4University of Georgia, SE Coop. Wildlife Disease Study, Athens, GA, United States, 5North Carolina Department of Health and Human Services, Raleigh, NC, United States

9:30 a.m.

THE 47 KDA ANTIGEN OF ORIENTIA TSUTSUGAMUSHI KARP STRAIN PROVIDED HETEROLOGOUS PROTECTION IN A MOUSE LETHAL CHALLENGE MODEL
Wei-Mei Ching, Yi-Sheng Ni, Chien-Chung Chao, Teik-Chye Chan, Ju Jiang, Suchismita Chattopadhyay, Allen L. Richards
Naval Medical Research Center, Silver Spring, MD, United States

9:45 a.m.

DIFFERENTIAL INFECTIVITY OF LOCAL PLASMODIUM VIVAX TO MALARIA VECTORS IN SOUTHERN MEXICO
Mario Henry Rodriguez
Centro de Investigaciones Sobre Enfermedades Infecciosas, Cuernavaca, Morelos, Mexico

9:55 a.m.

MOLECULAR INTERACTIONS BETWEEN PLASMODIUM AND MOSQUITO EPITHELIA
Marcelo Jacobs-Lorena
Johns Hopkins School of Public Health, Baltimore, MD, United States

8 a.m.

INTRODUCTION
Marcelo Jacobs-Lorena
Johns Hopkins School of Public Health, Baltimore, MD, United States

8:05 a.m.

DIFFERENTIAL INFECTIVITY OF LOCAL PLASMODIUM VIVAX TO MALARIA VECTORS IN SOUTHERN MEXICO
Mario Henry Rodriguez
Centro de Investigaciones Sobre Enfermedades Infecciosas, Cuernavaca, Morelos, Mexico

8:30 a.m.

GENETIC SCREENING OF THE NATURAL A. GAMBIAE POPULATION FOR PLASMODIUM-CONTROL LOCI
Ken Vernick
University of Minnesota, St. Paul, MN, United States

8:55 a.m.

MOLECULES ESSENTIAL FOR MALARIAL PARASITE INVASION INTO HOST MOSQUITO CELLS
Yasuo Chinzei
Mie University, Tsu, Japan

9:20 a.m.

MOLECULAR INTERACTIONS BETWEEN PLASMODIUM AND MOSQUITO EPITHELIA
Marcelo Jacobs-Lorena
Johns Hopkins School of Public Health, Baltimore, MD, United States

Scientific Session 50

Flavivirus I — Dengue I

Marquis 1
Tuesday, November 14 8 a.m. – 9:45 a.m.
CHAIR
Eva Harris
University of California, Berkeley, Berkeley, CA, United States

Thomas W. Scott
University of California, Davis, CA, United States

8 a.m.

DENGUE SURVEILLANCE IN ARAGUA STATE, VENEZUELA: A TEN-YEAR PERIOD RETROSPECTIVE ANALYSIS
Guillermo A. Comach1, Daria E. Camacho1, Maritza Cabello de Quintana1, Anna Chiarello1, Matilde Jimenez1, Gloria M. Sierra1, Maritza Soler1, Maritza Alvarez1, Iris Villalobos2, Edna Rojas3, Manuel Tovar3
1LARDIDEV/BIOMED-Universidad de Carabobo/Corposalud Aragua, Maracay, Venezuela, 2Hospital Central de Maracay/Corposalud Aragua, Maracay, Venezuela, 3Corposalud Aragua, Maracay, Venezuela
8:15 a.m.  |  367  
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**PEDIATRIC COHORT STUDY OF DENGUE TRANSMISSION IN NICARAGUA**
Samantha N. Hammond1, Guillermina M. Kuan2, Angel Balmaseda2, Crisanta Rocha3, William Aviles3, Andrea Nuñez3, Alcides Gonzalez3, Juan José Amador3, **Eva Harris**1  
1Division of Infectious Diseases, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, 2Centro de Salud Socrates Flores Vivás, Ministerio de Salud, Managua, Nicaragua, 3Departamento de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua, 4Hospital Infantil Manuel de Jesús Rivera, Managua, Nicaragua, 5Sustainable Sciences Institute, Managua, Nicaragua, 6Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua, 7Dirección de Salud Ambiental y Epidemiología, Ministerio de Salud, Managua, Nicaragua

8:30 a.m.  |  368  
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**IMPACT OF EVIDENCE-BASED COMMUNITY-DERIVED INTERVENTIONS FOR THE CONTROL OF THE DENGUE VIRUS VECTOR Aedes aegypti IN MANAQUIA, NICARAGUA**
Jorge Arostegui1, Samantha Hammond2, Alvaro Carcamo1, Harold Suazo1, Josefina Coloma2, Angel Balmaseda3, Neil Andersson1, **Eva Harris**2, CIETNicaragua Dengue Group1  
1CIETNicaragua, Managua, Nicaragua, 2Division of Infectious Diseases, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, 3Departmento de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua

8:45 a.m.  |  369  
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**VIRUS EVOLUTION DURING A SEVERE DENGUE EPIDEMIC IN CUBA, 1997**
Rosmary Rodriguez-Roche1, Mayling Alvarez1, Tamara S. Gritsun3, Scott B. Halstead4, Gustavo Kouri Flores1, Ernest A. Gould1, Maria G. Guzman Tirado1  
1Pedro Kouri Tropical Medicine Institute, Havana, Cuba, 2Centre for Ecology and Hydrology, Oxford, United Kingdom, 3Pediatric Dengue Vaccine Initiative, Bethesda, MD, United States

9 a.m.  |  370  
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**DENGUE VIRAL SEQUENCE ANALYSIS FROM BOTH HUMAN AND MOSQUITO SAMPLES ISOLATED DURING CLUSTER INVESTIGATIONS IN KAMPHAENG PHET, THAILAND**
R. G. Jarman1, C. Klungthong2, P. Rodpradit3, P. Chinnawirotpis2, R. V. Gibbons2, S. Koenraadt4, S. Thammapal4, B. Thaisomboonsuk2, J. M. Jones2, A. Nisalak3, T. P. Endy2, D. H. Libraty2, F. A. Ennis2, 1Army Research Institute of Medical Sciences (AFRIMS), Bangkok, Thailand, 2Armed Forces Research Institute of Medical Sciences (AFRIMS), Bangkok, Thailand, 3University of California, Davis, CA, United States, 4Ministry of Public Health, Nonthaburi, Thailand, 5Walter Reed Army Institute of Research, Silver Spring, MD, United States, 6University of Massachusetts Medical School, Worcester, MA, United States

9:15 a.m.  |  371  
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**COMPARATIVE ANALYSIS REVEALS GENETIC DIFFERENCES OF DENGUE VIRUSES ISOLATED FROM PATIENTS DURING THE PERIODS OF HIGH, INTERMEDIATE AND LOW TRANSMISSION**
Chunlin Zhang1, Piyawan Chinnawirotpis2, Chonticha Klungthong1, Prinyada Rodpradit1, Stephen J. Thomas2, Mamenn P. Mammen2  
1Military Infectious Diseases Research Program, US Army Medical and Materiel Command, Fort Detrick, MD, United States, 2US Army Medical Component-Armed Force Research Institute of Medical Sciences, Bangkok, Thailand

(ACMCIP Abstract)

9:30 a.m.  |  372  
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**AN INDIVIDUAL BASED MODEL FOR HETEROGENEOUS DENGUE TRANSMISSION INCORPORATING BOTH AGE-DEPENDENT BITING AND SPATIAL HETEROGENEITY**
Sharon L. Minnick, Amy C. Morrison, Thomas W. Scott  
University of California at Davis, Davis, CA, United States

**Scientific Session 51**

**Malaria — Molecular Markers of Drug Resistance**
Marquis 2
Tuesday, November 14  
8:00 a.m. – 9:45 a.m.

**CHAIR**  
Abdoulaye A. Djimde  
Malaria Research Training Center DEAP/FMPOS, University of Bamako, Mali

Jean Bosco Ouedraogo  
Institut de Recherche en Sciences de la Sante, Bobo-Dioulasso, Burkina Faso

8 a.m.  |  373  
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**ARTEMETHER-LUMEFANTRINE VERSUS AMODIAQUINE PLUS SULFADOXINE-PYRIMETHAMINE FOR THE TREATMENT OF UNCOMPLICATED FALCIPARUM MALARIA IN BURKINA FASO**
Issaka Zongo1, Dorsey Grant2, Noel Rouamba3, Halidou Tinto3, Christian Dokomajilar2, Robert T. Guiguemde3, Philip J. Rosenthal2, and Jean Bosco Ouedraogo1  
1Institut de Recherche en Sciences de la Sante, Direction Regionale de l’Ouest, Bobo-Dioulasso, Burkina Faso, 2University of California, San Francisco, San Francisco, CA, United States, 3Centre Muraz, Bobo-Dioulasso, Burkina Faso
8:15 a.m. 374

**ARTEMISININ RESISTANCE ALONG THE THAI-CAMBODIAN BORDER?**

Harald Noedl1, Krisada Jongsakul1, Wichai Satimai2, Dokruk Tongkong4, Jeeraphat Srichaisinthop4, Sabaiithip Sriwichai, Mark Fukuda1

1Medical University of Vienna, Vienna, Austria, 2United States Army Medical Component-Armed Forces Research Institute of Medical Sciences (USAMC-AFRIMS), Bangkok, Thailand, 3Office of Diseases Prevention and Control Region 3, Chonburi, Thailand, 4Vector Borne Diseases Control Center 3.4, Trat, Thailand

8:30 a.m. 375

**SELECTION OF RESISTANCE-MEDIATING ALLELES AFTER TREATMENT WITH ARTEMISININ-BASED COMBINATION THERAPY IN UGANDA**

Samuel L. Nsobya1, Moses Joloba2, Christian Dokomajilar3, Grant Dorsey4, Philip J. Rosenthal4

1Makerere University, Kampala, Uganda, 2Department of Microbiology, Makerere University, Kampala, Uganda, 3University of California, San Francisco, CA, United States, 4Department of Medicine, University of California, San Francisco, CA, United States

8:45 a.m. 376

**THE TRIPLE AND QUADRUPLE MUTANT ALLELES OF DIHYDROFOLATE REDUCTASE-THYMIDYLATE SYNTHASE FROM P. FALCIPARUM ARE MORE EFFICIENT IN VITRO THAN THE WILD TYPE ALLELE**

Carol H. Sibley1, Conner I. Sandefur1, Jason M. Wooden2

1University of Washington, Seattle, WA, United States, 2Puget Sound Blood Center, Seattle, WA, United States

9 a.m. 377

**ORIGIN AND DISSEMINATION OF CHLOROQUINE-RESISTANT PFCRT ALLELES IN ASIA, AFRICA, AND SOUTH AMERICA**

Rajeev K. Mehlotra1, Gabriel Mattera1, Moses J. Bockarie2, Jason D. Maguire1, Kevin Baird3, Y. D. Sharma4, James W. Kazura1, Grant Dorsey3, Philip J. Rosenthal6, David J. Fyaufl6, Timothy J. Anderson7, Peter A. Zimmerman1

1Case Western Reserve University, Cleveland, OH, United States, 2Papua New Guinea Institute of Medical Research (PNGIMR), Madang, Papua New Guinea, 3NAMRU2, Jakarta, Indonesia, 4All India Institute of Medical Sciences (AIIMS), New Delhi, India, 5Department of Medicine, San Francisco General Hospital, University of California San Francisco, San Francisco, CA, United States, 6Naval Medical Research Center, Silver Spring, MD, United States, 7Southwest Foundation for Biomedical Research, San Antonio, TX, United States

9:15 a.m. 378

**VARIABLE LENGTH SIMPLE SEQUENCE REPEATS IN PFCRT INTRONS PROVIDE EVIDENCE FOR CONTINUING EVOLUTION FOLLOWING CHLOROQUINE-ASSOCIATED SELECTIVE SWEEPS**

Jean T. DaRe, Rajeev K. Mehlotra, Peter A. Zimmerman

Case Western Reserve University, Cleveland, OH, United States

9:30 a.m. 379

**PFNHE POLYMORPHISMS AND CLINICAL QUININE RESISTANCE IN MALI**

Aminatou Kone1, Abdoul H. Beavogui1, Oumar B. Traore1, Antoine Dara1, Souleymane Dama1, Jianbing Mu2, Ousmane Toure1, Ogbabora K. Dounmo1, Thomas E. Wellems2, Abdoulaye A. Diimde3

1University of Bamako, Bamako, Mali, 2Laboratory of Malaria and Vector Research/National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States

Exhibit Hall Open

International Level

Tuesday, November 14 9:30 a.m. – 10:30 a.m.

Coffee Break

International Level

Tuesday, November 14 9:45 a.m. – 10:15 a.m.

Poster Session B Setup

International and Skyline Levels

Tuesday, November 14 9:45 a.m. – 10:15 a.m.

Poster Session B Viewing

International and Skyline Levels

Tuesday, November 14 10:15 a.m. – Noon
Symposium 52

The Schistosomiasis Agenda: Completing the Conversation

Sydney/Zurich
Tuesday, November 14 10:15 a.m. – Noon

This symposium is the third part of a conversation that began at the 2005 ASTMH meeting, continued at ICOPA XI and involved multiple electronic communications among many members of the schistosomiasis community. The goal of this conversation is to develop an agenda for schistosomiasis that consists of those topics that the schistosomiasis community feels are important. The aim is not to prioritize one component over another, but to include those things that would be worth having or knowing if the resources were available. The purpose of a schistosomiasis agenda is to provide greater cohesion among schistosomiasis investigators and facilitate funding opportunities to advance the field.

CHAIR
W. Evan Secor
Centers for Disease Control and Prevention, Atlanta, GA, United States
Daniel G. Colley
University of Georgia, Athens, GA, United States

Symposium 53

Malarial Retinopathy: Clinical Features, Pathological Correlations and Implications for the Pathogenesis of Severe Malaria

Bonn/London
Tuesday, November 14 10:15 a.m. – Noon

Malarial retinopathy, a constellation of retinal changes specific to severe malaria which includes retinal whitening, blood vessels abnormalities and white-centered hemorrhages, is possibly one of the most accurate associations to the phenomenon of cerebral sequestration available to the clinician caring for patients with severe malaria. Recent advances in the understanding of this phenomenon and the associated clinical and pathological findings prove to be extremely valuable in the diagnosis of severe malaria. Presentation of fundus photographs from a pediatric study will be followed by a clinical discussion of the diagnostic and prognostic usefulness of this retinopathy. A pathologist will present and discuss the retinal histopathology associated with each of the changes and relate them to cerebral pathology. Finally, we will present the findings of fluorescein angiography in children with cerebral malaria demonstrating blood flow abnormalities in the retinal microvasculature.

CHAIR
Terrie Taylor
Michigan State University, East Lansing, MI, United States

10:15 a.m.
INTRODUCTION
Terrie Taylor
Michigan State University, East Lansing, MI, United States

10:20 a.m.
THE OPHTHALMOLOGIC FEATURES OF MALARIAL RETINOPATHY
Susan Lewallen
Kilimanjaro Centre for Community Ophthalmology, Moshi, United Republic of Tanzania

10:45 a.m.
CLINICAL CORRELATES OF MALARIAL RETINOPATHY
Kalifa Bojang
The Medical Research Council, Banjul, Gambia

11:10 a.m.
PATHOLOGICAL CORRELATES OF MALARIAL RETINOPATHY
Valerie White
Vancouver General Hospital, Vancouver, BC, Canada

11:35 a.m.
ANGIOGRAPHIC DEMONSTRATION OF RETINAL BLOOD FLOW ABNORMALITIES IN CHILDREN WITH CEREBRAL MALARIA
Nicholas Beare
St. Paul’s Eye Unit, Liverpool, United Kingdom

Symposium 54

Innovative Drug Discovery for Tropical Diseases

International 5/6
Tuesday, November 14 10:15 a.m. – Noon

The symposium will discuss a new approach to drug discovery that involve networks and partnerships with industry and academia, as well as developing country scientists and institutions. Specific partnerships and network activities for lead discovery covering TDR target diseases will be presented. The advantages of this approach in ensuring sustainable availability of lead compounds for tropical diseases will be highlighted.

CHAIR
Solomon Nwaka
World Health Organization, Geneva, Switzerland
Dyann Wirth
Harvard School of Public Health, Boston, MA, United States

10:15 a.m.
OPENING REMARKS
Dyann Wirth
Harvard School of Public Health, Boston, MA, United States

10:20 a.m.
A NEW APPROACH TO DRUG DISCOVERY FOR TROPICAL DISEASES
Solomon Nwaka
World Health Organization, Geneva, Switzerland
Symposium 55

Global Disease Threats and Response

Copenhagen/Stockholm/Amsterdam

Tuesday, November 14 10:15 a.m. – Noon

International emerging disease threats influence both health programs and policies in areas of the world where public health measures have been largely successful. In many highly developed nations where communicable diseases control have been effective, public health capacities and infrastructure can be challenged by globally emerging communicable disease threats. National responses alone may be less effective than regional or international approaches to mitigating risk. Regional responses to these emerging communicable disease threats require new approaches, new knowledge and new policy frameworks. This symposium will highlight how these emerging pressures have resulted in more global mechanisms for surveillance and reporting, an international single point regulatory framework for response and discuss opportunities and new initiatives in health education and training.

CHAIR

Douglas W. MacPherson
Migration Health Consultants Inc., Cheltenham, ON, Canada

Brian D. Gushulak
Migration Health Consultants Inc., Vienna, Austria

10:15 a.m.

INTERNATIONAL DISEASE CASE IMPORTATION, DETECTION AND REPORTING OUTCOMES — THE EUROPEAN EXPERIENCE

Ron Behrens
Hospital for Tropical Diseases, London, United Kingdom

Symposium 56

Malaria Vaccine Development: Recombinant Protein Expression Platforms

Marquis 3

Tuesday, November 14 10:15 a.m. – Noon

The malarial parasite remains a scourge on human civilization, and in recent years, the incidence of the disease has been increasing dramatically. As many as three children die per minute as a result of infection from Plasmodium falciparum, the most deadly form of the parasite. Vaccination against immunogenic and functional molecules of the parasite life cycle, such as those required for erythrocyte invasion, has the potential to reduce malaria-associated severe morbidity and mortality. It is likely that studies to identify candidate antigens and subunit vaccine development will ultimately involve expression of recombinant proteins in heterologous systems that may introduce posttranslational modifications, which are not present in the authentic parasite protein. Subsequent alterations of antigen integrity and/or stability compared to the native molecule are likely to detrimentally affect the functionality of immune response towards the recombinant protein. In case of Plasmodium falciparum, glycosylphosphatidylinositol (GPI) anchors are present in all surface proteins. Glycosylation is known to play a critical role in antigen recognition. Therefore, the choice of expression system for these antigens is important; bacterial expression systems, such as that of Escherichia coli, do not incorporate glycans, whereas yeast or baculovirus may introduce inappropriate glycosylation at positions that are not modified in the native antigen. Evaluation of the effect of such posttranslational modifications is of interest, considering the global scientific and economic effort currently invested in the development of malaria vaccines.

CHAIR

Sanjay Singh
National Institutes of Health, Rockville, MD, United States

Lee Hall
National Institutes of Health/National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States
10:15 a.m.
YEAST EXPRESSION SYSTEM
Kim Lee Sim
Protein Potential, Rockville, MD, United States

10:40 a.m.
CELL FREE EXPRESSION SYSTEM
Takafumi Tsuboi
Ehime University, Matsuyama, Ehime, Japan

11:05 a.m.
TRANSGENIC ANIMAL EXPRESSION SYSTEM
Harry Meade
GTC Biotherapeutics, Framingham, MA, United States

11:30 a.m.
E. COLI EXPRESSION SYSTEM
Matthew Plassmeyer
National Institutes of Health/National Institute of Allergy and Infectious Diseases, Rockville, MD, United States

Symposium 57

Yellow Fever Vaccine — A Status Report of Viscerotropic and Neurotropic Disease and the Host Immune Response

Supported with funding from sanofi pasteur

Marquis 4

Tuesday, November 14 10:15 a.m. – Noon

This symposium will review the latest on yellow fever epidemiology, clinical and epidemiologic features of viscerotropic and neurotropic adverse events to yellow fever vaccination and the latest international research on host immune response mechanisms to YEL vaccine.

CHAIR
Martin S. Cetron
Centers for Disease Control and Prevention, Atlanta, GA, United States

Ned Hayes
Centers for Disease Control and Prevention, Atlanta, GA, United States

Drs. Hayes and Cetron are participating on behalf of the U.S. Public Health Service without support from sanofi pasteur.

10:15 a.m.
INTRODUCTION
Martin S. Cetron
Centers for Disease Control and Prevention, Atlanta, GA, United States

10:25 a.m.
INTRODUCTION
Ned Hayes
Centers for Disease Control and Prevention, Atlanta, GA, United States

10:35 a.m.
YELLOW FEVER EPIDEMIOLOGY: AN UPDATE ON EXPOSURE IN AFRICA AND LATIN AMERICA
Eduardo Massad
University of Sao Paulo, Sao Paulo, Brazil

10:55 a.m.
CLINICAL AND EPIDEMIOLOGICAL FEATURES OF VISCEROTROPIC AND NEUROTROPIC ADVERSE EVENTS
Dirk Teuwen
sanofi pasteur, Lyon, France

11:15 a.m.
FUNCTIONAL AND PHENOTYPIC CHARACTERIZATIONS OF YF-SPECIFIC MEMORY RESPONSE FOLLOWING VACCINATION WITH 17D VIRUS
Elias Kamal Haddad
University of Montreal, Montreal, QC, Canada

11:35 a.m.
ADAPTIVE AND INNATE IMMUNE RESPONSES TO YELLOW FEVER VACCINE
Bali Pulendran
Emory University, Atlanta, GA, United States

Scientific Session 58

Protozoa

International 4

Tuesday, November 14 10:15 a.m. – Noon

CHAIR
Thaddeus Graczyk
Baltimore, MD, United States

Barbara Mann
Charlottesville, VA, United States

10:15 a.m.
A LONGITUDINAL STUDY OF CRYPTOSPORIDIUM INFECTION IN CHILDREN IN DHAKA: THE ROLE OF GENETIC SUSCEPTIBILITY TO INFECTION
Beth D. Kirkpatrick1, Rashidul Haque2, Priya Duggal3, Dinesh Mondal2, Cathy Larsson1, Meera Sreenivasan1, Kristine Peterson4, Lauren Lockhart4, Salwa Khan1, William A. Petri4, Jasmin Akter2

1University of Vermont College of Medicine, Burlington, VT, United States, 2International Center for Diarrhoeal Disease Research (ICDDR,B), Dhaka, Bangladesh, 3National Human Genome Research Institute (NHGRI), National Institutes of Health, Bethesda, MD, United States, 4University of Virginia, Charlottesville, VA, United States

(ACMCIP Abstract)
Detailed Program

10:30 a.m.  381

CONFIRMATION OF ZOONOTIC TRANSMISSION OF ENTEROCYTOZOON BIENEUXI
Vitaliano A. Cama1, Lilia Cabrera2, Julie Pearson3, Ynes Ortega4, Robert Gilman5, Lihua Xiao6
1Centers for Disease Control and Prevention-Atlanta Research and Education Foundation, Atlanta, GA, United States, 2Associação Benéfica PRISMA, Lima, Peru, 3Centers for Disease Control and Prevention, Atlanta, GA, United States, 4University of Georgia, Griffin, GA, United States, 5Johns Hopkins University, Baltimore, MD, United States

(ACMCIP Abstract)

10:45 a.m.  382

MICROSPORIDIA SPECIES KNOWN TO INFECT HUMANS ARE PRESENT IN AQUATIC BIRDS; IMPLICATIONS FOR TRANSMISSION VIA WATER?
Thaddeus K. Graczyk1, Anna Slodkowicz-Kowalska2, Leena Tamang1, S. Jedrzejewski3, A. Nowosad4, P. Zduniak5, P. Solarczyk2, Autumn Girouard6, Hanna Majewska2, Govinda Visvesvara4
1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, 2Poznan University of Medical Sciences, Poznan, Poland, 3Adam Mickiewicz University, Poznan, Poland, 4Centers for Disease Control and Prevention, Atlanta, GA, United States

11 a.m.  383

CATS AND THEIR FECES: A PROBLEM FOR PUBLIC HEALTH AND WILDLIFE
Haydee A. Dabritz1, E. Robert Atwill2, Ian A. Gardner1, Melissa A. Miller1, Michael R. Lappin3, Andrea E. Packham1, Ann C. Melli1
1University of California, Davis, CA, United States, 2Veterinary Medicine and Teaching Research Center, Tulare, CA, United States, 3California Department of Fish and Game, Santa Cruz, CA, United States, 4Colorado State University, Fort Collins, CO, United States

11:15 a.m.  384

MICROARRAY-MEDIATED TRANSCRIPTOME COMPARISON OF ENTAMOEBA HISTOLYTICA TROPHOZOITES IN VIVO AND IN VITRO
Carol A. Gilchrist1, Eric Houpt1, Nino Trapeizade2, Zhangjin Fei2, Oswald Crasta2, Bruno Sobral3, Amnon Asgharpour4, Clive Evans5, Susan Martino-Catt1, Duza J. Baba1, Suzanne Stroup1, Shinjiro Hamano1, Gretchen Ehrenkaufer4, Mami Okada5, Upinder Singh4, Tomoyoshi Nozaki2, Barbara J. Mann1, William A. Petri1
1University of Virginia HSC, Charlottesville, VA, United States, 2National Center for Disease Control of Georgia, Tbilisi, Georgia, 3Cyberinfrastructure Group, Virginia Bioinformatics Institute, Blacksburg, VA, United States, 4Stanford University School of Medicine, Stanford, CA, United States, 5Gunma University Graduate School of Medicine, Gunma, Japan

11:30 a.m.  385

A MULTIPLEX REAL-TIME PCR ASSAY FOR SIMULTANEOUS DETECTION OF FREE-LIVING AMEBAS IN CLINICAL SPECIMENS
Yvonne L. Qvarnstrom1, Govinda S. Visvesvara2, Rama Srinam2, Alexandre J. da Silva3
1Centers for Disease Control and Prevention-Atlanta Research and Education Foundation, Atlanta, GA, United States, 2Centers for Disease Control and Prevention-Division of Parasitic Diseases, Atlanta, GA, United States

(ACMCIP Abstract)

11:45 a.m.  386

PATHOGENIC PROTOZOA IN SAF-PRESERVED STOOL: RESULT REPRODUCIBILITY AND SPECIMEN DETERIORATION
Michael D. Libman1, Theresa W. Gyorkos2, Evelyne Kokoskin2, J. Dick MacLean2
1McGill University Tropical Disease Centre, Montreal, QC, Canada, 2McGill University, Montreal, QC, Canada

Scientific Session 59

Intestinal and Tissue Helminths I: Cysticercosis

International 7

Tuesday, November 14 10:15 a.m. – Noon

CHAIR
Mark Eberhard
Centers for Disease Control and Prevention, Atlanta, GA, United States

A. Clinton White
Baylor College of Medicine, Houston, TX, United States

10:15 a.m.  387

WHERE ARE THE TAPEWORMS?
Ana Flisser
Universidad Nacional Autónoma de Mexico, Faculty of Medicine, Mexico City, Mexico

10:30 a.m.  388

TAENIA SOLIUM ONCOSPHERE IN VITRO ADHERENCE
Manuela R. Verastegui1, Yanina Arana1, Robert H. Gilman2, Janette Velasquez1, Marilu Farfan1, Hector H. Garcia1, Armando E. Gonzalez3, Cesar Gavidia3
1Universidad Peruana Cayetano Heredia, Lima, Peru, 2The Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, United States, 3Universidad Nacional Mayor de San Marcos, Facultad de Medicina Veterinaria, Lima, Peru

(ACMCIP Abstract)
10:45 a.m.  389

COMPARISON OF ANTI-PARASITIC REGIMENS FOR PORCINE CYSTICERCOSIS

Javier A. Bustos1, Armando E. Gonzalez2, Juan A. Jimenez3, Mary L. Rodriguez1, Lelia Sanchez-Hidalgo2, Rafael Manzanedo2, Robert H. Gilman4, Hector H. Garcia1, For the Cysticercosis Working Group in Peru5

1Department of Microbiology, Universidad Peruana Cayetano Heredia, Lima, Peru, 2School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 3Cysticercosis Unit, Instituto Especializado de Ciencias Neurologicas, Lima, Peru, 4Department of International Health, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD, United States, 5Universidad Peruana Cayetano Heredia, Lima, Peru

11 a.m.  390

NEUROCYSTICERCOSIS — FAST INFLAMMATORY RESPONSE IN PIG BRAINS FOLLOWING ONSET OF TREATMENT WITH PRAZIQUANTEL OR ALBENDAZOLE

Juan A. Jimenez1, Gloria P. Gomez2, Rafael Manzanedo3, Lelia Sanchez-Hidalgo2, Silvia Rodriguez1, Armando E. Gonzales2, Hector H. Garcia1, For the Cysticercosis Working Group in Peru4

1Cysticercosis Unit, Instituto Especializado en Ciencias Neurologicas, Lima, Peru, 2School of Medicine, Universidad Peruana Cayetano Heredia, Lima, Peru, 3School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 4Universidad Peruana Cayetano Heredia, Lima, Peru

(ACMCIP Abstract)

11:15 a.m.  391

PIG MODEL TO IDENTIFY AND QUANTIFY CALCIFICATION PROCESS OF CYSTICERCOSIS LESIONS

Javier A. Bustos1, Armando E. Gonzales2, Juan A. Jimenez3, Mary L. Rodriguez1, Lelia Sanchez-Hidalgo2, Rafael Manzanedo2, Jaime Cok4, Robert H. Gilman5, Hector H. Garcia1, For the Cysticercosis Working Group in Peru6

1Department of Microbiology, Universidad Peruana Cayetano Heredia, Lima, Peru, 2School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 3Cysticercosis Unit, Instituto Especializado en Ciencias Neurologicas, Lima, Peru, 4Department of Pathology, Hospital Nacional Cayetano Heredia, Lima, Peru, 5International Health Department, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, 6Universidad Peruana Cayetano Heredia, Lima, Peru

(ACMCIP Abstract)

11:30 a.m.  392

NEUROCYSTICERCOSIS IN T. SULIUM TAPEWORM CARRIERS

Silvia Rodriguez2, Luz M. Moyano6, Juan A. Jimenez1, Guillermo Gonzalez2, Juan C. Chero1, Victor C. Tsang6, Armando E. Gonzales2, Robert H. Gilman5, Hector H. Garcia1, For the Cysticercosis Working Group in Peru6

1Cysticercosis Unit, Instituto Especializado en Ciencias Neurologicas, Lima, Peru, 2Department of Microbiology, School of Science and Cysticercosis Elimination Project - Tumbes, Peru, 3Department of Microbiology, School of Science and Cysticercosis Elimination Project - Tumbes, Peru, 4Parasitic Diseases Branch Division of Parasitic Diseases, National Center for Infectious Diseases, Atlanta, GA, United States, 5School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 6International Health Department, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, 6Universidad Peruana Cayetano Heredia, Lima, Peru

11:45 a.m.  393

BRAIN CALCIFICATIONS IN 26% OF GENERAL POPULATION IN A CYSTICERCOSIS-ENDEMIC VILLAGE IN TUMBES, PERU

Guillermo Gonzalvez1, Juan C. Chero1, Luz M. Moyano1, Javier A. Bustos2, Silvia Rodriguez3, Javier Pretell3, Victor C. Tsang6, Robert H. Gilman5, Hector H. Garcia1, For the Cysticercosis Working Group in Peru6

1Department of Microbiology, School of Science and Cysticercosis Elimination Project - Tumbes, Peru, 2Universidad Peruana Cayetano Heredia, Lima, Peru, 3Department of Microbiology, Universidad Peruana Cayetano Heredia, Lima, Peru, 4Cysticercosis Unit, Instituto Especializado en Ciencias Neurologicas, Lima, Peru, 5Parasitic Diseases Branch Division of Parasitic Diseases, National Center for Infectious Diseases, Atlanta, GA, United States, 6International Health Department, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, 6Universidad Peruana Cayetano Heredia, Lima, Peru

Symposium 60

Evolution of Mosquito-Borne Viruses

Tuesday, November 14

10:15 a.m. – Noon

This symposium focuses on current studies of arbovirus evolution. The speakers will combine a theoretical perspective with observational and experimental studies to assess the evolutionary mechanisms for arbovirus persistence, emergence and extinction. The research to be presented will demonstrate how an evolutionary perspective leads to a more precise understanding of the ecological dynamics of arthropod-borne viruses.

CHAIR

Laura D. Kramer
New York State Department of Health, Wadsworth Center, Slingerlands, NY, United States

Gregory D. Ebel
New York State Department of Health, Wadsworth Center, Slingerlands, NY, United States
10:15 a.m.  
INTRODUCTION  
Laura D. Kramer  
New York State Department of Health, Wadsworth Center, Slingerlands, NY, United States  

10:20 a.m.  
HOST RANGE CHANGES AND ARBOVIRAL EMERGENCE  
Scott C. Weaver  
University of Texas Medical Branch, Galveston, TX, United States  

10:45 a.m.  
WEST NILE VIRUS QUASISPECIES DYNAMICS  
Gregory D. Ebel  
New York State Department of Health, Wadsworth Center, Slingerlands, NY, United States  

11:10 a.m.  
IMPACT OF PASSAGE ON FLAVIVIRUS FITNESS  
Laura D. Kramer  
New York State Department of Health, Wadsworth Center, Slingerlands, NY, United States  

11:35 a.m.  
MOLECULAR EVOLUTION AND PHYLODYNAMICS OF DENGUE VIRUS  
Edward C. Holmes  
Center for Infectious Disease Dynamics, University Park, PA, United States  

Symposium 61  
New Initiatives in Malaria: Insights from the Mosquito Side of the Equation  
Supported with funding from the Burroughs Wellcome Fund  
Marquis 2  
Tuesday, November 14 10:15 a.m. – Noon  
This session contains highlights from the Burroughs Wellcome Fund New Initiatives in Malaria program.

Exhibit Hall Open/Light Lunch  
International Level  
Tuesday, November 14 Noon – 1:30 p.m.  

Poster Session B (#394–645)  
Skyline Level—#394–508  
International Level—#509–645  
Tuesday, November 14 Noon – 1:30 p.m.  

Arthropods/Entomology – Other  

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DATHOXIN-1, A DUAL FUNCTIONAL AND BLOOD FEEDING REGULATED SALIVARY GLAND PROTEIN OF THE TICK, DERMACENTOR ANDERSONI  
Jianxin Sun1, F. Alarcon-Chaidez2, J.B. Schenkman3 and S.K. Wikel1  
University of Connecticut Health Center, Farmington, CT, United States  

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NOVEL METHODS FOR ADULT AND IMMATURE SAND FLY CONTROL — PHASE I, LABORATORY TRIALS  
Victoria B. Solberg1, Carol P. Schnupp2, V. Michelle Chenault3  
1Walter Reed Army Institute of Research, Silver Spring, MN, United States, 2Uniformed Services University of the Health Sciences, Bethesda, MD, United States, 3Uniform Services of the Health Sciences, Bethesda, MD, United States  

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PRELIMINARY STUDIES ON THE FEEDING RELATIONSHIPS WITHIN MACROINVERTEBRATES IN WATER BODIES ASSOCIATED WITH MYCOBACTERIUM ULCERANS DISEASE TRANSMISSION  
Charles Quaye1, Dziedzom K. de Souza1, Lydia Mosi1, Joseph S. Amakye2, Michael D. Wilson1, Daniel A. Boakye1  
1Noguchi Memorial Institute for Medical Research, Accra, Ghana, 2Water Research Institute, Council for Scientific and Industrial Research, Accra, Ghana  

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ASSESSMENT OF TRIATOMA DIMIDIATA DISPERSAL IN THE YUCATAN PENINSULA OF MEXICO USING MORPHOMETRY AND MICROSATELLITE MARKERS  
Eric Dumonteil1, Frederic Tripet2, Maria Jesus Ramirez-Sierra1, Vincent Payet1, Gregory Lanzaro2, Frederic Menu4  
1Universidad Autonoma de Yucatan, Merida, Yucatan, Mexico, 2Keele University, Staffordshire, United Kingdom, 3University of California Davis, Davis, CA, United States, 4Universite de Lyon, Lyon, France
Bacteria – Diarrheal Diseases/Mucosal Immunity

ESTABLISHMENT OF BASELINE PYRETHROID SUSCEPTIBILITY LEVELS IN THE MAIN MALARIA VECTORS IN GHANA
Isaie Sibomana1, Samuel Kahindi1, Kodjo Sakyi1, Abba Wilmot2, Dziedzom de Souza1, Maxwell Appawu1, Michael David Wilson1, Daniel Boakye1
1Noguchi Memorial Institute for Medical Research (NMIMR), Accra, Ghana, 2National Malaria Control Programme, Accra, Ghana

INTERLEUKIN-1 RECEPTOR ANTAGONIST (IL1RA) POLYMORPHISMS AND DIARRHEA OUTCOMES IN BRAZILIAN SHANTYTOWN CHILDREN
Reinaldo B. Oria1, Meghan R. Thompson2, Relana Pinkerton3, Carlos M. Vieira3, Eunice B. Carvalho1, Terezinha J. Santos1, Aldo A. Lima1, Richard L. Guerrant4
1Federal University of Ceara, Fortaleza, Brazil, 2University of Virginia, Charlottesville, VA, United States, 3University of Virginia, Charlottesville, VA, United States

RECONTAMINATION OF HOUSEHOLD DRINKING WATER: A CONTROLLED EXPERIMENT IN NORTHERN COASTAL ECUADOR
Karen Levy1, Joseph N. Eisenberg2
1University of California Berkeley, Oakland, CA, United States, 2University of Michigan, Ann Arbor, MI, United States

Bacteria – Other

PRELIMINARY INVESTIGATIONS OF HOST-SEROVAR SPECIFICITY AND INFECTION PREVALENCE OF PATHOGENIC LEPTOSPIRES IN HAWAIIAN RODENTS
Mayee Wong1, Durrell D. Kapan1, Shannon N. Bennett1, Wes Warashina2, Sandy Oshira2, Bruce A. Wilcox1
1Asia-Pacific Center for Infectious Disease Ecology, John A. Burns School of Medicine, University of Hawaii, Honolulu, HI, United States, 2Vector Control Branch, Hawaii Department of Health, Aiea, HI, United States

ROCKY MOUNTAIN SPOTTED FEVER IN THE UNITED STATES, 2003-2005
John W. Krebs1, Eric J. Mandel, David L. Swerdlow
1Centers for Disease Control and Prevention, Atlanta, GA, United States

Bacteria – Respiratory Infections

DEVELOPMENT OF DRUG RESISTANCE IN MYCOBACTERIUM TUBERCULOSIS
Indra L. Bergval, Richard M. Anthony, Anja R. Schuitema, Linda Oskam, Paul R. Klatser
KIT (Royal Tropical Institute) Biomedical Research, Amsterdam, The Netherlands

Bacteria – Systemic Infections

CHARACTERIZATION OF STREPTOCOCCUS PNEUMONIAE ISOLATES PREVALENT AT GA-RANKUWA HOSPITAL, SOUTH AFRICA
Edgar M. Musie
1Center for Global Health, University of Virginia, Charlottesville, VA, United States

EFFICACY OF CARBEPENEMS IN THE TREATMENT OF A HAMSTER MODEL OF ACUTE LEPTOSPIROSIS
Matthew E. Griffith, James E. Moon, Michael W. Ellis, Kyra P. Clark, Roseanne A. Ressner, Joshua S. Hawley, Robert G. Rivard, Suzanne McCall, Raven E. Reitstetter, Duane R. Hospenthal, Clinton K. Murray
Brooke Army Medical Center, Ft Sam Houston, TX, United States

COMPARISON OF DIFFERENT BLOOD CULTURE TECHNIQUES FOR THE ISOLATION OF BRUCELLA SPP. FROM PATIENTS IN PERU
Benjamin J. Espinosa1, Jesus Chacaltana2, Rosa Castillo1, Maximilian Mulder3, Pia Franco4, David L. Blazes5, Robert Gilman3, Henk Smits6, Eric R. Hall1
1Naval Medical Research Center Detachment, Lima, Peru, 2Daniel A Carrion Hospital, Lima, Peru, 3AB Prisma, Lima, Peru, 4Kit Biomedical Research, Royal Tropical Institute, A, The Netherlands

ANTIMICROBIAL PROPERTIES OF SELECTED HERBAL PREPARATIONS AGAINST STANDARD AND CLINICAL ISOLATES
Felix Mills-Robertson1, Gloria Adjapong1, Olga Quasie1, Christian T. Osae1, Winifred O. Kumi2
1Centre for Plant Medicine Research, Mampong-Akwapim, Ghana, 2Noguchi Memorial Institute for Medical Research, Legon, Accra, Ghana

STUDY THE MAGNITUDE OF SEPTIC ARTHRITIS AMONG NEONATES ADMITTED TO NICU
Safaa A. El Meneza
1Al Azhar University, Cairo, Egypt

Cestodes – Cysticercosis

DEVELOPMENT A SUPERPARAMAGNETIC IMMUNOCHROMATOGRAPHIC TEST FOR CYSTICERCOSIS
Sukwan Handali, Yeuk-Mui Lee, Min Levine, Kathy Hancock, Armando E. Gonzalez, Hector H. Garcia, Victor C. Tsang
1Atlanta Research and Education Foundation and Centers for Disease Control and Prevention, Chamblee, GA, United States, 2Centers for Disease Control and Prevention, Chamblee, GA, United States, 3Universidad Nacional Mayor de San Marcos, Lima, Peru, 4Universidad Peruana Cayetano Heredia, Lima, Peru

(ACMCIP Abstract)
STUDY OF PIG CYSTICERCOSIS IN AN INDUSTRIALIZED FARM USING ELECTROIMMUNOTRANSFER BLOT (EITB)
Rafael Manzanedo¹, Lelia Sanchez-Hidalgo², Cesar Gavidia¹, Armando Gonzalez³, Maria Silva¹, Silvia Rodriguez¹, Hugo Garcia⁴, Robert Gilman⁵, Victor Tsang⁶
¹Universidad Nacional Mayor de San Marcos, Facultad de Medicina Veterinaria, Lima, Peru, ²Universidad Nacional Mayor de San Marcos, Facultad de Medicina Veterinaria, Surco, Peru, ³Instituto de Ciencias Neurologicas Santo Tomio de Mogrovejo, Lima, Peru, ⁴Universidad Peruana Cayetano Heredia, Lima, Peru, ⁵Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, United States, ⁶Centers for Disease Control and Prevention, Atlanta, GA, United States

DIFFERENTIATING TAENIA SP EGGS — DOES ZIEHL NEELSEN STAINING HELP?
Juan A. Jimenez¹, Silvia Rodriguez¹, Luz M. Moyano², Hector H. Garcia³, For the Cysticercosis Working Group in Peru ³
¹Cysticercosis Unit, Instituto Especializado en Ciencias Neurologicas, Lima, Peru, ²Department of Microbiology, School of Science and Cysticercosis Elimination Project – Tumbes, Peru, Universidad Peruana Cayetano Heredia, Lima, Peru, ³Universidad Peruana Cayetano Heredia, Lima, Peru

RESIDUAL BRAIN CALCIFICATIONS IN NEUROCYSTICERCOSIS
Javier A. Bustos¹, Ruben Dorregaray², Javier Pretell³, Lizardo Mija³, Edinson Montoya⁴, Robert H. Gilman⁵, Hector H. Garcia³, For the Cysticercosis Working Group in Peru ³
¹Department of Microbiology, Universidad Peruana Cayetano Heredia, Lima, Peru, ²Instituto Especializado de Ciencias Neurologicas, Lima, Peru, ³Cysticercosis Unit, Instituto Especializado en Ciencias Neurologicas, Lima, Peru, ⁴International Health Department, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, ⁵Universidad Peruana Cayetano Heredia, Lima, Peru

DEVELOPMENT OF AN AUTOMATED COPROANTIGEN ASSAY USING THE TRITURUS ANALYZER
Isabel T. McAuliffe¹, James C. Allan², Silvia R. Buezo³, Hector H. Garcia³, Armando E. Gonzalez², Sukwan Handali¹, Sowmya Pattabhi⁴, Victor Tsang⁵
¹Centers for Disease Control and Prevention/Atlanta Research and Educational Foundation, Chamblee, GA, United States, ²Cestode Zoonoses Research Group, University of Salford, United Kingdom, ³Instituto de Ciencias Neurologicas, Lima, Peru, ⁴Universidad Peruana Cayetano Heredia, Lima, Peru, ⁵Universidade Nacional Mayor de San Marcos, Lima, Peru

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ASSESSMENT OF THREE NEW PARASITE LACTATE DEHYDROGENASE (PAN-PLDH) TESTS FOR DIAGNOSIS OF UNCOMPPLICATED MALARIA

Carole Fogg1, Carolyne Nabasumba1, Rogers Twesigye1, Vincent Batwala2, Patrice Piola1, James Kiguli1, Frederick Mutebi1, Christa Hook3, Martine Guiller4, Anthony Moody4, Jean-Paul Guthmann1

1Epicentre, Paris, France, 2Mbarara University of Science and Technology, Mbarara, Uganda, 3Médecins sans Frontiéres-Malaria Working Group, London, United Kingdom, 4Médecins sans Frontièrs-Access to Essential Medicines Campaign, Geneva, Switzerland

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SURVEILLANCE OF CHIKUNGUNYA VIRUS INFECTIONS IN JAKARTA

Herman Kosasih1, Zen Hafi1, Agus Suwandono2, Suhyayono Wuruyadi2, Masni Sembring2, Andi Yusianto3, Patrick J. Blair3

1U.S. Naval Medical Research Unit #2 (NAMRU-2), Jakarta, Indonesia, 2National Institute of Health Research and Development (National Institutes of HealthRD), Ministry of Health, Republic of Indonesia, Jakarta, Indonesia

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EVALUATION OF MULTI-DIP-S-TICKS SDLST IN AN ENDEMIC POPULATION ON THE THAI-MYANMAR BORDER

Ruth D. Ellis1, Mark M. Fukuda2, Ananda Nisalak2, Kriangkrai Lerduhsne3, Clinton K. Murray3, Sucheeera Insuan4, Chaiyawat Mahathat4, Philip McDaniel4, Nilawon Buathong5, Nichapat Uthaimongkol6, Sabaithip Sriwichai6, Somchit Tulyanon7, Anintita Laboonchai8, Somporn Krasaesub2, R. Scott Miller2

1Armed Forces Research Institute of Medical Sciences (AFRIMS), Rockville, MD, United States, 2Armed Forces Research Institute of Medical Sciences (AFRIMS), Bangkok, Thailand, 3Brooke Army Medical Center, Fort Sam Houston, TX, United States, 4Kanchanaburi River Christian Hospital, Sangkhlaburi, Thailand

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RANDOMISED CONTROLLED TRIAL OF INTERMITTENT PREVENTIVE TREATMENT IN SCHOOLCHILDREN: IMPACT ON MALARIA, ANAEMIA AND SCHOOL PERFORMANCE

Sian E. Clarke1, Simon Brooker1, Matthew C. Jukes2, Kiambo Njagi3, Lincoln Khasakhala4, Julius Otido5, Chris Crudder5, Bonnie McGlone5, Pascal Magnusson6, Benson Estambale7

1London School of Hygiene & Tropical Medicine, London, United Kingdom, 2Imperial College, London, United Kingdom, 3Division of Malaria Control, Ministry of Health, Nairobi, Kenya, 4African Mental Health Foundation, Nairobi, Kenya, 5University of Nairobi Institute for Tropical and Infectious Diseases, Nairobi, Kenya, 6DBL - Institute for Health Research and Development, Charlottenlund, Denmark

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CLINICAL AND LABORATORY FEATURES OF CONGENITAL MALARIA IN NIGERIA

Adeola Orogade1, Henrietta Okafor2, Catherine Falade3, Olugbenga Mokuolu4, Aisha Mamman5, Tagbo Oguonu6, Hannah Adegbola7, Samuel Ernest8, Michael Callahan9, Davidson Hamer9

1ABU Teaching Hospital, Kaduna, Nigeria, Nigeria, 2University of Nigeria Teaching Hospital, Enugu, Nigeria, 3University College Hospital, Ibadan, Nigeria, 4University of Ilorin Teaching Hospital, Ilorin, Nigeria, 5ABU Teaching Hospital, Kaduna, Nigeria, 6University of Nigeria Teaching Hospital, Enugu, Nigeria, 7Division of Infectious Diseases Massachusetts General Hospital, Boston, MA, United States, 8Center for International Health and Development, Boston University, Boston, MA, United States

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NOTIFICATION PATTERNS OF ACUTE RESPIRATORY INFECTIONS BASED ON LOCAL CLIMATE IN PERU

Cesar V. Munayco1, Luis Suarez-Ogino1, Carmen C. Mundaca2, Manuel Loayza3, Roger V. Araujo-Castillo3, David L. Blazes2

1General Direction of Epidemiology, Lima, Peru, 2Naval Medical Research Center Detachment, Lima, Peru

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HIGH MALARIA MORTALITY DURING MALARIA EPIDEMICS IN KENYA, BURUNDI AND ETHIOPIA

Jean-Paul Guthmann1, Maryline Bonnet1, Laurence Ahoua1, François Dantoine1, Sophie Baquet2, Suna Balkan3, Michel van Herp2, Abiy Tamrat4, Dominique Legros1, Vincent Brown1, Francesco Checchi1

1Epicentre, Paris, France, 2Médecins sans Frontières, Brussels, Belgium, 3Médecins sans Frontières, Paris, France, 4Médecins sans Frontières, Geneva, Switzerland

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THE IMPACT OF ANAEMIA, FALCIPARUM MALARIA AND MALNUTRITION ON THE PSYCHOMOTOR DEVELOPMENT OF YOUNG CHILDREN EXPOSED TO MALARIA TRANSMISSION

Victoria Fumadó
Sant Joan de Deu Hospital, Barcelona, Spain

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DEVELOPMENT OF HOME BASED MANAGEMENT OF ADENOLYMPHANGIADENITIS AND LYMPHOEDEMA IN A FILARIA-ENDEMIC AREA OF NORTH EASTERN NIGERIA

Jacqueline A. Badaki1, Oladele B. Akogun2

1Adekunle Ajasin University, Yola, Nigeria, 2Federal University of Technology, Yola, Nigeria
Detailed Program

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PREVIOUS EXPOSURE TO ANTIBIOTICS INCLUDING ANTITUBERCULOTIC AND ANTIFUNGAL AGENTS WITH AND WITHOUT PROPHYLACTIC TMP/SMX AND RESISTANCE IN BACTERIA FROM HIV POSITIVE CHILDREN: ABSENCE OF RESISTANCE SELECTION PRESSURE OF TMP/SMX
Vladimir Krcmery1, Erich Kalavsky1, Andrea Shahum1, Andrea Augustinova2, Olga Babelova1, Katarina Holeckova1, Pavol Beno1, Silvia Seckova2, Zuzana Havlikova2, Anna Liskova1, Juraj Benca1
1St. Elizabeth University of Health and Social Sciences, Bratislava, Slovakia, 2University of Trnava, Faculty of Health, Trnava, Slovakia

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EFFECTIVENESS OF ARTEMETHER-LUMEFANTRINE IN UNSUPERVISED HOME TREATMENT OF UNCOMPLICATED MALARIA
Ikeoluwapo O. Ajayi, Catherine O. Falade, Shola Gbotosho, Bidemi Yusuf, Christian Happi, Benjamin Olley
College of Medicine, Ibadan, Nigeria

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THE BURDEN OF MALARIA AND ITS MANAGEMENT IN ONCHOCERCIASIS ENDEMIC RURAL COMMUNITIES OF IMO STATE, NIGERIA
Preet i. Onyeka1, Nwabueze E. Nwabueze2, Udujol oluga Udujol1
1Imo State University, Owerri, Nigeria, 2Federal Medical Center Owerri, Owerri, Nigeria

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Enrico Brunetti1, Paolo Orsolini1, Antonella Grisola1, Giuliana Trola1, Carlo Ficile1
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DOSE DEPENDENT EFFICACY OF SP FOR INTERVALTIVE THERAPY OF MALARIA IN PREGNANCY AMONG HIV INFECTED ZAMBIAN WOMEN
Christopher J. Gill1, William B. MacLeod1, Victor Mwanakasale2, Roma Chilenga2, Victor Chalwe2, Lawrence Mwananyanda2, Donald M. Thea1, David H. Hamer1
1Boston University School of Public Health, Boston, MA, United States, 2Tropical Diseases Research Centre, Ndola, Zambia

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USEFULNESS OF TELEDIAGNOSIS IN CONFIRMATORY LABORATORY DIAGNOSIS OF CASES OF PARASITIC INFECTIONS
Melanie A. Moser1, Stephanie P. Johnston2, Henry Bishop2, Earl Long3, Mark Eberhard3, Alexandre J. da Silva4
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EFFECTIVENESS VERSUS COST OF FIVE NATIONAL SCALE ITN DISTRIBUTION SYSTEMS IN SUB-SAHARAN AFRICA
Joshua O. Yukihi1, Jo Mulligan2, Kara Hanson2, Nick Brown1, Des Chavasse3, Warren Stevens2, John Justino2, Jeptha Mtema4, Dirk Mueller2, Mehari Zerom5, Tewolde Ghebremeskel3, Mbaye Khouma6, David McGuire6, Fabrizio Tediosi7, Don deSavigny1, Christian Lengeler1
1Swiss Tropical Institute, Basel, Switzerland, 2London School of Hygiene & Tropical Medicine, London, United Kingdom, 3Population Services International, Nairobi, Kenya, 4Population Services International, Blantyre, Malawi, 5National Malaria Control Program, Asmara, Eritrea, 6Academy for Educational Development, Washington, DC, United States, 7Swiss Center for International Health, Basel, Switzerland

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REVERSIBLE LYMPHATIC DYSFUNCTION CAUSED BY GNATHOSTOMA SPINIGERUM INFECITON
Kawser R. Talaat1, Robert VanHook2, Thomas Nutman1
1National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States, 2Gessler Clinic PA, Winter Haven, FL, United States

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THERAPEUTIC RESPONSE TO THIABENDAZOL, IVERMECTIN AND ALBENDAZOLE IN IMMUNOCOMPROMISE AND IMMUNECOMPETENT PATIENTS INFECTED WITH STRONGYLOIDES STERCORALIS
Leonor A. Pocaterra, Rosaura Peñaranda, Gabriela Certad, Giuseppe Ferrara, Jose Alfredo Noda, Valery Cohen, Carlos Angulo, Elsy Rojas, Aurora Hernan, Radana Bonnemay, Alejandro Arenas-Pinto, Luz Nuñez
Universidad Central de Venezuela, Caracas, Venezuela

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COMMUNITY USE AND IMPACT OF A SUPPLEMENTAL WEANING FOOD DURING A DIARRHEA AND MALNUTRITION OUTBREAK — BOTSWANA
Lydia Lu, Ondrej Mach, Tracy Creek, Laurel Zaks, Wences Arvelo, Andrea Kim, Thomas Finkbeiner, Margaretta Davis, Anna Bowen
Centers for Disease Control and Prevention, Atlanta, GA, United States

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CLINICAL DIFFERENCES BETWEEN IMMUNECOMPETENT AND IMMUNECOMPROMISE PATIENTS INFECTED WITH STRONGYLOIDES STERCORALIS
Luz Nuñez, Leonor A. Pocaterra, Rosaura Peñaranda, Gabriela Certad, Radana Bonnemay, Alejandro Arenas-Pinto, Giuseppe Ferrara, Jose Alfredo Noda, Carlos Goldstein
Universidad Central de Venezuela, Caracas, Venezuela

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THE SPECIFIC GENOTYPE OF INDONESIA CHIKUNGUNYA VIRUSES ISOLATED FROM 1983-2001

Erlin Listiyaniingsih1, James L. McArdle2, Ungke Antonjaya1, Chairin N. Ma’roef3, Ratna I. Tan1, Sulhranyo Wuryadi1, Syahrial Harun3, Kevin R. Porter2, Patrick J. Blair1

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EPIDEMICS OF AN “ENDEMIC” MYCOSIS: A SUMMARY OF FOCAL OUTBREAKS OF COCCIDIOIDOMYCOsis 1940-2004

Anne M. Anglim

Keck School of Medicine-University of Southern California, Los Angeles, CA, United States

RECURRENT ASEPTIC MENINGITIS DUE TO CYSTICERCOSIS

Deborah Asnis, Taynet Fables, Anil Kapoor, David Di John

Flushing Hospital Medical Center, Flushing, NY, United States

LEISHMANIASIS AND HIV CO-INFECTION IN NORTHCENTRAL VENEZUELA

Olinda Delgado1, Silvia Silva1, Virginia Coraspe1, Maria A. Ribas1, Alfonso J. Rodriguez-Morales2, Carlos Franco-Paredes3

1Div. Immunoparasitology, Tropical Medicine Institute (IMT), Universidad Central de Venezuela, Caracas, Venezuela, 2Universidad de Los Andes, Caracas, Venezuela, 3Div. Infectious Diseases, Emory University, Atlanta, GA, United States

THE WIDAL TUBE DILUTION TEST EVALUATION AMONG TYPHOID FEVER PATIENTS IN JAKARTA, INDONESIA

Narain H. Punjabi1, Magdarrina D. Agtini2, Cyrus H. Simanjuntak2, Decy Subekti1, A. Page2, Trijani2, L. von Seidenst2, R. L. Ochial3, Ferry Wanggasaputra2, Sri P. Pulungsihi2, Shannon D. Putnam1, J. D. Clemens3

1U.S. Naval Medical Research Unit No.2, Jakarta, Indonesia, 2National Institute of Health Research and Development, Jakarta, Indonesia, 3International Vaccine Institute, Seoul, Democratic People’s Republic of Korea, 4Infectious Diseases Hospital Prof. Dr. Sulianti Saroso, Jakarta, Indonesia

CUTANEOUS LEISHMANIASIS IMPORTED FROM COLOMBIA INTO NORTHCENTRAL VENEZUELA: A REVIEW OF 29 CASES

Olinda Delgado1, Silvia Silva1, Virginia Coraspe1, Maria A. Ribas1, Alfonso J. Rodriguez-Morales2, Carlos Franco-Paredes3

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HEPATITIS E INFECTION IN THAI TROOPS DEPLOYED WITH UNITED NATIONS PEACEKEEPING FORCES

Khin S. Myint1, Pocharmanggliyan, Mammen P. Mammun1, Wutikorn Rodkwamtook2, Narongrid Sirisopana3, Robert V. Gibbons1

1US Army Medical Component, Armed Forces Research Institute of Medical Sciences (USAMC-AFRIMS), Bangkok, Thailand, 2Royal Thai Army, Armed Forces Research Institute of Medical Sciences (AFRIMS), Bangkok, Thailand

STUDIES ON SOME NUTRITIONAL FACTORS IN THE SEVERITY OF VISCERAL LEISHMANIASIS

Chandra Shekhali, Prabhat Kumar Sinha, Krishna Pandey, Pradeep Das, Rajendra Memorial Research Institute of Medical Sciences, Patna, India

CLINICOPATHOLOGICAL CHANGES IN DERMAL LESIONS OF POST KALA AZAR DERMAL LEISHMANIASIS (PKDL) CASES IN BIHAR, INDIA

Neena Verma1, Vidya Nand Das2, Sanjiva Bimal2, Krishna Pandey2, Prabhat Kunwar Sinha3, Sujit Kumar Bhattacharya4, Pradeep Das3

1Rajendra Memorial Research Institute of Medical Sciences(ICMR), Patna, India, 2National Institute of Cholera and Enteric Diseases, Kolkata, India

THERAPEUTIC EFFICACY OF AMODIAQUINE, SULFADOXINE/PYRIMETHAMINE, AND COARTÉM® IN CHILDREN WITH UNCOMPLICATED FALCIparum MALARIA AT BUTIMBA SENTINEL SITE IN MWANZA, TANZANIA

Martha M. Lemnge1, Michael Alifrangis2, Deus Ishengoma1, Ezekiel K. Malecela1, Yared Msonjela3, Rashid Madebe1, I. C. Bygbjerg2, Johannes Kataraihaya3

1National Institute for Medical Research, Tanga Medical Research Centre, Tanga, United Republic of Tanzania, 2Centre for Medical Parasitology at the Institute of Medical Microbiology and Immunology and Institute of Public Health, University of Copenhagen, Copenhagen, Denmark, 3Butimba Health Centre, Butimba, Mwanza, United Republic of Tanzania, 4Bugando Medical Centre and Bugando University College of Health Sciences, Mwanza, United Republic of Tanzania

THE EFFECTS OF STUDY ENROLLMENT, BEDNET USE, AND CURATIVE THERAPY ON MALARIA INFECTION, ANEMIA, AND GROWTH IN YOUNG GHANAIAN CHILDREN

David J. Fryauff1, Francis Anto2, Frank A. Atuguba2, Joseph Fianan3, Lucas Amenga-Etego2, Abraham Hodgson2, Kwadwo Koram2, Stephen L. Hoffman2

1Naval Medical Research Center, Silver Spring, MD, United States, 2Navrongo Health Research Centre, Navrongo, Ghana, 3Naval Medical Research Unit No. 3, Cairo, Egypt, 4Noguchi Memorial Institute of Medical Research, Accra, Ghana, 5Sanaria Inc., Rockville, MD, United States
Detailed Program

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MICROSPHERE ASSAY FOR RELIABLE IDENTIFICATION OF CRYPTOSPORIDIUM HOMINIS AND CRYPTOSPORIDIUM PARVUM IN STOOLS
Kakali Bandyopadhyay1, Kathryn L. Kellar2, Iaci Moura3, Maria C. Carollo1, Thaddeus Graczyk3, Alexandre J. da Silva4
1Centers for Disease Control and Prevention/Atlanta Research and Education Foundation, Atlanta, GA, United States, 2Centers for Disease Control and Prevention/Division of Scientific Resources, Atlanta Research and Education Foundation, Atlanta, GA, United States, 3Centers for Disease Control and Prevention/Division of Scientific Resources, Atlanta, GA, United States, 4Centers for Disease Control and Prevention/Division of Parasitic Diseases, Atlanta, GA, United States

IMPAIRED ABILITY TO DOWN MODULATE THE IMMUNE RESPONSE
Edgar M. Carvalho1, Olivia Bacellar1, Lucas P. Carvalho1, Kenneth J. Gollob3, Sara T. Passos1, Waldez E. Dutra2, Amélia R. de Jesus1
1Federal University of Bahia, Salvador, Brazil, 2Federal University of Minas Gerais, Belo Horizonte - MG, Brazil

CHARACTERIZATION OF ONE OUTBREAK OF TYPHOID FEVER IN APARTADÓ- ANTIOQUIA, COLOMBIA
Nora M. Cardona-Castro1, Miriam M. Sánchez-Jiménez1, Margarita Arboleda-Naranjo2, Luz Y. Usuga-Silva2
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Catherine Plichart, Lam Nguyen, Yves Sechan, Jérôme Marie, Jérôme Viallon, Manuani Manuel, Anne-Marie Legrand
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Faculdade de Ciências Farmacêuticas de Ribeirão Preto, Ribeirão Preto, Brazil

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Lisa M. DiFedele1, William Sorensen2, Mary Ann Brown3, Michael Cappello4, Deborah Bell5
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Gregory C. Davenport, Gordon A. Awandare, Christopher C. Keller, Douglas J. Perkins
University of Pittsburgh, Pittsburgh, PA, United States

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Meharry Medical College, Nashville, TN, United States

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Prabhat Kumar Sinha, Sanjiv Bimal Bimal, Krishna Pandey Pandey
Rajendra Memorial Research Institute of Medical Sciences, Patna, India

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1Universidade Estadual Paulista - UNESP, Ilha Solteira, Brazil; 2Universidade Estadual Paulista - UNESP, Jaboatão, Brazil

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Berry College, Mount Berry, GA, United States

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University of Georgia, Athens, GA, United States

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Alex G. Peniche1, Yaneth Osorio1, Peter C. Melby2, Bruno L. Travi1
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1Universidad Autonoma de Yucatan, Merida, Yucatan, Mexico, 2Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil
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Jennifer Cole-Tobian1, Pascal Michon2, Eddy Hawkins1, Ivo Mueller3, Christopher L. King1
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Glenna Banania, Kanakatte Raviprakash, Maria Belmonte, Arnel Belmonte, Thomas L. Richie, Martha Sedegah
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Cindy Korir1, Andrew Fedanov1, Stacey A. Lapp1, John W. Barnwell2, Mary R. Galinski1
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National Malaria Control Center, Lusaka, Zambia

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Mª Belén Jiménez-Díaz, Teresa Mulet, Sara Viera, Vanesa Gómez, Angela Alvarez, Helena Garuti, Mª Angeles Talavante, Domingo Gargallo-Viola, Iñigo Angulo-Barturen
GlaxoSmithKline I+D, S.L., Tres Cantos, Spain
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COUNTERFEIT ANTI MALARIA DRUGS: THE DRAMA OF DIHYDROARTEMISININ (DHA)

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COMPARISON OF PERFORMANCE CHARACTERISTICS OF THE BINAX NOW® MALARIA TEST USING VENOUS AND FINGERSTICK SAMPLES

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DEVELOPMENT OF AN ALDOLASE CAPTURE ELISA FOR USE IN QUALITY CONTROL OF MALARIA RAPID DIAGNOSTIC TESTS AND MEASURING PARASITE GROWTH IN-VITRO

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Malaria – Diagnosis

BRINGING HEMOZOIN CRYSTALS AND SURFACES INTO THE LIGHT

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THE ANTIMALARIAL DIAMIDINE DB75 TARGETS THE PLASMODIUM FALCIPARUM NUCLEUS

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DEVELOPMENT OF ANOPHELES DIRUS SPOROZOA-INDUCED MOUSE MALARIA MODEL

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REVERSED CHLOROQUINES: AN UPDATE ON MOLECULES DESIGNED TO SUBVERT CHLOROQUINE RESISTANCE IN P. FALCIPARUM

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INVESTIGATIONS ON EMBRYO FETAL DEVELOPMENT IN RATS AND RABBITS WITH RBX11160 AND ITS SAFETY AS COMPARED TO ARTESUNATE
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FIXED DOSE ACT: PHARMACOKINETIC STUDY OF ARTESUNATE-SULFAMETHOXOPYRAZINE-PYRIMETHAMINE (CO-ARINATE FDC) IN A BLACK POPULATION IN IVORY COAST
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IS ARTESUNATE OR ITS ACTIVE METABOLITE DHYDROARTEMISININ BEING EXCRETED IN THE MILK OF LACTATING MOTHERS?
FH Jansen, Annemie Jansen-Luts, Caroline Ameye, Louis Penal
ACT-ion AFRIQUE, Bruxelles, Belgium

ASSESSING THE SPREAD OF DIHYDROFOLATE REDUCTASE AND DIHYDROPTEROATE SYNTHASE MUTANT ALLELES IN PLASMODIUM VIVAX POPULATIONS
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COMPREHENSIVE AND SYSTEMATIC APPROACH TO MONITORING ANTIMALARIAL DRUG RESISTANCE IN THE PERUVIAN AMAZON
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CAMBODIAN’S RESPONSE TO HIGH RESISTANCE OF P.F TO ANTI-MALARIA DRUG
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GENOME-WIDE GENE EXPRESSION AND MECHANISM OF CHLOROQUINE RESISTANCE IN THE HUMAN MALARIA PARASITE PLASMODIUM FALCIPARUM
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EVALUATION OF RAPID DIAGNOSTIC TESTS FOR DIAGNOSIS OF MALARIA AND MONITORING THE EFFICACY OF ANTI-MALARIA THERAPY IN SUDAN
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PFMDR1 AND FALCIPARUM MALARIA RESISTANCE TO ARTEMISININ COMBINATION THERAPY IN CAMBODIA
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PREDICTORS OF MALARIA INCIDENCE IN A COHORT OF CHILDREN LIVING IN KAMPALA, UGANDA

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MALARIA IN TRAVELERS RETURNING TO OTTAWA FROM 1995-2004: A RETROSPECTIVE DESCRIPTIVE REVIEW

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DECREASING MALARIA MORTALITY IN VALLE DEL CAUCA, COLOMBIA

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EVALUATION OF HOST HUMORAL ANTIBODY MECHANISMS AGAINST *PLASMODIUM FALCIPARUM* RECOMBINANT CIRCUMSPOROZOITE ANTIGEN IN NIGERIAN CHILDREN

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DIVERSITY OF TLR SNPS IN MALARIA ENDEMIC AREAS

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THE ROLE OF BIR GENES IN RODENT IMMUNITY TO *PLASMODIUM BERGHEI NK65*

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CYTOKINE-ASSOCIATED NECROBIOSIS AMONG *PLASMODIUM FALCIPARUM* INFECTED CHILDREN UNDER THE AGE OF SIX

Virginia S. Baker¹, Godwin Imade², Norman Molta², Sunday Pam², Michael Obadofin³, Soloman Sagay², Daniel Ega², Daniel Iya², Bangmboye Afolabi², Murray Baker³, Karen Ford³, Robert Ford³, Kenneth Roux¹, Thomas Keller¹

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(ACMCIP Abstract)

IFN-γ IS NECESSARY FOR THE SUPPRESSION OF *PLASMODIUM YOELII 17XL* MALARIA IN MEROZOITE SURFACE PROTEIN-8 IMMUNIZED BALB/C MICE

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(ACMCIP Abstract)

REVISITING THE INTERACTION OF DENDRITIC CELLS WITH MALARIA BLOOD STAGE PARASITES

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(ACMCIP Abstract)
THE PLASMODIUM SES PROTEIN EXHIBITS A SPIRAL LABELING PATTERN ON THE SPOROZOITE SURFACE AND APPEARS TO PLAY A ROLE IN MOSQUITO SALIVARY GLAND INVASION
Alexis N. LaCrue, Michael Kariuki, Roy J. Lowery, Brenda T. Beerns
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Malaria — Vaccines

CONTROL OF COCCIDIOSIS IN POULTRY WITH LIVE VACCINES AS A MODEL FOR THE CONTROL OF MALARIA
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(ACMCIP Abstract)

VALIDATION OF ASSAYS RELEVANT TO IMMUNOGENICITY ASSESSMENT OF CSP-DNA VACCINE IN GHANA
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MOUSE POTENCY ASSAYS FOR MEASURING RECOMBINANT PROTEIN VACCINE STABILITY
Chloe L. Wood, Sally Robinson, Lisa Ware, V. Ann Stewart, Evelina Angov
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USE OF ADENOVECTOR ARRAYS FOR HIGH THROUGHPUT SCREENING OF NOVEL MALARIA ANTIGENS FROM GENOMIC SEQUENCE DATA
Martha Sedegah1, Kritika Kachapati2, Svetlana Konovalova2, Maria Belmonte1, Arnel Belmonte1, Glenna Banania1, Noelle B. Patterson1, Richter C. King3, Joao C. Aguiar1, Walter R. Weiss1, Thomas L. Richie1, Joseph T. Bruder2, Denise L. Doolan1
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(ACMCIP Abstract)

PILOT-SCALE PRODUCTION OF THE PLASMODIUM VIVAX TRANSMISSION BLOCKING VACCINE CANDIDATE PVS28
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Malaria — Vector Biology and Malaria Transmission

RE-INGESTION OF PLASMODIUM BERGHEI SPOROZOITES AFTER DELIVERY INTO THE HOST BY MOSQUITOES
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DIVERSE WOLBACHIA STRAINS CAN INFECT ANOPHELES GAMBASE CELLS
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(ACMCIP Abstract)

ENVIRONMENTAL MANAGEMENT FOR MOSQUITO CONTROL IN SOME SELECTED STATES IN THE UNITED STATES WITH RECOMMENDATIONS FOR NIGERIA
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Mosquitoes — Biochemistry and Molecular Biology

FIRST REPORT OF TRANSGENIC MOSQUITOES IN LATIN AMERICA
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A COMPARATIVE ANALYSIS OF ANOPHELES STEPHENSI AND A. GAMBASE THROUGH BAC SEQUENCING AND PYROSEQUENCING
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SEQUENCE ANALYSIS OF THE DOMAIN II SODIUM CHANNEL IN ANOPHELES FUNESTUS
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MOLECULAR BASIS OF THE ESSENTIAL AMINO ACID ABSORPTION IN VECTOR MOSQUITOES
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OBSERVATIONS OF ANOPHELES GAMBIAE WITH MIXED RDNA ARRAYS CONTAINING BOTH MOPTI AND SAVANNA TYPES
Elizabeth Wilkins1, Paul I. Howell1, Mark Q. Benedict1
1Malaria Research and Reference Reagent Resource Center at Centers for Disease Control and Prevention, Chamblee, GA, United States, 2Centers for Disease Control and Prevention, Chamblee, GA, United States

EVOLUTION OF HERVES TRANPOSABLE ELEMENT IN ANOPHELES GAMBIAE IN AFRICA
Ramanand Arun Subramanian1, Edward Peckham1, Tovi Lehmann1, Peter Atkinson3, David A. O’Brochta1
1University of Maryland Biotechnology Institute, Rockville, MD, United States, 2National Institute of Allergy and Infectious Diseases/National Institutes of Health, Twinbrook, MD, United States, 3University of California, Riverside, CA, United States

PATTERN OF GENOME rearrangements in MALARIA MOSQUITOES
Igor Sharakhov, Maria Sharakhova, Ai Xia
Virginia Tech, Blacksburg, VA, United States

MACROGEOGRAPHIC PATTERNS OF CHROMOSOMAL POLYMORPHISM IN THE MOLECULAR FORMS OF ANOPHELES GAMBIAE IN RELATION TO ENVIRONMENTAL HETEROGENEITIES IN CAMEROON
Marco Pombi1, Colince Kamden2, Jean-Pierre Agbor3, Vincenzo Petrarca1, Nora J. Besansky4, Carlo Costantini5, Didier Fontenille6, Alessandra della Torre1, Frederic Simard1
1Parasitology Unit, Department Public Health Sciences, University “La Sapienza”, Rome, Italy, 2Institut de Recherche pour le Développement, UR016 and Organisation de Coordination pour la lutte Contre les Endémies en Afrique Centrale, Yaoundé, Cameroon, 3Department of Genetics and Molecular Biology, University “La Sapienza”, Rome, Italy, 4Center for Tropical Disease Research and Training, Department of Biological Sciences, University of Notre Dame, Notre Dame, IN, United States, 5Institut de Recherche pour le Développement, UR016 and Institut de Recherche en Sciences de la Sante, Bobo Dioulasso, Burkina Faso, 6Institut de Recherche pour le Développement, Montpellier, France

PHYLOGEOGRAPHY OF THE SOUTHEAST ASIAN SUNDAICUS COMPLEX INFERRED BY DIFFERENTIAL EVOLUTION MARKERS
Isabelle Dusfour1, Johan R. Michaux2, Sylvie Manguin3
1Uniformed Services University of the Health Sciences, Bethesda, MD, United States, 2CBGP, Montferrier sur Lez, France, 3IRD-CBGP, Montferrier sur Lez, France

CHROMOSOMAL AND MOLECULAR GENETICS OF ANOPHELES GAMBIAE COMPLEX IN MALI
Guimogo Dolo1, Adama Dao1, Gregory Lanzaro2, Douglas Norris3
1Malaria Research and Training Center/Faculty of Medicine, Pharmacy and Odontostomatology, Bamako, Mali, 2University of California Davis, Davis, CA, United States, 3John Hopkins University, Baltimore, MD, United States

CROSS-GENOME COMPARISON OF CELL DEATH REGULATION IN MOSQUITOES
Lei Zhou, Yanping Zhang, Carl P. Santos, Nianwei Lin
University of Florida, Gainesville, FL, United States

CHARACTERIZING THE ROLE OF Aedes aegypti EARLY AND ABUNDANT TRYSINS IN DENGUE VIRUS INFECTIVITY OF THE MOSQUITO MIDGUT
Doug E. Brackney1, Brian D. Foy1, Tereza Magalhaes2, Ken E. Olson1
1Colorado State University, Fort Collins, CO, United States, 2Tulane University, New Orleans, LA, United States
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IMPROVED MEASUREMENT OF THE DISTRIBUTION FORMS OF ANOPHELES GAMBIE SENSU STRICTO FORMS AND THEIR RELATION TO THE ENVIRONMENT

Saul Lozano-Fuentes1, Sigrid K. Rian1, Yoosook Lee1, Mahmoudou B. Touré2, Gregory Lanzaro1, Anthony J. Cornell3, Seydou Doumbia2, Yongkang Xue1, Sekou F. Traoré4, Charles E. Taylor1

1University of California Los Angeles, Los Angeles, CA, United States, 2Malaria Research and Training Center, Bamako, Mali, 3University of California Davis, Davis, CA, United States

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QTL ANALYSIS OF THE GENETIC BASIS FOR AUTOGENY IN AEDES ALBOPICTUS

Akio Mori, David W. Severson
Department of Biological Sciences, University of Notre Dame, Notre Dame, IN, United States

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IDENTIFYING ANOPHELES GAMBIAE GENES THAT AFFECT PLASMODIUM OOOCYST DEVELOPMENT

Giovanna Jaramillo-Gutierrez1, Sanjeev Kumar1, Stephanie Brandt2, David Schneider2, Carolina Barillas-Mury1

1National Institute of Health, Rockville, MD, United States, 2Stanford University, Stanford, CA, United States

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CHARACTERIZATION RNAI-BASED EFFECTORS SEQUENCES THAT TARGET DENGUE VIRUSES IN AEDES AEGYPTI

Irma J. Sanchez-Vargas, Alexander Franz, Ken E. Olson
Colorado State University, Fort Collins, CO, United States

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FIELD-READY METHOD FOR DETECTING RUBIDIUM-MARKED ANOPHELENE MOSQUITOES

Elizabeth Wilkins1, Stephen C. Smith2, Mark Q. Benedict2
1Malaria Research and Reference Reagent Resource Center at Centers for Disease Control and Prevention, Chamblee, GA, United States, 2Centers for Disease Control and Prevention, Chamblee, GA, United States

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POPULATION STRUCTURE OF THE CULEX PIPIENS VECTORS OF WEST NILE VIRUS IN EASTERN NORTH AMERICA

F. E. Edillo1, A. Kiszewski1, M. Hutchinson2, L. Bugbee3, J. Arias4, J. Johnson5, D. Gaines5, J. Haipaus5, P. Cuffee5, R. Lampman5, R.J. Novak2, I. Foppa6, M. Holman7, R. Smith8, A. Moncayo9, M. Anderson11, M. Boisvert12, A. Spielman1

1Harvard School of Public Health, Boston, MA, United States, 2Pennsylvania Department of Environmental Protection, Harrisburg, PA, United States, 3Pennsylvania Department of Environmental Protection, Allentown, PA, United States, 4Fairfax County Department of Health, Fairfax, VA, United States, 5Virginia Department of Health, Richmond, VA, United States, 6Norfolk Department of Public Health, Norfolk, VA, United States, 7University of Illinois, Urbana-Champaign, IL, United States, 8University of South Carolina, Columbia, SC, United States, 9Maine Medical Center Research Institute, Portland, ME, United States, 10Tennessee Department of Health, Nashville, TN, United States, 11Memphis and Shelby Co. Department of Health, Memphis, TN, United States, 12Université du Quebec à Trois-Rivières, Trois-Rivières, QC, Canada

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DAILY TEMPERATURE PROFILES IN AND AROUND WESTERN KENYAN LARVAL HABITATS OF ANOPHELES GAMBIAE AS RELATED TO EGG MORTALITY

Juan Huang1, Edward D. Walker1, John Vulus2, James R. Miller1
1Michigan State University, East Lansing, MI, United States, 2Michigan State University, Kenya Medical Research Institute, Kenya

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AN EXTRACELLULAR METALLOPROTEASE EXPRESSION IN AEDES AEGYPTI: ROLE IN BLOOD DIGESTION, MIDGUT MATRIX REMODELING, EGG HATCHING, AND IMMUNITY

Tomasz Szatanek, Mohammed Shahabuddin
Infectious Disease Group, Department of Biology, Boston College, Chestnut Hill, MA, United States

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ENTOMOLOGIC AND SMALL MAMMAL STUDIES FOLLOWING A LA CROSSE ENCEPHALITIS OUTBREAK IN TRANSYLVANIA COUNTY, NC 2005

Brian D. Byrd1, Michael D. Stuart2, Parker B. Whitt3, Eugene E. Powell1, Dawn M. Wesson1, Bruce A. Harrison4
1Tulane University, New Orleans, LA, United States, 2University of North Carolina at Asheville, Asheville, NC, United States, 3University of North Carolina Department of Environmental and Natural Resources, Public Health Pest Management, Winston-Salem, NC, United States

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MALE SPERM CAPACITY AND MATING BIOLOGY OF THE DENGUE VECTOR, AE. AEGYPTI

Laura C. Harrington, Alongkot Ponlawat, Constantianus J. Koenraad
Cornell University, Ithaca, NY, United States
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GROWTH AND DEVELOPMENT OF ANOPHELES GAMBIAE IN MOVING WATER
James R. Miller¹, Juan Huang¹, Pierre Giroux¹, Nabie Bayoh¹, John Vulus¹, Edward Walker¹
¹Michigan State University, E. Lansing, MI, United States, ²Kenya Medical Research Institute, Kisumu, Kenya

HOST CHOICE IN MOSQUITORES COLLECTED IN A PERI-URBAN AREA OF WESTERN TENNESSEE, 2002-2003
Charles S. Apperson¹, Hassan K. Hassan², Emily Gordon¹, Deepak Aggarwal², Emily A. Unnasch², Michael Anderson¹, Thomas R. Unnasch²
¹North Carolina State University, Raleigh, NC, United States, ²University of Alabama at Birmingham, Birmingham, AL, United States, ³Centers for Disease Control and Prevention, Fort Collins, CO, United States, ⁴Memphis/Shelby County Vector Control, Memphis, TN, United States

CHARACTERIZATION OF ANOPHELES GAMBIAE HABITATS IN MALI AND CAMEROON
Mahamoudou B. Toure¹, Rian Sigrid¹, Levine Paul², Lozano Saul², Doumbia Seydou¹, Xue Yongkang¹, Traore Sekou F¹, Taylor Charles E²
¹Faculte de Medecine, Pharmacie et d’odontostomatologie, Bamako, Mali, ²University of California Los Angeles, Los Angeles, CA, United States

CO-OCCURRENCE OF “EAST” AND “WEST” AFRICAN KDR MUTATIONS IN ANOPHELES GAMBIAE S-FORM (DIPTERA: CULICIDAE) IN WEST AFRICA
Frederica Santolamazza¹, Maria Calzetta¹, Giancarlo Carrara¹, Ibrahima Dia², Marta Moreno², Filomeno Fortes², Adalgisa Caccone³, Vincenzo Petrarca³, Martin J. Donnelly³, Joao Pinto³, Alessandra della Torre¹
¹Parasitology Unit, Department Public Health Sciences, University “La Sapienza”, Rome, Italy, ²Institut Pasteur, Unit of Insects and Infectious Diseases, Dakar, Senegal, ³Centro Nacional de Medicina Tropical, Instituto de Salud Carlos III, Madrid, Spain, ⁴Ministry of Health, National Program of Malaria Control, Luanda, Angola, ⁵Department of Ecology and Evolutionary Biology, Yale University, New Haven, CT, United States, ⁶Department Genetics and Molecular Biology, University “La Sapienza”, Rome, Italy, ⁷Vector Research Group, Liverpool School of Tropical Medicine, Liverpool, United Kingdom, ⁸Centro de Malaria e outras Doenças Tropicais, Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa, Lisboa, Portugal

DEVELOPING A LOW COST REPELLENT TO REDUCE MALARIA IN THE AMERICAS — RESULTS OF TWO FIELD TRIALS IN GUATEMALA AND PERU
Sarah Moore¹, Samuel T. Darling², Moises Sihuinchá³, Gregor J. Devine⁴
¹London School of Hygiene and Tropical Medicine, London, United Kingdom, ²Puerta del Cielo Foundation, Vancouver, BC, Canada, ³Direccion de Salud (DISA) de Loreto, Iquitos, Peru, ⁴Rothamsted Research, Harpenden, United Kingdom

SPATIO-TEMPORAL VARIATIONS IN THE DISTRIBUTION OF ANOPHELINE LARVAL HABITATS IN WESTERN KENYA HIGHLANDS
Stephen Munga¹, Emmanuel Mushinzimana¹, Noboru Minakawa¹, Goufa Zhou², Joash Okeyo-Owuor², Andrew Githeko¹, Guiyun Yan³
¹Kenya Medical Research Institute, Kisumu, Kenya, ²Kenya Medical Research Institute-NUIRTM, Nairobi, Kenya, ³Nagasaki University, Institute of Tropical Medicine, Nagasaki, Japan, ⁴University of California, Irvine, California, CA, United States, ⁵Moi University, Eldoret, Kenya

HOST MORTALITY AS AN EPIDEMIOLOGIC MECHANISM OF THE NEW WORLD SUCCESS OF WEST NILE VIRUS
Ivo M. Foppa
Arnold School of Public Health, University of South Carolina, Columbia, SC, United States

WEST NILE VIRUS INFECTION IN MOSQUITORES IN THE MID-SOUTH USA, 2002-2005
Hassan K. Hassan¹, Eddie W. Cupp², Xin Yue³, William K. Oldland³, Bruce M. Lilley³, Thomas R. Unnasch¹
¹University of Alabama at Birmingham, Birmingham, AL, United States, ²Auburn University, Auburn, AL, United States, ³Tennessee Valley Authority, Muscle Shoals, AL, United States

PRELIMINARY MICROARRAY ANALYSIS FOR THE IDENTIFICATION OF DENGUE-REFRACTORINESS CANDIDATE GENES IN MOSQUITO VECTORS
Consuelo Gomez-Machorro, Brent Harker, Diane Lovin, Becky deBruyn, Jeanne Romero-Severson, David W. Severson
University of Notre Dame, South Bend, IN, United States

A GEOGRAPHICAL SAMPLING STRATEGY FOR FIELD SURVEYS IN AN URBAN AREA USING HIGH-RESOLUTION SATELLITE IMAGERY
Adriana Troyo¹, Douglas O. Fuller², Olger Calderon-Aruquenas³, John C. Beier⁴
¹Global Public Health Program, Department of Epidemiology and Public Health, University of Miami, Coral Gables, FL, United States, ²Department of Geography and Regional Studies, University of Miami, Miami, FL, United States, ³Centro de Investigacion en Enfermedades Tropicales, Departamento de Parasitologia, Facultad de Microbiologia, Universidad de Costa Rica, San Jose, Costa Rica, ⁴Global Public Health Program, Department of Epidemiology and Public Health, University of Miami, Miami, FL, United States
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SPATIAL ANALYSIS OF SPILL-OVER EFFECTS OF INSECTICIDE-TREATED MATERIALS IN A CLUSTER-RANDOMIZED TRIAL AGAINST Aedes Aegypti Mosquitoes in Trujillo, Venezuela

Neal Alexander1, Audrey Lenhart2, Elci Villegas3, Michael Levy4, Rana Moyeed5, Axel Kroeger6, P. J. McCall7
1London School of Hygiene and Tropical Medicine, London, United Kingdom, 2Liverpool School of Tropical Medicine, Liverpool, United Kingdom, 3Universidad de los Andes, Trujillo, Venezuela, 4Emory University, Atlanta, GA, United States, 5University of Plymouth, Plymouth, United Kingdom, 6World Health Organization/World Health Organization-TDR, Geneva, Switzerland

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THE IMPACT OF ENVIRONMENTAL CHARACTERISTICS AND ENGINEERED SYSTEMS ON ANOPHELINE LARVAL-PREVALENT WATER BODIES IN THE URBAN COMMUNITY OF MALINDI, KENYA

Daniel E. Impoinvil1, Robert Duncan1, Rinku Roy Chowdhury1, Joseph Keating2, Chris Hanson1, Gabriel Cardenas1, Charles M. Mbogo3, John I. Githure2, John C. Beier1
1University of Miami, Miami, FL, United States, 2Tulane University, New Orleans, LA, United States, 3Kenya Medical Research Institute (KEMRI), Kilifi, Kenya, 4International Centre of Insect Physiology and Ecology (ICIPE), Nairobi, Kenya

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ORIGIN OF BLOOD MEALS IN INDOOR RESTING MALARIA VECTORS IN A RICE IRRIGATION SCHEME IN EASTERN KENYA

Charles M. Mbogo1, Josephat I. Shililu2, Joseph G. Nzovu1, John I. Githure4, Robert J. Novak3
1Kenmi, Kilifi, Kenya, 2International Centre of Insect Physiology and Ecology (ICIPE), Nairobi, Kenya, 3Illinois Natural History Survey, Champaign, IL, United States

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BRANCHING PROCESS MODEL FOR THE EARLY STAGES OF A TRANSPOSON INVASION IN A DIPLOID POPULATION

John M. Marshall
University of California at Los Angeles, Los Angeles, CA, United States

Protozoa – Ameba/Giardia

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TREATMENT OF NEOSPORA CANINUM AND GIARDIA INTESTINALIS WITH NITAZOXANIDE AND OTHER THIAZOLIDES INTERFERES IN FUNCTIONAL ACTIVITY OF PROTEIN DISULFIDE ISOMERASE

Andrew Hemphill1, Marco Esposito, Joachim Mueller, Norbert Mueller
University of Berne, Berne, Switzerland

Protozoa – Opportunistic Protozoa

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AN IN-VITRO THREE DIMENSIONAL CULTURE MODEL OF ENTAMOeba Histolytica

Luis F. Barroso1, Carol A. Gilchrist, Richard L. Guerrant
University of Virginia, Charlottesville, VA, United States
**Detailed Program**

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MOLECULAR EPIDEMIOLOGY OF CRYPTOSPORIDIOSIS IN CHILDREN IN KENYA

Wangeci Gatei¹, C.A. Hart², C. Mbaya³, N. Wamae², E. Mulinge³, M. Ndertu¹, S.K Kamwati¹, G. Revathi¹, Lihua Xiao³

¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²University of Liverpool, Liverpool, United Kingdom, ³Kenya Medical Research Institute, Nairobi, Kenya

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IN VITRO, MODULATION OF INTERFERON-G RESPONSE BY INDUCING SODIUM ANTIMONY GLUCONATE RESPONDER ISOLATE IN T-CELLS OF NON-RESPONDER VISCERAL LEISHMANIASIS

Shyam Narayan¹, Sanjiva Bimal¹, Pradeep Das¹, Chandeshwar Prasad Thakur²

¹Rajendra Memorial Research Institute of Medical Sciences (ICMR), Patna, India, ²Balaji Utthan Sansthan, Kala-azar Research Centre, Fraser Road, Patna, India

(ACMCIP Abstract)

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**627**

AMPLIFICATION OF REPEATED SEQUENCES BY PCR FOR DIFFERENTIATION OF SCHISTOSOMA HAEMATOBIUM FROM RELATED SCHISTOSOMES

Ibrahim Abbasi¹, Charles H. King², Robert F. Sturrock³, Eric Muchiri⁴, Curtis Kariuki⁵, Joseph Hamburger⁶

¹Hebrew University, Jerusalem, Israel, ²Case Western Reserve University, Cleveland, OH, United States, ³Formerly, London School of Hygiene and Tropical Medicine, London, United Kingdom, ⁴Division of Vector Borne Diseases Ministry of Health, Nairobi, Kenya, ⁵Division of Vector Borne Diseases, Ministry of Health, Nairobi, Kenya, ⁶Hebrew University of Jerusalem, Jerusalem, Israel

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**628**

CHARACTERIZATION OF SNAIL IMMUNE GENES THAT ENCODE PEPTIDOGLYCAN RECOGNITION PROTEINS AND GRAM-NEGATIVE BACTERIA BINDING PROTEIN, THE KEY HOMOLOGOUS MOLECULES CONTROLLING THE UPSTREAM TOLL/IMD Signalling Pathways

Si-Ming Zhang, Reza A. Imani, Yong Zeng, Eric S. Loker

University of New Mexico, Albuquerque, NM, United States

(ACMCIP Abstract)

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TRAIT-MEDIATED BIOLOGICAL CONTROL OF SCHISTOSOMIASIS BY A FACULTATIVE MOLLUSCIVORE

Brian F. Allan¹, Lauren J. Chapman²

¹Washington University, Saint Louis, MO, United States, ²McGill University, Montreal, QC, Canada

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SHISTOSOMIASIS CONTROL IN CAMBODIA

Sinuon Muth

National Malaria Centre, Phnom Penh, Cambodia

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FACTORS INFLUENCING ONE-YEAR RISK OF SCHISTOSOMA JAPONICUM INFECTION IN HUMANS AFTER TREATMENT, SAMAR PROVINCE, THE PHILIPPINES

Mushfiqur R. Tarafder¹, Hélène Carabin¹, Portia Alday², Ernesto Balolong³, Lawrence Joseph³, Patrick Bélisle⁴, Veronica Tallo², Ryan O. Gonzales², Remigio Olveda³, Stephen T. McGarvey⁵

¹College of Public Health, University of Oklahoma Health Sciences Center, Oklahoma City, OK, United States, ²Research Institute for Tropical Medicine, Muntinlupa City, Philippines, ³McGill University, Montréal, QC, Canada, ⁴McGill University Health Center, Montréal, QC, Canada, ⁵International Health Institute, Brown University, Providence, RI, United States

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AGREEMENT ANALYSIS OF STOOL EXAMINATION USING KATO-KATZ THICK SMEAR METHOD IN DIFFERENT SCHISTOSOMIASIS JAPONICA ENDEMIC AREAS IN CHINA

YuanYuan Zhang¹, JianPing Luo², YueMin Liu³, QiZhi Wang⁴, JunHui Chen⁵, MingXing Xu⁶, JinMei Xu⁷, MeiHong Zhou⁸, HaiWei Wu⁹

¹Department of Parasitology, Nanjing Medical University, Nanjing, China, ²Department of Mathematics and Computer Science, Nanjing Medical University, Nanjing, China, ³Jiangxi Provincial Institute of Parasitic Diseases, Nanchang, China, ⁴Anhui Institute of Schistosomiasis Control, Wuhu, China, ⁵Zhejiang Provincial Institute of Parasitic Diseases, Hangzhou, China, ⁶Wuhan Center for Disease Control and Prevention, Wuhan, China

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ACTIVE SURVEILLANCE FOR AVIAN INFLUENZA IN MIGRATORY BIRDS IN THE FLYWAYS FROM CHINA TO AFRICA

Michael Parker, Samuel Yingst, Samson Limbaso, Samuel Muchai, Ivan Rusev, Loay Ahmed, Magdi Darwish, Kaiuki Njenga, Emad Maher, Diaa Elyan, Rob Breiman, Ken Earhart, Marshall Monteville

NAMRU3, Cairo, Egypt

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PHYLOGENETIC ANALYSIS OF PERUVIAN ENCEPHALOMYOCARDITIS VIRUS

Vidal Felices

U.S. Naval Medical Research Center Detachment, Lima, Peru

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**635**

MODIFIED SHELL VIAL CULTURE PROCEDURE FOR ARBOVIRUSES

Edna R. Caceda

U.S. Naval Medical Research Center Detachment, Lima, Peru

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COMPARATIVE ANALYSIS OF BRAZILIAN VACCINIA VIRUS STRAINS
Giliane Trindade1, Ginny Emerson1, Mike Frace1, Scott Sammons1, Melissa Olsen-Rasmussen1, Kevin Karen1, Darin Carroll1, Yu Li1, Russell Regnery1, Erna Kroon2, Inger Damon1
1National Center for Infectious Diseases/Centers for Disease Control and Prevention, Atlanta, GA, United States, 2Instituto de Ciências Biológicas/Universidade Federal de Minas Gerais, Belo Horizonte, Minas Gerais, Brazil

IMPACT OF SELECTIVE LYMPHOID DEFICIENCIES ON ENCEPHALITIS AND VIRUS PERSISTENCE IN THE MURINE BRAIN (VEEV)
Slobodan Paessler, Nadezhda Yun, Haolin Ni, Barbara Judy, Natalia Natalia Dziuba, Michele A. Zacks, Ilya Frolov, Scott C. Weaver, Gerald A. Campbell, Mark Don
University of Texas Medical Branch, Galveston, TX, United States

RECOMBINANT ALPHAVIRUSES ARE SAFE AND USEFUL SEROLOGICAL DIAGNOSTIC TOOLS
Haolin Ni1, Yun E. Yun1, Michele A. Zacks1, Scott C. Weaver1, Robert B. Tesh1, Amelia P. Travassos da Rosa1, Ann M. Powers2, Ilya Frolov1, Slobodan Paessler1
1University of Texas Medical Branch, Galveston, TX, United States, 2Division of Vector-Borne Infectious Diseases, Centers for Disease Control and Prevention, Fort Collins, CO, United States

PEPTIDE-CONJUGATED PHOSPHORODIAMIDATE MORPHOLINO OLIGOMERS INHIBIT ALPHAVIRUS REPLICATION AND PREVENT LETHAL ENCEPHALITIS IN VEEV-INFECTED MICE
Slobodan Paessler1, Haolin Ni1, Nadezhda E. Yun1, David Stein2, Cornelius Rijnbrand1
1University of Texas Medical Branch, Galveston, TX, United States, 2AVI Biopharma, Inc., Corvallis, OR, United States

ALPHAVIRUS-BASED VACCINES AGAINST RIFT VALLEY HEMORRHAGIC FEVER VIRUS
Slobodan Paessler, Rodion Gorchakov, Nadezhda E. Yun, Nathaniel Linde, Ilya Frolov
University of Texas Medical Branch, Galveston, TX, United States

RELATIONSHIP OF A NEW GROUP OF SOUTH AMERICAN PHLEBOVIRUSES TO RIFT VALLEY FEVER VIRUS: A PHYLOGENETIC STUDY
Fangling Xu, Dongying Liu, Amelia Travassos da Rosa A.P., Robert B. Tesh, Shu-Yuan Xiao
The University of Texas Medical Branch, Galveston, TX, United States
Mid-Day Session 61B

Population-Based Surveillance for Emerging Infectious Diseases in Kenya — A Platform for Defining Public Health Priorities and Assessing Interventions

Bonn/London
Tuesday, November 14 12:15 p.m. – 1:15 p.m.

CHAIR
Robert Breiman
Centers for Disease Control and Prevention - Kenya, Nairobi, Kenya

SPEAKERS
Robert Breiman
Centers for Disease Control and Prevention - Kenya, Nairobi, Kenya

Daniel Feikin
Centers for Disease Control and Prevention - Kenya, Nairobi, Kenya

Meet the Professors 62

Meet the Professors C: Enigmatic and Teaching Cases

International 5/6
Tuesday, November 14 12:15 p.m. – 1:15 p.m.

A panel of professors will each present one clinical case of a tropical disease specific to a particular region that they have found a challenge to manage or diagnose. If there is time, participants may be able to present enigmatic cases for the audience and panel to consider. An open discussion will be encouraged with audience participation.

SERIES ORGANIZER
Anne McCarthy
Ottawa Hospital, Ottawa, ON, Canada

PANELISTS
David O. Freedman
University of Alabama at Birmingham, Birmingham, AL, United States

Jamie Maguire
University of Maryland, Baltimore, MD, United States

Mid-Day Session 63

Electronic Submission and Peer Review of Research Applications at the National Institutes of Health

Copenhagen/Stockholm/Amsterdam
Tuesday, November 14 12:15 p.m. – 1:15 p.m.

The symposium will address issues relevant to preparation and submission of competitive investigator-initiated National Institutes of Health research applications. The contents will be useful to investigators at every level of seniority. The National Institutes of Health is in the process of converting to electronic submission of research applications through Grants.gov. This process is being gradually phased in by grant mechanism and involves the use of a new application form. The SF424 form and the electronic submission process will be explained, and general advice will be provided to new investigators preparing to apply to the National Institutes of Health.

CHAIR
John C. Pugh
National Institutes of Health Center for Scientific Review, Bethesda, MD, United States

Adriana Costero
National Institutes of Health National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

12:15 p.m.
ELECTRONIC SUBMISSION AND PEER REVIEW OF RESEARCH APPLICATIONS AT THE NATIONAL INSTITUTES OF HEALTH-PART 1

John C. Pugh
National Institutes of Health Center for Scientific Review, Bethesda, MD, United States

12:45 p.m.
ELECTRONIC SUBMISSION AND PEER REVIEW OF RESEARCH APPLICATIONS AT THE NATIONAL INSTITUTES OF HEALTH-PART 2

Adriana Costero
National Institutes of Health National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States
Mid-Day Session 64

Tafenoquine: Where Are We?

Supported with funding from GlaxoSmithKline

Marquis 3

Tuesday, November 14 12:15 p.m. – 1:15 p.m.

Tafenoquine has been initially co-developed as a chemoprophylactic agent against all forms of malaria by the U.S. Army and GlaxoSmithKline. However, the Product Development Team has decided to focus the development of tafenoquine on the radical cure of \( P. \) vivax malaria. This session will present the rationale behind this decision and will update on the progress of the development.

SESSION ORGANIZER
Peter G. Borrett
Hera.Com, Richmond, United Kingdom

CHAIR
Colin Ohrt
Walter Reed Army Institute of Research, Washington, DC, United States

12:15 p.m.
TAFENOQUINE: WHERE ARE WE?
Colin Ohrt
Walter Reed Army Institute of Research, Washington, DC, United States

12:45 p.m.
GROUP DISCUSSION

Mid-Day Session 64A

Progress on Development and Testing of a Radiation Attenuated \( Plasmodium falciparum \) Vaccine

Marquis 4

Tuesday, November 14 12:15 p.m. – 1:15 p.m.

CHAIR
Stephen L. Hoffman
Sanaria Inc., Rockville, MD, United States

12:15 p.m.
OVERVIEW AND PLANS FOR CLINICAL TRIALS
Stephen L. Hoffman
Sanaria Inc., Rockville, MD, United States

12:30 p.m.
DEVELOPMENT OF THE MANUFACTURING PROCESS
Kim Lee Sim
Sanaria Inc., Rockville, MD, United States

12:45 p.m.
IN-PROCESS TESTING AND DOCUMENTATION
Peter Billingsley
Sanaria Inc., Rockville, MD, United States

1 p.m.
RELEASE ASSAYS
Rana Chattopadhyay
Sanaria Inc., Rockville, MD, United States

Mid-Day Session 65

Workers in Tropical Medicine Video: Karl M. Johnson, MD: Life and Legend of a Leader in Tropical Virology

International 4

Tuesday, November 14 12:15 p.m. – 1:15 p.m.

This 60-minute film presents an interview of Dr. Karl Johnson, focusing on his career in tropical medicine. The interview was conducted by Barnett L. Cline, MD, PhD.

INTRODUCTION
Thomas P. Monath
Pandemic and Biodefense Fund, Kleiner Perkins Caufield & Byers, Harvard, MA, United States

DIRECTOR AND PRODUCER
Patrick Dunavan
HealthQuest Media Inc., Los Angeles, CA, United States
Poster Session B Viewing

International and Skyline Levels
Tuesday, November 14 1:30 p.m. – 7 p.m.

Symposium 66

Transposons and Wolbachia as Vehicles for Vector Population Replacement Strategies: Natural Examples and Progress Toward Developing Artificial Drivers

International 5/6
Tuesday, November 14 1:30 p.m. – 3:15 p.m.

Population replacement strategies for controlling transmission of mosquito-borne diseases call for the introgression of anti-pathogen effector genes into vector populations. It is anticipated that these genes, if present at high enough frequencies, will impede transmission of the target pathogens and result in reduced human morbidity and mortality. Recent laboratory successes in development of virus- and protozoan-resistant mosquito strains emphasize the urgent need for research into gene drive systems capable of moving effector genes into wild populations. This symposium will emphasize two examples: transposable elements and intracellular Wolbachia bacteria. For each, we will explore the science of naturally occurring examples that provide evidence for non-Mendelian gene flow, followed by a description of applied research directed at developing each into a synthetic gene drive system for affecting medically important vector populations.

CHAIR
Stephen L. Dobson
University of Kentucky, Lexington, KY, United States
Anthony A. James
University of California at Irvine, Irvine, CA, United States

1:30 p.m.
WELCOME AND INTRODUCTORY COMMENTS
Stephen L. Dobson
University of Kentucky, Lexington, KY, United States

1:35 p.m.
ENDOGENOUS TRANSPOSABLE ELEMENTS IN MOSQUITOES: FROM GENOME TO POPULATION
Zhijian Jake Tu
Virginia Tech, Blacksburg, VA, United States

2 p.m.
ADAPTING NATURAL GENE DRIVE MECHANISMS TO TRANSLATIONAL TOOLS FOR INTROGRESSING EXOGENOUS GENES INTO TARGET VECTORS: TRANSPOSABLE ELEMENTS
Anthony A. James
University of California at Irvine, Irvine, CA, United States

2:25 p.m.
DYNAMICS OF NATURAL WOLBACHIA INFECTIONS IN DISEASE VECTORS
Steven Sinkins
University of Oxford, Oxford, United Kingdom

2:50 p.m.
ADAPTING NATURAL GENE DRIVE MECHANISMS TO TRANSLATIONAL TOOLS FOR INTROGRESSING EXOGENOUS GENES INTO TARGET VECTORS: WOLBACHIA
Stephen L. Dobson
University of Kentucky, Lexington, KY, United States

Scientific Session 67

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) – Cellular Parasitology I

Supported with funding from the Burroughs Wellcome Fund
Copenhagen/Stockholm/Amsterdam

Tuesday, November 14 1:30 p.m. – 3:15 p.m.

CHAIR
Peter C. Melby
University of Texas Health Science Center, San Antonio, TX, United States
Esmeralda Vargas
Emory University, Atlanta, GA, United States

1:30 p.m.
POLYMORPHIC SECRETED KINASES ARE KEY VIRULENCE FACTORS IN TOXOPLASMOsis
Jon P. Boyle, Jeroen P.J. Saeij, Susan P. Coller, John C. Boothroyd
Stanford University, Stanford, CA, United States

1:45 p.m.
MOLECULAR DETERMINANTS FOR RECEPTOR SPECIFICITY OF PLASMODIUM VIVAX DUFFY BINDING PROTEIN
Amy M. McHenry, John H. Adams
University of Notre Dame, Notre Dame, IN, United States

2 p.m.
PROTEIN TRAFFICKING TO THE P. FALCIPARUM DIGESTIVE VACUOLE
1Albert Einstein College of Medicine, Bronx, NY, United States, 2University of Pennsylvania, Philadelphia, PA, United States
2:15 p.m.  
648  
CLONING OF A CDNA ENCODING A PLASMODIUM YOELII INTEGRAL MEMBRANE PROTEIN LOCATED IN THE PARASITOPHOROUS VACUOLE MEMBRANE  
Tobili Y. Sam-Yellowe1, Jing Tao1, Tongmin Wang1, Judith A. Drazba2, Hisashi Fujioka3  
1Cleveland State University, Cleveland, OH, United States, 2The Cleveland Clinic Foundation, Lerner Research Institute, Cleveland, OH, United States, 3Case Western Reserve University, Institute of Pathology, Cleveland, OH, United States

2:30 p.m.  
649  
RELEASE OF THE INTERNAL SUBPOPULATION OF MAJOR SURFACE PROTEASE (MSP) OF LEISHMANIA CHAGASI UPON STIMULATION BY MATRIGEL™ MATRIX  
Chaoqun Yao1, John E. Donelson2, Mary E. Wilson1  
1University of Iowa, VA Medical Center, Iowa City, IA, United States, 2University of Iowa, Iowa City, IA, United States

2:45 p.m.  
650  
ARGININE METABOLISM IN MACROPHAGES DETERMINES THE OUTCOME IN EXPERIMENTAL VISCERAL LEISHMANIASIS  
Yaneth Osorio1, Weiguo Zhao1, Bruno L. Travi1, Leo Hawel2, Omar A. Saldarriaga1, Claudia Espitia1, Peter C. Melby1  
1South Texas Veterans Health Care System and University of Texas Health Science Center at San Antonio, San Antonio, TX, United States, 2University of California-Riverside, Riverside, CA, United States

3 p.m.  
651  
CHARACTERIZATION OF SCHISTOSOMA MANSONI CONSTITUTIVE ANDROSTANE RECEPTOR  
Rong Hu1, Edward G. Niles1, Philip T. LoVerde2  
1State University of New York, Buffalo, NY, United States, 2Southwest Foundation for Biomedical Research, San Antonio, TX, United States

Symposium 68  
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Immune Responses in Protection Against Malaria: Seven Years of MiM/TDR Research  
Marquis 3  
Tuesday, November 14 1:30 p.m. – 3:15 p.m.  
This symposium is designed to highlight the value of multidisciplinary research partnerships in addressing endemic and emerging communicable disease in sub Saharan Africa. Research involving various aspects of malaria immunology will be presented as examples. Beginning in 1998, the Multilateral Initiative on Malaria (MiM) through WHO/TDR facilitated the generation of knowledge on the pathology and etiology of malaria through effective research partnerships between scientists from developed countries and their African counterparts. These partnerships have resulted in new knowledge on the role of host immunity in malarial anemia, response to chemotherapy and propagation of the erythrocytic stages of P. falciparum. The symposium will present research carried out by these groups and application of the results to vaccine development, management of malaria anemia and drug resistant malaria in Africa. The role of multidisciplinary partnerships in the success of the work will be discussed by the speakers.

CHAIR  
Olumide A.T. Ogundahunsi  
World Health Organization, Geneva, Switzerland

Lee Hall  
National Institutes of Health, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

1:30 p.m.  
MALARIA IMMUNITY, TREATMENT FAILURE AND THE CLEARANCE OF DRUG RESISTANT PARASITES IN SUB-SAHARAN AFRICA  
Abdoulaye A. Djimde  
University of Bamako, Mali, Bamako, Mali

1:55 p.m.  
ERYTHROCYTE INVASION BY MEROZOITES: A TARGET FOR INTERVENTION IN MALARIA  
Anthony A. Holder  
National Institute for Medical Research, MRC UK, London, United Kingdom

2:20 p.m.  
NATURAL IMMUNE RESPONSE TO MSP1 AND INHIBITION OF ERYTHROCYTE INVASION  
Roseangela Ifeyinwa Nwuba  
University of Ibadan, Ibadan, Nigeria

2:45 p.m.  
IMMUNITY AND IMMUNOPATHOLOGY OF SEVERE MALARIA IN AFRICAN CHILDREN  
Batholomew D. Akanmori  
Noguchi Memorial Institute for Medical Research, Legon, Accra, Ghana
**Detailed Program**

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### Scientific Session 69

**Malaria — Drugs: Mechanisms, Localization, Mutations and Novel Target Evaluation**

Marquis 4  
Tuesday, November 14  
1:30 p.m. – 3:15 p.m.  

**CHAIR**  
Jonathan J. Juliano  
*University of North Carolina, Chapel Hill, NC, United States*

Pharath Lim  
*Institut Pasteur du Cambodge, Phnom Penh, Cambodia*

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#### 1:30 p.m.  
**652**

**ARTEMISININ DERIVATIVES LOCALIZE WITHIN DIGESTIVE VACUOLE-ASSOCIATED NEUTRAL LIPID BODIES IN PLASMODIUM FALCIPARUM**

Carmony L. Hartwig1, Andrew S. Rosenthal2, Gary H. Posner2, Roland A. Cooper1  
1*Old Dominion University, Norfolk, VA, United States, 2Department of Chemistry and Malaria Research Institute, Johns Hopkins University, Baltimore, MD, United States*

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#### 1:45 p.m.  
**653**

**INHIBITION OF YEAST HEXOKINASE ACTIVITY BY ARTEMISININ: AN IN VITRO MODEL OF DRUG-PROTEIN BINDING**

Jennifer S. Spence1, Jigar Patel2, Michael T. Ferdig2, Roland A. Cooper3  
1*Old Dominion University, Suffolk, VA, United States, 2University of Notre Dame, South Bend, IN, United States, 3Old Dominion University, Norfolk, VA, United States*

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#### 2 p.m.  
**654**

**A MOLECULAR METHOD FOR DETECTING POINT MUTATIONS IN THE ACTIVE SITE OF PLASMODIUM FALCIPARUM ADENOSINE TRIPHOSPHATASE 6, THE PUTATIVE TARGET FOR ARTEMISININ**

Erasmus Kamugisha1, Hakim Sendagire1, Mark KadduMukasa1, Göte Swedberg2, Fred Kironde1  
1*Makerere University, Kampala, Uganda, 2Upsalla University, Upsalla, Sweden*

(ACMCIP Abstract)

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#### 2:15 p.m.  
**655**

**PFSUB2 MATURASE, A NEW TARGET FOR DRUG DESIGN: ANALYSIS OF THE POLYMORPHISM OF PFMSP1 AND PFAMA1 MATURATION SITE AND OF THE CATALYTIC SITE OF PFSUB2 IN WILD-TYPE ISOLATES OF P. FALCIPARUM**

Marie Louise Varela1, Jean-Christophe Barale2, Ronan Jambou1  
1*Pasteur Institute, Dakar, Senegal, 2Pasteur Institute, Paris, France*

(ACMCIP Abstract)

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#### 2:30 p.m.  
**656**

**EFFECTS OF INTERNAL DELETIONS OF HYDROXYMETHYLPTERIDINE PYROPHOSPHOKINASE-DIHYDROPTEROATE SYNTHASE FROM P. FALCIPARUM**

Göte Swedberg1, Maria Jönsson1, Woraphol Ratanachuen2  
1*Upsalla University, Upsalla, Sweden, 2Mahidol University, Bangkok, Thailand*

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#### 2:45 p.m.  
**657**

**GENOME-WIDE STRUCTURE AND EXPRESSION CHANGES IN RESPONSE TO SINGLE-STEP CHLOROQUINE AND QUININE SELECTION IN PLASMODIUM FALCIPARUM**

Jigar J. Patel1, Bingbing Deng1, John C. Tan1, Lisa Checkley1, Craig Blain1, Kristin D. Lane2, Roland A. Cooper2, Michael T. Ferdig1  
1*University of Notre Dame, Notre Dame, IN, United States, 2Old Dominion University, Norfolk, VA, United States*

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#### 3 p.m.  
**658**

**USE OF THE QUANTITATIVE MSP-1 HETERODUPLEX TRACKING ASSAY TO DISTINGUISH PLASMODIUM FALCIPARUM REINFECTION FROM FAILURE**

Jesse Kwiek, Alisa P. Alker, Emily C. Wenink, Linda V. Kalilani, Steve Meshnick  
*University of North Carolina-Chapel Hill, Chapel Hill, NC, United States*

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### Symposium 69A

**Dihydroartemisinin-Piperaquine: A New Affordable ACT**

Supported with funding from Holleypharm  
*International 4*

Tuesday, November 14, 2006  
1:30 p.m. – 3:15 p.m.  

**CHAIR**  
Francois Nosten  
*Shoklo Malaria Research Unit, Mahidol University, Bangkok, Thailand*

Tran Tinh Hien  
*Hospital for Tropical Diseases, Ho Chi Minh City, Viet Nam*
1:30 p.m.  
INTRODUCTION AND BRIEF HISTORY OF DIHYDROARTESMISININ-PIPERAQUINE  
Nick White  
Wellcome Trust Mahidol University Oxford Tropical Medicine Research Programme, Bangkok, Thailand

1:35 p.m.  
PHARMACOLOGY OF DIHYDROARTESMISININ AND PIPERAQUINE  
Nick White  
Wellcome Trust Mahidol University Oxford Tropical Medicine Research Programme, Bangkok, Thailand

1:50 p.m.  
DHA-PIPERAQUINE DOSE FINDING STUDIES  
Elizabeth Ashley  
Epicentre, Paris, France

2:00 p.m.  
CLINICAL TRIALS OF DHA-PIPERAQUINE IN LAOS  
Mayfong Mayxay  
Mahosot Hospital, Vientiane, Lao People’s Democratic Republic

2:10 p.m.  
DHA-PIPERAQUINE IN MULTI-DRUG RESISTANT VIVAX MALARIA IN INDONESIA  
Emiliana Tjitra  
Ministry of Health, Jakarta, Indonesia

2:20 p.m.  
DHA-PIPERAQUINE: GLOBAL EFFICACY OVERVIEW  
Francois Nosten  
Shoklo Malaria Research Unit, Mahidol University, Bangkok, Thailand

2:30 p.m.  
LARGE SCALE COMMUNITY DEPLOYMENT OF DHA-PIPERAQUINE IN VIET NAM  
Tran Tinh Hien  
Hospital for Tropical Diseases, Ho Chi Minh City, Viet Nam

2:40 p.m.  
DHA-PIPERAQUINE: GLOBAL SAFETY OVERVIEW  
Hla Myint  
Mahidol University, Bangkok, Thailand

2:55 p.m.  
THE FUTURE OF DHA-PIPERAQUINE  
Nick White  
Wellcome Trust Mahidol University Oxford Tropical Medicine Research Programme, Bangkok, Thailand

1:30 p.m.  
Viruses I  
Marquis 1  
Tuesday, November 14  
1:30 p.m. – 3:15 p.m.

659  
CONSUMPTION OF BATS IS A RISK FACTOR FOR EBOLA VIRUS INFECTION AMONG RURAL CAMEROONIAN ADULTS  
Mark H. Kuniholm1, Cynthia A. Rossi2, Edell Mpoudi-Ngole3, Ubald Tamoufe4, Matthew LeBreton4, Anne W. Rimoin5, Daniel G. Bausch6, Donald S. Burke1, Nathan D. Wolfe1  
1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, 2U.S. Army Medical Research Institute of Infectious Diseases, Frederick, MD, United States, 3Army Health Research Center, Yaounde, Cameroon, 4Johns Hopkins Cameroon Program, Yaounde, Cameroon, 5University of California Los Angeles School of Public Health, Los Angeles, CA, United States, 6Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States

1:45 p.m.  
CHARACTERIZATION OF MARBURG VIRUS FROM A RECENT OUTBREAK IN ANGOLA  
Darryl Falzarano1, Friederike Feldmann2, Sandra Martin2, Joan Geisb2, Allen Grolla2, Lisa Fernando2, Ute Ströher2, Hideki Ebihara2, Jim Strong2, Steven Jones2, Heinz Feldmann2, Thomas W. Geisbert2  
1Department of Medical Microbiology, University of Manitoba, Winnipeg, MB, Canada, 2Special Pathogens Program, National Microbiology Laboratory, Winnipeg, MB, Canada, 3Virology Division, United States Army Medical Research Institute for Infectious Diseases, Fort Detrick, MD, United States, 4Institute of Medical Science, University of Tokyo, Tokyo, Japan

2 p.m.  
EMERGENCY VACCINATION RESPONSES DURING LARGE MEASLES OUTBREAKS: EARLY INTERVENTION LEADS TO A HIGH PROPORTION OF AVERTED CASES  
Rebecca F. Grais1, Andrew C. Conlan2, Matthew J. Ferrari3, Ali Djibo4, Florence Fermon5, Philippe J. Guerin1, Christine Dubray1, Ottar N. Bjornstad3, Bryan T. Grenfell3  
1Epicentre, Paris, France, 2Cambridge University, Cambridge, United Kingdom, 3Pennsylvania State University, University Park, PA, United States, 4Ministry of Health, Namib, Niger, 5Medecins Sans Frontieres, Paris, France
LATE OUTCOMES OF RIFT VALLEY FEVER IN KENYA: IJARA CLINICAL SURVEY
A. Desiree LaBeaud1, Clarence J. Peters2, Eric M. Muchiri2, Charles H. King3
1University Hospitals of Cleveland; Rainbow Babies and Children’s Hospital, Cleveland, OH, United States, 2University of Texas Medical Branch, Galveston, TX, United States, 3Division of Vector Borne Disease, Ministry of Health, Nairobi, Kenya, 4Case Western Reserve University, Cleveland, OH, United States

SUCCESSIVE OUTBREAKS OF VIRAL HAEMORRHAGIC FEVERS (CCHF AND RVF) IN MAURITANIA, 2003
Ousmane Faye1, Baidy Lô2, Daha O. Cheikh3, Pierre Nabeth1, Mbayame Niang1, Idoumou O. Vali4, Djibril Diop5, Mawilouth Diallo1, Boubacar Diallo6, François Simon1, Ousmane M. Diop1
1Pasteur Institute, Dakar, Senegal, 2Centre Hospitalier National, Nouakchott, Mauritania, 3Ministry of Health, Nouakchott, Mauritania, 4CNERV, Nouakchott, Mauritania

TWO NOVEL ASSAYS FOR MOLECULAR DETECTION OF CRIMEAN-CONGO HEMORRHAGIC FEVER VIRUS
Roman Wölfel1, Nadine Petersen2, Stephan Günther2, Christian Drosten2
1Bundeswehr Institute of Microbiology, Munich, Germany, 2Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany

A ROLE FOR THE CRIMEAN-CONGO HAEMORRHAGIC FEVER VIRUS (CCHFV) NUCLEOPROTEIN IN MEDIATING PARTICLE ASSEMBLY AND RELEASE
Adrienne F. Meyers1, Paul Hazleton2, Hideki Ebihara3, Martin J. Vincent4, Stuart T. Nichol5, Heinz Feldmann5, Harvey Artsob6
1Public Health Agency of Canada, University of Manitoba, Winnipeg, MB, Canada, 2University of Manitoba, Winnipeg, MB, Canada, 3Japan Science and Technology Agency, Saitama, Japan, 4Centers for Disease Control and Prevention, Atlanta, GA, United States, 5Public Health Agency of Canada, Winnipeg, MB, Canada

Symposium 71
Clinical Group I
Supported with funding from International Association for Medical Assistance to Travelers
Marquis 2
Tuesday, November 14 1:30 p.m. – 3:15 p.m.
This symposium will feature the Marcolongo Lecture on malaria in Kenya and a presentation on Chikungunya virus infection.

CHAIR
Dick MacLean
McGill University Centre for Tropical Disease, Montreal, QC, Canada

1:30 p.m.
VINCENZO MARCOLONGO MEMORIAL LECTURE. SEVERE MALARIA: A MOVING TARGET?
Kevin Marsh
KEMRI-Wellcome Trust Collaborative Research Programme, Kilifi, Kenya

2:30 p.m.
CHIKUNGUNYA FEVER IN FRENCH TRAVELERS FROM MARSEILLES
Philippe Parola
l’Hopital Nord de Marseille, Marseille, France

Executive Hall Open
International Level
Tuesday, November 14 3:00 p.m. – 4:00 p.m.

Coffee Break
International Level
Tuesday, November 14 3:15 p.m. – 3:45 p.m.

Symposium 72
Anti-Malarial Drug Resistance Undone: The Effect of Removal of Drug Pressure on Drug Resistant Malaria
Bonn/London
Tuesday, November 14 3:45 p.m. – 5:30 p.m.
As artemisinin-based combination therapy is introduced throughout Africa, pressure from the commonly used anti-malarials, sulfadoxine-pyrimethamine and chloroquine, will be reduced in the region. What is the effect of the removal of drug pressure on resistance to chloroquine and sulfadoxine-pyrimethamine? How can we take advantage of this opportunity to learn more about the spread of drug resistance and how to deter it in the future?

CHAIR
Miriam K. Laufer
University of Maryland Center for Vaccine Development, Baltimore, MD, United States

Christopher V. Plowe
University of Maryland Center for Vaccine Development, Baltimore, MD, United States

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3:45 p.m.  
**CHLOROQUINE EFFICACY IN MALAWI 12 YEARS AFTER CESSION OF CHLOROQUINE USE**  
Miriam K. Laufer  
University of Maryland Center for Vaccine Development, Baltimore, MD, United States

4:10 p.m.  
**CHLOROQUINE RESISTANT MALARIA IN CHINA**  
Thomas E. Wellems  
National Institutes of Health, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

4:35 p.m.  
**MICROBIAL FITNESS AND COMPETITION**  
Bruce R. Levin  
Emory University, Atlanta, GA, United States

4:50 p.m.  
**MODELLING THE RE-EMERGENCE OF DRUG RESISTANCE**  
David L. Smith  
Fogarty International Center, Bethesda, MD, United States

Symposium 73  
**Pathogen Control by the Innate Immune System of Mosquito Disease Vectors**

*International 5/6*

Tuesday, November 14  
3:45 p.m. – 5:30 p.m.

This symposium is reviewing the progress and current advances on the understanding of how mosquitoes can combat pathogenic infections. Presentations will specifically address mechanisms of immune recognition, the regulation of pathogen specific innate immune responses and the functional dissection of resistance phenotypes.

**CHAIR**  
George Dimopoulos  
Johns Hopkins School of Public Health, Baltimore, MD, United States

3:45 p.m.  
**INTRODUCTION**  
George Dimopoulos  
Johns Hopkins School of Public Health, Baltimore, MD, United States

3:50 p.m.  
**FUNCTIONAL DISSECTION OF PLASMODIUM RESISTANCE**  
Kenneth Vernick  
University of Minnesota, St. Paul, MN, United States

4:15 p.m.  
**THE TOLL IMMUNE PATHWAY IN AEDES AEGYPTI**  
Alexander Raikhel  
University of California - Riverside, Riverside, CA, United States

4:40 p.m.  
**THE IMD-REL2 IMMUNE PATHWAY IN ANOPHELES GAMBIAE**  
Liangbiao Zheng  
Yale University School of Medicine, New Haven, CT, United States

5:05 p.m.  
**PATHOGEN RECOGNITION IN ANOPHELES GAMBIAE**  
George Dimopoulos  
Johns Hopkins School of Public Health, Baltimore, MD, United States

Scientific Session 74  
**American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) — Cellular Parasitology II**

Supported with funding from the Burroughs Wellcome Fund

Copenhagen/Stockholm/Amsterdam

Tuesday, November 14  
3:45 p.m. - 5:30 p.m.

**CHAIR**

Marcelo Jacobs-Lorena  
Johns Hopkins School of Public Health, Baltimore, MD, United States

Christopher King  
Case Western Reserve University, Cleveland, OH, United States

3:45 p.m.  
**THE MITOCHONDRIAL ELECTRON TRANSPORT IN ERYTHROCYTIC STAGES OF P. FALCIPARUM NOT NECESSARY EXCEPT FOR PYRIMIDINE BIOSYNTHESIS**  
Heather J. Painter, Joanne M. Morrisey, Michael W. Mather, Akhil B. Vaidya  
Drexel University College of Medicine, Philadelphia, PA, United States

4 p.m.  
**STAT SIGNALING REGulates PLASMODIUM BERGHEI INFECTION IN ANOPHELES GAMBIAE MOSQUITO**  
Lalita Gupta, Sanjeev Kumar, Carolina Barillas-Mury  
National Institute of Health, Rockville, MD, United States

4:15 p.m.  
**A NOVEL ANTIVECTOR PLASMODIUM FALCIPARUM TRANSMISSION-BLOCKING ANTIBODY REVEALS HETEROGENEOUS OOKINETE INVASION STRATEGIES**  
Rhoeol R. Dinglasan1, Dario E. Kalume2, Stefan M. Kanzok1, Anil Ghosh1, Olga Muratova1, Akhilesh Pandey2, Marcelo Jacobs-Lorena1  
1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, 2Johns Hopkins School of Medicine, Baltimore, MD, United States, 3Malaria Vaccine Development Branch, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States
4:45 p.m. INTRODUCTION
Irene Bosch
University of Massachusetts Medical School, Worcester, MA, United States

3:45 p.m. INFECTIOUS DISEASE COMPARATIVE GENOMICS AT THE BROAD INSTITUTE
Matthew Henn
The Broad Institute, Boston, MA, United States

4:05 p.m. THE INSTITUTE OF GENOMIC RESEARCH (TIGR) INFLUENZA VIRUS GENOME PROJECTS
David Spiro
The Institute of Genomic Research, Rockville, MD, United States

4:45 p.m. THE WELLCOME TRUST SANGER INSTITUTE PATHOGENS GENOME PROJECTS
Matthew Berriman
The Welcome Trust Sanger Institute, Hinxton, United Kingdom

5:05 p.m. VARIATION DETECTION ARRAYS FOR HIGH THROUGHPUT GENOTYPING
David Kulp
University of Massachusetts, Amherst, MA, United States

5 p.m. ACMCIP BUSINESS MEETING
John H. Adams
University of Notre Dame, Notre Dame, IN, United States

Symposium 75
Pathogen Genomes: Where Are We Now and Where Are We Going?

Marquis 3
Tuesday, November 14 3:45 p.m. – 5:30 p.m.
This symposium is designed to review the efforts towards completing genome projects for several human pathogens of viral, parasitic and bacterial origin. The symposium will bring us up-to-date descriptions on the genome projects that are currently ongoing in three main reference laboratories: The Broad Institute and TIGR in the US and the Wellcome Trust in Europe. Each will provide an overview, future plans in the area of genome research and new technologies being used to solve high throughput demands. By bringing together at the same discussion table the different genome projects, the audience will be able to compare relative achievements in each area (virus, parasites bacteria, mosquito), as well as to learn what future prospects the data will contribute to the advancement of science and health. This event is co-organized by the NAIAD, U19-AI057319 of the University of Massachusetts Medical School and the NERCE of Harvard University.

CHAIR
Irene Bosch
University of Massachusetts Medical School, Worcester, MA, United States
3:45 p.m. 670

EVALUATION OF IMPACT OF MALARIA RAPID DIAGNOSTIC TESTS (RDTS) ON HEALTHCARE WORKER PRESCRIBING PRACTICES — TANZANIA, MARCH 2005
Louise M. Causer¹, Aggrey Malila², Holly A. Williams¹, Emmy Metta², Terrence O’Reilly², S. Patrick Kachur³, Peter B. Bloland¹
¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²Ifakara Health Research and Development Center, Dar es Salaam, United Republic of Tanzania

4 p.m. 671

ACCEPTANCE AND USAGE OF MALARIA RAPID DIAGNOSTIC TESTS AT DISPENSARY LEVEL BY PRESCRIBERS AND PATIENTS - TANZANIA, MARCH 2005
Holly A. Williams¹, Emmy Metta², Louise M. Causer¹, Aggrey Malila², Terrence O’Reilly², S. Patrick Kachur³, Peter B. Bloland¹
¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²Ifakara Health Research and Development Centre, Dar es Salaam, United Republic of Tanzania

4:15 p.m. 672

EVALUATION OF TWO RAPID DIAGNOSTIC TESTS (RDTS) FOR MALARIA IN A LONGITUDINAL COHORT IN KAMPALA, UGANDA
Heidi Hopkins¹, Wilson Kambale², Moses R. Kamya³, Sarah G. Staedke⁴, Grant Dorsey⁵, Philip J. Rosenthal⁶
¹University of California, San Francisco, Kampala, Uganda, ²Makerere University-University of California San Francisco, Malaria Research Collaboration, Kampala, Uganda, ³Makerere University, Department of Medicine, Kampala, Uganda, ⁴University of California, San Francisco, San Francisco, CA, United States

4:30 p.m. 673

THE USE OF MICROSATellites IN MALARIA GENOTYPING IMPROVES THE ABILITY TO CORRECTLY DISTINGUISH NEW INFECTIONS FROM RECURREDENCE
University of California, San Francisco, San Francisco, CA, United States

4:45 p.m. 674

THE CLINICAL PRESENTATION OF MALARIA IN AFRICAN PREGNANT WOMEN: CORRELATION OF SYMPTOMS AND SIGNS WITH PLASMODIUM FALCIPARUM PARASITAEMIA
Azucena Bardaji¹, Catarina David², Sonia Amós³, Cleofé Romagosa¹, Maria Maixenchs², Betuel Sigaqueue², Artemisa Ana Banda³, Lila Bruní¹, Sergi Sanz¹, John Aponte¹, Pedro L. Alonso¹, Clara Menéndez¹
¹International Health Centre, Barcelona, Spain, ²Manhiça Health Research Centre, Manhiça, Mozambique, ³Manhiça Health Centre, Manhiça, Mozambique

5 p.m. 675

A RAPID ASSESSMENT ON THE HOME MANAGEMENT OF MALARIA IN ZAMBIA: THE CARETAKER AND THE COMMUNITY HEALTH WORKER
Pascalina Chanda, Havela Moonga, Naawa Sipilanyambe
National Malaria Control Center, Lusaka, Zambia

5:15 p.m. 676

RAPID ASSESSMENTS OF MALARIA CONTROL STRATEGIES IN TANZANIAN REFUGEE CAMPS - JANUARY 2006
Holly A. Williams¹, Raufou Makou², Terrence O’Reilly³, Avid Reza³, Robert Wirtz³
¹Centers for Disease Control and Prevention, Chamblee, GA, United States, ²United Nations High Commission for Refugees, Kibondo, United Republic of Tanzania, ³Centers for Disease Control and Prevention, Atlanta, GA, United States

Symposium 77

Expanding Industry Involvement in Developing Therapies for Neglected Diseases
International 7

Tuesday, November 14 3:45 p.m. – 5:30 p.m.

Despite recent growth in academic and public health work on neglected disease drug development, there remains a gap in industry support for advancing novel therapies through pharmaceutical development. This symposium will identify new initiatives that have begun to address this need, including novel academic-industrial collaborations, new models being developed by public-private partnerships, advanced market commitments, tax policies and other initiatives. It is intended to help industry recognize the value of such work for shareholders, policymakers and other important stakeholders, and to help catalyze additional corporate involvement in this field.

CHAIR
James A. Geraghty
Genzyme, Cambridge, MA, United States

Christopher Hentschel
Medicines for Malaria Venture, Geneva, Switzerland
3:45 p.m.  
INTRODUCTION  
James A. Geraghty  
Genzyme, Cambridge, MA, United States

4:05 p.m.  
INTRODUCTION  
Christopher Hentschel  
Medicines for Malaria Venture, Geneva, Switzerland

4:25 p.m.  
EXPANDING INDUSTRY INVOLVEMENT  
DEVELOPING THERAPIES  
Dyann F. Wirth  
Harvard School of Public Health, Boston, MA, United States

4:45 p.m.  
EXPANDING INDUSTRY INVOLVEMENT  
DEVELOPING THERAPIES  
Christopher D. Earl  
BIO Ventures for Global Health, Washington, DC, United States

5:05 p.m.  
QUESTIONS AND ANSWERS  

Scientific Session 78

Viruses II

Marquis 1  
Tuesday, November 14  
3:45 p.m. – 5:30 p.m.

CHAIR  
Brian Hjelle  
University of New Mexico Health Science Center, Albuquerque, NM, United States

Sabra L. Klein  
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

3:15 p.m.  
SEUL VIRUS REPLICATION AND ANTIVIRAL RESPONSES DIFFER BETWEEN MALE AND FEMALE NORWAY RATS  
Sabra L. Klein, Michele F. Hannah, Judith D. Easterbrook, Anne E. Jedlicka, Alan L. Scott, Gregory E. Glass  
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

3:30 p.m.  
PROINFLAMMATORY AND REGULATORY RESPONSES MAY MEDIATE SEUL VIRUS PERSISTENCE IN NORWAY RATS  
Judith D. Easterbrook, Sabra L. Klein  
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

3:45 p.m.  
NEITHER TLR-3 NOR RIG-I ARE SUFFICIENT FOR RECOGNITION OF THE PATHOGEN-ASSOCIATED MOLECULAR PATTERN (PAMP) THAT INITIATES AN INNATE IMMUNE RESPONSE TO SIN NOMBRE HANTAVIRUS  
Joseph Prescott, Chunyan Ye, Brian Hjelle  
University of New Mexico HSC, Albuquerque, NM, United States

4 p.m.  
EVALUATION OF A PRAIRIE DOG ANIMAL MODEL FOR MONKEYPOX VIRUS INFECTION  
Christina L. Hutson¹, Victoria A. Olson¹, Darin S. Carroll¹, Jason A. Abel¹, Jorge E. Osorio², Michael Dillon¹, Kevin Kareem¹, Inger K. Damo¹, Russell L. Regnery¹  
¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²University of Wisconsin - Madison, Madison, WI, United States

4:15 p.m.  
PERSISTENCE OF ATTENUATED VARIANTS OF VENEZUELAN EQUINE ENCEPHALITIS VIRUS (VEEV) IN THE MURINE BRAIN  
Michele A. Zacks, Natallia Dziuba, Hao Lin, Ilya Frolov, Gerald A. Campbell, Nadezda E. Yun, Scott C. Weaver, Mark D. Estes, Slobodan Paessler  
University of Texas Medical Branch Galveston, TX, United States

4:30 p.m.  
VENEZUELAN EQUINE ENCEPHALITIS VIRUS CANDIDATE VACCINE (V3526) PROTECTS HAMSTERS FROM CHALLENGE BY BOTH MOSQUITO BITE OR INTRAPERITONEAL INJECTION  
Michael J. Turell, Michael D. Parker  
US Army Medical Research Institute for Infectious Diseases, Frederick, MD, United States

4:45 p.m.  
CLINICAL MANIFESTATIONS ASSOCIATED WITH HTLV-I INFECTION: A CROSS-SECTIONAL STUDY  
Marina F. Caskey  
Cornell University, New York, NY, United States
Symposium 79
---------------------------------------------
Clinical Group II
Marquis 2
Tuesday, November 14 3:45 p.m. – 5:30 p.m.
This symposium will include a malaria prevention presentation and an update on surveillance data from GeoSentinel.
CHAIR
Dick MacLean
McGill University Centre for Tropical Disease, Montreal, QC, Canada

3:45 p.m.
MALARIA PREVENTION UPDATE FROM THE CENTERS FOR DISEASE CONTROL AND PREVENTION
Paul Arquin
Centers for Disease Control and Prevention, Division of Parasitic Diseases, Malaria Branch, Atlanta, GA, United States

4:25 p.m.
GEOSENTINEL SURVEILLANCE UPDATE
David O. Freedman
University of Alabama at Birmingham, Birmingham, AL, United States

4:55 p.m.
CLINICAL GROUP ANNUAL BUSINESS MEETING
Dick MacLean
McGill University Centre for Tropical Disease, Montreal, QC, Canada

Plenary Session III
---------------------------------------------
Commemorative Fund Lecture
Marquis Ballroom
Tuesday, November 14 6:00 p.m. – 6:45 p.m.
The ASTMH Commemorative Fund Lecture is presented annually by an invited senior researcher resident in the tropics.
CHAIR
Myron M. Levine
University of Maryland School of Medicine, Baltimore, MD, United States
THE CONTROL OF INFECTIOUS DISEASES IN TROPICAL AFRICA: PERSONAL EXPERIENCES OF A FIELD LEPROLOGIST AND VACCINOLOGIST
Samba O. Sow
Center for Vaccine Development-Mali, Bamako, Mali

Poster Session B Dismantle
---------------------------------------------
International and Skyline Levels
Tuesday, November 14 7:00 p.m. – 8:00 p.m.

Burroughs Wellcome Fund — ASTMH Fellowship Committee Meeting
---------------------------------------------
Room 3908
Tuesday, November 14 7:00 p.m. – 9:00 p.m.

Wednesday, November 15
---------------------------------------------
Registration
Marquis Foyer
Wednesday, November 15 7:00 a.m. – 5:00 p.m.

Cyber Café
---------------------------------------------
Garden Level South
Wednesday, November 15 7:00 a.m. – 5:00 p.m.

Speaker Ready Room
---------------------------------------------
International B/C
Wednesday, November 15 7:00 a.m. – 6:00 p.m.

Diploma Course Directors Meeting
---------------------------------------------
Room 3834
Wednesday, November 15 7:00 a.m. – 8:00 a.m.

Scientific Program Committee Meeting
---------------------------------------------
Consulate
Wednesday, November 15 7:00 a.m. – 8:00 a.m.

ASTMH Past Presidents Meeting
---------------------------------------------
Summit
Wednesday, November 15 7:00 a.m. – 8:00 a.m.

Cyberspace/Web Site Committee Meeting
---------------------------------------------
Room 3908
Wednesday, November 15 7:00 a.m. – 8:00 a.m.
Since August 2000 we have prospectively collected a database of all patients admitted to the Hospital for Tropical Diseases in London. This database now contains over 2000 cases, with falciparum malaria comprising more than 600 and includes all the major tropical diseases such as Hansen’s disease, filariasis, leishmaniasis, human African trypanosomiasis, tuberculosis, tetanus, gastroenteritis and viral infections such as dengue, and a single case of rabies. We intend to present an overview of these cases, with specific focus on the pattern of imported disease presenting to this hospital over the last five years.

CHAIR
Tom Doherty
Hospital for Tropical Diseases, London, United Kingdom

8 a.m.
INTRODUCTION
Tom Doherty
Hospital for Tropical Diseases, London, United Kingdom

8:20 a.m.
600 CASES OF FALCIPARUM MALARIA
Maggie Armstrong
Hospital for Tropical Diseases, London, United Kingdom

8:45 a.m.
A WORLD TOUR OF WORMS
Anna Checkley
Hospital for Tropical Diseases, London, United Kingdom

9:10 a.m.
THE CHANGING PATTERN OF IMPORTED DISEASE
Ron Behrens
Hospital for Tropical Diseases, London, United Kingdom

8:15 a.m.
684
CD8+ T CELLS RECOGNIZE BUT DO NOT ELIMINATE T. CRUZI FROM NONLYMPHOID TISSUE
Matthew H. Collins, Rick L. Tarleton
University of Georgia, Athens, GA, United States

8:30 a.m.
685
LEISHMANIA CHAGASII T CELL ANTIGENS IDENTIFIED THROUGH A DOUBLE LIBRARY SCREEN
Daniella R. Martins1, Selma M. Jeronimo2, John E. Donelson3, Mary E. Wilson4
1Federal University of Rio Grande do Norte, Natal, RN, Brazil, 2Federal University of Rio Grande do Norte, Natal, Brazil, 3University of Iowa, Iowa City, IA, United States, 4University of Iowa and Veterans Affairs Medical Center, Iowa City, IA, United States

8:45 a.m.
686
SILENCING OF LAMININ γ-1 GENE BY RNA INTERFERENCE BLOCKS TRYPANOSOMA CRUZI INFECTION
Kaneatra J. Simmons, Pius Nde, Nia Madison, Yuliya Kleschenko, Maria F. Lima, Fernando Villalta
Meharry Medical College, Nashville, TN, United States

9 a.m.
687
STAT1 PLAYS DISTINCT ROLE IN DETERMINING OUTCOME OF L. DONOVANI INFECTION IN C57BL/6 AND BALB/C MICE
Abhay Satoskar, Heidi Snider, Joseph Barbi, Lucia Rosas, Joan Durbin
Ohio State University, Columbus, OH, United States

9 a.m.
688
STABLE RNAI OF HUMAN THROMBOSPONDIN-1 (TSP-1) INHIBITS THE EARLY PROCESS OF TRYPANOSOMA CRUZI INFECTION
Kaneatra J. Simmons, Pius Nde, Nia Madison, Yuliya Kleschenko, Maria F. Lima, Fernando Villalta
Meharry Medical College, Nashville, TN, United States
9:15 a.m.  
DEFENSIN α-1 EXPRESSION IS UP-REGULATED IN HUMAN CELLS IN RESPONSE TO EARLY TRYPANOSOMA CRUZI INFECTION AS A TRYPANOCIDAL MECHANISM TO DECREASE CELLULAR INFECTION  
Marisa N. Madison, Yuliya Y. Kleshchenko, Pius Nde, Kaneatra Simons, Maria F. Lima, Fernando Villalta  
Meharry Medical College, Nashville, TN, United States  
(ACMCIP Abstract)

9:30 a.m.  
PEROMYSCUS YUCATANICUS PROTECTIVE IMMUNITY INDUCED BY EXPERIMENTAL SUBCLINICAL INFECTION WITH LEISHMANIA (LEISHMANIA) MEXICANA  
Fernando J. Andrade-Narvaez  
Universidad Autonoma de Yucatan, Merida, Yucatan, Mexico  
(ACMCIP Abstract)

Symposium 82  
Immune-Mediated Protection Against Dengue Virus  
Wednesday, November 15  
8 a.m. - 9:45 a.m.

Dengue virus causes disease globally with an estimated 25 to 100 million new infections per year. The four serotypes of Dengue virus cause a spectrum of disease ranging from a self-limited febrile illness (DF) to a life-threatening capillary leak syndrome (dengue hemorrhagic fever (DHF)). Over the last few decades, much effort has been placed on trying to understand the pathogenesis of DHF, the most severe form of the disease, which occurs in approximately 0.5% of individuals with secondary infection. Despite intense study, no vaccine has been approved for human use and treatment is supportive. A more fundamental understanding of the host protective responses and the mechanisms by which Dengue virus evades immune system recognition is essential to development of safe and effective vaccines. By reviewing the latest developments in dengue virus immunology, this symposium will foster discussion as to how the host immune response effectively controls dengue virus infection in the majority of cases without serious pathological consequences.

CHAIR  
Michael S. Diamond  
Washington University School of Medicine, St. Louis, MO, United States

Scott B. Halstead  
Pediatric Dengue Vaccine Initiative, North Bethesda, MD, United States

8 a.m.  
INTRODUCTION  
Michael S. Diamond  
Washington University School of Medicine, St. Louis, MO, United States

8:05 a.m.  
ROLE OF ANTIBODIES IN DENGUE VIRUS INFECTION  
Scott B. Halstead  
Pediatric Dengue Vaccine Initiative, North Bethesda, MD, United States

8:30 a.m.  
INTERFERON PROTECTION AND ANTAGONISM  
Michael Gale, Jr.  
University of Texas Southwestern, Dallas, TX, United States

9:55 a.m.  
THE CONTRIBUTION OF CD8+ T CELLS TO PROTECTION  
Alan L. Rothman  
University of Massachusetts Medical School, Worcester, MA, United States

9:20 a.m.  
FUNCTION OF NEUTRALIZING AND NON-NEUTRALIZING ANTIBODIES  
Ted C. Pierson  
National Institutes of Health, Bethesda, MD, United States

Symposium 83  
Creating a Public-Private Partnership to Develop a Pediatric Malaria Vaccine for Africa: Lessons from the Field  
Wednesday, November 15  
8:00 a.m. – 9:45 a.m.

The PATH Malaria Vaccine Initiative (PATH MVI) has worked with GlaxoSmithKline (GSK) and local investigators to advance the GSK malaria vaccine candidate (called RTS,S) through a pediatric proof of concept trial in Mozambique. Based on the results of this trial, PATH MVI received a $107 million grant from the Bill and Melinda Gates Foundation (BMGF) in October 2005 for development of the vaccine through public-private partnership in Africa. A network of sites in African countries, represented by the Clinical Trial Partnership (CTPC), will perform the clinical trials supporting submission of a dossier to regulatory authorities prior to potential licensure of the vaccine in Africa.

CHAIR  
Carolyn Petersen  
Malaria Vaccine Initiative, Bethesda, MD, United States

Melinda Moree  
Malaria Vaccine Initiative, Seattle, WA, United States

8 a.m.  
DEVELOPING A CLINICAL TRIAL SITE AT A DISTRICT HOSPITAL TO PERFORM TRIALS FOR REGULATORY APPROVAL  
Salim Abdulla  
Ifakara Health Research Center, Bagamoyo, United Republic of Tanzania

8:25 a.m.  
THE ROLE OF THE CLINICAL TRIAL PARTNERSHIP COMMITTEE  
Seth Owusu-Agyei  
Kintampo Health Research Center, Kintampo, Ghana
8:50 a.m.
SELECTION AND QUALIFICATION OF CLINICAL
TRIAL SITES IN AFRICA
Amanda Leach
GlaxoSmithKline Biologicals, Rixensart, Belgium

9:15 a.m.
FINANCIAL MANAGEMENT OF INFRASTRUCTURE AND
CLINICAL TRIAL BUDGETS IN THE PARTNERSHIP
Carolyn Petersen
Malaria Vaccine Initiative, Bethesda, MD, United States

Symposium 84
The Future of National Institutes of Health Funding for
New Investigators — A Panel Discussion I
Marquis 1
Wednesday, November 15 8:00 a.m. – 9:45 a.m.
CHAIR
Ulrike G. Munderloh
University of Minnesota, St. Paul, MN, United States

8 a.m.
STRUGGLING NEW INVESTIGATORS:
WHY ARE WE CONCERNED? AN INTRODUCTION
Ulrike Munderloh
University of Minnesota, St. Paul, MN, United States

8:25 a.m.
NATIONAL INSTITUTES OF HEALTH PROGRAMS AND
INITIATIVE TO SUPPORT NEW INVESTIGATORS
Walter Schaffer
National Institutes of Health, Bethesda, MD, United States

8:50 a.m.
SECURING THE NATIONAL INSTITUTES OF HEALTH
GRANT ON THE TRACK TO TENURE: A DEAN’S ADVICE
TO YOUNG SCIENTISTS
David S. Stephens
Emory University School of Medicine, Atlanta, GA, United States

9:15 a.m.
PANEL DISCUSSION

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Scientific Session 85
Mosquitoes — Vector Biology — Epidemiology I
Marquis 2
Wednesday, November 15 8:00 a.m. – 9:45 a.m.
CHAIR
Martin Donnelly
Liverpool School of Tropical Medicine, Liverpool, United Kingdom
Philip McCall
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

8 a.m.
691
QUANTITATIVE ANALYSIS OF THE BEHAVIORAL
INTERACTIONS OF ANOPHELES GAMBIAE S.S. WITH
INSECTICIDE-TREATED BEDNETS
Fred Amimo1, James Miller1, John Vulule2, Edward Walker1
1Michigan State University, E. Lansing, MI, United States, 2Kenya Medical
Research Institute, Kisumu, Kenya

8:15 a.m.
692
HOW LONG DO BEDNETS LAST? EVALUATION OF
BEDNETS RETRIEVED FROM NORTHWEST GHANA AFTER 38
MONTHS OF HOUSEHOLD USE
Stephen C. Smith1, Uday B. Joshi1, Mark Grabowsky2, Joel
Selankio3, Theresa Nobiy4, Thomas Aapore4
1Centers for Disease Control and Prevention/Atlanta Research and Education
Foundation, Atlanta, GA, United States, 2Centers for Disease Control and
Prevention/The Global Fund, Geneva, Switzerland, 3DataDyne, Washington,
DC, United States, 4Ghana Red Cross, Accra, Ghana

8:30 a.m.
693
INSECTICIDE TREATED BEDNETS FOR THE CONTROL OF
DENGUE VECTORS IN HAITI
Audrey Lenhart1, Nicolas Orelus2, Neal Alexander3, Tom Streit2,
Philip J. McCall1
1Liverpool School of Tropical Medicine, Liverpool, United Kingdom, 2Notre
Dame University/Hopital Ste. Croix, Leogane, Haiti, 3London School of
Hygiene and Tropical Medicine, London, United Kingdom

8:45 a.m.
694
THE USE OF PYRIPROXYFEN AS A CONTROL
AGENT FOR Aedes aegypti IN PERU
Gregor J. Devine1, Cesar Cabezas2, Victor Lopez3, Karin
Escobedo3, Jeffrey Stancil3, Helvio Astete4, Amy Morrison4, Carlos
Alvarez3, Elvira Zamora5, Carlos Vidal5, Stephen Yanoviak6, Jhon E.
Ramirez3
1Rothamsted Research, Harpenden, United Kingdom, 2Instituto Nacional de
Salud, Lima, Peru, 3Naval Medical Research Center Detachment (NMRCDD),
Iquitos, Peru, 4University of California Davis, Davis, CA, United States,
5Direccion de Salud, Iquitos, Peru, 6University of Florida, Gainesville, FL,
United States
9 a.m. 695

SYSTEMATIC ANALYSIS OF PIGGYBAC STABILITY IN YELLOW FEVER MOSQUITOES, Aedes aegypti
Nagaraja Sethuraman Balakathiressan¹, Channa Aluvihare¹, Danial Gheba¹, Edward Peckham¹, Peter W. Atkinson², David A. O’Brochta¹
¹University of Maryland Biotechnology Institute, Rockville, MD, United States, ²Department of Entomology, University of California, Riverside, CA, United States

9:15 a.m. 696

LINKAGE DISEQUILIBRIUM MAPPING OF INSECTICIDE RESISTANCE LOCI IN Anopheles gambiae
Martin Donnelly, Nadine P. Randle, Hilary Ranson
Liverpool School of Tropical Medicine, Liverpool, United Kingdom
(ACMCIP Abstract)

9:30 a.m. 697

ESTIMATES OF SELECTION PRESSURE ON AN INSECTICIDE RESISTANCE LOCUS: SNP ANALYSIS OF THE VOLTAGE-GATED SODIUM CHANNEL GENE IN Anopheles gambiae
Amy Lynd, PJ McCall, Martin J. Donnelly
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

Symposium 86

Innovative Treatment Strategies for Children with Severe Malarial Anemia

Hilton Hotel – Grand Salon A
Wednesday, November 15 8:00 a.m. – 9:45 a.m.

The most profound impact of severe malarial anemia (SMA) is in 1-3 year olds. Although blood transfusions have been shown to decrease mortality in childhood SMA, a safe blood supply, blood banking and transfusion medicine support are neither available nor logistically feasible in most of the world where the malarial burden is high. The effect of acidosis and abrupt hypoxemia in developing tissue and organ vascular beds on growth and development in children is understudied, but substantial. This symposium will review the pertinent science in the efficacy and safety of newer hemoglobin-based oxygen carriers in children with SMA and encourage development of transdisciplinary scientific efforts in this arena.

CHAIR
Carol Elizabeth Nicholson
National Institutes of Health/National Institute of Child Health and Human Development, Bethesda, MD, United States

Linda Wright, MD
National Institutes of Health/National Institute of Child Health and Human Development, Bethesda, MD, United States

8 a.m. 698

INNOVATIVE OXYGEN TRANSPORTERS IN RESUSCITATION
Daniel Freilich
United States Naval Medical Research Center, Silver Spring, MD, United States

8:25 a.m.

PEDIATRIC TRANSFUSION PRACTICE IN LIFE THREATENING ANEMIA
Jeffrey Upperman
Childrens Hospital Los Angeles, Los Angeles, CA, United States

8:50 a.m.

ANIMAL MODELS FOR THERAPEUTIC DEVELOPMENT IN CHILDHOOD SEVERE MALARIAL ANEMIA
Wilbur Milhous, PhD
Walter Reed Army Institute for Research, Silver Spring, MD, United States

9:15 a.m.

TRANSFUSION PRACTICE IN PEDIATRIC CRITICAL CARE: SEVERE MALARIAL ANEMIA
Kathryn Maitland
KEMRI Wellcome, Kilifi, Kenya

Scientific Session 87

Bacteriology III — Respiratory/Other

Hilton Hotel – Grand Salon B
Wednesday, November 15 8:00 a.m. – 9:45 a.m.

INVASIVE BACTERIAL INFECTIONS AMONG 0- TO 35-MONTH OLD CHILDREN TREATED AS OUTPATIENTS AT A PEDIATRIC REFERRAL CENTER IN BAMAKO, MALI
Mama N. Doumbia¹, Samba O. Sow¹, Milagritos D. Tapia², Mahamadou M. Keita¹, Souleymane Diallo³, Fadima C. Haidara¹, Uma U. Onwuchekwa¹, Mamadou M. Keita¹, Mariam Sylia³, Myron M. Levine², Karen L. Kotloff²
¹Center for Vaccine Development-Mali, Bamako, Mali, ²University of Maryland School of Medicine, Center for Vaccine Development, Baltimore, MD, United States, ³Hospital Gabriel Toure, Bamako, Mali
8:15 a.m.  

CHARACTERIZATION OF *STREPTOCOCCUS PNEUMONIAE* ISOLATED FROM DISSEMINATED DISEASE IN RURAL THAILAND  
Leelaowadee Sangsuk¹, Maria da Gloria Carvalho², Possawat Jornrakate¹, Anek Kaewpan³, Prasert Silka², Prabda Prapasiri³, Bernard Beall², Leonard Peruski³  

8:30 a.m.  

USE OF FRACTIONAL DOSE TETRAVALENT A, C, W135 AND Y MENINGOCOCCAL POLYSACCHARIDE VACCINE: A NON INFERIORITY TRIAL  
Philippe J. Guerin¹, Lisbeth M. Næss², Carole Fogg¹, Einar Rosenqvist², Oddvar Frøholm², Vincent Batwala³, Ingeborg S. Aaberge², Patrice Piola¹, Dominique A. Caugant²  
¹Epicentre, Paris, France, ²Norwegian Institute of Public Health, Oslo, Norway, ³Mbarara University of Science and Technology and Epicentre, Mbarara, Uganda, ⁴Epicentre, Mbarara, Uganda, ⁵Health Protection Agency, Manchester, United Kingdom.

9:15 a.m.  

IMPROVING TB DIAGNOSIS IN HIGH BURDEN COUNTRIES BY USING FLUORESCENCE MICROSCOPES WITH LIGHT EMITTING DIODES (LEDS)  
Richard M. Anthony¹, Lydia E. Kivihya-Ndugga², Maarten R. van Cleeft³, Arend J. Kolk¹, Sjoukje Kuijper¹, Paul R. Klatser¹, Linda Oskam¹  
¹KIT (Royal Tropical Institute) Biomedical Research, Amsterdam, The Netherlands, ²Kenya Medical Research Institute (KEMRI), Nairobi, Kenya, ³Royal Netherlands Tuberculosis Foundation (KNCV), The Hague, The Netherlands.

Symposium 88

Update RBx11160 Plus Piperaquine a New Antimalarial Combination in Development  
**Hilton Hotel – Grand Salon C**  
Wednesday, November 15  
8:00 a.m. – 9:45 a.m.

RBx11160 is the first synthetic peroxide antimalarial from the Medicines for Malaria Venture (MMV) to go into clinical development. The collaboration between MMV and Ranbaxy Research Laboratories has successfully guided the molecule through preclinical, Phase I and Phase II clinical development. This update will focus on the Phase I and Phase II clinical trials of RBX11160 in volunteers and in patients with uncomplicated *Plasmodium falciparum* malaria. The decision to combine RBx11160 with piperaquine was made in 2005. As the partner drugs come closer to their first Phase II trials in combination, the preclinical and Phase I pharmacokintetic trials of piperaquine will also be presented.

CHAIR  
J. Carl Craft  
Medicines for Malaria Venture, Geneva, Switzerland

Win Gutteridge  
Sevenoaks, Kent, United Kingdom

8 a.m.  

PHARMACOKINETICS OF RBX11160 IN VOLUNTEERS AND IN PATIENTS WITH MALARIA  
Jyoti K. Paliwal  
Ranbaxy Laboratories Limited, Gurgaon, India

8:25 a.m.  

PHARMACODYNAMICS OF RBX11160  
Sornchai Looareesuwan  
Mahidol University, Bangkok, Thailand

8:50 a.m.  

PRECLINICAL SAFETY OF RBX11160 AND PIPERAQUINE  
Vyas Madhavrao Shingatgeri  
Ranbaxy Laboratories Limited, Gurgaon, India

9:15 a.m.  

PIPERAQUINE PHARMACOKINETICS  
Jörge Moehrle  
Medicines for Malaria Venture, Geneva, Switzerland
Symposium 89

Prospects for an Effective and Safe Therapy for Human African Trypanosomiasis — A Case for Change

Hilton Hotel – Grand Salon D
Wednesday, November 15 8:00 a.m. – 9:45 a.m.

This symposium aims to review the efficacy and safety of current treatments for second stage sleeping sickness of human African trypanosomiasis (HAT). The speakers present evidence from treatment programs in sub-Saharan Africa and discuss barriers to access to effective treatment.

CHAIR
Unni Karunakara
Médecins sans Frontières, Amsterdam, The Netherlands

Manica Balasegaram
Médecins sans Frontières, London, United Kingdom

8 a.m.
INTRODUCTION TO HAT TREATMENT AND CONTROL
Manica Balasegaram
Médecins sans Frontières, London, United Kingdom

8:20 a.m.
PATTERNS OF MELARSOPROL TREATMENT FAILURE
Benjamin A. Dahl
Centers for Disease Control and Prevention, Atlanta, GA, United States

8:35 a.m.
EFLORNITHINE IS SAFER THAN MELARSOPROL IN THE TREATMENT OF SECOND STAGE TREATMENT OF HAT: EVIDENCE FROM MSF PROGRAMS
François Chappuis
University of Geneva, Geneva, Switzerland

8:50 a.m.
THE NIFURTMOX EFLORNITHINE CLINICAL TRIAL: EARLY EVIDENCE FROM THE REPUBLIC OF CONGO
Gerardo Priotto
Epicentre, Paris, France

9:05 a.m.
ACCESS TO SAFE AND EFFECTIVE TREATMENTS FOR HAT
Unni Karunakara
Médecins sans Frontières, Amsterdam, The Netherlands

9:20 a.m.
DISCUSSION
Unni Karunakara
Médecins sans Frontières, Amsterdam, The Netherlands

Scientific Session 90

Filariasis II — Molecular Biology/Biology

Hilton Hotel – Grand Salon E
Wednesday, November 15 8:00 a.m. – 9:45 a.m.

CHAIR
Peter Fischer
Washington University School of Medicine, St. Louis, MO, United States

Steven Williams
Smith College/University of Massachusetts, Northampton, MA, United States

8 a.m.

LOCALIZATION OF GENDER-BIASED GENE EXPRESSION IN ADULT BRUGIA MALAYI
Daojun Jiang, Benwen Li, Peter Fischer, Gary J. Weil
Washington University, Saint Louis, MO, United States
(ACMCP Abstract)

8:15 a.m.

USE OF MICROARRAY AND REAL-TIME RT-PCR TO EVALUATE THE GENE EXPRESSION PATTERNS OF THE L3 AND L4 STAGES OF THE Filarial PARASITE BRUGIA MALAYI
Natalia Grob1, Wen Li1, Seth D. Crosby2, Steven A. Williams1
1Smith College, Clark Science Center, Northampton, MA, United States,
2Washington University School of Medicine, St. Louis, MO, United States
(ACMCP Abstract)

8:30 a.m.

EARLY EFFECTS OF DOXYCYCLINE ON WOLBACHIA AND PARASITE GENE EXPRESSION IN ADULT FEMALE BRUGIA MALAYI
Ramakrishna U. Rao1, Seth D. Crosby2, Makedonka Mitreva2, Gary J. Weil1
1Washington University School of Medicine, St. Louis, MO, United States,
2Genome Sequencing Center, Washington University School of Medicine, St. Louis, MO, United States

8:45 a.m.

DISTINCT HOST EXPRESSION SIGNATURES INDUCED BY CLOSELY RELATED Filarial PARASITES
Joseph Kubofcik, Leszek J. Klimczak, Thomas B. Nutman
National Institutes of Health, Bethesda, MD, United States
(ACMCP Abstract)
9 a.m. 708
IDENTIFICATION OF GENES THAT FUNCTION WITH CATHEPSIN L DURING EMBRYOGENESIS IN NEMATODES
Sarwar Hashmi, Jun Zhang, Sara Lustgman
Linsley F Kimball Res. Institute, New York, NY, United States

10 a.m. 709
THE HOST-PARASITE RELATIONSHIP IN ALVEOLAR ECHINOCOCOSIS: NOVEL FINDINGS ON AN OLD DISEASE
Andrew Hemphill
University of Bern Institute of Parasitology, Bern, Switzerland

9:15 a.m. 709
PARASITE-DERIVED LYMPHANGIOGENIC MOLECULES: PUTATIVE ROLE IN MEDIATING THE LYMPHATIC DYSFUNCTION SEEN IN FILARIAL LYMPEDEMA
Sasisekhar Bennuru, Thomas B. Nutman
National Institutes of Health, Bethesda, MD, United States

10:30 a.m. 711
CYSTIC AND ALVEOLAR ECHINOCOCOSIS TRANSMISSION AND RISK FACTORS IN NINGXIA HUI AUTONOMOUS REGION OF CHINA: CURRENT SITUATION AND EVOLUTION
Yu R. Yang, Philip S. Craig, Tao Sun, Gail M. Williams, Dominique A. Vuitton, Patrick Giraudoux, Malcolm K. Jones, Donald P. McManus
1Ningxia Medical College, Yinchuan City, China, 2Cestode Zoonoses Research Group, Bioscience Research Institute and School of, Salford, United Kingdom, 3Ningxia Medical College, Yinchuan City, Ningxia Hui Autonomous Region, China, 4School of Population Health, University of Queensland, Brisbane, Australia, 5WHO Collaborating Centre for Prevention and Treatment of Human Echinococcosis, University de Franche-Comte, Besancon, France, 6Queensland Institute of Medical Research, Brisbane, Australia

9:30 a.m. 710
IMMUNIZATION WITH EARLY L3 ES ALTERS BRUGIA PAHANGI MIGRATION IN GEBILS
Ginger A. Robertson, Sharon Chrigwin, Sharon U. Coleman, Thomas R. Klei
Louisiana State University, Baton Rouge, LA, United States

10:45 a.m. 712
CYSTIC ECHINOCOCOSIS IN FAMILIES AND NEIGHBORS OF PATIENTS RECENTLY DIAGNOSED WITH CE
Saul J. Santivañez, Mary L. Rodriguez, Javier A. Bustos, Silvia Rodriguez, Juan G. Aguinaga, Armando E. Gonzales, Robert H. Gilman, Hector H. Garcia, For the Cysticercosis Working Group in Peru
1Cysticercosis Unit, Instituto Especializado de Ciencias Neurologicas, Lima, Peru, 2School of Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 3School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 4Department of International Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, 5Universidad Peruana Cayetano Heredia, Lima, Peru

10:30 a.m. 713
IDENTIFICATION OF NEW TREATMENT OPTIONS WITH PARASITOSTATIC AND PARASITOCIDAL POTENTIAL AGAINST ECHINOCOCCUS MULTILOCUSAR LARVAE
Stefan Reuter, Burkhard Manfras, Marion Merkle, Georg Harter, Peter Kern
University Hospital Ulm, Ulm, Germany

11 a.m. 713

Exhibit Hall Open
International Level
Wednesday, November 15 9:30 a.m. – 10:30 a.m.

Coffee Break
International Level
Wednesday, November 15 9:45 a.m. – 10:15 a.m.

Poster Session C Setup
International and Skyline Levels
Wednesday, November 15 9:45 a.m. – 10:15 a.m.

Poster Session C Viewing
International and Skyline Levels
Wednesday, November 15 10:15 a.m. – Noon

Scientific Session 91
International 5/6
Wednesday, November 15 10:15 a.m. – Noon

CHAIR
Andrew Hemphill
University of Berne, Berne, Switzerland

Peter Kern
University of Ulm, Ulm, Germany
11:15 a.m. 714

PREVALENCE, INCIDENCE AND SERO-REVERSION OF CYSTIC ECHINOCOCCOSIS (CE) IN THE HIGHLAND PERUVIAN COMMUNITIES USING CHEST X-RAY, ULTRASOUND AND EITB TEST

Cesar M. Gavidia1, Armando Gonzalez2, Luis Lopera2, Eduardo Barron3, Berenice Ninaquispe4, Hector H. Garcia3, Silvia Rodriguez4, Manuela Verastegui5, Carmen Calderon6, Robert H. Gilman4, Alejandro Chabalgoity6

1San Marcos University, Veterinary School, Lima, Peru, 2San Marcos University, Veterinary School, Lima, Peru, 4Instituto de Ciencias Neurologicas, Lima, Peru, 6Universidad Peruana Cayetano Heredia, Lima, Peru, 5The Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, United States, 6Universidad de la Republica, Facultad de Medicina, Montevideo, Uruguay

11:30 a.m. 715

LINKING LANDSCAPE ECOLOGY AND ECHINOCOCCUS MULTILUCULARIS TRANSMISSION IN CHINA

D. Pleudell1, F. Raoul1, A. Vaniscot2, P. Torgerson3, F. M. Danson4, Q. Wang5, J. Qiu1, P. S. Craig6, P. Giraudoux1

1Université de Franche-Comté, Besançon, France, 2Université Zürich, Zurich, Switzerland, 3University of Salford, Greater Manchester, United Kingdom, 4Sichuan Provincial Center for Disease Control and Prevention, Chengdu, China

11:45 a.m. 716

ECHINOCOCCOSIS TRANSMISSION IN EASTERN KAZAKHSTAN AND NOMADIC TIBETAN COMMUNITIES

Paul Torgerson
University of Zurich, Zurich, Switzerland

Symposium 92

Impact of Genetic Diversity on Malaria Vaccine Efficacy

Copenhagen/Stockholm/Amsterdam

Wednesday, November 15 10:15 a.m. – Noon

As with other pathogens (e.g. HIV, Streptococcus pneumoniae, and influenza virus), malaria vaccine development is complicated by genetic diversity in vaccine candidate antigens. Will malaria vaccines based on one or a few parasite clones will provide allele-restricted efficacy or more universal protection? Speakers will present theoretical models of natural immune selection pressure and vaccine-induced selection and implications for vaccine testing and design; genotyping results and measures of allele-specific efficacy and selection from two recent malaria vaccine trials; and longitudinal population genetics and molecular evolutionary studies from a malaria vaccine site and implications for vaccine testing and design.

CHAIR
Christopher V. Plowe
University of Maryland School of Medicine, Baltimore, MD, United States

Ananias Escalante
Arizona State University, Tempe, AZ, United States

10:15 a.m. 714

INTRODUCTION

Christopher Plowe
University of Maryland School of Medicine, Baltimore, MD, United States

10:20 a.m.

GENETIC DIVERSITY IN PLASMODIUM FALCIPARUM AND NATURAL AND VACCINE-INDUCED IMMUNITY

Ananias A. Escalante
Arizona State University, Tempe, AZ, United States

10:45 a.m.

RTS,S/AS02A MALARIA VACCINE DOES NOT INDUCE SELECTION OF PARASITES ENCODING DIVERGENT CSP T-CELL EPITOPES AND REDUCES THE GENOTYPIC MULTIPLICITY OF PLASMODIUM FALCIPARUM INFECTION

Colin Sutherland
London School of Hygiene & Tropical Medicine, London, United Kingdom

11:10 a.m.

DYNAMICS OF POLYMORPHISM IN MALARIA VACCINE ANTIGENS OVER THREE YEARS AT A MALARIA VACCINE TESTING SITE IN MALI: IMPLICATIONS FOR VACCINE EFFICACY

Shannon Takala
University of Maryland School of Medicine, Baltimore, MD, United States

11:35 a.m.

ALLELIC DIVERSITY AND COMPLEXITY OF P. FALCIPARUM INFECTION IN CHILDREN IMMUNIZED WITH THE FMP1 MEROZOITE SURFACE PROTEIN -1 (3D7 STRAIN) VACCINE IN WESTERN KENYA

Christian Ockenhouse
Walter Reed Army Institute of Research, Silver Spring, MD, United States

Symposium 93

Immunopathology of Dengue Hemorrhagic Fever and Implications for Dengue Vaccine Clinical Trials

Marquis 3

Wednesday, November 15 10:15 a.m. – Noon

This symposium is designed to review and update progress in the effort to identify clinical, virologic and immunologic risk factors in the development of dengue hemorrhagic fever and the implications of these studies on the design of vaccine clinical trials. The speakers will focus on four major goals of dengue research: (1) identification of early clinical markers for dengue hemorrhagic fever; (2) the role of pre-existing dengue virus immunity on the immunopathogenesis of dengue hemorrhagic fever; (3) the implications of flavivirus cross-reactive antibodies on dengue diagnostics and (4) the implications of all of the above on the design and implementation of dengue vaccine clinical trials.

CHAIR
Sharone Green
University of Massachusetts Medical School, Worcester, MA, United States

Timothy P. Endy
State University of New York, Upstate Medical University, Syracuse, NY, United States
Detailed Program

10:15 a.m.  CLINICAL FINDINGS IN DENGUE HEMORRHAGIC FEVER
Sirpen Kalayanarooj
Queen Sirikit National Institute for Child Health, Bangkok, Thailand

10:25 a.m.  CLINICAL FINDINGS IN DENGUE HEMORRHAGIC FEVER
Robert V. Gibbons
Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand

10:40 a.m.  IMMUNOPATHOGENESIS OF DENGUE HEMORRHAGIC FEVER
Sharone Green
University of Massachusetts Medical School, Worcester, MA, United States

11:05 a.m.  STATUS OF SEROLOGIC TESTING IN DENGUE DIAGNOSIS
Timothy P. Endy
State University of New York, Upstate Medical University, Syracuse, NY, United States

11:30 a.m.  CONSIDERATIONS FOR DENGUE VACCINE CLINICAL TRIALS
Bruce Innis
GlaxoSmithKline Biologicals, King of Prussia, PA, United States

Scientific Session 94
Marquis 4
Wednesday, November 15  10:15 a.m. – Noon
CHAIR
Nick Anstey
Menzies School of Health Research, Casuarina, Darwin, Australia
Sarah Staedke
Makerere University-University of California San Francisco, Kampala, Uganda

10:15 a.m.  A RANDOMIZED LONGITUDINAL CLINICAL TRIAL OF COMBINATION ANTIMALARIAL THERAPY IN A COHORT OF UGANDAN CHILDREN
Grant Dorsey1, Sarah G. Staedke1, Denise Njama-Meya2, Tamara D. Clark1, Bridget Nzurubara2, Catherine Maiteki2, Moses R. Kamya2, Philip J. Rosenthal1
1University of California San Francisco, San Francisco, CA, United States,
2Makerere University, Kampala, Uganda

10:30 a.m.  ANTIMALARIAL ARTEMISIN-BASED COMBINATION TREATMENTS (ACTS): CURRENT STATUS IN WEST AND CENTRAL AFRICA WITH RESPECT TO ACCESS AND MONITORING DRUG USE AND EFFECTS
Pascal Millet1, Collins Sayang2, Alexandre Manirakiza2, Laurence Thillier2, Revati Phalkey3, Joanna Zwetyenga4, Nicole Vernazza-Licht5, Denis Malvy6, Piero L. Olliaro7
1Bordeaux University School of Medicine, Bordeaux, France, 2Bordeaux University School of Medicine, Bordeaux, France, 3DESMP - UMR 6012 Espace, Arles, France

10:45 a.m.  AMODIAQUINE PLUS ARTESUNATE VERSUS DIHYDROARTESININ-PIPERAQUINE FOR DRUG RESISTANT P. FALCIPARUM AND P. VIVAX IN PAPUA, INDONESIA
R. Armedy1, L. Hotma1, E. Kanagalem1, R. Rumaseuw1, EP Ebsworth2, NM Anstey1, E. Tjitra1, RN Price3
1National Institute of Health Research and Development, Jakarta, Indonesia, 2Dinas Kesehatan Kabupaten, Mimika, Indonesia, 3International SOS, Timika, Indonesia, 4Menzies School of Health Research, Darwin, Australia, 5Oxford University, Oxford, United Kingdom

11 a.m.  ARTEMETHER-LUMEFANTRINE FOR THE TREATMENT OF MODERATE MALARIA IN CHILDREN
Philip Sasi, Mike English, Simon Muchohi, Michael Makanga, Alexis Nzila, Brett Lowe, Gilbert Kokwaro
Kenya Medical Research Institute/Wellcome Trust Research Programme, Kilifi, Kenya

11:15 a.m.  PHARMACOVIGILANCE OF ANTIMALARIAL TREATMENT IN UGANDA
Hasifa Bukirwa1, Rosalind Lubanga2, Susan Nayiga3, Allen Namagembe4, Heidi Hopkins1, Adeke Yeka1, Ambrose Talisuna4, Sarah Staedke3
1Uganda Malaria Surveillance Project, Kampala, Uganda, 2Makerere University, Kampala, Uganda, 3University of California, San Francisco, San Francisco, CA, United States, 4Ministry of Health, Kampala, Uganda, 5Makerere University-University of California San Francisco, Malaria Research Collaboration, Kampala, Uganda
11:30 a.m.  
722  
COMPARATIVE EFFICACY AND SAFETY OF TWO ARTEMISININ CONTAINING COMBINATION THERAPIES FOR ACUTE UNCOMPLICATED MALARIA IN NIGERIAN CHILDREN  
Catherine O. Falade1, Sunday O. Ogundele1, Bidemi Yusuf2, Tiencha C. Happi3, Olusegun G. Ademowo4  
1Department of Clinical Pharmacology, University College Hospital, Ibadan, Nigeria, 2Institute of Advanced Medical Research and Training (IAMRAT), University of Ibadan, Ibadan, Nigeria

11:45 a.m.  
723  
AUDIOMETRIC CHANGES DURING TREATMENT OF FALCIPARUM MALARIA WITH ARTEMISININ CONTAINING COMBINATIONS IN NIGERIAN CHILDREN: A PRELIMINARY REPORT  
Catherine O. Falade1, Onyekwere G. Nwaorgu2, Oyedunni Arulogun3, Sunday Ogundele1, Wemimo Osianya4  
1Clinical Pharmacology Department, University College Hospital, Ibadan, Nigeria, 2Department of Otolaryngology, University College Hospital, Ibadan, Nigeria, 3Health Promotion and Education, Faculty of Public Health, University of Ibadan, Ibadan, Nigeria, 4Department of Otolaryngology, University College Hospital, Ibadan, Nigeria

Symposium 94A  
Getting In-Zinc: A Discussion of Zinc Supplementation to Combat Diarrheal and Other Infectious Diseases

International 4  
Wednesday, November 15  
10:15 a.m. – Noon  
Zinc supplementation is a powerful therapeutic tool in managing a long list of illnesses. Dietary zinc supplementation may reduce morbidity due to infectious diseases such as pneumonia, diarrhea and malaria. With the large and consistent effects of zinc supplementation on the incidence and severity of infections, an effect on child mortality is likely. Other factors may challenge these findings, such as severe malnutrition. This symposium will bring together researchers and clinicians in the field to discuss the use of zinc in regions throughout the world and its effects on the clinical course of infectious diseases. The experts will also address the use of zinc in conjunction with therapies such as ORS.

CHAIR  
Blair Palmer  
Institute for OneWorld Health, San Francisco, CA, United States  
Victoria Hale  
Institute for OneWorld Health, San Francisco, CA, United States

10:15 a.m.  
THE RATIONALE FOR THE USE OF ZINC IN TREATMENT AND PREVENTION OF PNEUMONIA  
W. Abdullah Brooks  
International Centre for Diarrheal Disease Research, Bangladesh (ICDDR,B): Centre for Health & Population Research, Dhaka, Bangladesh

10:40 a.m.  
MECHANISM(S) OF ZINC AS AN ANTI-DIARRHEAL AGENT  
Henry Binder  
Yale University School of Medicine, New Haven, CT, United States

11:05 a.m.  
ROLE OF ZINC IN PREVENTION AND TREATMENT OF DIARRHEA AND OTHER INFECTIOUS DISEASES  
Shinjini Bhatnagar  
All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India

11:40 a.m.  
COMMUNITY UPTAKE OF ZINC SUPPLEMENTS FOR THE TREATMENT OF DIARRHEA IN AFRICA  
Peter John Winch  
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Symposium 95  
The Future of National Institutes of Health Funding for New Investigators — A Panel Discussion II

Marquis 1  
Wednesday, November 15  
10:15 a.m. – Noon  
CHAIR  
Ulrike G. Munderloh  
University of Minnesota, St. Paul, MN, United States

10:15 a.m.  
RECAP OF PRESENTATIONS AND DISCUSSIONS IN SESSION I  
Abdu Azad  
University of Maryland, Baltimore, MD, United States

10:40 a.m.  
EFFORTS TO HELP NEW INVESTIGATORS: A SCIENTIFIC REVIEW ADMINISTRATOR’S PERSPECTIVE  
John C. Pugh  
National Institutes of Health/Center for Scientific Review, Bethesda, MD, United States

11:05 a.m.  
WHY GRANT APPLICATIONS FROM NEW INVESTIGATORS FAIL: PERSPECTIVES OF THE STUDY SECTION CHAIR  
Michael Strand  
University of Georgia, Athens, GA, United States

11:30 a.m.  
PANEL DISCUSSION: CONCLUSION AND DRAFT CONSENSUS RECOMMENDATION FOR CONSIDERATION BY NATIONAL INSTITUTES OF HEALTH
Detailed Program

Scientific Session 96
Mosquitoes – Vector Biology – Epidemiology II
Marquis 2
Wednesday, November 15 10:15 a.m. – Noon
CHAIR
Ken E. Olson
Colorado State University, Fort Collins, CO, United States
Thomas W. Scott
University of California, Davis, CA, United States

10:15 a.m. 724
ANALYSIS OF REPRODUCTIVE BARRIERS BETWEEN THE MOLECULAR FORMS OF ANOPHELES GAMBIAE
Abdoulaye Diabate1, Roch Dabire2, Ali Ouari2, Niama Millogo2, Tovi Lehmann1
1Laboratory of Malaria and Vector Research/National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States, 2Institut de Recherche en Sciences de la Santé/Centre Muraz, Bobo-Dioulasso, Burkina Faso

10:30 a.m. 725
UNDERSTANDING THE ROLE OF RNA INTERFERENCE IN ARBOVIRUS-VECTOR INTERACTIONS
Ken E. Olson, Irma Sanchez-Vargas, Alexander W. Franz
Colorado State University, Fort Collins, CO, United States
(ACMCIP Abstract)

10:45 a.m. 726
AGE-STRUCTURE OF Aedes aegypti POPULATIONS AND INTRA-ANNUAL VARIATION IN DENGUE TRANSMISSION
Thomas W. Scott1, Benjamin Gerade2, Laura C. Harrington2, James W. Jones2, John D. Edman1, Sangvorn Kitthawee3, Sharon L. Minnick1, John M. Clark6
1University of California, Davis, CA, United States, 2University of Massachusetts, Amherst, MA, United States, 3Cornell University, Ithaca, NY, United States, 4Armed Forces Research Institute for Medical Sciences (AFRIMS), Bangkok, Thailand, 5Mahidol University, Bangkok, Tonga, 6University of Massachusetts, Amherst, MA, United States

11 a.m. 727
ENHANCEMENT OF Aedes aegypti VECTORIAL CAPACITY BY VIRULENT DENGUE VIRUSES
Justin R. Anderson, Rebeca Rico-Hesse
Southwest Foundation for Biomedical Research, San Antonio, TX, United States

11:15 a.m. 728
A FIRST RESOLVED PHYLOGENY OF THE Culex pipiens COMPLEX: MAIN SPECIES, SUBSPECIES, AND FORMS
Dina M. Fonseca, Carolyn M. Bahnck
Academy of Natural Sciences, Philadelphia, PA, United States

11:30 a.m. 729
VARIATION IN VECTOR COMPETENCE FOR DENGUE 2 VIRUS AMONG COLLECTIONS OF Aedes aegypti FROM THE YUCATAN AND VERA CRUZ REGIONS OF MEXICO
Scott A. Bernhardt1, William C. Black1, Barry J. Beatty1, Michael F. Antolin1, Ken E. Olson1, Jose A. Farfan-Ale2, Ildefonso Fernandez-Salas3, Carol D. Blair1
1Colorado State University, Fort Collins, CO, United States, 2Universidad Autonoma de Yucatan, Merida, Mexico, 3Universidad Autonoma de Nuevo Leon, Monterrey, Mexico

11:45 a.m. 730
DOES WEST NILE VIRUS INFECTION DECREASE Culex tarsalis FITNESS?
Linda M. Styer, Mark Meola, Laura D. Kramer
New York State Department of Health, Slingerlands, NY, United States

Symposium 97
Bridging Pathogenesis and Pathology in Malaria:
Vaccine Targets, Host-Pathogen Interactions and Anemia
Supported with funding from the Burroughs Wellcome Fund
Hilton Hotel – Grand Salon A
Wednesday, November 15 10:15 a.m. – Noon
Linking parasite genomics and biology to disease pathologies and vaccines remains a frontier in malaria. This has created great need for broad, integrated perspectives to understand the complexities of pathogenic mechanisms, acute and chronic disease pathologies and treatment modalities. This symposium will bring together recent studies in leading malaria vaccine targets in non-human primate models, molecular interactions of parasite proteins that target host cells and correlates of severe disease pathology such as anemia, to integrate basic research approaches with clinical disease and the development of therapeutics.

CHAIR
Kasturi Haldar
Northwestern University, Chicago, IL, United States
Carole A. Long
National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States
10:15 a.m.  
**INTRODUCTION**  
Kasturi Haldar  
Northwestern University, Chicago, IL, United States

10:20 a.m.  
**MALARIA PARASITE PROTEINS IN ERYTHROCYTE ADHESION, INVASION AND DYSERYTHROPOIESIS**  
Anthony A. Holder  
National Institute of Medical Research, London, United Kingdom

10:45 a.m.  
**PERSPECTIVES ON HUMAN ANEMIAS IN GENETIC DISORDERS AND MALARIA INFECTION**  
Mohandas Narla  
New York Blood Center, New York, NY, United States

11:10 a.m.  
**DEVELOPMENT OF MALARIA VACCINES: TARGETS AGAINST INFECTION AND DISEASE PATHOLOGIES SUCH AS ANEMIA**  
Carole Long  
National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States

11:35 a.m.  
**MALARIAL ANEMIA: INSIGHTS FROM MODEL SYSTEMS**  
Mary Stevenson  
McGill University and Health Center Research Institute, Montreal, QC, Canada

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**Scientific Session 98**

**Schistosomiasis II — Molecular Biology**

**Hilton Hotel – Grand Salon B**

**Wednesday, November 15**  
10:15 a.m. – Noon

**CHAIR**  
Eric Loker  
University of New Mexico, Albuquerque, NM, United States

Tim Yoshino  
University of Wisconsin-Madison, Madison, WI, United States

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10:15 a.m.  
**ROLE OF SPHINGOMYELIN IN PREVENTING ACCESS OF ANTIBODIES TO LUNG STAGE SCHISTOSOMULA SURFACE MEMBRANE ANTIGENS**  
Rashika A. El Ridi, Hatem A. Tallima  
Faculty of Science, Cairo University, Cairo, Egypt

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**10:30 a.m.**

**EXPRESSIO**  
**N OF FUCOSYLATED AND NON-FUCOSYLATED GLYCAN EPITO**  
**PES IN MIRACIDIA AND SPOROCYSTS OF SCHISTOSOMA MANSONI**  
Nathan A. Peterson¹, Cornelis H. Hokke², Deelder M. Andrè³, Timothy P. Yoshino¹  
¹University of Wisconsin-Madison, Madison, WI, United States, ²Leiden University Medical Center, Leiden, The Netherlands

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**10:45 a.m.**

**SCHISTOSOMA MANSONI AND SCHISTOSOMA RODHAINI IN WESTERN KENYA: A STUDY OF SPECIES BOUNDARIES**  
Michelle L. Steinauer¹, Gerald M. Mkoji², Eric S. Loker¹  
¹University of New Mexico, Department of Biology, Albuquerque, NM, United States, ²Centre for Biotechnology Research and Development, Kenya Medical Research Institute, Nairobi, Kenya

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**11 a.m.**

**SURROGATE ESTIMATES OF SCHISTOSOME INFECTION INTENSITY ARE WAY OFF THE MARK**  
Thomas M. Kariuki¹, Alan Wilson², Govert Van Dam³, Patricia Coulson¹, Idle Farah¹  
¹Institute of Primate Research, Nairobi, Kenya, ²Department of Biology, University of York, United Kingdom, ³Department of Parasitology, Leiden University Medical Centre, Leiden, The Netherlands

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**11:15 a.m.**

**LIVER FIBROSIS ASSOCIATED WITH EXPERIMENTAL FASCIOLA HEPATICA INFECTION: IN VIVO AND IN VITRO STUDIES**  
Luis A. Marcos¹, Angelica Terashima², Pedro Yi³, Rosangela Teixeira⁴, Javier Cubero¹, Carlos Alvarez¹, Marco Canales², Patricia Herrera³, Eduardo Gotuzzo³, Jose R. Espinoza⁴, Scott L. Friedman¹, Effsevia Albanis¹  
¹Liver Disease Center, Mount Sinai School of Medicine, New York, NY, United States; Institute of Tropical Medicine Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru, ²Institute of Tropical Medicine Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru, ³Faculty of Veterinary and Zootecnia, Universidad Peruana Cayetano Heredia, Lima, Peru, ⁴School of Medicine/ IAG-Federal University of Minas Gerais, Minas Gerais, Brazil, ⁵Laboratorios de Investigación y Desarrollo, Universidad Peruana Cayetano Heredia, Lima, Peru

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(ACMCIP Abstract)
11:30 a.m. 736

TOWARDS SCHISTOSOMIASIS TRANSMISSION CONTROL AND ELIMINATION: CAN SNAIL PREPATENT INFECTION RATE SERVE AS AN INDICATOR OF RESIDUAL TRANSMISSION POTENTIAL?
Charles H. King1, Ibrahim Abassi2, Robert F. Sturrock3, Eric M. Muchiri4, Curtis Kariuki4, Joseph Hamburger2
1Case Western Reserve University, Cleveland, OH, United States, 2Hebrew University of Jerusalem, Jerusalem, Israel, 3Formerly London School of Hygiene and Tropical Medicine, London, United Kingdom, 4Division of Vector Borne Diseases, Nairobi, Kenya

11:45 a.m. 737

LOCAL VARIATIONS IN SCHISTOSOMA HAEMATOBIUM TRANSMISSION IN MSAMBWENI, KENYA
Julie A. Clennon1, Peter L. Mungai2, Eric M. Muchiri3, Charles H. King2, Uriel Kitron1
1University of Illinois, Urbana, IL, United States, 2Center for Global Health and Diseases, Case Western Reserve University, Cleveland, OH, United States, 3Division of Vector Borne Diseases, Ministry of Health, Nairobi, Kenya

Symposium 99

A Site-Specific Antimalaria Intervention in Sub-Saharan Africa: The Bioko Project

Hilton Hotel – Grand Salon C
Wednesday, November 15 10:15 a.m. – Noon

This symposium reviews the design, implementation, and outcomes of a comprehensive antimalaria intervention, including indoor residual spraying, on Bioko Island, Equatorial Guinea. Talks will cover operational, entomological and clinical aspects of this program.

CHAIR
Andrew Spielman
Harvard School of Public Health, Boston, MA, United States

10:15 a.m.

EFFECT OF INDOOR RESIDUAL SPRAYING ON THE FORCE OF MALARIA TRANSMISSION
Brian Sharp
Medical Research Council of South Africa, Durban, South Africa

10:40 a.m.

EVALUATION OF THE EFFECT OF A COMPREHENSIVE ANTIMALARIA INTERVENTION ON THE ENTOMOLOGICAL DETERMINANTS OF MALARIA RISK
Anthony Kiszewski
Harvard School of Public Health, Boston, MA, United States

11:05 a.m.

APPLICATION OF SPATIAL ANALYSIS TO INVESTIGATE THE HETEROGENEITY OF IMPACT IN A COMPREHENSIVE ANTIMALARIA EFFORT
Immo Kleinschmidt
Medical Research Council of South Africa, Durban, South Africa

11:30 a.m.

EFFECT OF INTERMITTENT PREVENTIVE TREATMENT ON MALARIA-ATTRIBUTED MORBIDITY AND MORTALITY
Luis Benavente
Medical Care Development Inc., Silver Spring, MD, United States

Symposium 100

Challenges Ahead: R&D of New Drugs for Sleeping Sickness

Hilton Hotel – Grand Salon D
Wednesday, November 15 10:15 a.m. – Noon

Human African trypanosomiasis (HAT or sleeping sickness) is a life-threatening disease caused by Trypanosoma brucei parasites transmitted by tsetse flies. WHO estimates that between 300,000 and 500,000 people are infected by the disease in sub-Saharan Africa. The disease is fatal if left untreated. Currently available treatments for HAT are few and limited due to toxicity and lost efficacy in several regions. Treatment is stage-specific, with more toxic and more difficult-to-administer treatments for stage 2 disease. Few projects for improved treatments are currently in clinical development, and none has the potential to dramatically change either the treatment or control options for this disease. The only way to improve control is to develop innovative new drugs and diagnostics and ensure they are available to patients. The Drugs for Neglected Diseases initiative (DNDi) is a new product development partnership (PDP) committed to developing new treatments for this fatal disease. This symposium aims to review the opportunities and challenges ahead in the different phases of research and development of new drugs for sleeping sickness.

CHAIR
Els Torreele
Drugs for Neglected Diseases Initiative, Geneva, Switzerland

D. Miaka
National HAT Conrol Programme, Ministry of Health, Democratic Republic of the Congo

10:15 a.m.

INTRODUCTION
Els Torreele
Drugs for Neglected Diseases Initiative, Geneva, Switzerland

10:25 a.m.

CONTROLLING SLEEPING SICKNESS IN AFRICA — NEED FOR BETTER TOOLS
Pere Simmaro
World Health Organization/Neglected Tropical Diseases, Geneva, Switzerland
10:40 a.m.
REVIEW OF CURRENT DISCOVERY RESEARCH — MOST PROMISING AVENUES
Mike Barrett
Glasgow University, Glasgow, United Kingdom

10:55 a.m.
CURRENT DISEASE MODELS AND THEIR LIMITATIONS
Grace Murilla
Trypanosomiasis Research Council, Nairobi, Kenya

11:10 a.m.
OVERCOMING THE BLOOD-BRAIN-BARRIER
Sarah Thomas
King’s College London, London, United Kingdom

11:25 a.m.
OVERCOMING DIFFICULTIES IN CLINICAL RESEARCH OF SLEEPING SICKNESS DRUGS
Miguel Kiasekoka
ICCT Instituto de Combate e de Controlo das Tripanossomiases, Angola, Bairro Ingombota, Angola

Symposium 101
Amebiasis: Epidemiology, Pathogenesis, Human Immunity and Clinical Detection
Hilton Hotel – Grand Salon E
Wednesday, November 15 10:15 a.m. – Noon
Topics include the prevalence, clinical progression and diagnosis of amebic colitis and amebic liver abscess. This symposium will describe the community and human systemic manifestation of amebiasis in three endemic areas — Mexico, Vietnam and Bangladesh. The breadth of the symposium will cover new advances related to the epidemiology of amebiasis: virulence of and human infection by E. histolytica, the pathogenesis of amebic colitis and amebic liver abscess, and the human immune response to intestinal colonization and active disease. The talks will tie together with a common theme of clinical diagnosis.

CHAIR
Joel F. Herbein
TechLab, Inc., Blacksburg, VA, United States
William A. Petri
University of Virginia, Charlottesville, VA, United States

10:15 a.m.
THE NATURAL HISTORY OF AMEBIASIS IN MEXICO
Cecilia Ximenez
National Autonomous University of Mexico, Mexico DF, Mexico

10:40 a.m.
VIRULENCE AND PATHOGENESIS OF AMEBIC COLITIS
Isaura Meza
Cinvestav-IPN, Col. San Pedro Zacatenco, Mexico

11:05 a.m.
EPIDEMIOLOGY AND PATHOGENESIS OF AMEBIC LIVER ABSCESS
Egbert Tannich
Berhard Nocht Institute for Tropical Medicine, Hamburg, Germany

11:30 a.m.
HUMAN IMMUNITY TO E. HISTOLYTICA INFECTION
Rashidul Haque
International Center for Diarrheal Disease Research, Bangladesh, Dhaka, Bangladesh

Exhibit Hall Open
International Level
Wednesday, November 15 Noon – 2:30 p.m.

Poster Session C/Light Lunch (#738–966)
Skyline Level—#738–854
International Level—#855–966
Wednesday, November 15 Noon – 1:30 p.m.

Arthropods/Entomology – Other

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GENETIC VARIABILITY, POPULATION STRUCTURE AND PHYLOGEOGRAPHY OF ARGENTINIAN AND OTHER SOUTHERN AMERICAN TRIATOMA INFESTANS POPULATIONS BASED ON COI
Romina V. Picciniali1, Paula L. Marcet1, François Noireau2, Ricardo E. Gürtler1, Uriel Kitron3, Ellen M. Dotson4
1University of Buenos Aires, Buenos Aires, Argentina, 2Instituto Oswaldo Cruz: Institut de Recherche pour le Développement, Rio de Janeiro, Brazil, 3University of Illinois, Urbana, IL, United States, 4Centers for Disease Control and Prevention, Division of Parasitic Diseases, Entomology Branch, Chambless, GA, United States

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EFFECTIVENESS OF COMMUNITY-BASED SELECTIVE INSECTICIDE SPRAYING ON REINFESTATION BY TRIATOMA INFESTANS IN NORTHWESTERN ARGENTINA
Maria C. Cecere1, Gonzalo M. Vazquez-Prokopec1, Ricardo E. Gürtler1, Uriel Kitron1
1University of Buenos Aires, Buenos Aires, Argentina, 2University of Illinois, Urbana, IL, United States

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TICK ACTIVITY DURING 2005-2006 ON THE TEXAS A&M INTERNATIONAL CAMPUS (WEBB COUNTY, TEXAS)
Josue Zavala, Fernando Quintana, David L. Beck
Texas A&M International University, Laredo, TX, United States
A LONGITUDINAL STUDY OF THE SAND FLY POPULATION IN BARAOULI, MALI
Constance Souko Sangare1, Sibiry Samake1, Ibrahim Sissoko1, Cheick Amadou Coulibaly1, Seydou Doumbia1, Sekou F Traore1, Jennifer M Anderson2, Jesus G Valenzuela2, Phillip Lawyer1, Shaden Kamhawi3
1Malaria Research and Training Center, Bamako, Mali, 2National Institute of Allergy and Infectious Diseases/Laboratory of Malaria and Vector Research, Rockville, MD, United States, 3National Institute of Allergy and Infectious Diseases/Laboratory of Parasitic Diseases, Bethesda, MD, United States

BACTERIA – DIARRHEAL DISEASES/MUCOSAL IMMUNITY

CASE REPORT OF VIBRIO CHOLEREA ASSOCIATED WITH SEVERE GASTROENTERITIS IN A US TRAVELER
Adnan A. Jabbar, Imtiaz Khan, Tabassum Yasmin, Getachew Feleke
Nassau University Medical Center, Department of Infectious Diseases, East Meadow, NY, United States

THE CARRIAGE OF ENTERIC PATHOGENS BY DOMESTIC COCKROACHES IN AN URBAN AREA OF NORTH QUEENSLAND, AUSTRALIA
Wayne Melrose, Christine Cooney, Richard Speare
James Cook University, Townsville, Australia

BACTERIA – RESPIRATORY INFECTIONS

MYCOBACTERIUM AVIUM COMPLEX PULMONARY NODULE: THE MIMICKER OF MALIGNANCY
Deborah Asnis, Rick Conetta, Diana Elish, Adam Wellikoff, Christos Iakovou, Farida Chaudhri, Vincent Puccia
Flushing Hospital Medical Center, Flushing, NY, United States

THE IMPACT OF TUBERCULOSIS AND CANCER IN THE ASIAN COMMUNITY
Deborah Asnis, Kialing Perez, Tariq A. Khan, Rick Conetta, Chris Iakovou, George Haralambo
Flushing Hospital Medical Center, Flushing, NY, United States

BACTERIA – SYSTEMIC INFECTIONS

IN VITRO AND IN VIVO MODELS FOR THE INVESTIGATION OF PROTECTIVE IMMUNITY AGAINST LEPTOSPIRA INTERROGANS
Daniel Bourque1, Zulma Pachas Trujillo3, Manuel Fasabi Espinar2, Raul Chuquiyauri3, Joseph M. Vinetz4
1Albert Einstein College of Medicine, La Jolla, CA, United States, 2Universidad de las Amazonas Peruana, Iquitos, Peru, 3Universidad Peruana Cayetano Heredia, Lima, Peru, 4University of California San Diego, La Jolla, CA, United States

BACTERIA – VACCINES

INDUCTION OF MUCOSAL IMMUNE RESPONSE TO MYCOBACTERIUM TUBERCULOSIS USING MICROSPECTICLE ENCAPSULATED WHOLE DEAD CELL ANTIGENS
Kwame Yeboah, Martin J. D’Souza
Mercer University, Atlanta, GA, United States (ACMCIP Abstract)

CESTODES – ECHINOCOCCOSIS/HYDATID DISEASE

USE OF SYSTEMIC SCOLICIDALS [BEZIMEDAZOLE] IN HYDATID CYST SURGERY
Dhafir Dawood Sulieman1, Ali Hassoun2, Ameer Hassoun3
1Department of Surgery, Medical College, Al-Mustanstrapy, Baghdad, Iraq, 2Alabama Infectious Diseases Center, Huntsville, AL, United States, 3Harlem Hospital, New York, NY, United States

DISEASE MANAGEMENT IN ALVEOLAR ECHINOCOCCOSIS GUIDED BY PET-CT
Stefan Reuter, Beate Gruener, Norbert Blumstein, Sven Norbert Reske, Peter Kern
University Hospital Ulm, Ulm, Germany

RISK FACTORS FOR CYSTIC ECHINOCOCCOSIS IN PERUVIAN PATIENTS
Pedro L. Moro1, Carlos A. Cavero2, Moises Tambini2, Lilia Cabrera3
1Office of the Chief Science Officer, Centers for Disease Control and Prevention, Atlanta, GA, United States, 2Hospital Nacional Hipolito Unanue, Lima, Peru, 3AB Prisma, Lima, Peru
Clinical Tropical Medicine

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GROUP A STREPTOCOCCAL DISEASE IN MALI: A PILOT STUDY

Mahamadou M. Keita¹, Samba O. Sow¹, James D. Campbell², Bouba Tamboura¹, Milagritos D. Tapia², Abdoulaye Berthe³, Mariam Samake¹, Myron M. Levine², Karen L. Kotloff²

¹Center for Vaccine Development-Mali, Bamako, Mali, ²University of Maryland School of Medicine, Baltimore, MD, United States

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GAMETOCYTAEMIA AFTER DRUG TREATMENT OF ASYMPTOMATIC PLASMODIUM FALCIPARUM

Sam K. Dunyo¹, Paul Milligan², Tansy Edwards²

¹Medical Research Council Laboratories, The Gambia, Banjul, Gambia, ²London School of Hygiene and Tropical Medicine, London, United Kingdom

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A RANDOMIZED, INVESTIGATOR-BLINDED, MULTICENTER, PARALLEL-GROUP STUDY TO COMPARE EFFICACY, SAFETY AND TOLERABILITY OF ARTEMETHER — LUMEFANTRINE DISPERSEABLE TABLET FORMULATION VS. ARTEMETHER — LUMEFANTRINE 6-DOSE CRUSHED TABLETS IN THE TREATMENT OF ACUTE UNCOMPPLICATED PLASMODIUM FALCIPARUM MALARIA IN INFANTS AND CHILDREN: AN INNOVATIVE DESIGN

Zulfiquarali Premji¹, Anders Bjorkman², Steffen Borrmann³, Phil Thuma⁴, Kim Adriano⁵, Marc Cousin⁶, Patricia Ibara de Palacios⁶

¹Muhimbili University College of Health Sciences, Dar es Salaam, United Republic of Tanzania, ²Karolinska University Hospital, Stockholm, Sweden, ³Kenya Medical Research Institute and University of Heidelberg (Germany), ⁴Karolinska University Hospital, Stockholm, Sweden, ⁵Medical Research Council Laboratories, The Gambia, Banjul, Gambia, ⁶Novartis, Basel, Switzerland

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A HIGH PROPORTION OF SUSPECTED US CASES OF AVIAN INFLUENZA A (H5N1) HAVE HUMAN INFLUENZA A INFECTIONS


Centers for Disease Control and Prevention, Atlanta, GA, United States

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MORTALITY AMONG CHILDREN ADMITTED TO A PEDIATRIC HOSPITAL IN BAMAKO, MALI

Fadima C. Haidara¹, Milagritos D. Tapia², Samba O. Sow², Soulyemane Diallo³, James D. Campbell⁴, Mama N. Doumbia⁴, Mahamadou M. Keita⁵, Uma U. Onwuchekwa⁵, Mamadou M. Keita⁵, Mariam Sylla³, Myron M. Levine², Karen L. Kotloff²

¹Center for Vaccine Development-Mali, Bamako, Mali, ²University of Maryland School of Medicine, Baltimore, MD, United States, ³Hopital Gabriel Toure, Bamako, Mali

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SIMULTANEOUS DETECTION AND DIFFERENTIATION OF CRYPTOSPORIDIUM PARVUM AND CRYPTOSPORIDIUM HOMINIS BY USING TAQMAN® ASSAYS

Jothikumar Narayanan¹, Alexandre J. da Silva², Iaci Moura³, Yvonne L. Quarnstrom³, Stephanie P. Johnston², Vincent R. Hill³

¹Centers for Disease Control and Prevention-Division of Parasitic Diseases/Emory University, Atlanta, GA, United States, ²Centers for Disease Control and Prevention-Division of Parasitic Diseases, Atlanta, GA, United States, ³Centers for Disease Control and Prevention-Division of Parasitic Diseases/Atlanta Research and Education Foundation, Atlanta, GA, United States

(ACMCIP Abstract)

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PANCREATIC CYSTADENOMA MIMICKING ECHINOCOCCAL CYST. A CASE REPORT

Enrico Brunetti¹, Antonella Grisolia¹, Mario Alessiani², Carlo Ficile¹

¹Division of Infectious and Tropical Diseases, University of Pavia, Scientific Institute for Research, Hospitalisation and Health Care S.Matteo, Pavia, Italy, ²Division of Hepatopancreatic Surgery, University of Pavia, Scientific Institute for Research, Hospitalisation and Health Care S.Matteo, Pavia, Italy

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CARDIAC ECHINOCOCCAL CYST: A CASE REPORT

Enrico Brunetti¹, Antonella Grisolia¹, Roberto Dore², Carlo Ficile¹, Franco Recusani³

¹Division of Infectious and Tropical Diseases, University of Pavia, Scientific Institute for Research, Hospitalisation and Health Care S.Matteo, Pavia, Italy, ²Institute of Radiology, University of Pavia, Scientific Institute for Research, Hospitalisation and Health Care S.Matteo, Pavia, Italy, ³Division of Cardiology, University of Pavia, Scientific Institute for Research, Hospitalisation and Health Care S.Matteo, Pavia, Italy

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SENSITIVE LC-MS ASSAY FOR THE DETERMINATION OF THE ANTIMALARIAL PYRONARIDINE IN HUMAN BLOOD

Himanshu Naik, Paul Imming, Daryl J. Murry, Lawrence Fleckenstein

University of Iowa, Iowa City, IA, United States

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DETECTION OF CRYPTOSPORIDIUM SPP. ANTIGEN IN HUMAN FECAL SPECIMENS USING THE CRYPTOSPORIDIUM II ELISA TEST

Janice D. Hencke¹, Lynne S. Garcia², Joel F. Herbein¹

¹Techlab, Inc., Blacksburg, VA, United States, ²LSG & Associates, Santa Monica, CA, United States

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CELLULOSE ACETATE ELECTROPHORESIS (CAE) A VITAL TECHNIQUE IN LEISHMANIA DIAGNOSIS

Juan Mendez, Peter J. Weina

Walter Reed Army Institute of Research, Silver Spring, MD, United States
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ENHANCEMENT OF ROUTINE HEALTH INFORMATION BY THE USE OF PERSONAL DIGITAL ASSISTANTS IN SOUTHERN TANZANIA

Kizito Shirma1, Werner Maokola1, Joanna Schellenberg2, Oscar Mukasa1, Pedro Alonso3, Marcel Tanner4, Hassan Mshinda1, David Schellenberg2
1Ifakara Health Research & Development Centre, Dar es Salaam, United Republic of Tanzania, 2London School of Hygiene and Tropical Medicine, London, United Kingdom, 3Hospital Clinic, Barcelona, Spain, 4Swiss Tropical Institute, Basel, Switzerland

BLOOD AGAR SUBSTITUTE IN GROWING LEISHMANIA

Zachary Babino, Juan Mendez, Peter J. Weina
Walter Reed Army Institute of Research, Silver Spring, MD, United States

(ACMCIP Abstract)

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CROSS REFERENCE BETWEEN CELLULOSE ACETATE ELECTROPHORESIS (CAE) AND POLYMERASE CHAIN REACTION (PCR) IN LEISHMANIA DIAGNOSIS

Lisa Durant, Juan Mendez, Peter Weina
Walter Reed Army Institute of Research, Silver Spring, MD, United States

(ACMCIP Abstract)

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FIRST DENGUE HEMORRHAGIC FEVER (DHF) OUTBREAK IN IQUITOS, PERU, 2004

Moisés G. Sihuincha1, Claudio Rocha2, Alberto Laguna-Torres2, Carlos Vidal1, Tadeusz Kochel1, Amy C. Morrison1, Carolina Guevara2, Roxana Caceda2, Christopher Cruz2, Angélica Espinoza2, Alfredo Huaman2, Roger Castillo2, Cesar Náquira1, Luis Suárez4, James G. Olson2
1Ministry of Health, Iquitos, Peru, 2U.S. Naval Medical Research Center Detachment, Lima, Peru, 3University California Davis, Davis, CA, United States, 4University of California Davis - Iquitos Laboratory, Iquitos, Peru

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COLLEGE OF AMERICAN PATHOLOGY (CAP) AND ITS PROGRESS IN THE LEISHMANIA DIAGNOSIS

John Tally, Juan Mendez, Peter J. Weina
Walter Reed Army Institute of Research, Silver Spring, MD, United States

(ACMCIP Abstract)

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CHARACTERISTIC FEATURES OF ANEMIA IN VISCERAL LEISHMANIASIS (KALA-AZAR)

Sharon Brown Kunin1, Maria Satti2, Eiman Mahmoud3
1Touro University College of Osteopathic Medicine, Novato, CA, United States, 2University of Khartoum, Khartoum, Sudan, 3Touro University College of Osteopathic Medicine, Vallejo, CA, United States

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THE UTILITY OF HRP-2/P-LDH MALARIA RAPID DIAGNOSTIC TESTS IN SEMI-IMMUNE POPULATIONS OF SUB-SAHARA AFRICA

Shon A. Remich1, Mary Oyugi2, Duncan Apollo2, Colin Ohrt3, Bernhards Ogutu4, Robert S. Miller4
1United States Army Medical Research Unit - Nairobi, Kenya, 2Kenya Medical Research Institute, Nairobi, Kenya, 3Walter Reed Army Institute of Research, Silver Spring, MD, United States

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PNEUMONIA ADVERSELY AFFECTS GROWTH IN CHILDREN

Bernhards Ogutu1, Walter Otieno2, Duncan Apollo3, Simin N. Meydani3, Christine Wanke1, Jeffrey K. Griffiths4
1Corporacion Ecuatoriana de Biotecnologia, Quito, Ecuador, 2Corporacion Ecuatoriana de Biotecnologia, Quito, Ecuador, 3Tufts University School of Medicine, Boston, MA, United States, 4Boston University School of Public Health, Boston, MA, United States

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EVALUATION OF ONE-YEAR SURVIVAL RATES OF CHILDREN WITH BURKITT’S LYMPHOMA IN TANZANIA AFTER CYCLOPHOSPHAMIDE MONOTHERAPY

Arta Bakshandeh
Touro University College of Osteopathic Medicine, Rancho Cucamonga, CA, United States

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RAPID DIAGNOSTIC MALARIA TESTS FOR THE DIAGNOSIS OF MALARIA VERSUS CLINICAL JUDGMENT

Shon A. Remich1, Walter Otieno2, Duncan Apollo3, Bernhards Ogutu1, Mark Polhemus1, Robert S. Miller4
1United States Army Medical Research Unit - Kenya, Nairobi, Kenya, 2Kenya Medical Research Institute of Research, Nairobi, Kenya, 3Kenya Medical Research Institute, Nairobi, Kenya, 4Walter Reed Army Institute of Research, Silver Spring, MD, United States

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A LITTLE SUGAR GOES A LONG WAY: TRAVELING WITH DIABETES

Pamela Allweiss
Centers for Disease Control and Prevention, Div of Diabetes Translation, Lexington, KY, United States

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A PHASE II, OPEN LABEL, STUDY OF THE SAFETY, TOLERABILITY, EFFICACY AND PHARMACOKINETICS OF INTRAVENOUS ARTESUNATE IN ADULTS WITH UNCOMPLICATED MALARIA

Shon A. Remich1, Mark Polhemus1, Walter Otieno2, Bernhards Ogutu1, Peter Weina3, Robert S. Miller4
1United States Army Medical Research Unit - Kenya, Nairobi, Kenya, 2Kenya Medical Research Institute, Nairobi, Kenya, 3Walter Reed Army Institute of Research, Silver Spring, MD, United States
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<td>Leopoldo Villegas1, Nelly Hernandez2, Victor Pacheco3, Cesár Fuenmayor4, Maria Girón5, Belem Salazar6, Jesús Toro3</td>
<td>1Asociación Civil Impacto Social; Centro de Investigación de Campo Dr. Francesco Vitanza/IAES, Tumeremo, estado Bolivar, Venezuela, 2Asociación Civil Impacto Social (ASOCIS), Tumeremo, Venezuela, 3Dirección General de Salud Ambiental, Ministerio de Salud, Maracay, Venezuela, 4Dirección General Salud Ambiental, Ministerio de Salud, Maracay, Venezuela</td>
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<td>Leopoldo Villegas1, Josta Nieuwendam2, Glenn Lavenberg3</td>
<td>1Asociación Civil Impacto Social and Global Fund Malaria Project Suriname, Tumeremo, Venezuela, 2Global Fund Malaria Project Suriname, Paramaribo, Suriname</td>
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<td>1Asociación Civil Impacto Social; Centro de Investigación Dr. Francesco Vitanza, Tumeremo, estado Bolivar, Venezuela, 2Asociación Civil Impacto Social, Tumeremo, Venezuela, 3Dirección General Salud Ambiental, Ministerio de Salud, Maracay, Venezuela</td>
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<td>1Asociación Civil Impacto Social; Centro de Investigación de Campo Dr. Francesco Vitanza, Tumeremo, estado Bolivar, Venezuela, 2Asociación Civil Impacto Social, Tumeremo, Venezuela, 3Dirección General de Salud Ambiental, Ministerio de Salud, Maracay, Venezuela</td>
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<td>Rodolfo Acuna-Soto</td>
<td>Universidad Nacional Autonoma de Mexico, Ciudad de Mexico, Mexico</td>
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<td>Flushing Hospital Medical Center, Flushing, NY, United States</td>
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<td>1Federal University of Ceara, Fortaleza, Brazil, 2University of Virginia, Charlottesville, VA, United States</td>
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<td>Wayne Melrose1, Leigh Ward2, Belinda Robinson3</td>
<td>1James Cook University, Townsville, Australia, 2School of Molecular and Microbial Sciences, University of Queensland, Brisbane, Australia, 3ImpediMed Ltd., Brisbane, Australia</td>
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<td>1Universidad de Los Andes, Caracas, Venezuela, 2Malariaology, Ministry of Health, Maracay, Aragua, Venezuela, 3Perez de Leon Hospital, Caracas, Venezuela, 4Div. Infectious Diseases, Emory University, Atlanta, GA, United States</td>
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<td>1Instituto Nacional de Salud, Bogotá D.C, Colombia, 2Universidad Nacional de Colombia, Bogotá D.C, Colombia, 3Universidad de los Andes, Bogotá D.C, Colombia, 4Secretaria de Salud de Cundinamarca, Bogotá D.C, Colombia, 5University of Texas Medical Branch, Galveston, TX, United States, 6University of Texas Medical Branch- Universidad de los Andes, Galveston, TX, United States</td>
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<td>South Texas Veterans Healthcare System, San Antonio, TX, United States</td>
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<td>David Sonetti, Pranavi Sreeramoju, Gregory M. Anstead</td>
<td>University of Texas Health Science Center at San Antonio, San Antonio, TX, United States</td>
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Julia S. Ampuero1, Alon Unger2, Elza Noronha1, Marlete Silva Santos3, Edgar M. Carvalho4, Gustavo Romero1
1Universidade de Brasília, Brasilia, Brazil, 2University of California—San Francisco, San Francisco, CA, United States, 3Centro de Saude Dr. Jackson ML Costa, Corte de Pedra, Brazil, 4Hospital Universitario Professor Edgard Santos, Salvador, Brazil

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Jesus Emmanuel A. Sevilleja1, Curtis C. Copeland1, Darcy Whitlock2, David Lyerly2, Richard L. Guerrant1
1Center for Global Health, University of Virginia, Charlottesville, VA, United States, 2Techlab, Blacksburg, VA, United States

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Sung-Tae Hong1, Min-Ho Choi1, Seung-Yull Cho2, Soon-Hyun Lee3, Han-Chong Rim3, Zhimin Li4, Zhuo Jin5, Zheng Feng6, Longqi Xu7
1Seoul National University College Med, Seoul, Republic of Korea, 2Sungkyunkwan University, Suwon, Republic of Korea, 3Korea Association of Health Promotion, Seoul, Republic of Korea, 4Heilongjiang Center for Disease Control and Prevention, Harbin, China, 5Institute of Parasitic Diseases, Shanghai, China

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1General Direction of Epidemiology, Ministry of Health, Lima, Peru, 2Caraz Hospital, Ancash, Peru, 3Naval Medical Research Center Detachment, Lima, Peru, 4DIRESA, Ancash, Peru, 5Huaraez Hospital, Ancash, Peru

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Paul Pachas1, Magdeleine Sarria2, Maria P Garcia3, Luis Suarez-Ognio3, Jeanette Avila4, Cesar Munayco5, Karim Pardo1, Luis Roldan1, Rufino Cabrera1, Luis Beingolea3, Jose Bolarte1, Juan Escudero2, Iliana Rojas1, Luis Fuentes2
1General Direction of Epidemiology, Ministry of Health, Lima, Peru, 2Direction of Health, Lima Norte, Lima, Peru, 3National Institute of Health, Lima, Peru

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Jan Verhave
University Medical Centre, Radboud UMC Nijmegen, The Netherlands

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Martha E. Yocupicio-Monroy1, Rosa M. Del Angel2
1Universidad Autónoma de la Ciudad de México, Mexico City, Mexico, 2Centro de Investigación y de Estudios Avanzados del IPN, Mexico City, Mexico

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Ludmel Urdaneta1, Yasmin Rubio-Palis2, Michael Salasek1, William C. Black1
1Colorado State University, Fort Collins, CO, United States, 2Centro de Investigaciones Biomédicas (BIMED), Universidad de Carabobo-Núcleo Aragua, Maracay, Venezuela

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INACTIVATION OF DENGUE VIRUS USING HIGH HYDROSTATIC PRESSURE (HHP)
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CHARACTERIZATION OF MICROVESICLES FROM IMMUNE CELLS INFECTED WITH DENGUE VIRUS
Irene Bosch1, John M. Fallon1, Marcia L. Woda1, Norma Bosch2, Rajas Warke1, Kris Xhaja1, Aniuska Becerra-Artiles1, James Evans1, Karen Green1
1University of Massachusetts Medical School, Worcester, MA, United States, 2Banco Metropolitano de Sangre, Caracas, Venezuela

(ACMCIP Abstract)
### PRIMARY HUMAN MYOBLAST ARE TARGETS FOR DENGUE VIRUS INFECTION

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(ACMCIP Abstract)

### TUMOR NECROSIS FACTOR-RELATED APOPTOSIS-INDUCING LIGAND (TRAIL) REDUCES DENGUE VIRAL LOAD IN HUMAN INFECTED CELLS

Rajas Warke, Kathy Martin, Kris Giaya, Aniuska Becerra-Artiles, Norma Bosch, Alan Rothman, Irene Bosch

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(ACMCIP Abstract)

### QUASI SPECIES OF DENGUE RNA: MOLECULAR DISSECTION OF DENGUE VIRUS INFECTIONS IN MONOCYTES-DERIVED HUMAN DENDRITIC CELLS

Huo-Shu H. Houng, Dupeh Palmer, Bangti Zhao, Julia Lynch, Wellington Sun

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(ACMCIP Abstract)

### ACTIVATION OF COAGULATION AND FIBRINOLYSIS IN DENGUE VIRUS INFECTION: RELATION TO THE BLEEDING SYMPTOMS

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Tatyana Timiryasova, Damien Brechet, Rebecca Dapkiewicz, Francoise Fievet-Groyne

Sanofi pasteur, Swiftwater, PA, United States

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Maureen T. Long1, Richard A. Bowen2, Mark M. Mellencamp3, Kathy K. Seino1, E. Paul Gibbs1
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Cynthia Santamaria1, Terry Spithill1, Brian Ward2, Momar Ndao2
1McGill University and Centre for Host-Parasite Interactions, Ste Anne de Bellevue, QC, Canada, 2National Reference Centre for Parasitology, Montreal General Hospital, and Centre for Host-Parasite Interactions, McGill University, Montreal, QC, Canada
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Jeff T. Williams, Gene B. Hubbard, M. Michelle Leland, John L. VandeBerg
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Abhay Satoskar1, Joseph Barbi1, Lucia Rosas1, Tracy Carlson1, Bao Lu2, Craig Gerard2
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Matthew L. Jones, Julian C. Rayner
University of Alabama at Birmingham, Birmingham, AL, United States
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1Emory Vaccine Center at Yerkes National Primate Research Center, Emory University, Atlanta, GA, United States, 2Malaria Branch, Division of Parasitic Diseases, Centers for Disease Control and Prevention, Chamblee, GA, United States

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Rayane Khalil1, Cindy Korir1, John W. Barnwell2, Mary R. Galinski1
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Anton R. Dluzewski1, Esmeralda V. Meyer1, Amma A. Semenya2, John W. Barnwell1, John M. Hopkins4, Graham H. Mitchell1, Lawrence H. Bannister1, Mary R. Galinski1
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Seattle Biomedical Research Institute, Seattle, WA, United States

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University of Toronto, Toronto, ON, Canada
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1Malari Institute at Macha, Washington, DC, United States, 2University of Zimbabwe, Harare, Zimbabwe, 3Malari Institute at Macha, Choma, Zambia, 4Medical University of Innsbruck, Innsbruck, Austria, 5Howard University, Washington, DC, United States
INTERACTION OF PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 3 WITH THE RED BLOOD CELL MEMBRANE SKELETON

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Malaria – Chemotherapy

RELATIVE ADVANTAGES OF VARIOUS ARTESSUNATE-BASED COMBINATION THERAPIES (ACTS). A META-ANALYSIS

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A. Sowunmi, Ahmed Adedeji, G. O. Gbotosho, B. A. Fateye, T. C. Happi

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Aboubacar Alassane Oumar1, Konate Salimata1, Barry Abdoulaye2, Sylla Mariam2, Traore Abdoulaye1, Sissoko Sibiri1, Togo Boubacar2, Poudiouougou Belco1, Keita Mamadou Marouf2

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Malaria – Drug Development

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Joanna Bajwa1, Kshipra Singh1, Dhammika Nanayakkara1, Stephen O. Duke2, Agnes M. Rimando2, Antonio Evidente2, Babu L. Tekwani1
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Fawaz Mzayek, Bekir H. Melek, Donald Krogsstad
Tulane University, New Orleans, LA, United States

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ORALLY ACTIVE ACRIDONES AS NOVEL AND POTENT ANTIMALARIAL CHEMOTYPES
Jane X. Kelly, Marty Smilkstein, Rolf Winter, Rosie Dodean, Dave Hinrichs, Mike Riscoe
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ASSESSMENT AND CONTINUED VALIDATION OF THE MSF ASSAY FOR USE IN MALARIA DRUG SCREENING
Jacob D. Johnson, Richard A. Dennull, Lucia Gerena, Norma E. Roncal, Miriam Lopez-Sanchez, Norman C. Waters
Walter Reed Army Institute of Research, Silver Spring, MD, United States

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Jane X. Kelly, Marty Smilkstein, Rolf Winter, Rosie Dodean, Mike Riscoe
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Julie M. Moore1, Simon Owino2, John Vulule3, Laurence Slutsker4, Venkatachalam Udhayakumar5, Ya Ping Shi6
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AGE AND REPEATED EXPOSURE LEAD TO HIGHER FREQUENCIES OF IGG ANTIBODIES TO BLOOD-STAGE AS COMPARED TO PRE-ERYTHROCYTIC P. FALCIPARUM ANTIGENS IN AN AREA OF UNSTABLE MALARIA TRANSMISSION
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EXPRESSON OF MULTIPLE VAR TRANSCRIPTS IN PATIENTS WITH P. FALCIPARUM MALARIA IN KAMPALA, UGANDA
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GENETIC DIVERSITY IN THE PLASMODIUM FALCIPARUM MEROZOITE SURFACE PROTEIN-1 C-TERMINAL IN A PERUVIAN COMMUNITY WITH RECENT AND LOW MALARIA TRANSMISSION
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(ACMCIP Abstract)

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ARMED FORCES RESEARCH INSTITUTE OF MEDICAL SCIENCES-M3V-AD-PFCA, A P. FALCIPARUM MULTI-ANTIGEN MULTI-STAGE ADENOVIRUS VECTORED VACCINE, IS IMMUNOGENIC IN BALB/C MICE
Maureen E. Stefaniak1, Joseph J. Campo1, Noelle B. Patterson1, Kalpana Gowda1, Keith Limbach1, Joseph T. Bruder2, C. Richter King2, Thomas L. Richie1, Denise L. Doolan1
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USING DENATURED HPLC TO GENOTYPE P. FALCIPARUM GENES — APPLICATION TO THE VACCINE CANDIDATE PFMSP3
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(ACMCIP Abstract)

IMPROVED IMMUNOGENICITY AND PROTECTIVE EFFICACY OF A CHIMERIC MSP-1 AND MSP-8 RECOMBINANT ANTIGEN VACCINE
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(ACMCIP Abstract)

SYNTHETIC PEPTIDE CIMERAS WITH CELL PENETRATING CAPABILITY AND THEIR POTENTIAL USE AS DELIVERY SYSTEM FOR MALARIA VACCINE DEVELOPMENT
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INDUCTION IN Rhesus Monkeys OF Antigen-Specific T Cell RESPONSES TO ALL VACCINE COMPONENTS (CSP, AMA1, SSP2 AND MSP1) OF A MULTI-STAGE PLASMODIUM KNOWLESI VACCINE ADMINISTERED BY PRIME/BOOST IMMUNIZATION
Esteban Abot1, Harini Ganeshan1, Glenna Banania1, Nancy Richie1, Satoru Takeo2, Takafumi Tsuboi2, Martha Sedegah1, Thomas Richie1, Denise Doolan1, Walter Weiss1, George Jiang1
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SPATIAL DISTRIBUTION OF INSECTICIDE-TREATED NETS: IMPLICATIONS FROM A TRANSMISSION MODEL FOR THE DESIGN AND EVALUATION OF INTERVENTIONS
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(ACMCIP Abstract)

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MOLECULAR EVOLUTION OF IMMUNE GENES IN MEMBERS OF THE ANOPHELES GAMBIAE COMPLEX
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POPULATIONAL GENETIC DIVERSITY OF THE PRINCIPAL VECTOR OF MALARIA, ANOPHELES DARLINGI, ALONG THE IQUITOS-NAUTA HIGHWAY IN LORETO, PERU
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1Cayetano Heredia Peruvian University, Research Laboratory of Infectious Disease, Lima, Peru, 2National University of the Peruvian Amazon, Lima, Peru

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PATTERNS OF SELECTION IN GENES IMPLICATED IN THE IMMUNE RESPONSE OF ANOPHELINE VECTORS AGAINST MALARIA
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LABORATORY INVESTIGATION OF OVIPOSITION RESPONSES OF Aedes aegypti AND Aedes albopictus TO ORGANIC INFUSIONS AND AN ANALYSIS OF BACTERIAL DIVERSITY BY DGGE
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THE MOSQUITO LYSOSOMAL ASPARTIC PROTEASES (MLAP) AS AN ANTIGEN FOR A MOSQUITOCIDAL DNA VACCINE AGAINST Aedes aegypti AND Anopheles gambiae
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FINDING THE MOST PRECIOUS RESOURCE: HOW DO VIRGIN FEMALE ANOPHELINES LOCATE A MATE?
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FIELD TRANSMISSION OF ARBOVIRUSES IN THREE COUNTIES IN FLORIDA
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YELLOW FEVER VIRUS SUSCEPTIBILITY OF TWO VECTORS FROM KENYA, EAST AFRICA
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DISCOVERY OF A NEW CLADE OF TRYPANOSOMATIDS IN CULEX TARSALIS AND CULEX PIPIENS MOSQUITOES

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EFFECTS OF HOUSE SPRYING WITH 3RD GENERATION PYRETOIDS IN POPULATIONS OF LUTZOMYIA VERRUCARUM (DIP: PSYCHODIDAE), HUAYLAS PROVINCE, ANCASH, PERU

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RAPID AMPLIFICATION OF WEST NILE VIRUS IN MOSQUITO POPULATIONS: THE ROLE OF HATCH YEAR BIRDS

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SURVEILLANCE OF Aedes aegypti IN COMAS DISTRICT, LIMA, PERU

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A COMPARISON OF THREE SATELLITE SENSORS FOR PREDICTING MOSQUITO SPECIES OCCURRENCE

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MOSQUITO DIVERSITY, ABUNDANCE AND THE POTENTIAL FOR WEST NILE VIRUS TRANSMISSION ON AMERICAN CROW (Corvus brachyrhynchos) TERRITORIES.

Lisa A. Patrician¹, Laura E. Hackett¹, Anne B. Clark², Amy L. Glaser², Kevin J. McGowan³, Douglas A. Robinson², Rebecca S. Heiss², Jennifer Dawson³
¹New York State Department of Health, Ithaca, NY, United States, ²Binghamton University, Binghamton, NY, United States, ³Cornell University, Ithaca, NY, United States, ⁴New York State Department of Health, Albany, NY, United States

941

GENETIC VARIABILITY OF THE SERINE-RICH GENE OF ENTAMOEBA HISTOLYTICA IN CLINICAL ISOLATES, TURKEY

Mehmet Tanyukel¹, Mustafa Ulukanli², Hasan Yilmaz³, Zeynep Guclu¹, Engin Araz¹, Gurkan Mert⁴, Ozgur Koru¹, William A. Petri⁵
¹Division of Medical Parasitology, Department of Microbiology and Clinical Microbiology, Gulhane Military Medical Academy, Ankara, Turkey, ²Department of Microbiology, Harran University, Sanlurfa, Turkey, ³Department of Parasitology, Yuzuncu Yil University, VA, Turkey, ⁴Turkish Armed Forces Medical Commander, Infectious Disease Officer, Ankara, Turkey, ⁵University of Virginia, Charlottesville, VA, United States

942

ROLE OF LIPID RAFTS IN PRE-INVASIVE AND POST-INVASIVE STAGES OF AMOEBIASIS

Kriti Mittal, Lesly A. Temesvari
Clemson University, Clemson, SC, United States

943

DETECTION OF CELL-MEDIATED IMMUNE RESPONSE TO CRYPTOSPORIDIUM PARVUM

Andrea N. Davis-Rivers, Richard L. Guerrant
Center for Global Health, University of Virginia, Charlottesville, VA, United States

944

ALANYL-GLUTAMINE PREVENTS DEVELOPMENTAL DELAYS IN SUCKLING C57BL/6J MICE CHALLENGED BY MALNUTRITION

Bruna P. Coutinho¹, Andrea Davis-Rivers¹, Reinaldo B. Oria², Aldo A. Lima², Richard L. Guerrant¹
¹Center for Global Health University of Virginia, Charlottesville, VA, United States, ²University of Georgia, Griffin, GA, United States

945

MULTILocus SEQUENCE TYing of CRYPTosporidiUm MeLaGriDiS

Wenli Yang³, Robert Gilman³, Vitaliano Cama³, Caryn Bern¹, Lilia Cabrera⁴, Ynes Ortega⁴, Wangeci Gatei⁵, Lihu Xia⁷
¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²Johns Hopkins University, Baltimore, MD, United States, ³Centers for Disease Control and Prevention-Atlanta Research and Education Foundation, Atlanta, GA, United States, ⁴Asociación Benéfica PRISMA, Lima, Peru, ⁵University of Georgia, Griffin, GA, United States

946

PROFILE OF INTESTINAL PARASITIC INFECTIONS IN HIV/AIDS PATIENTS WITH DIARRHEA IN JAKARTA, INDONESIA

Agnes Kurniawan
Faculty of Medicine, University of Indonesia, Jakarta, Indonesia
IMMUNOBLOT ANALYSIS OF ENTEROCYTOZOON BIELENSI SPECIFIC PROTEINS — INVESTIGATION OF DIAGNOSTIC MARKERS
Zuzana Kucerova, Delynn M. Moss, Govinda S. Visvesvara, W. Evan Secor
Centers for Disease Control and Prevention, Atlanta, GA, United States

DETECTION OF OOCYSTS OF CYCLOSPORA CAYETANENSIS IN HUMANS, DOGS AND SEWER SAMPLES
Ynes R. Ortega1, Vitaliano A. Cama2, Adam Robertson3, Amy Mann1, Lilia Cabrera4, Carmen Taquiri5, Lihua Xiao2, Robert H. Gilman6
1University of Georgia, Griffin, GA, United States, 2Division of Parasitic Diseases/Centers for Disease Control and Prevention, Atlanta, GA, United States, 3University of Pennsylvania, Philadelphia, PA, United States, 4A.B. Prisma, Lima, Peru, 5Universidad Peruana Cayetano Heredia, Lima, Peru, 6Johns Hopkins University, Baltimore, MD, United States

QUANTIFICATION OF CRYPTOSPORIDIAL INFECTION INSTOOL OF NEONATAL MICE
Jesus Emmanuel A. Sevilleja, Carlos M. Vieira, Bruna Coutinho, Relana C. Pinkerton, Richard L. Guerrant
Center for Global Health, University of Virginia, Charlottesville, VA, United States

DEVELOPMENT OF A MONOCLONAL ANTIBODY-BASED DIPSTICK FOR DIAGNOSIS OF SCHISTOSOMIASIS MANSONI
Daniel Boamah1, Irene Ayi1, Kwabena M. Bosompem1, Mante Siakwa2, Kwabena Yankson2
1Noguchi Memorial Institute for Medical Research, Accra, Ghana, 2Department of Human Biology, University of Cape Coast, Accra, Ghana
(ACMCIP Abstract)

SOCIOECONOMIC PATTERNING OF URINARY SCHISTOSOMIASIS IN COASTAL KENYA
Melissa K. Van Dyke1, Charles H. King2, Eric M. Muchiri3, Peter L. Mungai4, Mark L. Wilson1
1University of Michigan, Ann Arbor, MI, United States, 2Case Western Reserve University, Cleveland, OH, United States, 3Division of Vector Borne Diseases, Ministry of Health, Nairobi, Kenya, 4Msambweni Field Station, Msambweni, Kenya

TOWARDS THE CONTROL OF SCHISTOSOMIASIS, INTESTINAL HELMINTHS AND OTHER NEGLECTED TROPICAL DISEASES IN AFRICA
Alan Fenwick
Imperial College London, London, United Kingdom
HANTAVIRUS INFECTION AND HABITAT ASSOCIATIONS AMONG RODENT POPULATIONS IN WESTERN PANAMA

Armien G. Armien1, Blas Armien2, Juan M. Pascale3, Mario Avila3, Fernando Gracia3, Gerardo Suzan3, Terry Yates3, Frederik Koster4, Jorge Salazar-Bravo2

1University of Minnesota, St. Paul, MN, United States, 2Instituto Commemorativo Gorgas de Estudios en Salud, Panama, Panama, 3Ministry of Health of Panama, Panama, Panama, 4Hospital Santo Tomas, Panama City, Panama, Panama, Panama, 5University of New Mexico, Albuquerque, NM, United States, 6Lovelace Respiratory Research Institute, Albuquerque, NM, United States, 7Texas Tech University, Lubbock, TX, United States

A PROOF-OF-CONCEPT THERMOSTABLE MEASLES VACCINE

Jeffrey Mariner1, Jeffrey K. Griffiths1, Sue Lautze2, Luke Ascolillo2

1Tufts University School of Medicine, Boston, MA, United States, 2Oxford University, Oxford, United Kingdom

VARIATION IN VIRULENCE OF DIFFERENT LOW-PASSAGE ISOLATES OF WEEV AND HIV IN AN OUTBRED MOUSE MODEL

Christopher F. Bosio1, Dennis J. Pierro1, Kimberly M. Keene2, Brooke A. Roeper1, Christopher H. Logue2, Ann M. Powers2, Kenneth E. Olson1

1Colorado State University, Fort Collins, CO, United States, 2Centers for Disease Control and Prevention, Fort Collins, CO, United States

REAPPEARANCE OF CCHF AND OTHER TICK-BORNE ARBOVIRUSES IN THE SYRDARYA REGION OF THE REPUBLIC OF UZBEKISTAN

Akbar Kadyrov1, Dilbar Shermukhamedova1, Nemat Komilov1, Shabot Khodjaev1, Eylena Bryanseva1, Shavkat Umurzakov1, Jason Paragas3, Christopher Mores2

1Institute of Virology, Tashkent, Uzbekistan, 2United States Army Medical Research Institute of Infectious Diseases, Frederick, MD, United States, 3University of Florida, Vero Beach, FL, United States

MOLECULAR CHARACTERIZATION OF TACAIUMA VIRUS (BUNYAVIRIDAE, ORTHOBUNYAVIRUS, ANOPHELES A GROUP) ISOLATED IN THE AMAZON REGION

Márcio R. Nunes, Samir M. Casseb, Pedro F. Vasconcelos

Instituto Evandro Chagas, Belém, Brazil

TICK-BORNE ARBOVIRUS SURVEILLANCE IN UZBEKISTAN

Eylena Bryanseva1, Nemat Komilov2, Dilbar Shermukhamedova2, Ilseyar Khyziahmetov2, Shavkat Umurzakov2, Lyudmila Kalugina2, Akbar Kadyrov2, Saida Alakbarova2, Jason Paragas3, Christopher Mores3

1Institute of Virology, -null-, 2Institute of Virology, Tashkent, Uzbekistan, 3United States Army Medical Research Institute of Infectious Diseases, Frederick, MD, United States, 4University of Florida, Vero Beach, FL, United States

ACMCIP Abstracts — Molecular, Cellular and Immunoparasitology


Certificate Exam Committee Meeting

Room 3908

Wednesday, November 15 12:15 p.m. – 1:15 p.m.

Continuing Medical Education/ Courses Committee

Room 3914

Wednesday, November 15 12:15 p.m. – 1:15 p.m.
Meet the Professors 102
----------------------------------------
Meet the Professors D: Enigmatic and Teaching Cases
International 5/6
Wednesday, November 15 12:15 p.m. – 1:15 p.m.
A panel of professors will each present one clinical case of a tropical disease specific to a particular region that they have found a challenge to manage or diagnose. If there is time, participants may be able to present enigmatic cases for the audience and panel to consider. An open discussion will be encouraged with audience participation.

SERIES ORGANIZER
Anne McCarthy
Ottawa Hospital, Ottawa, ON, Canada

PANELISTS
J. Dick MacLean
McGill University Center for Tropical Disease, Montreal, QC, Canada
Anne McCarthy
Ottawa Hospital, Ottawa, ON, Canada

Mid-Day Session 103
----------------------------------------
Workers in Tropical Medicine Video:
The Life and Work of Bill Collins:
A Laboratorian’s 50-Year Battle against Malaria
International 4
Wednesday, November 15 12:15 p.m. – 1:15 p.m.
This 50-minute video features an interview of William Collins by Mark Eberhard. Dr. Collins discusses the past, present and future of malaria research, including his 50 years of contributions to the field. Produced by the Centers for Disease Control and Prevention.

INTRODUCTION
Carlos (Kent) Campbell
PATH Malaria Control and Evaluation Partnership in, Tucson, AZ, United States
Mark Eberhard
Centers for Disease Control and Prevention, Atlanta, GA, United States

Poster Session C Viewing
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International and Skyline Levels
Wednesday, November 15 1:30 p.m. – 7:00 p.m.

Symposium 104
--------------------------------------------------
Case Studies on Strengthening Health Systems for Disease Control in Africa
International 5/6
Wednesday, November 15 1:30 p.m. – 3:15 p.m.
Building capacity for implementation of health interventions requires not only the training and supervision of specific cadres of workers, but also the creation of partnerships between groups that have not worked together before, the maintenance of active communication channels between these groups and the development of effective and innovative evaluation tools. This symposium will present examples from control programs for pneumonia, lymphatic filariasis, malaria and guineaworm to demonstrate ways that forging new partnerships, developing new approaches to monitoring and evaluations and increasing demand for health care services can lead to stronger health systems in Africa.

CHAIR
Amy E. Patterson
Emory University Rollins School of Public Health, Atlanta, GA, United States
Peter Winch
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

1:30 p.m.
INTRODUCTION
Amy E. Patterson
Emory University Rollins School of Public Health, Atlanta, GA, United States

1:35 p.m.
DONOR CAPACITY DEVELOPMENT FOR NATIONAL MALARIA PROGRAMMING: THE CASE OF NIGERIA
William R. Brieger
JHPIEGO and Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

2 p.m.
FIELD TEST OF HEALTH SYSTEMS STRENGTHENING INDICATORS FOR THE LYMPHATIC FILARIASIS PROGRAM IN BURKINA FASO, MALAWI AND GHANA
Deborah McFarland
Rollins School of Public Health, Emory University, Atlanta, GA, United States

2:25 p.m.
IMPACT OF BETTER SURVEILLANCE FOR MALARIA EPIDEMICS ON THE PERFORMANCE OF DISTRICT LEVEL AND HEALTH FACILITY STAFF IN EAST AFRICA
Caroline Jones
London School of Hygiene and Tropical Medicine, London, United Kingdom
2:50 p.m.

IMPROVING ACCESS AND INCREASING DEMAND FOR HEALTH CARE SERVICES FOR EFFECTIVE CONTROL OR ELIMINATION OF DISEASES AMONG RURAL AND DISADVANTAGED COMMUNITIES IN SUB-SAHARA AFRICA

Moses N. Katabarwa
Carter Center and Rollins School of Public Health, Emory University, Atlanta, GA, United States

Scientific Session 105

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) — Immunoparasitology I

Supported with funding from the Burroughs Wellcome Fund
Copenhagen/Stockholm/Amsterdam

Wednesday, November 15 1:30 p.m. – 3:15 p.m.

CHAIR
Lisa Ganley-Leal
Boston University School of Medicine, Boston, MA, United States

Peter E. Kima
University of Florida, Gainesville, FL, United States

1:30 p.m.

1115

NAÏVE CD4+ T CELLS MODULATE SCHISTOSOME DEVELOPMENT AND THE OUTCOME OF INFECTION IN THE ABSENCE OF RESPONSES TO ANTIGEN

Uniformed Services University of the Health Sciences, Bethesda, MD, United States

1:45 p.m.

1116

COORDINATED CONTROL OF IMMUNITY TO MUSCLE STAGE TRICHINELLA SPIRALIS BY IL-10, REGULATORY T CELLS AND TGF-β1

Daniel P. Beiting, Lucille F. Gagliardo, Matthias Hesse, Susan K. Bliss, Diana Meskill, Judith A. Appleton
Cornell University, Ithaca, NY, United States

2 p.m.

967

INTERACTION BETWEEN MALARIA AND FILARIA INDUCED IMMUNE RESPONSES ALTER MALARIA DISEASE OUTCOME AND FILARIAL MEMORY RESPONSE

Simmi Mahajan
University of Edinburgh, Edinburgh, United Kingdom

2:15 p.m.

HOOKWORM INFECTION IS ASSOCIATED WITH REDUCED LYMPHOCYTE PROLIFERATION AND IMPAIRED ANTIGEN PRESENTATION

Blaise Dondji1, Richard D. Bungiro1, Diane McMahon-Pratt2, Michael Cappello3
1Yale University School of Medicine, New Haven, CT, United States, 2Yale University School of Public Health, New Haven, CT, United States, 3Yale University School of Medicine and Yale School of Public Health, New Haven, CT, United States

2:30 p.m.

969

HUMAN CD23+ B CELLS ARE ASSOCIATED WITH PROTECTION AGAINST REINFECTION BY SCHISTOSOMA MANSONI

Lisa M. Ganley-Leal1, Pauline Mwinzi2, Alan Hightower3, Diana Karanja2, Daniel Colley4, Lee Wetzler1, W. Evan Secor5
1Boston University School of Medicine, Boston, MA, United States, 2Kenya Medical Research Institute, Kisumu, Kenya, 3Statistics and Data Management Branch, Centers for Disease Control and Prevention-Kenya, Kisumu, Kenya, 4Center for Tropical and Emerging Global Diseases, University of Georgia, Athens, GA, United States, 5Centers for Disease Control and Prevention, Atlanta, GA, United States

2:45 p.m.

970

THE SLOW DEVELOPMENT OF CD8+ T CELL RESPONSES IN TRYPANOSOMA CRUZI INFECTION IS NOT DUE TO FAILED ACTIVATION OR MIGRATION OF PARASITE-CONTAINING DENDRITIC CELLS

Angel M. Padilla1, Jessica L. Tarleton2, Rick L. Tarleton2
1Center for Tropical and Emerging Global Diseases, Athens, GA, United States, 2Center for Tropical and Emerging Global Diseases, University of Georgia, Athens, GA, United States

3 p.m.

971

ROLE PI-3γ IN PATHOGENESIS OF CUTANEOUS LEISHMANIASIS CAUSED BY L. MEXICANA

Abhay Satoskar1, Nicholas Zorko1, Tracy Keiser1, Joseph Barbi1, Bao Lu2, Craig Gerard2
1Ohio State University, Columbus, OH, United States, 2Children’s Hospital, Boston, MA, United States
Scientific Session 106
Malaria — Biology and Pathogenesis I
Marquis 3
Wednesday, November 15 1:30 p.m. – 3:15 p.m.
CHAIR
Alberto Moreno
Emory University Vaccine Research Center, Atlanta, GA, United States
Fousseyni N. Toure
Centre International de Recherches Medicales, Franceville, Gabon

1:30 p.m.
972
CHARACTERIZATION OF ERYTHROCYTE TURNOVER USING BIOTIN INFUSION IN A NON-HUMAN PRIMATE MODEL OF SEVERE MALARIA
Alberto Moreno1, Monica Cabrera-Mora1, Elizabeth Strobert2, Natalia Kozyr1, Sheila Akinyi1, Mary R. Galinski1
1Emory Vaccine Center at Yerkes National Primate Research Center, Emory University, Atlanta, GA, United States, 2Yerkes National Primate Research Center, Atlanta, GA, United States

1:45 p.m.
973
PREGNANCY INDUCED RECRUDESCENCES IN SEMI-IMMUNE MICE INFECTED WITH PLASMODIUM BERGHEI: EFFECT OF EXPOSURE TO PARASITES FROM PREGNANT PARASITE DONORS DURING THE PRE-PREGNANCY IMMUNISATION PERIOD
Trine Staalsoe, Rosette Megnekou, Lars Hviid
Rigshospitalet, Copenhagen, Denmark

2 p.m.
974
MOLECULAR FACTORS AND BIOCHEMICAL PATHWAYS INDUCED BY FEBRILE TEMPERATURE IN PLASMODIUM FALCIPARUM PARASITES
Miranda S.M. Oakley
National Institutes of Health, Rockville, MD, United States

2:15 p.m.
975
HIV INFECTION IMPAIRS PHAGOCYTIC CLEARANCE OF PLACENTAL MALARIA VARIANTS: IMPLICATIONS FOR PREGNANCY-ASSOCIATED MALARIA IN CO-INFECTED women
Jessica Keen1, Lena Serghides2, Kodjo Ayi1, Samir N. Patel1, John Ayisi3, Annemieke van Eijk4, Richard Steketee4, Venkatachalam Udhayakumar4, Kevin C. Kain2
1Faculty of Medicine, University of Toronto, Toronto, ON, Canada, 2McLaughlin-Rotman Centre, McLaughlin Center for Molecular Medicine, University Health Network and University of Toronto, Toronto, ON, Canada, 3Center for Vector Biology and Control Research, Kenya Medical Research Institute, Kisumu, Kenya, 4Division of Parasitic Diseases, Centers for Disease Control and Prevention, Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA, United States

(ACMCIP Abstract)

2:30 p.m.
976
APOPTOSIS OF HUMAN ENDOTHELIAL CELLS INDUCED BY PLASMODIUM FALCIPARUM-INFECTED ERYTHROCYTES FROM SYMPTOMATIC INDIVIDUALS
Fousseyni S. Toure-Ndouo
Centre International de Recherches Medicales de Franceville, Franceville, Gabon

(ACMCIP Abstract)

2:45 p.m.
977
HIGH POLYMORPHISM OF PARASITES ISOLATES IS ASSOCIATED WITH CEREBRAL MALARIA IN DAKAR
Ndeye Bob1, Bernard Diop2, Laurence Marrama1, Marie Thèsrèr Ekalal, Adamia Tall1, Babacar Ka2, Philippe Joyette2, Yacine Seck1, Odile Mercereau Pujialon2, Ronan Jambou1
1Institut Pasteur de Dakar, Dakar, Senegal, 2CHU Fann, Dakar, Senegal, 3Institut Pasteur, Paris, France, 4Hopital Principal de Dakar, Dakar, Senegal, 5Institut Pasteur Paris, Paris, France

(ACMCIP Abstract)

3 p.m.
978
SEGMENTAL GENE CONVERSION GENERATES GENETIC DIVERSITY WITHIN THE MULTICOPY VAR GENE FAMILY OF PLASMODIUM FALCIPARUM
Matthias Frank, Laura Kirkman, Daniel Costantini, Ron Dzikowski, Kirk Deitsch
Weill Medical College of Cornell University, New York City, NY, United States

(ACMCIP Abstract)
Three Complementary Approaches to Meet the Challenges of the Artemisinin Supply Chain

Marquis 4

Wednesday, November 15 1:30 p.m. – 3:15 p.m.

Artemisinin-based combination therapies (ACTs) are essential components of the current control strategies aimed at curbing the growing problem of malaria. Despite substantial efforts to increase artemisinin production, the effort to provide a consistent and steady supply of low-cost artemisinin derivative to meet the growing demand of ACTs still eludes us. To address the challenges of artemisinin derivatives manufacturing and supply, three different and complementary approaches are currently being pursued. First, the Medicines for Malaria Venture, in collaboration with Ranbaxy Ltd, is developing a new low-cost and completely synthetic antimalarial molecule (Oz277) based on artemisinin’s endoperoxide bridge. Second, a partnership between the Institute for OneWorld Health, University of California, Berkeley, and Amyris Biotechnologies is leveraging the promise of synthetic biology to develop a new method for the production of artemisinin through the fermentation of genetically engineered microbes. Finally, a plant biology consortium is applying fast-track breeding technologies to increase the yield of artemisinin in Artemisia annua to improve the plant extraction process. In this symposium the different international groups will present their unique strategies and will discuss the forecasted impact of the success of their approaches within the larger context of the global fight against malaria.

CHAIR
Thierry Diagana
Institute for OneWorld Health, San Francisco, CA, United States

Thomas Brewer
Bill and Melinda Gates Foundation, Seattle, WA, United States

1:30 p.m.
INTRODUCTION
Thomas Brewer
Bill and Melinda Gates Foundation, Seattle, WA, United States

1:45 p.m.
SYNTHETIC ENDOPEROXIDES
J. Carl Craft
Medicines for Malaria Venture, Geneva, Switzerland

2:15 p.m.
MICROBIAL DERIVED ATEMISININ: A BIOTECHNOLOGY SOLUTION TO THE GLOBAL PROBLEM OF ACCESS TO AFFORDABLE ANTIMALARIAL DRUGS
Victoria Hale
Institute for OneWorld Health, San Francisco, CA, United States

2:45 p.m.
FAST-TRACK BREEDING OF ATEMISIA ANNUA
Dianna Bowles
University of York, York, United Kingdom
Scientific Session 108

Flavivirus II — Vaccines

Marquis 1

Wednesday, November 15 1:30 p.m. – 3:15 p.m.

CHAIR

David W. Vaughn
U.S. Army Medical Research and Materiel Command, Silver Spring, MD, United States

Stephen Whitehead
National Institutes of Health, Bethesda, MD, United States

1:15 p.m.

979

DNA VACCINE ENCODING DENGUE PREMEMBRANE AND ENVELOPE (PRM/E) INDUCES ROBUST ANTIBODY AND CELLULAR IMMUNE RESPONSES IN SWINE: DEVELOPMENT OF A NOVEL LARGE ANIMAL MODEL FOR DENGUE IMMUNOGENICITY

Jeffrey A. Tjaden, Jorge Pardo, Hemavyathy Subramanian, Calvin B. Reed, Kevin R. Porter, Timothy H. Burgess
Naval Medical Research Center, Silver Spring, MD, United States

1:30 p.m.

980

SAFE, EFFECTIVE, RECOMBINANT SUBUNIT VACCINE FOR PROTECTION AGAINST DENGUE VIRUS INDUCED DISEASE

Beth-Ann Coller1, Michael Lieberman1, J. Robert Putnak2, David Clements1, Steven Ogata1, Michael Thorne1, Timothy Martyak1, David Chang1, Axel Lehrer1, Teri Wong1, Carolyn Weeks-Levy1
1Hawaii Biotech, Inc., Aiea, HI, United States, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States

1:45 p.m.

981

THE LIVE ATTENUATED DENGUE SEROTYPE 2 VACCINE RDEN2/4DELTA30 IS SAFE AND IMMUNOGENIC IN HEALTHY VOLUNTEERS

Julie H. McArthur1, Jennifer A. Marron1, Bhavin Thumar1, Kimberli A. Wanioneke1, Janece M. Lovchik1, Joseph E. Blaney2, Brian R. Murphy2, Stephen S. Whitehead2, Anna P. Durbin1
1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, 2National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

2 p.m.

982

GENERATION OF ADDITIONAL LIVE ATTENUATED VACCINE CANDIDATES FOR DENGUE VIRUS SEROTYPES 1 AND 3 USING REVERSE GENETICS

Joseph Blaney, Neeraj Sathe, Brian Murphy, Stephen Whitehead
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

2:15 p.m.

983

DEVELOPMENT OF NOVEL VACCINE FORMULATIONS AGAINST TICK BORNE ENCEPHALITIS BASED ON RECOMBINANT SUBUNIT PROTEINS

Axel T. Lehrer1, Beth-Ann Coller1, Michael M. Lieberman1, David E. Clements1, Steven A. Ogata1, Bo Liu1, Christine Matsusura1, James Senda1, Charmaine S. Aniya1, Mike Thorne1, Timothy Martyak1, Teri-Ann S. Wong1, Stephanie Widner1, Eric M. Rohlinger1, Beverly Orillo1, Michael R. Holbrook2, Alan D. Barrett2, Tom D. Humphreys1, Carolyn L. Weeks-Levy1
1Hawaii Biotech, Inc., Aiea, HI, United States, 2University of Texas Medical Branch, Galveston, TX, United States

2:30 p.m.

984

PASSIVE TRANSFER OF HUMAN ANTIBODIES AGAINST A NEW JAPANESE ENCEPHALITIS VIRUS VACCINE PROTECTS MICE AGAINST LETHAL DOSE OF VIRUS

Yvonne Van Gessel1, Robert Putnak2, Montip Gettayacamin3, Christoph Klade4, Erich Tauber4, Art Lyons2, Wellington Sun2, Shailesh Dewasthaly4
1Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States, 3Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, 4InterCell AG, Vienna, Austria

3 p.m.

985

A NOVEL, VERO CELL DERIVED, PURIFIED, INACTIVATED JAPANESE ENCEPHALITIS VIRUS VACCINE: RESULTS OF A RANDOMIZED CONTROLLED PHASE 3 TRIAL

Erich Tauber1, Herwig Kollaritsch2, Maria Korinek2, Pamela Rendi-Wagner2, Bernd Jilma3, Christa Firbas3, Sabine Schranz3, Elaine Jong4, Anton Klingler4, Christoph Klade1
1InterCell AG, Vienna, Austria, 2Medical University Vienna, Department of Specific Prophylaxis and Tropical Medicine at the Institute of Pathophysiology, Vienna, Austria, 3Medical University Vienna, Department of Clinical Pharmacology, Vienna, Austria, 4University of Washington, Department of Medicine, Seattle, WA, United States, 5Medical University Innsbruck, Department of General and Transplants Surgery, Theoretical Surgery Unit, Vienna, Austria
Symposium 109

Update from the Intermittent Preventive Treatment in Infants (IPTi) Consortium: Pooled Evidence on the Safety and Efficacy of IPTi with Sulfadoxine-Pyrimethamine and Implications for Policy Change and Program Implementation

Marquis 2

Wednesday, November 15 1:30 p.m. – 3:15 p.m.

The symposium will provide an update on the progress of the IPTi Consortium towards its goal of having sufficient information regarding IPTi with SP for an evidence-based policy decision to be made. Topics presented will include new data from recently completed trials in Gabon and Ghana, a pooled analysis on safety and efficacy of IPTi with SP and lessons learned during the progress of a large-scale effectiveness trial of IPTi in Southern Tanzania. The implications of these data regarding the potential adoption of IPTi as policy in sub-Saharan Africa, and progress towards such a policy recommendation, will also be discussed.

CHAIR
Robert David Newman
Centers for Disease Control and Prevention, Atlanta, GA, United States

1:30 p.m.
INTRODUCTION
Robert D. Newman
Centers for Disease Control and Prevention, Atlanta, GA, United States

1:35 p.m.
IPTI EFFICACY STUDIES: AN OVERVIEW ON RECENT TRIALS FROM GABON AND GHANA
Martin Peter Grobusch
University of the Witwatersrand, Parktown, Johannesburg, South Africa

1:55 p.m.
POOLED ANALYSIS OF SAFETY DATA FROM CLINICAL TRIALS OF IPTI WITH SP
Alexander Nii Oto Dodoo
U Ghana Medical School: Centre for Tropical Clinical Pharmacology, Accra, Ghana

2:15 p.m.
POOLED ANALYSIS OF EFFICACY DATA FROM CLINICAL TRIALS OF IPTI WITH SP
John Aponte
Center for International Health, Hospital Clinic Barcelona, Barcelona, Spain

2:35 p.m.
OPERATIONALIZING IPTI: EXPERIENCE FROM SOUTHERN TANZANIA
Joanna Armstrong Schellenberg
Ifakara Health Research and Development Centre, Dar es Salaam, United Republic of Tanzania

2:55 p.m.
IPTI — STEPS TOWARDS POLICY AND IMPLEMENTATION
Jane Margaret Stewart Crawley
Global Malaria Program, Geneva, Switzerland

Symposium 110

Refugee and Immigrant Health Issues in the United States and Canada I

Hilton Hotel – Grand Salon A

Wednesday, November 15 1:30 p.m. – 3:15 p.m.

This two-part clinical care symposium will cover health care issues in refugees and immigrants in the U.S. and Canada. The symposium will address the burden of disease in refugee camps and its impact on health in the United States and other host countries. Changes in the screening and empirical treatment of refugees prior to departure to the U.S. and Canada will be reviewed. In addition, epidemiology regarding the burden of vaccine preventable disease, tuberculosis, malaria and geohelminthic infection will be reviewed. Diagnosis and medical treatment of refugees and immigrants in the U.S. and Canada will be reviewed. This session will also address the difficulties in diagnosing disease among patients who have previously been exposed to tropical diseases and who have limited access to care.

CHAIR
Theresa A. Townley
Creighton University, Omaha, NE, United States

1:30 p.m.
CURRENT PRE-DEPARTURE SCREENING OF REFUGEES
Michelle Weinberg
Centers for Disease Control and Prevention/National Center for Infectious Diseases/DQ, Atlanta, GA, United States

1:55 p.m.
VACCINE PREVENTABLE DISEASE AMONG IMMIGRANTS AND REFUGEES
Christina Greenaway
SMBD Jewish General Hospital, Montreal, QC, Canada

2:20 p.m.
PEDIATRIC ISSUES IN REFUGEES AND IMMIGRANTS
Elizabeth Barnett
Boston Medical Center, Boston, MA, United States

2:45 p.m.
NUTRITIONAL AND ENVIRONMENTAL ISSUES AMONG REFUGEES AND IMMIGRANTS
Paul Geltman
Boston Medical Center, Boston, MA, United States
Symposium 111
Opportunistic Waterborne Pathogens
Hilton Hotel – Grand Salon B
Wednesday, November 15 1:30 p.m. – 3:15 p.m.

This symposium is designed to provide ASTMH members with numerous updates on this highly active and rapidly progressing field of interest. Developments and research on opportunistic waterborne pathogens have expanded considerably during the last years. Our topics and speakers have been carefully selected to best outline new aspects of multidisciplinary research in the field of opportunistic waterborne pathogens relevant to many diseases of interest to ASTMH members, and to update researchers, clinicians, and clinical microbiologists concerned with opportunistic infections.

CHAIR
Thaddeus K. Graczyk
Johns Hopkins University, Baltimore, MD, United States

1:30 p.m.
MOLECULAR ECOLOGY OF WATERBORNE *ESCHERICHIA COLI*
J. Higgins
United States Department of Agriculture (USDA), Beltsville, MD, United States

1:55 p.m.
EVOLVING EPIDEMIOLOGY OF MICROSPORIDIA
A. DaSilva
Centers for Disease Control and Prevention, Atlanta, GA, United States

2:20 p.m.
*CRYPTOSPORIDIUM* TRANSMISSION CYCLES
Thaddeus K. Graczyk
Johns Hopkins University, Baltimore, MD, United States

2:45 p.m.
HUMAN ENTERIC VIRUSES AS EMERGING WATERBORNE PATHOGENS
K. Schwab
Johns Hopkins University, Baltimore, MD, United States

Symposium 112
Resource-Seeking Activities of Mosquitoes in Relation to Environmental Management for Malaria Control
Hilton Hotel – Grand Salon C
Wednesday, November 15 1:30 p.m. – 3:15 p.m.

Resource-seeking activities, including blood meals from hosts and oviposition in aquatic habitats dictate mosquito response to environmental changes in the distribution and abundance of these resources. However, behavioral responses of mosquitoes to changes in the availability of these resources have not yet been evaluated in the context of malaria transmission. This symposium is to review and update theoretical, behavioral and empirical investigations of resource-seeking activities in the light of environmental management programmes. The focus will be placed on developing a new perspective of environmental management by linking resource-seeking processes of mosquitoes to the potential of malaria transmission.

CHAIR
Weidong Gu
Illinois Natural History Survey, Champaign, IL, United States

1:30 p.m.
INTRODUCTION
Weidong Gu
Illinois Natural History Survey, Champaign, IL, United States

1:35 p.m.
INTEGRATION OF RESOURCE-SEEKING BEHAVIORS OF MOSQUITOES IN EVALUATION OF THE IMPACT OF ENVIRONMENT MANAGEMENT
Weidong Gu
Illinois Natural History Survey, Champaign, IL, United States

2 p.m.
COULD MEMORY INFLUENCE RESOURCE LOCATION BEHAVIOURS IN MOSQUITOES?
Philip McCall
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

2:25 p.m.
HOW MOSQUITOES PERCEIVE HOSTS FOR BLOOD MEALS?
Daniel Kline
United States Department of Agriculture (USDA), Gainesville, FL, United States

2:50 p.m.
A PERSPECTIVE OF ENVIRONMENTAL MANAGEMENT FOR MALARIA CONTROL
Robert Novak
Illinois Natural History Survey, Champaign, IL, United States
Symposium 113

Tropical Neurology
Hilton Hotel – Grand Salon D
Wednesday, November 15 1:30 p.m. – 3:15 p.m.

Tropical neurology encompasses a variety of neurologic disorders associated with infectious diseases or nutritional deficiencies. Although most such disorders were initially described in people living in developing countries, neurologists in all parts of the world are increasingly confronted with the diagnostic and therapeutic challenges associated with neurologic disorders in people who have immigrated from or traveled through developing countries. This course will review the diagnosis and management of a variety of “tropical” disorders: parasitic CNS infections, neurocysticercosis, retroviral infections of the nervous system in developing countries and meningoencephalitis.

CHAIR
Joseph R. Zunt
University of Washington, Seattle, WA, United States
Silvia Margarita Montano
United States Naval Medical Research Center Detachment, Lima, Peru

1:30 p.m.
INTRODUCTION
Joseph R. Zunt
University of Washington, Seattle, WA, United States

1:35 p.m.
PARASITIC INFECTIONS OF THE CNS
Ana Claire Meyer
Harvard University, Boston, MA, United States

2 p.m.
NEUROCYSTICEROSIS
Felicia Chow
Johns Hopkins University, Baltimore, MD, United States

2:25 p.m.
RETROVIRAL INFECTIONS OF THE NERVOUS SYSTEM
Silvia Margarita Montano
United States Naval Medical Research Center Detachment, Lima, Peru

2:50 p.m.
MENINGOENCEPHALITIS IN TROPICAL SETTINGS
Joseph R. Zunt
University of Washington, Seattle, WA, United States

Symposium 114

Scaling-up HAART in Africa: Achievements and Challenges
Hilton Hotel – Grand Salon E
Wednesday, November 15 1:30 p.m. – 3:15 p.m.

The much anticipated influx of funds and resources under the initiatives such the Global Fund to Fight AIDS, Tuberculosis, and Malaria; the U.S. President’s Emergency Plan for AIDS Relief, the World Bank’s Multi-Country HIV/AIDS Program for the Africa Region and a growing number of national HIV/AIDS programs initiatives have led to a significant increase of HIV-infected patients being on Antiretroviral Therapy in Africa. This HIV/AIDS Symposium will provide a progress report to include achievements and challenges of the current scaling-up of HAART in Africa.

CHAIR
Jean Nachega
Johns Hopkins University, Baltimore, MD, United States
Tom Quinn
Johns Hopkins University, Baltimore, MD, United States
John Kaplan
Centers for Disease Control and Prevention, Atlanta, GA, United States

1:30 p.m.
GLOBAL EPIDEMIOLOGY OF HIV/AIDS: UPDATE
Tom Quinn
Johns Hopkins University, Baltimore, MD, United States

1:55 p.m.
THE GLOBAL AIDS PROGRAM: PROGRESS REPORT
John Kaplan
Centers for Disease Control and Prevention, Atlanta, GA, United States

2:20 p.m.
CLINICAL AND PUBLIC HEALTH CHALLENGES OF HAART SCALING IN AFRICA
Jean Nachega
Johns Hopkins University, Baltimore, MD, United States

2:45 p.m.
A COMPREHENSIVE APPROACH FOR HIV/AIDS CARE AND TREATMENT IN AFRICA
Jono Mermin
Centers for Disease Control and Prevention, Kampala, Uganda
Coffee Break

International Level

Wednesday, November 15 3:15 p.m. – 3:45 p.m.

Symposium 115

Strengthening Health Systems in Africa to Deliver Malaria Control Interventions

International 5/6

Wednesday, November 15 3:45 p.m. – 5:30 p.m.

The World Health Organization defines health systems as “all organizations, institutions and resources that produce actions whose primary purpose is to produce health,” thus including not only hospitals and clinics, but also various community organizations and the private sector. Effective malaria control requires not only selection of effective interventions, but also strengthening these health systems so that they can achieve high coverage and sustain this coverage over time. Speakers in this symposium will describe current efforts to build the capacity of health systems to deliver malaria prevention and control interventions, examine relevant lessons from the history of malaria control in Africa and demonstrate how an understanding of historical and cultural factors can inform current initiatives.

CHAIR

Peter Winch
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Amy E. Patterson
Emory University Rollins School of Public Health, Atlanta, GA, United States

3:45 p.m.

INTRODUCTION

Peter Winch
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

3:55 p.m.

THE MALARIA BOOSTER PROGRAM: ACCELERATING IMPLEMENTATION OF MALARIA INTERVENTIONS IN AFRICA

Eva Jarawan
The World Bank, Washington, DC, United States

4:15 p.m.

STRENGTHENING HEALTH SYSTEMS FOR MALARIA CONTROL IN AFRICA USAID’S APPROACHES FROM HEALTH SYSTEM ASSESSMENT TO INFORMATION FEEDBACK FOR DECISION MAKING

Karen Cavanaugh
United States Agency for International Development, Washington, DC, United States

4:35 p.m.

STRENGTHENING HEALTH SYSTEMS FOR MALARIA CONTROL: WHAT IS THE HISTORICAL EXPERIENCE?

Randall Packard
Johns Hopkins University, Baltimore, MD, United States

4:55 p.m.

ADAPTING MALARIA CONTROL STRATEGIES TO LOCAL CULTURAL CONDITIONS: LESSONS FROM MEDICAL ANTHROPOLOGY

Peter J. Brown
Emory University, Atlanta, GA, United States

5:15 p.m.

DISCUSSION AND CONCLUDING REMARKS

Peter Winch
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Scientific Session 116

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) — Immunoparasitology II

Supported with funding from the Burroughs Welcome Fund

Copenhagen/Stockholm/Amsterdam

Wednesday, November 15 3:45 p.m. – 5:30 p.m.

CHAIR

Peter Zimmerman
Case Western Reserve University, Cleveland, OH, United States

Diane McMahon-Pratt
Yale University School of Medicine, New Haven, CT, United States

3:45 p.m.

1117

REGULATORY T CELLS AVOID LIVER PATHOLOGY DURING AFRICAN TRYPANOSOMIASIS AND HEREBY CONTRIBUTE TO TRYPANOTOLERANCE

Martin Guilliams¹, Patrick De Baetselier¹, Thomas Hünig², Alain Beschin¹

¹Vrije Universiteit Brussel, Brussels, Belgium, ²Wurzburg University, Wurzburg, Germany
**Detailed Program**

**Scientific Session 117**

**Malaria — Biology and Pathogenesis II**

**Marquis 3**

**Wednesday, November 15**

**3:45 p.m. – 5:30 p.m.**

**CHAIR**

Sanjai Kumar

**U.S. Food and Drug Administration, Rockville, MD, United States**

Jonathan K. Stiles

**Morehouse School of Medicine, Atlanta, GA, United States**

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**4:00 p.m.**

**986**

**PHENOTYPIC VARIATION IN P. FALCIPARUM INVASION OF ERYTHROCYTES IS A MECHANISM OF IMMUNE EVASION**

Kristina E. Persson¹, Fiona J. McCallum¹, Linda Reiling¹, Janine Stubbs¹, Nicole Lister¹, Thomas Williams¹, Kevin Marsh², Alan F. Cowman¹, James G. Beeson¹

¹The Walter and Eliza Hall Institute of Medical Research, Melbourne, Victoria, Australia, ²Centre for Geographic Medicine Research Coast, Kenya Medical Research Institute, Kilifi, Kenya

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**4:15 p.m.**

**987**

**IMPACT OF FETAL EXPOSURE TO PLASMODIUM FALCIPARUM ON THE SUSCEPTIBILITY TO INFECTION DURING CHILDHOOD**

Indu Malhotra¹, Peter Mungai², John H. Ouma², Eric Muchiri³, Christopher L. King¹

¹Case Western Reserve University, Cleveland, OH, United States, ²Kenyatta University, Nairobi, Kenya, ³Division of Vector Borne Diseases, Nairobi, Kenya

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**4:30 p.m.**

**988**

**PLASMODIUM FALCIPARUM MEROZOITE SURFACE PROTEIN 3 IS A TARGET OF ALLELE-SPECIFIC IMMUNITY AND ALLELES ARE MAINTAINED BY NATURAL SELECTION**

Spencer D. Polley¹, Kevin K. Tetteh¹, Jennie M. Lloyd¹, Onome J. Akpogheneta¹, Brian M. Greenwood¹, Kalifa A. Bojang¹, David J. Conway²

¹London School of Hygiene and Tropical Medicine, London, United Kingdom, ²MRC Laboratories, Banjul, Gambia

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**4:45 p.m.**

**989**

**TRANSGENIC LEISHMANIA MAJOR EXPRESSING MURINE CD40L CAUSE REDUCED PATHOLOGY IN MICE AND PROVIDE PROTECTION AGAINST WILD TYPE CHALLENGE**

Ann E. Field, David M. Mosser

University of Maryland, College Park, College Park, MD, United States

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**5:00 p.m.**

**990**

**MODULATION OF EARLY HUMAN IMMUNE RESPONSES BY LEISHMANIA CHAGASI**

Nicholas A. Ettinger¹, Mary Wilson²

¹University of Iowa Carver College of Medicine, Interdisciplinary Program in Cellular and Molecular Biology/Medical Scientist Training Program, Iowa City, IA, United States, ²University of Iowa and the Veterans Affairs Medical Center, Iowa City, IA, United States

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**4:15 p.m.**

**991**

**PROGNOSTIC PREDICTORS OF CEREBRAL MALARIA SEVERITY AND ASSOCIATED NEUROLOGICAL DISORDERS IN INDIA**

Vidhan Jain¹, Henry Armah², Jun E. Tongren³, Renee Ned³, Pradeep K. Joel³, Migrendra P. Singh¹, Avinash C. Nagpal¹, Venkatakachalam Udhayakumar³, Neeru Singh¹, Jonathan K. Stiles²

¹Regional Medical Research Center/Malaria Research Center, Jabalpur, India, ²Morehouse School of Medicine, Atlanta, GA, United States, ³Centers for Disease Control and Prevention, Atlanta, GA, United States

(ACMCIIP Abstract)

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**4 p.m.**

**992**

**MAGNETIC RESONANCE IMAGING (MRI) EVIDENCE OF WHITE MATTER INJURY IN PATIENTS WITH ACUTE UNCOMPLICATED FALCIPARUM MALARIA**

Jiraporn Laothamatas¹, Christina L. Tosti², Xavier Golay³, Marc Van Cauteren⁴, Varinee Lekprasert¹, Noppadon Tangpukedee¹, Srivicha Krudsood¹, Wattana Leowattana¹, Polrat Wilairatana¹, Sirima V. Swaminathan³, Robert L. DeLaPaz², Truman R. Brown², Somchai Looaresuwan¹, Gary M. Brittenham²

¹Mahidol University, Bangkok, Thailand, ²Columbia University, New York, NY, United States, ³National Neuroscience Institute and Singapore Bioimaging Consortium, Singapore, Singapore, ⁴Philips Medical Systems Asia Pacific, Tokyo, Japan, ⁵Philips Medical Systems, Cleveland, OH, United States

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**4:15 p.m.**

**993**

**CO-EXISTING ERYTHROCYTE POLYMORPHISMS AND SEVERE MALARIA WITH MIXED-SPECIES INFECTIONS IN MADANG, PAPUA NEW GUINEA**

Sheral S. Patel¹, Harin Karunajeewa², Svetlana Katsnelson³, Ivo Mueller⁴, John C. Reeder⁴, Timothy Davis²

¹Eastern Connecticut Health Network, Manchester, CT, United States, ²University of Western Australia, Fremantle, Australia, ³Case Western Reserve University, Cleveland, OH, United States, ⁴Papua New Guinea Institute of Medical Research, Goroka, Papua New Guinea

(ACMCIIP Abstract)
THE PARASITOLOGY AND IMMUNOLOGY OF THE LUNGS IN FATAL PLASMODIUM FALCIPARUM MALARIA

Danny A. Milner¹, Steve Kamiza², Geraldine Pinks³, Malcolm Molyneux⁴, Terrie Taylor⁵
¹The Brigham and Women’s Hospital, Boston, MA, United States, ²The University of Malawi College of Medicine, Blantyre, Malawi, ³The Malawiliverpool/Wellcome Trust Research Laboratories, Blantyre, Malawi, ⁴Michigan State University, Department of Internal Medicine, East Lansing, MI, United States

(TW Yeo, Molyneux, Milner, Kesehatan Kabupaten, Mimika, Indonesia, ³University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases, Kisumu, Kenya, University of Malawi College of Medicine, Blantyre, Malawi, ³The Malawi/liverpool/Wellcome Trust Research Laboratories, Blantyre, Malawi, ⁴Michigan State University, Department of Internal Medicine, East Lansing, MI, United States

(ACMCI Abstract)

IMPARED ENDO THELIAL FUNCTION IN ADULTS WITH SEVERE FALCIPARUM MALARIA IN PAPUA, INDONESIA

TW Yeo¹, DA Lampah², E. Kenangalem³, R. Gitawati⁴, G. Waramori⁵, Y. McNeil⁶, S. Duffull⁷, E. Tijira⁸, RN Price⁹, D. Cedermajer¹⁰, NM Anstey¹¹
¹Menzies School of Health Research, Darwin, Australia, ²National Institutes of Health RD-MSHR Research Programme, Timika, Indonesia, ³Dinas Kesehatan Kabupaten, Mimika, Indonesia, ⁴National Institute of Health Research and Development, Jakarta, Indonesia, ⁵International SOS, Timika, Indonesia, ⁶University of Queensland, Brisbane, Australia, ⁷Oxford University, Oxford, United Kingdom, ⁸University of Sydney, Sydney, Australia

5 p.m.

IMPARED CY TOADHERENCE OF PLASMODIUM FALCIPARUM-INFECTED ERYTHROCYTES: IMPLICATIONS FOR THE MALARIA PROTECTIVE EFFECT OF SICKLE TRAIT

Rushina Cholera, Rick M. Fairhurst, Nathaniel J. Brittain, Takayuki Arie, James A. Dvorak, Thomas E. Wellems
Laboratory of Malaria and Vector Research/National Institute of Allergy and Infectious Diseases/National Institutes of Health, Bethesda, MD, United States

(ACMCI Abstract)

IMPACT OF NATURALLY ACQUIRED PLASMODIUM FALCIPARUM HEMOZOIN ON HEMATOLOGICAL COMPLICATIONS IN INFANTS AND YOUNG CHILDREN WITH MALARIA IN A HOLOENDEMIC TRANSMISSION AREA

Yamo E. Ouma¹, Richard O. Otieno², Collins Ouma³, Gordon A. Awandare, Christopher C. Keller³, Zippora Ng’ang’a³, John Michael Ong’echa³, Douglas J. Perkins³
¹University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases and Kenyatta University, Kisumu, Kenya, ²University of Pittsburgh/KEMRI Laboratories of Parasitic and Viral Diseases, Kisumu, Kenya, ³University of Pittsburgh Graduate School of Public Health, Department of Infectious Diseases and Microbiology, Pittsburgh, PA, United States, ⁴Kenyatta University, Nairobi, Kenya

(ACMCI Abstract)
Detailed Program

4:30 p.m.

1001

IMPACT OF INTERMITTENT PREVENTIVE TREATMENT WITH SULFADOXINE-PYRIMETHAMINE PLUS INSECTICIDE TREATED NETS, DELIVERED THROUGH ANTENATAL CLINICS, FOR THE PREVENTION OF MALARIA IN MOZAMBIAN PREGNANT WOMEN

Clara Menéndez1, Azucena Bardají2, Sonia Machevo3, Sonia Amós4, Cleofé Romagosa2, Maria Maixenchs3, Eusebio Macete3, Betuel Sigauque3, Elisa Tembe4, Ana Berenguera2, Sergi Sanz2, John Aponte2, Pedro L. Alonso2

1International Health Centre, Barcelona, Spain, 2International Health Centre, IDIBAPS, Barcelona, Spain, 3Manhiça Health Research Centre, Manhiça, Mozambique, 4Manhiça Health Centre, Manhiça, Mozambique

4:45 p.m.

1002

SINGLE DOSE SULFADOXINE-PYRIMETHAMINE OR ARTHEMETER-LUMEFANTRINE IN INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN UNDER FIVE CHILDREN IN A HIGH AND SEASONAL MALARIA TRANSMISSION AREA OF BURKINA FASO

Ouédraogo Alphonse

Centre National de Recherche et de Formation sur le Paludisme, Ouagadougou, Burkina Faso

5 p.m.

1003

ERYTHROPOIETIN-ARTESUNATE DRUG COMBINATION FOR MURINE CEREBRAL MALARIA

Anne-Lise Bienvenu, karine kaiser, Josette Ferrandiz, Christine Latour, Stephane Picot

University Claude Bernard, Faculty of Medicine, Lyon, France

(ACMCIP Abstract)

5:15 p.m.

1004

A REPRODUCIBLE MURINE MODEL FOR P. FALCIPARUM MALARIA

Iñigo Angulo-Barturen1, Mª Belén Jiménez-Diaz1, Teresa Mulet1, Joaquín Rullas1, Esperanza Herreros1, Santiago Ferrer1, Elena Jiménez1, Antonio Martínez1, Javier Regadera1, Philip J. Rosenthal1, David L. Pompliano4, Federico Gómez de las Heras3, Domingo Gargallo-Viola1

1GlaxoSmithKline I+D, SL, Tres Cantos (Madrid), Spain, 2Department of Anatomy, Histology and Neuroscience, Faculty of Medicine, Universidad Autónoma de Madrid, Madrid, Spain, 3Department of Medicine, San Francisco General Hospital, University of California, San Francisco, CA, United States, 4GlaxoSmithKline, Collegeville, PA, United States

Symposium 119

Progress in the Clinical Management of Alveolar Echinococcosis

International 7

Wednesday, November 15 3:45 p.m. – 5:30 p.m.

Alveolar Echinococcosis (AE) is one of the most severe helminthic infections in humans. Diagnosis at a late stage, complications and difficult clinical management of AE largely contribute to the unfavorable disease burden. The PNM-classification and staging of the disease as well as recent advances in diagnostic tools, i.e. Em18 serology and imaging (Positron-Emission-Tomography) contribute to a better stratification of the patients and to an optimized management. This symposium is designed to update the progress and to discuss new diagnostic and therapeutic options.

CHAIR

Peter Kern
University of Ulm, Ulm, Germany

Peter M. Schantz
Centers For Disease Control and Prevention, Atlanta, GA, United States

3:45 p.m.

INTRODUCTION

Peter Kern
University of Ulm, Ulm, Germany

Peter M. Schantz
Centers For Disease Control and Prevention, Atlanta, GA, United States

3:55 p.m.

INTRODUCTION: GLOBAL IMPACT OF ALVEOLAR ECHINOCOCCOSIS

Christine M. Budke
Texas A&M, College Station, TX, United States

4:10 p.m.

SEROLOGICAL AND MOLECULAR TOOLS FOR DIAGNOSIS

Akira Ito
Asahikawa Medical College, Asahikawa, Japan

4:30 p.m.

PROGRESS IN IMAGING AND CLASSIFICATION

Stefan Reuter
University Hospital and Medical Center, Ulm, Germany

4:50 p.m.

CLINICAL MANAGEMENT AND CRITICAL REAPPRAISAL OF LIVER TRANSPLANTATION

Solang Bresson-Hadni
University of Franche-Comte, Besancon, France

5:10 p.m.

CURRENT AND PROSPECTIVE TOOLS FOR THERAPY

Andrew Hemphill
University of Berne, Berne, Switzerland
Scientific Session 120

Flavivirus III — Dengue II

Marquis 1

Wednesday, November 15 3:45 p.m. – 5:30 p.m.

CHAIR
Carol D. Blair
Colorado State University, Fort Collins, CO, United States

Robert Gibbons
Armed Forces Research Institute for Medical Sciences, Bangkok, Thailand

3:45 p.m.

1005

IMMUNOPATHOGENESIS OF SYMPTOMATIC DENGUE IN THE FIRST 18 MONTHS OF LIFE
Chau N. Tran1, Hung Thanh Nguyen2, Thuy Thi Le3, Tuan Minh Nguyen2, Bao Tan Le2, Lien Bich Le2, My Thi Lam2, Cam Van Bach2, Hoang Minh Dang1, Jeremy Farrar1, Cameron Simmons1

1Clinical Research Unit, Hospital for Tropical Diseases, HoChiMinh, Vietnam, 2Paediatric Hospital 1, HoChiMinh, Vietnam, 3Paediatric Hospital 2, HoChiMinh, Vietnam

4 p.m.

1006

SPECTRUM AND KINETIC OF T CELL RESPONSES TO DENGUE VIRUS EPITOPES AND THE INFLUENCE OF HLA POLYMORPHISMS IN DENGUE DISEASE PATHOGENESIS
Dung Nguyen1, Tao Dong2, Van Vinh Chau Nguyen1, Minh Dung Nguyen2, Bridget Wills1, Sarah Rowland-Jones2, Jeremy Farrar1, Cameron Simmons1

1Clinical Research Unit, Hospital for Tropical Diseases, Ho Chi Minh City, Vietnam, 2Institute for Molecular Medicine, Nuffield Department of Clinical Medicine, John Radcliffe Hospital, University of Oxford, Oxford, United Kingdom, 3Hospital for Tropical Diseases, Ho Chi Minh City, Vietnam

4:15 p.m.

1008

GENE EXPRESSION PROGRAMS IN ADULTS WITH ACUTE DENGUE INFECTIONS
Stephen Popper1, Cameron P. Simmons2, Christiane Dolecek2, Tran Nguyen Bich Chau1, Michael Griffiths1, Nguyen Thi Phuong Dung2, Truong Hoang Long1, Dang Minh Hoang2, Nguyen Van Vinh Chau1, Le Thi Thu Thao3, Tran Tinh Hien3, David A. Relman1, Jeremy Farrar4

1Stanford University School of Medicine, Stanford, CA, United States, 2Oxford University Clinical Research Unit, Ho Chi Minh City, Vietnam, 3Hospital for Tropical Diseases, Ho Chi Minh City, Vietnam

4:30 p.m.

1009

A GENETIC ASSOCIATION STUDY OF DHF AND SEVERE DENGUE
Ronald E. Blanton1, Luciano K. Silva, Vanessa Morato2, Juarez P. Dias2, Paulo S. Melo1, Antonio R. Parrado1, Eliana A. Reis2, Katrina A. Goddard1, Márcio R. Nunes2, Sueli G. Rodrigues2, Pedro F. Vasconcelos2, Jesuina M. Castro2, Mitermayer G. Reis2, Maurício L. Barreto2, Maria G. Teixeira2

1Case University, Cleveland, OH, United States, 2Centro Universitário da Bahia, Salvador, Brazil, 3Universidade Federal da Bahia, Salvador, Brazil, 4Secretaria da Saúde do Estado da Bahia, Salvador, Brazil, 5Fundação Oswaldo Cruz, Salvador, Brazil, 6Instituto Evandro Chagas, Belém, Brazil

5:15 p.m.

1010

AB BLOOD GROUP APPEARS TO BE A RISK FACTOR FOR SEVERE DENGUE DISEASE IN SECONDARY DENGUE INFECTION
Robert V. Gibbons1, Chuanpis Ajiaryakhajorn1, Ananda Nisalak1, Richard G. Jarman1, Sharone Green1, Mammen P. Mammen1, Guey Chuenn Cerg1

1US Army Medical Component, Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, 2Center for Infectious Disease and Vaccine Research, University of Massachusetts Medical School, Worcester, MA, United States

5:30 p.m.

1011

RELATIONSHIP OF DENGUE RECEPTORS IN MOSQUITOES WITH VECTOR COMPETENCE
Ricardo F. Mercado-Curiel1, Héctor A. Esquínca-Avilés2, Alvaro Diaz-Badillo3, Minerva Camacho-Nuez4, William C. Black5, Barry Beaty4, Maria L. Munoz1

1Centro de Investigacion y de Estudios Avanzados del IPN, Mexico D. F., Mexico, 2Laboratory of Molecular Genetics, Universidad Autónoma de Chiapas, Chiapas, Mexico, 3Centro de Investigación en Ciencia Aplicada y Tecnología Avanzada del IPN, Mexico D. F., Mexico, 4Genomic Sciences Program, Universidad Autónoma de la Ciudad de México, Mexico D. F., Mexico, 5Colorado State University, Fort Collins, CO, United States
Symposium 121

Advances in Japanese Encephalitis Virus Immunization

Wednesday, November 15 3:45 p.m. – 5:30 p.m.

Japanese encephalitis virus (JEV) remains a considerable health problem in a vast geographical area. JEV poses unique risks to both civilian travelers and military personnel who visit or are deployed to endemic countries, as well as to persons who reside in such high risk countries. Intercell AG is developing a second generation, purified, inactivated JEV vaccine. Pivotal Phase 3 clinical trials with this novel JEV vaccine have been completed. This symposium will review the risks of JEV to various target populations, provide an update on Phase 3 clinical development with Intercell’s novel JEV vaccine and discuss recommendations for use of this new vaccine when licensed by regulatory authorities in the near future.

CHAIR
Archie C. Robinson
Intercell AG, Skillman, NJ, United States

David R. Shlim
Jackson Hole Travel and Tropical Medicine, Jackson, WY, United States

3:45 p.m.
INTRODUCTION
David Shlim
Jackson Hole Travel and Tropical Medicine, Jackson, WY, United States

3:50 p.m.
BURDEN OF JE IN SOUTHEAST ASIA: THE ROLE OF NGOs IN THE FIGHT AGAINST THIS DISEASE
Julie Jacobson
PATH, Seattle, WA, United States

4:10 p.m.
JEV RISKS AND VACCINATION PROGRAMS FOR US TROOPS
Charmagne G. Beckett
Naval Medical Research Center, Silver Spring, MD, United States

4:30 p.m.
JE: A PERSISTENT DILEMMA FOR TRAVEL MEDICINE PRACTITIONERS
David R. Shlim
Jackson Hole Travel and Tropical Medicine, Jackson, WY, United States

4:55 p.m.
UPDATE ON INTERCELL’S JEV VACCINE DEVELOPMENT
Erich Tauber
Intercell AG, Vienna, Austria

5:20 p.m.
QUESTIONS AND ANSWERS
David Shlim
Jackson Hole Travel and Tropical Medicine, Jackson, WY, United States

Symposium 122

Refugee and Immigrant Health Issues in the United States and Canada II

Wednesday, November 15 3:45 p.m. – 5:30 p.m.

This two-part clinical care symposium will cover health care issues in refugees and immigrants in the U.S. and Canada. The symposium will address the burden of disease in refugee camps and its impact on health in the United States and other host countries. Changes in the screening and empirical treatment of refugees prior to departure to the U.S. and Canada will be reviewed. In addition, epidemiology regarding the burden of vaccine preventable disease, tuberculosis, malaria and geohelminthic infection will be reviewed. Diagnosis and medical treatment of refugees and immigrants in the U.S. and Canada will be reviewed. This session will also address the difficulties in diagnosing disease among patients who have previously been exposed to tropical diseases and who have limited access to care.

CHAIR
Theresa Ann Townley
Creighton University, Omaha, NE, United States

3:45 p.m.
CASE PRESENTATIONS — IS THIS A TROPICAL DISEASE OR SOMETHING ELSE?
William M. Stauffer
University of Minnesota, Minneapolis, MN, United States

4:10 p.m.
HEPATITIS B AMONG REFUGEES AND IMMIGRANTS
Gregory Armstrong
Centers for Disease Control and Prevention, Atlanta, GA, United States

4:35 p.m.
BURDEN OF GEOHELMINTHIC DISEASE AMONG REFUGEES AND IMMIGRANTS
Drew Posey
Centers for Disease Control and Prevention, Atlanta, GA, United States

4:55 p.m.
TUBERCULOSIS INFECTION AMONG IMMIGRANTS IN THE UNITED STATES
Kamran Khan
St. Michael’s Hospital, Toronto, ON, Canada
Scientific Session 124
Mosquitoes — Biochemistry, Molecular Biology and Molecular Genetics II

Hilton Hotel – Grand Salon C
Wednesday, November 15 3:45 p.m. – 5:30 p.m.

CHAIR
Jason Rasgon
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Michael Riehle
University of Arizona, Tucson, AZ, United States

3:45 p.m.

1012
ANOPHELES GAMBIAE GENE EXPRESSION IS QUALITATIVELY AND QUANTITATIVELY AFFECTED BY INFECTION WITH WOLBACHIA ENDOSYMBIONS: INSIGHTS FROM AN IN VITRO SYSTEM
Jason L. Rasgon, Xiaoxia Ren, Courtney Gamston, Michael Petridis
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

(ACMCIP Abstract)

4 p.m.

1013
PATTERN RECOGNITION DIVERSITY IN THE ANOPHELES GAMBIAE INNATE IMMUNE SYSTEM
Yuemei Dong, George Dimopoulos
Johns Hopkins University, Baltimore, MD, United States

4:15 p.m.

1014
POPULATION GENOMICS OF CHROMOSOMAL INVERSIONS IN ANOPHELES GAMBIAE
Bradley J. White1, Matthew W. Hahn2, Karine Mouline3, Bryan J. Cassone1, Marco Pompi3, Frederic Simard4, Allesandra della Torre3, Nora J. Besansky1
1University of Notre Dame, Notre Dame, IN, United States, 2University of Indiana, Bloomington, IN, United States, 3University of Rome La Sapienza, Rome, Italy, 4IRD-UR016/OCEAC, Yaounde, Cameroon

4:30 p.m.

1015
MOSQUITO MICRORNAS: POSSIBLE ROLES IN DEVELOPMENT AND PHYSIOLOGICAL EVENTS TRIGGERED BY BLOOD FEEDING
Zhijian J. Tu, Song Li, Randy Saunders
Virginia Tech, Blacksburg, VA, United States

4:45 p.m.

1016
SEQUENCING THE GENOME OF AEDES AEGYPTI — THE YELLOW FEVER MOSQUITO
Neil F. Lobo1, Bruce W. Birren2, Brendan J. Loftus3, Vish Nene3, Frank H. Collins1, David W. Severson1
1University of Notre Dame, Notre Dame, IN, United States, 2Broad Institute, Cambridge, MA, United States, 3Institute for Genomic Research (TIGR), Rockville, MD, United States

5 p.m.

1017
MOLECULAR CLONING OF THE 2RJ INVERSION BREAKPOINTS IN THE BAMAKO CHROMOSOMAL FORM OF ANOPHELES GAMBIAE
Mamadou Coulibaly1, Neil F. Lobo2, Marcia Kern2, Maria Sharakhova3, Young Hong4, Olga Grushko5, Djibril Sangare2, Meagan Fitzpatrick2, Sekou F. Traore1, Jose Ribeiro6, Frank H. Collins2, Nora J. Besansky6
1Malaria Research and Training Center, Bamako, Mali, 2Center for Global Health and Infectious Diseases, University of Notre Dame, South Bend, IN, United States, 3Virginia Tech, Blacksburg, VA, United States, 4Tulane University, New Orleans, LA, United States, 5University of Michigan, Ann Arbor, MI, United States, 6National Institutes of Health, Bethesda, MD, United States

5:15 p.m.

1018
THE ANTI-MALARIA EFFECT OF ANOPHELES GAMBIAE LEUCINE-RICH REPEAT PROTEIN APL1 IS MEDIATED BY MAP KINASE-RELATED SIGNALING PATHWAYS
Jiannong Xu, Michelle M. Riehle, Kenneth D. Vernick
University of Minnesota, St Paul, MN, United States
Detailed Program

**Symposium 125**

**Merozoite Invasion of Erythrocytes**

_Hilton Hotel – Grand Salon D_

_Wednesday, November 15_  
_3:45 p.m. – 5:30 p.m._

Post-genomic studies of merozoite invasion of erythrocytes will be emphasized, with special focus on the classical _Plasmodium knowlesi_ invasion model and _P. vivax_, as well as _P. falciparum_. Unlike _P. vivax_ and _P. falciparum_, _P. knowlesi_ merozoites can be captured in the process of invading red blood cells, making this species special for understanding the molecular process of invasion. Genomic and proteomic tools, and transgenic technologies including electron microscopy, combined with traditional methods, are enabling the quick identification and functional characterization of novel proteins involved in merozoite invasion of erythrocytes. Several unique _P. vivax_ and _P. knowlesi_ merozoite proteins involved in invasion will be presented along with immuno-electron microscopy experiments, demonstrating for the first time proteins being localized as parasites are invading host cells. Finally, latest developments on the use of an in vitro culture system for _P. vivax_ merozoite invasion studies will be presented.

**CHAIR**

Mary R. Galinski  
Emory University, Atlanta, GA, United States

John H. Adams  
University of Notre Dame, Notre Dame, IN, United States

**3:45 p.m.**

**SECRETION AND MOTILITY: A NEW LOOK AT THE MOVING JUNCTION IN RED CELL INVASION BY MALARIA MEROZOITES**

Lawrence H. Bannister  
GKT School of Biomedical Sciences, London, United Kingdom

**4:10 p.m.**

**THE _P. KNOWLESI_ MEROZOITE PROTEOME: LEADS FOR INVASION MOLECULES**

Clemens H.M. Kocken  
Biomedical Primate Research Center, Rijswijk, The Netherlands

**4:35 p.m.**

**PROTEOMIC IDENTIFICATION OF NOVEL APICALLY LOCALIZED MEROZOITE PROTEINS IN _P. KNOWLESI_ AND _P. VIVAX_**

Cindy C. Korir  
Emory University, Atlanta, GA, United States

**4:55 p.m.**

**NEW DEVELOPMENTS IN _P. VIVAX_ DUFFY BINDING PROTEIN — DARC INTERACTIONS**

Christopher L. King  
Case Western Reserve University, Cleveland, OH, United States

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**Symposium 126**

**Getting a Grip on Zoonoses**

_Hilton Hotel – Grand Salon E_

_Wednesday, November 15_  
_3:45 p.m. – 5:30 p.m._

The symposium will review and update efforts to diagnose, control and prevent tropical zoonoses including cysticercosis, leptospirosis, rift valley fever, tularemia and anthrax. Multidisciplinary research focusing on control of these diseases incorporating epidemiology, laboratory diagnostics and vaccine development will be presented.

**CHAIR**

Patricia Wilkins  
Centers for Disease Control and Prevention, Atlanta, GA, United States

**3:45 p.m.**

**INTRODUCTION**

Patricia Wilkins  
Centers for Disease Control and Prevention, Atlanta, GA, United States

**3:50 p.m.**

**NEUROCYSTICERCOSIS: INTEGRATING LABORATORY TOOLS WITH FIELD OPERATIONS TO ELIMINATE A TAPEWORM DISEASE**

Victor Tsang  
Centers for Disease Control and Prevention, Atlanta, GA, United States

**4:10 p.m.**

**LEPTOSPIROSIS: DEVELOPING A GLOBAL RESEARCH AGENDA**

Joseph M. Vinetz  
University of San Diego, La Jolla, CA, United States

**4:30 p.m.**

**RIFT VALLEY FEVER: ADVANCES IN MOLECULAR BIOLOGY INFORM VACCINE DESIGN**

Clarence J. Peters  
University of Texas Medical Branch, Galveston, TX, United States

**4:50 p.m.**

**TULAREMIA: UNDERSTANDING NATURALLY OCCURRING DISEASE CAN INFORM EMERGENCY PREPAREDNESS**

Paul S. Mead  
Centers for Disease Control and Prevention, Ft. Collins, CO, United States

**5:10 p.m.**

**ANTHRAX: UNDERSTANDING NATURALLY OCCURRING DISEASE CAN INFORM EMERGENCY PREPAREDNESS**

Sean Shadomy  
Centers for Disease Control and Prevention, Atlanta, GA, United States
Plenary Session IV: Presidential Address and Annual Business Meeting

Marquis Ballroom

Wednesday, November 15 6:00 p.m. – 7:30 p.m.

CHAIR
George Hillyer
University of Puerto Rico School of Medicine, San Juan, PR, United States
Edward T. Ryan
Massachusetts General Hospital, Boston, MA, United States

6 p.m.
INTRODUCTION
Richard Guerrant
University of Virginia, Charlottesville, VA, United States

6:15 p.m.
ONCE UPON A TIME, ABOUT 50,000 YEARS AGO
Myron M. Levine
University of Maryland School of Medicine, Baltimore, MD, United States

6:45 p.m.
ASTMH ANNUAL BUSINESS MEETING
George Hillyer
University of Puerto Rico School of Medicine, San Juan, PR, United States

Poster Session C Dismantle

International and Skyline Levels

Wednesday, November 15 7:00 p.m. – 8:00 p.m.

Thursday, November 16

Registration

Marquis Foyer

Thursday, November 16 7:00 a.m. – 10:30 a.m.

Cyber Café

Garden Level South

Thursday, November 16 7:00 a.m. – 10:30 a.m.

Speaker Ready Room

International B/C

Thursday, November 16 7:00 a.m. – Noon

ASTMH Council Meeting

Summit

Thursday, November 16 7:30 a.m. – 9:30 a.m.

Scientific Session 127

Filariasis III — Immunology

International 5/6

Thursday, November 16 8:00 a.m. – 9:45 a.m.

CHAIR
Klaus D. Erttmann
Bernhard-Nocht-Institute for Tropical Medicine, Hamburg, Germany
Christopher L. King
Case Western Reserve University, Cleveland, OH, United States

8 a.m.

1019

LIVE MICROFILARIAE OF BRUGIA MALAYI DOWNREGULATE THE GENE EXPRESSION OF TLR3, 4, 5 AND 7, AND DIMINISH THE PRODUCTION OF CYTOKINES IN RESPONSE TO A TLR3 LIGAND
Priyanka Goel, Joseph Kubofcik, Thomas B. Nutman, Roshanak Tolouei Semnani
National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

(ACMCIP Abstract)

8:15 a.m.

1020

FILARIAL PARASITES INDUCE EARLY ACTIVATION, CYTOKINE PRODUCTION, AND SUBSEQUENT APOPTOSIS OF HUMAN NK CELLS
Subash Babu, Carla P. Blauvelt, Thomas B. Nutman
National Institutes of Health, Bethesda, MD, United States

(ACMCIP Abstract)

8:30 a.m.

1021

LIVE MICROFILARIAE OF BRUGIA MALAYI INDUCE APOPTOSIS IN HUMAN DENDRITIC CELLS THROUGH A TNF- AND TRAIL-DEPENDENT MECHANISM AND PROMOTE THE DEVELOPMENT OF REGULATORY T CELLS
Roshanak T. Semnani, Priyanka Goel, Joseph Kubofcik, Thomas B. Nutman
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

(ACMCIP Abstract)
8:45 a.m. 1022

CLONING AND CHARACTERIZATION OF A HUMAN IL5 RECEPTOR BINDING PROTEIN FROM BRUGIA MALAYI

Gnanasekar Munirathinam1, Thomas B. Nutman2, Sara Lustigman3, Ramaswamy Kalyanasundaram1

1University of Illinois, Rockford, IL, United States, 2National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States, 3Lindsley F. Kimball Research Institute, New York Blood Center, New York, NY, United States

(ACMCIP Abstract)

9 a.m. 1023

PATTERNS OF ACTIVATION TO THE IMMUNODOMINANT PROTEIN SXP1 FROM LOA LOA

Cathy Steel, Amy D. Klion, Thomas B. Nutman

National Institutes of Health, Bethesda, MD, United States

9:15 a.m. 1024

ADJUVANT EFFECTS OF THE ONCHOCERA VOLVULUS RECOMBINANT OV-ASP-1 PROTEIN

Sara Lustigman, Yuxian He, Long Cao, Shibo Jiang

New York Blood Center, New York, NY, United States

(ACMCIP Abstract)

9:30 a.m. 1025

COMPARISON OF IMMUNO PROPHYLACTIC EFFICACY OF BM R ALT2 OR BM RVAH OR RALT + VAH BY SINGLE AND MULTIPLE ANTIGEN VACCINATION MODE

Setty Balakrishnan Anand1, K.N. Krithika2, Vadivel Murugan1, M.V. Reddy2, Perumal Kaliraj1

1Anna University, Chennai, India, 2Mahatma Ghandi Institute of Medical Sciences, Sevagram, India

(ACMCIP Abstract)
Scientific Session 129

Kinetoplastida II: Epidemiology, Diagnosis and Treatment

Thursday, November 16
8:00 a.m. – 9:45 a.m.

Marquis 3

CHAIR
Caryn Bern

Centers for Disease Control and Prevention, Atlanta, GA, United States

Sarah Williams-Blangero

Southwest Foundation for Biomedical Research, San Antonio, TX, United States

8 a.m.

Identifying Chagas Disease Infection in Children During a Spray Campaign

Michael Z. Levy1, Vivian Kawai2, Natalie M. Bowman2, Lilía Cabrera2, Lance A. Waller2, Eleazar Cordova4, Juan Cornejo del Carpio5, Robert H. Gilman3, Caryn Bern6

1Centers for Disease Control and Prevention, Philadelphia, PA, United States, 2AB PRISMA, Lima, Peru, 3Emory University, Atlanta, GA, United States, 4Arequipa Regional Office of the Ministry of Health, Arequipa, Peru, 5Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States, 6Centers for Disease Control and Prevention, Atlanta, GA, United States

8:15 a.m.

Comparing Miltefosine (Impavid)® and Meglumine Antimonate (Glucantime®) for the Treatment of Zoonotic Cutaneous Leishmaniasis by a Randomized Clinical Trial in Iran

Mehdi Mohebali1, A. Fotouhi1, B. Hooshmand2, Z. Zarei1, A. Rahnama3, A. Razaghian3, B. Akhoundi3, M. J. Kabir3, A. Nadim4

1School of Public Health Research, Tehran University of Medical Sciences, Department of Medical Parasitology, Tehran, Islamic Republic of Iran, 2Head of Zoonoses Control Office, Diseases Management Office, Ministry of Health, Treatment and Medical Education, Iran, Tehran, Islamic Republic of Iran, 3Health Center, Golestan Province, North-Eastern Iran, Islamic Republic of Iran

8:30 a.m.

Chagas Disease in Dogs in Southern Louisiana

Prixia Nieto1, Patricia Dorn1, John B. Malone1, Edson Goncalves3

1Louisiana State University, Baton Rouge, LA, United States, 2Loyola University, New Orleans, LA, United States, 3Universidad Estadual Paulista, Jabeicabal, Brazil

Scientific Session 130

Clinical Tropical Medicine III

Marquis 4

Thursday, November 16
8:00 a.m. – 9:45 a.m.

CHAIR
Enrico Brunetti

University of Pavia, Pavia, Italy

Marianna Wilson

Centers for Disease Control and Prevention, Atlanta, GA, United States

9 a.m.

Comparing Miltefosine (Impavid)® and Meglumine Antimonate (Glucantime®) for the Treatment of Zoonotic Cutaneous Leishmaniasis by a Randomized Clinical Trial in Iran

Mehdi Mohebali1, A. Fotouhi1, B. Hooshmand2, Z. Zarei1, A. Rahnama3, A. Razaghian3, B. Akhoundi3, M. J. Kabir3, A. Nadim4

1School of Public Health Research, Tehran University of Medical Sciences, Department of Medical Parasitology, Tehran, Islamic Republic of Iran, 2Head of Zoonoses Control Office, Diseases Management Office, Ministry of Health, Treatment and Medical Education, Iran, Tehran, Islamic Republic of Iran, 3Health Center, Golestan Province, North-Eastern Iran, Islamic Republic of Iran

9:15 a.m.

Mycocarditis in Patients with Human African Trypanosomiasis (T.B. Gambienne)

Johannes A. Blum1, Christian Burri1, Michael J. Zellweger2

1Swiss Tropical Institute, Basel, Switzerland, 2Universitätsklinik, Basel, Switzerland

9:30 a.m.

Clinical and Immunological Effects of Pregnancy on Leishmania braziliensis Cutaneous Leishmaniasis


1Cornell University/Weill Medical College, New York, NY, United States, 2Universidade Federal da Bahia, Salvador, Brazil, 3Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

9:45 a.m.

Myocarditis in Patients with Human African Trypanosomiasis (T.B. Gambienne)

Johannes A. Blum1, Christian Burri1, Michael J. Zellweger2

1Swiss Tropical Institute, Basel, Switzerland, 2Universitätsklinik, Basel, Switzerland
8 a.m.  

**1033**

**EFLORINITHINE FOR FIRST-LINE TREATMENT OF SLEEPING SICKNESS: COHORT ANALYSIS OF 1055 PATIENTS IN IBBA, SUDAN**

Gerardo Priotto¹, Loretxu Pinoges², Isaac B. Fursa², Barbara Burke³, Nathalie Nicolay⁴, Guillaume Grillet⁴, Cathy Hewison⁴

¹Epicentre, Paris, France, ²Médecins Sans Frontières, Ibba, Sudan, ³Médecins Sans Frontières, Paris, France

8:15 a.m.  

**1034**

**EFFECT OF MASS DRUG ADMINISTRATION ON TRANSMISSION OF LYMPHATIC FILARIAISIS IN MADANG PROVINCE OF PAPUA NEW GUINEA**

Moses J. Bockarie¹, Gary J. Weil², Will Kastens³, Melinda Susapu³, Henry Dagoz³, Nandao Tarongka⁴, Moses Baisor⁴, Edwin Michael⁴, Christopher King¹, James W. Kazura¹

¹Case Western Reserve University, Cleveland, OH, United States, ²Washington University, St. Louis, MO, United States, ³Papua New Guinea Institute of Medical Research, Madang, Papua New Guinea, ⁴Imperial College School of Medicine, London, United Kingdom

8:30 a.m.  

**1035**

**DOES TIMING MATTER? LESION DURATION AND THE RESPONSE TO ANTIMONIAL TREATMENT FOR AMERICAN CUTANEOUS LEISHMANIASIS IN NORTHEASTERN BRAZIL**

Alon Unger¹, Seth O’Neal², Luiz H. Guimarães³, Paulo R. Machado³, Leda Alcantara³, Daniel J. Morgan³, Sara Passos³, Edgar M. Carvalho³

¹University of California—San Francisco, San Francisco, CA, United States, ²Oregon Health and Sciences University, Portland, OR, United States, ³Hospital Universitário Professor Edgard Santos, Salvador, Brazil, ⁴Universidade da Bahia, Salvador, Brazil, ⁵Weill Medical College of Cornell University, New York, NY, United States

8:45 a.m.  

**1036**

**CLINICAL MANAGEMENT OF CYSTIC ECHINOCOCCOSIS: LONG-TERM EXPERIENCE IN A SINGLE CENTER**

Enrico Brunetti, Chiara Gasparetto, Antonella Grisolia, Giuliana Trola, Carlo Filice

Division of Infectious and Tropical Diseases, University of Pavia, Scientific Institute for Research, Hospitalisation and Health Care S.Matteo, Pavia, Italy

9 a.m.  

**1037**

**LABORATORY INVESTIGATION OF DONORS INVOLVED IN BABESIA MICROTI INFECTIONS ACQUIRED BY BLOOD TRANSFUSION**

Marianna Wilson¹, Stephanie Johnston¹, Susan Slemenda¹, Kimberly Won¹, Kolby Sanders-Lewis¹, Henry Bishop¹, Alexandre J. da Silva¹, Norman J. Pieniazek¹, Carolyn Young², Barbara Herwaldt²

¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²Rhode Island Blood Center, Providence, RI, United States

9:15 a.m.  

**1038**

**TRYPANOSOMA CRUZI IN TWO HEART TRANSPLANT RECIPIENTS-LOS ANGELES, CALIFORNIA 2006**

Heather Kun¹, Anne M. Moore², Laurene Mascola², Bernard Kubak³, Suman Radhakrishna³, Frank Steurer³, Gena Lawrence³, David Leiby³, Tom Mone³, Tom Mone³, Robert Hunter³, Matthew Kuehnert³

¹Centers for Disease Control and Prevention, Los Angeles, CA, United States, ²Centers for Disease Control and Prevention, Atlanta, GA, United States, ³Los Angeles Department of Health Services, Los Angeles, CA, United States, ⁴University of California Los Angeles, Los Angeles, CA, United States, ⁵University of Southern California, Los Angeles, CA, United States, ⁶American Red Cross Holland Laboratory, Rockville, MD, United States, ⁷One Legacy, Los Angeles, CA, United States, ⁸California Department of Health Services, Biologics, Los Angeles, CA, United States

9:30 a.m.  

**1039**

**RICKETTSIOSIS IN RURAL THAILAND: RISK FACTORS AND CLINICAL DISCRIMINATORS**

Saithip Sutthiratana¹, Amanda D. Loftis², Anussorn Sidthirads³, Gregory A. Dasch², Wanna Wonjindanon¹, Tamara L. Fisk⁴, Scott L. Dowell⁴, Sonja J. Olsen⁴, Leonard F. Peruski³

¹Thailand MOPH-US Centers for Disease Control and Prevention Collaboration, Nonthaburi, Thailand, ²U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, ³Office of Permanent Secretary, Ministry of Public Health, Nonthaburi, Thailand, ⁴Emory University School of Medicine, Atlanta, GA, United States

Scientific Session 131

Flavivirus IV — West Nile Virus

Marquis 1

Thursday, November 16 8:00 a.m. – 9:45 a.m.

CHAIR

Aaron C. Brault

University of California, Davis, Davis, CA, United States

Sharone Green

University of Massachusetts Medical School, Worcester, MA, United States

8 a.m.  

**1040**

**DISPLACEMENT OF THE INTRODUCED GENOTYPE OF WEST NILE VIRUS IN NEW YORK STATE**

Robin M. Moudy, Alan Dupuis, Gregory D. Ebel, Laura D. Kramer

Arbovirus Laboratories, Wadsworth Center, Slingerlands, NY, United States
8:15 a.m.  

FOX SQUIRRELS (SCIURUS NIGER) AND CHIPMUNKS (TAMIAS STRIATUS) MAY PLAY A ROLE IN THE EPIDEMIOLOGY OF WEST NILE VIRUS  

Kenneth B. Platt¹, Brad J. Tucker², Flor G. Fabiosa³, Patrick G. Halbur¹, Brad J. Blitvich³, Lyric C. Bartholomay³, Wayne A. Rowley²  

¹Iowa State University, Ames, IA, United States, ²Iowa State University, Ames, IA, United States  

8:30 a.m.  

RAPID SELECTION FOR VIRULENCE OF A SOUTH AFRICAN LINEAGE II WEST NILE VIRUS IN AMERICAN CROWS  

Aaron C. Brault¹, Christy Andrade¹, Emily N. Green¹, Stanley A. Langevin¹, Payal Maharaj¹, Wanichaya N. Ramey¹, Todd A. Sanders⁴, Richard A. Bowen¹  

¹Center for Vector-Borne Disease and Department of Pathology, Microbiology and Immunology, School of Veterinary Medicine, University of CA, Davis, Davis, CA, United States, ²Colorado Department of Fish and Game, Fort Collins, CO, United States, ³Department of Biomedical Sciences, Colorado State University, Fort Collins, CO, United States  

8:45 a.m.  

WEST NILE VIRUS IN ARGENTINA  

Maria A. Morales¹, María Barrandeguy², Cintia Fabbrì², Jorge B. García², Aldana Vissani³, Karina Trono³, Gerónimo Gutierrez³, Fernando Fernandez², Silvana Levis³, Delia A. Enria³  

¹Instituto Nacional de Enfermedades Vitales Humanas “Dr. Julio I. Maiztegui”, Pergamino/Pcia de Bs. As, Argentina, ²Instituto de Virologia, CICVyA INTA, Castelar, Buenos Aires, Argentina, ³Instituto Nacional de Enfermedades Vitales Humanas “Dr. Julio I. Maiztegui”, Pergamino, Buenos Aires, Argentina  

9 a.m.  

HUMAN CD8+ T CELL RESPONSES TO A CANDIDATE LIVE-ATTENUATED CHIMERIC WEST NILE VIRUS VACCINE  

Sharone Green¹, Thomas P. Monath², Liyan Yang¹, Masanori Terajima³, Diane M. Roberts¹, Alan L. Rothman¹, Jeffrey S. Kennedy¹, Francis A. Ennis¹  

¹Center for Infectious Disease and Vaccine Research, University of Massachusetts Medical School, Worcester, MA, United States, ²Acambis, Inc., Cambridge, MA, United States  

9:15 a.m.  

A RECOMBINANT WEST NILE SUBUNIT VACCINE PROVIDES EFFECTIVE PROTECTION AGAINST FATAL WEST NILE ENCEPHALITIS IN AGED AND WEANLING HAMSTERS  

Carolyn L. Weeks-Levy¹, Michael Lieberman¹, Douglas Watts², Robert Tesh³, David Clements¹, Steve Ogata¹, Teri Wong¹, Gordon Wang¹, James Senda¹, A. Travassos da Rosa², M. Siirin², Gloria Corpuz¹, Beth-Ann Coller¹  

¹Hawaii Biotech, Inc., Aiea, HI, United States, ²University of Texas Medical Branch, Galveston, TX, United States  

9:30 a.m.  

INVESTIGATION INTO THE COMPARATIVE EFFICACY OF THREE WEST NILE VIRUS (WNV) VACCINES IN EXPERIMENTALLY INDUCED WNV CLINICAL DISEASE IN HORSES  

Kathy K. Seino, Maureen T. Long, E. Paul J. Gibbs, Sarah Beachboard, Pamela P. Humphrey, MaryAnn Dixon  

University of Florida, Gainesville, FL, United States  

8 a.m.  

DISCOVERING NOVEL BLOOD STAGE MALARIA VACCINE CANDIDATES: SCREENING WITH IMMUNE SERA FROM FALCIPARUM MALARIA PATIENTS AND ASYMPTOMATIC PARASITE CARRIERS  

Satoru Takeo¹, Ling Jin², Hirokazu Sakamoto¹, Eun-Taek Han¹, Hideyuki Irko², Osamu Kaneko³, Motomi Torii², Jetsuemon Sattabongkot², Rachanee Udomsangpetch³, Tatsuya Sawasaki¹, Yaeta Endo¹, Taka-fumi Tsuboi¹  

¹Cell-Free Science and Technology Research Center, Ehime University, Matsuyama, Japan, ²Venture Business Laboratory, Ehime University, Matsuyama, Japan, ³Department of Molecular Parasitology, Ehime University Graduate School of Medicine, Toon, Japan, ⁴Department of Entomology, US Army Medical Research Institute of Infectious Disease (USAMRIID), Bangkok, Thailand, ⁵Department of Pathobiology, Faculty of Science, Mahidol University, Bangkok, Thailand  

8:15 a.m.  

DISCOVERING NOVEL MALARIA PRE-ERYTHROCYTIC ANTIGENS  

Joao Carlos Aquiara¹, Hideyuki Irkob², Fengying Huang³, John B. Sacci³, Laure Juompana⁴, Ling Jin², Eun-Taek Han⁵, Satoru Takeo⁵, Urszula Kryzych⁵, Yaeta Endo⁵, Thomas Richie⁵, Taka-fumi Tsuboi⁵  

¹Naval Medical Research Center, Silver Spring, MD, United States, ²Venture Business Laboratory, Ehime University, Matsuyama, Ehime, Japan, ³Department of Microbiology and Immunology, University of Maryland School of Medicine, Baltimore, MD, United States, ⁴Department of Immunology, Walter Reed Army Institute of Research, Silver Spring, MD, United States, ⁵Cell-Free Science and Technology Research Center, Ehime University, Matsuyama, Ehime, Japan  

(ACMCIP Abstract)
8:30 a.m.  

**1049**

**CHIMERIC MSP-1 BASED VACCINE-INDUCED ANTIBODIES CROSS-REACT WITH SEVERAL PLASMODIUM SPECIES AND INDUCES PROTECTIVE IMMUNITY**

Balwan Singh, Monica Cabrera-Mora, Jianlin Jiang, Mary R. Galinski, **Alberto Moreno**

Emory Vaccine Center at Yerkes National Primate Research Center, Emory University, Atlanta, GA, United States

8:45 a.m.  

**1050**

**TOLERABILITY AND IMMUNOGENICITY OF A P. FALCIPARUM MULTI-ANTIGEN MULTI-STAGE ADENOVIRUS VECTORED VACCINE, ARMED FORCES RESEARCH INSTITUTE OF MEDICAL SCIENCES-M3V-AD-PFCA, IN NZW RABBITS**


1Naval Medical Research Center, Silver Spring, MD, United States, 2GenVec, Inc., Gaithersburg, MD, United States

9 a.m.  

**1051**

**PRE-CLINICAL STUDIES TOWARDS RAD35-BASED MALARIA VACCINES**

Olga Ophorst, Katarina Radošević, Sandra Verhaagh, Tanja de Gruijl, Maria-Gracia Pau, Ben Berkhout, Moriya Tsuji, Jaap Goudsmit, Menzo Havenga

1Crucell, Leiden, The Netherlands, 2Vrije Universiteit, University Medical Center, Amsterdam, The Netherlands, 3Academic Medical Center, Amsterdam, The Netherlands, 4New York University School of Medicine, New York, NY, United States

(ACMCIP Abstract)

9:15 a.m.  

**1052**

**IMMUNOGENICITY AND PROTECTIVE EFFICACY AGAINST PLASMODIUM VIVAX IN AOTUS MONKEYS FOLLOWING HETEROLOGOUS PRIME-BOOST IMMUNIZATION WITH PLASMIDS AND ADENOVIRUS VECTORS ENCODING PVAMA1 AND PVMS1P-42**

Michael G. Stockelman, Jennifer A. Cockrill, De-chu Tang, Nicanor Obaldia

1Naval Medical Research Center, Silver Spring, MD, United States, 2Vaxin Inc., Birmingham, AL, United States, 3Topical Medicine Research-Instituto Conmemorativo Gorgas de Estudios de la Salud, Panama City, Panama

(ACMCIP Abstract)

9:45 a.m.  

**1053**

**EFFECTIVE BOOSTING VECTORS FOR MALARIA IMMUNIZATION EVADE THE CD8 T CELL RESPONSE GENERATED BY PRIMING**

Ian A. Cockburn, Alexandre Morrot, Sumana Chakravarty, Michael Overstreet, Fidel Zavala

Johns Hopkins University, Baltimore, MD, United States

(ACMCIP Abstract)

Scientific Session 133

Mosquitoes — Vector Biology — Epidemiology III

Hilton Hotel — Grand Salon A  
Thursday, November 16 8:00 a.m. – 9:45 a.m.

**CHAIR**

Doug Norris

John Hopkins School of Public Health, Baltimore, MD, United States

Mohammed Shahabuddin

Boston College, Chestnut Hill, MA, United States

8 a.m.  

**1054**

**NATURE BEATS NURTURE: A CASE STUDY OF THE QUALITY OF MALE ANOPHELES GAMBIAE S.L MOSQUITOES REARED IN ARTIFICIAL AND NATURAL ENVIRONMENTS**

Bernadette Patince Huho, Gerry Killeen, Gamba Nkwengulila, Bart Knols, Heather Ferguson

1Ifakara Health Research and Development Centre, Morogoro, United Republic of Tanzania, 2Ifakara Health Research and Development Centre, Ifakara, Morogoro, United Republic of Tanzania, 3University of Dar es Salaam, Dar es Salaam, United Republic of Tanzania, 4International Atomic Energy Agency (IAEA), Seibersdorf, Austria

8:15 a.m.  

**1055**

**MALE ANOPHELES GAMBIAE MATING SUCCESS IN A SWARM: ‘MAY THE BEST MAN LOSE’**

Kija Ng’habi, Bernadette John, Gamba Nkwengulila, Gerry Killeen, Bart G. Knols, Heather Ferguson

1Ifakara Health Research and Development Centre, Morogoro, United Republic of Tanzania, 2University of Dar es Salaam, Dar es Salaam, United Republic of Tanzania, 3School of Biological and Biomedical Sciences, Durham University, Durham, United Kingdom, 4International Atomic Energy Agency (IAEA), Agency’s Laboratories Seibersdorf, Seibersdorf, Austria, 5Laboratory of Entomology, Wageningen University and Research Centre, Wageningen, The Netherlands
8:30 a.m. 1056
DIFFERENTIAL SEGREGATION OF MATERNAL LIPOIDS AS A STRATEGY FOR NEONATE LARVAE SURVIVAL IN THE MOSQUITO
Mohammed Shahabuddin
Infectious Disease Group, Department of Biology, Boston College, Chestnut Hill, MA, United States

8:45 a.m. 1057
DEFORESTATION AND ITS EFFECTS ON THE SPOROGENIC DEVELOPMENT OF PLASMODIUM FALCIPARUM IN ANOPHELES GAMBIAE IN THE HIGHLANDS OF WESTERN KENYA
Yaw A. Afrane1, Benard W. Lawson2, Andrew K. Githeko1, Guiyun Yan3
1Kenya Medical Research Institute, Kisumu, Kenya, 2Department of Theological and Applied Biology, KNUST, Kumasi, Ghana, 3Program in Public Health, College of Health Sciences, University of California at Irvine, Irvine, CA, United States

9 a.m. 1058
COMPLEXITY OF VERTEBRATE BLOOD UTILIZATION IN ANOPHELES GAMBIAE: ROLES OF PROTEASES AND LIPASES
Lea Marie Alford, Mohammed Shahabuddin
Infectious Disease Group, Department of Biology, Boston College, Chestnut Hill, MA, United States

9:15 a.m. 1059
SPECIATION BY ECOTYPIFICATION IN ANOPHELES GAMBIAE: A QUANTITATIVE TEST
Nicholas C. Manoukis, Travis C. Collier, Charles E. Taylor
University of California, Los Angeles, Los Angeles, CA, United States

9:30 a.m. 1060
FEEDING AND RESTING BEHAVIOR OF ANOPHELES LONGIPALPIS (THEOBALD) IN AN AREA OF HYPERENDEMIC MALARIA TRANSMISSION IN SOUTHERN ZAMBIA
Rebekah J. Kent1, Maureen Coetzee2, Sungano Mharakurwa3, Douglas E. Norris1
1The Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, 2Vector Control Reference Unit, National Institute for Communicable Diseases, Johannesburg, South Africa, 3The Malaria Institute at Macha, Macha, Zambia

Symposium 134
Walking the Line: Emerging Infections along the United States/Mexico Border
Hilton Hotel – Grand Salon B
Thursday, November 16 8:00 a.m. – 9:45 a.m.
This session will discuss surveillance and research efforts focusing on infectious disease along the 2,000 mile U.S.-Mexico border, a geopolitical region with unique economic, social and microbial interconnectivity. Challenges and limitations of surveillance and response to both “old” and emerging infectious diseases in a bi-national arena will be addressed. Speakers will cover interdisciplinary issues such as cross-border migration, trade, differing local ecologies, access to infrastructure and household-level human behavioral factors and their roles in disease emergence within a bi-national framework. Attention will be paid to the role of fostering research that can be used by the public health and infectious disease communities to inform appropriate control activities and responses. Community-based field research and surveillance which focus on emerging diseases and outbreak responses in Texas/Tamaulipas and California/Baja California Norte will be highlighted in the symposium.

CHAIR
Emily C. Zielinski-Gutierrez
Centers for Disease Control and Prevention, Fort Collins, CO, United States
Mary H. Hayden
University of Colorado, Colorado Springs, CO, United States

8 a.m. DENGUE AND DENGUE HEMORRHAGIC FEVER ON THE TEXAS/MEXICO BORDER—BROWNSVILLE AND MATAMOROS, 2005
Mary M. Ramos
Centers for Disease Control and Prevention, San Juan, PR, United States

8:25 a.m. TUBERCULOSIS AND DIABETES: OLD ACQUAINTANCES MEET AGAIN AT THE TEXAS-MEXICO BORDER
Joseph B. McCormick
University of Texas School of Public Health, Brownsville, TX, United States

8:50 a.m. QUESO FRESCO AND SALMONELLA ON THE CALIFORNIA/MEXICO BORDER
Stephen Waterman
Centers for Disease Control and Prevention, San Diego, CA, United States

8:50 a.m. THE IMPORTANCE OF TAENIA SOLIUM CYSTICEROSIS AND TENIOSIS IN THE UNITED STATES/MEXICO
Ana Flisser
Universidad Nacional Autónoma de México, Mexico City, Mexico

9:15 a.m. THE IMPORTANCE OF TAENIA SOLIUM CYSTICEROSIS AND TENIOSIS IN THE UNITED STATES/MEXICO
Ana Flisser
Universidad Nacional Autónoma de México, Mexico City, Mexico
Symposium 135
Heart Diseases of the Tropics
Hilton Hotel – Grand Salon C
Thursday, November 16 8:00 a.m. – 9:45 a.m.
Diseases of the heart are a significant cause of morbidity and mortality in the tropics. This symposium will examine the common cardiac diseases found in the tropics, particularly focusing on infectious causes. The four main goals of the symposium will be to review the epidemiology and etiology of heart diseases in the tropics, focus on common cardiac manifestations of tropical diseases, update diagnostic and treatment options for American Trypanosomiasis and finally review endomyocardial fibrosis, which is generally a unique condition limited to the tropics.

CHAIR
John Cahill
St. Luke’s/Roosevelt Hospital, New York, NY, United States

8 a.m.
INTRODUCTION
John Cahill
St. Luke’s/Roosevelt Hospital, New York, NY, United States

8:05 a.m.
OVERVIEW OF HEART DISEASE IN THE TROPICS
Walter Simmons
Team Health, Peoria, AZ, United States

8:30 a.m.
CARDIAC MANIFESTATIONS OF TROPICAL DISEASES
Robert Partridge
Brown University, Providence, RI, United States

8:55 a.m.
UPDATE ON AMERICAN Trypanosomiasis
John Cahill
St. Luke’s/Roosevelt Hospital, New York, NY, United States

9:20 a.m.
ENDOMYOCARDIAL FIBROSIS
Lawrence Proano
Brown University, Providence, RI, United States

Symposium 136
Update on Management of Neurocysticercosis (Taenia solium)
Hilton Hotel – Grand Salon D
Thursday, November 16 8:00 a.m. – 9:45 a.m.
Infection and disease due to neurocysticercosis are variable, and thus different clinical approaches and treatments are required. Despite significant advances, treatments remain either suboptimal and/or based upon poorly-controlled or anecdotal experience. This symposium will identify major unanswered questions dealing with treatment of the different forms of neurocysticercosis and suggest approaches to answer these questions.

CHAIR
Hector H. Garcia
Universidad Peruana Cayetano Heredia, Lima, Peru
Robert H. Gilman
Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States
Theodore E. Nash
National Institutes of Health, National Institutes of Allergy and Infectious Diseases, Bethesda, MD, United States

8 a.m.
PATHOPHYSIOLOGY OF NEUROCYSTICERCOSIS — ROLE OF INFLAMMATION AND USE/REQUIREMENTS OF ANTI-INFLAMMATORY AGENTS AND IMMUNOSUPPRESSIVES
Theodore E. Nash
National Institutes of Health/National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

8:25 a.m.
PITFALLS AND BENEFIT OF ANTI-PARASITIC THERAPY
Hector H. Garcia
Universidad Peruana Cayetano Heredia, Lima, Peru

8:50 a.m.
ADVANCES IN SURGICAL MANAGEMENT
Jefferson V. Proaño
Centro Medico Nacional Siglo XXI, Mexican Institute of Social Security, Mexico DF, Mexico

9:15 a.m.
SEIZURE PREVENTION AND TREATMENT IN NEUROCYSTICERCOSIS — HOW LONG
Marco T. Medina
Instituto de Neurociencias, Tegucigalpa, Honduras
Scientific Session 137

Bacteriology IV — Systemic/Other

Hilton Hotel – Grand Salon E

Thursday, November 16 8:00 a.m. – 9:45 a.m.

CHAIR
Shari Lydy
Centers for Disease Control and Prevention, Atlanta, GA, United States

Linda Oskam
KIT (Royal Tropical Institute), Amsterdam, The Netherlands

8 a.m.

1061

INCREASED DETECTION RATE OF LEPROSY (HANSEN’S DISEASE) AND STRATEGY FOR DISEASE CONTROL IN RIO GRANDE DO NORTE, BRAZIL

Mauricio L. Nobre1, Marcia C. Dias2, Gutemberg H. Dias2, Jose W. Queiroz2, Ana K. Silva3, Gabriel A. Sampaio4, Jose Medeiros Filho2, Kathyrin M. Dupnik1, Maria L. Moura2, Priscilla F. Nobrega2, Roberta M. Lacerda2, Sergio F. Araujo2, Eliana L. Nascimento2, Gloria R. Monteiro2, Carlos E. Gomes2, Jenefer M. Blackwell2, Eliana L. Blackwell3, Selma M. Jeronimo2

1Universidade Federal do Rio Grande do Norte, Natal, RN, Brazil,
2Universidade Federal do Rio Grande do Norte, Natal, Brazil,
3Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 4University of Virginia, Charlottesville, VA, United States,
5University of Cambridge, Cambridge, United Kingdom

8:15 a.m.

1062

THE RISK OF LEPROSY IN INDIVIDUALS WITH A LOW AND HIGH HOUSEHOLD SOCIO-ECONOMIC STATUS IN NORTHERN BANGLADESH

H.C.C. de Jonge
University Medical Centre st Radboud, Nijmegen, The Netherlands

8:30 a.m.

1063

COLEP: A CLUSTER RANDOMISED CONTROLLED TRIAL WITH SINGLE DOSE OF RIFAMPICIN TO PREVENT LEPROSY AMONG CLOSE CONTACTS OF NEWLY DIAGNOSED LEPROSY PATIENTS IN BANGLADESH

Linda Oskam1, F. Johannes Moet2, David Pahan2, Jan Hendrik Richardus2

1KIT (Royal Tropical Institute) Biomedical Research, Amsterdam, The Netherlands, 2Erasmus MC, University Medical Center Rotterdam, Department of Public Health, Rotterdam, The Netherlands, 3Rural Health Program - The Leprosy Mission Bangladesh, Nilphamari, Bangladesh

8:45 a.m.

1064

PREVENTION OF LEPROSY USING RIFAMPICIN AS CHEMOPROPHYLAXIS: RESULTS AFTER 6 YEARS FOLLOW-UP

Mirjam I. Bakker1, Mohammad Hatta2, Agnes Kwenang2, Paul R. Klatser1, Linda Oskam3

1KIT (Royal Tropical Institute) Biomedical Research, Amsterdam, The Netherlands, 2Hasanuddin University, Makassar, Indonesia

9 a.m.

1065

ISOLATION AND CHARACTERIZATION OF BARTONELLA BACILLIFORMIS FROM AN EXPATRIATE ECUADORIAN

Shari L. Lydy1, Marina E. Eremeeva1, Deborah S. Asnis2, William L. Nicholson1, Christopher D. Paddock1, David J. Silverman1, Gregory A. Dasch1

1Centers for Disease Control and Prevention, Atlanta, GA, United States,
2Flushing Hospital Medical Center, Flushing, NY, United States, 3University of Maryland School of Medicine, Baltimore, MD, United States

9:15 a.m.

1066

IMMUNOLOGICAL PATTERN OF PATIENTS WITH ACUTE AND CHRONIC PHASE OF BARTONELLA BACILLIFORMIS INFECTION IN AN ENDEMIC AREA IN PERU

Erick F. Huarcaya1, Ciro Maguina2, Ivan Best2, Nelson Solorzano3, Julio Menacho4, Palmira Ventosilla4

1University of New Mexico, Albuquerque, NM, United States, 2Universidad Peruana Cayetano Heredia, Lima, Peru, 3Hospital de apoyo de Caraz, Caraz, Peru, 4Hospital Regional de Huaraz, Huaraz, Peru

(ACMCIP Abstract)

9:30 a.m.

1067

THE IDENTIFICATION OF IN VIVO INDUCED PROTEIN ANTIGENS DURING BACILLUS ANTHRACIS INFECTION

Sean M. Rollins1, Amanda Peppercorn1, John Young1, Melissa Drysdale2, Andrea Baresch-Bernal3, Margaret Bikowski1, David Ashford3, Conrad Quinn3, Jeffrey Hillman4, Martin Handfield4, Rick Lyons3, Theresa Koehler5, Stephen B. Calderwood5, Edward T. Ryan5

1Massachusetts General Hospital, Boston, MA, United States, 2University of New Mexico Health Science Center, Albuquerque, NM, United States, 3Centers for Disease Control and Prevention, Atlanta, GA, United States, 4University of Florida, Gainesville, FL, United States, 5University of New Mexico Health Science Center, Albuquerque, MA, United States

Coffee Break

International Level

Thursday, November 16 9:45 a.m. – 10:15 a.m.
Detailed Program

Scientific Session 138

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Schistosomiasis III – Epidemiology

International 5/6
Thursday, November 16 10:15 a.m. – Noon

CHAIR
Jennifer F. Friedman
Brown University, Providence, RI, United States

Charles H. King
Case Western Reserve University, Cleveland, OH, United States

10:15 a.m.

1068

THE IMPACT OF SCHISTOSOMIASIS AND INTESTINAL HELMINTH CONTROL PROGRAM ON HEALTH IN RURAL UGANDA

Alan Fenwick1, Narcis Kabatereine2, Artemis Koukounari1, Joanne Webster1, Simon Brooker3
1Imperial College London, London, United Kingdom, 2Vector Control Division, Kampala, Uganda, 3London School of Hygiene and Tropical Medicine, London, United Kingdom

10:30 a.m.

1069

MONITORING URINARY SCHISTOSOMIASIS INFECTION IN COMMUNITIES GIVE A PRAZIQUANTEL ‘HOLIDAY’ AFTER FIVE ROUNDS OF TREATMENT

Frank O. Richards1, Abel Eigege2, Alphansus Kal2, B. Ibrahim3, John Umaru2, Munirah Y. Jinadu2, Emmanuel S. Miri3, Moses N. Katabarwa1, Donald R. Hopkins1
1The Carter Center, Atlanta, GA, United States, 2The Carter Center, Jos, Nigeria, 3Plateau State Ministry of Health, Jos, Nigeria

10:45 a.m.

1070

HELMINTH INFECTIONS AND POLYPARASITISM AS PREDICTORS OF COGNITIVE PERFORMANCE OVER 18-MONTHS OF FOLLOW-UP AMONG SCHOOL-AGE CHILDREN

Jennifer F. Friedman1, Stephen T. McGarvey1, Joseph Hogan1, Kate L. Ryder1, Vincent Mor1, David C. Bellinger2, Luz P. Acosta2, Hannah M. Coutinho1, Tjalling Leenstra3, Remigio M. Olveda1, Jonathan D. Kurtis2, Jennifer F. Friedman
1Brown University, Providence, RI, United States, 2Children’s Hospital, Boston, MA, United States, 3Research Institute of Tropical Medicine, Manila, Philippines, 4Brown University and The Miriam Hospital, Providence, RI, United States, 5The Miriam Hospital and Brown University, Providence, RI, United States

11 a.m.

1071

MODELING SCHISTOSOMIASIS TRANSMISSION IN A DISTRIBUTED ENVIRONMENT: IMPLICATIONS FOR SUSTAINABLE CONTROL

Edmund Seto1, David Gurarie2
1University of California, Berkeley, CA, United States, 2Case Western Reserve University, Cleveland, OH, United States

11:15 a.m.

1072

SOCIO-ECOLOGY OF MALARIA AND URINARY SCHISTOSOMIASIS IN COASTAL KENYA

Lia S. Florey1, Melissa K. Van Dyke1, Charles H. King2, Eric M. Muchiri3, Peter L. Mungai4, Mark L. Wilson1
1Department of Epidemiology, University of Michigan, Ann Arbor, MI, United States, 2Center for Global Health and Diseases, Case Western Reserve University, Cleveland, OH, United States, 3Division of Vector-Borne Diseases, Ministry of Health, Nairobi, Kenya, 4Msambweni Field Station, Msambweni, Kenya

11:30 a.m.

1073

TOWARDS INTEGRATED CONTROL TO ACHIEVE TERMINATION OF SCHISTOSOMIASIS TRANSMISSION IN IRRIGATED AGRICULTURAL REGIONS OF CHINA

Song Liang1, Robert Spear1, Seto Edmund1, Justin Remais3, Alan Hubbard1, Bo Zhong2, Changhong Yang1, Dongchuan Qiu2, Xueguang Gu2
1University of California, Berkeley, CA, United States, 2Institute of Parasitic Disease, Sichuan Center for Disease Control and Prevention, Chengdu, China, 3Institute of Public Health Information, Sichuan Center for Disease Control and Prevention, Chengdu, China

11:45 a.m.

1074

SPATIAL DISTRIBUTION OF URINARY SCHISTOSOMIASIS INFECTION AMONG SCHOOL CHILDREN IN AN ENDEMIC COMMUNITY IN GHANA

Francis Addae1, Dziedzom K. de Souza2, Margaret Sarpong-Nsiah1, Alex Boye1, Michael D. Wilson2, Daniel A. Boakye2
1School of Biological Sciences, University of Cape Coast, Cape Coast, Ghana, 2Noguchi Memorial Institute for Medical Research, University of Ghana, Legon, Accra, Ghana
Symposium 139

Innovative Solutions to the Treatment of Acute Malaria: Pyronaridine/Artesunate Combination Therapy

Copenhagen/Stockholm/Amsterdam
Thursday, November 16 10:15 a.m. – Noon

Although the clinical effectiveness of pyronaridine in the treatment of malaria was reported over several decades ago in China, it has not been until recently that its distinct profile has made it a strong contender as one of the new artemisinin combination therapies (ACTs). This symposium is co-organized by the Not-for-Profit Foundation, Medicines for Malaria Venture and their partner Shin Poong Pharmaceuticals Ltd. The speakers will focus on the background to the development of this novel ACT combination, as well as presenting clinical and pharmacokinetic data on over 600 patients and healthy volunteers who have received the Pyronaridine/Artesunate combination in GCP-compliant Phase I and II trials in Africa and Asia.

CHAIR
Lise Riopel
Medecines for Malaria Venture, Geneva, Switzerland
Steven Meshnick
University of North Carolina, Chapel Hill, NC

10:15 a.m.
INTRODUCTION
Lise Riopel1, Steven Meshnick2
1Medecines for Malaria Venture, Geneva, Switzerland, 2University of North Carolina, Chapel Hill, NC, United States

10:35 a.m.
POSITION OF ARTEMISININ COMBINATION THERAPY IN THE TREATMENT OF UNCOMPLICATED MALARIA
Pascal Ringwald
World Health Organization, Geneva, Switzerland

10:55 a.m.
PYRONARIDINE/ARTEZANTE COMBINATION: PHARMACOKINETICS, MECHANISM OF ACTION AND METABOLISM
Lawrence Fleckenstein
University of Iowa, Iowa City, IA, United States

11:15 a.m.
EFFICACY AND SAFETY OF PYRONARIDINE/ARTEZANTE COMBINATION FOR TREATMENT OF ACUTE P. FALCIPARUM MALARIA
Sornchai Looareesuwan
Mahidol University, Bangkok, Thailand

11:35 a.m.
THE ROLE OF PYRONARIDINE/ARTEZANTE COMBINATION IN THE TREATMENT OF CHILDREN WITH ACUTE P. FALCIPARUM MALARIA
Peter Kremsner
Institute for Tropical Medicine, Tübingen, Germany

Scientific Session 140

Malaria — Vector Biology and Transmission

Marquis 3
Thursday, November 16 10:15 a.m. – Noon

CHAIR
George Dimopoulos
Johns Hopkins School of Public Health, Baltimore, MD, United States
Seydou Doumbia
Malaria Research and Training Center, Bamako, Mali

10:15 a.m.

1075
DISTRIBUTION OF FREE BEDNETS BUNDLED WITH INSECTICIDE VIA AN INTEGRATED CHILD HEALTH CAMPAIGN — LINDI REGION, TANZANIA, 2005
Jacek Skarbinski1, Julius J. Massaga2, Alexander K. Rowe1, Peter B. Bloland1, S. Patrick Kachur1
1Centers for Disease Control and Prevention, Atlanta, GA, United States,
2Centre for Enhancement of Effective Malaria Interventions, Gates Malaria Partnership, Dar es Salaam, United Republic of Tanzania

10:30 a.m.

1076
DISTINCT P. VIVAX POPULATIONS IN MEXICO DIFFERENTIALLY INFECT TWO LOCAL VECTORS
Deirdre A. Joy1, Lilia Gonzalez-Ceron2, Thomas F. McCutchan1, M. A. Sandoval2, Jose A. Nettel2, Frida Santillan2, Xin-zhuan Su1
1National Institutes of Health, Rockville, MD, United States, 2Centro de Investigacion de Paludismo, Instituto Nacional de Salud Publica, Tapachula, Mexico

(ACMCIP Abstract)

10:45 a.m.

1077
STRAIN- AND SPECIES-SPECIFIC COMPARISON OF THE IMMUNE RESPONSES OF DIFFERENT MEMBERS OF THE ANOPHELES GAMBIAE COMPLEX TO PLASMODIUM FALCIPARUM INFECTION
Luke A. Baton, Yuemei Dong, George Dimopoulos
Johns Hopkins University, Baltimore, MD, United States

(ACMCIP Abstract)

11 a.m.

1078
DRY SEASON MALARIA TRANSMISSION IN A RURAL SUDAN SAVANA OF MALI
Nafomoni Sogoba1, Seydou Doumbia1, Ibrahim Baber1, Moussa Keita1, Mahamadou Maiga1, Sidiki Maniko1, Sekou Konare1, Guimoko Dio1, Skou F Traore1, Jose Ribeiro2
1Malaria Research and Training Center, Bamako, Mali, 2National Institute of Allergy and Infectious Diseases/Laboratory of Malaria and Vector Research, Rockville, MD, United States
11:15 a.m.  1079
IN SEARCH OF ENVIRONMENTAL DETERMINANTS FOR MALARIA TRANSMISSIONS IN INDONESIA
Richard K. Kiang¹, Farida Adimi¹, Joseph D. Nigro¹, Ferdinand J. Laihad², Krongthong Thimasarn³, Rakesh Rastogi³
¹NASA/Goddard Space Flight Center, Greenbelt, MD, United States, ²Directorate of Vector Borne Disease Control, Ministry of Health, Jakarta, Indonesia, ³World Health Organization Regional Office for SE Asia, New Delhi, India

11:30 a.m.  1080
EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS OF THE REEMERGING VIVAX MALARIA IN THE REPUBLIC OF KOREA
Jong-Yil Chai, Eun-Hee Shin
Seoul National University College of Medicine, Seoul, Republic of Korea

11:45 a.m.  1081
CHANGE IN MALARIAL PARASITEMIA PREVALENCE AND INDOOR RESIDUAL SPRAYING: EVIDENCE OF A DOSE RESPONSE RELATIONSHIP
Immo Kleinschmidt¹, Luis Benavente², Christopher Schwabe², Miguel Torres³, David Jituboh², Brian Sharp¹
¹Medical Research Council of South Africa, Durban, South Africa, ²Medical Care Development Inc., Silver Spring, MD, United States

Scientific Session 141
Clinical Tropical Medicine IV
Marquis 4
Thursday, November 16  10:15 a.m. – Noon
CHAIR
Patrick J. Blair
U.S. Naval Medical Research Unit #2, Jakarta, Indonesia
Samba O. Sow
Center for Vaccine Development-Mali, Bamako, Mali

10:15 a.m.  1082
USING TREATMENT FAILURE TO SCREEN FOR MDR TB IS ASSOCIATED WITH RECURRENCE, DEATH, AND TRANSMISSION
Jonathan M. Sherman¹, Marco Tovar², Robert H. Gilman³, Giselle Soto³, Luz Caviedes³, Lilia Cabrera⁴, Mirko Zimic⁴, Antonio Bernabe⁴, Jaime Ortiz⁵, Richard Rodriguez⁵, Eduardo Ticona⁶, Jon S. Friedland⁷, Carlton A. Evans⁷
¹Mayo Medical School, Rochester, MN, United States, ²Universidad Peruana Cayetano Heredia, Lima, Peru, ³Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, ⁴Asociación Benefica PRISMA, Lima, Peru, ⁵Hospital Maria Auxiliadora, Lima, Peru, ⁶Hospital Nacional Dos de Mayo, Lima, Peru, ⁷Department of Infectious Diseases and Immunity and Welcome Trust Centre for Clinical Tropical Medicine, Imperial College, London, United Kingdom

10:30 a.m.  1083
HUMAN CELL-MEDIATED IMMUNITY AGAINST MYCOBACTERIUM TUBERCULOSIS ANTIGENS IS AUGMENTED BY TREATING INTESTINAL HELMINTHS
Karine Zevallos¹, Katherine C. Vergara², Robert H. Gilman³, Margaret Kosek⁴, Pablo Yori⁵, Cesar Banda⁵, Beatriz Herrera⁶, Teresa Valencia⁷, Carlos Vidal⁸, Graciela Meza⁹, Jon S. Friedland³, Gurjinder S. Sandhu⁹, Carlton A. Evans⁹
¹Universidad Peruana Cayetano Heredia, Iquitos, Peru, ²Asociacion Benefica Prisma, Lima, Peru, ³Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, ⁴Universidad Peruana Cayetano Heredia, Lima, Peru, ⁵Ministry of Health, Iquitos, Peru, ⁶Wellcome Centre for Clinical Tropical Medicine and Department of Infectious Diseases and Immunology, Imperial College Hammersmith Hospital Campus, London, United Kingdom

10:45 a.m.  1084
BACTERIAL MENINGITIS AMONG 0- TO 15-YEAR OLD CHILDREN ADMITTED TO A PEDIATRIC REFERRAL CENTER IN BAMAKO, MALI
Milagritos D. Tapia¹, James D. Campbell¹, Samba O. Sow², Jakub Simon¹, Mary-Claire Roghmann¹, Souleymane Diallo¹, Mahamadou M. Keita², Mama N. Doumbia³, Fadima C. Haidera², Uma U. Onwuchekwa², Mamadou M. Keita³, Mariam Sylla³, Karen L. Kotloff¹, Myron M. Levine¹
¹University of Maryland School of Medicine, Baltimore, MD, United States, ²Center for Vaccine Development-Mali, Bamako, Mali, ³Hôpital Gabriel Toure, Bamako, Mali
11 a.m.  

1085  

BURDEN OF INVASIVE BACTERIAL INFECTIONS AMONG CHILDREN ADMITTED TO A PEDIATRIC REFERRAL CENTER IN BAMAKO, MALI — 2002 – 2006  

Samba O. Sow1, Milagritos D. Tapia2, James D. Campbell3, Souleymane Diallo1, Mahamadou M. Keita1, Mama N. Doumbia1, Fadima C. Haidara1, Uma U. Onvuchekwa1, Mamadou M. Keita3, Mariam Sylia1, Myron M. Levine1, Karen L. Kotloff2  
1Center for Vaccine Development-Mali, Bamako, Mali, 2University of Maryland School of Medicine, Baltimore, MD, United States, 3Hospit Gabriel Toure, Bamako, Mali

11:15 a.m.  

1086  

AN EVALUATION OF A RAPID SERODIAGNOSTIC TEST FOR TYPHOID FEVER — AN GIANG, VIETNAM 2005-2006  

Seema Jain1, Nguyen Thi Phong Lan2, Diep The Tai3, Nguyen Ngoc Rang4, Tran Thi Phi La2, Michele Bird1, Christiane Dolecek2, Nguyen Van Sach5, Bui Xuan Bang6, Eric D. Mintz1, Phung Duc Cam4, Pavan K. Ram7  
1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2National Institute for Hygiene and Epidemiology, Hanoi, Vietnam, 3Pasteur Institute, Ho Chi Minh City, Vietnam, 4An Giang Province Hospital, An Giang, Vietnam, 5University of Oxford Clinical Research Unit, Hospital for Tropical Diseases, Ho Chi Minh City, Vietnam, 6State University of New York – University at Buffalo, Buffalo, NY, United States

11:30 a.m.  

1087  

CHARACTERIZATION OF LETHAL CASES OF LEPTOSPIROSIS WITH EMPHASIS OF WEIL'S SYNDROME AND SEVERE PULMONARY HEMORRHAGE SYNDROME, IN THE CITY OF SAO PAULO, BRAZIL  

Anne Spichler1, Marcia Buzzar2, Daniel Athanazio3, Erica Chapola4, Alfred Husch4, Bronisława Castro3  
1Municipality Health Secretariat of São Paulo, São Paulo, Brazil, 2Municipality Health Secretariat of São Paulo, São Paulo, Brazil, 3Federal University of Bahia, Bahia, Brazil, 4Zoonosis Center, Municipality of São Paulo, São Paulo, Brazil

11:45 a.m.  

1088  

CLINICAL AND LABORATORY COMPARISON OF HUMAN INFECTIONS WITH DENGUE, INFLUENZA, OR AVIAN INFLUENZA A (H5N1) VIRUSES IN INDONESIA  

Herman Kosasih1, Endang Sedyaningsih2, Sardikin Giriputro3, Hadi Jusuf4, Erlin Listiyaningish5, Chairin N. Ma’roef1, Dewi Lokida1, Alexander X. Klimov6, Ruben Donis7, Jackie Katz8, Timothy M. Uyeki9, Shannon D. Putnam1, Patrick J. Blair1  
1U.S. Naval Medical Research Unit #2 (NAMRU-2), Jakarta, Indonesia, 2National Institute of Health Research and Development (National Institutes of HealthRD), Ministry of Health, Republic of Indonesia, Jakarta, Indonesia, 3Sulianti Saroso Infectious Disease Hospital, Jakarta, Indonesia, 4Hasan Sadikin Hospital, Jakarta, Indonesia, 5Tangerang District Hospital, Tangerang, Indonesia, 6Centers for Disease Control and Prevention (Centers for Disease Control and Prevention), Atlanta, GA, United States
11:15 a.m. 1093
DENGUE VIRUS TARGETS MACROPHAGES AND DENDRITIC CELLS IN A MOUSE MODEL OF INFECTION
Jennifer L. Kyle1, P. Robert Beatty, Eva Harris
Division of Infectious Diseases, School of Public Health, University of California, Berkeley, Berkeley, CA, United States

11:30 a.m. 1094
PHENOTYPING OF PERIPHERAL BLOOD MONONUCLEAR CELLS INFECTED BY DENGUE VIRUS IN PEDIATRIC CASES
Anna Durbin1, Maria Jose Vargas2, Bhavin Thumar1, Samantha N. Hammond3, Crisanta Rocha4, Angel Balmaseda2, Eva Harris3
1Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States; 2Department of Virology, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua; 3Division of Infectious Diseases, School of Public Health, University of California, Berkeley, Berkeley, CA, United States; 4Hospital Infantil Manuel de Jesus Rivera, Managua, Nicaragua

11:45 a.m. 1095
DIFFERENT SUBSETS OF PRIMARY HUMAN CELLS HAVE DIVERGENT SUSCEPTIBILITY TO DENGUE VIRUS (DV) INFECTION AND CAPACITY TO MEDiate ANTIBODY-DEPENDENT ENHANCEMENT (ADE)
Zhihua Kou, Matthew Quinn, Huiyuan Chen, Robert Rose, Jacob Schlesinger, Xia Jin
University of Rochester, Rochester, NY, United States

Scientific Session 143
Malaria — Vaccines II
Marquis 2
Thursday, November 16 10:15 a.m. – Noon
CHAIR
Alassane Dicko
Malaria Research Training Center DEAP/FMPOS, Bamako, Mali
Laura B. Martin
National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States

10:15 a.m. 1096
FORMULATION DEVELOPMENT OF A CHIMERIC MALARIA VACCINE CANDIDATE (PFCP2.9) WITH MONTANIDE ISA 720 FOR CLINICAL EVALUATION
Xuegong Pan1, Birgitte Giersing2, Sumei Qiu1, Eveline Tierney2, Wen Zhang1, Tom Chen1, Xiudong Huang1, Zhifang Cao2, Weiqing Pan2
1Wanxing Bio-Pharmaceuticals, Shanghai, China; 2PATH Malaria Vaccine Initiative, Bethesda, MD, United States; 3American Red Cross, Rockville, MD, United States; 4Second Military Medical University, Shanghai, China

10:30 a.m. 1097
A PHASE 1 DOUBLE-BLIND, RANDOMIZED, CONTROLLED STUDY OF AMA-1/MSP-1 RECOMBINANT MALARIA VACCINE (PFCP-2.9/MONTANIDE ISA 720): A BLOOD STAGE VACCINE FOR PLASMODIUM FALCIparum MALARIA
Jinhong Hu1, Zhihui Chen1, Zhen Li1, Jun Gu1, Jian Liu2, Qiang Wang3, Elissa Malkin4, Eveline Tierney3, Zhifang Cao2, Weiqing Pan2
1Shanghai Changhai Hospital, Shanghai, China; 2Wanxing Bio-Pharmaceuticals, Shanghai, China; 3PATH Malaria Vaccine Initiative, Bethesda, MD, United States; 4Second Military Medical University, Shanghai, China

10:45 a.m. 1098
PHASE 1 SAFETY AND IMMUNOGENICITY TRIAL OF MSP114-FVO/ALHYDROGEL AND MSP142-3D7/ALHYDROGEL BLOOD-STAGE MALARIA VACCINES IN US ADULTS
Malaria Vaccine Development Branch, National Institute of Allergy and Infectious Disease, National Institutes of Health, Rockville, MD, United States

11 a.m. 1099
T CELL RESPONSES IN VOLUNTEERS VACCINATED WITH BLOOD-STAGE MALARIAL ANTIGENS MSP-1 AND AMA-1
Maria Cecilia Huaman, Ababacar Diouf, Elissa Malkin, Laura Martin, Gregory Mullen, David Narum, Louis Miller, Siddhartha Mahany, Carole Long
National Institutes of Health, Rockville, MD, United States

(ACMCIP Abstract)

11:15 a.m. 1100
RANDOMIZED, CONTROLLED, PHASE 1 STUDY OF AMA1-C1/ALHYDROGEL® VACCINE FOR PLASMODIUM FALCFIPARUM MALARIA IN CHILDREN IN DONÉGUÉBOUGOU, MALI
Alassane Dicko1, Issaka Sagara1, Ruth D. Ellis2, Mounirou Baby1, Sory I. Diawara1, Mahamadoun H. Assadou1, Ousmane Guindo1, Beh Kamate1, Mohamed B. Niambele1, Moussa Sogoba1, Abdoulaye M. Traore1, Mady Sissoko1, Daniel Yalcouye1, Gregory Mullen1, Mahamadou S. Sissoko1, Mahamadou A. Thera1, Magana Dolo1, Carole Long2, Christopher V. Plowe1, Dapa A. Diallo1, Louis H. Miller2, Allan J. Saul2, Ogobara K. Doumbo1
1Malaria Research Training Center DEAP/FMPOS, University of Bamako, Bamako, Mali; 2Malaria Vaccine Development Branch, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States; 3Center for Vaccine Development, University of Maryland, Baltimore, MD, United States
11:30 a.m.  1101

HUMAN MALARIA-SPECIFIC IFN-GAMMA T CELL RESPONSES INDUCED BY VIRUS LIKE PARTICLES, COMPRISED OF HEPATITIS B VIRUS CORE ANTIGEN AND P. FALCIPARUM CIRCUMSPOROZOITE PROTEIN T AND B CELL EPITOPES (ICC-1132), ADJUVANTED WITH ALUM AS COMPARED TO ISA 720

Caroline Othoro Watta1, Giane A. Oliveira1, Mauricio Calvo-Calle1, Gabriel Boehmer2, Peter G. Kremsner2, George B. Thornton3, Robert Edelman4, Aric Gregson4, Elizabeth H. Nardin1
1Department Medical Parasitology, New York University School of Medicine, New York, NY, United States, 2Department Human Parasitology, University of Tuebingen, Tuebingen, Germany, 3Apovia, Inc., San Diego, CA, United States, 4Center for Vaccine Development, University of Maryland, Baltimore, MD, United States

(ACMCIP Abstract)

11:45 a.m.  1102

INVASION INHIBITION OF P.VIVAX BY ANTI-DUFFY BINDING PROTEIN ANTIBODIES

Brian Grimberg1, Rachanee Udomsangpetch2, Jia Xianli1, Kara Martin1, Tasanee Panichakul2, John Erickson1, Christopher L. King1, Peter A. Zimmerman1
1Case Western Reserve University, Cleveland, OH, United States, 2Mahidol University, Bangkok, Thailand

(ACMCIP Abstract)

Symposium 144

Novel Organelles in Parasitic Protozoa

Hilton Hotel – Grand Salon A
Thursday, November 16 10:15 a.m. – Noon

The discoveries of the mitosomes, as mitochondrion-related organelles in Entamoeba and Giardia, the apicoplast, as a plastid-related organelle of Apicomplexan parasites, and the acidocalcisomes, as organelles conserved from bacteria to man, have profoundly changed the ways in which we view early eukaryotic evolution. Several of these organelles are the sources of potential targets for the chemotherapy of protozoal parasitic diseases and others, such as the contractile vacuole of trypanosomatids, provide excellent physiological models.

CHAIR
Roberto Docampo
University of Georgia, Athens, GA, United States

10:15 a.m.
INTRODUCTION
Roberto Docampo
University of Georgia, Athens, GA, United States

10:20 a.m.
ACIDOCALCISOMES IN TOXOPLASMA GONDII: AN UPDATE
Silvia Moreno
University of Georgia, Athens, GA, United States

10:45 a.m.
THE BIOLOGY OF THE APICOMPLEXAN PLASTID
Boris Striepen
University of Georgia, Athens, GA, United States

11:10 a.m.
MITOSOMES OF PARASITIC PROTOZOA
Jorge Tovar
Royal Holloway College, Egham, Surrey, United Kingdom

11:35 a.m.
CONTRACTILE VACUOLE AND OSMOREGULATION IN TRYPANOSOMA CRUZI
Roberto Docampo
University of Georgia, Athens, GA, United States

Symposium 147

A Global Network of Information Systems and the Prediction, Prevention and Control of Arthropod-Borne Zoonotic Disease Outbreaks

Hilton Hotel – Grand Salon D
Thursday, November 16 10:15 a.m. – Noon

Most emerging infectious diseases are zoonotic in origin, and many are arthropod-borne (ARBOR), such as Lyme disease and West Nile virus (WNV). Geographic information systems (GIS) are being increasingly used to monitor regional climatic and habitat conditions, endemic insect vectors and preferred nonhuman vertebrate hosts, in order to predict, prevent, and control ARBOR zoonotic disease outbreaks in local human populations. Many ARBOR zoonotic diseases represent serious public health threats in developing nations, and many may also be transmitted congenitally and by blood transfusions and organ and tissue transplants. Porous domestic borders and increasing global air travel for pleasure, business and military exercises pose increasing public health threats from ARBOR zoonotic diseases to developed nations as well. This symposium will explore the applications of GIS in the prediction, prevention, and control of ARBOR zoonotic disease outbreaks, all of which may result in chronic morbidity and some of which can contaminate human blood and transplantable tissue supplies. Targeted diseases and regions will include: WNV in North America, Chagas disease in Latin America, Japanese encephalitis in Asia and cutaneous leishmaniasis in the Middle East.

CHAIR
James H. Diaz
Louisiana State University Health Sciences Center, New Orleans, LA, United States
10:15 a.m.  
INTRODUCTION  
James H. Diaz  
Louisiana State University Health Sciences Center, New Orleans, LA, United States

10:20 a.m.  
GIS IN THE PREDICTION, PREVENTION, AND CONTROL OF WNV IN NORTH AMERICA  
Karen Gruszynski  
Louisiana State University Schools of Public Health and Veterinary Medicine, New Orleans, LA, United States

10:45 a.m.  
GIS IN THE PREDICTION, PREVENTION, AND CONTROL OF CHAGAS DISEASE IN LATIN AMERICA  
Prixia D. Nieto  
Louisiana State University Health Sciences Center, New Orleans, LA, United States

11:10 a.m.  
GIS IN THE PREDICTION, PREVENTION, AND CONTROL OF JAPANESE ENCEPHALITIS IN ASIA  
Meena Ishikawa  
Louisiana State University Schools of Public Health and Veterinary Medicine, New Orleans, LA, United States

10:15 a.m.  
HUMAN HOOKWORM VACCINE TRIAL: MODELING TRIAL EFFICACY AND HEALTH IMPACT  
Lorenzo Sabatelli1, Azra Ghani1, Peter Hotez2, Laura Rodrigues1, Simon Brooker1  
1London School of Hygiene and Tropical Medicine, London, United Kingdom, 2The George Washington University, Washington, DC, United States

10:30 a.m.  
PARASITE RISK FACTORS FOR UNDERWEIGHT AND WASTING IN PRESCHOOL-AGE CHILDREN IN BELEN, PERU USING THE NEW WHO INTERNATIONAL GROWTH STANDARDS  
Martin Casapia1, Serene A. Joseph2, Carmen Nunez3, Elham Rahme4, Theresa W. Gyorkos5  
1Asociacion Civil Selva Amazonica, Iquitos, Peru, 2McGill University Health Centre, Montreal, QC, Canada, 3McGill University, Montreal, QC, Canada

11:10 a.m.  
RECENTLY IDENTIFIED BACILLUS SPECIES PRODUCER OF POTENT NEMATOCIDAL COMPOUNDS  
Ruel Michelin1, Lafayette Frederick2, Arthur Williams3, Henry Lowe4, Antony Kinyua1, Roosevelt Shaw1, Kathleen Lobban5, Cynthia Johnson5, Wolfgang Leitner6, Soraj Pramanik1, Yvonne Bronner1, Ava Joubert1, Juarine Stewart1  
1Morgan State University, Baltimore, MD, United States, 2Howard University, Washington, DC, United States, 3University of the West Indies, Kingston, Jamaica, 4University of Technology and UWI, Kingston, Jamaica, 5Tai Sophia School of Healing Arts, Laurel, MD, United States, 6NCI/National Institutes of Health, Bethesda, MD, United States

11:15 a.m.  
CYTOKINE RESPONSES TO STRONGYLOIDES STERCORALIS INFECTIVE-STAGE LARVAL ANTIGEN IN STRONGYLOIDIASIS PATIENTS WITH HTLV-1 CO-INFECTION  
Martin Montes1, Jonathan Novoa1, Thomas J. Nolan2, Eduardo Gotuzzo1, A. Clinton White3  
1Instituto de Medicina Tropical ‘Alexander von Humboldt’ Universidad Peruana Cayetano Heredia, Lima, Peru, 2University of Pennsylvania, Philadelphia, PA, United States, 3Baylor College of Medicine, Houston, TX, United States

11:30 a.m.  
MYELOPEROXIDASE IS REQUIRED FOR PROTECTIVE ADAPTIVE IMMUNITY TO STRONGYLOIDES STERCORALIS IN MICE  
Amy E. O’Connell, David Abraham  
Thomas Jefferson University, Philadelphia, PA, United States

(ACMCIP Abstract)
POOR SANITATION AND HELMINTH INFECTION PROTECT AGAINST SKIN SENSITIZATION IN VIETNAMESE CHILDREN: A CROSS-SECTIONAL STUDY

Carsten Flohr1, Luc Nguyen Tuyen2, Sarah Lewis3, Rupert Quinnell4, Truong Tan Minh5, Ho Thanh Liem6, Jim Campbell1, David Pritchard7, Tran Tinh Hien8, Jeremy Farrar1, Hywel C. Williams2, John Britton7

1Oxford University Clinical Research Unit, Ho Chi Minh City, Vietnam, 2Khanh Hoa Provincial Centre for Malaria and Filariasis Control, Nha Trang, Vietnam, 3University of Nottingham, Nottingham, United Kingdom, 4University of Leeds, Leeds, United Kingdom, 5Khanh Hoa Provincial Health Service, Nha Trang, Vietnam, 6Khanh Son District Health Service, Khanh Son, Khanh Hoa Province, Vietnam, 7Nottingham University, Nottingham, United Kingdom, 8Hospital for Tropical Diseases, Ho Chi Minh City, Vietnam

ASTMH 55th Annual Meeting Adjourns

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