ASTMH
AMERICAN SOCIETY OF TROPICAL MEDICINE & HYGIENE
ADVANCING GLOBAL HEALTH SINCE 1903

VOLUME 97 NOVEMBER 2017 NUMBER 5 SUPPLEMENT

SIXTY-SIXTH

ANNUAL MEETING

November 5–9, 2017

The Baltimore Convention Center | Baltimore, Maryland USA

astmh.org
ajtmh.org
#TropMed17

Supplement to
The American Journal of Tropical Medicine and Hygiene

Welcome to TropMed17, our yearly assembly for stimulating research, clinical advances, special lectures, guests and bonus events.

Our keynote speaker this year is Dr. Paul Farmer, Co-founder and Chief Strategist of Partners In Health (PIH). In addition, Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, will deliver a plenary session Thursday, November 9. Other highlighted speakers include Dr. Scott O'Neill, who will deliver the Fred L. Soper Lecture; Dr. Claudio F. Lanata, the Vincenzo Marcolongo Memorial Lecture; and Dr. Jane Cardosa, the Commemorative Fund Lecture.

We are pleased to announce that this year's offerings extend beyond communicating top-rated science to direct service to the global community and a number of novel events:

- **Get a Shot. Give a Shot.®** Through Walgreens' Get a Shot. Give a Shot.® campaign, you can not only receive your free flu shot, but also provide a lifesaving vaccine to a child in need via the UN Foundation's Shot@Life campaign.
- **Under the Net.** Walk in the shoes of a young girl living in a refugee camp through the virtual reality experience presented by UN Foundation's Nothing But Nets campaign.
- **Project Zero.** Huffington Post offers a 360-degree view of three neglected tropical diseases, elephantiasis, river blindness and sleeping sickness, through its Project Zero virtual reality experience.
- **Minutes to Die.** We are screening the new documentary *Minutes to Die* that looks at venomous snakebite through the issues of snakebite victims, researchers at antivenom labs and public officials at the World Health Organization.

TropMed17 also provides attendees with free Wi-Fi, a meeting App and recordings of each session available within 48 hours after the session has taken place. Lastly, we are grateful to our sponsors and exhibitors, who contribute importantly to our meeting and the field. Check out their offerings and information at the Opening Reception, along with complimentary food and drink.

Whatever you're looking for in the world of tropical medicine and global health, you'll find it here. Glad you've joined us.

Daniel G. Bausch, MD, MPH&TM, FASTMH
Scientific Program Chair

Patricia F. Walker, MD, DTM&H, FASTMH
President

Karen A. Goraleski
Executive Director

U.S. SENATOR BEN CARDIN

www.cardin.senate.gov | @SenatorCardin | SenatorBenCardin | @senatorcardin

November 5, 2017

Dear Friends:

It is an honor to welcome everyone to my hometown of Baltimore for the 66th American Society of Tropical Medicine and Hygiene (ASTMH) annual conference. I hope you have the opportunity to explore our great city, and that the conference discussions and sessions contribute to your research and to progress for the field of tropical infectious disease research.

We live in an ever-increasingly interconnected world, where borders mean little with respect to preventing the spread of infectious disease. I applaud the role that ASTMH and its membership play in global health research and development, as well as in promoting preventative policies as we look towards the next global health challenge.

As Ranking Member of the Senate Foreign Relations Committee, I look forward to hearing about the progress made by your membership, while promoting the ideals and goals of ASTMH. My colleagues on both sides of the aisle understand the global health challenges we face, and look to organizations like ASTMH to share their expertise and support for global health.

Best wishes for a successful conference.

Sincerely,

Benjamin L. Cardin
United States Senate

Chris Van Hollen
U.S. Senator

November 2017

Dear Friends:

I am delighted to extend my warmest greetings to everyone attending the 66th Conference of the American Society of Tropical Medicine and Hygiene.

This Conference provides an important opportunity for the tropical disease research community to forge new and foster old relationships and collaborations to devise innovative solutions to meet global health challenges. The United States has been a leader in these cutting-edge initiatives, and I applaud these efforts made by contributors of the ASTMH.

I am proud that many of my constituents work in the field of global health as employees of USAID and NIH. The work of these federal agencies to promote global health programs is critical to our collective efforts.

Thank you for all you do to make a difference to others. You have my best wishes for a productive Conference.

Sincerely,

Chris Van Hollen
United States Senator

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Bill & Melinda Gates foundation

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William A. Petri, Sr. and Dr. Ann E. Petri

Petri Family

Anonymous

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ASTMH
AMERICAN SOCIETY OF TROPICAL MEDICINE & HYGIENE
ADVANCING GLOBAL HEALTH SINCE 1903

About the American Society of Tropical Medicine and Hygiene

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

ASTMH Membership

Be a Member — Join ASTMH

We invite you to join ASTMH and benefit from membership in the premier international organization for professionals involved in tropical medicine and global health. ASTMH provides a forum for sharing scientific advances, exchanging ideas, fostering new research and providing professional education. Join online at astmh.org or visit the TropMed Hub in booth 411 in the Exhibit Hall for more information.

Advantages of ASTMH Membership

- Active specialty subgroups in the areas of clinical tropical medicine, medical entomology, virology, global health and molecular, cellular and immunoparasitology
- The Clinical Consultants Directory — a listing of physicians who offer clinical consultative service in tropical medicine, medical parasitology and travelers' health
- Online access to the *American Journal of Tropical Medicine and Hygiene,* the foremost peer-reviewed publication for communicating new findings in tropical medicine
- Reduced page charges for publishing in the *American Journal of Tropical Medicine and Hygiene*

Educational Opportunities

- Reduced registration rates for the Annual Meeting, the premier gathering of tropical medicine professionals, featuring the latest cutting-edge research and program developments via symposia, plenary and interactive sessions, contributed and invited abstracts, and impromptu networking opportunities
- Reduced rates for the Update Course in Clinical Tropical Medicine and Travelers' Health
- Examination Leading to a CTropMed® — Certificate of Knowledge in Clinical Tropical Medicine and Travelers' Health

Professional Development Opportunities

- Funding, fellowship and sponsorship opportunities tailored to members' specific research and clinical needs
- Innovative Annual Meeting
- Access to the leading minds working and studying in tropical medicine today
- Annual awards and scholarships for excellence across disciplines
- Access to a professional network
- Members recognized as leaders in the tropical medicine and hygiene field
- Opportunities for leadership and skills-building through Council, subgroup and committee participation

Affiliate Members

Patron

UTMB
The University of Texas Medical Branch

Thank You
Peter Melby, *Professor; Director, UTMB Center for Tropical Diseases, Department of Internal Medicine, Division of Infectious Diseases, University of Texas Medical Branch*

Contributor

Thank You
Dyan Summers
Zuno Health

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Thank You
Wilbur Milhous, *Professor; Associate Dean of Research; Director, Center for Global Health Infectious Disease Research, University of South Florida*

Membership Dues

Student (Undergraduate, Graduate, Pre-Doctoral): **$15**

Trainee (Post-Doctoral, Resident, Fellow): **$25**

Regular Member: **$250**

Regular Member: Low/Lower-Middle Income Countries: **$25**

Fellow of ASTMH (FASTMH): **$50** voluntary contribution

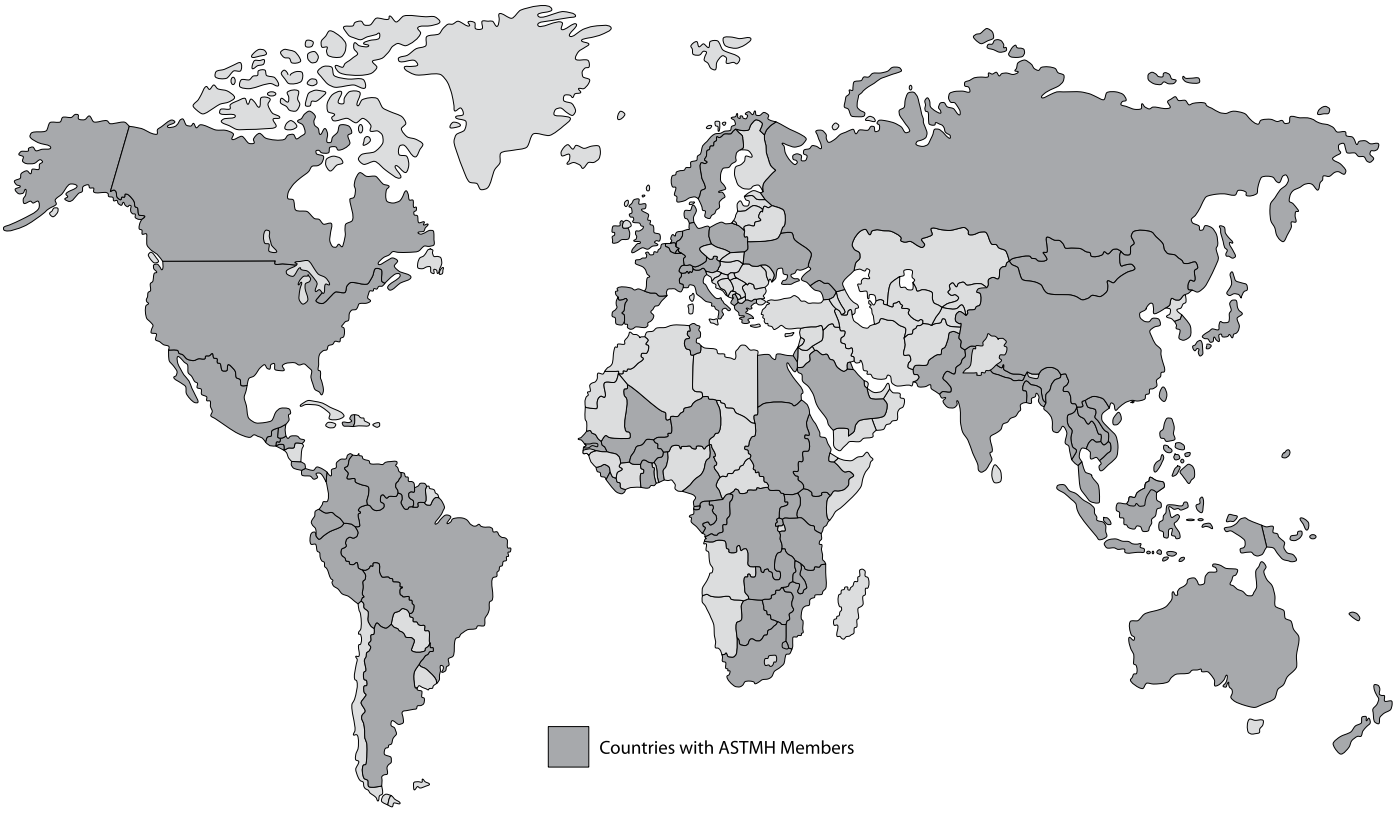
Lifetime: **$4,600**

Welcome ASTMH Members from Low and Lower-Middle Income Countries!

Reduced Regular Membership Dues for Low and Lower-Middle Income Countries ($25)

This is open to all citizens and legal residents of World Bank low and lower-middle income countries and WHO/HINARI classification countries of A & B. Members must be permanent residents in their country of citizenship. Visiting researchers or others on short-term assignments do not qualify.

ASTMH Members are Located in 98 Countries Across Six Continents



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Zimbabwe

ASTMH 66th Annual Meeting

Sunday, November 5, 2017

	Hilton – Johnson	Hilton – Holiday Ballroom 1/2	Hilton – Holiday Ballroom 3	Hilton – Holiday Ballroom 4	Hilton – Holiday Ballroom 5	Hilton – Holiday Ballroom 6	Hilton – Key Ballroom 1/2	Hilton – Paca	Hilton – Chase	Hilton – Stone
7 – 7:30 a.m.				Parasitology Pre-Meeting Course P. 75	Arbovirology Pre-Meeting Course P. 73	Global Health Pre-Meeting Course P. 76				
7:30 – 8 a.m.		Clinical Pre-Meeting Course P. 74								
8 – 8:30 a.m.										
8:30 – 9 a.m.										
9 – 9:30 a.m.										
9:30 – 10 a.m.										
10 – 10:30 a.m.										
10:30 – 11 a.m.			ASTMH Communications Training Workshop P. 85							
11 – 11:30 a.m.	ACAV SIE Meeting									
11:30 a.m. – Noon										
Noon – 12:30 p.m.	ACAV SIRACA Meeting									
12:30 – 1 p.m.										
1 – 1:30 p.m.										
1:30 – 2 p.m.										
2 – 2:30 p.m.	ACAV SALS Meeting									
2:30 – 3 p.m.										
3 – 3:30 p.m.										
3:30 – 4 p.m.								ACMCIP Council Meeting	ACGH Council Meeting	Clinical Group Council Meeting
4 – 4:30 p.m.							Student Reception			
4:30 – 5 p.m.										
5 – 5:30 p.m.										
5:30 – 6 p.m.										
6 – 6:30 p.m.										
6:30 – 7 p.m.										
7 – 7:30 p.m.										
7:30 – 8 p.m.										
8 – 8:30 p.m.										
8:30 – 9:30 p.m.										

ASTMH 66th Annual Meeting

Sunday, November 5, 2017

	Convention Center – Swing Hall	Convention Center – Ballroom	Convention Center – Room 318/319	Convention Center – Room 322/323	Convention Center – Room 325/326	Convention Center – Room 328/329	Convention Center – Room 331/332	Convention Center – Room 337/338	Convention Center – Room 339/340	Pratt Street Ale House
7 – 7:30 a.m.										
7:30 – 8 a.m.										
8 – 8:30 a.m.										
8:30 – 9 a.m.										
9 – 9:30 a.m.										
9:30 – 10 a.m.										
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11 – 11:30 a.m.										
11:30 a.m. – Noon										
Noon – 12:30 p.m.								Elsevier Clinical Research Award P. 86		
12:30 –1 p.m.										
1 – 1:30 p.m.										
1:30 – 2 p.m.										
2 – 2:30 p.m.										
2:30 – 3 p.m.									First-Time Attendee Orientation	
3 – 3:30 p.m.										
3:30 – 4 p.m.										ACME Council Meeting (3:30 p.m.) ACAV Council Meeting (4 p.m.)
4 – 4:30 p.m.										
4:30 – 5 p.m.										
5 – 5:30 p.m.										
5:30 – 6 p.m.		1 Plenary Session I: Keynote Address and Awards Program P. 87								
6 – 6:30 p.m.										
6:30 – 7 p.m.										
7 – 7:30 p.m.	Opening Reception and Exhibits									
7:30 – 8 p.m.										
8 – 8:30 p.m.										
8:30 – 9:30 p.m.										

Online Meeting Program
Search the Annual Meeting program online by abstract keyword, title, subject, author and/or presentation time at astmh.org/annual-meeting. The full text of all abstracts, including Late-Breaker Abstracts, can be found in the Online Program Planner.

Meeting App
Download the meeting app for easy access to all ASTMH program information. Use the app to view the meeting schedule, session and presenter information, full abstracts, exhibitors, maps and Twitter feed.

Program Changes
Times and/or locations of activities or sessions are subject to change. Please check the meeting app for program changes.

Online Abstract Book
The Annual Meeting Abstract Book is accessible at astmh.org/annual-meeting. View the full text of the abstracts presented.

ASTMH 66th Annual Meeting

Monday, November 6, 2017

	Convention Center – Swing Hall	Convention Center – Hall F and G	Convention Center – Ballroom I	Convention Center – Ballroom II	Convention Center – Ballroom III	Convention Center – Ballroom IV	Convention Center – Room 318/319/320	Convention Center – Room 321/322/323
7 – 7:30 a.m.								
7:30 – 8 a.m.								
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10:15 a.m. – Noon		Poster Session A Viewing	15 Symposium Molecules Needed to Control Malaria P. 99	16 Scientific Session Malaria: Immunology P. 100	17 Scientific Session ACMCIP: Malaria and Protozoans–Molecular Biology P. 100	18 Symposium Clinical Update: What's New in Literature? P. 101	19 Symposium Strengthening Surveillance P. 102	20 Symposium ACGH II: Building a Successful Career in Global Health P. 102
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12:15 – 12:30 p.m.								
12:30 – 12:45 p.m.								
12:45 – 1:30 p.m.								
1:30 – 1:45 p.m.								
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8 – 8:30 p.m.								
8:30 – 9 p.m.								
9 – 9:30 p.m.								

ASTMH 66th Annual Meeting

Monday, November 6, 2017

	Convention Center – Room 324/325/326	Convention Center – - Room 327/328/329	Convention Center – Room 331/332	Convention Center – Room 337/338	Convention Center – Room 339/340	Convention Center – Room 341/342	Convention Center – Room 343/344
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7:30 – 8 a.m.							
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9:45 – 10:15 a.m.							
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12:45 – 1:30 p.m.							
1:30 – 1:45 p.m.							
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6:15 – 7 p.m.							
7 – 7:15 p.m.							
7:15 – 8 p.m.							
8 – 8:30 p.m.							
8:30 – 9 p.m.							
9 – 9:30 p.m.							

INCLUDED WITH YOUR REGISTRATION FEE

Audio Recordings of All Sessions

Registrants will receive free access to audio recordings of all sessions and slides of select presentations.

ASTMH 66th Annual Meeting

Tuesday, November 7, 2017

	Convention Center – Swing Hall	Convention Center – Hall F and G	Convention Center – Ballroom I	Convention Center – Ballroom II	Convention Center – Ballroom III	Convention Center – Ballroom IV	Convention Center – Room 318/319/320	Convention Center – Room 321/322/323
7 – 7:30 a.m.								
7:30 – 8 a.m.								
8 – 9:45 a.m.	Exhibits Open 9:30 - 10:30		60 Scientific Session ACMCIP: Malaria - Molecular Biology and Infection P. 171	61 Symposium Triple ACTs P. 171	62 Symposium Malaria Rapid Diagnostic Testing P. 172	63 Symposium Clinical Group I: Process and Hurdles in Developing Vaccines/ Marcolongo Lecture P. 172	64 Scientific Session Malaria Epi: Following Trends, Making Predictions P. 173	65 Scientific Session Mosquitoes: Insecticide Resistance and Control P. 174
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12:30 – 12:45 p.m.								
12:45 – 1:30 p.m.								
1:30 – 1:45 p.m.								
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8:30 – 9 p.m.								

ASTMH 66th Annual Meeting

Tuesday, November 7, 2017

	Convention Center – Room 324/325/326	Convention Center – - Room 327/328/329	Convention Center – Room 331/332	Convention Center – Room 337/338	Convention Center – Room 339/340	Convention Center – Room 341/342	Convention Center – Room 343/344	Convention Center – Holiday Ballroom 1
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7:30 – 8 a.m.								
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1:30 – 1:45 p.m.								
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8 – 8:30 p.m.								
8:30 – 9 p.m.								

ASTMH 66th Annual Meeting

Wednesday, November 8, 2017

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7 – 7:30 a.m.								
7:30 – 8 a.m.								
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12:15 – 12:30 p.m.								
12:30 – 12:45 p.m.								
12:45 – 1:30 p.m.								
1:30 – 1:45 p.m.								
1:45 – 3:30 p.m.		Poster Session C Viewing	149 Scientific Session Malaria: Chemotherapy and Drug Resistance-Clinical Studies P. 314		150 Scientific Session Malaria Elimination: Tools and Evidence P. 315	151 Scientific Session Malaria: Vaccines P. 316	152 Symposium Disrupting the Paradigm: Bite Prevention for Malaria Control P. 317	153 Scientific Session Soil-Transmitted Helminths: Biology and Immunology P. 318
3:30 – 4 p.m.								
4 – 5:45 p.m.		Poster Session C Dismantle by 5 p.m.	161 Scientific Session Malaria: Epidemiology - Measuring Changes P. 323	162 Symposium Landscape of the Druggable *Plasmodium* Genome P. 324	163 Symposium Burden and Control of Malaria in Pregnancy in Asia P. 325	164 Symposium Challenges in Medical Humanitarian Settings P. 325	165 Symposium Lassa Fever: A New Look at an Old Disease P. 326	
5:45 – 6:15 p.m.								
6:15 – 7 p.m.					174 Plenary IV President's Address Annual Business Meeting P. 331			
7 – 7:15 p.m.								
7:15 – 8 p.m.								
8 – 8:30 p.m.								
8:30 – 9 p.m.								
9 – 9:30 p.m.								

ASTMH 66th Annual Meeting

Wednesday, November 8, 2017

	Convention Center – Room 324/325/326	Convention Center – - Room 327/328/329	Convention Center – Room 331/332	Convention Center – Room 337/338	Convention Center – Room 339/340	Convention Center – Room 341/342	Convention Center – Room 343/344
7 – 7:30 a.m.							
7:30 – 8 a.m.							
8 – 9:45 a.m.	125 Symposium *Wolbachia* for Biocontrol of Arboviruses P. 257	126 Symposium Chagas: Regional Differences in Research and Patient Care P. 257	127 Symposium Melioidosis - An Emerging Threat P. 258	128 Symposium New Tools for Global Filariasis Elimination P. 258	129 Symposium Efficacy of Drugs in STH Control Programs P. 259	130 Symposium Clinical Trials in Pregnant Women P. 259	131 Symposium Acute Febrile Illness and Encephalitis Surveillance in India P. 260
9:45 – 10:15 a.m.							
10:15 a.m. – Noon	138 Symposium Controlling Typhoid: New Insights on Vaccines P. 265	139 Symposium Improving Triage through Point-of-Care Technologies P. 266	140 Symposium Household Air Pollution and Health P. 267	141 Symposium Interim Strategies on Onchocerciasis Elimination in Africa P. 267	142 Symposium Schistosomiasis Control in the 21st Century P. 268	143 Scientific Session HIV and Tropical Co-Infections P. 268	144 Symposium International Zika Cohort Studies in Pregnant Women P. 269
Noon – 12:15 p.m.							
12:15 – 12:30 p.m.				146 Late Breakers in Malaria P. 314	147 Meet the Editors P. 314	148 Meet the Professors C P. 314	
12:30 – 12:45 p.m.							
12:45 – 1:30 p.m.							
1:30 – 1:45 p.m.							
1:45 – 3:30 p.m.	154 Symposium Emerging Tick-Borne Infections P. 319	155 Symposium The Dengue Controlled Human Infection Model P. 319	156 Scientific Session Kinetoplastida: Epidemiology and Diagnosis P. 320	157 Symposium Global Elimination of Trachoma: Refocusing the End Game P. 320	158 Symposium Praziquantel Studies in Children and Mothers with Schisto P. 321	159 Symposium Immigration and Chagas Disease P. 322	160 Symposium Innovative Approaches to Encourage Public Engagement P. 322
3:30 – 4 p.m.							
4 – 5:45 p.m.	166 Symposium Neurocysticerocis: IDSA/ASTMH Guidelines P. 326	167 Symposium Building Clinical Trial Capacities in Africa P. 327	168 Symposium Operationalizing One Health: Tools in Global Health Security P. 327	169 Symposium Factors that Motivate Community Drug Distributors in NTDs P. 328	170 Symposium WASH Benefits Study P. 328	171 Symposium The Washington, DC Primer: Advocating for R&D Funding P. 329	172 Scientific Session Bacteriology: Cholera P. 330
5:45 – 6:15 p.m.							
6:15 – 7 p.m.							
7 – 7:15 p.m.							
7:15 – 8 p.m.							
8 – 8:30 p.m.							
8:30 – 9 p.m.							
9 – 9:30 p.m.							

Online Meeting Program
Search the Annual Meeting program online by abstract keyword, title, subject, author and/or presentation time at astmh.org/annual-meeting. The full text of all abstracts, including Late-Breaker Abstracts, can be found in the Online Program Planner.

Meeting App
Download the meeting app for easy access to all ASTMH program information. Use the app to view the meeting schedule, session and presenter information, full abstracts, exhibitors, maps and Twitter feed.

Program Changes
Times and/or locations of activities or sessions are subject to change. Please check the meeting app for program changes.

Online Abstract Book
The Annual Meeting Abstract Book is accessible at astmh.org/annual-meeting. View the full text of the abstracts presented.

ASTMH 66th Annual Meeting

Thursday, November 9, 2017

	Convention Center - Pratt Street West Lobby	Convention Center – Ballroom II	Convention Center – Ballroom III	Convention Center – Ballroom IV	Convention Center – Room 318/319/320	Convention Center – Room 321/322/323	Convention Center – Room 324/325/326	Convention Center – - Room 327/328/329
7 – 7:30 a.m.								
7:30 – 8 a.m.								
8 – 9:45 a.m.		175 Scientific Session Malaria: Mosquito Transmission and Interruption P. 332	176 Symposium Swift, Wide and Deep: Large-Scale Genetic Data from Complex Samples P. 333	177 Scientific Session Clinical Tropical Medicine II P. 333	178 Symposium Household Enumeration for Targeted Interventions P. 334	179 Symposium Rotavirus Vaccine Impact on Diarrhea in Africa P. 335	180 Scientific Session Mosquitoes: Operational Control P. 335	181 Symposium Lasers, Rays and Dyes: Tools to Fight Falsified Medicines P. 336
9:45 – 10:15 a.m.	Coffee Break							
10:15 – 11.00 a.m.			187 Plenary Session V P. 340					
11:15 a.m. – Noon		188 Scientific Session Malaria: Applications of Innovative Technologies P. 340	189 Symposium Taking Innovations to Market: Ebola and Zika Grand Challenges P. 341	190 Symposium Epidemic of Cancer in Africa P. 342	191 Symposium Clinico-Epidemiologic Studies and Laboratory Diagnosis of Zika P. 342	192 Scientific Session ACMCIP: Malaria and Protozoal Diseases – Biology and Pathogenesis P. 343	193 Symposium Deciphering Immune Responses by Diarrheal Pathogens P. 344	

Project Zero

Convention Center – Pratt Street Lobby

Don't miss the latest virtual reality (VR) films by *HuffPost's* Project Zero, an ongoing series created to raise awareness around neglected tropical diseases and efforts to fight them. Three 360-degree VR films tell the untold stories of the victims and health workers battling elephantiasis, river blindness and sleeping sickness in some of the most remote and underdeveloped regions of the world. Explore the challenges of and progress toward eliminating these diseases in an experience provided through the VR format.

ASTMH 66th Annual Meeting

Thursday, November 9, 2017

	Convention Center – Room 331/332	Convention Center – Room 337/338	Convention Center – Room 339/340	Convention Center – Room 341/342	Convention Center – Room 343/344	Hilton – Holiday Ballroom Salon 6
7 – 7:30 a.m.						
7:30 – 8 a.m.						Council Meeting
8 – 9:45 a.m.	182 Scientific Session Soil-Transmitted Helminths: Epidemiology and Control P. 337	183 Scientific Session ACMCIP: Kinetoplastida – Molecular, Cellular and Immunobiology P. 337	184 Symposium Update on Pneumonia Innovations 2017 P. 338	185 Symposium New Approaches to Health Impact Measurement in WASH Trials P. 338	186 Scientific Session Bacteriology: *Salmonella*/ Typhoid Fever P. 339	
9:45 – 10:15 a.m.						
10:15 – 11.15 a.m.						
11:15 a.m. – Noon	194 Symposium NTDs and Micronutrient Malnutrition: The Dual Burden P. 344	195 Scientific Session Schistosomiasis: Immunology and Pathology P. 345	196 Symposium Preparing for Next Epidemic: Military and Civilian Partnerships P. 346	197 Symposium Seroepidemiology to Guide Public Health Action P. 346		

Get a Shot Give a Shot®

Convention Center – Pratt Street Lobby

Walgreens' Get a Shot. Give a Shot.® campaign has helped provide more than 20 million lifesaving vaccines to children in need around the world through the United Nations Foundation's Shot@Life campaign. Now, TropMed17 is giving attendees an opportunity to give back to the global health communities we serve. Receive your annual flu shot and provide lifesaving vaccines to families in developing countries. Immunizations are one of the world's biggest public health success stories, but not all communities have the same access to vaccines.

Walgreens
GET A SHOT GIVE A SHOT
shot @life
UNITED NATIONS FOUNDATION

Under the Net

Convention Center – Pratt Street Lobby

Walk in the shoes of 11-year-old Amisa, a refugee living in the Nyarugusu Refugee Camp in Tanzania, through a virtual reality experience (VR) presented by the UN Foundation's Nothing But Nets campaign. *Under the Net* is the story of Amisa, her mother and six siblings as they struggle to survive each day with no protection from mosquitoes that carry malaria at night. Be sure to stop by the Nothing But Nets exhibit and watch Amisa's story through her eyes — as only VR can present it.

UNITED NATIONS FOUNDATION

Nothing But Nets.net
SEND A NET. SAVE A LIFE.

For a description of each session, consult the page number corresponding to the session title.

Meeting Room Directory

Baltimore Convention Center

Level 100
Swing Hall (Exhibit Hall)
Exhibit Hall F and G (Poster Hall)

Level 200
Skywalk to Sheraton Inner Harbor and Inner Harbor Shops

Level 300
Skywalk to Hilton Baltimore Second Floor – East Building
Pratt Street West Lobby (Registration)
Pratt Street West Lobby Foyer (TropStop Student Lounge)
Room 318/319/320
Room 321/322/323
Room 324/325/326
Room 327/328/329
Room 330 (Press Room)
Room 331/332
Room 334
Room 335
Room 336 (Speaker Ready Room)
Room 337/338
Room 339/340
Room 341/342
Room 343/344
Room 345
Room 346

Level 400
Ballroom I
Ballroom II
Ballroom III
Ballroom IV

Hilton Baltimore

First Floor – East Building
Johnson A
Johnson B
Latrobe
Peale A
Peale B
Peale C
Ruth

Second Floor – East Building
Skywalk to Baltimore Convention Center
Blake
Calloway A
Calloway B
Holiday Ballroom 1
Holiday Ballroom 2
Holiday Ballroom 3
Holiday Ballroom 4
Holiday Ballroom 5
Holiday Ballroom 6
Mencken (Lactation Room)

Second Floor – West Building
Armistead
Key Ballroom 1
Key Ballroom 2
Key Ballroom 3
Key Ballroom 4
Key Ballroom 5
Key Ballroom 6
Key Ballroom 7
Key Ballroom 8
Key Ballroom 9
Key Ballroom 10
Key Ballroom 11
Key Ballroom 12
Pickersgill

Third Floor – West Building
Brent
Carroll A
Caroll B
Chase
Douglass
Hopkins
Marshall
Paca
Stone
Tilghman
Tubman A
Tubman B

ASTMH Council, Subgroup Leadership and Fellows of ASTMH (FASTMH)

ASTMH extends a special thank you to its Council members for their outstanding contributions throughout the year and their dedication to advancing the Society's mission.

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*Indicates voting member

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Patricia F. Walker
University of Minnesota and HealthPartners Travel and Tropical Medicine Center, United States

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Chair, Scientific Program Committee
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UK Public Health Rapid Support Team, United Kingdom

Editor-in-Chief, *American Journal of Tropical Medicine and Hygiene*
Philip Rosenthal
University of California San Francisco, United States

Executive Director
Karen A. Goraleski

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Nicole Achee* (2015-2019)
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Serap Aksoy* (2013-2017)
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Columbia University Medical Center, United States

Julie Jacobson* (2016-2020)
Bill & Melinda Gates Foundation, United States

Laura Kramer* (2014-2018)
New York State Department of Health, Wadsworth Center, United States

Ann Powers* (2014-2018)
Centers for Disease Control and Prevention, United States

Laurence Slutsker* (2013-2017)
PATH, United States

Subgroup Leadership

American Committee of Medical Entomology (ACME)
Chair: Gonzalo Vazquez-Prokopec
Emory University, United States

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP)
President: Christine Petersen
University of Iowa, United States

American Committee on Arthropod-Borne Viruses (ACAV)
Chair: Nikos Vasilakis
University of Texas Medical Branch, United States

American Committee on Clinical Tropical Medicine and Travelers' Health (ACCTMTH – Clinical Group)
President: John Sanders
Wake Forest University, United States

ASTMH Committee on Global Health (ACGH)
President: Christina Polyak
Walter Reed Army Institute of Research Military HIV Research Program, United States

Fellows of ASTMH (FASTMH)

Fellow member status in the Society is an honor recognizing sustained professional excellence in any phase of tropical medicine, hygiene, global health and related disciplines. 2017 Fellows will be announced and recognized at the Awards Program on Sunday, November 5.

2016 Fellows

Elizabeth Barnett, *Boston Medical Center, United States*

Stephen M. Beverley, *Washington University School of Medicine, United States*

Carol D. Blair, *Colorado State University, United States*

Donald S. Burke, *University of Pittsburgh, United States*

Martin Cetron, *Centers for Disease Control and Prevention, United States*

Barnett L. Cline, *Past President of ASTMH, United States*

Daniel G. Colley, *University of Georgia, United States*

Joseph A. Cook, *Past President of ASTMH, United States*

John R. David, *Harvard School of Public Health, United States*

Timothy P. Endy, *SUNY Upstate Medical University, United States*

David A. Fidock, *Columbia University Medical Center, United States*

Duane J. Gubler, *Harvard School of Public Health, United States*

Richard L. Guerrant, *University of Virginia Medical School, United States*

Scott B. Halstead, *Dengue Vaccine Initiative, United States*

Stephanie James, *Foundation for the National Institutes of Health, United States*

Karl M. Johnson, *Past President of ASTMH, United States*

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Frank O. Richards, *The Carter Center, United States*

Philip Russell, *Sabin Vaccine Institute, United States*

G. Dennis Shanks, *Australian Army Malaria Institute, United States*

Donald S. Shepard, *Brandeis University, United States*

Mary M. Stevenson, *McGill University, United States*

Nikos Vasilakis, *University of Texas Medical Branch, United States*

Karl A. Western, *National Institute of Allergy and Infectious Diseases, United States*

A. Clinton White, *University of Texas Medical Branch, United States*

Dyann Wirth, *Harvard School of Public Health, United States*

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Tonya Cabrera, *Assistant Conference Administrator*

Madhuri Carson, *Manager, Partnership Opportunities*

Judy DeAcetis, *Administrator*

Doug Dusik, *Senior Communications Executive*

Buffy Finn, *Member Services Administrator*

Brenda Howe, *Conference Administrator*

Alison Jaeb, *AJTMH Editorial Assistant*

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Lauren Rich, *Coordinator, Partnership Opportunities*

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Rhonda Schultz, *Coordinator, Awards and Fellowships*

Cathi Siegel, *AJTMH Managing Editor*

Chris Viglione, *Meeting Manager*

Rita Wallace, *Accounts Receivable Administrator*

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Jill Hronek, *Assistant Meeting Manager, Kellen*

Matthew Davis, *Burness*

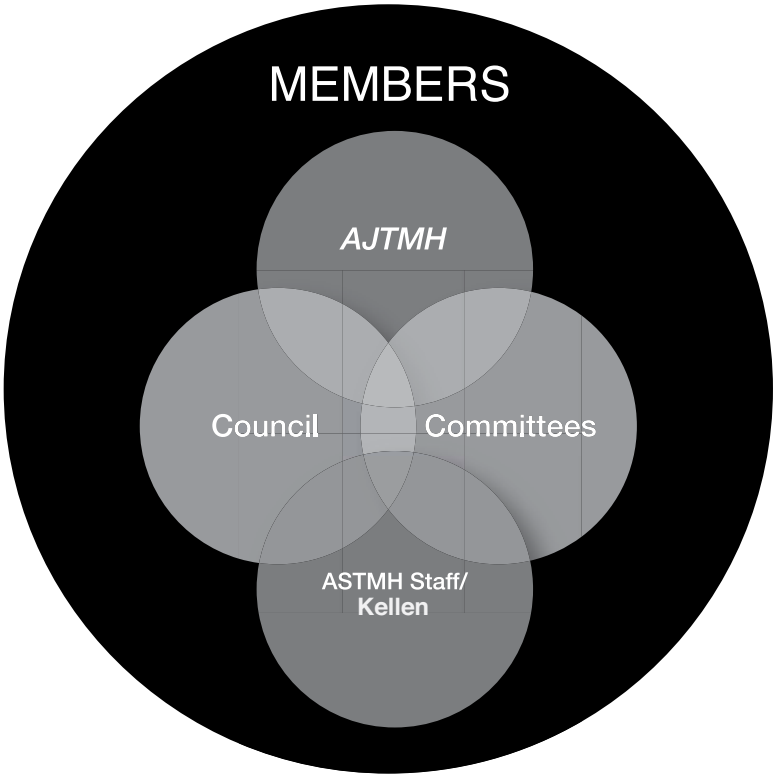
Bridget DeSimone, *Burness*

Gideon Hertz, *Burness*

Nick Seaver, *Burness*

Preeti Singh, *Burness*

ASTMH Organizational Chart



ASTMH Subgroups and Committees

Subgroups

American Committee of Medical Entomology (ACME)
ACME promotes medical entomology within ASTMH and in organizations with scopes of activities that include the area of human diseases transmitted by arthropods.

Gonzalo Vazquez-Prokopec, Chair and Councilor
Philip Armstrong, *Chair-Elect*; Lyric Bartholomay, *Past Chair*; Alvaro Molina-Cruz, *Secretary-Treasurer;* Maria Diuk Wasser, *Councilor*; Rebekah Kading, *Councilor*; Michael Reddy, *Councilor*; Philip Armstrong, *Councilor*; Michel Slotman, *Councilor*; Kate Aultman, *Councilor*; Alvaro Molina-Cruz, *Councilor*; Jason Richardson, *Councilor*; Laura Harrington, *Councilor*; Matt Thomas, *Councilor*; Diana Ortiz, *Councilor*; Gonzalo Vazquez-Prokopec, *Hoogstraal Medal Coordinator*; Lyric Bartholomay, *Student Award Coordinator*

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP)
ACMCIP facilitates interactions among scientists within ASTMH who work in the varied disciplines of parasitology, especially in basic laboratory, pre-clinical and translational research, clinician sciences and population-based sciences.

Christine Petersen, President
Julian Rayner, *Past President* and *Secretary-Treasurer*; Manoj Duraisingh, *Councilor;* Rick Fairhurst, *Councilor*; Michael Ferdig, *Councilor*; Timothy Yoshino, *Councilor for Communications*; Richard Davis, *Councilor for Trainees*

American Committee on Arthropod-Borne Viruses (ACAV)
ACAV provides a forum for exchange of information among people interested in arbovirus research.

Nikos Vasilakis, Chair and Councilor
Desiree LaBeaud, *Chair-Elect and Councilor*; Kathryn Hanley, *Past Chair and Councilor*; Lark Coffey, *Secretary*; Scott Weaver, *Treasurer*; Donald Burke, *Archivist/Historian*; Brad Blitvich, *Councilor*; Aaron Brault, *Councilor*; Christopher Mores, *Councilor*; Rebecca Rico-Hesse, *Councilor*; Laura Kramer, *Councilor*; Devika Sirohi, *Councilor for Trainees*

American Committee on Clinical Tropical Medicine and Travelers' Health (ACCTMTH – Clinical Group)
The Clinical Group (ACCTMTH) is the clinicians' group within ASTMH and includes civilian, military and governmental experts in travelers' health, tropical infection and tropical disease.

John Sanders, President
David Brett-Major, *President-Elect*; Duane Hospenthal, *Past President*; Latha Rajan, *Secretary-Treasurer*; Frederique Jacquerioz, *Councilor*; Miguel Cabada, *Councilor*; Janine Danko, *Councilor*

ASTMH Committee on Global Health (ACGH)
ACGH promotes the development of the field of global health within ASTMH and addresses multidisciplinary transnational approaches to health issues that unfavorably affect underserved and under-resourced populations.

Christina Polyak, President
Ramin Asgary, *President-Elect*; Juliette Morgan, *Past President*; Leslie Enane, *Secretary-Treasurer*; Koya Allen, *Councilor*; Daouda Ndiaye, *Councilor*; Ryan Carroll, *Councilor*; Abiola Fasina, *Councilor*

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Ed Ryan, Chair
Naomi Aronson; Josh Berman; Philip Coyne; Johanna Daily; David Freedman; Robert Gasser; Hector Gorbea; David R. Hill; Eric Houpt; Chandy John; Kevin Kain; James Maguire; Jean Nachega; William Stauffer; Joseph Vinetz; Mary Wilson

American Journal of Tropical Medicine and Hygiene
Section Editors: Bradley Blitvich*;* Aaron Brault*;* J. Stephen Dumler*;* Duane Hospenthal*;* James Kazura*;* Miriam Laufer*;* Regina Rabinovich*;* John Sanders*;* Thomas Scott*;* Christine Stauber; Maxine Whittaker*;* Mary Wilson

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Nominations
Christopher Plowe, Chair
Lin Chen; Hector Gorbea; Anthony James; Kent Kester; Eva Harris; Stephen Higgs; Moses Kamya; Rebecca Rico-Hesse; Rick Fairhurst; Kyaw Zin Thant; Sarah Volkman

ASTMH Subgroups and Committees (cont.)

Annual Meeting

Lecture (Fred L. Soper and Charles F. Craig)
Robert Tesh, Chair
Donald Burke; David Freedman (Gorgas representative); Peter Hotez; William Petri

Scientific Program
Daniel G. Bausch, Chair
Stephanie Yanow, Assistant Chair
See full committee roster on page 26.

Travel Awards
Nirbhay Kumar, Chair
James Burns; John Donelson; Erin Eckert; Brian Foy; Nisha Garg; Kent Kester; Sanjai Kumar; Kim Lindblade; Kevin Macaluso; James Maguire; Indu Malhotra; Dan Milner; Julie Moore; Ann Moormann; Hira Nakhasi; Christina Polyak; Richard Reithinger; John Sanders; Clive Shiff; Mary Stevenson; Diane Wallace Taylor; Jefferson Vaughan; Venkatachalam Udhayakumar; Eileen Villasante; Joseph Vinetz; Sarah Volkman; Wei-Kung Wang; Yimin Wu

Young Investigator Award
Ed Mitre, Chair
Jeffrey Bailey; Vitaliano Cama; Peter Crompton; Stephen Davies; Nicole Gottendenker; Rebekah Kading; Albert Ko; Matthew Laurens; Naomi Lucchi; David Narum; Miranda Oakley; Roshanak Semnani; Prakash Srinivasan; Anne Stewart; Ned Walker; Elia Wojno

Awards and Professional Recognition

Medals
Stephanie James, Chair
Christopher Plowe; Stephen Higgs

Communications Award
Peter Hotez and Karen A. Goraleski, Co-Chairs
Caroline Ash; Philip Coyne; Brian Foy; Heather Jameson; Kathryn McGrath; Kristy Murray

CTropMed® Examination
Susan McLellan, Chair
David Boulware; Lin Chen; Robert DeFraites; David Freedman; Patrick Hickey; Patricia Joyce; Jeffrey Jones; Gregory Juckett; Amy Klion; Walter Kuhn; Gregory Martin; Obinna Nnedu; Matthew Rollosson; Reinaldo Rosas; Carlos Rossi; Bonnie Smoak

Certificate Exam Credentialing Committee
Susan McLellan, Chair
Larry Laughlin; John Sanders; Herbert Tanowitz

Certificate Exam Executive Committee
Susan McLellan, Chair
David R. Hill; Larry Laughlin; Susan McLellan; John Sanders

Diploma Course Certification Committee
Susan McLellan, Chair
David Freedman; Richard Guerrant; Donald Krogstad; Anne McCarthy; Alan Spira

Clinical Tropical and Travel Medicine Education Program Committee
John Sanders, Chair
Christina Coyle; Michael Libman; Susan McLellan; Lin Chen; Patrick Hickey; Latha Rajan

Courses

Courses Committee
Christina Coyle and Michael Libman, Co-Chairs
Daniel G. Bausch; David Brett-Major; Philip Coyne (CME Liaison); Rick Fairhurst; David R. Hill; Louise Ivers (CME Liaison); Christopher King, John Sanders

Update Course in Clinical Tropical Medicine and Travelers' Health
Christina Coyle and Michael Libman, Co-Chairs

Education/Fellowships/Grant Awards

Alan J. Magill Fellowship
Kent Kester, Chair
Janiine Babcock; Mark Fukuda; Andres Lescano; Bruno Moonen (non-voting); Christopher Plowe; Rick Steketee; Mahamadou Thera; Sarah Volkman; Karen A. Goraleski

Benjamin H. Kean Travel Fellowship in Tropical Medicine
Desiree LaBeaud, Chair
James Cummings; Arlene Dent; Michael Hawkes; Colette Kean; Miriam Laufer; Mark Polhemus; Mark Travassos

ASTMH Subgroups and Committees (cont.)

Burroughs Wellcome Fund-ASTMH Fellowship
Joseph Tucker, Chair
Ravi Durvasula; Molly Hughes; Victoria McGovern; Dan Milner; Joseph Vinetz; Mary Wilson

Centennial Travel Award
Joseph Vinetz, Chair
David Fidock; D.J. Perkins; Sarah Volkman

Robert E. Shope International Fellowship
Ann Powers, Chair
Charles Calisher; Thomas Scott; Richard Shope; Tom Yuill

Membership

Fellows
David R. Hill, Chair
Josh Berman; Stephen Higgs; Laura Kramer; Rick Steketee; Mary Wilson

Honorary International Fellow of ASTMH
Myron Levine, Chair
John Aaskov; Yaowalark Sukthana

Membership
David R. Hill, Chair
Daniel Bausch; Joel Breman; Sarah Schaffer DeRoo; Tim Endy; Rick Fairhurst; Karen A. Goraleski; Martin Grobusch; Davidson Hamer; Selma Jeronimo; Kent Kester; Beth Kirkpatrick; Kevin Macaluso; Wilbur Milhous; John Waitumbi; Scott Weaver; Pete Zimmerman

Ad Hoc

Awards Task Force
Patricia F. Walker, Chair
Nicole Achee; Serap Aksoy, Myriam Arevalo-Herrera; Kate Aultman; Stephen Higgs; David R. Hill; Julie Jacobson; Christopher Plowe; Ann Powers; Julian Rayner; Laurence Slutsker; Mahamadou Thera; Sarah Volkman; Stephanie Yanow; Karen Goraleski

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Nicole Achee, Co-Chair
Abdoulaye Djimde, Co-Chair
Daniel G. Bausch; David R. Hill; David Fidock; Andres Lescano; Pauline Mwinzi; Philip Rosenthal

Student Task Force
David Fidock, Chair
Julian Rayner; Katherine Taylor; Stephanie Yanow

ASTMH Scientific Program Committee

The Society and the Annual Meeting attendees offer special thanks to the Scientific Program Committee for their work in determining the robust agenda offered at this year's meeting.

Chair: Daniel G. Bausch, *UK Public Health Rapid Support Team*

Assistant Scientific Program Chair: Stephanie Yanow, *University of Alberta*

Bacterial Illness and Diarrhea
Chair: Ed Ryan, *Massachusetts General Hospital*
Richelle Charles, *Massachusetts General Hospital*
Robert Hall, *National Institutes of Health*
Daniel Leung, *University of Utah*
Megan Reller, *Duke University*
Mark Simons, *Naval Medical Research Unit #6*
Duncan Steele, *Bill & Melinda Gates Foundation*

Clinical Tropical Medicine
Chair: Elizabeth Barnett, *Boston University*
Josh Berman, *Fast Track Drugs*
Bradley Connor, *Weill Cornell Medical College*
Janine Danko, *Walter Reed Military Medical Center*
John Gawoski, *Lahey Hospital and Medical Center*
Brett Hendel-Paterson, *University of Minnesota*
Mark Kortepeter, *Uniformed Services University of the Health Sciences*
Jason Maguire, *Pfizer*
Joseph Vinetz, *University of California San Diego*

Ectoparasite-Borne Diseases
Chair: J. Stephen Dumler
Robert Smith, *Maine Medical Center*
Sam Telford, *Tufts University*
Jefferson Vaughan, *University of North Dakota*

Entomology
Chair: Michel Slotman, *Texas A&M University*
Kate Aultman
Greg Lanzaro, *University of California Davis*
Jiannong Xu, *New Mexico State University*

Filariasis
Chair: LeAnne Fox, *Centers for Disease Control and Prevention*
Subash Babu, *NIH-NIRT-ICER*
Peter Fischer, *Washington University*
Roshanak Semnani, *National Institute of Allergy and Infectious Diseases*
Daniel Tisch, *Case Western Reserve University*

Global Health
Chair: Richard Reithinger, *RTI International*
Erin Eckert, *United States Agency for International Development*
Philip Gould, *World Health Organization*
Davidson Hamer, *Boston University*
Mary Hayden, *National Center for Atmospheric Research*
Louise Ivers, *Partners In Health/Brigham and Women's Hospital*
Kayla Laserson, *Centers for Disease Control and Prevention*
Mark Paris, *Mark Paris, MD*
Jose Stoute, *Pennsylvania State University*
Katherine Taylor, *University of Notre Dame*
Theresa Townley, *Creighton University*

HIV and Tropical Co-Infections
Chair: Christina Polyak, *Military HIV Research Program*
David Boulware, *University of Minnesota*
Daniel Leung, *University of Utah*
Jean Nachega, *Johns Hopkins University*

Integrated Control Measures for Neglected Tropical Diseases
Chair: Charles King, *Case Western Reserve University*
Darin Evans, *United States Agency for International Development*
Eric Ottesen, *Task Force for Global Health*

Intestinal and Tissue Helminths, Cestodes
Chair: David Abraham, *Thomas Jefferson University*
Enrico Brunetti, *University of Pavia*
Siddhartha Mahanty, *University of Melbourne*
Jose Serpa-Alvarez, *Baylor College of Medicine*
Francesca Tamarozzi, *University of Pavia*

Kinetoplastida
Chair: Lynn Soong, *University of Texas Medical Branch*
Caryn Bern, *University of California San Francisco*
Nisha Garg, *University of Texas Medical Branch*
Shaden Kamhawi, *National Institute of Allergy and Infectious Diseases*
Hira Nakhasi, *Food and Drug Administration*

Late-Breakers in Basic Science/Molecular Biology
Co-Chair: Naomi Forrester, *University of Texas Medical Branch*
Co:Chair: Rebekah Kading, *Colorado State University*

Late-Breakers in Clinical Tropical Medicine and Global Health
Co-Chair: Barbara Herwaldt, *Centers for Disease Control and Prevention*
Co-Chair: Jason Maguire, *Pfizer*
Noreen Hynes, *Johns Hopkins University*

ASTMH Scientific Program Committee (cont.)

Late-Breakers in Malaria
Co-Chair: Stefan Kappe, *Center for Infectious Disease Research*
Co-Chair: Carol Sibley, *University of Washington*
Jonathan Juliano, *University of North Carolina*
Kent Kester, *Sanofi Pasteur*
Sanjai Kumar, *Food and Drug Administration*
Yimin Wu, *PATH Malaria Vaccine Initiative*

Malaria
Chair: Carol Sibley, *University of Washington*
Johanna Daily, *Albert Einstein College of Medicine*
Arlene Dent, *Case Western Reserve University*
Meghna Desai, *Centers for Disease Control and Prevention*
Jonathan Juliano, *University of North Carolina*
Patrick Kachur, *Centers for Disease Control and Prevention*
Stefan Kappe, *Center for Infectious Disease Research*
Kent Kester, *Sanofi Pasteur*
Urszula Krzych, *Walter Reed Army Institute of Research*
Sanjai Kumar, *Food and Drug Administration*
Miriam Laufer, *University of Maryland*
Andres Lescano, *Universidad Peruana Cayetano Heredia*
Kim Lindblade, *Centers for Disease Control and Prevention*
Sarah Volkman, *Harvard School of Public Health*
Kim Williamson, *Uniformed Services University of the Health Sciences*
Yimin Wu, *PATH Malaria Vaccine Initiative*

Meet the Professors
Chair: David Boulware, *University of Minnesota*

Molecular Parasitology
Chair: Manoj Duraisingh, *Harvard School of Public Health*
David Abraham, *Thomas Jefferson University*
Ahmed Aly, *Tulane University*
Kami Kim, *Albert Einstein College of Medicine*
Dylan Pillai, *University of Calgary*
Niraj Tolia, *Washington University*
Kim Williamson, *Uniformed Services University of the Health Sciences*

One Health: The Interface of Human Health and Animal Diseases
Chair: Christopher Woods, *Durham Veterans Affairs Medical Center*
Claire Cornelius, *United States Army*
David Morens, *National Institute of Allergy and Infectious Diseases*
Kristy Murray, *Baylor College of Medicine*

Opportunistic and Anaerobic Protozoa
Chair: Upinder Singh, *Stanford University*
Boris Striepen, *University of Pennsylvania*

Pneumonia, Respiratory Infections and Tuberculosis
Chair: Robert Breiman, *Emory University*
Abdullah Brooks, *Johns Hopkins Bloomberg School of Public Health*
David Hamer, *Boston University*
Natasha Hochberg, *Boston University*
Keith Klugman, *Bill & Melinda Gates Foundation*
Samba Sow, *Center for Vaccine Development Mali*

Schistosomiasis-Helminths
Chair: Jennifer Friedman, *Brown University*
Stephen Davies, *Uniformed Services University of the Health Sciences*
Robert Greenberg, *University of Pennsylvania*
Michael Hsieh, *Biomedical Research Institute*
Emily McDonald, *Rhode Island Hospital*

Virology
Chair: Greg Ebel, *Colorado State University*
Anna Durbin, *Johns Hopkins Bloomberg School of Public Health*
Sharone Green, *University of Massachusetts*
Maria Guzman, *"Pedro Kouri" Tropical Medicine Institute*
Christopher Mores, *Louisiana State University/Naval Medical Research Unit #6*
Lyle Petersen, *Centers for Disease Control and Prevention*

Water, Sanitation, Hygiene and Environmental Health
Chair: Pavani Ram, *University at Buffalo*
Joseph Eisenberg, *University of Michigan School of Public Health*
Eric Mintz, *Centers for Disease Control and Prevention*
Christine Moe, *Emory University*

ASTMH Fellowships, Travel Awards, and Grants

Alan J. Magill Fellowship

ASTMH is pleased to announce the first Magill Fellow, to be recognized at the Opening Plenary Session on Sunday.

2017 Recipient

Pedro Aide, *Centro de Investigacao em Saude de Manhica (CISM), Maputo, Mozambique*

This fellowship, created in honor of Alan Magill, supports career-broadening experiences to enhance professional development and leadership opportunities beyond those traditionally available from within an applicant's home organization, and in so doing, equips awardees to later assume leadership and mentoring roles in various aspects of tropical medicine.

Selection Committee Chair: Kent Kester, *Sanofi Pasteur, United States*

ASTMH is grateful for the support and partnership with the Bill & Melinda Gates Foundation.

BILL & MELINDA GATES *foundation*

ASTMH Annual Meeting Travel Awards

Chair: Nirbhay Kumar, *Tulane University, United States*

ASTMH offers travel awards to qualified students, early career investigators and scientists actively working in the tropical medicine field to attend the Annual Meeting. These awards facilitate participation for those who might not otherwise be able to attend.

ASTMH gratefully acknowledges the support received from the Bill & Melinda Gates Foundation.

BILL & MELINDA GATES *foundation*

Adamu Addissie, *Addis Ababa University, Ethiopia*
Abstract 352

Mensah Ahadji-Dabla, *University of Lomé, Togo*
Abstract 180

Tahmina Ahmed, *International Centre for Diarrhoeal Disease Research, Bangladesh*
Abstract 597

Roberto Alcántara, *Universidad Peruana Cayetano Heredia, Peru*
Abstract 572

Denise Alvarenga, *FIOCRUZ , Brazil*
Abstract 361

Tiffany Borbon, *University of Iowa Carver College of Medicine, United States*
Abstract 771

Ross Boyce, *University of North Carolina at Chapel Hill, United States*
Abstract 294, 1160

Nathaniel Byers, *Centers for Disease Control and Prevention, United States*
Abstract 5

Philip Bystrom, *University of Minnesota, United States*
Abstract 112

Manuela Carrasquilla, *University of Cambridge, United Kingdom*
Abstract 1296

Emily Deichsel, *University of Washington, United States*
Abstract 449

Yahya Derua, *Kilimanjaro Christian Medical University College, United Republic of Tanzania*
Abstract 184

Phouvieng Douangdala, *Luangnamtha Provincial Hospital, Laos*
Abstract 133

Anna Fagre, *Colorado State University, United States*
Abstract 158

Maurice Itoe, *Harvard T.H. Chan School of Public Health, United States*
Abstract 851

Dennis Juma, *USAMRU, Kenya*
Abstract 357

Caroline Kabaria, *African Population and Health Research Centre, Kenya*
Abstract 331

Donghun Kim, *Kansas State University, United States*
Abstract 673

Sri Krishna, *National Institute for Research in Tribal Health, India*
Abstract 359

Inke Nadia Diniyanti Lubis, *London School of Hygiene & Tropical Medicine, United Kingdom*
Abstract 270

Karina Luque-Burgos, *Hospital Erasmo Meoz, Colombia*
Abstract 500

Zvifadzo Matsena, *National Institute of Health Research, Zimbabwe*
Abstract 286A

Yeromin, Mlacha, *Ifakara Health Institute, Tanzania*
Abstract 333

Lidia Montenegro, *Universidad de Antioquia, Colombia*
Abstract 265

Fathima Mubarak, *Ministry of Health, Sri Lanka*
Abstract 448

Billy Ngasala, *Muhimbili University of Health and Allied Sciences, Tanzania*
Abstract 272

John Okombo, *University of Cape Town, South Africa*
Abstract 980

Olugbenga Onile, *Elizade University, Nigeria*
Abstract 587A

Derick Osakunor, *University of Edinburgh, United Kingdom*
Abstract 740

Camilla Pires, *FIOCRUZ, Brazil*
Abstract 377

Saravanakumar Puthupalayam Kaliappan, *Christian Medical Center, India*
Abstract 155

Binod Rayamajhee, *Kathmandu Research Institute for Biological Sciences, Nepal*
Abstract 1760

Rasheed Salaudeen, *Medical Research Council Unit, The Gambia*
Abstract 568

Richard Sanya, *MRC/UVRI Uganda Research Unit, Uganda*
Abstract 743

Stacey Scroggs, *New Mexico State University, United States*
Abstract 1311

Rachel Sippy, *University of Wisconsin, United States*
Abstract 109

Menno Smit, *KEMRI, Kenya*
Abstract 1686A

Subramanian Swaminathan, *Vector Control Research Center, India*
Abstract 626

Susana Vaz Nery, *Australian National University, Australia*
Abstracts 1199, 1819

Hayley Yaglom, *Arizona Department of Health Services, United States*
Abstract 164

Celine Mabot Yobo, *Nangui Abrogoua University, Cote d'Ivoire*
Abstract 617

ASTMH Fellowships, Travel Awards, and Grants (cont.)

Young Investigator Awards

ASTMH gratefully accepts support for these awards in honor of William A. Petri, Sr., and in memory of Annie Liberati.

ASTMH appreciates the support of these awards from:
William A. Petri, Sr. and Dr. Ann E. Petri
TECHLAB Inc.
The Petri Family
Anonymous
PLOS

Chair: Edward Mitre, *Uniformed Services University of the Health Sciences*

Young Investigator Awards are given to young scientists who have completed the majority of work described in their accepted abstracts as undergraduates, graduate students or during the first two years of postdoctoral research. The early career investigators hold a primary role in the reported experimental work, as evidenced by first-author status on their abstracts. 2017 recipients will be determined at the competitive judging event held on Sunday, November 5, at the Annual Meeting. Winners will be announced during the Awards Program at the opening session.

Congratulations to the 2016 Recipients
(Selected during ASTMH 65th Annual Meeting, November 2016)
Nicholas Bergren, *University of Texas Medical Branch, United States*
Bethany Caruso, *Emory University, United States*
Richard Davis, *University of Iowa, United States*
Kristina Keitel-Hasler, *Swiss Tropical and Public Health Institute/Boston Children's Hospital, Switzerland*
Kara Moser, *University of Maryland School of Medicine, United States*

First-Tier Mention
Suzy Campbell, *Australian National University, Australia*
Morgan Goheen, *University of North Carolina Chapel Hill School of Public Health, United States*
John Jimah, *Washington University School of Medicine, United States*
Christine Markwalter, *Vanderbilt University, United States*
Deepali Ravel, *Harvard School of Public Health, United States*

Honorable Mention
Gunjan Arora, *National Institute of Allergy and Infectious Diseases, United States*
Sarah Buddenborg, *University of New Mexico, United States*
Sung-Jae Cha, *Johns Hopkins University, United States*
Breanna Scorza, *University of Iowa, United States*
Donna Tyungu, *New York University, United States*

Burroughs Wellcome Fund – ASTMH Postdoctoral Fellowship in Tropical Infectious Diseases ($65,000)

ASTMH is grateful for the continuing commitment from the Burroughs Wellcome Fund.

BURROUGHS WELLCOME FUND

ASTMH
AMERICAN SOCIETY OF TROPICAL MEDICINE & HYGIENE
ADVANCING GLOBAL HEALTH SINCE 1903

Chair: Joseph Tucker, *UNC China Project, China*

This fellowship encourages long-term career development in tropical infectious diseases by providing support to individuals who will pursue careers focused on clinical research in tropical or developing areas of the world.

2016 Recipients


Sarah-Blythe Ballard, *Johns Hopkins Bloomberg School of Public Health, United States*


Ruvandhi Nathavitharana, *Beth Israel Deaconess Medical Center, United States*


Jonathan Parr, *University of North Carolina at Chapel Hill, United States*

2017 Recipients


Tara Bouton, *Brown University, United States*


Patrick Cudahy, *Yale University, United States*


Matthew Ippolito, *Johns Hopkins University School of Medicine, United States*

ASTMH Fellowships, Travel Awards, and Grants (cont.)

Benjamin H. Kean Travel Fellowship in Tropical Medicine

Chair: Chandy John, *Indiana University, United States*

Named after renowned educator, physician and researcher Benjamin H. Kean (1912-1993), this fellowship provides travel support to medical students who arrange clinical tropical medicine or tropical medicine research electives overseas.

2017 Recipients

Mustafa Abid, *Wake Forest University School of Medicine, United States*
Precious Anyaoha, *Morehouse School of Medicine, United States*
Brandon Berger, *University of Chicago Pritzker School of Medicine, United States*
Nicholas Brazeau, *University of North Carolina at Chapel Hill School of Medicine, United States*
Catherine Castro, *University of Chicago Pritzker School of Medicine, United States*
Shilpa Darivemula, *Albany Medical College, United States*
Jessica Dawson, *University of Washington, United States*
John Diehl, *Emory University School of Medicine, United States*
Celia Fung, *University of Rochester School of Medicine and Dentistry, United States*
Paris Hantzidiamantis, *State University of New York, United States*
Megan Harris, *SUNY Upstate Medical University, United States*
Monalisa Hassan, *Wake Forest University School of Medicine, United States*
Justin Hills, *University of North Carolina at Chapel Hill School of Medicine, United States*
John Kahler, *State University of New York, United States*
Matthew Matson, *Marshall University, United States*
Qaasim Mian, *University of Alberta, Canada*
Courtney Pedersen, *Stanford University School of Medicine, United States*
Julia Ramos, *Johns Hopkins University School of Medicine, United States*
Margaret Robinson, *Stanford University School of Medicine, United States*
Tu Tran, *University of Minnesota, United States*
Hannah Wild, *Stanford University School of Medicine, United States*

Centennial Travel Award in Basic Science Tropical Disease Research ($25,000)

Chair: Joseph Vinetz, *University of California San Diego, United States*

This award provides support to individuals with doctoral-level degrees who travel to laboratories in the tropics to perform molecular, cellular or immunological studies of tropical infectious diseases.

2017 Recipients

Melissa Conrad, *University of California San Francisco, United States*

Usheer Kanjee, *Harvard T.H. Chan School of Public Health, United States*

Robert E. Shope International Fellowship in Infectious Diseases ($25,000)

Chair: Ann Powers, *Centers for Disease Control and Prevention, United States*

Named for ASTMH past president Robert E. Shope (1929-2004), one of the world's foremost authorities on insect-borne viruses, this fellowship provides support for travel, living expenses and research for doctoral level scientists working in laboratories overseas on studies pertaining to arbovirology and/or emerging tropical infectious diseases.

2017 Recipient

Amy Krystosik, *Stanford University School of Medicine, United States*

ASTMH Subgroup Awards

American Committee of Medical Entomology (ACME) Student Travel Awards

Chair: Lyric Bartholomay, *University of Wisconsin Madison, United States*

The ACME travel awards support travel to the Annual Meeting for master's, doctoral and post-doctoral students whose work involves arthropods of medical importance.

2017 Recipients
Young Investigator Award – Graduate
Carolyn Hodo, *Texas A&M University, United States*

Young Investigator Award – International
Om Prakash Singh, *Banaras Hindu University, India*

Young Investigator Award – Post-Doc
Hannah Romo, *Colorado State University, United States*

American Committee of Medical Entomology (ACME) Breakthrough in Medical Entomology Award

This award is for outstanding recent contributions (within the past five years) to the study and/or practice of Medical Entomology that ultimately will contribute to reducing the burden of human diseases transmitted by arthropods. This award is designed to encourage and acknowledge significant advances in the field by investigators at any career stage. Examples of such advances include breakthrough research findings in vector biochemistry, molecular biology, genetics, genomics or insecticide resistance, or significant advances in technologies for vector surveillance or control.

This award is supported by a generous donation from SC Johnson to the American Committee of Medical Entomology.

2017 Recipient
Zhijian Tu, *Virginia Tech, United States*

American Committee of Medical Entomology (ACME) Future Leaders in International Medical Entomology Award

Chair: Lyric Bartholomay, *University of Wisconsin Madison, United States*

The Future Leaders fellowship is a competitive award offered to an outstanding junior medical entomology researcher (must be at the undergraduate to post-doctoral level) to showcase individuals that have matched interests to ACME's objectives of promoting medical entomology and reducing the burden of human diseases transmitted by arthropods globally. Applicants must be non-U.S. citizens from a low or low-middle income country.

This award is supported by a generous donation from SC Johnson to the American Committee of Medical Entomology.

2017 Recipients
Nsa Dada, *Centers for Disease Control and Prevention, United States*
Eric Ochomo, *Kenya Medical Research Institute, Kenya*

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Travel Award for Low and Low-Middle Income (LMIC) Trainees

Chair: Christine Petersen, *University of Iowa, United States*

The ACMCIP student travel award recognizes a student or trainee conducting basic parasitology research who is primarily based in a low or low-middle income country.

2017 Recipient
Rogger Carmen, *Universidad Peruana Cayetano Heredia, Peru*

ASTMH Subgroup Awards (cont.)

American Committee of Molecular Cellular and Immunoparasitology (ACMCIP) Award for Advanced Training

Chair: Christine Petersen, *University of Iowa, United States*

This award supports travel expenses for trainees to attend practical training courses in the fields of molecular, cellular or immunoparasitology. Trainees can use the award to attend any post-graduate level training course of at least one day in duration to explore new parasitological systems, gain hands-on skills in working with parasites and their hosts, and obtain advanced knowledge in cutting-edge research topics and technologies.

2017 Recipients

Camilla Coelho, *National Institute for Allergy and Infectious Diseases, National Institutes of Health, United States*
Maria Simoes, *Johns Hopkins University, United States*

American Committee on Arthropod-Borne Viruses (ACAV) Student/ Post-Doc Travel Awards

Chair: Farooq Nasar, *United States Army Medical Research Institute of Infectious Diseases, United States*

The ACAV travel awards support travel to the Annual Meeting for graduate students or postdoctoral fellows who are actively conducting arbovirus research.

2017 Recipients

Nunya Chotiwan, *Colorado State University, United States*
Amy Krystosik, *Kent State University College of Public Health, United States*
Carla Mavian, *University of Florida, United States*
Erin McDonald, *Centers for Disease Control and Prevention, United States*
Wen-Yang Tsai, *University of Hawaii at Manoa, United States*

ASTMH Committee on Global Health (ACGH) Student/Post-Doc Travel Awards

Chair: Koya Allen, *United States Department of Defense/ European Command Headquarters, Stuttgart, Germany*

The ACGH travel award program supports travel to the Annual Meeting for a student or postdoctoral fellow whose research directly promotes the practice of global health.

2017 Recipients

Meredith Hickson, *University of Michigan Medical School, United States*
Martha Tesfalul, *University of California San Francisco, United States*

Elsevier Clinical Research Award

ASTMH appreciates the support of this award by Elsevier.

Chair: M. Patricia Joyce, *Centers for Disease Control and Prevention, United States*

This award recognizes excellence in clinically oriented research presented by students (within 6 months of completing undergraduate or Master's level training, including medical undergraduate degrees) or those in graduate medical training of work submitted and presented at the Annual Meeting. 2017 recipients will be determined at the competitive judging event held on Sunday, November 5, during the Annual Meeting. Winners will be announced during the Awards Program at the opening session.

2016 Recipients (selected during ASTMH 65th Annual Meeting, November 2016)

First Place Edward Smith, *U.S. Naval Medical Research Unit #6, Peru*

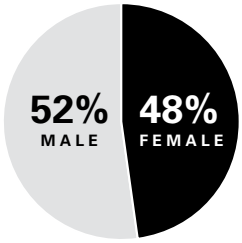
Second Place: Ruwandi Kariyawasan, *University of Toronto, Canada*

Third Place: Obadia Kenji, *University of Hawaii, United States*

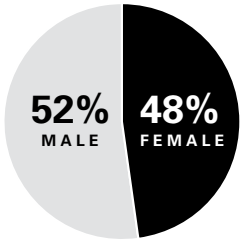
Program Information

ASTMH Values and Promotes Diversity

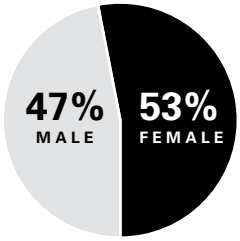
ASTMH takes pride in its diverse membership, represented through the Society's leadership, Annual Meeting presenters and attendees. Symposium Organizers were encouraged to consider diversity with respect to gender, institutional background and country of origin when developing symposium submissions. All symposia were required to have at least one male and one female participant.



2017 Baltimore Symposium and Abstract Presenters



2016 Atlanta Annual Meeting Attendance



Council/Executive Committee

Elsevier Clinical Research Award Competition

Convention Center – Room 337/338 (Level 300)
Sunday, November 5, Noon – 2:30 p.m.

This award recognizes excellence in clinically oriented research presented by students (within 6 months of completing undergraduate or Master's level training, including medical undergraduate degrees, or those in graduate medical training), of work submitted and presented at the Annual Meeting. Support these young scientists by attending their presentations during this session. View the session schedule on page 86.

Young Investigator Award Competition

Convention Center – Rooms 318/319, 322/323, 325/326, 328/329, 331/332 (Level 300)
Sunday, November 5, 10 a.m. – 3 p.m.

The Young Investigator Award is presented to outstanding young researchers during the Annual Meeting. This award encourages developing young scientists to pursue careers in various aspects of tropical disease research. Support these young scientists by attending their presentations during this session. View the session schedule on page 77.

ASTMH Communications Training Workshop

Hilton - Holiday Ballroom 3 (East Building, Second Floor)
Sunday, November 5, 10:30 a.m. – 2:30 p.m.

SESSION FULL

Now more than ever in the history of the ASTMH, it is important that researchers and clinicians clearly communicate about their work, explain the importance of tropical medicine/global health programs and advocate for research funding. To be effective advocates, to stand out from the crowd of important issues you need skills that help you to be persuasive and memorable. How can you prepare for an important presentation, or manage challenging media interviews? How do you explain your research to people who might not know anything about your work, and get them invested in the outcome - with only minutes to make your case? This half-day course will teach you how to clearly and effectively communicate about your work. You will learn how to prepare and deliver messages, craft and tell persuasive stories, and how to stay in control what you say in any meeting or interview. Time and again we see the power of these communications skills to change minds, build awareness and grab attention.

Special Session 118: Film Night *Minutes to Die* Documentary

Convention Center - Ballroom I (Level 400)
Tuesday, November 7, 7:15 p.m. – 9 p.m.

From a Kenyan hospital to a rice paddy in India, victims of venomous snakebites are the faces of death and disability of a staggeringly widespread global crisis the world knows little about. The documentary *Minutes to Die* takes viewers to the homes and hospital beds of snakebite victims, to labs where scientists are working to manufacture antivenom and develop additional antidotes, to meetings of public health officials from the World Health Organization. Unpacking the limitations of rural medical infrastructure, the economic challenges of antivenom, and the financial devastation to the families of snakebite victims—who are mostly agricultural workers and children—the film makes clear that this health issue is also very much an issue of poverty, inequity, and social justice. *Minutes to Die* is directed by James Reid and funded by the Lillian Lincoln Foundation. The 62-minute film will be followed by a panel discussion.

Late-Breaker Abstracts

These sessions feature brief presentations of important new data obtained after the closing date for abstract submission. Late-Breaker poster 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.

Symposium 46: Alan J. Magill Malaria Eradication Symposium

Convention Center – Ballroom II
Monday, November 6, 4 p.m. – 5:45 p.m.
Supported with funding from the Bill & Melinda Gates Foundation

This annual symposium honors the life and work of ASTMH Past President Alan Magill, who at the time of his untimely death in 2015 was promoting the bold goal of global malaria eradication as the Malaria Director at the Bill & Melinda Gates Foundation. This year the symposium will include a review of key concepts and potential interventions for residual transmission; the challenge of including fragile populations in the elimination strategy; the approaches being taken by the 21 countries that are aiming to achieve at least one year of no indigenous transmission by 2020; and the new focus on the *P. vivax* research and elimination agenda. These talks will be followed by a panel discussion of prospects of and progress toward malaria eradication at which diverse viewpoints will be solicited from the panelists and audience.

Meet the Professors Sessions

Although open to all meeting attendees, students and trainees are especially encouraged to attend the Meet the Professors sessions. The speaker will present a clinical case of a tropical disease specific to a particular region that they have found challenging to manage or diagnose.

ACMCIP Abstracts

Throughout this book, you will notice that some abstracts are followed by the notation "(ACMCIP abstract)." This notation means the abstract content 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 astmh.org/subgroups/acmcip.

Program Information

Calling All Early- and Mid-Career Attendees

Are you a trainee or otherwise fairly new to research, global public health or clinical tropical medicine? The following sessions are designed to help build fundamental skills and perspectives for a successful start to your career. Mark your planner on the ASTMH Annual Meeting app and learn from experienced members of the various ASTMH professional communities.

Symposium 20

ASTMH Committee on Global Health (ACGH) Symposium II: Building a Successful Career in Global Health – An Interactive Session with Global Health Experts

Convention Center - Room 321/322/323 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

Symposium 30

Tropical Medicine Postdoctoral Training: Burroughs Wellcome Fund/ASTMH Fellowship Award and Other Opportunities
Convention Center - Room 339/340 (Level 300)
Monday, November 6, 12:15 p.m. - 1:30 p.m.

Mid-Day Session 88

Career Trajectories and Work-Life Balance in Academia, Government and the Private Sector of the Infectious Disease Arena

Convention Center - Room 339/340 (Level 300)
Tuesday, November 7, 12:15 p.m. – 1:30 p.m.

INCLUDED WITH YOUR REGISTRATION FEE: FREE Wi-Fi at the Convention Center!

#TropMed17 #IamTropMed

NEW THIS YEAR! Stop in at the TropMed Hub

Events for Students, Trainees, Fellows, Residents and Junior Faculty

The TropStop — Student/Trainee Lounge*

Convention Center – Pratt Street West Lobby Foyer (Level 300)

This casual setting, designed with students, trainees and residents in mind (e.g., free coffee and free internet), is your place for a break from the fast pace of the meeting and to relax with colleagues and friends. Back again this year, check out Office Hours held in the TropStop. This is your opportunity to meet professionals in the fields of tropical medicine, global health, science and industry who will share their personal career paths and answer your questions about the various bumps and forks in the road.

TropStop Office Hours – *Faculty Available*
Monday, November 6, 3 p.m. – 4 p.m.
Tuesday, November 7, 3 p.m. – 4 p.m.
Wednesday, November 8, 3 p.m. – 4 p.m.

Young Investigator Award Competition

Sunday, November 5, 10 a.m. – 3 p.m.
Convention Center – Rooms 318/319, 322/323, 325/326, 328/329, 331/332 (Level 300)

Elsevier Clinical Research Award Competition

Sunday, November 5, Noon – 2:30 p.m.
Convention Center – Room 337/338 *(Level 300)*

Student Reception*

Sunday, November 5, 4 p.m. – 5 p.m.
Hilton – Key Ballroom 1/2 (West Building, Second Floor)
The ASTMH Council invites all students, postdoctoral fellows and residents to the student reception. This reception is an opportunity to meet fellow trainees, network with colleagues and mentors and engage in conversation with Society leaders.

Meet the Professors 31*
Meet the Professors A
Monday, November 6, 12:15 p.m. - 1:30 p.m.
Convention Center – Room 341/342 (Level 300)

Meet the Professors 89*
Meet the Professors B
Tuesday, November 7, 12:15 p.m. - 1:30 p.m.
Convention Center – Room 341/342 (Level 300)

Meet the Professors 148*
Meet the Professors C
Wednesday, November 8, 12:15 p.m. - 1:30 p.m.
Convention Center – Room 341/342 (Level 300)

**Refreshments served*

Burroughs Wellcome Fund-ASTMH Postdoctoral Fellowship in Tropical Infectious Diseases

Following are abstract presentations to be made by recipients of the Burroughs Wellcome Fund-ASTMH Postdoctoral Fellowship in Tropical Infectious Diseases:

Jason Andrews, *Stanford University, United States*
Abstract 473, 1980

Natalie Bowman, *University of North Carolina Chapel Hill, United States*
Abstract 149, 1468

Katherine Dobbs, *Case Western Reserve University, United States*
Abstract 50

Andrew DiNardo, *Baylor College of Medicine, United States*
Abstract 2002

Matthew Ippolito, *Johns Hopkins University School of Medicine, United States*
Abstract 1556

Jonathan Parr, *University of North Carolina Chapel Hill, United States*
Abstract 1308

Point of Entry: First-Time Attendee Orientation

Sunday, November 5
2:30 p.m. – 3:30 p.m.
Convention Center — Room 339/340

Are you new to the ASTMH Annual Meeting and want to get the lay of the land? Don't miss our Point of Entry session on Sunday afternoon. ASTMH staff will orient new attendees to the schedule, session structure and highlights of the Annual Meeting. Meet others attending the meeting for the first time and expand your professional network while learning the ins and outs of where to go and what to attend.

Onsite Meeting Information

Poster Sessions

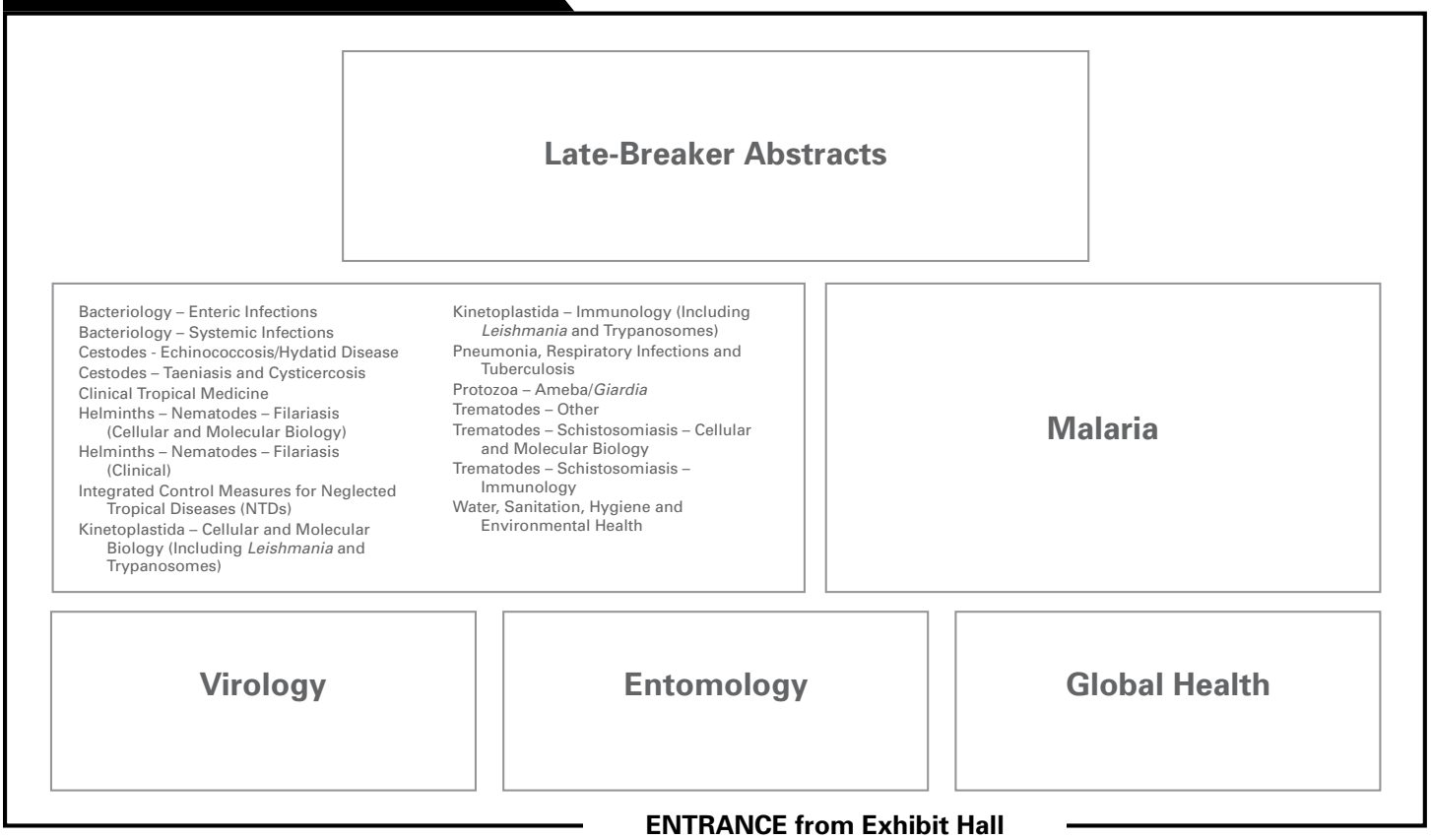
Convention Center – Hall F/G (Level 100)
Three poster sessions will be held in Hall F/G of the Convention Center. During these sessions, presenters will be available at their posters for discussion. There are additional times for poster viewing (presenters need not be in attendance during these time periods). We encourage attendees to visit the Poster Hall throughout the day.

Poster Session Schedule
Poster Session A
Monday, November 6
Setup . . . . . 9:45 a.m. – 10:15 a.m.
Viewing. . . . . 10:15 a.m. – 4 p.m.
Presentations/Light Lunch . . . . . Noon – 1:45 p.m.
Dismantle . . . . . 4 p.m. – 6:15 p.m.

Poster Session B
Tuesday, November 7
Setup . . . . . 9:45 a.m. – 10:15 a.m.
Viewing. . . . . 10:15 a.m. – 4 p.m.
Presentations/Light Lunch . . . . . Noon – 1:45 p.m.
Dismantle . . . . . 4 p.m. – 6:15 p.m.

Poster Session C
Wednesday, November 8
Setup . . . . . 9:45 a.m. – 10:15 a.m.
Viewing. . . . . 10:15 a.m. – 4 p.m.
Presentations/Light Lunch . . . . . Noon – 1:45 p.m.
Dismantle . . . . . 4 p.m. – 5 p.m.

POSTER SESSION A



Program Information

POSTER SESSION B

Late-Breaker Abstracts

- Bacteriology – Enteric Infections
- Bacteriology – Other Bacterial Infections
- Clinical Tropical Medicine
- Helminths – Nematodes – Filariasis (Epidemiology)
- Helminths – Nematodes – Intestinal Nematodes
- HIV and Tropical Co-Infection
- Kinetoplastida – Diagnosis and Treatment (Including *Leishmania* and Trypanosomes)
- Pneumonia, Respiratory Infections and Tuberculosis
- Protozoa – Other Protozoa
- Trematodes – Schistosomiasis – Epidemiology, Diagnosis and Treatment
- Water, Sanitation, Hygiene and Environmental Health

Malaria

Virology

Entomology

Global Health

ENTRANCE from Exhibit Hall

POSTER SESSION C

Late-Breaker Abstracts

- Bacteriology – Enteric Infections
- Bacteriology – Trachoma
- Clinical Tropical Medicine
- Helminths – Nematodes – Filariasis (Epidemiology)
- Helminths – Nematodes – Filariasis (Immunology)
- Helminths – Nematodes – Filariasis (Other)
- Helminths – Nematodes – Intestinal Nematodes
- HIV and Tropical Co-Infection
- Kinetoplastida – Epidemiology (Including *Leishmania* and Trypanosomes)
- One Health: Interface of Human Health/Animal Diseases
- Pneumonia, Respiratory Infections and Tuberculosis
- Protozoa – Other Protozoa
- Water, Sanitation, Hygiene and Environmental Health

Malaria

Virology

Entomology

Global Health

ENTRANCE from Exhibit Hall

Onsite: What, When, Where

Social Media at the 66th Annual Meeting

Follow the 66th Annual Meeting on ASTMH social media channels. Visit astmh.org where you can access all social media outlets as follows:

Subscribe to the ASTMH Facebook page for updates from the Annual Meeting and for relevant content year round.

Follow @ASTMH. During the conference, you will be able to follow what your colleagues are tweeting by using the **#TropMed17** and **#IamTropMed** hashtags.

Enjoy classic interviews of pioneers in the field, such as William Reeves, Calista and Ottis Causey, Thomas Weller and Jordi Casals.

ASTMH Twitter Board

Sponsored by Takeda Pharmaceuticals International AG

If you're tweeting during the meeting, be sure to add the hashtag **#TropMed17** to your tweets so that your message gets through to other attendees or those following the meeting exclusively on Twitter. Using the hashtag is a great way to connect with your fellow tweeps, pick up new followers or, for exhibitors, drive traffic to your booth.

Meet us in the TropMed Hub

Visit the TropMed Hub in the Exhibit Hall (Swing Hall, Booth 411) and visit with representatives from:

- American Committee of Medical Entomology (ACME)
- American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP)
- American Committee on Arthropod-Borne Viruses (ACAV)
- American Committee on Clinical Tropical Medicine and Travelers' Health (ACCTMTH – Clinical Group)
- ASTMH Committee on Global Health (ACGH)
- ASTMH/*AJTMH*

Our subgroups provide unique forums for members to engage in core scientific, educational, advocacy and policy issues related to a specific expertise with fellow stakeholders of similar interests. Benefits include networking and pre-meeting courses and symposia activities planned for Annual Meetings to enhance career development.

Learn more about:

- What subgroups do
- How to get involved
- The benefits of becoming an ASTMH member
- Submitting material to the *American Journal of Tropical Medicine and Hygiene*

The TropMed Hub is on the way to the Poster Sessions – be sure to drop in!

Miss a Session?

All Registrants Receive a Webcast Library

Can't figure out how to be in two places at once? Problem solved! All registrants will receive access to audio recordings for each session within 48 hours after the session has ended. Slides of select sessions will be available as well.

Onsite: What, When, Where

Registration

Convention Center – Pratt Street West Lobby

Pre-Meeting Course Registration Hours
Saturday, November 4 . . . . . .10 a.m. – 2 p.m.

Annual Meeting Registration Hours
Sunday, November 5 . . . . . .7 a.m. – 7:30 p.m.
Monday, November 6. . . . . .7 a.m. – 5 p.m.
Tuesday, November 7. . . . . .7 a.m. – 5 p.m.
Wednesday, November 8. . . . . .7 a.m. – 5 p.m.
Thursday, November 9 . . . . . .7 a.m. – 10:30 a.m.

The following food functions are included in the registration fee:
- Opening reception (Sunday)
- Student reception (Sunday)
- Poster session lunches (Monday, Tuesday, Wednesday)
- Coffee breaks

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

Spouse/Guest Registration
(Only for those outside the tropical medicine and global health field.)
Spouse/guest registration includes admission to the opening reception on Sunday and admission to the exhibit hall, plenary sessions, poster sessions and food functions only.

Hotel

Annual Meeting sessions and events will be held at the Baltimore Convention Center, with some events held at the Hilton Baltimore.

The Baltimore Convention Center
One West Pratt Street
Baltimore, MD 21201 USA
Phone +1-410-649-7000
Fax +1-410-649-7008

Hilton Baltimore
401 W. Pratt Street
Baltimore, MD 21201 USA
Phone +1-443-573-8700
Fax +1-443-683-8841

In addition, ASTMH has reserved a block of guest rooms at the Baltimore Marriott Inner Harbor at Camden Yards and the Sheraton Inner Harbor.

Baltimore Marriott Inner Harbor at Camden Yards
110 S. Eutaw Street
Baltimore, MD 21201 USA
Phone +1-410-962-0202
Fax +1-410-625-7892

Sheraton Inner Harbor
300 S. Charles Street
Baltimore, MD 21201 USA
Phone +1-410-347-1849
Fax +1-410-347-1853

Message Board
A message board will be available in the ASTMH registration area on Level 300 of the Baltimore Convention Center. Check the message board often to retrieve your messages.

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

Camera/Recording Restrictions and Unauthorized Photography
Only registered members of the media and attendees who receive prior approval from ASTMH staff may take cameras into the exhibit hall or use recording devices during sessions. Still and video photography, including photography by mobile phones, is strictly prohibited in educational sessions. Attendees found to be using cameras in educational sessions without permission will be asked to leave the conference and will not be issued a refund.

Impromptu Meeting Rooms for Attendees
Hilton – Chase Room and Stone Room (West Building, Third Floor)
The Chase and Stone rooms on the third floor of the west building of the Hilton 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 sheet located outside the room to reserve meeting time for your group.

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.

Onsite: What, When, Where

Press Room

Convention Center – Room 330 (Level 300)

The press room is available for professional journalists reporting on the conference. ASTMH media kits are available. Media announcements and other details can be found in the press room.

Press room hours of operation are:

Sunday, November 5 . . . . . .Noon – 5:30 p.m.
Monday, November 6 . . . . . 7:45 a.m. – 5 p.m.
Tuesday, November 7 . . . . . 8 a.m. – 5 p.m.
Wednesday, November 8 . . . . . 8 a.m. – 5 p.m.

Exhibits

Convention Center – Swing Hall (Level 100)

The Annual Meeting features an exposition of displays by leading suppliers and vendors. A complete exhibitor and supporter directory starts on page 60.

Exhibit Hours

Sunday, November 5	7 p.m. – 9:30 p.m.
Monday, November 6	9:30 a.m. – 10:30 a.m. Noon – 1:45 p.m. 3:15 p.m. – 4:15 p.m.
Tuesday, November 7	9:30 a.m. – 10:30 a.m. Noon – 1:45 p.m. 3:15 p.m. – 4:15 p.m.
Wednesday, November 8	9:30 a.m. – 10:30 a.m. Noon – 2:30 p.m.

ASTMH Subgroup Information Tables/TropMed Hub

Convention Center – Swing Hall

Visit the information tables in the ASTMH exhibit hall in booth 411to learn about programs and activities for these subgroups:

- American Committee of Medical Entomology (ACME)
- American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP)
- American Committee on Arthropod-Borne Viruses (ACAV)
- American Committee on Clinical Tropical Medicine and Travelers' Health (ACCTMTH – Clinical Group)
- ASTMH Committee on Global Health (ACGH)

Career Development Employment Opportunities

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

Career Center

Our online Career Center, available at astmh.org, features a wide range of available positions in the tropical medicine and hygiene field. Members can post resumes anonymously and search for jobs by keyword, location and job type. Employers can set up an account, post open positions on the ASTMH website and search the ASTMH resume bank for qualified applicants.

Continuing Education Credit

Continuing Medical Education (CME) Accreditation

ASTMH is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. ASTMH designates this live activity for a maximum of 32.25 *AMA PRA Category 1 Credits™.* Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Register for CME Credit

The CME documentation fee is $150. CME certificates will be mailed in early January 2018. Complete your online CME Attendance and Evaluation Form by accessing the evaluation form at astmh.org/annual-meeting.

Physician Assistant Continuing Education Credit

AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit™* from organizations accredited by ACCME or a recognized state medical society. Physician Assistants may receive a maximum of 32.25 *AMA PRA Category 1 Credits™* for completing this program. Register for CME credit ($150) at the ASTMH registration desk and submit an evaluation following the conference at astmh.org/annual-meeting.

Veterinarian Continuing Education Credit

To better serve the continuing education needs of the full range of disciplines participating in the Annual Meeting, ASTMH offers accredited CE sessions for veterinarians. The Society's application is reviewed by the determining body, the American Association of Veterinary State Boards RACE Committee. Anticipating approval, ASTMH is typically notified just prior to the start of the Annual Meeting. Visit the onsite registration desk for a veterinarian continuing education evaluation form. This form will indicate the specific sessions that qualify for veterinary CE credits. Pay the $150 documentation fee at the registration desk. Complete and return the evaluation form to the registration desk by Thursday, November 9 at 10:30 a.m. or send the form to the ASTMH office following the meeting. A continuing education certificate will be sent by postal mail in January 2018.

Full Disclosure Policy Affecting CME Activities

Consistent with ASTMH policy, faculty are required to disclose any economic or other personal interests that create, or may be perceived as creating, a conflict of interest related to the material discussed. ASTMH has policies in place to resolve all conflicts of interest. Faculty are required to disclose at the beginning of their presentation(s) any relevant financial relationships, as well as any product or drug mentioned during the presentation that is not labeled for the use under discussion or is still investigational. This policy is intended to allow attendees to form their own judgments about such material.

Disclaimer

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

Information for Speakers: Speaker Ready Room and Audiovisual Guidelines

Convention Center – Room 336 (Level 300)

Hours

Sunday, November 5 . . . . . Noon – 6 p.m.
Monday, November 6. . . . . 7 a.m. – 5 p.m.
Tuesday, November 7. . . . . 7 a.m. – 5 p.m.
Wednesday, November 8. . . . . 7 a.m. – 5 p.m.
Thursday, November 9 . . . . . 7 a.m. – 10:30 a.m.

Important: Widescreen Format for Slide Presentations! The slide presentation format is widescreen HD format (16:9 aspect ratio).
Audio-visual staff will be available in the Speaker Ready Room to answer questions about the slide presentation format or to assist in converting presentations to the widescreen HD format. Please note that slide presentations using the 4:3 aspect ratio will display correctly, but black frames will appear on the sides of the screen when presented.

Important Things to Remember

- The slide presentation format is widescreen HD format (16:9 aspect ratio)
- Slide presentations using the 4:3 aspect ratio will display correctly, but black frames will appear on the sides of the screen when presented
- Save your presentation as a Microsoft PowerPoint file in a format that is compatible with PowerPoint 2013/2016 or as an Adobe PDF file
- Save your file in a PPTX format for both Macintosh and PC
- All meeting rooms will be equipped with one Windows 7 computer and PowerPoint 2013 software

Load your presentation in the Speaker Ready Room 24 hours prior to your session. If you are unable to do so, visit the Speaker Ready Room as early as possible on the morning of your presentation. Speakers can begin accessing the Speaker Ready Rooms on Sunday, November 5 at noon.

Slide Presentation Format Guidelines

- Save your presentation as a Microsoft PowerPoint file in a format that is compatible with PowerPoint 2013/2016 or as an Adobe PDF file.
- Macintosh and PC versions of PowerPoint, Canvas and Keynote allow you to save presentations in a variety of formats that meet these specifications. Please save your file in a PPTX format for both Macintosh and PC.
- Test your presentation on a Windows machine running Windows 7 to ensure your presentation runs properly.
- For Macintosh PowerPoint users, insert pictures using insert —picture — from file, rather than copying and pasting, to ensure they will display properly on a Windows PC.

All meeting rooms will be equipped with one Windows 7 computer and PowerPoint 2013 software, screen, LCD projector display device, microphone and laser pointer. You will not be permitted to connect your own computer to the LCD projector. Your presentation will be run from the AV technician's PC-based computer. Therefore, you should arrive at the Speaker Ready Room in advance of your session, with your presentation saved to a USB storage device (USB) flash drive.

Embedded Videos

If your presentation includes video, it is imperative that you visit the Speaker Ready Room in advance of your presentation to ensure compatibility with meeting equipment. It is best to use wmv, avi or Mpg or MP4 formats for embedded video, not QuickTime mov. Do not use Sorenson compression on avi files from Mac computers. You must upload your video files, as well as your PowerPoint file, for the videos to play.

Saving Your Presentation File for Onsite Submission in Speaker Ready Room

- Save your file(s) to a USB storage device (USB flash drive).
- When building your presentation, all files (PowerPoint and external fonts) associated with your presentation must reside in one folder/location.
- When creating your media for transfer, copy the entire folder to the portable disk.
- To ensure success of your presentation, create a backup copy of your presentation on a separate portable disk.
- If you are speaking in more than one session, you must organize and clearly label your presentations in separate folders.
- Do not put more than one presenter's files on the same flash drive. Each presenter must have his or her own media.
- We recommend that you scan your USB flash drive or USB portable devices with your computer's antivirus software. This procedure is the best precaution against spreading any hidden viruses or malware to other computers. Viruses can often cause presentations to run poorly or not at all, as well as affect the performance of the computers provided for the meeting.

ASTMH is at Work All Year Round!

Diploma Courses in Clinical Tropical Medicine and Travelers' Health

The Society advocates and facilitates the development of new training programs in clinical tropical medicine and travelers' health and has established a mechanism for accrediting them. These courses, known as Diploma Courses, may vary considerably in format and even in broad objectives, but to be accredited by the Society they must cover the topic matter included on the Certificate Exam and have an expectation of conferring on the examinee a certain degree of competence in the key subjects. Most confer a Diploma in Clinical Tropical Medicine and Travelers' Health; some confer a different diploma or degree in which the same expectations are included.

Update Course in Clinical Tropical Medicine and Travelers' Health

This two-day condensed course provides a broad overview of core topics in clinical tropical medicine and travelers' health. It is designed for all healthcare providers working in tropical medicine or travelers' health and for those planning to take the ASTMH Certificate Examination (CTropMed®).

CTropMed® — Certificate of Knowledge in Clinical Tropical Medicine and Travelers' Health

Save the Date for the 2018 CTropMed®!

OCTOBER 2018
27

The next CTropMed® Exam will be held on Saturday, October 27, 2018, in conjunction with the ASTMH 67th Annual Meeting, October 28 – November 1, 2018, Sheraton New Orleans, New Orleans, LA.

Fostering professional development in the fields of clinical tropical medicine and travelers' health is one of the Society's highest priorities. To that end, ASTMH developed the Certificate of Knowledge in Clinical Tropical Medicine and Travelers' Health (CTropMed®) as a means to distinguish individuals who have demonstrated advanced knowledge and experience in clinical tropical medicine and travelers' health. The CTropMed® is conferred on licensed medical professionals who 1) have passed an ASTMH-accredited diploma course or have extensive professional experience in clinical tropical medicine, 2) have experience in a clinical setting in the tropics, and 3) have passed the ASTMH Examination in Clinical Tropical Medicine and Travelers' Health.

Fellow of ASTMH (FASTMH)

Fellow member status (also known as Fellowship) in the Society is an honor recognizing sustained professional excellence in any phase of tropical medicine, hygiene, global health and related disciplines.

Membership Directory

This resource, available exclusively to ASTMH members, puts thousands of experts in tropical medicine and global health at your fingertips. The directory provides member listings in alphabetical order and by geographic location to ease the search for colleagues around the world.

The American Journal of Tropical Medicine and Hygiene

The *American Journal of Tropical Medicine and Hygiene*, the leading international journal in tropical medicine, is a peer-reviewed journal published on a monthly basis. Content includes original scientific articles and cutting-edge science covering new research with an emphasis on laboratory science and the application of technology in the fields of tropical medicine, parasitology, immunology, infectious diseases, epidemiology, basic and molecular biology, virology and international medicine. The *Journal* publishes unsolicited peer-reviewed manuscripts, invited review articles, short reports, case studies, reports on the efficacy of new drugs and methods of treatment, prevention and control methodologies, new testing methods and equipment, book reports and letters to the Editor. Topics range from applied epidemiology in such relevant areas as AIDS to the molecular biology of vaccine development.

MARK YOUR CALENDAR

APRIL 2017
25

World Malaria Day 2018
April 25, 2018
World Malaria Day is observed each year on April 25 to give countries in affected regions a chance to learn from each other's experiences and support one another's efforts in the fight against malaria; to enable new donors to join in a global partnership against malaria, and for research and academic institutions to reveal scientific advances to the public; and to give international partners, companies and foundations a chance to showcase their efforts and reflect on how to scale up what has worked.

Session Topic Guide

General Interest/Multidisciplinary

Sunday
Plenary Session 1: Plenary Session I: Keynote Address and Awards Program

Monday
Poster Session 28: Poster Session A: Presentations and Light Lunch

Symposium 30: Tropical Medicine Postdoctoral Training: Burroughs Wellcome Fund/ASTMH Fellowship Award and Other Opportunities

Plenary Session 59: Plenary Session II: Fred L. Soper Lecture

Tuesday
Poster Session 86: Poster Session B: Presentations and Light Lunch

Mid-Day Session 88: Career Trajectories and Work-Life Balance in Academia, Government and the Private Sector of the Infectious Disease Arena

Plenary Session 117: Plenary Session III: Commemorative Fund Lecture

Wednesday
Poster Session 145: Poster Session C: Presentations and Light Lunch

Mid-Day Session 147: Meet the Editors: Journal Editor Panel

Symposium 171: The Washington, DC Primer: Advocating for R&D Funding – The Who, What, Where, Why and How

Plenary Session 174: Plenary Session IV: President's Address and Annual Business Meeting

Clinical Tropical Medicine

Monday
Symposium 6: Estimating the Global Burden of Group B *Streptococcus* in Pregnant Women, Stillbirths and Children to Inform Vaccine Development

Symposium 18: Clinical Update: What's New in Literature?

Late Breaker Abstract Session 29: Late Breakers in Clinical Tropical Medicine and Global Health

Meet the Professors 31: Meet the Professors A: Enigmatic and Teaching Cases

Symposium 35: Adventures in Tropical Dermatology

Scientific Session 48: Clinical Tropical Medicine I

Tuesday
Symposium 63: Clinical Group Symposium I (American Committee on Clinical Tropical Medicine and Travelers' Health – ACCTMTH): "There Ought to Be a Vaccine for That…." The Process, Hurdles and Opportunities in Developing and Utilizing Vaccines for Tropical Infections

Symposium 66: Mechanisms of Post-Discharge Mortality and Possible Interventional Targets in Low-Resource Settings

Symposium 76: Clinical Group Symposium II (American Committee on Clinical Tropical Medicine and Travelers' Health – ACCTMTH): Updates in Clinical Practice in Tropical and Travel Medicine

Meet the Professors 89: Meet the Professors B: Enigmatic and Teaching Cases

Symposium 93: Movement of Tropical Diseases in Highly-Connected World

Symposium 111: Cystic Echinococcosis: Advocacy to Action

Symposium 114: Etiology and Prevention of Neonatal Infections

Wednesday
Symposium 122: Translational Research Initiatives in the Practice of Travel Medicine

Symposium 139: Improving the Triage and Management of Children with Acute Febrile Illnesses Through Point-Of-Care Technologies

Meet the Professors 148: Meet the Professors C: Enigmatic and Teaching Cases

Symposium 154: Emerging Tick-Borne Infections: Entomological and Clinical Aspects

Symposium 164: Challenges in Medical Humanitarian Settings – Experiences from MSF, ALIMA and Doctors for Global Health

Symposium 166: Neurocysticerocis: IDSA/ASTMH Guidelines and Beyond

Thursday
Scientific Session 177: Clinical Tropical Medicine II

Symposium 190: The Epidemic of Cancer in Africa: Prevention, Early Detection and the Role of Infection Control

Session Topic Guide

Symposium 194: NTDs and Micronutrient Malnutrition: The Dual Burden of Two Neglected Conditions

Diarrhea and Bacterial Illness

Tuesday

Symposium 6: Estimating the Global Burden of Group B *Streptococcus* in Pregnant Women, Stillbirths and Children to Inform Vaccine Development

Scientific Session 68: Bacteriology: Trachoma

Scientific Session 81: Bacteriology: Other

Symposium 95: Accelerating Research Toward the Control of *Cryptosporidium*

Symposium 108: Challenges in Cholera Control and Elimination

Wednesday

Symposium 127: Melioidosis - An Emerging Threat to Low-and-Middle-Income Countries

Symposium 138: Controlling Typhoid Disease: New Insights on Vaccines and Vaccination Strategies

Symposium 157: Global Elimination of Trachoma: Refocusing the End Game

Scientific Session 172: Bacteriology: Cholera

Thursday

Symposium 179: Introduction to the Rotavirus Vaccine Impact on Diarrhea in Africa (VIDA) Study

Scientific Session 186: Bacteriology: *Salmonella*/Typhoid/ Fever

Symposium 193: Deciphering Immune Responses Elicited by Four Major Human Diarrheal Pathogens [ETEC, *Shigella*, *Salmonella* and Cholera]: Identification of Imunocorrelates with Practical Vaccine Applications

Symposium 197: Use of Seroepidemiology to Guide Public Health Action

Ectoparasite-Borne Diseases

Tuesday

Symposium 70: Novel Datasets and Approaches to Study the Emergence of Lyme Disease and Other Tick-Borne Diseases in the United States

Scientific Session 113: Ectoparasite-Borne Diseases

Entomology

Monday

Scientific Session 8: Arthropods: Other Arthropods

Scientific Session 21: Mosquitoes - Vector Biology - Epidemiology I

Scientific Session 38: Mosquitoes - Vector Biology - Epidemiology II

Scientific Session 51: Mosquitoes: Biochemistry and Molecular Biology

Tuesday

Scientific Session 65: Mosquitoes: Insecticide Resistance and Control

Symposium 74: Ivermectin and Mosquitoes: The Vital Role of Pharmacokinetics and Pharmacodynamics

Scientific Session 82: Mosquitoes: Molecular Genetics and Genomics

Symposium 97: American Committee of Medical Entomology (ACME) Symposium I: Annual Business Meeting, Awards and Hoogstraal Medal Presentations and Networking Reception

Symposium 110: American Committee of Medical Entomology (ACME) Symposium II: New and Young Investigators in Medical Entomology

Wednesday

Symposium 125: *Wolbachia* for Biocontrol of Arboviruses

Symposium 136: Innovative Approaches to Monitor Resistance and Resistance Management for Effective Vector Control

Symposium 152: Disrupting the Paradigm: Bite Prevention Technologies for Malaria Control and Elimination

Symposium 154: Emerging Tick-Borne Infections: Entomological and Clinical Aspects

Thursday

Scientific Session 180: Mosquitoes: Operational Control

Session Topic Guide (cont.)

Filariasis

Monday
Scientific Session 10: Filariasis: Epidemiology and Control I

Scientific Session 40: Filariasis: Epidemiology and Control II

Tuesday
Scientific Session 83: Filariasis: Clinical

Scientific Session 100: Filariasis: Molecular Biology, Immunology and Diagnostics

Wednesday
Symposium 128: New Tools and Strategies for the Next Phase of the Global Filariasis Elimination Program

Symposium 141: Interim Strategies on Onchocerciasis Elimination in Africa: National Approaches to Transmission Interruption in the Absence of Formal Guidance

Global Health

Sunday
Plenary Session 1: Plenary Session I: Keynote Address and Awards Program

Monday
Symposium 3: Accelerating Malaria Elimination Through Strengthened Private Sector Surveillance: Taking Forward Lessons Learned in Africa and the Greater Mekong Sub-Region

Symposium 7: ASTMH Committee on Global Health (ACGH) Symposium I: U.S. Future Role in Global Health and Annual Business Meeting

Scientific Session 13: Global Health: Community-Based Platforms

Symposium 20: ASTMH Committee on Global Health (ACGH) Symposium II: Building a Successful Career in Global Health - An Interactive Session with Global Health Experts

Scientific Session 26: Global Health: Burden, Epidemiology and Prevention of Febrile Illness and Malaria

Symposium 30: Tropical Medicine Postdoctoral Training: Burroughs Wellcome Fund/ASTMH Fellowship Award and Other Opportunities

Symposium 37: Antimicrobial Resistance: Transforming Diseases of Poverty into Global Threats

Scientific Session 44: Global Health: From Chagas Disease to Nephropathy and Acute Encephalitis Syndrome

Symposium 49: Climate Change and Health: Tracking Implementation of the Paris Agreement

Symposium 54: 'Leaving No One Behind' The Key to Achieving NTD Elimination?: Tools for Programs to Ensure and Measure Equity

Symposium 55: Doing Global Health Research in an Unequal World: Ethics Case Studies from Africa

Scientific Session 57: Global Health: Initiatives, Strategies, Approaches and Tools

Tuesday
Symposium 66: Mechanisms of Post-Discharge Mortality and Possible Interventional Targets in Low-Resource Settings

Symposium 72: The Full Public Health Value of Vaccines

Symposium 75: Tracking the Impact of SMC: An Assessment of the Impact and Cost Effectiveness of Seasonal Malaria Chemoprevention in West and Central Africa

Symposium 77: Vector-Borne Diseases and the WHO Global Vector Control Response

Symposium 78: Research Capacity Development: Harnessing the Sharing Revolution in Global Health Research

Symposium 96: Safely Feeding the Planet: A Look to the Future

Symposium 98: A Frank Discussion About Sustainable Healthcare Delivery with Rwandan, Malawian, Haitian and American Global Health Care Leaders

Symposium 99: Internet and Other Digital 'Big Data' to Enhance Epidemic Surveillance and Public Health Decision-Making in Tropical and Low- to Middle-Income Countries

Symposium 101: Progress Towards Understanding and Preventing Key Causes of Child Mortality Through the CHAMPS Surveillance Network

Symposium 102: Pregnancy and Infectious Disease: Ethical, Legal and Global Challenges in Clinical Research

Symposium 106: Science Is Real: Climate Change Impacts on Vector Borne-Diseases

Symposium 109: Evidence-Based Stratification of Malaria Risk: The Role of System and Operational Factors to Successfully and Sustainably Eliminate Transmission

Session Topic Guide (cont.)

Symposium 114: Etiology and Prevention of Neonatal Infections

Symposium 115: Follow-Up Tools for Surgical Quality Assurance

Special Session 118: Minutes to Die Documentary Film

Symposium 118A: Harvey, Irma and Maria: Impacts and Global Health Implications of Recent Extreme Weather Events

Wednesday
Symposium 124: Medical Education and Public Health Challenges in Iraq

Symposium 130: Challenges and Opportunities of Conducting Clinical Trials in Pregnant Women and Future Infants in Resource-Limited Settings

Symposium 131: Acute Febrile Illness and Acute Encephalitis Surveillance in India in the Context of the Global Health Security Agenda: Unveiling Emerging Pathogens and Informing Disease Prioritization

Symposium 140: Household Air Pollution and Health: Recent and Ongoing Research

Symposium 141: Interim Strategies on Onchocerciasis Elimination in Africa: National Approaches to Transmission Interruption in the Absence of Formal Guidance

Symposium 144: International Zika Cohort Studies in Pregnant Women

Symposium 159: Immigration and Chagas Disease: Barriers to Access to Treatment and New Challenges in the U.S., Europe and Latin America

Symposium 160: Innovative Approaches to Encourage Broader Public Engagement with Tropical Medicine

Symposium 164: Challenges in Medical Humanitarian Settings – Experiences from MSF, ALIMA and Doctors for Global Health

Symposium 167: Building Clinical Trial Capacities in Africa Through North-South Networking and Public-Private Partnership: Final Outcome of the West African Network for Clinical Trials of Antimalarial Drugs (WANECAM)

Symposium 171: The Washington, DC Primer: Advocating for R&D Funding – The Who, What, Where, Why and How
Plenary Session 174: Plenary Session IV: President's Address and Annual Business Meeting

Thursday
Symposium 181: Lasers, Rays and Dyes: Tools and Initiatives in the Fight against Substandard and Falsified Medicines

Symposium 189: Taking Innovations to Market: Ideas and Products from the Ebola and Zika and Future Threats Grand Challenges for Development

Symposium 196: Preparing for the Next Epidemic through Military and Civilian Partnerships in West Africa

Symposium 197: Use of Seroepidemiology to Guide Public Health Action

HIV and Tropical Co-Infections

Monday
Symposium 14: HIV and Liver Diseases

Wednesday
Scientific Session 143: HIV and Tropical Co-Infections

Thursday
Plenary Session 187: Plenary Session V

Integrated Control Measures for Neglected Tropical Diseases (NTDs)

Monday
Scientific Session 12: Integrated Control Measures for Neglected Tropical Diseases

Symposium 25: STH Control Beyond School-Based Targeted Deworming: Evidence of the Additional Benefits of Community-Based Mass Chemotherapy

Symposium 54: 'Leaving No One Behind' The Key to Achieving NTD Elimination?: Tools for Programs to Ensure and Measure Equity

Tuesday
Symposium 69: Verifying the Elimination of Neglected Tropical Diseases: Implications for Sampling

Symposium 112: The USAID NTD Program – Ten Years of the Largest PCT NTD Implementation Program in History: Lessons Learned and New Directions

Wednesday
Symposium 157: Global Elimination of Trachoma: Refocusing the End Game

Session Topic Guide (cont.)

Symposium 169: Understanding the Factors That Motivate and Sustain Community Drug Distributors (CDD) in the Changing Context of Neglected Tropical Disease (NTD) Control and Elimination

Symposium 194: NTDs and Micronutrient Malnutrition: The Dual Burden of Two Neglected Conditions

Intestinal and Tissue Helminths, Cestodes

Monday
Scientific Session 11: Cestodes: Cysticercosis and Echinococcosis

Tuesday
Symposium 111: Cystic Echinococcosis: Advocacy to Action

Wednesday
Symposium 129: How to Ensure the Efficacy of Drugs in Soil-Transmitted Helminth Control Programs?

Scientific Session 153: Intestinal and Tissue Helminths: Soil-Transmitted Helminths - Biology and Immunology

Symposium 166: Neurocysticerocis: IDSA/ASTMH Guidelines and Beyond

Thursday
Scientific Session 182: Intestinal and Tissue Helminths: Soil-Transmitted Helminths - Epidemiology and Control

Kinetoplastida

Monday
Scientific Session 41: Kinetoplastida: Diagnosis, Treatment and Vaccine Development

Tuesday
Scientific Session 84: Kinetoplastida: Molecular Biology and Immunology

Wednesday
Symposium 126: Chagas Disease: Regional Differences in Clinical Research and Patient Care

Symposium 159: Immigration and Chagas Disease: Barriers to Access to Treatment and New Challenges in the U.S., Europe and Latin America

Scientific Session 156: Kinetoplastida: Epidemiology and Diagnosis

Malaria

Monday
Symposium 2: New Tools for Malaria Vector Control

Symposium 3: Accelerating Malaria Elimination Through Strengthened Private Sector Surveillance: Taking Forward Lessons Learned in Africa and the Greater Mekong Sub-Region

Scientific Session 5: Malaria: Clinical and Pre-Clinical Assessment of Antimalarials

Symposium 15: What Kinds of Molecules are Needed to Control and Eradicate Malaria?

Scientific Session 16: Malaria: Immunology

Symposium 19: Strengthening Surveillance Systems as a Pillar of the Global Technical Strategy: Practical Progress from Country Teams

Symposium 33: Geospatial Approaches for Modeling Malaria: From Emergence to Elimination

Symposium 34: Approaches for Understanding and Mitigating Drug-Resistant Malaria

Scientific Session 36: Malaria: Novel Insights and Methods in Malaria Diagnostics

Symposium 46: Alan Magill Symposium on Malaria Eradication

Scientific Session 47: Malaria: Enhancing and Optimizing Quality of Care

Symposium 50: Current Molecular Approaches for Tracking the Origin and Spread of Malaria Infections

Tuesday
Symposium 61: Triple ACTs as the New Paradigm for Treatment of Uncomplicated falciparum Malaria

Symposium 62: Malaria Rapid Diagnostic Testing: Understanding and Managing the Threat of PfHRP2/3-Negative *Plasmodium falciparum*

Session Topic Guide (cont.)

Scientific Session 64: Malaria: Epidemology - Following Trends, Making Predictions

Scientific Session 73: Malaria: Biology and Pathogenesis

Symposium 74: Ivermectin and Mosquitoes: The Vital Role of Pharmacokinetics and Pharmacodynamics

Symposium 75: Tracking the Impact of SMC: An Assessment of the Impact and Cost Effectiveness of Seasonal Malaria Chemoprevention in West and Central Africa

Symposium 90: Transmission-Blocking Vaccines: What We Have Achieved So Far

Scientific Session 91: Malaria: Chemotherapy and Drug Resistance - Molecular Biology

Scientific Session 92: Malaria: Defining Strategies and Challenges for Optimal Use of Malaria Diagnostics

Symposium 103: Mechanisms of Immunity to Malaria – Implications for Vaccine Development

Symposium 104: Monitoring Antimalarial Resistance and *Plasmodium falciparum* Genetic Diversity in Africa: What We Know Now

Scientific Session 105: Malaria: Mass Drug Administration and Reactive Case Detection for Malaria Elimination

Symposium 109: Evidence-Based Stratification of Malaria Risk: The Role of System and Operational Factors to Successfully and Sustainably Eliminate Transmission

Wednesday

Scientific Session 119: Malaria: Advances in Modeling and Technology for Malaria

Symposium 120: Quantifying Immunity to Malaria

Symposium 121: School-Based Malaria Interventions: Impact on Health and Transmission

Symposium 132: Approaches to Malaria Elimination in Southern Africa, Southeast Asia and South America: What Operational Research is Needed to Complete the Task?

Symposium 133: Moving Toward a PfSPZ Malaria Vaccine for Protecting Travelers and Use in Elimination Campaigns

Scientific Session 134: Malaria: Prevention - Many Points of View

Scientific Session 137: Malaria: Genetics and Genomics

Late Breaker Abstract Session 146: Late Breakers in Malaria

Scientific Session 149: Malaria: Chemotherapy and Drug Resistance - Clinical Studies

Scientific Session 150: Malaria: Elimination - Tools and Evidence, Moving Toward Zero

Scientific Session 151: Malaria: Vaccines

Scientific Session 161: Malaria: Epidemiology - Measuring Changes

Symposium 162: Landscape of the Druggable *Plasmodium* Genome

Symposium 163: The Burden and Control of falciparum and vivax Malaria in Pregnancy in Asia

Symposium 167: Building Clinical Trial Capacities in Africa Through North-South Networking and Public-Private Partnership: Final Outcome of the West African Network for Clinical Trials of Antimalarial Drugs (WANECAM)

Thursday

Scientific Session 175: Malaria: Mosquito Transmission and Interruption

Symposium 176: Swift, Wide and Deep: New Tools and Approaches for Generating Accurate Targeted Large-Scale Genetic Data from Complex Samples

Symposium 178: Household Enumeration for Targeted Interventions: Data, Tools and Experiences from Malaria Elimination

Scientific Session 188: Malaria: Applications of Innovative Technologies

Molecular Parasitology

Monday

Symposium 9: American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) 15th Annual Symposium: Microbiome-Parasite Interactions: Effects on Parasite Biology and Host Immunity

Scientific Session 17: American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Malaria and Protozoans - Molecular Biology

Scientific Session 43: American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Helminths - Cellular, Molecular and Immunoparasitology

Session Topic Guide (cont.)

Scientific Session 56: American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Helminths - Immunology

Tuesday
Scientific Session 60: American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Malaria - Molecular Biology and Infection

Late Breaker Abstract Session 87: Late Breakers in Basic Science/Molecular Biology

Thursday
Scientific Session 183: American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Kinetoplastida - Molecular, Cellular and Immunobiology

Scientific Session 192: American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Malaria and Protozoal Diseases - Biology and Pathogenesis

One Health: Interface of Human Health/Animal Diseases

Monday
Scientific Session 42: One Health: Interface of Human Health/Animal Diseases

Tuesday
Symposium 80: Fogarty International Center: Advancing Multidisciplinary Research to Understand the Ecology and Evolution of Infectious Diseases

Wednesday
Symposium 168: Operationalizing One Health: One Health Tools in the Context of Global Health Security

Opportunistic and Anaerobic Protozoa

Monday
Scientific Session 24: Protozoa

Pneumonia, Respiratory Infections and Tuberculosis

Tuesday
Scientific Session 85: Pneumonia, Respiratory Infections and Tuberculosis

Thursday
Symposium 184: Update on Pneumonia Innovations 2017

Schistosomiasis-Helminths

Monday
Scientific Session 27: Schistosomiasis and Other Trematodes: Transmission and Treatment

Tuesday
Scientific Session 79: Schistosomiasis: Epidemiology, Control and Diagnostics

Wednesday
Symposium 129: How to Ensure the Efficacy of Drugs in Soil-Transmitted Helminth Control Programs?

Symposium 142: The Evidence is In: Schistosomiasis Control in the 21st Century

Symposium 158: Praziquantel Studies in Preschool Children and Mothers with Schistosomiasis: Is the Research Agenda Comprehensive Enough?

Thursday
Scientific Session 195: Schistosomiasis: Immunology and Pathology

Virology

Monday
Scientific Session 4: Chikungunya and Other Alphaviruses

Scientific Session 22: Dengue: Pathogenesis/Immunology

Symposium 32: American Committee on Arthropod-Borne Viruses (ACAV) Symposium I: Annual Business Meeting, Awards and Research Presentations by Previous Awardees

Scientific Session 39: Dengue: Vaccines/Epidemiology

Symposium 45: American Committee on Arthropod-Borne Viruses (ACAV) Symposium II: Tick-Borne Viruses

Symposium 52: Lessons from the Ebola Survivors and Clinical Implications: Ebola Viral RNA Persistence, Ebola Survivors' Birth Cohort Findings and Longer-Term Ophthalmologic Findings

Plenary Session 59: Plenary Session II: Fred L. Soper Lecture

Tuesday
Scientific Session 67: Ebola and Rotaviruses

Scientific Session 94: West Nile and Other Viruses

Scientific Session 107: Zika I

Session Topic Guide (cont.)

Wednesday
Scientific Session 123: Zika II

Symposium 135: Lessons Learned From Dengue Vaccination Programs in Asia and Latin America

Symposium 144: International Zika Cohort Studies in Pregnant Women

Symposium 155: The Dengue Controlled Human Infection Model (CHIM) - A Tool to Deconstruct the Immune Response Toward the Identification of Immune Correlates of Protection

Symposium 165: Lassa Fever: A New Look at an Old Disease

Thursday
Symposium 179: Introduction to the Rotavirus Vaccine Impact on Diarrhea in Africa (VIDA) Study

Symposium 191: Clinico-Epidemiologic Studies and Laboratory Diagnostic Approaches during the 2016 Zika Outbreak in Puerto Rico

Water, Sanitation, Hygiene and Environmental Health

Monday
Scientific Session 23: Water, Sanitation, Hygiene and Environmental Health I

Tuesday
Scientific Session 53: Water, Sanitation, Hygiene and Environmental Health II

Symposium 71: The Sanitation Hygiene Infant Nutrition Efficacy (SHINE) Trial

Wednesday
Symposium 170: The WASH Benefits Study: The Effect of Single and Combined Water, Sanitation, Handwashing and Nutrition Interventions on Environmental Contamination, Parasite Infection, Environmental Enteric Dysfunction and Child Development

Thursday
Symposium 185: New Approaches to Health Impact Measurement in Water, Sanitation and Hygiene (WASH) Trials

ASTMH Council, Subgroup and Committee Meetings

Saturday, November 4

ASTMH Council Meeting
Hilton - Holiday Ballroom 4/5 (East Building, Second Floor)
Saturday, November 4, Noon - 6 p.m.

Sunday, November 5

American Committee on Arthropod-Borne Viruses (ACAV) SIE Subcommittee Group
Hilton - Johnson AB (East Building, First Floor)
Sunday, November 5, 11 a.m. - Noon

American Committee on Arthropod-Borne Viruses (ACAV) SIRACA Subcommittee Meeting
Hilton - Johnson AB (East Building, First Floor)
Sunday, November 5, Noon - 2 p.m.

American Committee on Arthropod-Borne Viruses (ACAV) SALS Subcommittee Meeting
Hilton - Johnson AB (East Building, First Floor)
Sunday, November 5, 2 p.m. - 3:30 p.m.

Young Investigator Award Committee Meeting
Convention Center - Room 318/319 (Level 300)
Sunday, November 5, 3 p.m. - 4 p.m.

American Committee of Medical Entomology (ACME) Council Meeting
Pratt Street Ale House
Sunday, November 5, 3:30 p.m. - 5:30 p.m.

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Council Meeting
Hilton - Paca (West Building, Third Floor)
Sunday, November 5, 3:30 p.m. - 5:30 p.m.

ASTMH Committee on Global Health (ACGH) Council Meeting
Hilton - Chase (West Building, Third Floor)
Sunday, November 5, 3:30 p.m. - 5:30 p.m.

Clinical Group Council Meeting (American Committee on Clinical Tropical Medicine and Travelers' Health- ACCTMTH)
Hilton - Stone (West Building, Third Floor)
Sunday, November 5, 3:30 p.m. - 5:30 p.m.

American Committee on Arthropod-Borne Viruses (ACAV) Council Meeting
Pratt Street Ale House
Sunday, November 5, 4 p.m. - 5:30 p.m.

Monday, November 6

Clinical Standards and Treatment Guidelines Committee Meeting
Hilton - Peale A (East Building, First Floor)
Monday, November 6, 7 a.m. - 8 a.m.

Clinical Tropical and Travel Medicine Education Program Committee Meeting
Hilton - Johnson A (East Building, First Floor)
Monday, November 6, 7 a.m. - 8 a.m.

ASTMH Diploma Course Directors Meeting
Hilton - Peale B (East Building, First Floor)
Monday, November 6, 7 a.m. - 8 a.m.

ASTMH Travel Awards Meeting
Hilton - Key Ballroom 1 (West Building, Second Floor)
Monday, November 6, 7 a.m. - 8 a.m.

Courses Committee Meeting
Hilton - Tilghman (West Building, Third Floor)
Monday, November 6, 12:15 p.m. - 1:30 p.m.

Kean Fellowship Committee Meeting
Hilton - Marshall (West Building, Third Floor)
Monday, November 6, 12:15 p.m. - 1:30 p.m.

Tuesday, November 7

***AJTMH* Editorial Board Meeting**
Hilton - Ruth (East Building, First Floor)
Tuesday, November 7, 7 a.m. - 8 a.m.

Clinical Group (ACCTMTH) Past Presidents Meeting
Hilton - Peale A (East Building, First Floor)
Tuesday, November 7, 7 a.m. - 8 a.m.

Shope Fellowship Committee Meeting
Hilton - Johnson A (East Building, First Floor)
Tuesday, November 7, 7 a.m. - 8 a.m.

CTropMed® Exam Executive Committee Meeting
Hilton - Johnson B (East Building, First Floor)
Tuesday, November 7, 12:15 p.m. - 1:30 p.m.

Wednesday, November 8

ASTMH Past Presidents Meeting
Hilton - Holiday Ballroom 1 (East Building, Second Floor)
Wednesday, November 8, 7 a.m. - 8 a.m.

ASTMH Council, Subgroup and Committee Meetings

Diploma Course Certification Committee Meeting
Hilton - Johnson B (East Building, First Floor)
Wednesday, November 8, 7 a.m. - 8 a.m.

Scientific Program Committee Meeting
Hilton - Key Ballroom 7/8(West Building, Second Floor)
Wednesday, November 8, 7 a.m. - 8 a.m.

Burroughs Wellcome Fund/ASTMH Fellowship Committee Meeting
Hilton - Johnson A (East Building, First Floor)
Wednesday, November 8, 8 a.m. - 10 a.m.

CTropMed® Exam Committee Meeting
Hilton - Peale B (East Building, First Floor)
Wednesday, November 8, 12:15 p.m. - 1:30 p.m.

Membership Committee Meeting
Hilton - Peale A (East Building, First Floor)
Wednesday, November 8, 12:15 p.m. - 1:30 p.m.

Thursday, November 9

ASTMH Council Meeting
Hilton - Holiday Ballroom 6 (East Building, Second Floor)
Thursday, November 9, 7:30 a.m. - 9:30 a.m.

Related Organization Meetings (at press time)

Friday, November 3

Bill & Melinda Gates Foundation - Malaria Team Meeting

Marriott - Stadium 1 & 2
Friday, November 3, 8 a.m. - 5 p.m.

Bill & Melinda Gates Foundation - BMGF Mobilize Meeting

Hilton - Peale AB (East Building, First Floor)
Friday, November 3, 8 a.m. - 5 p.m.

International Society of Geospatial Health - 11th International Symposium on Geospatial Health - GnosisGIS 2017

Hilton - Ruth (East Building, First Floor)
Friday, November 3, 8 a.m. - 5 p.m.

Saturday, November 4

Bill & Melinda Gates Foundation - BMGF Malaria Team Meeting

Marriott - Promenade
Saturday, November 4, 8 a.m. - 5 p.m.

Bill & Melinda Gates Foundation - Malaria Team Meeting

Marriott - Stadium 1 & 2
Saturday, November 4, 8 a.m. - 8 p.m.

Foundation for the National Institutes of Health - Talking about Gene Drive: Communications Workshop Meeting

Hilton - Johnson AB (East Building, First Floor)
Saturday, November 4, 8 a.m. - 6 p.m.

IVCC Meeting

Hilton - Blake (East Building, Second Floor)
Saturday, November 4, 8 a.m. - 6 p.m.

International Society of Geospatial Health - 11th International Symposium on Geospatial Health - GnosisGIS 2017

Hilton - Ruth (East Building, First Floor)
Saturday, November 4, 8 a.m. - 5 p.m.

RTI International - Annual Meeting of the Zika in Infants and Pregnancy (ZIP) Study Meeting

Hilton - Holiday Ballroom 6 (East Building, Second Floor)
Saturday, November 4, 9 a.m. - 4 p.m.

Sunday, November 5

Bill & Melinda Gates Foundation - BMGF Malaria Team Meeting

Marriott - Stadium 1 & 2
Sunday, November 5, 8 a.m. - 5 p.m.

Emerging ag inc Meeting

Hilton - Latrobe (East Building, First Floor)
Sunday, November 5, 8 a.m. - Noon

FIND - FIND MiP Meeting

Hilton - Blake (East Building, Second Floor)
Sunday, November 5, 8 a.m. - 5:30 p.m.

Health & Development International Team Meeting

Hilton - Marshall (West Building, Third Floor)
Sunday, November 5, 8 a.m. - 5:30 p.m.

International Society of Geospatial Health - 11th International Symposium on Geospatial Health - GnosisGIS 2017

Hilton - Ruth (East Building, First Floor)
Sunday, November 5, 8 a.m. - 5 p.m.

IVCC Meeting

Hilton - Brent (West Building, Third Floor)
Sunday, November 5, 8 a.m. - 6 p.m.

Malaria Eradication Scientific Alliance (MESA) Meeting

Hilton - Hopkins (West Building, Third Floor)
Sunday, November 5, 8 a.m. - 8 p.m.

Takeda Pharmaceuticals International AG - Staff Meeting

Hilton - Tilghman (West Building, Third Floor)
Sunday, November 5, 8 a.m. - 5 p.m.

University of California Davis - TropMed Iquitos Collaborators'k Meeting

Hilton - Carroll AB (West Building, Third Floor)
Sunday, November 5, 8 a.m. - 6 p.m.

CDC/Malaria Branch - CDC President's Malaria Initiative Administrative and Management Meeting

Hilton - Armistead (West Building, Second Floor)
Sunday, November 5, 8:30 a.m. - 5:30 p.m.

Related Organization Meetings (at press time)

Bill & Melinda Gates Foundation - EuPath Database: An Open Repository to Accelerate Research on Enteric Pathogens Meeting

Hilton - Peale BC (East Building, First Floor)
Sunday, November 5, 9 a.m. - 4 p.m.

Clinton Health Access Initiative (CHAI) - Malaria Analytics and Surveillance Team (MAST) Meeting

Hilton - Calloway AB (East Building, Second Floor)
Sunday, November 5, 9 a.m. - 5:30 p.m.

World Health Organization - WHO Consultation on Fractional Yellow Fever Vaccination Research Agenda Meeting

Hilton - Tubman AB (West Building, Third Floor)
Sunday, November 5, 10 a.m. - 4 p.m.

University of Rhode Island - DHF Project Investigator's Meeting

Hilton - Key Ballroom 3 (West Building, Second Floor)
Sunday, November 5, Noon - 6 p.m.

International Society of Travel Medicine - GeoSentinel Mid-Year Meeting

Hilton - Key Ballroom 4 (West Building, Second Floor)
Sunday, November 5, 1 p.m. - 5 p.m.

PATH - Diarrhea Innovations Group Meeting

Sheraton - Severn 2/3
Sunday, November 5, 1 p.m. - 5 p.m.

Monday, November 6

Bill & Melinda Gates Foundation Side Meeting

Hilton - Hopkins (West Building, Third Floor)
Monday, November 6, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Douglass (West Building, Third Floor)
Monday, November 6, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Key Ballroom 6 (West Building, Second Floor)
Monday, November 6, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Key Ballroom 4 (West Building, Second Floor)
Monday, November 6, 8 a.m. - 8 p.m.

Infectious Diseases Data Observatory - Stakeholder Meeting

Hilton - Tubman AB (West Building, Third Floor)
Monday, November 6, 8 a.m. - 8 p.m.

IVCC Meeting

Hilton - Brent (West Building, Third Floor)
Monday, November 6, 8 a.m. - 6 p.m.

Johns Hopkins Center for Communication Programs - PMI ITN Partner's Meeting

Hilton - Key Ballroom 9 (West Building, Second Floor)
Monday, November 6, 8 a.m. - 5 p.m.

Malaria Eradication Scientific Alliance (MESA) Meeting

Hilton - Key Ballroom 10 (West Building, Second Floor)
Monday, November 6, 8 a.m. - 8 p.m.

PATH's Malaria Vaccine Initiative Meeting

Hilton - Ruth (East Building, First Floor)
Monday, November 6, 8 a.m. - 8 p.m.

Takeda Pharmaceuticals International AG - Staff Meeting

Hilton - Blake (East Building, Second Floor)
Monday, November 6, 8 a.m. - 5 p.m.

Royal Society of Tropical Medicine and Hygiene (RSTMH) - Donald Mackay Medal Reception

Hilton - Armistead (West Building, Second Floor)
Monday, November 6, Noon - 1:30 p.m.

United Nations Foundation - Innovation for Malaria Elimination in the Americas Meeting

Hilton - Holiday Ballroom 1 (East Building, Second Floor)
Monday, November 6, Noon - 1:15 p.m.

PLOS Neglected Tropical Diseases - 10 Years of PLOS NTDs and The Future of NTDs

Hilton - Johnson AB (East Building, First Floor)
Monday, November 6, 4 p.m. - 5:15 p.m.

Bill & Melinda Gates Foundation - EDD Team Side Meetings

Hilton - Key Ballroom 5 (West Building, Second Floor)
Monday, November 6, 5 p.m. - 9 p.m.

London School of Hygiene & Tropical Medicine - Alumni Reception

Hilton - Key Ballroom 7 (West Building, Second Floor)
Monday, November 6, 7:15 p.m. - 9 p.m.

Related Organization Meetings (at press time)

Bill & Melinda Gates Foundation Reception

Hilton - Holiday Ballroom 1/2/3 (East Building, Second Floor)
Monday, November 6, 7:15 p.m. - 10 p.m.

Tuesday, November 7

Jhpiego - Transforming IPT for Optimal Pregnancy (TIPTOP) Project Steering Committee Meeting

Hilton - Latrobe (East Building, First Floor)
Tuesday, November 7, 7 a.m. - 8:30 a.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Hopkins (West Building, Third Floor)
Tuesday, November 7, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Key Ballroom 6 (West Building, Second Floor)
Tuesday, November 7, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Douglass (West Building, Third Floor)
Tuesday, November 7, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Key Ballroom 4 (West Building, Second Floor)
Tuesday, November 7, 8 a.m. - 8 p.m.

Infectious Diseases Data Observatory - Stakeholder Meeting

Hilton - Tubman AB (West Building, Third Floor)
Tuesday, November 7, 8 a.m. - 8 p.m.

IVCC Meeting

Hilton - Brent (West Building, Third Floor)
Tuesday, November 7, 8 a.m. - 6 p.m.

Malaria Eradication Scientific Alliance (MESA) Meeting

Hilton - Key Ballroom 10 (West Building, Second Floor)
Tuesday, November 7, 8 a.m. - 8 p.m.

PATH Malaria Vaccine Initiative Meeting

Hilton - Key Ballroom 1 (West Building, Second Floor)
Tuesday, November 7, 8 a.m. - 8 p.m.

PATH Malaria Vaccine Initiative Meeting

Hilton - Key Ballroom 2 (West Building, Second Floor)
Tuesday, November 7, 8 a.m. - 8 p.m.

Takeda Pharmaceuticals International AG - Staff Meeting

Hilton - Blake (East Building, Second Floor)
Tuesday, November 7, 8 a.m. - 5 p.m.

University Cheikh Anta Diop and Speak Up Africa on Behalf of MIM- Presenting the 7th Multilateral Initiative on Malaria Conference (MIM)

Hilton - Holiday Ballroom 3 (East Building, Second Floor)
Tuesday, November 7, 8 a.m. - 5 p.m.

Abt Associates/Health Finance and Governance Project - Malaria Economic Research Community of Practice Side Meeting

Hilton - Holiday Ballroom 4 (East Building, Second Floor)
Tuesday, November 7, 9 a.m. - 5 p.m.

International Vaccine Access Center (IVAC) Meeting

Hilton - Ruth (East Building, First Floor)
Tuesday, November 7, 11 a.m. - 2 p.m.

Johns Hopkins School of Nursing - Education Group Meeting

Hilton - Peale A (East Building, First Floor)
Tuesday, November 7, Noon - 2 p.m.

PATH - Roundtable Discussion: Critical Attributes and Program Feasibility of a Microarray Patch for Primaquine Delivery Meeting

Hilton - Holiday Ballroom 2 (East Building, Second Floor)
Tuesday, November 7, 12:30 p.m. - 1:30 p.m.

Harvard T.H. Chan School of Public Health - Wirth Reception

Hilton - Peale ABC (East Building, First Floor)
Tuesday, November 7, 7:15 p.m. - 9 p.m.

Jhpiego - an Affiliate of Johns Hopkins University - Reception

Hilton - Holiday Ballroom 5 (East Building, Second Floor)
Tuesday, November 7, 7:15 p.m. - 9:30 p.m.

Northeast Regional Center for Excellence in Vector-Borne Diseases - Satellite Meeting for Centers for Excellence in Vector-Borne Disease

Hilton - Holiday Ballroom 2 (East Building, Second Floor)
Tuesday, November 7, 7:15 p.m. - 11 p.m.

Related Organization Meetings (at press time)

Wednesday, November 8

Bill & Melinda Gates Foundation Side Meeting

Hilton - Hopkins (West Building, Third Floor)
Wednesday, November 8, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Douglass (West Building, Third Floor)
Wednesday, November 8, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Key Ballroom 4 (West Building, Second Floor)
Wednesday, November 8, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Key Ballroom 6 (West Building, Second Floor)
Wednesday, November 8, 8 a.m. - 8 p.m.

Infectious Diseases Data Observatory - Stakeholder Meeting

Hilton - Tubman AB (West Building, Third Floor)
Wednesday, November 8, 8 a.m. - 8 p.m.

IVCC Meeting

Hilton - Brent (West Building, Third Floor)
Wednesday, November 8, 8 a.m. - 6 p.m.

Malaria Eradication Scientific Alliance (MESA) Meeting

Hilton - Key Ballroom 10 (West Building, Second Floor)
Wednesday, November 8, 8 a.m. - 8 p.m.

PATH Malaria Vaccine Initiative Meeting

Hilton - Key Ballroom 2 (West Building, Second Floor)
Wednesday, November 8, 8 a.m. - 8 p.m.

PATH Malaria Vaccine Initiative Meeting

Hilton - Key Ballroom 1 (West Building, Second Floor)
Wednesday, November 8, 8 a.m. - 8 p.m.

Takeda Pharmaceuticals International AG - Staff Meeting

Hilton - Blake (East Building, Second Floor)
Wednesday, November 8, 8 a.m. - 5 p.m.

PATH - Roundtable Discussion: Critical Attributes and Program Feasibility of a Microarray Patch for Primaquine Delivery Meeting

Hilton - Holiday Ballroom 2 (East Building, Second Floor)
Wednesday, November 8, 12:30 p.m. - 1:30 p.m.

ExxonMobil Foundation - Global Health Scholars Meet and Greet

Hilton - Key Ballroom 9 (West Building, Second Floor)
Wednesday, November 8, 1:30 p.m. - 6:30 p.m.

Coalition Against Typhoid and TyVAC - Integration and Innovation to #TakeOnTyphoid Meeting

Hilton - Ruth (East Building, First Floor)
Wednesday, November 8, 4 p.m. - 6 p.m.

Thursday, November 9

Bill & Melinda Gates Foundation Side Meeting

Hilton - Key Ballroom 6 (West Building, Second Floor)
Thursday, November 9, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Douglass (West Building, Third Floor)
Thursday, November 9, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Hopkins (West Building, Third Floor)
Thursday, November 9, 8 a.m. - 8 p.m.

Bill & Melinda Gates Foundation Side Meeting

Hilton - Key Ballroom 4 (West Building, Second Floor)
Thursday, November 9, 8 a.m. - 8 p.m.

IVCC - ESAC 5 Meeting

Hilton - Key Ballroom 5 (West Building, Second Floor)
Thursday, November 9, 7 a.m. - 6 p.m.

Infectious Diseases Data Observatory - Stakeholder Meeting

Hilton - Tubman AB (West Building, Third Floor)
Thursday, November 9, 8 a.m. - 8 p.m.

IVCC - ESAC 5 Meeting

Hilton - Key Ballroom 2 (West Building, Second Floor)
Thursday, November 9, 8 a.m. - 6 p.m.

IVCC - ESAC 5 Meeting

Hilton - Key Ballroom 1 (West Building, Second Floor)
Thursday, November 9, 8 a.m. - 6 p.m.

IVCC Meeting

Hilton - Brent (West Building, Third Floor)
Thursday, November 9, 8 a.m. - 6 p.m.

Related Organization Meetings (at press time)

Malaria Eradication Scientific Alliance (MESA) - Ivermectin Roadmap Kick off Meeting

Hilton - Key Ballroom 10 (West Building, Second Floor)
Thursday, November 9, 8 a.m. - 6 p.m.

Takeda Pharmaceuticals International AG - Staff Meeting

Hilton - Blake (East Building, Second Floor)
Thursday, November 9, 8 a.m. - 5 p.m.

University of California Davis and The NOG Partnership for Dengue Control - Vaccine & Vector Control Trial Meeting

Hilton - Tilghman (West Building, Third Floor)
Thursday, November 9, 8 a.m. - 6 p.m.

US Military HIV Research Program/Henry M. Jackson Foundation - AFRICOS Meeting

Hilton - Ruth (East Building, First Floor)
Thursday, November 9, Noon - 4 p.m.

Sanofi Pasteur - DRC Meeting

Marriott - Stadium 1-3
Thursday, November 9, 1 p.m. - 6 p.m.

Sanofi Pasteur - DRC Meeting

Marriott - Promenade
Thursday, November 9, 6:30 p.m. - 9:30 p.m.

Friday, November 10

IVCC - ESAC 5 Meeting

Hilton - Tubman AB (West Building, Third Floor)
Friday, November 10, 8 a.m. - 6 p.m.

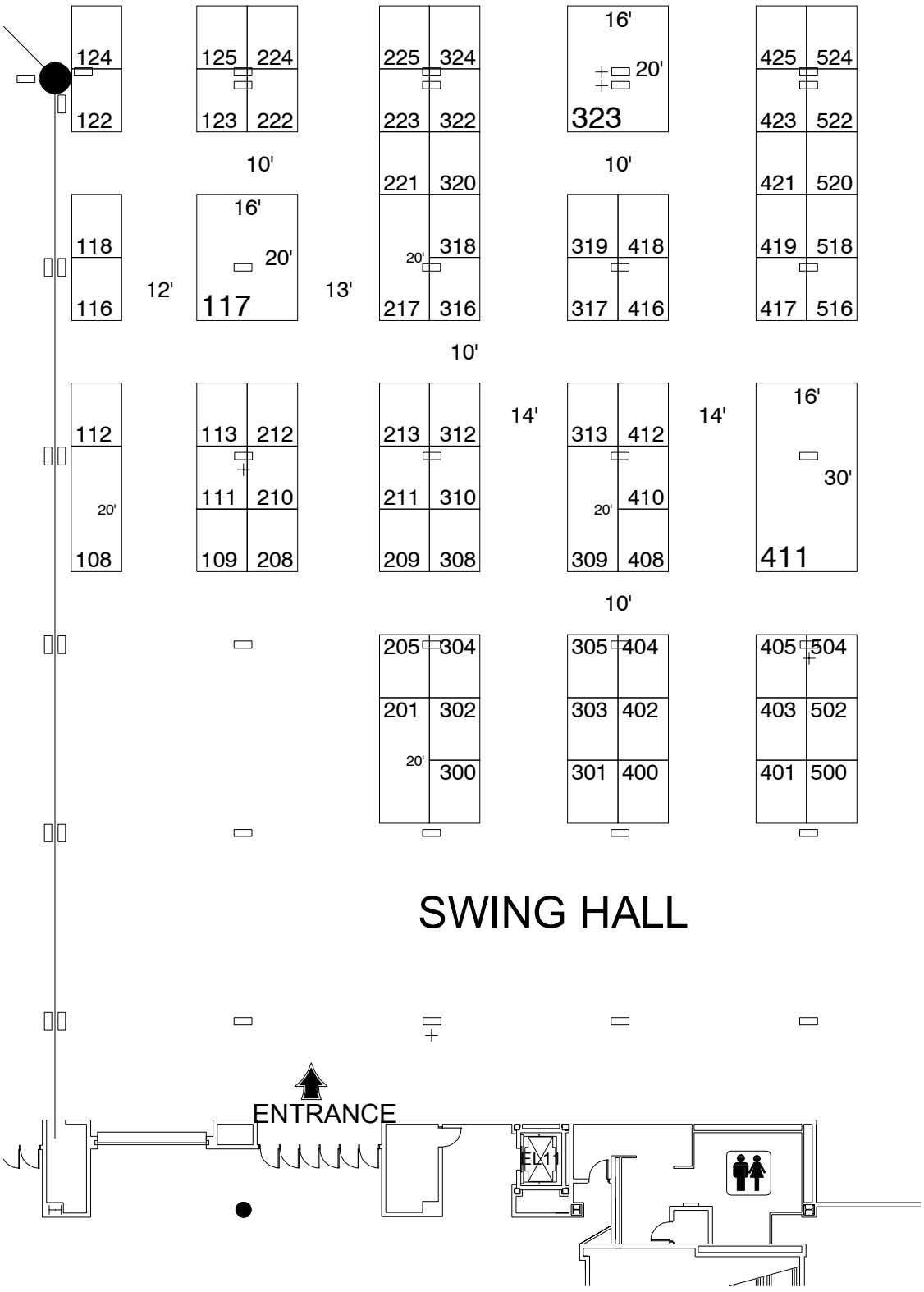
IVCC - ESAC 5 Meeting

Hilton - Carroll AB (West Building, Third Floor)
Friday, November 10, 8 a.m. - 6 p.m.

Sanofi Pasteur - DRC Meeting

Marriott - Stadium 1-3
Friday, November 10, 8 a.m. - 1:15 p.m.

Exhibit Hall Floor Plan



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Altona Diagnostics USA, Inc. is a San Francisco, CA based company with headquarters in Hamburg, Germany. The company focuses on the sales and technical support of real-time PCR based reagents for the detection of pathogen specific DNA/RNA, developed and manufactured by their scientists in Hamburg.

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ADI's novel proteome microarray approach significantly decreases the time and cost required to perform proteome-wide antigen screening by eliminating the time consuming steps involved in traditional cloning, protein, expression and screening methodologies. ADI's flexible and robust proteome microarray platform facilitates the discovery of diagnostic biomarkers, vaccine candidates, as well as therapeutic antibody discovery and target validation. Antigen Discovery's customers and partners include NIH, NIAID, pharmaceutical and biotechnology companies, universities, medical centers, Bill & Melinda Gates Foundation as well as world-wide

consortium working in the areas of infectious disease and vaccine development.

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Arctec at the London School of Hygiene and Tropical Medicine is a world-leading independent test center for consultancy, and the evaluation and development of arthropod pest control technologies including repellents and insecticides.
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Bayer is a Life Science company with over 150 year history and core competencies in the areas of health care and agriculture. We contribute to advancing life by finding solutions to some of the major challenges of our itme. In this regard we are committed to the fight against vector-borne and neglected tropical diseases.

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BioFire Defense
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Biogents AG is an innovative company based in Germany on the forefront of mosquito control research and focuses on the development and production of highly efficient mosquito traps. Biogents traps are the latest innovation in mosquito control traps and incorporate patented technology. Biogents also runs a complementary contract research and development unit in the field of mosquito repellents and related products.

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Celgene Global Health (CGH) is a dedicated R&D unit of Celgene committed to discovering, developing and delivering novel drugs for Diseases of the Developing World (DDWs). Collaborating with non-profit and academic institutions around the globe, CGH has utilized the company's library of more than 400,000 compounds to evaluate candidates for drug development for DDWs. More than ten discovery and development programs are ongoing in several disease areas such as malaria and tuberculosis.

Centers for Disease Control and Prevention - National Center for Emerging and Zoonotic Infectious Diseases

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CDC's National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) works to protect people in the United States and around the world from a wide range of infectious diseases. NCEZID's mission is to reduce illness and death associated with emerging and zoonotic infectious diseases and to protect against their spread.

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The Centre for Tropical Medicine and Global Health is a world-leading Centre within the Nuffield Department of Medicine, University of Oxford. The Centre is comprised of research groups who are permanently based in Africa and Asia as well as in Oxford, UK. Our research ranges from clinical studies to behavioral sciences, with capacity building integral to all of our activities. Find out more at www.tropicalmedicine.ox.ac.uk.

CTK Biotech, Inc.
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Drugs for Neglected Diseases initiative (DNDi)
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The Drugs for Neglected Diseases initiative (DNDi) is a patient-needs driven, not-for-profit research and development (R&D) organization discovering and developing safe, effective, and affordable medicines for neglected diseases that afflict millions of the world's poorest people. DNDi focuses on developing new treatments for the most neglected patients suffering from little-known, often fatal diseases including human African trypanosomiasis (sleeping sickness), leishmaniasis, Chagas disease, filaria, mycetoma, pediatric HIV, and hepatitis C.

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NIH/NIAID funded Bioinformatics Resource Centers consist of five on-line databases that provide data, analysis tools and services to infectious disease pathogen researchers. Each center specializes in different groups of pathogens: The Eukaryotic Pathogen Database (www.EuPathDB.org) specializes in eukaryotic pathogens,VectorBase (www.vectorbase.or) covers invertebrate vectors of human pathogens, ViPR (www.viprbrc.org) encompasses human viral pathogens, IRD (www.fludb.org) focuses on influenza virus, and PATRIC (www.patricbrc.org) supports bacteria. Each research center provides services to analyze and query functional data from each of the maintained organisms. Representatives will be available to answer questions and help with queries.

FHI 360
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FHI 360 is an international nonprofit working to improve the health and well-being of people in the United States and around the world. We team with governments and civil society to create jobs, educate children, provide lifesaving health care and bring about positive social change. We do this by using research and evidence to design and deliver programs that change behaviors, increase access to services and improve lives

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The Global Health Network
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The Global Health Network aims to accelerate and streamline research through an innovative digital community, facilitating collaboration and resource sharing for global health. The Global Health Network provides indispensable research tools and resources, such as free certified E-learning courses; Site-Finder, a collaboration-finding tool for linking research sites and studies seeking sites; Process Map to guide the set-up of research studies; and Professional Membership Scheme for tracking continued professional development.

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Helen Keller International/ MMDP Project
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The USAID MMDP Project is a $35 million project funded by the United States Agency for International Development. The project is led by Helen Keller International and aims to help countries reach their disease elimination goals for trachoma and lymphatic filariasis through support of the planning, implementation, and monitoring of the scale-up of trachomatous trichiasis surgery, hydrocele surgery, and lymphedema management.

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Hemex Health has developed a point-of-care diagnostic platform for malaria and sickle cell disease optimized for resource-limited settings: it is easy-to-use, affordable, portable, battery-powered and robust for challenging environments. A custom disposable using a drop of blood (finger-prick) is inserted directly into the reader, which automatically provides fast (1 minute malaria, 8 minutes sickle cell), accurate, and easy-to-interpret results.

Henry M. Jackson Foundation
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IAMAT's mission is to make the world a healthier place to travel. As an advocate for travelers' health since 1960, IAMAT protects the well-being of travelers with up-to-date health information and an international network of English-speaking doctors. The non-profit organization also awards travel medicine scholarships to health practitioners from countries where travel medicine is an emerging specialty. The scholarship program aims to advance travel medicine education and enhance care for travellers and local patients. Since 1990, IAMAT has sponsored the annual ASTMH Vincenzo Marcolongo Memorial Lecture in honor of IAMAT's founder, a specialist in tropical medicine who dedicated his life to the medical needs of travelers.

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ICF works at the forefront of data collection, use, and analysis to support public health policies and programs. ICF is part of the MEASURE Evaluation consortium, which provides technical leadership through collaboration at all levels to advance global health monitoring and evaluation. ICF also implements the Demographic and Health Surveys (DHS) Program, which has provided technical assistance to over 300 surveys in 90 countries, advancing understanding of health and population trends.

International Society of Travel Medicine
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The International Society of Travael Medicine promotes and fosters healthy and safe travel through the education of travellers and those who counsel travellers. The Society also works to identify and raise awareness of social, environmental, cultural and health issues caused by travel and tourism within destination communities and with the responsibility to encourage and conduct research and develop strategies to protect local destination communities from negative impacts through tourism.

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IVCC creates solutions and develops products focused on insects; to control, eliminate and eradicate vector borne disease.

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Jhpiego, a non-profit affiliated with The Johns Hopkins University, works to prevent the needless deaths of women and their families. For over 40 years, Jhpiego has developed strategies to help over 150 countries care for themselves by training competent health care workers, strengthening health systems and improving delivery of care. Jhpiego works with health experts, governments and community leaders to provide innovative, effective and low-cost health care solutions which are breaking down barriers to high-quality health care for the world's most vulnerable populations.

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The Global Vector Hub is an open access, interactive resource that not only has the capacity to transform vector research and vector control programmes, but revolutionise our preparedness and ability to respond quickly and effectively to vector-borne disease outbreaks. We aim to bring together researchers and health workers on the largest scale seen, cutting across several disciplines, diseases and vectors around the world by developing a global platform for collecting, sharing and disseminating data and information.

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Privately owned Longhorn's PrimeStore® Molecular Transport Medium (MTM) facilitates sample collection and transport by inactivating viral and bacterial pathogens and preserving and stabilizing naked RNA and DNA at ambient or elevated temperatures thereby providing safe, non-hazardous samples for MDx and NGS of human, veterinary, clinical trial and biobanking samples without any cold chain. Sample types can include sputum, nasal, oral and other secretions/bodily fluids/ swabs, urine, stool, blood/plasma/serum, insect vectors and fresh tissue.

Luminex Corporation
Booth 222
Contact: Josh Jenkins, Business Manager - LTG
12212 Technnology Blvd.
Austin, TX 78727 USA
Phone: +1-512-219-8020
Email: mhager@luminexcorp.com
Website: www.luminexcorp.com

Luminex Corporation is committed to creating innovative, breakthrough solutions to help our customers improve health and advance science worldwide. We serve the needs of our customers in diverse markets including clinical diagnostics, pharmaceutical drug discovery, biomedical research, genomic and proteomic research, and personalized medicine. Our goal is to transform global healthcare and life science research through the development, manufacturing, and marketing of proprietary instruments and assays that deliver cost-effective, rapid results to clinicians and researchers. For further information, please visit http://www.luminexcorp.com/.

Exhibitor, Sponsor and Supporter Directory (at press time)

Manhiça Health Research Center
Booth 421
Contact: Sonia Mocumbi, Head of Advocacy & Communication
Rua 12, Cambeve, Vila da Manhica
Maputo, CP1929 Mozambique
Phone: +25 882 289 4441
Email: sonia.mocumbi@manhica.net
Website: www.manhica.net
We will have corporate material to promote the activities of our institution as Roll Ups, posters, leaflets, videos, etc.

Medical Care Development International (MCDI)
Booth 213
Contact: My-Anh Ha, Senior Business Development Manager
8401 Colesville Road, Suite 425
Silver Spring, MD 20910 USA
Phone: +1-301-562-1920
Email: mcdi@mcd.org
Website: www.mcdinternational.org

For over 40 years in over 40 countries, MCDI has worked to improve the health of vulnerable populations globally through innovative, integrated, sustainable and locally-driven interventions. MCDI collaborates with donors, national governments, the private sector, health agencies, communities and local stakeholders to improve health and save lives in the following areas: malaria control; water, sanitation and hygiene; maternal, neonatal and child health; Zika; cervical cancer screening and treatment; HIV/AIDS and TB; and other communicable diseases.

Medicines for Malaria Venture
Booth 418
Contact: Adam P. Aspinall
ICC, Route de Pre-Bois 20
Geneva, 1215 Switzerland
Phone: +41 22 555 0300
Email: aspinalla@mmv.org
Website: www.mmv.org

MMV is a leading product development partnership (PDP) in the field of antimalarial drug research and development. Its mission is to reduce the burden of malaria by discovering, developing and delivering new, effective and affordable antimalarial drugs.

MMV and partners have built the largest portfolio of antimalarial R&D and access projects ever assembled, and brought forward seven new medicines. MMV's success is based on its network of over 400 pharmaceutical, academic and endemic-country partners.

New Life Diagnostics LLC
Booth 305
Contact: Dave Lambillotte, Consultant
2722 Loker Ave West, Suite G
Carlsbad, CA 92010 USA
Phone: +1-619-733-7386
Email: info@newlifedaignostics.com
Website: www.newlifediagnostics.com

Developer of serology and fecal assays for infectious diseases. Assay formats are ELISA, rapid and molecular with a specialization in parasitic and neglected tropical diseases. Company works closely with researchers throughout the world to commercialize assays based on the researchers work.

NIH/NIAID Filariasis Research Reagent Resource Center (FR3)
Booth 518
Contact: Shelly Michalski, Director of Communication
University of Wisconsin-Oshkosh
Biology Department
800 Algoma Blvd.
Oshkosh, WI 54901 USA
Phone: +1-920-424-7082
Email: michalsk@uwosh.edu
Website: www.filariasiscenter.org

The Filariasis Research Reagent Resource Center (FR3) provides filariasis reagents, protocols, and technical support for the NTD research community. Supported by NIAID, the FR3 distributes parasites, vectors, and molecular and serological reagents. Drive Andy Moorhead (University of Georgia; UGA) is the director and PI of the FR3. UGA subcontracts with Smith College (Drive Steven Williams) for molecular resources, and with University of Wisconsin-Oshkosh (Drive Shelly Michalski) for maintenance of Acanthocheilonema viteae and management of informational resources.

NIH NIAID Schistosomiasis Resource Center
Booth 522
Contact: Margaret Mentink-Kane, Principal Investigator
9410 Key West Ave.
Rockville, MD 20850 USA
Phone: +1-703-786-9262
Email: mmentinkkane@afbr.-bri.com
Website: www.afbr-bri.com

The Schistosomiasis Resource Center (SRC) provides three major strains of snails (Biomphalaria glabrata, Bulinus truncatus and Oncomelania hupensis) and rodents infected with S. haematobium, S. japonicum and S.mansoni. Molecular reagents include nucleic acids and genomic libraries from the various life cycle stages of the Schistosoma species (cercariae, schistosomula, adult worms and eggs).

Omega Diagnostics Ltd
Booth 208
Contact: John Bannister, Global Health Regional Sales Director
Omega House, Hillfoots Business Village
Alva, Clackmannanshire FK12 5DQ
Scotland, United Kingdom
Phone: +0044 1259 763 030
Email: odl@omegadiagnostics.co.uk
Website: www.omegadiagnostics.co.uk

Omega Diagnostics, celebrating its 30th year in the manufacture and supply of convenient and high quality diagnostic tests, is pleased to support the ASTMH Annual Meeting. Come and meet us to hear about VISITECT® CD4, the world's first instrument-free rapid test for the determination of CD4 baseline in people living with HIV, VISITECT® Malaria RDTs designed for use at the point-of-care and other infectious disease rapid tests.

Oxford University Press
Booth 223
Contact: Donna Hutchinson, Marketing Executive
198 Madison Avenue
New York, NY 10016 USA
Phone: +1-800-461-7556
Email: custserv.us@oup.com
Website: www.oup.com

Oxford University Press publishes some of the most respected books and journals in the world. Visit our booth or online at www.oup.com for more information.

PaxVax, Inc.
Booth 524
Contact: Warisha Khan, Associate Marketing Manager
555 Twin Dolphin Drive, Suite 260
Redwood City, CA 94065 USA
Phone: +1-650-847-1075
Email: wkhan@paxvax.com
Website: www.paxvax.com

PaxVax is a leading independent vaccine company devoted to developing and commercializing specialty vaccines that protect against existing and emerging infectious diseases. We provide effective tools for health care providers who serve the 100 million people per year who travel to countries where these diseases are present.

We have achieved groundbreaking milestones, commercializing vaccines for typhoid fever (Vivotif®) and cholera (Vaxchora™), and have a robust pipeline with vaccines at various stages of preclinical and clinical developments for adenovirus, chikungunya, hepatitis A, HIV and Zika.

PLOS Neglected Tropical Diseases
SPONSOR
Contact: Charlotte Bhaskar, Publications Manager: *PLOS Neglected Tropical Diseases*
1160 Battery Street, Suite 225
San Francisco, CA 94111 USA
Phone: +1-415-624-1200
Email: cbhaskar@plos.org
Website: www.plos.org

The first journal solely devoted to the world's most neglected tropical diseases, PLOS Neglected Tropical Diseases publishes leading research and commentary on all scientific, medical, political and public health aspects of these forgotten diseases affecting the world's most neglected people. PLOS Neglected Tropical Diseases publishes research devoted to the pathology, epidemiology, prevention, treatment and control of the neglected tropical diseases (NTDs), as well as public policy relevant to this group of diseases.

PLOS: Public Library of Science
Booth 313
Contact: Charlotte Bhaskar, Publications Manager: *PLOS Neglected Tropical Diseases*
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San Francisco, CA 94111 USA
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Email: cbhaskar@plos.org
Website: www.plos.org

PLOS (Public Library of Science) is a nonprofit Open Access publisher, innovator and advocacy organization dedicated to accelerating progress in science and medicine by leading a transformation in research communication. The PLOS suite of journals contain rigorously peer-reviewed Open Access research articles from all areas of science and medicine, together with expert commentary and analysis. In addition ot journals, the organization advances innovations in scientific communication through Collections, Communities and the PLOS Blog Network.

Precision Antibody
Booth 405
Contact: Julio Cabrera, Technical Sales, Production
9130 Red Branch, Suite X
Baltimore, MD 21045 USA
Phone: +1-410-884-4100
Email: jcabrera@precisionantibody.com
Website: www.precisionantibody.com

Precision Antibody delivers a comprehensive monoclonal antibody service that includes antigen design, antibody development, multiplex high-throughput flow analysis, Octet & Biacore affinity analysis, assay development (ELISA & Lateral Flow), and large and small scale antibody and antigen production & purification. We are OLAW approved and AAALAC accredited. Please stop by booth 405 to talk to our team about our new anti-HRP2 malaria antibodies.

Exhibitor, Sponsor and Supporter Directory (at press time)

RTI International
Booth 212
Contact: Ned Burns, Business Development Specialist
701 13th Street NW, Suite 750
Washington, DC 20005 USA
Phone: +1-202-728-2081
Email: nburns@rti.org
Website: www.rti.org/globalhealth

As one of the world's leading research institutes, RTI International implements large-scale global health programs that focus on strengthening health systems, controlling and eliminating neglected tropical diseases, and supporting programs to combat HIV, malaria, and other infectious diseases. Drop by our booth to meet our experts, discuss global health challenges and opportunities, and win prizes.

Sanaria Inc.
Booth 402
Contact: Aris Walker, Project Coordinator
9800 Medical Center Dr.
Rockville, MD 20850 USA
Phone: +1-240-753-3528
Email: awalker@sanaria.com
Website: www.sanaria.com

Sanaria's primary mission is to develop and commercialize whole-parasite sporozoite vaccines that confer high-level, long-lasting protection against Plasmodium falciparum, the malaria parasite responsible for more than 95% of malaria associated severe illness and death world-wide and the malaria parasite for which there is the most significant drug resistance. The overall mission includes developing vaccines that prevent all human malaria.

Sanofi Pasteur SPONSOR SUPPORTER
Contact: Roman Chicz, Head, External Research and Development
Phone: +1-617-866-4562
Email: roman.chicz@sanofipasteur.com
Website: www.sanofipasteur.com

Sanofi Pasteur is the vaccines division of Sanofi. We distribute more than 1 billion doses of vaccine per year, making it possible to vaccinate more than 500 million people across the globe. Our broad portfolio protects against infectious diseases such as: cholera, diphtheria, dengue, Haemophilus influenza type b infections, hepatitis A, hepatitis B, influenza, Japanese encephalitis, measles, meningococcal infections, mumps, pertussis, pneumococcal infections, poliomyelitis, rabies, rubella, tatanus, tuberculosis, typhoid fever and yellow fever.

Sawyer Products
Booth 410
Contact: John Smith, VP of Operations
PO Box 188
Safety Harbor, FL 34695 USA
Phone: +1-727-725-1177
Email: customer@sawyer.com
Website: www.sawyer.com

Sawyer Products offers technologically advanced solutions for protection against sun, bugs, water and injuries.

Shin Poong Pharmaceutical Co., Ltd.
Booth 316
Contact: Jangsik Shin, Pyramax Project Leader
161, Yeoksam-ro, Gangnam-gu
Seoul, 06246 Republic of Korea
Phone: +82 2 2189 3468
Email: jsshin@shinpoong.co.kr
Website: www.shinpoong.co.kr/

Shin Poong is a Korea-based company mainly engaged in the manufacture of pharmaceuticals over 50 years and has developed PYRAMAX®(Pyronaridine-Artesunate) with Medicines for Malaria Venture. PYRAMAX® is the only ACT with a positive opinion from SRA for the treatment of both P. falciparum and P. vivax malaria in adults, children and infants over 5 kg. It is cross-referenced in WHO's list of prequalified medicines, and included WHO List of Essential Medicines for adults and children(EML, EMLc) in 2017.

Take on Typhoid/TyVAC
Booth 408
Contact: Leslie Jamka, Communications Specialist
685 West Baltimore Street, Room 480
Baltimore, MD 21201 USA
Phone: +1-410-706-5328
Email: TyVAC@som.umaryland.edu
Website: http://www.medschool.umaryland.edu/CVD/TyVAC/

The Typhoid Vaccine Acceleration Consortium (TyVAC), a partnership between the Center for Vaccine Development at the University of Maryland School of Medicine, the Oxford Vaccine Group at the University of Oxford, and PATH, an international nonprofit, aims to accelerate the introduction of new typhoid conjugate vaccines as part of an integrated apprach to reduce the burden of typhoid in countries eligible for support from Gavi, the Vaccine Alliance.

Exhibitor, Sponsor and Supporter Directory (at press time)

Takeda Pharmaceuticals International AG

SPONSOR

Contact: Vanessa Kemp, Senior Manager Global Congresses
Thurgauerstrasse 130
Glattpark-Opfikon (Zurich) 8152 Switzerland
Phone: +41 44 555 1000
Email: vanessa.kemp@takeda.com
Website: www.takeda.com

Takeda Pharmaceutical Company Limited is a global research and development-driven pharmaceutical company committed to bringing better health and a brighter future to patients by translating science into life-changing medicines. Takeda focuses its R&D efforts on oncology, gastroenterology and central nervous system therapeutic areas plus vaccines. Takeda conducts R&D both internally and with partners to stay at the leading edge of innovation. New innovative products, especially in oncology and gastroenterology, as well as our presence in Emerging Markets, fuel the growth of Takeda. For more information, visit http://www.takeda.com/news.

TDR, the Special Programme for Research and Training in Tropical Diseases (WHO)

Booth 221

Contact: Jamie Guth, Communications Manager
20, Avenue Appia
Geneva, 1211 Switzerland
Phone: +41 79 441 2289
Email: guthj@who.int
Website: www.who.int/tdr

TDR, the Special Programme for Research and Training in Tropical Diseases, is a global programme of scientific collaboration that helps facilitate, support and influence efforts to combat diseases of poverty. TDR is hosted at the World Health Organization (WHO), and is sponsored by the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the World Bank and WHO. Information about TDR grants and supported research and training will be available.

TECHLAB, Inc.

SPONSOR

Booth 201/203

Contact: Donna T. Link, Director of Regulatory & Compliance
2001 Kraft Drive
Blacksburg, VA 24060 USA
Phone: +1-540-953-1664
Email: dlink@techlab.com
Website: www.techlab.com

TECHLAB has over 25 years of experience focused on the development and manufacturing of quality rapid non-invasive enteric in vitro diagnostics. Today the company continues to develop, manufacture and distribute intestinal diagnostics worldwide retaining an emphasis on science and collaboration with universities both international and domestic. Products are focused in the areas of intestinal inflammation, antibiotic-associated diarrhea and parasitology. Research continues on *C. difficile,* intestinal inflammation, Shiga toxin, and parasites including *Giardia*, *Cryptosporidium,* and *Entamoeba* histolytica.

University of Minnesota – Department of Medicine – Global Medical Education

Booth 122

Contact: Sarah Sponsler, Program Coordinator
139 VCRC - 420 Delaware Street SE - MMC 284
Minneapolis, MN 55455 USA
Phone: +1-612-626-3526
Email: globalhealth@umn.edu
Website: www.dom.umn.edu/global-health

University of Minnesota Department of Medicine Global Medical Education is committed to improving the health of individuals and communities globally. We are engaged in global health teaching, research, and clinical care which is values based and which improves the health of individuals and communities. We offer a wide range of coures, in-person and online, to meet your educational needs including: CTropMed Certification training/preperation, our Global Health Course, Asian Clinical Tropical Medicine Course, and Humanitarian Simulation.

University of Notre Dame Eck Institute for Global Health
Booth 109
Contact: Sarah Craig, Communications Specialist
4147 Jenkins & Nanovic Hall
Notre Dame, IN 46556 USA
Phone: +1-574-292-8140
Email: craig.20@nd.edu
Website: http://globalhealth.nd.edu/

The Eck Institute for Global Health recognizes health as a fundamental human right and endeavors to promote research, training, and service to advance health standards for all people, especially people in low-and middle-income countries, who are disproportionately impacted by preventalbe diseases.

University Research Co., LLC
Booth 320
Contact: Hala Jassim AlMossawi, Senior Director of Technical Support & Elyse Callahan, Program Associate
5404 Wisconisin Avenue, Suite 800
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Website: www.urc-chs.com

Founded in 1965, University Research Co., LLC (URC) is a global company that aims to improve the quality of health care, social services, and health education around the world. With a not-for-profit affiliate, the Center for Human Services (CHS), URC manages projects in over 45 countires, including the US. Through various approaches, URC addresses technical areas including but not limited to: HV/AIDS, Malaria, Tuberculosis, Water, Sanitation and Hygiene (WASH), Health Workforce Development, and Maternal, Newborn and Child Health (MNCH).

Vysnova Partners, Inc.
Booth 322
Contact: Carlos G. Rivera, President & CEO
4915 St. Elmo Ave., Suite 403
Bethesda, MD 20814 USA
Phone: +1-301-830-8885
Email: crivera@vysnova.com
Website: www.vysnova.com

Vysnova staff have worked in more than 30 countries to advance population health and well-being. Whether it's Zika prevention research with the CDC in Peru, furthering the US Navy's infectious disease research efforts in Southeast Asia, or supporting the Demographic Health Survey for USAID throughout Africa, Vysnova knows how to initiate and implement regulatory-compliant projects internationally.

Walter Reed Army Institute of Research (WRAIR)
Booth 205
Douglas Davis, Sr. Administrative Officer
503 Robert Grant Ave
Silver Spring, MD 20910 USA
Phone: +1-301-319-9544
Email: douglas.r.davis10.civ@mail.mil
Website: http://www.wrair.army.mil/

The Walter Reed Army Institute of Research is the largest biomedical research laboratory in the DoD and is based in Maryland with facilities throughout the world. The Institute is committed to innovation and excellence with a military-specific focus to protect the health and readiness of the Warfighter. Through its extensive array of capabilities the Institute develops countermeasures to infectious disease threats and conducts research that promotes psychological resilience, enhances neurological functioning, and improves operational readiness among our service members.

DETAILED PROGRAM

Saturday, November 4

Pre-Meeting Course Registration

Convention Center - Pratt Street West Lobby (Level 300)
Saturday, November 4, 10 a.m. - 2 p.m.

ASTMH Council Meeting

Hilton - Holiday Ballroom 4/5 (East Building, Second Floor)
Saturday, November 4, Noon - 6 p.m.

Clinical (ACCTMTH) Pre-Meeting Course: Migrant Health: Addressing Health Disparities - A Guide for the Practitioner

Hilton - Holiday Ballroom 1/2 (East Building, Second Floor)
Saturday, November 4, 1 p.m. - 5 p.m.

This course offers a comprehensive examination of the health disparities and unique health needs of diverse migrant populations, the systems designed to respond to them, and the skills needed by their healthcare providers. The course will review the changes in migration over time and the value migrants bring to our societies. Various national screening strategies will be reviewed along with some disease-specific programs. Recent experiences in managing surges in migration will be presented. Cultural competence skills and their integral role in migrant care will be presented and illustrated through clinical cases. These topics will be presented by well-recognized faculty with a global perspective. The target audience includes any clinician who cares for migrants and would like to develop a deeper understanding of the broad context of migrant health and expand their knowledge of conditions and skills needed to provide optimal care for this population.

CO-CHAIR

Christina A. Greenaway
McGill University, Jewish General Hospital, Montreal, QC, Canada

Susan Kuhn
University of Calgary, Alberta Children's Hospital, Calgary, AB, Canada

1 p.m.
INTRODUCTION - COURSE SCOPE AND GOALS
Christina A. Greenaway
McGill University, Jewish General Hospital, Montreal, QC, Canada

Susan Kuhn
University of Calgary, Alberta Children's Hospital, Calgary, AB, Canada

1:15 p.m.
MIGRANT HEALTH NEEDS OVER TIME AND ACROSS THE MIGRATION SPECTRUM
Francesco Castelli
University of Brescia, Brescia, Italy

2 p.m.
THE BENEFITS OF MIGRATION: GLOBALIZING HUMAN CAPITAL
Ambassador William Swing
International Organization for Migration, Geneva, Switzerland

2:45 p.m.
COFFEE BREAK

3 p.m.
PRE-DEPARTURE SCREENING STRATEGIES: THE U.S. MODEL
William M. Stauffer
University of Minnesota, Minneapolis, MN, United States

4 p.m.
POST-ARRIVAL AND MIXED SCREENING STRATEGIES: EVERYONE ELSE!
Christina A. Greenaway
McGill University, Jewish General Hospital, Montreal, QC, Canada

5 p.m.
ATTENDEE RECEPTION

Sunday, November 5

Registration

Convention Center - Pratt Street West Lobby (Level 300)
Sunday, November 5, 7 a.m. – 7:30 p.m.

Arbovirology (ACAV) Pre-Meeting Course: Clinical Presentation and Management of Arboviral Diseases: Lessons from the Bedside for Researchers at the Bench or in the Bush

Hilton - Holiday Ballroom 5 (East Building, Second Floor)
Sunday, November 5, 7 a.m. - 3:15 p.m.

Facing ongoing global arbovirus outbreaks in people and animals, the American Committee on Arthropod-Borne Viruses (ACAV) pre-meeting course will educate arbovirology researchers from the laboratory and field on clinical arbovirus disease. Participants will learn the clinical presentations of pathogenic arboviruses of humans and animals, how to diagnose and treat infections, and current progress on arbovirus therapeutics and vaccines in development. The course will focus on flaviviruses including Zika virus, alphaviruses and bunyaviruses that cause arthralgic, hemorrhagic or encephalitic disease.

CO-CHAIR

Lark Coffey
University of California Davis, Davis, CA, United States

Kathryn Hanley
New Mexico State University, Las Cruces, NM, United States

A. Desiree LaBeaud
Stanford University, Stanford, CA, United States

7 a.m.
LIGHT CONTINENTAL BREAKFAST

7:45 a.m.
WELCOME AND INTRODUCTION BY COURSE ORGANIZERS
Lark Coffey
University of California Davis, Davis, CA, United States

Kathryn Hanley
New Mexico State University, Las Cruces, NM, United States

A. Desiree LaBeaud
Stanford University, Stanford, CA, United States

8 a.m.
DIAGNOSIS AND TREATMENT OF ARTHRALGIC AND HEMORRHAGIC ARBOVIRUSES IN HUMANS
Stephen Thomas
State University of New York Upstate Medical University, Syracuse, NY, United States

8:45 a.m.
DIAGNOSIS AND TREATMENT OF ENCEPHALITIC ARBOVIRUSES IN HUMANS
Tom Solomon
University of Liverpool, Liverpool, United Kingdom

9:30 a.m.
SPECIAL CONSIDERATION OF PRENATAL INFECTION WITH ARBOVIRUSES IN HUMANS
A. Desiree LaBeaud
Stanford University, Stanford, CA, United States

10 a.m.
COFFEE BREAK

10:15 a.m.
DIAGNOSIS AND TREATMENT OF ARTHRALGIC AND HEMORRHAGIC ARBOVIRUSES IN ANIMALS
Richard Bowen
Colorado State University, Fort Collins, CO, United States

11 a.m.
DIAGNOSIS AND TREATMENT OF ENCEPHALITIC ARBOVIRUSES IN ANIMALS
Kristen Bernard
University of Wisconsin Madison School of Veterinary Medicine, Madison, WI, United States

11:45 a.m.
LUNCH ON YOUR OWN

1 p.m.
CURRENT STATE OF FLAVIVIRUS VACCINES
Anna Durbin
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

1:45 p.m.
CURRENT STATE OF ALPHAVIRUS VACCINES
Shannan Rossi
University of Texas Medical Branch, Galveston, TX, United States

2:30 p.m.
ARBOVIRUS THERAPEUTICS: WHAT'S FLOWING FASTEST IN THE PIPELINE?
Pei-Yong Shi
University of Texas Medical Branch, Galveston, TX, United States

3:15 p.m.
COURSE ADJOURNS

Clinical (ACCTMTH) Pre-Meeting Course: Migrant Health: Addressing Health Disparities - A Guide for the Practitioner

Hilton - Holiday Ballroom 1/2 (East Building, Second Floor)
Sunday, November 5, 7 a.m. - 3:45 p.m.

This course offers a comprehensive examination of the health disparities and unique health needs of diverse migrant populations, the systems designed to respond to them, and the skills needed by their healthcare providers. The course will review the changes in migration over time and the value migrants bring to our societies. Various national screening strategies will be reviewed along with some disease-specific programs. Recent experiences in managing surges in migration will be presented. Cultural competence skills and their integral role in migrant care will be presented and illustrated through clinical cases. These topics will be presented by well-recognized faculty with a global perspective. The target audience includes any clinician who cares for migrants and would like to develop a deeper understanding of the broad context of migrant health and expand their knowledge of conditions and skills needed to provide optimal care for this population.

CO-CHAIR
Christina A. Greenaway
McGill University, Jewish General Hospital, Montreal, QC, Canada
Susan Kuhn
University of Calgary, Alberta Children's Hospital, Calgary, AB, Canada

7 a.m.
NETWORKING BREAKFAST

8 a.m.
RESPONSE TO SURGES - THE EXPERIENCE WITH SYRIAN MIGRANTS AND THE EUROPEAN REFUGEE CRISES
Lavanya Narasiah
McGill University, Montreal, QC, Canada
Androula Pavli
Hellenic Center for Disease Control and Prevention, Athens, Greece

9 a.m.
NAVIGATING THE HEALTH CARE SYSTEM: VIDEO NARRATIVES OF THE MIGRANT PERSPECTIVE
Susan Kuhn
University of Calgary, Alberta Children's Hospital, Calgary, AB, Canada

9:30 a.m.
BEST PRACTICES IN MIGRANT HEALTH CARE: LESSONS FROM CLINIC
Patricia F. Walker
University of Minnesota and HealthPartners Travel and Tropical Medicine Center, St. Paul, MN, United States

10:30 a.m.
COFFEE BREAK

10:45 a.m.
CHALLENGES IN CASE MANAGEMENT
Lavanya Narasiah
McGill University, Montreal, QC, Canada
Rogelio Lopez-Velez
Hospital Ramon y Cajal, Madrid, Spain

11:45 a.m.
THE VFR TRAVELER: AN OPPORTUNITY FOR HEALTH PROMOTION
Elizabeth Day Barnett
Boston Medical Center, Boston, MA, United States

12:30 p.m.
LUNCH ON YOUR OWN

1:45 p.m.
GETTING THE DESIRED OUTCOMES: GOING BEYOND THE SCREENING BASICS IN HEPATITIS B AND C
Alexander Millman
Centers for Disease Control and Prevention, Atlanta, GA, United States

2:30 p.m.
GETTING THE DESIRED OUTCOMES: GOING BEYOND THE SCREENING BASICS IN ACTIVE AND LATENT TUBERCULOSIS
Dominik Zenner
University College London, London, United Kingdom

3:15 p.m.
WEARING YOUR ADVOCACY HAT IN MIGRANT HEALTH
Janet Cleveland
McGill University, Montreal, QC, Canada

3:45 p.m.
COURSE ADJOURNS

Parasitology (ACMCIP) Pre-Meeting Course: Single Cell Biology for Parasitologists

Hilton - Holiday Ballroom 4 (East Building, Second Floor)
Sunday, November 5, 7 a.m. - 4 p.m.

From transmission to pathology and treatment, parasitic diseases are the complex result of the actions of individual cells, of groups of cells or organs, and of whole organisms. Technological limitations have largely confined most research to examining bulk populations of host, parasite or vector cells. This has obscured important biology happening at the single cell level. There have been remarkable advances in the ability to identify, capture and analyze individual cells from their environment that are enabling research at a finer scale than previously feasible. This course will introduce the emerging tools that are being used to dissect the biology of single cells. The course will focus on four main areas: I) identification, marking and capture of single cells; II) 'omics approaches for single cell biology; III) data analysis for single cell biology; and IV) the scale and cost of single cell analysis. The course will draw from aspects of host, vector and parasite biology.

CO-CHAIR
Stephen M. Beverley
Washington University School of Medicine, St. Louis, MO, United States
Ian Cheeseman
Texas Biomedical Research Institute, San Antonio, TX, United States

7 a.m.
LIGHT CONTINENTAL BREAKFAST

7:45 a.m.
OPENING REMARKS
Stephen M. Beverley
Washington University School of Medicine, St. Louis, MO, United States

8 a.m.
HOW CAN PARASITOLOGY BENEFIT FROM SINGLE CELL RESEARCH?
Ian Cheeseman
Texas Biomedical Research Institute, San Antonio, TX, United States

8:45 a.m.
DISSECTING LIVER STAGE MALARIA PROGRESSION WITH SINGLE CELL IMAGING
Kirsten Hanson
University of Texas at San Antonio, San Antonio, TX, United States

9:30 a.m.
DISSECTION OF SEXUAL COMMITMENT IN MALARIA PARASITES USING HIGHLY PARALLEL SINGLE CELL TRANSCRIPTOMICS
Björn Kafsack
Weill Cornell Medical College, New York, NY, United States

10:15 a.m.
COFFEE BREAK

10:30 a.m.
MEASURING ANUEPLOIDY IN SINGLE *LEISHMANIA* PARASITES
Malgorzata A. Domagalska
Institute of Tropical Medicine, Antwerp, Belgium

11:15 a.m.
SINGLE CELL TRANSCRIPTOMICS OF *PLASMODIUM VIVAX* HYPNOZOITES
Richard Bartfai
Radboud Institute of Molecular Life Sciences, Nijmegen, Netherlands

Noon
LUNCH ON YOUR OWN

1:15 p.m.
SINGLE CELL DISSECTION OF *SCHISTOSOMA* STEM CELLS
Bo Wang
Stanford University, Stanford, CA, United States

2 p.m.
BIOINFORMATIC APPROACHES TO SINGLE CELL PARASITOLOGY
Jessica Kissinger
University of Georgia, Athens, GA, United States

2:45 p.m.
BREAK

3 p.m.
TRACING CELL LINEAGES
Patrick Cahan
Johns Hopkins School of Medicine, Baltimore, MD, United States

3:45 p.m
CLOSING REMARKS

Stephen M. Beverley
Washington University School of Medicine, St. Louis, MO, United States

Ian Cheeseman
Texas Biomedical Research Institute, San Antonio, TX, United States

4 p.m.
COURSE ADJOURNS

Global Health (ACGH) Pre-Meeting Course: The Economics of Health and Disease: Making the Case for Global Health Spending

Hilton - Holiday Ballroom 6 (East Building, Second Floor)
Sunday, November 5, 8 a.m. - 3:30 p.m.

Economics and health are inextricably intertwined. Income level, the distribution of income, social status, location and other social attributes have a critical impact on health and wellbeing for an individual and on population health. At the same time, health status enhances or limits an individual's and a nation's prospects for economic and human development. Disease and disability impose a grave economic burden, particularly on poor people and poor populations. Economics also plays a critical role in determining which health interventions will be implemented. Governments and donors generally require evidence of the preponderance of economic benefits over costs before they will implement programs for prevention or treatment. This course aims to answer questions that healthcare professionals may have about economic evaluations of health interventions. It includes an overview of the economic burden of disease. Topics include:

- How an economic study is framed
- Examples of economic studies
- The kinds of data health economists need to evaluate and defend expenditures
- How healthcare professionals can gather data needed for economic evaluation of their projects
- How to utilize economic data to promote global health at the local, national and international level

COURSE ORGANIZER

Eileen Stillwaggon
Gettysburg College, Gettysburg, PA, United States

CO-CHAIR

Ilin Chuang
Naval Medical Research Center, Silver Spring, MD, United States

Juliette Morgan
Centers for Disease Control and Prevention South Caucasus, Tibilisi, Georgia

Christina Polyak
Military HIV Research Program MHRP HFJ, Walter Reed Army Institute of Research, Potomac, MD, United States

Miguel Reina Ortiz
University of South Florida, Tampa, FL, United States

8 a.m.
LIGHT CONTINENTAL BREAKFAST

8:30 a.m.
WELCOME AND INTRODUCTORY REMARKS: ECONOMICS AND HEALTH

Eileen Stillwaggon
Gettysburg College, Gettysburg, PA, United States

8:45 a.m.
FRAMING AN ECONOMIC EVALUATION - THE ECONOMIC EVALUATION TOOLKIT: COST-BENEFIT, COST-EFFECTIVENESS, COST-UTILITY

Phaedra Corso
Owens Institute for Behavioral Research, Athens, GA, United States

9:15 a.m.
QUESTION AND ANSWER SESSION

9:30 a.m.
THE ECONOMIC EVALUATION TOOLKIT: AN EXAMPLE (PART I)

Deborah McFarland
Emory University Rollins School of Public Health, Atlanta, GA, United States

10 a.m.
QUESTION AND ANSWER SESSION

10:15 a.m.
COFFEE BREAK

10:30 a.m.
THE ECONOMIC EVALUATION TOOLKIT: AN EXAMPLE (PART II)

Joseph D. Njau
Centers for Disease Control and Prevention, Atlanta, GA, United States

11 a.m.
QUESTION AND ANSWER SESSION

11:15 a.m.
PANEL AND QUESTIONS

Moderator: Eileen Stillwaggon
Gettysburg College, Gettysburg, PA, United States

Phaedra Corso
Owens Institute for Behavioral Research, Athens, GA, United States

Deborah McFarland
Emory University Rollins School of Public Health, Atlanta, GA, United States

Joseph D. Njau
Centers for Disease Control and Prevention, Atlanta, GA, United States

11:45 a.m.
LUNCH ON YOUR OWN

1 p.m.
KEYNOTE ADDRESS: THE ECONOMIC BURDEN OF DISEASE OF POVERTY ACROSS THE WORLD

Lorenzo Savioli
Liverpool School of Tropical Medicine, Chavannes de Bogis, Switzerland

1:45 p.m.
AN INNOVATIVE APPROACH TO ECONOMIC EVALUATION

Michelle Remme
London School of Hygiene & Tropical Medicine, London, United Kingdom

2:15 p.m.
POLITICAL CONSIDERATIONS FOR COMMUNICATING WITH POLICY MAKERS

Christopher Dickey
New York University College of Global Public Health, New York, NY, United States

2:45 p.m.
APPLYING ECONOMIC FINDINGS TO PROGRAMMATIC AND POLICY DECISIONS: TALKING TO MINISTERS AND GETTING THEM TO TALK TO EACH OTHER

Moderator: Eileen Stillwaggon
Gettysburg College, Gettysburg, PA, United States

Christopher Dickey
New York University College of Global Public Health, New York, NY, United States

Michelle Remme
London School of Hygiene & Tropical Medicine, London, United Kingdom

Lorenzo Savioli
Liverpool School of Tropical Medicine, Chavannes de Bogis, Switzerland

3:15 p.m.
COURSE WRAP-UP

3:30 p.m.
COURSE ADJOURNS

Young Investigator Award Sessions

SESSION CHAIR:
Edward Mitre
Uniformed Services University of the Health Sciences, Bethesda, MD, United States

The Young Investigator Award is presented to outstanding young researchers during the Annual Meeting. This award encourages developing young scientists to pursue careers in various aspects of tropical disease research. Young Investigator Award sessions are open to all meeting attendees. Support these young scientists by attending their presentations during this session.

ASTMH is grateful for the support of these awards in honor of William A. Petri, Sr. and in memory of Annie Liberati.

ASTMH appreciates support of these awards from:

William A. Petri, Sr. and Dr. Anne E. Petri

TECHLAB Inc. CONTRIBUTOR

The Petri Family

Anonymous

PLOS FRIEND

Young Investigator Award Session A

Convention Center - Room 318/319 (Level 300)
Sunday, November 5, 10 a.m. - 3 p.m.

JUDGE

Peter Crompton
National Institutes of Health, Rockville, MD, United States

Matthew B. Laurens
Institute for Global Health, University of Maryland School of Medicine, Baltimore, MD, United States

Naomi W. Lucchi
Centers for Disease Control and Prevention, Atlanta, GA, United States

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ASSESSING THE NON-BIOLOGIC CONTRIBUTORS TO MORTALITY AMONG INPATIENTS WITH FEBRILE ILLNESS IN TANZANIA: A PROSPECTIVE COHORT SOCIAL BIOPSY STUDY

Michael Snavely[1], Michael J. Maze[2], Charles Muiruri[1], Lilian Ngowi[3], Flora Mboya[3], Julia Beamesderfer[4], Glory Makupa[5], Anthon Mwingwa[5], Bingileki F. Lwezaula[6], Blandina T. Mmbaga[3], Venance P. Maro[5], John A. Crump[2], Jan Ostermann[7], Matthew P. Rubach[8]
[1]Duke Global Health Institute, Duke University, Durham, NC, United States, [2]Centre for International Health, University of Otago, Dunedin, New Zealand, [3]Kilimanjaro Christian Medical Center, Moshi, United Republic of Tanzania, [4]University of Pennsylvania, Philadelphia, PA, United States, [5]Kilimanjaro Christian Medical University College, Moshi, United Republic of Tanzania, [6]Mawenzi Regional Referral Hospital, Moshi, United Republic of Tanzania, [7]Arnold School of Public Health, University of South Carolina, Columbia, SC, United States, [8]Division of Infectious Diseases, Duke University Medical Center, Durham, NC, United States

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SUBPATENT *PLASMODIUM FALCIPARUM* INFECTIONS AFTER TREATMENT OF UNCOMPLICATED FALCIPARUM MALARIA WITH DIHYDROARTEMISININ-PIPERAQUINE AND ARTEMETHER-LUMEFANTRINE IN WESTERN INDONESIA

Inke N. Lubis[1], Hendri Wijaya[2], Munar Lubis[2], Chairuddin P. Lubis[2], Khalid B. Beshir[1], Colin J. Sutherland[1]
[1]London School of Hygiene & Tropical Medicine, London, United Kingdom, [2]University of North Sumatera, Medan, Indonesia

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MULTIPLE ANTIGEN RAPID DIAGNOSTIC TESTS FOR THE DIAGNOSIS OF SEVERE MALARIA IN HIGH-TRANSMISSION, RESOURCE-LIMITED SETTINGS

Ross M. Boyce[1], Raquel Reyes[1], Moses Ntaro[2], Edgar Mulogo[2], Michael Matte[2], Mark J. Siedner[3]
[1]University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, [2]Mbarara University of Science and Technology, Mbarara, Uganda, [3]Massahusetts General Hospital, Boston, MA, United States

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CLINICAL RISK FACTORS FOR MORTALITY IN UGANDAN CHILDREN WITH SEVERE MALARIA

Ruth Namazzi[1], Andrea Conroy[2], Richard Idro[1], Paul Bangirana[1], Chandy John[2], Robert Opika Opoka[1]
[1]Makerere University, Kampala, Uganda, [2]Indiana University, Indianapolis, IN, United States

460

CASES OF METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS:* ASSESSING ITS RISE IN HOSPITAL AND COMMUNITY-ASSOCIATED CASES

Chinedu O. Oraka[1], Obiageli L. Offor[2]
[1]Build Africa Research Capacity, Ottawa, ON, Canada, [2]University of Texas, Health Science Center at Houston, School of Public Health, Houston, TX, United States

495

EFFECTS OF IMMEDIATE VS. DELAYED IRON THERAPY ON NEUROBEHAVIORAL FUNCTION IN UGANDAN CHILDREN WITH SEVERE MALARIA

Meredith R. Hickson[1], Paul Bangirana[2], Andrew S. Ssemata[2], Sarah E. Cusick[3], Robert O. Opoka[2], Maria Kroupina[3], Chandy C. John[4]
[1]University of Michigan Medical School, Ann Arbor, MI, United States, [2]Makerere University College of Health Sciences, Kampala, Uganda, [3]University of Minnesota Medical School, Minneapolis, MN, United States, [4]Indiana University School of Medicine, Indianapolis, IN, United States

497

PREDICTING MORTALITY FOR ADOLESCENT AND ADULT PATIENTS WITH FEVER IN RESOURCE-LIMITED SETTINGS

Manuela Carugati[1], Helen L. Zhang[1], Venance P. Maro[2], Matthew P. Rubach[1], John A. Crump[3]
[1]Duke University Medical Center, Durham, NC, United States, [2]Kilimanjaro Christian Medical University College, Moshi, United Republic of Tanzania, [3]Centre for International Health, University of Otago, Dunedin, New Zealand

511

MITIGATING IRON DEFICIENCY ANEMIA IN SCHOOL AGED CHILDREN IN MADURAI, INDIA

Sidarth R. Ganpati
Edgemont High School, Scarsdale, NY, United States

601

ASSESSING THE EFFECT OF A NOVEL HOUSEHOLD WATER PASTEURIZATION INTERVENTION ON CHILD DIARRHEA: EVIDENCE FROM A RANDOMIZED CONTROLLED TRIAL IN THE PERUVIAN AMAZON

Kristen Heitzinger[1], Claudio A. Rocha[2], Robert H. Gilman[1], Stephen E. Hawes[3], Carlos A. Alvarez[4], Carlton A. Evans[1]
[1]A. B. Prisma, Lima, Peru, [2]U.S. Medical Research Unit No. 6, Callao, Peru, [3]University of Washington, Seattle, WA, United States, [4]Loreto Regional Ministry of Health, Iquitos, Peru

781

CHEST ULTRASOUND VERSUS X-RAY FOR PULMONARY TUBERCULOSIS IN SOUTH AFRICAN CHILDREN

Charlotte C. Heuvelings[1], Sabine Bélard[1], Savvas Andronikou[2], Halvani Moodley[3], Norme Jamieson-Luff[4], Martin P. Grobusch[1], Heather J. Zar[4]
[1]Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands, [2]Bristol Royal Hospital for Children and University of Bristol, Bristol, United Kingdom, [3]University of Witwatersrand, Johannesburg, South Africa, [4]Red Cross War Memorial Children's Hospital, Cape Town, South Africa

789

EFFECT OF EXPOSURE HISTORY ON DENGUE INFECTION AND DISEASE: A STATISTICAL APPROACH AND ITS APPLICATION TO THE DENGUE COHORT IN NICARAGUA

Tim K. Tsang[1], Ira Longini[1], M. Elizabeth Halloran[2], Yang Yang[1]
[1]University of Florida, Gainesville, FL, United States, [2]University of Washington, Seattle, WA, United States

1157

THE CHANGING EPIDEMIOLOGY OF LEPTOSPIROSIS IN MAINLAND CHINA AND ITS IMPACT ON ANNUAL DISEASE BURDEN ESTIMATES

Pandji W. Dhewantara[1], Abdullah A. Mamun[2], Wen-Yi Zhang[3], Danhuai Guo[4], Wenbiao Hu[5], Federico Costa[6], Albert Ko[7], Ricardo J. Soares-Magalhaes[1]
[1]School of Veterinary Science, University of Queensland, Gatton, Queensland, Australia, [2]Institute for Social Science Research, University of Queensland, Brisbane, Queensland, Australia, [3]Center for Disease Surveillance and Research, Institute of Disease Control and Prevention Academy of Military Medical Science, Beijing, China, [4]Scientific Data Center, Computer Network Information Center, Chinese Academy of Sciences, Beijing, China, [5]School of Public Health and Social Work, Queensland University of Technology, Brisbane, Australia, [6]Oswaldo Cruz Foundation, Brazilian Ministry of Health, Salvador, Bahia, Brazil, [7]Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, CT, United States

1370

IMMUNOLOGICAL AND CLINICAL OUTCOMES OF HUMAN IMMUNODEFICIENCY VIRUS EXPOSED BUT UNINFECTED INFANTS COMPARED TO UNEXPOSED UNINFECTED INFANTS: A COHORT STUDY IN KISUMU, KENYA

Jessica Ray[1], David Midem[2], Fredrick Opinya[2], Ibrahim Daud[2], Sidney Ogolla[2], Maxwel Majiwa Omenda[2], Edwin Odhiambo[2], Peter Odada Sumba[2], Amy Nowacki[3], Rosemary Rochford[4], Arlene Dent[1]
[1]Case Western Reserve University, Cleveland, OH, United States, [2]Kenya Medical Research Institute, Kisumu, Kenya, [3]Cleveland Clinic Foundation, Cleveland, OH, United States, [4]University of Colorado School of Medicine, Denver, CO, United States

1531

STIGMA AMONG *BATEY* RESIDENTS IN THE DOMINICAN REPUBLIC: IMPLICATIONS FOR MALARIA ELIMINATION

Hunter Keys[1], Gregory Noland[2], Madsen Beau De Rochars[3], Stephen Blount[2], Thomas H. Taylor[4], Manuel Gonzales[5]
[1]University of Amsterdam, Amsterdam, Netherlands, [2]The Carter Center, Atlanta, GA, United States, [3]University of Florida, Gainesville, FL, United States, [4]Taylor Engineering, Atlanta, GA, United States, [5]Centro Nacional para el Control de Enfermedades Tropicales, Santo Domingo, Dominican Republic

1825

IDENTIFYING RISK FACTORS FOR PERINATAL DEATH AT TORORO DISTRICT HOSPITAL, UGANDA

Martha A. Tesfalul[1], Paul Naturreba[2], Nathan Day[2], Stephanie G. Valderramos[1]
[1]University of California San Francisco, San Francisco, CA, United States, [2]Infectious Diseases Research Collaboration, Tororo, Uganda

1901

EFFICACY OF ARTEMISININ-BASED AND QUININE-BASED TREATMENTS FOR UNCOMPLICATED FALCIPARUM MALARIA IN PREGNANCY IN ASIA: A SYSTEMATIC REVIEW AND INDIVIDUAL PATIENT DATA META-ANALYSIS

Makoto Saito[1], Rashid Mansoor[1], Mary E. Tyrosvoutis[2], Kalynn E. Kennon[1], Kasia Stepniewska[1], Georgina S. Humphreys[1], Mupawjay Pimanpanarak[2], Moo Kho Paw[2], François H. Nosten[2], Philippe J. Guérin[1], Rose McGready[2]
[1]WorldWide Antimalarial Resistance Network, Oxford, United Kingdom, [2]Shoklo Malaria Research Unit, Mae Sot, Thailand

1985

SYSTEMIC INFLAMMATION AND NEURODEVELOPMENTAL OUTCOMES IN BANGLADESHI INFANTS GROWING UP IN ADVERSITY

Nona M. Jiang[1], Fahmida Tofail[2], Jennie Z. Ma[1], Rashidul Haque[2], Beth D. Kirkpatrick[3], Charles A. Nelson, III[4], William A. Petri, Jr.[1]
[1]University of Virginia, Charlottesville, VA, United States, [2]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [3]University of Vermont, Burlington, VT, United States, [4]Boston Children's Hospital, Harvard Medical School, Boston, MA, United States

Young Investigator Award Session B

Convention Center - Room 322/323 (Level 300)

Sunday, November 5, 10 a.m. - 3 p.m.

JUDGE

Vitaliano A. Cama
Centers for Disease Control and Prevention, Atlanta, GA, United States

Albert Ko
Yale School of Public Health, New Haven, CT, United States

V. Ann Stewart
Uniformed Services University of the Health Sciences, Bethesda, MD, United States

6

EMERGENCE OF RECOMBINANT MAYARO VIRUS STRAINS FROM THE AMAZON BASIN, THE DAWN OF A NEW EPIDEMIC?

Carla N. Mavian[1], Brittany D. Rife[1], James Jarad Dollar[1], Eleonora Cella[2], Massimo Ciccozzi[2], Mattia C. Prosperi[1], J Glenn Morris Jr[1], Ilaria Capua[1], Marco Salemi[1]
[1]University of Florida, Gainesville, FL, United States, [2]Istituto Superiore di Sanità, Rome, Italy

65

USING MOBILE PHONES AS ACOUSTIC SENSORS FOR HIGH-THROUGHPUT SURVEILLANCE OF MOSQUITO ECOLOGY

Haripriya Mukundarajan, Felix Hol, Erica Castillo, Cooper Newby, Manu Prakash
Stanford University, Stanford, CA, United States

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MONITORING AND MEASURING SCHISTOSOMIASIS AT TRANSMISSION SITES IN KENYA: SENTINEL MICE COUPLED WITH GENOTYPING OF RECOVERED ADULT WORMS

Sarah K. Buddenborg[1], Martin W. Mutuku[2], Ibrahim N. Mwangi[2], Gerald M. Mkoji[2], Eric S. Loker[1]
[1]University of New Mexico, Albuquerque, NM, United States, [2]Kenya Medical Research Institute, Nairobi, Kenya

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SEASONALITY OF ARBOVIRAL ILLNESS IN RURAL ECUADOR: 2009-2016

Rachel J. Sippy[1], Diego Herrera[2], David Gaus[2], Ronald Gangnon[1], Jorge Osorio[1], Jonathan Patz[1]
[1]University of Wisconsin Madison, Madison, WI, United States, [2]Salud y Desarollo Andino, Pedro Vicente Maldonado, Ecuador

329

SHORT-TERM CHANGES IN ANAEMIA AND MALARIA PREVALENCE IN CHILDREN UNDER-FIVE YEARS DURING ONE YEAR OF REPEATED CROSS-SECTIONAL SURVEYS IN RURAL MALAWI

Alinune N. Kabaghe[1], Michael G. Chipeta[2], Dianne J. Terlouw[3], Martin P. Grobusch[4], Michèle van Vugt[4], Robert S. McCann[5], Willem Takken[5], Kamija S. Phiri[1]
[1]College of Medicine, Blanyre, Malawi, [2]University of Lancaster, Lancaster, United Kingdom, [3]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [4]Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, [5]Wageningen University and Research, Wageningen, Netherlands

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TEMPORAL TRENDS OF PARASITEMIA IN UNCOMPLICATED *FALCIPARUM* INFECTIONS IN KENYA DURING THE PERIOD OF ARTEMISININ COMBINATION THERAPY USE IN 2008 TO 2016

Agnes Cheruiyot, Redemptah Yeda, Charles Okudo, Dennis Juma, Benard Andagalu, Matthew Brown, Hosea Akala
Kenya Medical Research Institute/United States Army Medical Research Directorate-Kenya (USAMRD-K), Walter Reed Project, Kisumu, Kenya

711

MAPPING THE TRAVEL PATTERNS OF PEOPLE WITH MALARIA IN BANGLADESH

Ipsita Sinha[1], Abdullah Abu Sayeed[2], Didar Uddin[1], Sazid Ibna Zaman[1], Amy Wesolowski[3], M. Abul Faiz[4], Aniruddha Ghose[2], M. Ridwanur Rahman[5], Akramul Islam[6], M. Jahirul Karim[7], M. Kamar Rezwan[8], Abul Khair M. Shamsuzzaman[9], Sanya Tahmina Jhora[9], M. M. Aktaruzzaman[9], Hsiao-Han Chang[3], Christopher Jacob[10], Olivo Miotto[1], Dominic Kwiatkowski[11], Arjen M. Dondorp[1], Nicholas P. Day[1], M. Amir Hossain[2], Caroline Buckee[3], Richard Maude[1]
[1]Mahidol Oxford Tropical Research Unit, Bangkok, Thailand, [2]Chittagong Medical College Hospital, Chittagong, Bangladesh, [3]Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA, United States, [4]Dev Care Foundation, Dhaka, Bangladesh, [5]Shaheed Suhrawardy Medical College, Dhaka, Bangladesh, [6]BRAC Centre, Dhaka, Bangladesh, [7]National Malaria Control Programme, Dhaka, Bangladesh, [8]Vector-Borne Disease Control, World Health Organization, Dhaka, Bangladesh, [9]Communicable Disease Control, Directorate General of Health Services, Dhaka, Bangladesh, [10]Wellcome Trust Sanger Institute, Hinxton, United Kingdom, [11]Wellcome Trust Centre for Human Genetics, University of Oxford, Oxford, United Kingdom

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PREVALENCE AND PREDICTORS OF ROTAVIRUS SHEDDING AMONG A COHORT OF POST-VACCINATED INFANTS IN EL ALTO, BOLIVIA 2013 - 2015

Shanon M. Smith[1], Paulina A. Rebolledo[2], Jessica Prince-Guerra[1], Juan S. Leon[1], Leonarda Acha Alarcon[3], Lucia Inchauste[3], Rita Revollo[4], Volga Iniguez[3]
[1]Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA, United States, [2]Emory School of Medicine, Atlanta, GA, United States, [3]Instituto de Biotecnología y Microbiología, Universidad Mayor de San Andrés, La Paz, Plurinational State of Bolivia, [4]Servicio Departamental de Salud, La Paz, Plurinational State of Bolivia

735

SUBMICROSCOPIC MALARIA INFECTIONS ARE NOT ASSOCIATED WITH NEGATIVE BIRTH OUTCOMES IN PREGNANT WOMEN FROM COLOMBIA

Kenneth Gavina[1], Sedami Gnidehou[2], Eliana Arango[3], Chloe Hamel-Martineau[4], Catherine Mitran[5], Aisha Karidio[4], Shanna Banman[5], Olga Agudelo[3], Carolina Lopez[3], Jaime Carmona-Fonseca[3], Ali Salanti[6], Nicaise Ndam[7], Michael Hawkes[8], Amanda Maestre[3], Stephanie Yanow[5]
[1]Department of Medical Microbiology and Immunology, University of Alberta, Edmonton, AB, Canada, [2]Campus Saint-Jean, University of Alberta, Edmomton, AB, Canada, [3]Universidad de Antioquia, Medellín, Colombia, [4]Campus Saint-Jean, University of Alberta, Edmonton, AB, Canada, [5]School of Public Health, University of Alberta, Edmonton, AB, Canada, [6]University of Copenhagen, Copenhagen, Denmark, [7]University of Ghana, Accra, Ghana, [8]Pediatrics, University of Alberta, Edmonton, AB, Canada

1010

A LONGITUDINAL STUDY OVER THREE YEARS LEADS TO THE IDENTIFICATION OF *PLASMODIUM VIVAX* INFECTIONS IN DUFFY BLOOD GROUP NEGATIVE CHILDREN IN BANDIAGARA, MALI

Karthigayan Gunalan[1], Amadou Niangaly[2], Amed Ouattara[3], Drissa Coulibaly[2], Juliana M. Sá[1], Matthew Adams[3], Mark A. Travassos[3], Jennifer Ferrero[3], Matthew B. Laurens[3], Abdoulaye K. Koné[2], Mahamadou A. Thera[2], Christopher V. Plowe[3], Louis H. Miller[1], Ogobara K. Doumbo[2]
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1054

A SINGLE NUCLEOTIDE POLYMORPHISM IN AN AP2 TRANSCRIPTION FACTOR ENCODED IN THE MALARIA CAUSING *PLASMODIUM BERGHEI* ALTERS THE DEVELOPMENT OF HOST IMMUNITY

Munir Akkaya, Patrick W. Sheehan, Abhisheka Bansal, Gunjan Arora, Alvaro Molina-Cruz, Mirna Pena, Takele B. Yazew, Chen-Feng Qi, Jeff Skinner, Louis Miller, Susan K. Pierce
National Institutes of Health, Rockville, MD, United States

1278

REVEALING BIOTIC DIVERSITY: HOW DO COMPLEX ENVIRONMENTS OFFER NOVEL WAYS TO CONTROL HUMAN SCHISTOSOMIASIS?

Martina R. Laidemitt[1], Martin W. Mutuku[2], Gerald M. Mkoji[2], Eric S. Loker[1]
[1]University of New Mexico, Albuquerque, NM, United States, [2]Centre for Biotechnology Research and Development, Kenya Medical Research Institute (KEMRI), Nairobi, Kenya

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THE CONSEQUENCES OF CENSORING NEW INFECTIONS WHEN DERIVING ANTIMALARIAL EFFICACY AGAINST UNCOMPLICATED *P. FALCIPARUM* MALARIA

Prabin Dahal, on behalf of the WWARN Methods Study Group
WorldWide Antimalarial Resistance Network, Oxford, Oxford, United Kingdom

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CHARACTERIZATION OF SINDBIS VIRUS CIRCULATING IN KENYAN ECOSYSTEMS

Faith Sigei[1], Fredrick Nindo[2], Silvanos Mukunzi[3], Zipporah Ng'ang'a[1], Rosemary Sang[3]
[1]Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya, [2]University of Cape Town, Cape Town, South Africa, [3]Kenya Medical Research Institute, Nairobi, Kenya

1520

SPATIAL ASSOCIATIONS OF LEPROSY AND SCHISTOSOMIASIS AND POTENTIAL EFFECTS OF THE CO-ENDEMIC HELMINTH ON THE TRANSMISSION OF LEPROSY IN THE MICROREGION OF GOVERNADOR VALADARES, BRAZIL

Jessica L. Stephens[1], Jose A. Ferreira[2], Lucia Alves de Oliveira Fraga[3], Julie Clennon[1], Uriel Kitron[1], Jessica K. Fairley[1]
[1]Emory University, Atlanta, GA, United States, [2]Faculdade da Saúde e Ecologia Humana, Vespasiano, Brazil, [3]Universidade Federal Juiz de Fora - Campus Governador Valadares, Governador Valadares, Brazil

1820

SEASONAL INFLUENCERS FOR ASCARIS TRANSMISSION: WHAT COULD THEY MEAN FOR PUBLIC HEALTH PROGRAMS AND THE 2020 GOALS?

Emma L. Davis, Deirdre Hollingsworth
University of Warwick, Coventry, United Kingdom

1830

QUANTIFICATION OF INFECTION RESERVOIRS IN HUMAN VISCERAL LEISHMANIASIS BY XENODIAGNOSIS

Om Prakash Singh[1], Puja Tiwary[1], Shakti Kumar Singh[1], Anurag Kumar Kushwaha[1], Phillip Lawyer[2], Edgar Rowton[3], Jaya Chakravarty1[1], David Sacks[4], Shyam Sundar[1]
[1]Institute of Medical Sciences, Banaras Hindu University, Varanasi, India, [2]Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, [3]Division of Entomology, Walter Reed Army Institute of Research, Silver Spring, MD, United States, [4]Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institute of Health, Bethesda, MD, United States

1918

HELMINTH INDUCED ALTERATIONS IN T CELL, B CELL, DENDRITIC CELL AND MONOCYTE SUBSETS AND THEIR REVERSAL FOLLOWING TREATMENT

Anuradha Rajamanickam[1], Saravanan Munisankar[1], Yukthi Bhootra[1], Dolla Chandrakumar[2], Thomas B Nutman[3], Subash Babu[1]
[1]NIH-ICER-National Institute for Research in Tuberculosis, Chennai, India, [2]National Institute for Research in Tuberculosis, Chennai, India, [3]Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, USA, Chennai, India

Young Investigator Award Session C

Convention Center - Room 325/326 (Level 300)
Sunday, November 5, 10 a.m. - 3 p.m.

JUDGE

David L. Narum
National Institutes of Health, Rockville, MD, United States

Roshanak T. Semnani
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

Elia Wojno
Cornell Veterinary School, Ithaca, NY, United States

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TO KILL PARASITE THE NATURAL KILLER WAY: ANTIBODY MEDIATED CELLULAR IMMUNE RESPONSE AGAINST BLOOD STAGE MALARIA

Gunjan Arora[1], Javier Manzella-Lapeira[1], David L. Narum[1], Patrick E. Duffy[1], Louis H. Miller[1], Susan K. Pierce[1], Sanjay A. Desai[1], Geoffrey T. Hart[2], Eric O. Long[1]
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THE EARLY PLASMABALST DERIVED ANTIBODY RESPONSE TO PRIMARY DENGUE VIRUS INFECTION

Usha Nivarthi[1], Bhumi Patel[1], Matt Delacruz[1], Anna Durbin[2], Steve Whitehead[3], Ralph Baric[1], Sean Diehl[4], Daniel Emerling[5], Aravinda Desilva[1]
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20-HYDROXYECDYSONE (20E) INDUCES PRIMING OF MOSQUITO IMMUNITY AND LIMITS MALARIA PARASITE INFECTION IN *ANOPHELES GAMBIAE*

Rebekah Reynolds, Ryan Smith
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IDENTIFYING THE COMPONENTS OF SEVERE MALARIA ACIDOSIS BY METABOLOMICS

Stije J. Leopold
Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

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ANGIOGENESIS AND BLOOD-BRAIN BARRIER DISRUPTION IN RAT MODEL FOR NEUROCYSTICERCOSIS

Rogger Carmen[1], Nancy Chile[1], Danitza Dávila[1], Yudith Cauna[1], Edson Bernal[1], Gino Castillo[1], Manuela Verástegui[1], Robert Gilman[2], Cysticercosis Working Group in Peru[1]
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DETERMINING THE MECHANISM OF ENDOSYMBIOSIS BETWEEN FILARIAL NEMATODES AND *WOLBACHIA*

Alexandra Grote[1], Denis Voronin[2], Swapna Sheshadri[3], Dave Curran[3], Sara Lustigman[2], John Parkinson[3], Elodie Ghedin[1]
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CHEMICAL DEPLETION OF GRANULOCYTES REVEALS CONTRIBUTIONS OF HEMOCYTES TO ANTI-*PLASMODIUM* IMMUNITY

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THE EFFECT OF CHRONIC HELMINTH INFECTION ON IGE-MEDIATED ANAPHYLAXIS IN SENSITIZED MICE

Laura E. Kropp, Edward Mitre
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TRANSCRIPTOMIC-BASED FUNCTIONAL CHARACTERIZATION OF HOST SYSTEMIC ADVERSE EVENTS FOLLOWING LYMPHATIC FILARIASIS TREATMENT

Britt Andersen[1], Bruce Rosa[1], Abdoulaye Meïté[2], Christopher King[3], Makedonka Mitreva[1], Peter Fischer[1], Gary Weil[1]
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TARGETING INHIBITORY RECEPTORS LAG3 AND TIM3 TO ENHANCE ANTI PARASITIC CD4 T CELL RESPONSES IN VISCERAL LEISHMANIASIS

Rajiv Kumar[1], Neetu Singh[1], Bhavana Singh[1], Shashi Bhushan Chauhan[1], Christian Engwerda[2], Shyam Sundar[1]
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IMMUNOBIOLOGY OF THE KUPFFER CELL-SPOROZOITE INTERACTION

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IDENTIFYING RIFIN AND STEVOR EPITOPES ASSOCIATED WITH MALARIA EXPOSURE USING PEPTIDE AND PROTEIN MICROARRAYS

Albert E. Zhou[1], Andrea A. Berry[1], Jason A. Bailey[1], Andrew Pike[1], Antoine Dara[1], Sonia Agrawal[1], Amed Ouattara[1], Drissa Coulibaly[2], Youssouf Tolo[2], Kristen Lyke[1], Matthew B. Laurens[1], Matthew Adams[1], Shannon Takala Harrison[1], Jozelyn Pablo[3], Algis Jasinskas[3], Rie Nakajima[3], Amadou Niangaly[2], Bourema Kouriba[2], Abdoulaye K. Kone[2], J. Alexandra Rowe[4], Ogobara K. Doumbo[2], Mahamadou A. Thera[2], Myaing M. Nyunt[1], Jigar J. Patel[5], John C. Tan[5], Phillip L. Felgner[3], Christopher V. Plowe[1], Mark A. Travassos[1]
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IDENTIFICATION OF METABOLIC CHOKE POINTS FOR CONTROLLING DENGUE VIRUS TYPE 2 INFECTION IN THE MIDGUT OF *AEDES AEGYPTI* MOSQUITOES

Nunya Chotiwan[1], Barbara G. Andre[1], Irma Sanchez-Vargas[1], Jeffrey M. Grabowski[2], Amber Hopf-Jannasch[2], Erik Gough[2], Ernesto Nakayasu[2], Carol D. Blair[1], Catherine A. Hill[2], Richard J. Kuhn[2], Rushika Perera[1]
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A PVDBP MONOCLONAL ANTIBODY RECOGNIZES A CONSERVED EPITOPE IN *PLASMODIUM FALCIPARUM* AND *P. CHABAUDI* ANTIGENS

Catherine J. Mitran[1], Shanna Banman[1], Sedami Gnidehou[2], Brian Taylor[1], Aja M. Rieger[1], Francis Ntumngia[3], John H. Adams[3], Michael F. Good[4], Stephanie K. Yanow[1]
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PHAGOCYTIC EFFICIENCY OF BEADS COATED WITH VARIOUS MALARIAL PFEMP1 DOMAINS BY MONOCYTES/MACROPHAGES DEPENDS ON THE DOMAIN IDENTITY AND/OR BINDING AVIDITY TO MONOCYTE SURFACE RECEPTORS

Jordan B. Merritt[1], Justin Gullingsrud[2], Andrew Oleinikov[1]
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1927

FIELD TRIAL TO ASSESS LEISHMANIASIS VACCINE EFFECTIVENESS AS A POTENTIAL IMMUNOTHERAPY IN ASYMPTOMATIC DOGS

Angela J. Toepp[1], Mandy Larson[1], Tara Grinnage-Pulley[1], Geneva Wilson[1], Carolyne Bennett[1], Adam Lima[1], Michael Anderson[1], Hailie Fowler[1], Bryan Anderson[1], Molly Parrish[1], Kelsey Willardson[1], Germine Alfonse[1], Jane Jefferies[2], George Seier[3], Javan Esfandiari[4], Caitlin Cotter[5], Radhika Gharpure[5], Christine Petersen[1]
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1934

LONGITUDINAL CLINICAL AND MOLECULAR ANALYSIS OF ASYMPTOMATIC MALARIA INFECTION IN MALAWI

Andrea Geri Buchwald[1], Miriam Ismail[1], Courtney Aceto[2], Alaina Halbach[1], Alick Sixpence[3], Mabvuto Chimenya[3], Millius Damson[3], John D. Sorkin[4], Karl Seydel[5], Don Mathanga[3], Terrie E. Taylor[6], Miriam K. Laufer[1]
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1994

LINKING EPCR-BINDING PFEMP-1 TO BRAIN SWELLING IN PEDIATRIC CEREBRAL MALARIA

Anne Kessler[1], Selasi Dankwa[2], Maria Bernabeu[2], Visopo Harawa[3], Samuel Danziger[2], Fergal Duffy[2], Sam Kampondeni[4], Michael Potchen[5], Nicholas Dambrauskas[2], Vladimir Vigdorovich[2], Brian Oliver[2], Noah Sather[2], Ian MacCormick[3], Wilson Mandala[3], Stephen Rogerson[6], John Aitchison[2], Terrie Taylor[4], Sarah Hochman[7], Wenzhu Mowrey[1], Karl Seydel[4], Joseph Smith[2], Kami Kim[1]
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Young Investigator Award Session D

Convention Center - Room 328/329 (Level 300)
Sunday, November 5, 10 a.m. - 3 p.m.

JUDGE

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

Miranda Oakley
Food and Drug Administration, Silver Spring, MD, United States

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THERAPEUTIC POTENTIAL OF INTERFERON-α AND RIBAVIRIN AS COMBINATION THERAPY AGAINST DENGUE VIRUS IN DIFFERENT CELL LINES

Camilly P. Pires de Mello, George L. Drusano, Justin J. Pomeroy, Evelyn J. Franco, Jaime L. Rodriquez, Ashley N. Brown
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VAR CODE: A NEW MOLECULAR EPIDEMIOLOGY TOOL FOR MONITORING _PLASMODIUM FALCIPARUM_ IN A HIGH TRANSMISSION AREA OF GHANA, WEST AFRICA

Shazia Ruybal-Pesántez[1], Kathryn E. Tiedje[1], Gerry Tonkin-Hill[2], Shai Pilosof[3], Abraham Oduro[4], Kwadwo A. Koram[5], Mercedes Pascual[3], Karen P. Day[1]
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NOVEL _PLASMODIUM VIVAX_ DUFFY BINDING PROTEIN VACCINE CANDIDATE ARE ASSOCIATED STRONG AND PERSISTENT NATURALLY ACQUIRED IGG AND BINDING-INHIBITORY ANTIBODIES RESPONSE, IN LONG-TERM EXPOSURE POPULATION

Camilla V. Pires[1], Jéssica R. Alves[1], Barbara A. Lima[1], Flora S. Kano[1], Francis B. Ntumngia[2], John H. Adams[2], Luzia H. Carvalho[1]
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ANTIBIOTIC RESISTANCE IN DENSE, LOW-INCOME NEIGHBORHOODS: THE ROLE OF SANITATION IN GENE DISPERSION

David Berendes[1], David Holcomb[2], Jackie Knee[1], Trent Sumner[1], Rassul Nala[3], Joe Brown[1]
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NOT1-G IS A NOVEL MEMBER OF THE CAF1/CCR4/NOT COMPLEX THAT IS ESSENTIAL FOR HOST TO VECTOR MALARIAL TRANSMISSION

Kevin J. Hart, Michael P. Walker, Scott E. Lindner
The Pennsylvania State University, University Park, PA, United States

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TRAFFICKING AND TOPOLOGY IDENTIFICATION OF _PLASMODIUM FALCIPARUM_ MAURER'S CLEFT TWO TRANSMEMBRANE PROTEIN

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COMPLEXITY OF INFECTION AND PARASITE RELATEDNESS OF _PLASMODIUM FALCIPARUM_ PARASITE POPULATIONS IN PATIENTS ADMINISTERED ARTEMETHER-LUMEFANTRINE (AL) IN KENYA

Lorna J. Chebon[1], Peninnah Muiruri[2], Dennis Juma[3], Hosea M. Akala[3], Ben Andagalu[3], Edwin Kamau[4], Matthew Brown[3]
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QUANTIFYING _VAR_ GENE EXPRESSION IN UNCOMPLICATED MALARIA INFECTIONS USING WHOLE GENOME SEQUENCE DATA

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ANTI-LEISHMANIAL ACTIVITIES OF SYNTHETIC ENDOPEROXIDES, N-89 AND N-251

Kofi D. Kwofie[1], Sato Kai[2], Akina Hino[1], Sanjoba Chizu[2], Shimogawara Rieko[1], Irene Ayi[3], Daniel Boakye[3], Hye-Sook Kim[4], Mitsuko Ohashi[1], Yoshitsugu Matsumoto[2], Nobuo Ohta[1]
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A MALARIA GENETIC CROSS GENERATED IN A HUMANIZED MOUSE INDICATE MULTI-GENE CONTROL OF RESISTANCES TO ARTEMISININ AND PIPERAQUINE

Sage Z. Davis[1], Lisa Checkley[1], Richard S. Pinapati[1], Ashley Vaughan[2], Matthew Fishbaugher[2], Nelly Camargo[2], Marina McDew-White[3], Shalini Nair[3], François H. Nosten[4], Stefan Kappe[2], Ian Cheeseman[3], Timothy JC Anderson[3], Michael T. Ferdig[1]
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1300

TRANSCRIPTIONAL RESPONSE OF _P. VIVAX_ PARASITES TO CHLOROQUINE _IN VIVO_

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COMPARISON OF PCR-METHODS FOR *ONCHOCERCA VOLVULUS* DETECTION IN SKIN BIOPSIES FROM THE TSHOPO PROVINCE, DRC

Jessica Prince-Guerra[1], Vitaliano A. Cama[2], Nana Wilson[2], Josias Likwela[3], Nestor Ndakala[4], J. Muzinga Muzinga[4], Nicholas Ayebazibwe[5], Yassa Ndjakani[6], Naomi Awaca[3], D. Mumba[7], Antoinete Tshefu[8], Paul Cantey[2]
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USING SINGLE-CELL TRANSCRIPTOMICS TO ELUCIDATE SEXUAL COMMITMENT AND DIFFERENTIATION IN *PLASMODIUM FALCIPARUM*

Katelyn A. Walzer, Liane Y. Emerson, Danielle Kubicki, David L. Corcoran, Jen-Tsan Ashley Chi
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OPTIMIZING APPROACHES TO GENERATE WHOLE-GENOME SEQUENCE FROM NON-LEUKOCYTE DEPLETED *PLASMODIUM FALCIPARUM* CLINICAL SAMPLES

Zalak Shah[1], Matthew Adams[1], Kara Moser[2], Miriam K. Laufer[1], Joana C. Silva[2], Shannon Takala Harrison[1]
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WHOLE GENOME SEQUENCE CAPTURE TO GENERATE HIGH QUALITY GENOMIC DATA FOR *PLASMODIUM VIVAX* FROM CLINICAL ISOLATES

Sonia Agrawal[1], Fang Huang[1], Biraj Shrestha[1], Matthew Adams[1], Sandra Ott[2], Lisa Sadzewicz[2], Hui Liu[3], David Serre[1], Shannon Takala-Harrison[1], Christopher V. Plowe[4], Myaing M. Nyunt[1], Joana C. Silva[2]
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GENE CO-EXPRESSION NETWORK ANALYSIS OF MALARIA PARASITE TRANSCRIPTION REFINES POTENTIAL GENE INTERACTION UNDERLYING ARTEMISININ RESISTANCE

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ACCURATE ASSEMBLY OF REGIONS OF COMPLEX DIVERSITY IN *P. FALCIPARUM* FROM SHOTGUN GENOME SEQUENCING AND ASSESSMENT OF STRAIN SPECIFIC IMMUNITY--TOWARDS OPTIMAL FORMULATION OF POLYVALENT VACCINES

Nicholas J. Hathaway[1], James Kazura[2], Ann M. Moormann[1], John Vulule[3], Jonathan J. Juliano[1], Jeffrey A. Bailey[1]
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EVIDENCE OF RNA EDITING IN *BABESIA MICROTI*

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Young Investigator Award Session E

Convention Center - Room 331/332 (Level 300)
Sunday, November 5, 10 a.m. - 3 p.m.

JUDGE

Jeff Bailey
University of Massachusetts Medical School, Worcester, MA, United States

Nicole Gottdenker
University of Georgia, Athens, GA, United States

Edward D. Walker
Michigan State University, East Lansing, MI, United States

Rebekah Kading
Colorado State University, Fort Collins, CO, United States

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EFFECTIVENESS OF A COMBINED HOUSEHOLD-LEVEL PIPED WATER AND SANITATION INTERVENTION IN RURAL ODISHA, INDIA ON HEALTH: A MATCHED COHORT STUDY

Heather Reese[1], Parimita Routray[2], Sheela Sinharoy[1], Belen Torondel[2], Howard Chang[1], Thomas Clasen[1]
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POPULATION GENETICS ANALYSIS OF *PHLEBOTOMUS PAPATASI* SAND FLIES FROM NORTH AFRICA AND MIDDLE EAST REGIONS BASED ON MITOCHONDRIAL *CYTOCHROME B* HAPLOTYPES

Catherine M. Flanley[1], Omar Hamarsheh[2], Gwen Stayback[1], Mariha Wadsworth[1], Douglas A. Shoue[1], Mehmet Karakus[3], Mohammad Reza Yaghoobi-Ershadi[4], Andreas Kruger[5], Mary Ann McDowell[1]
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ADAPTIVE GEOSTATISTICAL SAMPLING ENABLES EFFICIENT IDENTIFICATION OF MALARIA *HOTSPOTS* IN REPEATED CROSS-SECTIONAL SURVEYS IN RURAL MALAWI

Michael G. Chipeta[1], Alinune N. Kabaghe[2], Robert S. McCann[3], Kamija S. Phiri[4], Michèle Van Vugt[2], Willem Takken[3], Dianne J. Terlouw[5]
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DETERMINATION OF ESBL PREVALENCE AND COMMON MECHANISMS IN ENTEROTOXIGENIC *ESCHERICHIA* ISOLATED FROM DIARRHEA SAMPLES COLLECTED IN NEPAL DURING 2001-2016

Katie R. Margulieux[1], Apichai Srijan[1], Panida Nobthai[1], Sirigade Ruekit[1], Ladaporn Bodhidatta[1], Prativa Pandey[2], Oralak Serichantalergs[1], Sanjaya K. Shrestha[3], John M. Crawford[1], Brett Swierczewski[1]
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CYTOGENETIC MECHANISMS OF HYBRID MALE STERILITY IN THE *ANOPHELES GAMBIAE* COMPLEX

Jiangtao Liang, Michael Hodge, Igor V. Sharakhov
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A FEMALE REPRODUCTIVE PROTEIN AFFECTS THE INTERACTION BETWEEN *ANOPHELES GAMBIAE* MOSQUITOES AND *PLASMODIUM FALCIPARUM* PARASITES

Perrine Marcenac[1], W. Robert Shaw[1], Adam South[1], Evdoxia Kakani[1], Sara N. Mitchell[1], Abdoulaye Diabate[2], Rakiswende S. Yerbanga[2], Thierry Lefevre[3], Flaminia Catteruccia[1]
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WITHIN-VECTOR PARASITE DIVERSITY: INSIGHTS FROM *PLASMODIUM FALCIPARUM* DEEP WHOLE-GENOME SEQUENCING FROM FIELD-CAUGHT MOSQUITOES IN NORTHERN ZAMBIA

Giovanna Carpi[1], Julia C. Pringle[1], Mbanga Muleba[2], Jennifer C. Stevenson[1], Mike Chaponda[2], Modest Mulenga[2], William J. Moss[3], Douglas E. Norris[1]
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"SLEEP IS LEISURE FOR THE POOR" - UNDERSTANDING PERCEPTIONS, BARRIERS AND MOTIVATORS TO NET CARE AND REPAIR IN SOUTHERN TANZANIA

Zawadi D. Mageni[1], Angel Dillip[1], Christina Makungu[1], Karen Kramer[2], George Greer[3], Lena M. Lorenz[4]
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YERSINIA PESTIS SURVIVES AND REPLICATES IN PHAGOCYTIC AMOEBA: THE CONTINUING SEARCH FOR AN ENVIRONMENTAL PLAGUE RESERVOIR

David W. Markman[1], Michael F. Antolin[1], Richard A. Bowen[1], William H. Wheat[1], Michael E. Woods[2], Mary Jackson[1]
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MODELING THE SPREAD OF MOSQUITO-BORNE DISEASE IN THE NORTHERN GREAT PLAINS OF THE U.S

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DEVELOPMENT OF MOLECULAR METHODS FOR THE DETECTION AND QUANTIFICATION OF PHLEBOTOMINE SAND FLY LARVAL DNA IN SOIL

Ioannis A. Giantsis[1], Marie Claude Bon[2], Alexandra Chaskopoulou[1]
[1]European Biological Control Laboratory, U.S.D.A. ARS, Thessaloniki, Greece, [2]European Biological Control Laboratory, U.S.D.A. ARS, Montferrier-sur-Lez, France

1463

STEROID HORMONE SIGNALING IN *ANOPHELES GAMBIAE* MOSQUITOES AFFECTS THE SPOROGONIC CYCLE OF *PLASMODIUM FALCIPARUM* PARASITES

Kristine Werling, Maurice Itoe, Douglas Paton, Flaminia Catteruccia
Harvard T.H. Chan School of Public Health, Boston, MA, United States

1595

CHROMOBACTERIUM CSP_P MEDIATES ITS ANTIMALARIAL ACTIVITY THROUGH SECRETION OF THE HDAC INHIBITOR ROMIDEPSIN

Raul G. Saraiva[1], Callie Huitt-Roehl[2], Abhai Tripathi[1], Jürgen Bosch[1], Craig Townsend[2], George Dimopoulos[1]
[1]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [2]Johns Hopkins University, Baltimore, MD, United States

1686A

PHARMACOKINETIC AND PHARMACODYNAMIC MODELING FOR THE PREDICTION OF THE MOSQUITOCIDAL EFFECT DURATION OF HIGH-DOSE IVERMECTIN (THE IVERMAL PK/PD MODEL)

Menno R. Smit[1], Eric O. Ochomo[2], David Waterhouse[1], Titus K. Kwambai[3], Bernard O. Abong'o[2], Teun Bousema[4], Nabie M. Bayoh[5], John E. Gimnig[5], Aaron M. Samuels[5], Meghna R. Desai[5], Penelope A. Phillips-Howard[1], Simon K. Kariuki[2], Duolao Wang[1], Feiko O. ter Kuile[1], Steve A. Ward[1], Ghaith Aljayyoussi[1]
[1]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [2]Kenya Medical Research Institute (KEMRI), Kisumu, Kenya, [3]Kenya Ministry of Health, Kisumu, Kenya, [4]Radboud University Nijmegen Medical Center, Nijmegen, Netherlands, [5]U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States

1827

COMPARISON OF KATO-KATZ, MINI-FLOTAC AND MULTI-PARALLEL REAL-TIME POLYMERASE CHAIN REACTION TECHNIQUES FOR DETECTION OF SOIL-TRANSMITTED HELMINTHS IN FEIRA DE SANTANA, BRAZIL

Ryan H. Avery[1], Simone S. Oliveira[2], Aristeu V. da Silva[2], Rojelio A. Mejia[3], Marta M. Silva[4], Rebecca C. Christofferson[1], Laura Rinaldi[5], John B. Malone[1]
[1]Louisiana State University, Baton Rouge, LA, United States, [2]State University of Feira de Santana, Feira de Santana, Brazil, [3]Baylor College of Medicine, Houston, TX, United States, [4]Federal University of Bahia, Salvador, Brazil, [5]University of Naples Federico II, Naples, Italy

1877

WHOLE GENOME DNA SEQUENCE CAPTURE APPROACH REVEALS TREMENDOUS GENETIC DIVERSITY IN INTRACELLULAR PATHOGEN *THEILERIA PARVA*

Nicholas C. Palmateer[1], Kyle Tretina[1], Roger Pelle[2], Elias Awino[2], Hanzel T. Gotia[1], Vish Nene[2], Claudia A. Daubenberger[3], Richard P. Bishop[2], Joana C. Silva[1]
[1]University of Maryland School of Medicine, Baltimore, MD, United States, [2]International Livestock Research Institute, Nairobi, Kenya, [3]Swiss Tropical and Public Health Institute and University of Basel, Basel, Switzerland

1983

TIMING AND SPATIAL HETEROGENEITY OF LEPTOSPIROSIS TRANSMISSION IN NORTHEAST THAILAND

Katharine A. Owers[1], Soawapak Hinjoy[2], James E. Childs[1], Vincent Herbreteau[3], Peter J. Diggle[4], Albert I. Ko[1]
[1]Yale School of Public Health, New Haven, CT, United States, [2]Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health, Nonthaburi, Thailand, [3]IRD, ESPACE-DEV (IRD, UM2, UR, UAG), Saint-Pierre, France, [4]Division of Medicine, Lancaster University, Lancaster, United Kingdom

ASTMH Communications Training Workshop

Hilton - Holiday Ballroom 3 (East Building, Second Floor)
Sunday, November 5, 10:30 a.m. – 2:30 p.m.

Now more than ever in the history of the ASTMH, it is important that researchers and clinicians clearly communicate about their work, explain the importance of tropical medicine/global health programs and advocate for research funding. To be effective advocates, to stand out from the crowd of important issues you need skills that help you to be persuasive and memorable. How can you prepare for an important presentation or manage challenging media interviews? How do you explain your research to people who might not know anything about your work, and get them invested in the outcome - with only minutes to make your case? This half-day course will teach you how to clearly and effectively communicate about your work. You will learn how to prepare and deliver messages, craft and tell persuasive stories, and how to stay in control what you say in any meeting or interview. Time and again we see the power of these communications skills to change minds, build awareness and grab attention.

SESSION FULL

This workshop is limited to those who pre-registered for the event; no onsite registration.

10:30 a.m.
OPENING AND INTRODUCTIONS: BEING MEMORABLE
Karen A. Goraleski
American Society of Tropical Medicine and Hygiene, Oakbrook Terrace, IL, United States

ASTMH Executive Director Karen A. Goraleski and Burness trainers will introduce the agenda, goals for the day and start with an exercise about being memorable.

11:15 a.m.
CRAFTING POWERFUL AND PERSUASIVE MESSAGES

Participants will learn how to craft messages to communicate with brevity, clarity and in a way that resonates with reporters and the general public.

11:40 a.m.
INTERACTIVE EXERCISE: DELIVERING AND REFINING YOUR MESSAGE

Participants will have a brief opportunity to refine their messages before testing them out with other participants.

12:05 p.m.
CONTROLLING THE INTERVIEW: BRIDGING

Participants will learn how to prepare for and stay in-control of the interview; specifically, how to "bridge" from difficult or off-topic questions back to their message.

12:30 p.m.
LUNCH

1 p.m.
BREAKOUT GROUPS

Participants will break into smaller groups for mock interviews with feedback and critique from trainers, and other exercises.

2:25 p.m.
CLOSE AND EVALUATIONS

American Committee on Arthropod-Borne Viruses (ACAV) SIE Subcommittee Group

Hilton - Johnson AB (East Building, First Floor)
Sunday, November 5, 11 a.m. - Noon

Bonus Event

GET A SHOT. GIVE A SHOT.®

Convention Center - Pratt Street Lobby (Level 300)
Sunday, November 5, Noon - 7 p.m.

Walgreens' Get a Shot. Give a Shot.® campaign has helped provide more than 20 million lifesaving vaccines to children in need around the world through the United Nations Foundation's Shot@Life campaign. Now, TropMed17 gives attendees an opportunity to give back to the global health communities we serve. Receive your annual flu shot and provide lifesaving vaccines to families in developing countries. Immunizations are one of the world's biggest public health success stories, but not all communities have the same access to vaccines.

Bonus Event

UNDER THE NET

Convention Center - Pratt Street Lobby (Level 300)
Sunday, November 5, Noon - 7 p.m.

Walk in the shoes of 11-year-old Amisa, a refugee living in the Nyarugusu Refugee Camp in Tanzania, through a virtual reality experience (VR) presented by the UN Foundation's Nothing But Nets campaign. Under the Net is the story of Amisa, her mother and six siblings as they struggle to survive each day with no protection from mosquitoes that carry malaria at night. Be sure to stop by the Nothing But Nets exhibit and watch Amisa's story through her eyes – as only VR can present it.

Bonus Event

PROJECT ZERO

Convention Center - Pratt Street Lobby (Level 300)
Sunday, November 5, Noon - 7 p.m.

Don't miss the latest virtual reality (VR) films by *HuffPost's* Project Zero, an ongoing series created to raise awareness around neglected tropical diseases and efforts to fight them. Three 360-degree VR films tell the untold stories of the victims and health workers battling Elephantiasis, River Blindness and Sleeping Sickness in some of the most remote and underdeveloped regions of the world. Explore the challenges of and progress toward eliminating these diseases in an experience provided through the VR format.

Speaker Ready Room

Convention Center - Room 336 (Level 300)
Sunday, November 5, Noon - 6 p.m.

Press Room

Convention Center - Room 330 (Level 300)
Sunday, November 5, Noon - 5:30 p.m.

TropStop- Student/Trainee Lounge

Convention Center - Pratt Street West Lobby Foyer (Level 300)
Sunday, November 5, Noon - 5 p.m.

This casual setting, designed with students, trainees and residents in mind (coffee, internet), is your place for a break from the fast-pace of the meeting and relax with colleagues and friends. Check out the "Office Hours," held in the TropStop. This will be your opportunity to meet up-and-coming professionals in the fields of tropical medicine, global health, science and industry who will share their personal career paths and answer your questions about the various bumps and forks in the road.

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Mentor/Trainee Lunch

Hilton - Peale A (East Building, First Floor)
Sunday, November 5, Noon - 1:30 p.m.

A mentoring event for matched ACMCIP trainees to have lunch with a senior/faculty member in a similar interest area(s). By invitation only.

American Committee on Arthropod-Borne Viruses (ACAV) SIRACA Subcommittee Meeting

Hilton - Johnson AB (East Building, First Floor)
Sunday, November 5, Noon - 2 p.m.

A mentoring event for matched ACMCIP trainees to have lunch with a senior/faculty member in a similar interest area. By invitation only.

Elsevier Clinical Research Award

Convention Center - Room 337/338 (Level 300)
Sunday, November 5, Noon - 2:30 p.m.

This award recognizes excellence in clinically-oriented research presented by students (within six months of completing, undergraduate or master's level training, including medical undergraduate degrees) or those in graduate medical training, of work submitted and presented (oral or poster) at the ASTMH Annual Meeting. Support these young scientists by attending their presentations during this session.

ORGANIZER

M. Patricia Joyce
Centers for Disease Control and Prevention, Atlanta, GA, United States

JUDGE

David Brett-Major
Naval Medical Research Center, Bethesda, MD, United States

Miguel M. Cabada
Instituto de Medicina Tropical Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Cusco, Peru

Latha Rajan
Tulane University, New Orleans, LA, United States

John W. Sanders
Wake Forest University School of Medicine, Winston-Salem, NC, United States

12:05 p.m.

495

EFFECTS OF IMMEDIATE VS. DELAYED IRON THERAPY ON NEUROBEHAVIORAL FUNCTION IN UGANDAN CHILDREN WITH SEVERE MALARIA

Meredith R. Hickson[1], Paul Bangirana[2], Andrew S. Ssemata[2], Sarah E. Cusick[3], Robert O. Opoka[2], Maria Kroupina[3], Chandy C. John[4]
[1]University of Michigan Medical School, Ann Arbor, MI, United States, [2]Makerere University College of Health Sciences, Kampala, Uganda, [3]University of Minnesota Medical School, Minneapolis, MN, United States, [4]Indiana University School of Medicine, Indianapolis, IN, United States

12:20 p.m.

1686A

PHARMACOKINETIC AND PHARMACODYNAMIC MODELING FOR THE PREDICTION OF THE MOSQUITOCIDAL EFFECT DURATION OF HIGH-DOSE IVERMECTIN (THE IVERMAL PK/PD MODEL)

Menno R. Smit[1], Eric O. Ochomo[2], David Waterhouse[1], Titus K. Kwambai[3], Bernard O. Abong'o[2], Teun Bousema[4], Nabie M. Bayoh[5], John E. Gimnig[5], Aaron M. Samuels[5], Meghna R. Desai[5], Penelope A. Phillips-Howard[1], Simon K. Kariuki[2], Duolao Wang[1], Feiko O. ter Kuile[1], Steve A. Ward[1], Ghaith Aljayyoussi[1]
[1]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [2]Kenya Medical Research Institute (KEMRI), Kisumu, Kenya, [3]Kenya Ministry of Health, Kisumu, Kenya, [4]Radboud University Nijmegen Medical Center, Nijmegen, Netherlands, [5]U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States

12:35 p.m.

294

MULTIPLE ANTIGEN RAPID DIAGNOSTIC TESTS FOR THE DIAGNOSIS OF SEVERE MALARIA IN HIGH-TRANSMISSION, RESOURCE-LIMITED SETTINGS

Ross M. Boyce[1], Raquel Reyes[1], Moses Ntaro[2], Edgar Mulogo[2], Michael Matte[2], Mark J. Siedner[3]
[1]University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, [2]Mbarara University of Science and Technology, Mbarara, Uganda, [3]Massahusetts General Hospital, Boston, MA, United States

12:50 p.m.
BREAK

1:05 p.m.

781

CHEST ULTRASOUND VERSUS X-RAY FOR PULMONARY TUBERCULOSIS IN SOUTH AFRICAN CHILDREN

Charlotte C. Heuvelings[1], Sabine Bélard[1], Savvas Andronikou[2], Halvani Moodley[3], Norme Jamieson-Luff[4], Martin P. Grobusch[1], Heather J. Zar[4]
[1]Academic Medical Center/University of Amsterdam, Amsterdam, Netherlands, [2]Bristol Royal Hospital for Children and University of Bristol, Bristol, United Kingdom, [3]University of Witwatersrand, Johannesburg, South Africa, [4]Red Cross War Memorial Children's Hospital, Cape Town, South Africa

1:20 p.m.

605

PERFORMANCE OF LOOP-MEDIATED ISOTHERMAL AMPLIFICATION FOR THE IDENTIFICATION OF SUBMICROSCOPIC *P. FALCIPARUM* INFECTION IN UGANDA

Shereen Katrak[1], Maxwell Murphy[1], Patience Nayebare[2], John Rek[2], Mary Smith[1], Emmanuel Arinaitwe[2], Joaniter Nankabirwa[2], Moses Kamya[2], Grant Dorsey[1], Phil Rosenthal[1], Bryan Greenhouse[1]
[1]University of California San Francisco, San Francisco, CA, United States, [2]Infectious Diseases Research Collaboration, Kampala, Uganda

1:35 p.m.

270

SUBPATENT *PLASMODIUM FALCIPARUM* INFECTIONS AFTER TREATMENT OF UNCOMPLICATED FALCIPARUM MALARIA WITH DIHYDROARTEMISININ-PIPERAQUINE AND ARTEMETHER-LUMEFANTRINE IN WESTERN INDONESIA

Inke N. Lubis[1], Hendri Wijaya[2], Munar Lubis[2], Chairuddin P. Lubis[2], Khalid B. Beshir[1], Colin J. Sutherland[1]
[1]*London School of Hygiene & Tropical Medicine, London, United Kingdom,*
[2]*University of North Sumatera, Medan, Indonesia*

American Committee on Arthorpod-Borne Viruses (ACAV) SALS Subcommittee Meeting

Hilton - Johnson AB (East Building, First Floor)
Sunday, November 5, 2 p.m. - 3:30 p.m.

Point of Entry: First-Time Attendee Orientation

Convention Center - Room 339/340 (Level 300)
Sunday, November 5, 2:30 p.m. - 3:30 p.m.

Are you new to the ASTMH Annual Meeting and want to get the lay of the land? Don't miss our Point of Entry session. ASTMH staff will orient new attendees to the schedule, session structure and highlights of the Annual Meeting. Meet others attending the conference for the first time and expand your professional network while learning the ins and outs of the meeting.

Young Investigator Award Committee Meeting

Convention Center - Room 318/319 (Level 300)
Sunday, November 5, 3 p.m. - 4 p.m.

American Committee of Medical Entomology (ACME) Council Meeting

Pratt Street Ale House
Sunday, November 5, 3:30 p.m. - 5:30 p.m.

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Council Meeting

Hilton - Paca (West Building, Third Floor)
Sunday, November 5, 3:30 p.m. - 5:30 p.m.

American Committee on Arthropod-Borne Viruses (ACAV) Council Meeting

Pratt Street Ale House
Sunday, November 5, 4 p.m. - 5:30 p.m.

ASTMH Committee on Global Health (ACGH) Council Meeting

Hilton - Chase (West Building, Third Floor)
Sunday, November 5, 3:30 p.m. - 5:30 p.m.

Clinical Group Council Meeting (American Committee on Clinical Tropical Medicine and Travelers' Health- ACCTMTH)

Hilton - Stone (West Building, Third Floor)
Sunday, November 5, 3:30 p.m. - 5:30 p.m.

Student Reception

Hilton - Key Ballroom 1/2 (West Building, Second Floor)
Sunday, November 5, 4 p.m. - 5 p.m.

Plenary Session 1

Plenary Session I: Keynote Address and Awards Program

Convention Center - Ballroom (Level 400)
Sunday, November 5, 5:30 p.m. - 7 p.m.

CHAIR

Patricia F. Walker
University of Minnesota and HealthPartners Travel and Tropical Medicine Center, St. Paul, MN, United States

Daniel G. Bausch
Public Health Rapid Support Team-UK PHRST Public Health England/London School of Hygiene & Tropical Medicine, London, United Kingdom

5:30 p.m.
WELCOMING REMARKS

Daniel G. Bausch
Public Health Rapid Support Team-UK PHRST Public Health England/London School of Hygiene & Tropical Medicine, London, United Kingdom

5:45 p.m.
KEYNOTE ADDRESS: RECONSIDERING THE WEST AFRICAN EBOLA EPIDEMIC: A PHYSICIAN-ANTHROPOLOGIST'S VIEW

Paul Farmer, MD, PhD
Co-Founder and Chief Strategist of Partners In Health (PIH)
Kolokotrones University Professor and Chair, Department of Global Health and Social Medicine, Harvard Medical School
Chief, Division of Global Health Equity, Brigham and Women's Hospital
Boston, MA, United States
United Nations Special Adviser to the Secretary-General on Community-Based Medicine and Lessons from Haiti

Medical anthropologist and physician Paul Farmer has dedicated his life to improving healthcare for the world's poorest people. He is Co-Founder and Chief Strategist of Partners In Health (PIH), an international non-profit organization that, since 1987, has provided direct healthcare services and undertaken research and advocacy activities on behalf of those who are sick and living in poverty. Dr. Farmer and his colleagues in the U.S. and abroad have pioneered novel community-based treatment strategies that demonstrate the delivery of high-quality healthcare in resource-poor settings. Dr. Farmer holds an MD and PhD from Harvard University, where he is the Kolokotrones University Professor and the Chair of the Department of Global Health and Social Medicine at Harvard Medical School; he is also Chief of the Division of Global Health Equity at Brigham and Women's Hospital, Boston. Additionally, Dr. Farmer serves as the United Nations Special Adviser to the Secretary-General on Community Based Medicine and Lessons from Haiti. Dr. Farmer has written extensively on health, human rights, and the consequences of social inequality. He is the recipient of numerous honors, including the Margaret

Mead Award from the American Anthropological Association, the Outstanding International Physician (Nathan Davis) Award from the American Medical Association, a John D. and Catherine T. MacArthur Foundation Fellowship, and, with his PIH colleagues, the Hilton Humanitarian Prize. He is a member of the Institute of Medicine of the National Academy of Sciences and of the American Academy of Arts and Sciences.

6:15 p.m.
AWARDS PROGRAM

Presiding Officer: Patricia F. Walker
University of Minnesota and HealthPartners Travel and Tropical Medicine Center, St. Paul, MN, United States

- Recognition of ASTMH/BMGF Annual Meeting Travel Awards
- Recognition of Young Investigator Awards
- Recognition of Elsevier Clinical Research Award
- Recognition of Burroughs Wellcome Fund - ASTMH Postdoctoral Fellowship in Tropical Infectious Diseases

WILLIAM TRAGER AWARD FOR BASIC PARASITOLOGY (ACMCIP)

AWARD FOR ADVANCED TRAINING (ACMCIP)

FUTURE LEADERS FELLOWSHIP IN INTERNATIONAL MEDICAL ENTOMOLOGY (ACME)

BREAKTHROUGHS IN MEDICAL ENTOMOLOGY AWARD (ACME)

HARRY HOOGSTRAAL MEDAL (ACME)

RECOGNITION OF FELLOWS OF ASTMH (FASTMH)

HONORARY INTERNATIONAL FELLOWS OF ASTMH

Peter Kremsner
Institute of Tropical Medicine, Tubingen, Germany

James McCarthy
Queensland Institute for Medical Research, Queensland, Australia

Jean Jacques Muyembe
Institut National de Recherche Biomedicale, Kinshasa, Democratic Republic of the Congo

Jeffrey Shaw
Sao Paulo University, Brasilia, Brazil

Shyam Sundar
Banara Hindu University, Varansai, India

ALAN J. MAGILL FELLOWSHIP

Pedro Aide
Centro de Investigacao em Saude de Manhica, Maputo, Mozambique

COMMUNICATIONS AWARD

William Brangham, Jon Cohen and Jason Kane
PBS NewsHour

BAILEY K. ASHFORD MEDAL

Margaret Kosek
Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States

DONALD MACKAY MEDAL

Patrick Lammie
Task Force for Global Health, Atlanta, GA, United States

WALTER REED MEDAL

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

CLARA SOUTHMAYD LUDLOW MEDAL

Ruth Nussenzweig
New York University, New York, NY, United States

Opening Reception

Convention Center - Swing Hall (Level 100)
Sunday, November 5, 7 p.m. - 9:30 p.m.

Sponsored in part by Bayer CONTRIBUTOR

Exhibit Hall Open

Convention Center - Swing Hall (Level 100)
Sunday, November 5, 7 p.m. – 9:30 p.m.

Monday, November 6

Registration

Convention Center - Pratt Street West Lobby (Level 300)
Monday, November 6, 7 a.m. - 5 p.m.

Speaker Ready Room

Convention Center - Room 336 (Level 300)
Monday, November 6, 7 a.m. - 5 p.m.

TropStop- Student/Trainee Lounge

Convention Center - Pratt Street West Lobby Foyer (Level 300)
Monday, November 6, 7 a.m. - 5 p.m.

This casual setting, designed with students, trainees and residents in mind (coffee, internet), is your place for a break from the fast-pace of the meeting and relax with colleagues and friends. Check out the "Office Hours," held in the TropStop. This will be your opportunity to meet professionals in the fields of tropical medicine, global health, science and industry who will share their personal career paths and answer your questions about the various bumps and forks in the road.

Meeting Sign-Up Room

Hilton – Stone Room and Chase Room (West Building, Third Floor)
Monday, November 6, 7 a.m. - 10 p.m.

ASTMH Diploma Course Directors Meeting

Hilton - Peale B (East Building, First Floor)
Monday, November 6, 7 a.m. - 8 a.m.

ASTMH Travel Awards Meeting

Hilton - Key Ballroom 1 (West Building, Second Floor)
Monday, November 6, 7 a.m. - 8 a.m.

Clinical Standards and Treatment Guidelines Committee Meeting

Hilton - Peale A (East Building, First Floor)
Monday, November 6, 7 a.m. - 8 a.m.

Clinical Tropical and Travel Medicine Education Program Committee Meeting

Hilton - Johnson A (East Building, First Floor)
Monday, November 6, 7 a.m. – 8 a.m.

Press Room

Convention Center - Room 330 (Level 300)
Monday, November 6, 7:45 a.m. - 5 p.m.

Symposium 2

New Tools for Malaria Vector Control

Convention Center - Ballroom I (Level 400)
Monday, November 6, 8 a.m. - 9:45 a.m.

Malaria vector control has been a key component in reducing the number of under-5-year-old deaths in Africa. However, insecticide resistance and the lack of new insecticides and new vector control (VC) tools have shrunk the arsenal of effective options. Currently, malaria vector control programs in Africa rely on two interventions: pyrethroid-treated long-lasting insecticide nets (LLINs) and indoor residual spraying (IRS) with an organophosphate. Fortunately, we are on the cusp of ushering in a new line-up of VC tools. This symposium will discuss some of the most promising and near-term tools in vector control, which will result in a continued shrinking of the malaria burden in Africa. New IRS formulations are critically needed given the predominant reliance in sub-Saharan African programs on just one effective class of insecticide - organophosphates. Two manufacturers have products undergoing WHO review that utilize clothianidin, a neonicotinoid, which draws on an entirely new mode of chemistry to kill mosquitoes. Use of this neonicotinoid will allow countries to rotate insecticides as recommended by the WHO's Global Plan for Insecticide Resistance Management. It is anticipated that the first clothianidin IRS formulation will be approved and available for VC programs in the near future. The high level of resistance to pyrethroids is risking the proven effectiveness of LLINs. Currently, nearly all LLINs used in Africa are impregnated with one type of pyrethroid. However, new 'combination' LLINs have been developed and are undergoing WHO review. These LLINs combine a new active ingredient insecticide with an existing pyrethroid. Results from experimental hut trials are impressive with high-levels of mortality against pyrethroid resistant ***Anopheles***. The first combination LLIN, which combines chlorfenapyr and alpha-cypermethrin, is expected to be approved and available for VC programs in 2018. The successful deployment of LLINs and IRS in Africa is changing selection pressure on mosquito vectors favoring outdoor biting and resting vectors. Currently, there is no effective VC tool for outdoor transmission. However, a new tool, Attractive Toxic Sugar Baits (ATSBs), is showing great promise. By combining a concentrated sugar-based food source, an olfaction stimulant and an oral insecticide, ATSBs lure and kill mosquitoes at a base station. Several trials of ATSBs as an outdoor mosquito control tool have been very successful. Together, new IRS formations, new formulation LLINs and new tools like ATSBs will enable vector control program managers to mount more effective campaigns and implement insecticide resistance management practices that will preserve the effective shelf life of all VC insecticides.

CHAIR

Nick Hamon
Innovative Vector Control Consortium, Liverpool, United Kingdom

Sarah Rees
Innovative Vector Control Consortium, Liverpool, United Kingdom

8 a.m.
THE RENAISSANCE OF THE DEVELOPMENT PIPELINE FOR VECTOR CONTROL TOOLS: PREPARING FOR DEPLOYMENT

Sarah Rees
Innovative Vector Control Consortium, Liverpool, United Kingdom

8:20 a.m.
CLOTHIANIDIN – A NEW MODE OF ACTION CHEMISTRY FOR IRS TO CONTROL RESISTANT MOSQUITOES AND PROMOTE INSECTICIDE RESISTANCE MANAGEMENT AS RECOMMENDED BY THE GLOBAL PROGRAM FOR INSECTICIDE RESISTANCE MANAGEMENT (GPIRM)

John Lucas
Sumitomo Chemical Company, Tokyo, Japan

8:40 a.m.
DUAL-ACTING LLINS: SECOND GENERATION LLINS TO CONTROL RESISTANT MOSQUITOES

Suzanne Stutz
BASF, Limburgerhof, Germany

9 a.m.
ATTRACTIVE TOXIC SUGAR BAITS – A NEW VC TOOL TO ADDRESS OUTDOOR BITING

Amir Galili
Westham Co., Tel Aviv, Israel

Symposium 3

Accelerating Malaria Elimination through Strengthened Private Sector Surveillance: Taking Forward Lessons Learned in Africa and the Greater Mekong Sub-Region

Convention Center - Ballroom II (Level 400)
Monday, November 6, 8 a.m. - 9:45 a.m.

The private sector is often the first point of care for patients seeking fever treatment in malaria endemic countries in Africa and elimination-targeted countries in the Greater Mekong Sub-region (GMS). Yet, surveillance efforts have been under-resourced, de-prioritized and ultimately neglected compared to the public sector. As a result, national systems fail to capture complete caseload data to inform strategies for control and elimination. UCSF establishes the importance of engaging the private sector as part of malaria control and elimination efforts, which is underscored by results from CHAI's on-the-ground partnerships with national programs in Africa. Experience will be shared from Tanzania's recent investment in strengthening reporting from the retail private sector and the challenge of setting priorities in the face of diminishing resources. An example

of Tanzania's mobile reporting system will demonstrate how a national program prioritized this investment to generate insights at multiple levels of the health system and how the program is striving for sustainability. In the GMS, ambitious elimination goals have been set for 2025-30. PSI is partnering with National Malaria Control Programs (NMCPs) to scale up private sector surveillance, integrate data with national systems, and harvest mobile technology to accelerate elimination in a region that is experiencing exponential growth of mobile coverage. The Lao PDR NMCP will discuss the successes and challenges of implementing DHIS2, the nation's first web-based malaria information system, and how it is leveraging the system for mobile case reporting from the private sector. PSI will share candid lessons learned about the importance of user-centered design in implementing technology solutions, the challenges of evolving open source software to become fit for malaria elimination, and the revelatory effects of democratizing data. Case studies will demonstrate how national programs have leveraged unprecedented access to private sector surveillance data in DHIS2 to drive operational and strategic decision-making. This symposium brings together national malaria program leaders and partners to reflect on what it takes to establish effective surveillance systems for the private sector and addresses the challenges of sustaining these efforts with nascent capacity and limited resources. The symposium calls the global community of practice to action, by engaging in collaborative partnerships to co-create systems that will drive data-driven decision-making, and accelerate malaria elimination.

CHAIR

Desmond Chavasse
Population Services International, Nairobi, Kenya

Rebecca Goldstein
CHAI, Boston, MA, United States

8 a.m.
IMPORTANCE AND CHALLENGES OF PRIVATE SECTOR SURVEILLANCE IN MALARIA ENDEMIC AND ELIMINATION-TARGETED COUNTRIES

Anton Avanceña
University of California San Francisco, San Francisco, CA, United States

8:20 a.m.
USING SURVEILLANCE DATA TO INFORM POLICY DECISIONS AND MAKING THE CASE FOR CONTINUED INVESTMENT IN PRIVATE SECTOR SURVEILLANCE TO ADVANCE ELIMINATION

Sigsbert Mkude
Tanzania National Malaria Program, Dar Es Salaam, United Republic of Tanzania

8:40 a.m.
GUIDING MALARIA SURVEILLANCE SYSTEM TRANSITIONING THROUGH EFFECTIVE MONITORING AND EVALUATION: LAO PDR'S ROLLOUT OF DHIS2 FOR PASSIVE CASE DETECTION

Bouasy Hongvanhthong
Ministry of Health, Vientiane, Lao People's Democratic Republic

9 a.m.
ADAPTATION AND STANDARDIZATION OF DHIS2 AS A REGIONAL SURVEILLANCE ECOSYSTEM: A DATA-TO-FINGERTIPS APPROACH TO SHEDDING LIGHT ON THE PRIVATE SECTOR 'BLACK HOLE'

Rebecca Potter
Population Services International, Vientiane, Lao People's Democratic Republic

Scientific Session 4

Chikungunya and Other Alphaviruses

Convention Center - Ballroom III (Level 400)
Monday, November 6, 8 a.m. - 9:45 a.m.

CHAIR

Nathaniel M. Byers
Centers for Disease Control and Prevention, Fort Collins, CO, United States

A. Desiree LaBeaud
Stanford University, Stanford, CA, United States

8 a.m.
1

CHIKUNGUNYA INFECTION DURING GESTATION: IMPACT ON PREGNANCY AND NEONATAL OUTCOMES

Priyanka Suresh[1], Amy Krystosik[1], Nikita Cudjoe[2], Toni Murray[2], Rashida Isaac[2], George Mitchell[3], Trevor Noël[4], Barbara Landon[5], Randall Waechter[5], **A. Desiree LaBeaud**[1]
[1]Stanford University, Department of Pediatrics, Stanford, CA, United States, [2]Windward Islands Research and Education Foundation (WINDREF), St. George's, Grenada, [3]Ministry of Health, St. George's, Grenada, [4]Windward Islands Research and Education Foundation (WINDREF) @ St. George's University, St. George's, Grenada, [5]St. George's University, School of Medicine, Department of Bioethics, St. George's, Grenada

8:15 a.m.
2

SAFETY AND IMMUNOGENICITY OF A LIVE RECOMBINANT MEASLES VECTOR BASED CHIKUNGUNYA VACCINE IN HEALTHY ADULTS: A RANDOMIZED, PLACEBO CONTROLLED PHASE 2 STUDY

Sabrina Schrauf, Katrin Ramsauer, Matthias Müllner, Andrea Pfeiffer, Alexander Kort, **Erich Tauber**
Themis Bioscience GmbH, Vienna, Austria

8:30 a.m.
3

AN INDEX CLUSTER STUDY OF CHIKUNGUNYA IN NICARAGUA WITH SPATIAL AND RISK FACTOR ANALYSES

Fausto Bustos[1], Guillermina Kuan[2], Nery Sanchez[3], Sergio Ojeda[3], Brenda López[3], Raquel Burger-Calderon[1], Lionel Gresh[3], Aubree Gordon[4], Angel Balmaseda[5], Angel Balmaseda[5], Eva Harris[1]
[1]Division of Infectious Diseases and Vaccinology, School of Public Health, University of California Berkeley, Berkeley, CA, United States, [2]Health Center Sócrates Flores Vivas, Ministry of Health, Managua, Nicaragua, [3]Sustainable Sciences Institute, Managua, Nicaragua, [4]Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI, United States, [5]Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua

8:45 a.m.
4

IN THE SEARCH OF THE HIDDEN PATH: THE SOURCE AND SPREAD OF CHIKUNGUNYA AND ZIKA VIRUSES

Adriano de Bernardi Schneider, Lambodhar Damodaran, Zachary Witter, Daniel Janies
University of North Carolina at Charlotte, Charlotte, NC, United States

9 a.m.

5

ADAPTED LONGITUDINAL MOSQUITO SALIVA COLLECTION METHOD FOR DETERMINING ARBOVIRUS VECTOR COMPETENCE INCREASES BIOSAFETY AND CAPACITY

Nathaniel M. Byers, Jeremy P. Ledermann, Ann M. Powers
Centers for Disease Control and Prevention, Fort Collins, CO, United States

9:15 a.m.

6

EMERGENCE OF RECOMBINANT MAYARO VIRUS STRAINS FROM THE AMAZON BASIN, THE DAWN OF A NEW EPIDEMIC?

Carla N. Mavian[1], Brittany D. Rife[1], James Jarad Dollar[1], Eleonora Cella[2], Massimo Ciccozzi[2], Mattia C. Prosperi[1], J Glenn Morris Jr[1], Ilaria Capua[1], Marco Salemi[1]
[1]University of Florida, Gainesville, FL, United States, [2]Istituto Superiore di Sanità, Rome, Italy

9:30 a.m.

7

RE-EMERGING OF MAYARO VIRUS IN AREAS WITH CIRCULATION OF DENGUE VIRUS IN THE PERUVIAN AMAZON

Marco Coaguila, Maria Garcia, Maribel Figueroa, Nancy Merino, Adolfo Marcelo, Miguel Cobos, Cesar Cabezas
National Institute of Health, Lima, Peru

Scientific Session 5

Malaria: Clinical and Pre-Clinical Assessment of Antimalarials

Convention Center - Ballroom IV (Level 400)
Monday, November 6, 8 a.m. - 9:45 a.m.

CHAIR

Selina Bopp
Harvard T.H. Chan School of Public Health, Boston, MA, United States

Gavin C. Koh
GlaxoSmithKline, Uxbridge, United Kingdom

8 a.m.

8

NON-INFERIORITY COMPARISON OF TAFENOQUINE SIX-MONTH RELAPSE-FREE EFFICACY VERSUS PRIMAQUINE IN *PLASMODIUM VIVAX* INFECTION: AN INDIVIDUAL PATIENT DATA META-ANALYSIS

Lindsay K. Kendall[1], Khadeeja Mohamed[2], John J. Breton[3], **Gavin C. Koh**[2], Justin A. Green[2]
[1]GlaxoSmithKline, Stevenage, United Kingdom, [2]GlaxoSmithKline, Uxbridge, United Kingdom, [3]GlaxoSmithKline, Philadelphia, PA, United States

8:15 a.m.

9

CONFIRMATION OF THE BLOOD STAGE SCHIZONTICIDAL ACTIVITY OF TAFENOQUINE IN A RANDOMIZED, DOUBLE-BLINDED, PLACEBO-CONTROLLED *PLASMODIUM FALCIPARUM* INDUCED BLOOD STAGE MALARIA CHALLENGE STUDY

James S. McCarthy[1], Bryan L. Smith[2], Lisa T. Read[3], Geoffrey Dow[2]
[1]QIMR Berghofer Medical Research Institute, Herston, Australia, [2]60 Degrees Pharmaceuticals LLC, Washington, DC, United States, [3]USAMMDA, Fort Detrick, MD, United States

8:30 a.m.

10

BUZZOFF - A PHASE 1A, FIRST-IN-HUMAN STUDY OF (+)-SJ000557733 (SJ733), AN ORAL, NOVEL INHIBITOR OF *PLASMODIUM FALCIPARUM* PLASMA MEMBRANE PROTEIN PFATP4

Aditya H. Gaur[1], John C. Panetta[1], Ronald Dallas[1], Li Tang[1], Tracy B. Stewart[1], Kristen C. Branum[1], Burgess B. Freeman, III[1], Nehali D. Patel[1], Elizabeth John[2], Stephan Chalon[3], Shelley Ost[4], Ryan N. Heine[1], Julie L. Richardson[1], Robbin Christensen[1], Patricia M. Flynn[1], Yvonne Van Gessel[5], Branko Mitasev[5], Jörg J. Möhrle[3], Fabian Gusovsky[5], Lidiya Bebrevska[3], James McCarthy[6], R. Kip Guy[7]
[1]St. Jude Children's Research Hospital, Memphis, TN, United States, [2]EJOHN Consulting, Richland, WA, United States, [3]Medicines for Malaria Venture, Geneva, Switzerland, [4]University of Tennessee, Memphis, TN, United States, [5]Eisai Inc., Andover, MA, United States, [6]QIMR Berghofer Medical Research Institute, Herston, Australia, [7]University of Kentucky College of Pharmacy, Lexington, KY, United States

8:45 a.m.

11

PROPHYLACTIC ACTIVITY OF DSM265 AGAINST PRE-ERYTHROCYTIC *PLASMODIUM FALCIPARUM* CONTROLLED HUMAN MALARIA INFECTION BY MOSQUITO BITES AND DIRECT VENOUS INJECTION

Sean C. Murphy[1], Elizabeth Duke[2], Kelly J. Shipman[2], Ryan L. Jensen[2], Youyi Fong[2], Sue Ferguson[2], Holly E. Janes[3], Kevin Gillespie[3], Annette M. Seilie[1], Amelia E. Hanron[1], Laurie Rinn[2], Matthew Fishbaugher[4], Tracie VonGoedert[4], Emma Fritzen[4], Stefan H. Kappe[4], Ming Chang[1], Jason C. Sousa[5], Sean R. Marcsisin[5], Thomas Rueckle[6], Stephan Chalon[6], Stephan Duparc[6], Nicola Kerr[6], Jorg J. Mohrle[6], Nicole Andenmatten[6], James G. Kublin[2]
[1]University of Washington Medical Center, Seattle, WA, United States, [2]Seattle Malaria Clinical Trials Center, Seattle, WA, United States, [3]Vaccine and Infectious Disease Division, Fred Hutch Cancer Research Center, Seattle, WA, United States, [4]Center for Infectious Disease Research, Seattle, WA, United States, [5]Walter Reed Army Institute of Research, Silver Spring, MD, United States, [6]Medicines for Malaria Venture, Geneva, Switzerland

9 a.m.

12

A PHASE 1 EVALUATION OF THE PHARMACOKINETIC-PHARMACODYNAMIC INTERACTION OF THE ANTIMALARIAL AGENTS KAF156 AND PIPERAQUINE

F. Joel Leong[1], Jay Prakash Jain[2], Elie Feng[3], Budhaditya Goswami[2], Daniel S. Stein[4], **Cornelis Winnips**[5]
[1]Novartis Institute for Tropical Diseases, Singapore, Singapore, [2]Novartis Healthcare Private Limited, Hyderabad, India, [3]Novartis Institutes for BioMedical Research, Shanghai, China, [4]Novartis Pharmaceuticals Corporation, East Hanover, NJ, United States, [5]Novartis Pharma AG, Basel, Swaziland

9:15 a.m.

13

A RANDOMIZED TRIAL OF THE SAFETY AND EFFICACY OF LOW DOSE PRIMAQUINE IN THE TREATMENT OF ADULT PATIENTS WITH *PLASMODIUM FALCIPARUM* MALARIA IN SENEGAL

Roger C. Tine[1], Khadime Sylla[1], Babacar T. Faye[1], Fatou B. Fall[2], Doudou Sow[1], Magatte Ndiaye[1], Jean L. Ndiaye[1], Babacar Faye[1], Oumar Gaye[1], Paul Milligan[3]
[1]Service de Parasitologie, Faculté de Médecine de Dakar, Dakar, Senegal, [2]National Malaria Control Programme, Ministry of Health Senegal, Dakar, Senegal, [3]Faculty of Epidemiology and Public Health, London School of Hygiene & Tropical Medicine, London, United Kingdom

9:30 a.m.

14

THE PLASMODIAL ACYL CO-A SYNTHETASE 10 AND 11 ARE INVOLVED IN DRUG RESISTANCE TO TOW DISTINCT ANTIMALARIAL COMPOUNDS

Selina Bopp[1], Pamela A. Magistrado[1], Victoria C. Corey[2], Maria G. Gomez-Lorenzo[3], Virginia Franco[3], Allison Demas[1], Amanda K. Lukens[4], Francisco-Javier Gamo[3], Elizabeth A. Winzeler[2], Dyann F. Wirth[1]
[1]Harvard T.H. Chan School of Public Health, Boston, MA, United States, [2]University of California San Diego, San Diego, CA, United States, [3]Malaria DPU.GlaxoSmithKline, Tres Cantos, Spain, [4]The Broad Institute, Cambridge, MA, United States

Symposium 6

Estimating the Global Burden of Group B *Streptococcus* in Pregnant Women, Stillbirths and Children to Inform Vaccine Development

Convention Center - Room 318/319/320 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

The London School of Hygiene & Tropical Medicine, commissioned by the Bill & Melinda Gates Foundation, is working with a group of world experts, and a global network of collaborators, to estimate the burden of *Streptococcus agalactiae*, or Group B *Streptococcus* (GBS) on maternal and infant health. This work is critical to inform GBS vaccine development, as recognized by the World Health Organization, which convened the first expert meeting on GBS vaccines in April 2016 and are part of the advisory group for these estimates. Group B *Streptococcus* (GBS) is recognized as the leading cause of invasive early onset neonatal disease in the United States. However, 98% of the world's neonatal deaths (2.7 million) and stillbirths (2.6 million) occur in low and middle-income countries, where there has been very limited focus on GBS disease. In addition, GBS is associated with many other adverse newborn and maternal clinical syndromes, yet the burden of GBS in terms of stillbirth, preterm birth, pregnancy associated disease, and neonatal encephalopathy is little understood, worldwide. Intrapartum antibiotic prophylaxis (IAP) has been shown to reduce neonatal GBS disease in high-income countries, such as the USA, but this strategy would be challenging in resource-poor settings, and there is no evidence that it would reduce late onset neonatal disease (days 7-27) or GBS-associated stillbirth. New conjugate vaccines in clinical trials will offer an opportunity for maternal vaccination to reduce GBS disease, and if a maternal GBS vaccine is considered cost effective, the impact on deaths, acute morbidity and long-term disability could be considerable globally. This symposium will introduce the rationale and methods for estimating the burden of Group B *Streptococcus* to include both maternal and perinatal outcomes, infant disease, death, and disability and present the most comprehensive datasets so far regarding GBS in terms of the global prevalence of maternal Group B *Streptococcus* colonization, and consequent risk of infant disease. The session will provide the first estimates of the burden of Group B Streptococcal disease worldwide in pregnant women, stillbirths and children and describe the status of maternal GBS vaccination and what the estimates mean for global health policy and priorities.

CHAIR

Johan Vekemans
World Health Organization, Geneva, Switzerland

Carol J. Baker
Baylor College of Medicine, Houston, TX, United States

8 a.m.
RATIONALE AND METHODS FOR ESTIMATING THE BURDEN OF GROUP B *STREPTOCOCCUS* WORLDWIDE TO INCLUDE BOTH MATERNAL AND PERINATAL OUTCOMES, INFANT DISEASE, DEATH AND DISABILITY

Joy E. Lawn
London School of Hygiene & Tropical Medicine, London, United Kingdom

8:20 a.m.
MATERNAL GROUP B *STREPTOCOCCUS* COLONIZATION PREVALENCE, AND CONSEQUENT RISK OF INFANT DISEASE WORLDWIDE

Neal Russell
Doctors without Borders, London, United Kingdom

8:35 a.m.
ESTIMATES OF THE BURDEN OF GROUP B *STREPTOCOCCUS* WORLDWIDE IN PREGNANT WOMEN, STILLBIRTHS AND CHILDREN

Anna C. Seale
London School of Hygiene & Tropical Medicine, London, United States

8:55 a.m.
MATERNAL GROUP B *STREPTOCOCCUS* VACCINATION: PROGRESS AND PRIORITIES

Ajoke Sobanjo-ter-Meulen
Bill & Melinda Gates Foundation, Seattle, WA, United States

9:05 a.m.
PANEL DISCUSSION

PANELIST

Craig Rubens
Global Alliance to Prevent Prematurity and Stillbirth, Seattle, WA, United States

Symposium 7

ASTMH Committee on Global Health (ACGH) Symposium I: U.S. Future Role in Global Health and Annual Business Meeting

Convention Center - Room 321/322/323 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

The United States is a recognized leader in global health. Working with international partners, the U.S. has established and molded institutions such as the President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to Fight AIDS, Tuberculosis and Malaria. With limited resources and shifting political support, the case for continued commitment must be made. The National Academies of Sciences, Engineering and Medicine convened an ad hoc committee to identify global health priorities and make recommendations to the U.S. government and other stakeholders to address emerging challenges and ways to maintain the status of the U.S. as a world leader in global health. The resulting report released in May 2017, entitled "Global Health and the Future Role of the United States," identified four priority areas to achieve global health security, maintain a sustained response to the continuous threats of communicable diseases, save and improve

the lives of women and children, and promote cardiovascular health and prevent cancer. To maximize the returns on investments, the report also recommended catalyzing innovation, using more flexible financing mechanisms and maintaining the U.S. status and influence as a world leader in global health. Members of the committee will discuss the complexity of prioritizing and maintaining effective investments in global health initiatives and will answer questions from the audience on future urgent needs in global health.

CHAIR

Megan Snair
The National Academies of Sciences, Engineering, and Medicine, Washington, DC, United States

Julie Pavlin
The National Academies of Sciences, Engineering, and Medicine, Washington, DC, United States

Christina Polyak
Military HIV Research Program MHRP HFJ, Walter Reed Army Institute of Research, Bethesda, MD, United States

8 a.m.
U.S. FUTURE ROLE IN GLOBAL HEALTH

Michael Osterholm
University of Minnesota, Center for Infectious Disease Research and Policy (CIDRAP), Minneapolis, MN, United States

8:10 a.m.
U.S. FUTURE ROLE IN GLOBAL HEALTH

Michael Merson
Duke Global Health Institute, Durham, NC, United States

8:20 a.m.
U.S. FUTURE ROLE IN GLOBAL HEALTH

Amie Batson
PATH, Seattle, WA, United States

8:30 a.m.
ACGH ANNUAL BUSINESS MEETING

Christina Polyak
Military HIV Research Program MHRP HFJ, Walter Reed Army Institute of Research, Bethesda, MD, United States

Ramin Asgary
Columbia School of Public Health and Weill Cornell Medical College, New York, NY, United States

9 a.m.
NETWORKING AND SOCIAL TIME

Scientific Session 8

Arthropods: Other Arthropods

Convention Center - Room 324/325/326 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

CHAIR

Isobel Routledge
Imperial College London, London, United Kingdom

Thomas R. Unnasch
University of South Florida, Tampa, FL, United States

8 a.m.
15

GENOMES OF TROMBIDIOID MITES UNCOVER ADAPTATIONS TO PARASITISM IN THE SCRUB TYPHUS VECTOR, *LEPTOTROMBIDIUM DELIENSE*

Xiaofeng Dong[1], Kittipong Chaisiri[2], Martin J. Donnelly[3], John W. McGarry[4], Tatsuhiko Kadowaki[1], Alistair C. Darby[4], **Ben L. Makepeace**[4]
[1]Xi'an Jiaotong-Liverpool University, Suzhou, China, [2]Mahidol University, Bangkok, Thailand, [3]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [4]University of Liverpool, Liverpool, United Kingdom

(ACMCIP Abstract)

8:15 a.m.
16

COMMUNITY DIRECTED VECTOR CONTROL FOR ONCHOCERCIASIS

Benjamin Jacob[1], Denis Loum[2], Thomson Lakwo[3], Peter Alinda[3], Peace Habomugisha[4], **Thomas R. Unnasch**[1]
[1]University of South Florida, Tampa, FL, United States, [2]Nwoya District Local Government Health Department, Gulu, Uganda, [3]Vector Control Division, Ministry of Health, Kampala, Uganda, [4]The Carter Center, Kampala, Uganda

8:30 a.m.
17

ATTRACTION AND OVIPOSITION PREFERENCES OF *PHLEBOTOMUS PAPATASI*, VECTOR OF OLD-WORLD CUTANEOUS LEISHMANIASIS, TO LARVAL REARING MEDIA AND SAPROPHYTIC BACTERIA

Gideon Wasserberg[1], Bhajat F. Marayati[1], Tatsiana Symanovich[1], Loganthan Ponnusamy[2], Charles Apperson[2], Eduardo Hatano[2], Madhavi Kakumanu[2], Coby Schal[2]
[1]University of North Carolina at Greensboro, Greensboro, NC, United States, [2]North Carolina State University, Raleigh, NC, United States

8:45 a.m.
18

A LESS DIVERSE TICK MICROBIOME IS ASSOCIATED WITH *RICKETTSIA* INFECTED TICKS

Rebecca Trout Fryxell, Jennifer DeBruyn
University of Tennessee, Knoxville, TN, United States

9 a.m.
19

SARCONESIN: A NEW ANTIBACTERIAL PEPTIDE FROM BLOWFLY *SARCONESIOPSIS MAGELLANICA* (DIPTERA:CALLIPHORIDAE) LARVAL EXCRETIONS & SECRETIONS

Andrea Diaz-Roa[1], Manuel A. Patarroyo[2], Pedro I. da Silva Junior[3], Felio J. Bello[4]
[1]Universidad Antonio Nariño, Bogotá-Colombia and Laboratório Especial de Toxinologia Aplicada, Instituto Butantan, Bogotá and São Paulo, Brazil, Colombia, [2]Molecular Biology and Immunology Department, Fundación Instituto de Inmunología de Colombia (FIDIC), Bogotá, Colombia and Basic Sciences Department, School of Medicine and Health Sciences, Universidad del Rosario, Bogotá, Colombia, [3]Laboratório Especial de Toxinologia Aplicada, Instituto Butantan, São Paulo, Brazil, [4]Universidad Antonio Nariño, Bogotá, Colombia

9:15 a.m.

20

MATHEMATICAL MODELLING OF FOCAL VECTOR CONTROL AS A COMPLEMENTARY STRATEGY FOR ONCHOCERCIASIS ELIMINATION

Isobel Routledge[1], Martin Walker[2], Robert A. Cheke[3], Pierre Baleguel Nkot[4], Graham Matthews[5], María-Gloria Basáñez[6]
[1]Imperial College London and MRC Centre for Outbreak Analysis and Modelling, London, United Kingdom, [2]Royal Veterinary College and London Centre for Neglected Tropical Disease Research (LCNTDR), Hatfield, United Kingdom, [3]University of Greenwich at Medway, Chatham Maritime, Kent, United Kingdom, [4]Yaoundé Initiative Foundation, Yaoundé, Cameroon, [5]Imperial College London and Yaoundé Initiative Foundation, London, United Kingdom, [6]Imperial College London and London Centre for Neglected Tropical Disease Research (LCNTDR), London, United Kingdom

9:30 a.m.

21

SYSTEMIC INSECTICIDE TREATMENT OF THE CANINE RESERVOIR OF *TRYPANOSOMA CRUZI* INDUCES HIGH LEVELS OF LETHALITY IN *TRIATOMA INFESTANS,* A PRINCIPAL VECTOR OF CHAGAS DISEASE IN BOLIVIA

Louisa A. Messenger[1], A. Loza[2], A. Talaga[3], G. Herbas[2], J. Canaviri[2], T. Cahuasiri[2], L. Luck[2], A. Guibarra[2], A. Monero[2], R. Goncalves[3], JA Peirera[2], SA Gomez[4], A. Picado[4], C. Bern[5], O. Courtenay[3]
[1]London School of Hygiene & Tropical Medicine, London, United Kingdom, [2]Universidad Autonoma Gabriel Rene Moreno, Santa Cruz, Plurinational State of Bolivia, [3]University of Warwick, Coventry, United Kingdom, [4]Barcelona Institute for Global Health, Barcelona, Spain, [5]University of California San Francisco, San Francisco, CA, United States

Symposium 9

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Symposium: Microbiome-Parasite Interactions: Effects on Parasite Biology and Host Immunity

Convention Center - Room 327/328/329 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

Supported with funding from the Burroughs Wellcome Fund

The disease that results from infection with a given microorganism can vary widely between individuals, and parasitic infections are no exception. Differences in outcome can be influenced by host and parasite genetics, immunological profile, and environmental factors such as nutrition. Recent scientific advances are emphasizing that the existing microflora colonizing the site of infection can also have a very significant effect on disease. Our understanding of human microbiomes is currently being revolutionized by genomic tools, which allow evaluation of the full complement of microbiota for the first time. This change, coupled with advances in experimental approaches, are expanding our understanding of how the microbiome can alter biological processes during parasitic infection. This symposium will present the current state of the art in the application of microbiome studies to globally significant parasite species and the vectors that transmit them. In keeping with the breadth of fundamental parasitology covered by ACMCIP, the symposium covers a range of globally significant species, the role of trytrichomonads in maintaining natural gut inflammatory balance in humans, interactions between the natural gut microflora and helminths, which are a critical cause of nutritional loss in children in low-income countries globally, as well as *Plasmodium* parasites, the causative agent of malaria, and the role that the vector microbiome plays in infection and transmission of *Leishmania* spp. The symposium will provide insights into the critical balance between human or vector hosts and their natural microbiota, and how the interplay between them can alter the balance of pathogenicity and disease.

CHAIR

Christine A. Petersen
University of Iowa, Iowa City, IA, United States

Julian C. Rayner
Wellcome Trust Sanger Institute, Cambridge, United Kingdom

8 a.m.

TRITRYCHAMONADS PROVIDE PROTECTION FROM GI INFECTIONS

Michael Grigg
National Institutes of Health, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

8:20 a.m.

MICROBIOME ALTERATION BY HELMINTHS

Lisa Reynolds
University of Victoria, Victoria, BC, Canada

8:40 a.m.

SAND FLY MICROBIOME AND *LEISHMANIA* INFECTION

Shaden Kamhawi
National Institutes of Health, Bethesda, MD, United States

9 a.m.

MALARIA INFECTION AND HOST MICROBIOME INTERACTIONS

Nathan Schmidt
University of Louisville, Louisville, KY, United States

9:20 a.m.

ACMCIP ANNUAL BUSINESS MEETING

Christine A. Petersen
University of Iowa, Iowa Clty, IA, United States

Scientific Session 10

Filariasis: Epidemiology and Control I

Convention Center - Room 331/332 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

CHAIR

Daniel J. Tisch
Case Western Reserve University, Center for Global Health and Diseases, Cleveland, OH, United States

Samuel Wanji
University of Buea, Buea, Cameroon

8 a.m.

22

RENEWED MASS DRUG ADMINISTRATION'S IMPACT ON LYMPHATIC FILARIASIS IN A POPULATION WITH LONG LASTING INSECTICIDAL BEDNETS IN PAPUA NEW GUINEA

Daniel J. Tisch[1], Brooke Mancuso[1], Yao-Chieh Cheng[1], Samson Satofan[2], James Suamani[2], Willie Pomat[3], Christopher L. King[1], James W. Kazura[1], Peter A. Zimmerman[1]
[1]Case Western Reserve University, Cleveland, OH, United States, [2]Papua New Guinea Institute of Medical Research, Maprik, Papua New Guinea, [3]Papua New Guinea Institute of Medical Research, Goroka, Papua New Guinea

8:15 a.m.

23

MAPPING OF LYMPHATIC FILARIASIS IN LOIASIS AREAS: A NEW STRATEGY SHOWS NO EVIDENCE FOR *WUCHERERIA BANCROFTI* ENDEMICITY IN CAMEROON

Samuel Wanji[1], Mathias E. Esum[1], Abdel N. Jelil[1], Amuam A. Mbeng[1], Chounna N. Patrick[1], Raphael Abong[1], Jerome Fru[1], Fanny F. Fombad[1], Gordon T. Nchanji[1], Ngandjui Narcisse[1], Peter Enyong[1], Helen Storey[2], Kurt C. Curtis[3], Kerstin Fischer[3], Peter U. Fischer[3]
[1]University of Buea, Buea, Cameroon, [2]PATH, Seattle, WA, United States, [3]Washington University School of Medicine, St. Louis, MO, United States

8:30 a.m.

24

IVERMECTIN PROTECTS AGAINST EPILEPSY IN ONCHOCERCIASIS ENDEMIC REGIONS IN THE DEMOCRATIC REPUBLIC OF THE CONGO

Robert Colebunders[1], Floribert Tepage[2], Chellafe Ensoy-Musoro[3], Michel Mandro[4], Bethany Levick[5], Patrick Suykerbuyk[1], Caroline Bonareri Osoro[6], Alliance Tagoto[7], Anne Laudisoit[1]
[1]University of Antwerp, Antwerp, Belgium, [2]Ministry of Health, Bas Uele, Democratic Republic of the Congo, [3]University of Hasselt, Diegem, Belgium, [4]Ministry of Health, Bunia, Democratic Republic of the Congo, [5]University of Liverpool, Liverpool, United Kingdom, [6]Nanyuki Teaching and Referral Hospital, Laikipia, Kenya, [7]Ministry of Health, Kisangani, Democratic Republic of the Congo

8:45 a.m.

25

A NOVEL RAPID TEST FOR DETECTING ANTIBODY RESPONSES TO *LOA LOA* INFECTIONS

Marco A. Biamonte[1], Bijan Pedram[1], Papa M. Drame[2], Valérie Pasquetto[1], Maria J. Gonzalez-Moa[1], Yongchang Ji[1], Richard K. Baldwin[3], Thomas B. Nutman[2]
[1]Drugs & Diagnostics for Tropical Diseases, San Diego, CA, United States, [2]National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States, [3]nanoComposix, San Diego, CA, United States

9 a.m.

26

DEVELOPING THE FIRST NATIONAL DATABASE AND MAP OF LYMPHATIC FILARIASIS CLINICAL CASES IN BANGLADESH

Mohammed J. Karim[1], Hayley E. Mableson[2], Rouseli Haq[1], Mutasim B. Azad[1], ASM Sultan Mahmood[1], Abul Khair[1], Mujibur Rahman[1], Salim Chowdhury[3], AKM Fazlur Rahman[3], Sharmin Jahan[3], Israt Hafiz[1], Charles D. Mackenzie[2], Mark Taylor[2], Louise A. Kelly-Hope[2]
[1]Filariasis Elimination and STH Control Program, Ministry of Health and Family Welfare, Communicable Disease Control, Directorate General of Health Services, Dhaka, Bangladesh, [2]Centre for Neglected Tropical Diseases, Department of Parasitology, Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [3]Centre for Injury Prevention, Health Development and Research, Bangladesh, Dhaka, Bangladesh

9:15 a.m.

27

PROJECTED NUMBER OF PEOPLE WITH ONCHOCERCIASIS-LOIASIS CO-INFECTION IN AFRICA, 1995-2025

Natalie V.S. Vinkeles Melchers[1], Afework H. Tekle[2], Luc E. Coffeng[1], Sébastien D. Pion[3], Honorat G. Zouré[2], Belén Pedrique[4], Michel Boussinesq[3], Samuel Wanji[5], Hans J. Remme[6], Wilma A. Stolk[1]
[1]Department of Public Health, Erasmus MC, University Medical Center Rotterdam, Rotterdam, Netherlands, [2]Department of Neglected Tropical Diseases, World Health Organization, Geneva, Switzerland, [3]UMI233-TransVIHMI, Institut de Recherche pour le Développement (IRD), INSERM U1175, University of Montpellier, Montpellier, France, [4]Drugs for Neglected Diseases initiative, Geneva, Switzerland, [5]Parasites and Vectors Research Unit, Department of Microbiology and Parasitology, University of Buea, Buea, Cameroon, [6]120 rue des Campanules, Ornex, France

9:30 a.m.

28

PREVALENCE OF EXPOSITION TO RIVER BLINDNESS IN THE GAROUA-BOULAI HEALTH DISTRICT (EAST REGION, CAMEROON): POTENTIAL CROSS-BORDER ISSUE IN THE CONTEXT OF ELIMINATION

Cédric Gaël Lenou Nanga[1], Hugues Clotaire Nana Djeunga[1], Jules Brice Tchatchueng Mbougua[2], Guy Roger Njitchouang[1], André Domche[1], Jean Bopda[1], Stève Mbickmen Tchana[1], Kisito Ogoussan[3], Maria Rebollo[3], Joseph Kamgno[1]
[1]Centre for Research on Filariasis and other Tropical Diseases (CRFilMT), Yaoundé, Cameroon, [2]Centre Pasteur du Cameroun, Yaoundé, Cameroon, [3]Task Force for Global Health, Atlanta, GA, United States

Scientific Session 11

Cestodes: Cysticercosis and Echinococcosis

Convention Center - Room 337/338 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

CHAIR

Seth O'Neal
Oregon Health and Sciences University, Portland, OR, United States

Monica J. Pajuelo
Universidad Peruana Cayetano Heredia, Lima, Peru

Monday November 6

8 a.m.

29

EVALUATION OF MORPHO*LOCIAL* CRITERIA DUE TO HEPATIC ALVEOLAR ECHINOCOCCOSIS BASED ON THE *ECHINOCOCCUS MULTILOCULARIS* ULM CLASSIFICATION

Tilmann Graeter, Wolfgang Kratzer, Aylin Senguel, Andreas Hillenbrand, Beate Gruener, Julian Schmidberger
University Hospital Ulm, Ulm, Germany

8:15 a.m.

30

LUNG AND LIVER CYSTIC ECHINOCOCCOSIS - CUMULATIVE INCIDENCE OF NEW HYDATID CYSTIC LESION AFTER SURGICAL TREATMENT

Saul J. Santivanez[1], George P. Perales[1], Maria Valcarcel[2], Maira Arce[1], Luis Tello[1], Diego Valencia[1], Lawrence H. Moulton[3], Hector H. Garcia[4]
[1]Instituto Peruano de Parasitologia Clinica y Experimental, Lima, Peru, [2]Department of Surgery, Hospital Nacional Dos de Mayo, Lima, Peru, [3]Department of International Health, Johns Hopkins University, Bloomberg School of Hygiene and Public Health, Baltimore, MD, United States, [4]Facultad de Ciencias y Filosofia, Universidad Peruana Cayetano Heredia, Lima, Peru

8:30 a.m.

31

GENETIC VARIABILITY OF *TAENIA SOLIUM CYSTICERCI* RECOVERED FROM EXPERIMENTALLY INFECTED PIGS AND NATURALLY INFECTED PIGS USING MICROSATELLITE MARKERS

Monica J. Pajuelo[1], María Eguiluz[1], Elisa Roncal[1], Stefany Quinones-Garcia[1], Steven J. Clipman[2], Juan Calcina[3], Cesar Gavidia[3], Patricia Sheen[1], Hector H. Garcia[1], Robert H. Gilman[2], Armando Gonzalez[3], Mirko Zimic, for the Cysticercosis Working Group[1]
[1]Universidad Peruana Cayetano Heredia, Lima, Peru, [2]Johns Hopkins University, Baltimore, MD, United States, [3]Universidad Nacional Mayor de San Marcos, Lima, Peru

(ACMCIP Abstract)

8:45 a.m.

32

INFLAMMATION IS A KEY RISK FACTOR FOR REFRACTORY SEIZURES IN PATIENTS WITH NEUROCYSTICERCOSIS

Jesica A. Herrick[1], Anjali Garg[1], Jin Suh Kim[1], Biswajit Maharathi[1], Gerardo Gomez Abundis[1], Isidro Gonzales[2], Herbert Saavedra[2], Javier Bustos[2], Hector H. Garcia[2], Jeffery A. Loeb[1]
[1]University of Illinois at Chicago, Chicago, IL, United States, [2]Cysticercosis Unit, Department of Transmissible Diseases, Instituto Nacional de Ciencias Neurologicas, Lima, Peru

9 a.m.

33

BANDING PATTERNS OF THE ENZYME-LINKED IMMUNOELECTROTRANSFER BLOT (EITB) AND BRAIN IMAGING FINDINGS IN PATIENTS WITH NEUROCYSTICERCOSIS

Gianfranco Arroyo[1], Silvia Rodriguez[1], Andres G. Lescano[1], Karen A. Alroy[2], Javier A. Bustos[1], Saul Santivañez[3], Isidro Gonzales[4], Herbert Saavedra[4], Javier Pretell[5], Armando E. Gonzalez[6], Robert H. Gilman[7], Victor C. Tsang[8], Hector H. Garcia[1]
[1]Universidad Peruana Cayetano Heredia, Lima, Peru, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Instituto Peruano de Parasitologia Clinica y Experimental, Lima, Peru, [4]Instituto Nacional de Ciencias Neurologicas, Lima, Peru, [5]Hospital Alberto Sabogal, Callao, Peru, [6]Universidad Nacional Mayor de San Marcos, Lima, Peru, [7]Johns Hopkins University, Baltimore, MD, United States, [8]Georgia State University, Atlanta, GA, United States

9:15 a.m.

34

STANDARDIZATION OF A DIRECT ELISA USING MONOCLONAL ANTIBODIES FOR THE DETECTION OF PARASITE ANTIGEN IN URINE SAMPLES OF PATIENTS WITH NEUROCYSTICERCOSIS

Yesica Santos[1], Yesenia Castillo[1], Luz Toribio[1], Cindy Espinoza[1], Kevin Martel[1], Adriana Paredes[1], Cristina Guerra-Giraldez[1], Yagahira Castro-Sesquen[2], Isidro Gonzales[3], Herbert Saavedra[3], Javier A. Bustos[1], Theodore E. Nash[4], Hector H. Garcia[1], For the Cysticercosis Working Group in Peru[1]
[1]Facultad de Ciencias y Filosofia, Universidad Peruana Cayetano Heredia, Lima, Peru, [2]Department of International Health, Johns Hopkins University, Bloomberg School of Hygiene and Public Health, Baltimore, MD, United States, [3]Cysticercosis Unit, Instituto Nacional de Ciencias Neurologicas, Lima, Peru, [4]Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

9:30 a.m.

35

RING STRATEGY AS AN EFFECTIVE ALTERNATIVE TO MASS DRUG ADMINISTRATION FOR CONTROL OF *TAENIA SOLIUM* TAENIASIS/CYSTICERCOSIS

Seth E. ONeal[1], Cesar Gavidia[2], Ricardo Gamboa[3], Claudio Muro[3], Percy Vilchez[3], Luz Maria Moyano[3], Viterbo Ayvar[2], Sukwan Handali[4], Armando E. Gonzalez[2], Robert H. Gilman[5], Hector H. Garcia[6], for the Cysticercosis Working Group in Peru (CWGP)[6]
[1]Oregon Health & Sciences University and Portland State Univeristy, Portland, OR, United States, [2]School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, [3]Centro de Salud Global - Tumbes, Universidad Peruana Cayetano Heredia, Tumbes, Peru, [4]Centers for Disease Control and Prevention, Atlanta, GA, United States, [5]Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States, [6]School of Microbiology, Universidad Peruana Cayetano Heredia, Lima, Peru

Scientific Session 12

Integrated Control Measures for Neglected Tropical Diseases

Convention Center - Room 339/340 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

CHAIR

Leda Hernandez
Department of Public Health-Philippines, Manila, Philippines

Charles H. King
Case Western Reserve University, Center for Global Health and Diseases, Cleveland, OH, United States

8 a.m.

36

MODIFIED MDA DID NOT SIGNIFICANTLY IMPROVE COVERAGE IN LGAS TREATING TWICE-PER-YEAR IN SOUTHERN NIGERIA

Emily Griswold[1], Abel Eigege[2], Cephas Ityonzughul[2], John Eguagie[3], Emmanuel Emukah[4], Emmanuel Miri[2], Ifeoma Anagbogu[5], Yisa Saka[5], Frank Richards[1]
[1]The Carter Center, Atlanta, GA, United States, [2]The Carter Center, Jos, Nigeria, [3]The Carter Center, Benin City, Nigeria, [4]The Carter Center, Owerri, Nigeria, [5]Federal Ministry of Health, Abuja, Nigeria

8:15 a.m.

37

IMPLEMENTING THE SUPERVISOR'S COVERAGE TOOL IN THE PHILIPPINES: PILOTING TWO NOVEL ADDITIONS

Leda Hernandez[1], Winston A. Palasi[1], Camille Pauline Baladjay[1], Katherine Gass[2]
[1]Infectious Disease Office, Disease Prevention and Control Bureau, Department of Health, Manila, Philippines, [2]Task Force for Global Health, Decatur, GA, United States

8:30 a.m.

38

INTEGRATED PREVALENCE SURVEY OF SKIN NTDS AND COMMON SKIN DISEASES AMONG SCHOOLCHILDREN IN GAGNOA, CÔTE D'IVOIRE: DIAGNOSIS AND RISK FACTOR ANALYSIS

Rie R. Yotsu[1], Amari Akpa[2], Konan N'Guessan[2], Aubin Yao[2], Aka N'Guetta[3], Emma Yeboue[4], Norihisa Ishii[5], Kouamé Kouadio[3], Tape R. Djakeaux[4], Julien Aké[6], Marie Constance A. Kadio[7], Bamba Vagamon[7]
[1]National Center for Global Health and Medicine, Tokyo, Japan, [2]MAP International, Abidjan, Côte D'Ivoire, [3]Pasteur Institute, Abidjan, Côte D'Ivoire, [4]National Leprosy Control Program, Abidjan, Côte D'Ivoire, [5]Leprosy Research Center, Tokyo, Japan, [6]Effect Hope, Abidjan, Côte D'Ivoire, [7]Raoul Follereau Institute, Abidjan, Côte D'Ivoire

8:45 a.m.

39

DRAMATIC INCREASE IN THE PARTICIPATION WITH MECTIZAN TREATMENT IN SECOND ROUND OF TEST AND TREAT IN AN AREA COENDEMIC FOR LOIASIS AND ONCHOCERCIASIS

Joseph Kamgno[1], Sebastien D. Pion[2], Hugues Nana-Djeunga[3], Cédric B. Chesnais[2], André Domche[3], Raceline Gounoue-Kamkumo[3], Guy-Roger Njitchouang[3], Wilma A. Stolk[4], Daniel A. Fletcher[5], Charles D. Mackenzie[6], Amy D. Klion[7], Thomas B. Nutman[7], Michel Boussinesq[2]
[1]Centre for Research on Filariasis and other Tropical Diseases, and Faculty of Medicine and Biomedical Sciences University of Yaounde I, Yaounde, Cameroon, [2]IRD UMI 233-INSERM U1175-Montpellier University, Montpellier, France, [3]Centre for Research on Filariasis and other Tropical Diseases, Yaounde, Cameroon, [4]Department of Public Health, Erasmus MC, University Medical Center, Rotterdam, Netherlands, [5]Department of Bioengineering, University of California, Berkeley, CA, United States, [6]Department of Pathobiology and Diagnostic Investigation, Michigan State University, East Lansing, MI, United States, [7]Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

9 a.m.

40

LYMPHATIC FILARIASIS TRANSMISSION ASSESSMENT SURVEYS (TAS) AS AN OPPORTUNITY TO EVALUATE THE IMPACT OF MASS DRUG ADMINISTRATION (MDA) ON TRANSMISSION OF ONCHOCERCIASIS AND SOIL TRANSMITTED HELMINTHIASIS

Hugues Nana Djeunga[1], Rufine Touka-Nounkeu[1], Jules Brice Tchatchueng Mbougua[1], Guy Roger Njitchouang[1], André Domche[1], Julie Akame[2], Georges Nko'o-Ayissi[3], Benjamin Didier Biholong[3], Yaobi Zhang[4], Kizito T Ogoussan[5], Maria P Rebollo[6], Joseph Kamgno[7]
[1]Centre for Research on Filariasis and Other Tropical Diseases, Yaoundé, Cameroon, [2]Helen Keller International, Yaoundé, Cameroon, [3]Ministry of Public Health, Yaoundé, Cameroon, [4]Helen Keller International, Regional Office, Dakar, Senegal, [5]NTDs Support Center, Task Force for Global Health, Decatur, GA, United States, [6]Expanded Special Project for Elimination of NTDs, WHO-AFRO, Brazzaville, Republic of the Congo, [7]Centre for Research on Filariasis and other Tropical Diseases, and Faculty of Medicine and Biomedical Sciences, Yaoundé, Cameroon

9:15 a.m.

41

LYMPHATIC FILARIASIS AND PODOCONIOSIS: INTEGRATED MORBIDITY MANAGEMENT AND DISABILITY PREVENTION SERVICES FOR LYMPHOEDEMA AND HYDROCOELE PATIENTS IN THREE CO-ENDEMIC DISTRICTS OF ETHIOPIA

Asrat Mengiste[1], Dereje Assefa[1], Fikre H/Kiros[1], Mussie Tamiru[2], Biruck Kebede[2], Charles Mackenzie[3], Mark Taylor[3], Louise Kelly-Hope[3], Sarah Martindale[3]
[1]National Podoconiosis Action Network, Addis Ababa, Ethiopia, [2]Federal Ministry of Health, Addis Ababa, Ethiopia, [3]Centre for Neglected Tropical Diseases, Department of Parasitology, Liverpool School of Tropical Medicine, Liverpool, United Kingdom

9:30 a.m.

42

ADDING ONCHOCERCIASIS MONITORING TO LYMPHATIC FILARIASIS TRANSMISSION ASSESSMENT SURVEYS: THE TANZANIA EXPERIENCE

Upendo Mwingira[1], Maria Chikawe[1], Cecilia Uisso[1], Boniphace Idindili[2], Sarah Craciunoiu[3], Delali Bonuedi[4], Kathryn Crowley[4], Darin Evans[5], Andreas Nshala[2]
[1]Tanzania Neglected Tropical Disease Control Program, Dar es Salaam, United Republic of Tanzania, [2]IMA World Health, Dar es Salaam, United Republic of Tanzania, [3]IMA World Health, Washington, DC, United States, [4]RTI International, Washington, DC, United States, [5]U.S. Agency for International Development, Washington, DC, United States

Scientific Session 13

Global Health: Community-Based Platforms

Convention Center - Room 341/342 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

CHAIR

Seynabou Gaye
National Malaria Control Program, Dakar, Senegal

David H. Hamer
Boston University, Center for Global Health and Development, Boston, MA, United States

8 a.m.

43

REALIZING THE POTENTIAL OF COMMUNITY HEALTH WORKERS TO PROVIDE MALARIA CASE MANAGEMENT: SENEGAL'S SCALE UP OF PROACTIVE COMMUNITY CASE MANAGEMENT

Seynabou Gaye[1], Julie Thwing[2], Medoune Ndiop[1], Alioune B. Gueye[1], Fatou B. Fall[1], Moustapha Cisse[1], Moustapha Cisse[1], Ibrahima Diallo[1], Kathy Sturm-Ramirez[3], Oumar Sarr[1], Oumar Sarr[1]
[1]National Malaria Control Program, Dakar, Senegal, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Centers for Disease Control and Prevention, Dakar, Senegal

8:15 a.m.

44

MALARIA COMMUNITY- BASED MANAGEMENT IN INFORMAL KORANIC RESIDENTIAL SCHOOLS: A PILOT IN SENEGAL

Seynabou Gaye[1], Katharine Sturm-Ramirez[2], Alioune Badara Gueye[1], Medoune Ndiop[1], Julie Thwing[2], Fatou Ba[1], Ibrahima Diallo[1], Moustapha Cisse[1], Mame Birame Diouf[3], Omar Sarr[1]
[1]National Malaria Control Program, Dakar, Senegal, [2]U.S. Centers for Disease Control and Prevention, President's Malaria Initiative, Atlanta, GA, United States, [3]U.S. Agency for International Development and President's Malaria Initiative, Dakar, Senegal

8:30 a.m.

45

IMPROVING EARLY ANC ATTENDANCE AND IPT UPTAKE THROUGH COMMUNITY HEALTH VOLUNTEERS (CHVS)

Augustine Ngindu[1], Susan Ontiri[1], Gathari Ndirangu[1], Beth Barasa[1], Evans Nyapada[1], David Omoit[2], Johnstone Akatu[2], Mildred Mudany[3]
[1]Jhpiego - MCSP, Washington, DC, United States, [2]Ministry of Health, Bungoma, Kenya, [3]Jhpiego, Washington, DC, United States

8:45 a.m.

46

INCREASE IN DELIVERY OF INTERVENTIONS TO DECREASE MALARIA AMONG PREGNANT WOMEN IN SENEGAL

Moustapha I. Cisse[1], Julie I. Thwing[2], Medoune Ndiop[1], Alioune B. Gueye[1], Ibrahima Diallo[1], Seynabou Gaye[1], Mamadou L. Diouf[1], Katherine Sturm-Ramirez[3], Oumar Sarr[1]
[1]Senegal National Malaria Control Program, Dakar, Senegal, [2]Centers for Disease Control and Prevention and U.S. President's Malaria Initiative, Atlanta, GA, United States, [3]Centers for Disease Control and Prevention and U.S. President's Malaria Initiative, Dakar, Senegal

9 a.m.

47

ASSESSMENT OF FACILITATORS AND BARRIERS TO ACHIEVING THE TARGET IPTP MUTASA DISTRICT, MANICALAND PROVINCE, ZIMBABWE: A FORMATIVE ASSESSMENT

Fadzai Mutseyekwa[1], Rugare Mandigo[1], Simba Mashizha[2], Munyaradzi Mukuzunga[2], Zacharia Grand[2], Charles Uzande[2], Blessmore Chaibva[2], Patron Mafaune[2], Joseph Mberikunashe[2], Davidzoyashe Makosa[1], Kate Gilroy[3], Rose Kambarami[1]
[1]Maternal Child Integrated Program (MCHIP), Harare, Zimbabwe, [2]Manicaland Provincial Medical Directorate, Manicaland, Zimbabwe, [3]Maternal Child Survival Program (MCSP), Washington, DC, United States

9:15 a.m.

48

TREATMENT OF YOUNG INFANT INFECTION IN NTCHEU DISTRICT (TYIIN): IMPLEMENTATION RESEARCH ON SIMPLIFIED TREATMENT OF POSSIBLE SERIOUS BACTERIAL INFECTIONS AND FAST BREATHING AMONG YOUNG INFANTS IN NTCHEU DISTRICT, MALAWI

Tanya P. Guenther[1], Gladson Mopiwa[2], Gomezgani Jenda[2], Humphreys Nsona[3], Regina Makuluni[4], Chancy Banda Fundani[4], Salim Sadruddin[5]
[1]Save the Children, Washington, DC, United States, [2]Save the Children, Lilongwe, Malawi, [3]Ministry of Health (MOH), Lilongwe, Malawi, [4]District Health Office, MOH, Ntcheu, Malawi, [5]World Health Organization, Geneva, Switzerland

9:30 a.m.

49

THE RESILIENCE OF INTEGRATED COMMUNITY CASE MANAGEMENT IN ACUTE EMERGENCY: A CASE STUDY FROM SOUTH SUDAN

Naoko Kozuki[1], Katja Ericson[2], Bethany Marron[3], Yolanda Barbera Lainez[4], Nathan P. Miller[5]
[1]International Rescue Committee, Washington, DC, United States, [2]International Rescue Committee, Hatay, Turkey, [3]International Rescue Committee, Nairobi, Kenya, [4]International Rescue Committee, New York, NY, United States, [5]UNICEF, New York, NY, United States

Symposium 14

HIV and Liver Diseases

Convention Center - Room 343/344 (Level 300)
Monday, November 6, 8 a.m. - 9:45 a.m.

Supported with funding from Gilead

A dramatic reduction in HIV-related mortality has been observed in resource-limited countries with the introduction of antiretroviral therapy. As occurrence of opportunistic diseases decrease, other chronic infections become a concerning source of morbidity and mortality. In this regard, liver-related disease is the second most common cause of mortality in HIV-infected individuals, and the most common independent of AIDS. Co-infection with viral hepatitis viruses, as well as the direct impact of HIV in the liver, have been a point of interest in developed settings, but the inter-connection of liver-related infections with immune modulation from pathologies present in tropical and developing settings seems rather under-appreciated. This symposium will examine factors that affect liver disease during the progression of HIV infection, particularly in resource-limited settings. The session will emphasize the roles of viral hepatitis co-infection with HIV and potential alternative immune-modulation pathways related to tropical diseases, as well as interactions of HIV with other diseases that affect the liver. The symposium will discuss important clinical and prognostic variables as well as immune pathways related to HIV and liver disease. Participants will be presented with with both clinically applicable recommendations, as well as the latest research findings in the field. The following topics will be discussed: a) Co-infection of HIV with hepatitis B virus: role of infections such as *schistosoma* in affecting chronic liver disease in the HIV-infected individual, response and effect of therapy; b) Co-infection of HIV with hepatitis C virus: complexity of immune response against HCV in the setting of immunosuppression, progression to advanced liver fibrosis due to treated HIV and untreated HCV virus and potential for cure of hepatitis C in co-infected patients in resource-limited settings; c) Co-infection of HIV with hepatitis E virus: the potential damage of viral hepatitis E in HIV-infected patients, progression of liver disease in co-infected patients and risk factors for HEV; d) The direct role of HIV in the liver: effects of the virus in promoting liver fibrosis and the modulation of virus-related damage by antiretroviral therapy, additional issues in resource-limited settings.

CHAIR

Jose D. Debes
University of Minnesota, Minneapolis, MN, United States

Andre Boonstra
Erasmus MC, Rotterdam, Netherlands

8 a.m.
HEPATITIS C INFECTION IN THE SETTING OF HIV, GLOBAL PERSPECTIVE ON IMMUNE MECHANISMS
Andre Boonstra
Erasmus MC, Rotterdam, Netherlands

8:20 a.m.
HEPATITIS B AND HIV-CO-INFECTION: THE ROLE OF OTHER PATHOGENS
Geraldine O'Hara
London School of Hygiene & Tropical Medicine, London, United Kingdom

8:40 a.m.
HEPATITIS E INFECTION IN THE HIV-POSITIVE PATIENT
Maria Belen Pisano
Instituto de Virologia de Cordoba, Cordoba, Argentina

9 a.m.
THE DIRECT IMPACT OF HIV ON THE LIVER
Jose D. Debes
University of Minnesota, Minneapolis, MN, United States

Exhibit Hall Open

Convention Center - Swing Hall (Level 100)
Monday, November 6, 9:30 a.m. - 10:30 a.m.

Coffee Break

Convention Center - Swing Hall (Level 100)
Monday, November 6, 9:45 a.m. - 10:15 a.m.

Poster Session A Set-Up

Convention Center - Hall F and G (Level 100)
Monday, November 6, 9:45 a.m. - 10:15 a.m.

Bonus Event

GET A SHOT. GIVE A SHOT.®

Convention Center - Pratt Street Lobby (Level 300)
Monday, November 6, 10 a.m. – 5 p.m.

Walgreens' Get a Shot. Give a Shot.® campaign has helped provide more than 20 million lifesaving vaccines to children in need around the world through the United Nations Foundation's Shot@Life campaign. Now, TropMed17 gives attendees an opportunity to give back to the global health communities we serve. Receive your annual flu shot and provide lifesaving vaccines to families in developing countries. Immunizations are one of the world's biggest public health success stories, but not all communities have the same access to vaccines.

Bonus Event

UNDER THE NET

Convention Center - Pratt Street Lobby (Level 300)
Monday, November 6, 10 a.m. – 5 p.m.

Walk in the shoes of 11-year-old Amisa, a refugee living in the Nyarugusu Refugee Camp in Tanzania, through a virtual reality experience (VR) presented by the UN Foundation's Nothing But

Nets campaign. Under the Net is the story of Amisa, her mother and six siblings as they struggle to survive each day with no protection from mosquitoes that carry malaria at night. Be sure to stop by the Nothing But Nets exhibit and watch Amisa's story through her eyes – as only VR can present it.

Bonus Event

PROJECT ZERO

Convention Center - Pratt Street Lobby (Level 300)
Monday, November 6, 10 a.m. – 5 p.m.

Don't miss the latest virtual reality (VR) films by *HuffPost's* Project Zero, an ongoing series created to raise awareness around neglected tropical diseases and efforts to fight them. Three 360-degree VR films tell the untold stories of the victims and health workers battling Elephantiasis, River Blindness and Sleeping Sickness in some of the most remote and underdeveloped regions of the world. Explore the challenges of and progress toward eliminating these diseases in an experience provided through the VR format.

Poster Session A Viewing

Convention Center - Hall F and G (Level 100)
Monday, November 6, 10:15 a.m. - Noon

Symposium 15

What Kinds of Molecules are Needed to Control and Eradicate Malaria?

Convention Center - Ballroom I (Level 400)
Monday, November 6, 10:15 a.m. - Noon

For chemotherapy to play a role beyond the control of malaria, it is critical for new drug combinations to be made up of molecules having activity beyond the asexual blood stage. Medicines for Malaria Venture (MMV) has updated the malaria Target Product Profiles (TPP) which describe how a combination product needs to perform to be clinically relevant. In addition, the Target Candidate Profiles (TCP), which define the attributes of individual molecules necessary to deliver the TPP have also been refined. Such criteria enable the research community to focus drug discovery and development efforts in a way that meets the strategic long-term goals of a 90% reduction in incidence and deaths by 2030, and the delivery of tools to consider parasite elimination strategies beyond this date. This symposium will explain the two TPPs: treatment and chemoprotection and how these relate to the different ways in which such drug combinations are used in the field. Furthermore, the various TCPs (clearance of asexual blood stages TCP1, anti-relapse TCP3, chemoprotection TCP4 and transmission blocking TCP5 and TCP6) using project case studies. TCP1 covers the profile of molecules able to clear asexual blood stages in patients. The first speaker will present a novel series of antimalarials with rapid parasite clearance, an inability to select for resistance and excellent *in vivo* efficacy. TCP3 covers the profile of molecules able to prevent relapses in vivax or ovale malaria through clearing or reactivating (and then killing) dormant hypnozoites. The next speaker will present his team's 384 well *P. vivax* liver stage assay and explain the progress and strategies to find novel radical cure agents without the issues of haemolysis in G6PD deficient patients. TCP4 covers the profile of molecules able to prevent infection in individuals threatened with an outbreak, or migrating from non-endemic regions to those that are endemic, through clearance of developing liver stage parasites. The following presenter will discuss a novel approach involving intra-muscular injection of antimalarials so as to provide protection from one to three months in patients. TCP5 and TCP6 cover the profile of transmission blocking molecules either through rendering the gametocyte non-functional (TCP5) or through killing the mosquito vector following a blood meal (TCP6). The final speaker will present her transmission blocking platform strategy involving both approaches, as well as discussing the potential that long acting endectocides could have on transmission.

CHAIR

Jeremy N. Burrows
Medicines for Malaria Venture, Geneva, Switzerland

Kirsten Hanson
University of Texas at San Antonio, San Antonio, TX, United States

10:15 a.m.
OVERVIEW OF TARGET PRODUCT PROFILES AND TARGET CANDIDATE PROFILES
Jeremy N. Burrows
Medicines for Malaria Venture, Geneva, Switzerland

10:20 a.m.
TCP1: CLEARANCE OF ASEXUAL PARASITEMIA WITH A NOVEL, RAPID ACTING SERIES
Alain Pellet
Sanofi Pasteur, Marcy l'Etoile, France

10:40 a.m.
TCP3: STRATEGIES FOR IDENTIFYING NOVEL ANTI-RELAPSE AGENTS
Dennis E. Kyle
University of Georgia, Center for Tropical and Emerging Global Diseases, Athens, GA, United States

11 a.m.
TCP4: NOVEL INTRA-MUSCULAR STRATEGIES FOR CHEMOPROTECTION
Arnab K. Chatterjee
California Institute for Biomedical Research (Calibr), La Jolla, CA, United States

11:20 a.m.
TCP5 AND TCP6: TO TARGET GAMETOCYTES OR TO TARGET MOSQUITOES? THAT IS THE QUESTION
Angelika Sturm
TropIQ Health Sciences, Nijmegen, Netherlands

Scientific Session 16

Malaria: Immunology

Convention Center - Ballroom II (Level 400)
Monday, November 6, 10:15 a.m. - Noon

CHAIR

Katherine R. Dobbs
Case Western Reserve University, Center for Global Health and Diseases, Cleveland, OH, United States

Kim C. Williamson
Uniformed Services University of the Health Sciences, Bethesda, MD, United States

10:15 a.m.

50

Presentation by Burroughs Wellcome Fund–ASTMH Fellowship Recipient

PRIMED INNATE IMMUNE RESPONSES IN MONOCYTES FROM KENYAN CHILDREN WITH UNCOMPLICATED FALCIPARUM MALARIA

Katherine R. Dobbs[1], Paula Embury[1], John Vulule[2], Peter Sumba Odada[2], Bruce A. Rosa[3], Makedonka Mitreva[3], James W. Kazura[1], Arlene E. Dent[1]
[1]Case Western Reserve University, Cleveland, OH, United States, [2]Kenya Medical Research Institute, Kisumu, Kenya, [3]Washington University, St. Louis, MO, United States

10:30 a.m.

51

INDIVIDUAL AND COMPOSITE AMA-1 CELLULAR RESPONSES AND THEIR ASSOCIATION WITH CLINICAL MALARIA IN A PEDIATRIC COHORT IN MOZAMBIQUE AND TANZANIA

Gemma Moncunill[1], Maxmillian Mpina[2], Augusto J. Nhabomba[3], Aintzane Ayesteran[1], Ruth Aguilar[1], Héctor Sanz[1], Joseph J. Campo[1], Chenjerai Jairoce[3], Diana Barrios[1], Núria Díez-Padrisa[1], Nana A. Williams[1], John J. Aponte[1], Jaroslaw Harezlak[4], Sheetij Dutta[5], Claudia Daubenberger[6], Carlota Dobaño[1], **Clarissa Valim**[7]
[1]ISGlobal, Barcelona, Spain, [2]Ifakara Health Institute, Bagamoyo Research and Training Centre, Bagamoyo, United Republic of Tanzania, [3]Centro de Investigação em Saúde de Manhiça (CISM), Maputo, Mozambique, [4]University of Indiana, Indianapolis, IN, United States, [5]Walter Reed Army Institute of Research, Silver Spring, MD, United States, [6]Swiss Tropical and Public Health Institute, Basel, Switzerland, [7]Michigan State University, East Lansing, MI, United States

10:45 a.m.

52

ATYPICAL ACTIVATION OF DENDRITIC CELLS BY *PLASMODIUM FALCIPARUM*

Anton Goetz[1], Mei San Tang[2], Maureen Ty[2], Charles Arama[3], Aissata Ongoiba[3], Didier Doumtabé[3], Boubacar Traore[3], P'ng Loke[2], Ana Rodriguez[4], Peter Crompton[1]
[1]National Institutes of Health, Rockville, MD, United States, [2]New York University School of Medicine, New York, NY, United States, [3]Mali International Centers for Excellence in Research, Bamako, Mali, [4]New York University School of Medicine, New York, NY, United States

(ACMCIP Abstract)

11 a.m.

53

TO KILL PARASITE THE NATURAL KILLER WAY: ANTIBODY MEDIATED CELLULAR IMMUNE RESPONSE AGAINST BLOOD STAGE MALARIA

Gunjan Arora[1], Javier Manzella-Lapeira[1], David L. Narum[1], Patrick E. Duffy[1], Louis H. Miller[1], Susan K. Pierce[1], Sanjay A. Desai[1], Geoffrey T. Hart[2], Eric O. Long[1]
[1]National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States, [2]Division of Infectious Disease and International Medicine, Department of Medicine, University of Minnesota, Minneapolis, MN, United States

(ACMCIP Abstract)

11:15 a.m.

54

IMPACT OF PLACENTAL MALARIA ON CORD BLOOD Vδ2 T LYMPHOCYTES IN MALAWI

Haoting Hsu[1], Sarah E. Boudova[2], Godfrey Mvula[3], Titus Divala[3], Randy Mungwira[3], David Pauza[1], Christopher Harman[4], Karl Seydel[5], Miriam K. Laufer[2], Cristiana Cairo[1]
[1]Institute of Human Virology, University of Maryland School of Medicine, Baltimore, MD, United States, [2]Division of Malaria Research, Institute for Global Health, University of Maryland School of Medicine, Baltimore, MD, United States, [3]Blantyre Malaria Project, University of Malawi College of Medicine, Blantyre, Malawi, [4]Obstetrics, Gynecology and Reproductive Health, University of Maryland School of Medicine, Baltimore, MD, United States, [5]College of Osteopathic Medicine, Michigan State University, East Lansing, MI, United States

11:30 a.m.

55

ANTIBODIES TO *PLASMODIUM VIVAX* PVDBP REVEAL A MECHANISM FOR CROSS-SPECIES IMMUNITY TO *P. FALCIPARUM* PLACENTAL MALARIA

Sedami Gnidehou[1], Catherine Mitran[1], Eliana Arango[2], Shanna Banman[1], Angie Mena[1], Evelyn Medawar[1], Barbara A. Lima[3], Jahanara Rajwani[1], Albert Jin[1], Kenneth Gavina[1], Francis Ntumngia[4], Nicaise Ndam[5], Ali Salanti[6], Flora S. Kano[3], Luzia H. Carvahlo[3], John H. Adams[4], Amanda Maestre[2], Michael F. Good[7], **Stephanie K. Yanow**[1]
[1]University of Alberta, Edmonton, AB, Canada, [2]Universidad de Antioquia, Medellin, Colombia, [3]FIOCRUZ, Belo Horizonte, Brazil, [4]University of South Florida, Tampa, FL, United States, [5]University of Ghana, Accra, Ghana, [6]University of Copenhagen, Copenhagen, Denmark, [7]Griffith University, Gold Coast, Australia

(ACMCIP Abstract)

11:45 a.m.

56

DECLINING MALARIA TRANSMISSION DIFFERENTIALLY IMPACTS ON THE MAINTENANCE OF HUMORAL IMMUNITY TO *PLASMODIUM FALCIPARUM* IN CHILDREN

Cleopatra K. Mugyenyi[1], Salenna R. Elliott[1], Xi Zen Yap[1], Gaoqian Feng[1], Gregory Fegan[2], Philippe Boeuf[1], Faith F. Osier[2], Freya J. Fowkes[1], Marion Avril[3], Thomas N. Williams[2], Kevin Marsh[2], **James G. Beeson**[1]
[1]Burnet Institute, Melbourne, Australia, [2]Kenya Medical Research Institute, Kilifi, Kenya, [3]Centre for Infectious Disease Research, Seattle, WA, United States

Scientific Session 17

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Malaria and Protozoans - Molecular Biology

Convention Center - Ballroom III (Level 400)
Monday, November 6, 10:15 a.m. - Noon

Supported with funding from the Burroughs Wellcome Fund

CHAIR

Amy K. Bei
Harvard T.H. Chan School of Public Health, Boston, MA, United States

Bjorn F. Kafsack
Weill Cornell Medical College, New York, NY, United States

10:15 a.m.

2005

INVITED SPEAKER FROM THE WOODS HOLE MOLECULAR PARASITOLOGY MEETING HELD IN SEPTEMBER 2017. SEE THE MEETING APP AND ONLINE PROGRAM PLANNER FOR SPEAKER INFORMATION.

10:30 a.m.

2006

INVITED SPEAKER FROM THE WOODS HOLE MOLECULAR PARASITOLOGY MEETING HELD IN SEPTEMBER 2017. SEE THE MEETING APP AND ONLINE PROGRAM PLANNER FOR SPEAKER INFORMATION.

10:45 a.m.

57

SINGLE-CELL RNA-SEQ REVEALS ACTIVATION OF CHROMATIN REGULATORS BY AP2-G DURING SEXUAL COMMITMENT IN MALARIA PARASITES

Asaf Poran, Christopher Noetzel, Olivier Elemento, **Bjorn F. Kafsack**
Weill Cornell Medical College, New York, NY, United States

(ACMCIP Abstract)

11 a.m.

58

A SATURATION-LEVEL *PIGGYBAC* MUTAGENESIS SCREEN OF THE *PLASMODIUM FALCIPARUM* GENOME DEFINES GENES IMPORTANT FOR *IN VITRO* ASEXUAL BLOOD-STAGE GROWTH

Min Zhang[1], Chengqi Wang[1], Jenna Oberstaller[1], Thomas D. Otto[2], Swamy Adapa[1], Xiangyun Liao[1], Justin Swanson[1], Suzanne Li[1], Kenneth Udenze[1], Julian C. Rayner[2], Rays H. Jiang[1], **John H. Adams**[1]
[1]University of South Florida, Tampa, FL, United States, [2]Wellcome Trust Sanger Institute, Hinxton, United Kingdom

(ACMCIP Abstract)

11:15 a.m.

59

FUNCTIONAL ANALYSIS OF A SPOROZOITE RHOPTRY PROTEIN DURING HEPATOCYTE INFECTION

Sirasate Bantuchai[1], Mamoru Nozaki[1], Amporn Thongkukiatkul[2], Natcha Lorsuwannarat[1], Mayumi Tachibana[1], Kazuhiro Matsuoka[1], Takafumi Tsuboi[3], Motomi Torii[1], **Tomoko Ishino**[1]
[1]Ehime University, Toon, Japan, [2]Brupha University, Chonburi, Japan, [3]Ehime University, Matsuyma, Japan

(ACMCIP Abstract)

11:30 a.m.

60

PLASMODIUM FALCIPARUM GENETIC COMPLEXITY INFLUENCES TRANSCRIBED *VAR* REPERTOIRE AND IMMUNE RECOGNITION AMONG HIGHLY RELATED GENOTYPIC CLUSTERS

Amy K. Bei[1], Kazutoyo Miura[2], Daniel B. Larremore[3], Ababacar Diouf[2], Nicholas K. Baro[1], Rachel F. Daniels[1], Allison Griggs[4], Eli L. Moss[4], Daniel E. Neafsey[4], Awa B. Deme[5], Mouhamad Sy[5], Stephen Schaffner[4], Ambroise D. Ahouidi[5], Daouda Ndiaye[6], Tandakha Dieye[5], Souleymane Mboup[7], Caroline O. Buckee[8], Sarah K. Volkman[1], Carole A. Long[2], Dyann F. Wirth[1]
[1]Harvard TH Chan School of Public Health, Boston, MA, United States, [2]Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, [3]Santa Fe Institute, Santa Fe, NM, United States, [4]Broad Institute of Massachusetts Institute of Technology and Harvard, Cambridge, MA, United States, [5]Laboratory of Bacteriology and Virology, Le Dantec Hospital, Faculty of Medicine and Pharmacy, Cheikh Anta Diop University, Dakar, Senegal, [6]Laboratory of Parasitology and Mycology, Faculty of Medicine and Pharmacy, Cheikh Anta Diop University, Dakar, Senegal, [7]Institut de Recherche en Santé, de Surveillance Epidemiologique et de Formations, Dakar, Senegal, [8]Center for Communicable Disease Dynamics, Harvard TH Chan School of Public Health, Boston, MA, United States

(ACMCIP Abstract)

11:45 a.m.

61

ALBA4 COORDINATES STAGE-SPECIFIC INTERACTIONS AND MRNA FATES DURING *PLASMODIUM* GROWTH AND TRANSMISSION

Elyse E. Munoz, Kevin J. Hart, Michael P. Walker, Mark F. Kennedy, Mackenzie M. Shipley, **Scott E. Lindner**
Pennsylvania State University, University Park, PA, United States

(ACMCIP Abstract)

Symposium 18

Clinical Update: What's New in Literature?

Convention Center - Ballroom IV (Level 400)
Monday, November 6, 10:15 a.m. - Noon

Clinicians in tropical medicine and travelers' health base their decisions on the knowledge of disease epidemiology, clinical course, diagnostic tools, resistance patterns and vaccine safety data. This symposium will highlight recent studies on these aspects of Zika, malaria, yellow fever and diagnostics technology.

CHAIR
Lin H. Chen
Mount Auburn Hospital and Harvard Medical School, Cambridge and Boston, MA, United States

Bobbi Pritt
Mayo Clinic, Rochester, MN, United States

10:15 a.m.
ZIKA
Susan Hills
Centers for Disease Control and Prevention, Fort Collins, CO, United States

10:40 a.m.
MALARIA
Johanna P. Daily
Albert Einstein College of Medicine, Bronx, NY, United States

11:05 a.m.
YELLOW FEVER
Erin Staples
Centers for Disease Control and Prevention, Fort Collins, CO, United States

11:30 a.m.
DIAGNOSTICS TECHNOLOGY
Bobbi Pritt
Mayo Clinic, Rochester, MN, United States

Symposium 19

Strengthening Surveillance Systems as a Pillar of the Global Technical Strategy: Practical Progress from Country Teams

Convention Center - Room 318/319/320 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

Malaria control interventions have received a boost of funding and renewed attention in the past decade. The success of these programs has reduced transmission; now malaria cases tend to be concentrated in discrete areas or subpopulations. Strong malaria surveillance is increasingly important in this context: surveillance systems trigger case-specific responses, in addition to identifying gaps in intervention coverage or potential outbreaks. The World Health Organization's Global Technical Strategy affirms the importance of surveillance, naming "Transforming malaria surveillance into a core intervention" as one its three pillars to be achieved by 2030. As DHIS 2 uptake increases, countries are moving toward integrated health management information systems (HMIS), posing a unique opportunity to increase the focus on and quality of routine data, including surveillance data. HMIS provide routinely collected data on malaria-related indicators across all levels of the health system. These data allow program managers to efficiently allocate limited resources and assess progress. However, there are challenges to well-functioning HMIS, and these challenges are shared by malaria surveillance systems. Malaria surveillance systems must also fit in an overall Integrated Disease Surveillance and Response (IDSR) system and other parallel surveillance systems. In this symposium, attendees will hear from country teams about the role that malaria surveillance, and its connection with the overall IDSR, has played in countries with differing malaria contexts. Participants will also learn about what is required to build and sustain a strong surveillance system, including commodities, trained staff and feedback loops.

CHAIR

Yazoume Ye
ICF, Rockville, MD, United States

Jui A. Shah
ICF, Washington, DC, United States

10:15 a.m.
SENEGAL: USING SURVEILLANCE DATA DURING A RAPID TRANSITION FROM HIGH TO LOW MALARIA BURDEN

Medoune Ndiop
Programme National de Lutte contre le Paludisme (PNLP), Dakar, Senegal

10:30 a.m.
MADAGASCAR: FITTING MALARIA SURVEILLANCE INTO THE INTEGRATED DISEASE SURVEILLANCE AND RESPONSE AND ROUTINE HEALTH INFORMATION SYSTEMS

Arsene Ratsimbasoa
Programme national de Lutte contre le Paludisme (PNLP), Antananarivo, Madagascar

10:45 a.m.
INCREASING CAPACITY IN AND OVERCOMING BOTTLENECKS TO STRONG MALARIA SURVEILLANCE IN SUB-SAHARAN AFRICA

Keziah Malm
National Malaria Control Program, Accra, Ghana

11:15 a.m.
LOOKING TOWARD THE FUTURE: REMAINING GAPS AND OPPORTUNITIES FOR SURVEILLANCE SYSTEMS IN SUB-SAHARAN AFRICA

Arantxa Roca-Feltrer
Malaria Consortium, London, United Kingdom

Symposium 20

ASTMH Committee on Global Health (ACGH) Symposium II: Building a Successful Career in Global Health - An Interactive Session with Global Health Experts

Convention Center - Room 321/322/323 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

Beginning a career in global health is both exciting and challenging. Finding one's niche, collaborating with others, finding a job and promoting one's skills, and sharing one's findings with the broader scientific community are all areas that can pose obstacles at the beginning and throughout one's global health career. How does one translate the skills learned in the classroom into a fulfilling vocation? This symposium, organized by the ASTMH Committee on Global Health (ACGH), aims to address some of these challenges by delivering participants practical tools and skills essential to global health career development. In this exciting interactive session, international global health experts, as well as others, will meet with attendees in small groups to share practical experience and skills. Topics will include finding and maintaining appropriate mentorship, presentations and scientific writing and other career-building skills. By structuring the symposium in breakout sessions, participants will have a unique opportunity to focus on individual skills in interactive small-group sessions led by global health experts from the U.S. and overseas. The small groups will be divided into categories that participants will choose based on their current needs. The session features representatives from global health academic institutions in the U.S. and INGOs, as well. Lastly, the scientific writing session has been very popular. Topics for breakout groups will include: 1. Skills and strategies to succeed in global health in low- and middle-income countries. 2. Skills and strategies to succeed in global health in the United States. 3. Skills and strategies to succeed in writing, presenting and publishing global health related research at scientific forums and in medical/public health journals. By equipping early career individuals with the tools to develop their careers, the ASTMH Committee on Global Health aims to foster the growth of the global health field with the ultimate intent of benefitting the most vulnerable populations in resource-limited areas. Lastly, global health is full of ambitious, caring, intelligent individuals. By imparting practical wisdom in this unique setting, the leadership of the ASTMH Committee on Global Health hopes to continue to foster the enthusiasm and drive that brought them to global health in the first place.

CHAIR

Ramin Asgary
Columbia School of Public Health and Weill Cornell Medical College, New York, NY, United States

Christina S. Polyak
Walter Reed Army Institute of Research, Bethesda, MD, United States

10:15 a.m.
INTRODUCTION

Ramin Asgary
Columbia School of Public Health and Weill Cornell Medical College, New York, NY, United States

10:25 a.m.
BREAKOUT SESSION: SKILLS AND STRATEGIES TO SUCCEED IN WRITING, PRESENTING AND PUBLISHING GLOBAL HEALTH RELATED RESEARCH AT SCIENTIFIC FORUMS AND IN MEDICAL/PUBLIC HEALTH JOURNALS

Ramin Asgary
Columbia School Public Health and Weill Cornell School of Medicine, New York, NY, United States

BREAKOUT SESSION: SKILLS AND STRATEGIES TO SUCCEED IN GLOBAL HEALTH IN LOW- AND MIDDLE-INCOME COUNTRIES

Ryan W. Carroll
Massachusetts General Hospital, Boston, MA, United States

Abiola Fasina
Henry Jackson Foundation, Bethesda, MD, United States

BREAKOUT SESSION: SKILLS AND STRATEGIES TO SUCCEED IN GLOBAL HEALTH IN THE UNITED STATES

Katherine Taylor
University of Notre Dame, Eck Institute for Global Health, Notre Dame, IN, United States

11:50 a.m.
WRAP-UP

Ramin Asgary
Columbia School of Public Health and Weill Cornell Medical College, New York, NY, United States

Scientific Session 21

Mosquitoes - Vector Biology - Epidemiology I

Convention Center - Room 324/325/326 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

CHAIR

Jenny S. Carlson
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Ryan C. Smith
Iowa State University, Ames, IA, United States

10:15 a.m.
62

INVESTIGATING THE VECTOR COMPETENCE OF *CULEX QUINQUEFASCIATUS* FOR ZIKA VIRUS

Hannah J. MacLeod[1], Yesseinia I. Anglero-Rodriguez[1], Xiao-xia Guo[2], Tong-yan Zhao[2], George Dimopoulos[1]
[1]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [2]Institute of Microbiology and Epidemiology, Beijing, China

10:30 a.m.
63

LONG-TERM SURVEILLANCE DEFINES SPATIAL, TEMPORAL AND ENVIRONMENTAL PATTERNS THAT IMPLICATE *CULEX TARSALIS* AS THE PRIMARY VECTOR OF WEST NILE VIRUS TRANMISSION

Brendan M. Dunphy, Kristofer B. Kovach, **Ryan C. Smith**
Iowa State University, Ames, IA, United States

10:45 a.m.
64

MOSQUITO IMMUNITY BEFORE AND AFTER METAMORPHOSIS: EVIDENCE OF ADAPTIVE DECOUPLING IN *ANOPHELES GAMBIAE*

Garrett P. League, Tania Y. Estévez-Lao, Yan Yan, Valeria A. Garcia-Lopez, Julián F. Hillyer
Vanderbilt University, Nashville, TN, United States

11 a.m.
65

USING MOBILE PHONES AS ACOUSTIC SENSORS FOR HIGH-THROUGHPUT SURVEILLANCE OF MOSQUITO ECOLOGY

Haripriya Mukundarajan, Felix Hol, Erica Castillo, Cooper Newby, Manu Prakash
Stanford University, Stanford, CA, United States

11:15 a.m.
66

INTERROGATION OF THE SEASONAL MICROBIOME OF *ANOPHELES COLUZZII* IN MALI

Benjamin J. Krajacich[1], Diana L. Huestis[1], Adama Dao[2], Alpha S. Yaro[2], Moussa Diallo[2], Asha Krishna[1], Jiannong Xu[3], Tovi Lehmann[1]
[1]National Institute of Allergy and Infectious Diseases, Rockville, MD, United States, [2]ICER Mali, Bamako, Mali, [3]New Mexico State University, Las Cruces, NM, United States

11:30 a.m.
67

LARVAL BREEDING WATER: MICROORGANISMAL HETEROGENEITIES EFFECTS ON ADULT VECTOR COMPETENCE OF HUMAN PATHOGENS AND IMMUNITY

Jenny S. Carlson, Yesseinia Anglero-Rodriguez, George Dimopoulos
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

11:45 a.m.
68

NORTHERN RANGE EXPANSION OF THE ASIAN TIGER MOSQUITO (*AEDES ALBOPICTUS*): ANALYSIS OF MOSQUITO DATA FROM CONNECTICUT, USA

Philip Armstrong, Theodore G. Andreadis, John J. Shepard, Michael C. Thomas
The Connecticut Agricultural Experiment Station, New Haven, CT, United States

Scientific Session 22

Dengue: Pathogenesis/Immunology

Convention Center - Room 327/328/329 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

CHAIR

Eva Harris
University of California Berkeley, Berkeley, CA, United States

Rajendra Raut
University of North Carolina Chapel Hill, Chapel Hill, NC, United States

10:15 a.m.

69

DENGUE VIRUS IN PATIENTS DIFFERS FROM CELL CULTURE DERIVED VIRUS

Rajendra Raut[1], Kizzimekia S. Corbett[1], Aruna D. De Silva[2], Ananda Wijewickrama[3], Aravinda M. de Silva[1]
[1]University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, [2]Genetech Research Institute, Colombo, Sri Lanka, [3]National Institute of Infectious Diseases, Gothatuwa, Sri Lanka

10:30 a.m.

70

EVOLUTION OF B CELL RESPONSE IN PRIMARY DENGUE INFECTION

Huy A. Tu[1], Usha K. Nivarthi[2], Daniel Emerling[3], Douglas G. Widman[4], Ralph S. Baric[4], Kristen K. Pierce[1], Stephen S. Whitehead[5], Beth D. Kirkpatrick[1], Anna P. Durbin[6], Aravinda M. de Silva[2], Sean A. Diehl[1]
[1]Department of Medicine-Infectious Diseases and Vaccine Testing Center, University of Vermont, Burlington, VT, United States, [2]Department of Microbiology and Immunology, University of North Carolina School of Medicine, Chapel Hill, NC, United States, [3]Atreca, Palo Alto, CA, United States, [4]Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina, Chapel Hill, NC, United States, [5]National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, [6]Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States

10:45 a.m.

71

DENGUE VIRUS NS1-INDUCED ENDOTHELIAL CELL-INTRINSIC VASCULAR LEAK IS INDEPENDENT OF INFLAMMATORY CYTOKINES BUT DEPENDENT ON ENDOTHELIAL GLYCOCALYX INTEGRITY

Dustin Glasner, Kalani Ratnasiri, Henry Puerta-Guardo, P. Robert Beatty, Eva Harris
Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States

11 a.m.

72

FLAVIVIRUS NONSTRUCTURAL PROTEIN 1 MODULATES ENDOTHELIAL PERMEABILITY AND VASCULAR LEAK IN A TISSUE- AND DISEASE-SPECIFIC MANNER

Henry Puerta-Guardo, Dustin Glasner, Milena Dimitrova, Kalani Ratnasiri, Diego Espinosa, Eva Harris
Division of Infectious Diseases and Vaccinology, School of Public Health, University of California Berkeley, Berkeley, CA, United States

11:15 a.m.

73

MAPPING THE TARGET EPITOPES OF THE TYPE SPECIFIC ANTIBODY RESPONSES INDUCED BY A LIVE-ATTENUATED DENGUE VACCINE

Jesica A. Swanstrom[1], Usha K. Nivarthi[1], Matt J. Delacruz[1], Anna P. Durbin[2], Stephen S. Whitehead[3], Aravinda M. de Silva[1], Ralph S. Baric[1]
[1]University of North Carolina at Chapel Hill, Chapel Hil, NC, United States, [2]Johns Hopkins Bloomberg School of Public Health, Department of International Health, Baltimore, MD, United States, [3]Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

11:30 a.m.

74

THE EARLY PLASMABALST DERIVED ANTIBODY RESPONSE TO PRIMARY DENGUE VIRUS INFECTION

Usha Nivarthi[1], Bhumi Patel[1], Matt Delacruz[1], Anna Durbin[2], Steve Whitehead[3], Ralph Baric[1], Sean Diehl[4], Daniel Emerling[5], Aravinda Desilva[1]
[1]University of North Carolina, Chapel Hill, NC, United States, [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [3]Laboratory of Infectious Diseases, Bethesda, MD, United States, [4]The University of Vermont, Burlington, VT, United States, [5]Atreca Inc., San Francisco, CA, United States

11:45 a.m.

75

USE OF STRUCTURAL EQUATION MODELS TO PREDICT DENGUE ILLNESS PHENOTYPE

Sangshin Park[1], Anon Srikiatkhachorn[2], Siripen Kalayanarooj[3], Louis Macareo[4], Sharone Green[5], Jennifer F. Friedman[1], Alan L. Rothman[2]
[1]Brown University, Providence, RI, United States, [2]University of Rhode Island, Providence, RI, United States, [3]Queen Sirikit National Institute of Child Health, Bangkok, Thailand, [4]Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, [5]University of Massachusetts Medical School, Worcester, MA, United States

Scientific Session 23

Water, Sanitation, Hygiene and Environmental Health I

Convention Center - Room 331/332 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

CHAIR

Velma Lopez
University of Michigan, Ann Arbor, MI, United States

Kojo Yeboah-Antwi
Boston University School of Public Health, Center for International Health and Development, Boston, MA, United States

10:15 a.m.

76

EFFECTIVENESS OF A COMBINED HOUSEHOLD-LEVEL PIPED WATER AND SANITATION INTERVENTION IN RURAL ODISHA, INDIA ON HEALTH: A MATCHED COHORT STUDY

Heather Reese[1], Parimita Routray[2], Sheela Sinharoy[1], Belen Torondel[2], Howard Chang[1], Thomas Clasen[1]
[1]Emory University, Atlanta, GA, United States, [2]London School of Hygiene & Tropical Medicine, London, United Kingdom

10:30 a.m.

77

PREVALENCE AND ETIOLOGY OF ENTERIC INFECTIONS AMONG CHILDREN SHARING SANITATION IN LOW-INCOME NEIGHBORHOODS OF MAPUTO, MOZAMBIQUE: BASELINE DATA FROM THE MAPSAN TRIAL

Jacqueline Knee[1], Trent Sumner[1], Oliver Cumming[2], Rassul Nala[3], Joseph Brown[1]
[1]Georgia Institute of Technology, Atlanta, GA, United States, [2]London School of Hygiene & Tropical Medicine, London, United Kingdom, [3]Ministry of Health, Maputo, Mozambique

10:45 a.m.

78

EFFECT OF A SANITATION INTERVENTION ON SOIL-TRANSMITTED HELMINTH PREVALENCE AND CONCENTRATION IN HOUSEHOLD SOIL: A CLUSTER-RANDOMIZED CONTROLLED TRIAL

Lauren Steinbaum[1], John Mboya[2], Ryan Mahoney[3], Jared Otuke[2], Sammy Njenga[4], Clair Null[3], Amy Pickering[1]
[1]Stanford University, Stanford, CA, United States, [2]Innovations for Poverty Action, Nairobi, Kenya, [3]Innovations for Poverty Action, New Haven, CT, United States, [4]Kenya Medical Research Institute, Nairobi, Kenya

11 a.m.

79

SCHISTOSOMIASIS COUNTRYWIDE ASSESSMENT IN UGANDA: A NEGLECTED TROPICAL DISEASE OF CONCERN FOR WATER, SANITATION AND HYGIENE PRACTITIONERS

Natalie G. Exum[1], Alexandra Shannon[1], Fredrick E. Makumbi[2], Simon P. Kibira[2], John Ssempebwa[2], Edridah M. Tukahebwa[3], Kellogg J. Schwab[1]
[1]Johns Hopkins University, Baltimore, MD, United States, [2]Makerere University, Kampala, Uganda, [3]Vector Control Division, Ministry of Health, Kampala, Uganda

11:15 a.m.

80

IMPACT OF IMPROVED SANITATION AND HYGIENE ON STUNTING IN RURAL ZAMBIA

Kojo Yeboah-Antwi, William Macleod, Godfrey Biemba, Davidson Hamer
Center for Global Health and Development, Boston, MA, United States

11:30 a.m.

81

THE ASSOCIATION BETWEEN FECAL CONTAMINATION AND ENVIRONMENTAL ANTIBIOTIC RESISTANCE IN RURAL BRAZIL

Patricia S. Bartley[1], Vanessa T. Moretto[2], Luciano K. Silva[2], Soraia M. Cordeiro[3], Mitermayer G. Reis[2], Ronald E. Blanton[1], Lucio M. Barbosa[4]
[1]Case Western Reserve University, Cleveland, OH, United States, [2]Gonçalo Moniz Research Center, Oswaldo Cruz Foundation, Salvador, Brazil, [3]Federal University of Bahia School of Pharmacy, Salvador, Brazil, [4]Bahiana School of Medicine and Public Health, Salvador, Brazil

11:45 a.m.

82

IDENTIFYING ROBUST PROXY VARIABLES OF LATRINE USE: EXAMINING ACCESS TO IMPROVED SANITATION AS A PROXY

Velma Lopez, Philippa Clarke, Brady West, Joseph Eisenberg
University of Michigan, Ann Arbor, MI, United States

Scientific Session 24

Protozoa

Convention Center - Room 337/338 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

CHAIR

Rojelio Mejia
Baylor College of Medicine, Houston, TX, United States

Adam Sateriale
University of Georgia, Athens, GA, United States

10:15 a.m.

83

LONGITUDINAL IMPACT OF INTESTINAL PARASITES ON MICROBIOME DIVERSITY AND METAGENOMIC CHANGES IN CHILDREN FROM ECUADOR AND ARGENTINA

Rojelio Mejia[1], Rubén Cimino[2], Ashish Damania[1], Rebecca Jeun[1], Patricia E. Bryan[1], Paola Vargas[3], Alejandro Krolwiecki[3], Philip Cooper[4], Barton Slatko[5]
[1]Baylor College of Medicine, Houston, TX, United States, [2]Universidad Nacional de Salta Argentina, Salta, Argentina, [3]Universidad Nacional de Salta, Salta, Argentina, [4]Universidad Internacional De Ecuador, Quito, Ecuador, [5]New England BioLabs, Inc., Ipswich, MA, United States

10:30 a.m.

84

A NATURAL MOUSE MODEL FOR CRYPTOSPORIDIOSIS

Adam Sateriale[1], Jan Slapeta[2], Rodrigo Baptista[1], Jessica Kissinger[1], Carrie Brooks[1], Gillian Herbert[1], Ravi Pulusu[1], Boris Striepen[1]
[1]University of Georgia, Athens, GA, United States, [2]University of Sydney, Sydney, Australia

(ACMCIP Abstract)

10:45 a.m.

85

CAREGIVERS AS A POTENTIAL SOURCE OF CRYPTOSPORIDIUM INFECTION IN KENYAN CHILDREN

Patricia B. Pavlinac[1], Heidi K. Hillesland[1], Carol A. Gilchrist[2], Jaqueline M. Naulikha[3], Christine J. McGrath[1], Doreen Rwigi[3], Wesley C. Van Voorhis[1], Benson O. Singa[3], Judd L. Walson[1]
[1]University of Washington, Seattle, WA, United States, [2]University of Virginia, Charlottesville, VA, United States, [3]Kenya Medical Research Institute, Nairobi, Kenya

11 a.m.

86

NEW COMPOUND SERIES WITH POTENT AND SELECTIVE ACTIVITY AGAINST *G. DUODENALIS*

Tina S. Skinner-Adams[1], Christopher Hart[1], Andrew Riches[2], Jack Ryan[2], Katherine Andrews[1]
[1]Griffith University, Brisbane, Australia, [2]Commonwealth Scientific and Industrial Research Organization, Clayton, Australia

11:15 a.m.

87

HOUSEHOLD TRANSMISSION OF CRYPTOSPORIDIOSIS IN BANGLADESH

Poonum Korpe[1], Carol Gilchrist[2], Shahnawaz Ahmed[3], Emtiaz Ahmed[3], Cecelia Burkley[4], Masud Alam[3], Mamun Kabir[3], Tuhinur Arju[3], William A. Petri, Jr.[2], Rashidul Haque[3], A.S.G. Faruque[3], Priya Duggal[1]
[1]Johns Hopkins University, Baltimore, MD, United States, [2]University of Virginia, Charlottesville, VA, United States, [3]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [4]University of Virginia, Charlottsville, VA, United States

11:30 a.m.

88

SEASONAL VARIATION OF CRYPTOSPORIDIUM GENOTYPES IN BANGLADESH

Cecelia G. Burkey[1], Carol A. Gilchrist[1], Poonum S. Korpe[2], Priya Duggal[2], Emtiaz Ahmed[3], Mamun Kabir[3], Rashidul Haque[3], William A. Petri[1]
[1]University of Virginia, Charlottesville, VA, United States, [2]Johns Hopkins University, Baltimore, MD, United States, [3]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh

11:45 a.m.

89

DEVELOPMENT OF DRUG CANDIDATES FOR CRYPTOSPORIDIOSIS TARGETING THE *CRYPTOSPORIDIUM* METHIONYL-TRNA SYNTHETASE

Frederick S. Buckner[1], Ranae M. Ranade[1], Matthew A. Hulverson[1], Zhongsheng Zhang[1], Wenlin Huang[1], Sayaka Shibata[1], Ryan Choi[1], Rajiv S. Jumani[2], Peter Miller[2], Christophe L. Verlinde[1], Wim G. Hol[1], Christopher D. Huston[2], Robert K. Choy[3], Eugenio L. de Hostos[3], Erkang Fan[1]
[1]University of Washington, Seattle, WA, United States, [2]University of Vermont, Burlington, VT, United States, [3]PATH, San Francisco, CA, United States

(ACMCIP Abstract)

Symposium 25

STH Control Beyond School-Based Targeted Deworming: Evidence of the Additional Benefits of Community-Based Mass Chemotherapy

Convention Center - Room 339/340 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

Soil transmitted helminth (STH) infections are a global health problem. The current strategy for control of STH being implemented in most endemic countries is school-based targeted drug treatment of school-age children (SAC), as children are more susceptible to serious and lasting morbidity/sequelae resulting from helminth infection. Recent modeling has raised questions about school-based deworming, demonstrating its limited impact on community health and, importantly, STH transmission. This is contrary to the currently accepted idea that adults benefit from school-based deworming as a result of its impact on the overall intensity of transmission within the population. Furthermore, a recent systematic review and meta-analysis suggests that community-based mass drug administration results in a bigger prevalence reduction in children than school-based drug administration targeted to SAC alone, for both Ascaris and hookworm species. This symposium will include experts in the field of STH control who will present findings from experimental and modelling studies that aim to establish evidence to determine the benefits of community mass deworming for STH control, in order to achieve long-term, sustainable reductions in the burden of these parasites and potentially elimination. The symposium will focus on three deworming trials in various stages – the TUMIKIA study (Kenya), DeWorm3 (Benin, India, Malawi) and (S)WASH-D for WORMS (East Timor) as well as on mathematical modelling evidence.

CHAIR

Alison Bettis
London Centre for Neglected Tropical Disease Research, London, United Kingdom

Susana Nery
Australian National University, Acton, Australia

10:15 a.m.
INVESTIGATING SCHOOL- AND COMMUNITY-BASED INTEGRATED CONTROL PROGRAMS FOR SOIL-TRANSMITTED HELMINTHS IN TIMOR-LESTE: THE (S) WASH-D FOR WORMS PILOT STUDY

Susana Nery
Australian National University, Acton, Australia

10:35 a.m.
EXAMINING THE FEASIBILITY OF INTERRUPTING STH TRANSMISSION ON A GLOBAL SCALE: THE DEWORM3 PROJECT

Judd Walson
University of Washington, Seattle, WA, United States

10:55 a.m.
THE TUMIKIA STUDY: A CLUSTER RANDOMIZED TRIAL EVALUATING ALTERNATIVE TREATMENT STRATEGIES AND DELIVERY STRATEGIES FOR STH IN KENYA

Rachel Pullan
London School of Hygiene & Tropical Medicine, London, United Kingdom

11:15 a.m.
UNDERSTANDING THE SHORT-TERM AND LONG-TERM IMPACT OF DEWORMING AND ON STH TRANSMISSION USING MATHEMATICAL MODELLING

Roy Anderson
Imperial College London, London, United Kingdom

Scientific Session 26

Global Health: Burden, Epidemiology and Prevention of Febrile Illness and Malaria

Convention Center - Room 341/342 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

CHAIR

Hannah Koenker
JHUCCP, Baltimore, MD, United States

Richard Reithinger
RTI International, Washington, DC, United States

10:15 a.m.
90
SCOPING REVIEW ON IDENTIFYING GLOBAL KNOWLEDGE GAPS IN ACUTE FEBRILE ILLNESS SURVEILLANCE

Chulwoo Rhee[1], Grishma Kharod[1], Nathan Furukawa[2], Nicolas Schaad[1], Neil M. Vora[1], John Crump[3], David Blaney[1], Kevin Clarke[1]
[1]Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Department of Medicine, University of Washington, Seattle, WA, United States, [3]Division of Infectious Diseases and International Health, Duke University Medical Center, Durham, NC, United States

10:30 a.m.
91
MAPPING CHILDHOOD DIARRHEA IN AFRICA

Robert C. Reiner, Nick Graetz, Manny Garcia, Puja Rao, Jonathan Mosser, Aniruddha Deshpande, Aaron Osgood-Zimmerman, Roy Burstein, Chris Troeger, Simon Hay
University of Washington, Seattle, WA, United States

10:45 a.m.
92
ASSESSING THE NON-BIOLOGIC CONTRIBUTORS TO MORTALITY AMONG INPATIENTS WITH FEBRILE ILLNESS IN TANZANIA: A PROSPECTIVE COHORT SOCIAL BIOPSY STUDY

Michael Snavely[1], Michael J. Maze[2], Charles Muiruri[1], Lilian Ngowi[3], Flora Mboya[3], Julia Beamesderfer[4], Glory Makupa[5], Anthon Mwingwa[5], Bingileki F. Lwezaula[6], Blandina T. Mmbaga[3], Venance P. Maro[5], John A. Crump[2], Jan Ostermann[7], Matthew P. Rubach[8]
[1]Duke Global Health Institute, Duke University, Durham, NC, United States, [2]Centre for International Health, University of Otago, Dunedin, New Zealand, [3]Kilimanjaro Christian Medical Center, Moshi, United Republic of Tanzania, [4]University of Pennsylvania, Philadelphia, PA, United States, [5]Kilimanjaro Christian Medical University College, Moshi, United Republic of Tanzania, [6]Mawenzi Regional Referral Hospital, Moshi, United Republic of Tanzania, [7]Arnold School of Public Health, University of South Carolina, Columbia, SC, United States, [8]Division of Infectious Diseases, Duke University Medical Center, Durham, NC, United States

11 a.m.
93
POPULATION ACCESS TO ITN IS A BETTER INDICATOR OF 'UNIVERSAL COVERAGE' THAN HOUSEHOLD OWNERSHIP OF AT LEAST 1 ITN FOR 2 PEOPLE

Hannah Koenker[1], Albert Kilian[2]
[1]Johns Hopkins University Center for Communication Programs, Baltimore, MD, United States, [2]Tropical Health LLP, Montagut, Spain

11:15 a.m.

94

SOCIAL BEHAVIOR CHANGE COMMUNICATION AND BEDNET RETENTION, CARE, REPAIR, USE AND IMPACT IN BENIN

Andre Houtoukpe[1], Manzidatou Alao[1], Liscovich Ademikpo[1], Hilary Adjalla[1], Jean Adjidjan[1], Taylor Osborne[2], Martin Akogbeto[3], Filemon Tokponnon[4], Steve C. Smith[5], Michelle Kouletio[6], Fortune Dagnon[6], Luis Benavente[7]
[1]Medical Care Development Inc., Porto Novo, Benin, [2]Medical Care Development Inc. Peace Corps Volunteer, Porto Novo, Benin, [3]Center de Recherche Entomologique de Cotonou, Cotonou, Benin, [4]Programme National de Lutte contre le Paludisme, Cotonou, Benin, [5]Centers for Disease Control and Prevention, Atlanta, GA, United States, [6]U.S. Agency for International Development, Cotonou, Benin, [7]Medical Care Development Inc., Silver Spring, MD, United States

11:30 a.m.

95

EFFECTIVENESS AND SUSTAINABILITY OF A COLLABORATIVE IMPROVEMENT METHOD TO INCREASE THE QUALITY OF ROUTINE MALARIA SURVEILLANCE DATA IN KAYUNGA DISTRICT, UGANDA

Nelli Westercamp[1], Sarah Staedke[2], Eleanor Hutchinson[2], Susan Naiga[3], Christine Nabirye[3], Lilian Taaka[3], Catherine Maiteki-Sebuguzi[3], Simon P. Kigozi[3], John M. Okiring[3], Grant Dorsey[4], Alexander K. Rowe[1]
[1]Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]London School of Hygiene & Tropical Medicine, London, United Kingdom, [3]Infectious Diseases Research Collaboration, Kampala, Uganda, [4]University of California San Francisco, San Francisco, CA, United States

11:45 a.m.

96

ASSOCIATION BETWEEN INCREASING MALARIA CONTROL INTERVENTIONS AND REDUCTIONS IN STUNTING CHILDREN 6-59 MONTHS OF AGE: A MULTI-COUNTRY DECOMPOSITION ANALYSIS

Lia Florey, **Cameron Taylor**, Deborah Collison, Yodit Bekele, Jean de Dieu Bizimana
ICF International, Rockville, MD, United States

Scientific Session 27

Schistosomiasis and Other Trematodes: Transmission and Treatment

Convention Center - Room 343/344 (Level 300)
Monday, November 6, 10:15 a.m. - Noon

CHAIR

Philip T. LoVerde
University of Texas Health Science Center, San Antonio, TX, United States

Anna E. Phillips
Imperial College, London, United Kingdom

10:15 a.m.

97

A MAJOR LOCUS ON CHR. 1 DETERMINES CERCARIAL SHEDDING TIME IN OMANI SCHISTOSOMES

Gabriel Mouahid[1], Frédéric Chevalier[2], Juliette Langand[1], Mohamed A. Idris[3], Salem Al Yafae[4], Marina McDew-White[2], Vinay Menon[2], **Tim Anderson**[2], Hélène Moné[1]
[1]Université de Perpignan Via Domitia, Perpignan, France, [2]Texas Biomedical Research Institute, San Antonio, TX, United States, [3]Sultan Qaboos University, Muscat, Oman, [4]Sultan Qaboos Hospital, Salalah, Oman

10:30 a.m.

98

COMPARISON OF THREE METHODS TO EVALUATE THE BURDEN OF INFECTION BY *FASCIOLA HEPATICA* IN SHEEP FROM AN ENDEMIC AREA

Karina Bardales[1], Luis A. Gomez-Puerta[1], Raul Enriquez[1], Cesar Sedano[1], Edinson Montoya[2], Saul Santivanez[3], Armando E. Gonzalez[1]
[1]Facultad de Medicina Veterinaria, Universidad Nacional Mayor de San Marcos, Lima, Peru, [2]Instituto De Ciencias Neurologicas, Lima, Peru, [3]Center for Global Health, Universidad Peruana Cayetano Heredia, Lima, Peru

10:45 a.m.

99

MONITORING AND MEASURING SCHISTOSOMIASIS AT TRANSMISSION SITES IN KENYA: SENTINEL MICE COUPLED WITH GENOTYPING OF RECOVERED ADULT WORMS

Sarah K. Buddenborg[1], Martin W. Mutuku[2], Ibrahim N. Mwangi[2], Gerald M. Mkoji[2], Eric S. Loker[1]
[1]University of New Mexico, Albuquerque, NM, United States, [2]Kenya Medical Research Institute, Nairobi, Kenya

11 a.m.

100

WHY DOES OXAMNIQUINE KILL *SCHISTOSOMA MANSONI* BUT NOT *S. HAEMATOBIUM* OR *S. JAPONICUM?*

Anastasia Rugel[1], Alexander B. Taylor[1], Xiaohang Cao[1], Peter J. Hart[1], Stanton F. McHardy[2], Reid Tarpley[2], Frederic Chevalier[3], Timothy J. Anderson[3], **Philip T. LoVerde**[1]
[1]University of Texas Health Science Center, San Antonio, TX, United States, [2]University of Texas at San Antonio, San Antonio, TX, United States, [3]Texas Biomedical Research Institute, San Antonio, TX, United States

11:15 a.m.

101

IMPACT OF DIFFERENT TREATMENT STRATEGIES OVER FIVE YEARS FOR SCHISTOSOMIASIS IN MOZAMBIQUE

Anna E. Phillips[1], Pedro Gazzinelli-Guinmaraes[2], Oswaldo Aurelio[3], Josefo Ferro[4], Rassul Nala[5], Neerav Dhanani[1], Alan Fenwick[1]
[1]Imperial College, London, United Kingdom, [2]National Institute of Health, Washington, DC, United States, [3]Universidade Catolica de Mocambique, Pemba, Mozambique, [4]Universidade Catolica de Mocambique, Beira, Mozambique, [5]Ministerio da Saude, Maputo, Mozambique

11:30 a.m.

102

CONTROLLED HUMAN INFECTION WITH SINGLE-SEX *SCHISTOSOMA MANSONI* CERCARIAE

Marijke Langenberg, Jacqueline Janse, Marie-Astrid Hoogerwerf, Janneke Kos-van Oosterhoud, Arifa Ozir-Fazalakhan, Ron Hokke, Angela van Diepen, Eric Brienen, Lisette van Lieshout, Hermelijn Smits, Martha van der Beek, Pauline Meij, Richard Verbeek, Leo Visser, Maria Yazdanbakhsh, **Meta Roestenberg**
Leiden University Medical Center, Leiden, Netherlands

(ACMCIP Abstract)

11:45 a.m.

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GENOME SCALE APPROACHES TO UNDERSTANDING THE PERSISTENCE OF SCHISTOSOMIASIS IN RESIDUAL TRANSMISSION HOTSPOTS

Elizabeth Carlton[1], Jonathan Shortt[2], Will Eaton[1], Yang Liu[3], Bo Zhong[3], Todd Castoe[4], David Pollock[2]
[1]Colorado School of Public Health, University of Colorado, Aurora, CO, United States, [2]University of Colorado School of Medicine, Aurora, CO, United States, [3]Sichuan Center for Disease Control and Prevention, Chengdu, China, [4]University of Texas Arlington, Arlington, TX, United States

American Committee on Arthropod-Borne Viruses (ACAV) Faculty-Trainee Roundtable Discussions

Hilton – Latrobe, Peale B, Peale C, Johnson A, Johnson B (East Building, First Floor)
Monday, November 6, Noon - 1 p.m.

These lunch table meetings aim to provide students and postdoctoral fellows an opportunity to interact with established arbovirologists to discuss job opportunities, related scientific work and receive valuable career guidance and direction.

American Committee of Medical Entomology (ACME) Networking Lunch

Hilton - Peale A (East Building, First Floor)
Monday, November 6, Noon – 1 p.m.

An informal "meet and greet" for members of the American Committee of Medical Entomology (ACME).

Exhibit Hall Open and Light Lunch

Convention Center - Swing Hall (Level 100)
Monday, November 6, Noon - 1:45 p.m.

Poster Session 28

Poster Session A: Presentations and Light Lunch

Convention Center - Hall F and G (Level 100)
Monday, November 6, Noon - 1:45 p.m.

Poster Session A Directory

Flaviviridae – Dengue

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POST-DENGUE ACUTE DISSEMINATED ENCEPHALOMYELITIS: A NEW CASE REPORT, SYSTEMATIC REVIEW AND META-ANALYSIS

Mohamed Gomaa Kamel[1], Nguyen Tran Nam[2], Nguyen Huu Bao Han[3], Abd-Elaziz El-Shabouny[4], Abd-ElRahman Mohamed Makram[5], Tran Ngoc Dang[6], Fatma Abd-Elshahed Abd-Elhay[1], Nguyen Le Trung Hieu[7], Kenji Hirayama[8], Vu Thi Que Huong[9], Trinh Huu Tung[2], **Nguyen Tien Huy**[10]
[1]Faculty of Medicine, Minia University, Minia, Egypt, [2]Department of Infectious Diseases, Children's Hospital No. 2, Ho Chi Minh, Vietnam, [3]Department of Pediatrics, University of Medicine and Pharmacy, Ho Chi Minh, Vietnam, [4]Kasr Al Ainy School of Medicine, Cairo University, Cairo, Egypt, [5]Faculty of Medicine, October 6 University, Cairo, Egypt, [6]Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Japan, [7]Department of Neurology, University of Medicine and Pharmacy, Ho Chi Minh, Vietnam, [8]Department of Immunogenetics, Institute of Tropical Medicine (NEKKEN), Leading Graduate School Program, and Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan, [9]Department of Immunology and Microbiology, Pasteur Institute, Ho Chi Minh, Vietnam, [10]Department of Clinical Product Development, Institute of Tropical Medicine (NEKKEN), Leading Graduate School Program, and Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan

105

SECONDARY HETEROTYPIC DENV INFECTION OF DIFFERENT DENV GENOTYPES IN MARMOSETS

Nor Azila Muhammad Azami[1], Meng Ling Moi[2], Yasushi Ami[3], Yuriko Suzaki[3], Masayuki Saijo[4], Tomohiko Takasaki[5], Ichiro Kurane[6]
[1]Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Japan, [2]Institute of Tropical Medicine, Nagasaki University, Nagasaki, Japan, [3]Division of Experimental Animal Research, National Institute of Infectious Disease, Tokyo, Japan, [4]Department of Virology 1, National Institute of Infectious Diseases, Tokyo, Japan, [5]Kanagawa Prefectural Institute of Public Health, Kanagawa, Japan, [6]National Institute of Infectious Diseases, Tokyo, Japan

106

TRANSIENT MONOCYTOSIS SUBJUGATES LOW PLATELET COUNT IN ADULT DENGUE PATIENTS

Jih-Jin Tsai[1], Jung-San Chang[1], Ko Chang[1], Po-Chih Chen[1], Li-Teh Liu[2], Tzu-Chuan Ho[3], Sia Seng Tan[3], Yu-Wen Chien[4], Yu-Chih Lo[5], Guey Chuen Perng[6]
[1]Kaohsiung Medical University Hospital, Kaohsiung, Taiwan, [2]Department of Medical Laboratory Science and Biotechnology, College of Medicine and

Life Science, Chung-Hwa University of Medical Technology, Tainan, Taiwan, [3]Microbiology and Immunology and I Public Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan, [4]Public Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan, [5]Department of Biotechnology and Bioindustry Sciences, College of Bioscience and Biotechnology, National Cheng Kung University, Tainan, Taiwan, [6]Center of Infectious Disease and Signaling Research, National Cheng Kung University, Tainan, Taiwan

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HOUSEHOLD COSTS OF HOSPITALIZED DENGUE ILLNESS IN SEMI-RURAL THAILAND

Yesim Tozan[1], Pitcha Ratanawong[2], Annelies Wilder-Smith[3], Pattamaporn Kittayapong[4]
[1]New York University College of Global Public Health, New York, NY, United States, [2]Institute of Public Health, Heidelberg University Medical School, Heidelberg, Germany, [3]Epidemiology and Global Health, Department of Public Health and Clinical Medicine, Umeå University, Umea, Sweden, [4]Center of Excellence for Vectors and Vector-Borne Diseases and Department of Biology, Faculty of Science, Mahidol University, Bangkok, Thailand

108

PHENOTYPES OF STEM AND PROGENITOR CELLS ACCOUNTING FOR THE ACUTE AND PERSISTENT INFECTION OF DENGUE VIRUS

Amrita Vats
National Cheng Kung University, Tainan, Taiwan

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SEASONALITY OF ARBOVIRAL ILLNESS IN RURAL ECUADOR: 2009-2016

Rachel J. Sippy[1], Diego Herrera[2], David Gaus[2], Ronald Gangnon[1], Jorge Osorio[1], Jonathan Patz[1]
[1]University of Wisconsin Madison, Madison, WI, United States, [2]Salud y Desarollo Andino, Pedro Vicente Maldonado, Ecuador

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FIRST REPORT OF COMPLETE GENOME ANALYSIS OF NEUROTROPIC DENGUE VIRUS SEROTYPE 3 ISOLATED FROM THE CEREBROSPINAL FLUID OF AN ENCEPHALITIS PATIENT

Rama Dhenni[1], Nina D. Putri[2], Mulya R. Karyanti[2], Benediktus Yohan[1], Frilasita A. Yudhaputri[1], Chairin N. Ma'roef[1], Araniy Fadhilah[1], Aditya Perkasa[1], Restuadi Swatanto[1], Hidayat Trimarsanto[1], Jeremy P. Ledermann[3], Ann M. Powers[3], Khin S. Myint[1], R. Tedjo Sasmono[1]
[1]Eijkman Institute for Molecular Biology, Jakarta, Indonesia, [2]DR. Cipto Mangunkusomo National Central Hospital, Medical Faculty University of Indonesia, Jakarta, Indonesia, [3]Division of Vector-Borne Diseases, Centers for Disease Control and Prevention, Fort Collins, CO, United States

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HUMAN MONOCLONAL ANTIBODIES AGAINST DENGUE VIRUSES: REVEALS FROM A NOVEL ASSAY

Trung Vu[1], Bridget Wills[1], Lauren Carrington[1], Cameron Simmons[2]
[1]Oxford University Cinical Research Unit, Ho Chi Minh, Vietnam, [2]Department of Microbiology and Immunology, University of Melbourne, Melbourne, Australia

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DENGUE AS A RURAL DISEASE? FINDINGS FROM A HOUSEHOLD STUDY IN KAMPHAENG PHET, THAILAND

Philip V. Bystrom[1], Katie B. Anderson[1], Darunee Buddhari[2], Alan L. Rothman[3], Alden L. Weg[2], Damon W. Ellison[2], Louis R. Macareo[2], Timothy P. Endy[4]
[1]University of Minnesota Medical School, Minneapolis, MN, United States, [2]Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, [3]University of Rhode Island, Kingston, RI, United States, [4]State University of New York, Albany, NY, United States

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IPS CELL DERIVED DENDRITIC CELL LIKE CELL IS INFECTED WITH DENGUE VIRUS AND ACTS AS ANTIGEN PRESENTING CELL

Manh H. Dao[1], Shusaku Mizukami[2], Muhareva Raekiansyah[3], Shyam Prakash Dumre[1], Satoru Senju[4], Yasuharu Nishimura[4], Juntra Karbwang[2], Kouichi Morita[3], Kenji Hirayama[1]
[1]Department of Immunogenetics, Institute of Tropical Medicine (NEKKEN), Nagasaki University, Nagasaki, Japan, [2]Department of Clinical Product Development, NEKKEN, Nagasaki University, Nagasaki, Japan, [3]Department of Virology, NEKKEN, Nagasaki University, Nagasaki, Japan, [4]Department of Immunogenetics, Kumamoto University Graduate School of Medical Sciences, Kumamoto, Japan

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PREVALENCE AND BURDEN OF DENGUE IN EUROPE: A SYSTEMATIC REVIEW AND META-ANALYSIS

Ali Mahmoud Ahmed[1], Mohammed Khattab[1], Thao Thanh Vu[2], Abdelrahman Tarek Mohammed[1], Mohamed Fahmy Doheim[3], Ahmed Ashraf Mohamed[1], Mai Mahmoud Abdelhamed[4], Bahaa eldin Shamandy[5], Mahmoud Tamer Dawod[6], Wafaa Ali Alesaei[7], Mahmoud Attia Kassem[8], Omar Mohamed Mattar[9], Safya Mohamed Al-agery[1], Kenji Hirayama[10], Nguyen Tien Huy[10]
[1]Faculty of Medicine, Al-Azhar University, Cairo, Egypt, [2]School of Health and Biomedical Sciences, RMIT University, Victoria, Australia, [3]Faculty of Medicine, Alexandria University, Alexandria, Egypt, [4]Faculty of Medicine, Tanta University, El-Gharbiya, Egypt, [5]Faculty of Medicine, Aswan University, Aswan, Egypt, [6]Faculty of Medicine, Zagazig University, El-sharkia, Egypt, [7]Faculty of Medicine, Misr University for Science and Technology, Giza, Egypt, [8]The Ohio State University Wexner Medical Center, Columbus, OH, United States, [9]Kasr Alainy Faculty of Medicine, Cairo University, Cairo, Egypt, [10]Institute of Tropical Medicine (NEKKEN), Nagasaki University, Nagasaki, Japan

115

A COMPARISON OF RAPID AND STANDARD DIAGNOSTIC ASSAY EFFICACY FOR THE DETECTION OF DENGUE VIRUS

Elysse N. Grossi-Soyster[1], Amy R. Krystosik[1], Jael Sagina[2], Samuel G. Kimaru[2], Francis M. Mutuku[3], A. Desiree LaBeaud[1]
[1]Stanford University School of Medicine, Pediatrics Infectious Disease, Stanford, CA, United States, [2]Vector Borne Disease Control Unit, Msambweni, Kenya, [3]Technical University of Mombasa, Department of Environmental and Health Sciences, Mombasa, Kenya

(ACMCIP Abstract)

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ASSESSMENT OF PFMDR1 AND PFCRT MUTATIONS AFTER SIX YEARS OF IMPLEMENTATION OF ARTEMISININ BASED COMBINATION IN DAKAR, SENEGAL

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HIGH FREQUENCY OF MULTI-CLONALITY INFECTION AND DRUG-RESISTANT ALLELES OF *PLASMODIUM FALCIPARUM* ISOLATES FROM GABON 4 YEARS AFTER THE IMPLEMENTATION OF ACT

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HIGH PREVALENCE OF MALARIA SUBMICROSCOPIC INFECTION IN WOMEN UNDER SULFADOXINE-PYRIMETHAMINE PREVENTIVE TREATMENT AT DELIVERY IN THE REPUBLIC OF CONGO

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LUMINEX-BASED QUANTIFICATION OF *PLASMODIUM SP* HRP2 AND PLDH IN *PLASMODIUM*-INFECTED PREGNANT WOMEN

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IMPROVED POINT-OF-CARE TESTING FOR THE DETECTION OF INFECTION WITH MALARIA PARASITES DURING PREGNANCY IN BUSIA, UGANDA

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AN ULTRASENSITIVE LOOP MEDIATED ISOTHERMAL AMPLIFICATION (US-LAMP) METHOD FOR DIAGNOSIS AND SURVEILLANCE OF MALARIA

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ESTABLISHMENT AND APPLICATION OF A NOVEL FIELD BASED LOOP-MEDIATED ISOTHERMAL AMPLIFICATION (LAMP) ASSAY FOR MONITORING ANTI-MALARIAL DRUG RESISTANCE IN *PLASMODIUM FALCIPARUM*

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WorldWide Antimalarial Resistance Network, Oxford, United Kingdom

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TOWARDS MALARIA ELIMINATION: ANALYSIS OF MALARIA SURVEILLANCE DATA AMONG UNDER FIVES IN OYO STATE, NIGERIA (2010 - 2014)

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USE OF THE IMMUNO-EPIDEMIOLOGICAL BIOMARKER OF HUMAN EXPOSURE TO *ANOPHELES* BITES IN THE MONITORING OF MALARIA TRANSMISSION IN (PRE) ELIMINATION AREAS

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RISK FACTOR ASSESSMENT FOR MALARIA AMONG FOREST-GOERS IN A PRE-ELIMINATION SETTING, PHU YEN PROVINCE, VIETNAM

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ESTABLISHING NEW LINE OF *PLASMODIUM FALCIPARUM* INFECTED CLONAL STRAINS IN SUPPORT OF CONTROLLED HUMAN MALARIA INFECTION STUDIES

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TIMELINESS AND COMPLETENESS OF MALARIA CASE NOTIFICATION AND RESPONSE IN ZANZIBAR, 2013-2015

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EXPANDING THE ANTIMALARIAL PIPELINE: THE DISCOVERY OF PYRIMIDINEDIONES, A NEW SERIES TO CURE AND BLOCK MALARIA TRANSMISSION

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THE WEEKLY ASSOCIATIONS BETWEEN CLIMATIC FACTORS AND *PLASMODIUM VIVAX* AND *PLASMODIUM FALCIPARUM* MALARIA IN CHINA 2005-2014

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BIOMARKER DEVELOPMENT AND PRIORITIZATION OF GLOBALLY SUITABLE *PLASMODIUM FALCIPARUM* MEROZOITE-STAGE VACCINE CANDIDATE ANTIGENS

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BURDEN OF ASYMPTOMATIC MALARIA IN CHILDREN 2-17 YEARS FROM MALARIA ENDEMIC REGIONS OF KENYA

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A FRAMEWORK FOR MALARIA SURVEILLANCE IN TANZANIA

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SUBMICROSCOPIC MALARIA INFECTIONS IN PREGNANT WOMEN FROM SIX DEPARTMENTS IN HAITI

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FREQUENCIES OF *PLASMODIUM FALCIPARUM* GENE MUTATIONS IN ASYMPTOMATIC INFECTIONS: EVALUATING MALARIA TRANSMISSION REDUCTION IN AN ENDEMIC AREA

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ASSOCIATION OF MALARIA AND ANEMIA WITH MALNUTRITION IN CHILDREN FOLLOWING A SEASONAL MALARIA CHEMOPREVENTION PROGRAM IN A RURAL AREA OF BURKINA FASO

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SPANNING THE ELIMINATION SPECTRUM: EVALUATING THE MALARIA SURVEILLANCE SYSTEM IN MOZAMBIQUE

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WHAT PROPORTION OF *PLASMODIUM FALCIPARUM* AND *PLASMODIUM VIVAX* MALARIA INFECTIONS ARE IN MOSQUITOES?

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TEMPORAL TRENDS OF PARASITEMIA IN UNCOMPLICATED *FALCIPARUM* INFECTIONS IN KENYA DURING THE PERIOD OF ARTEMISININ COMBINATION THERAPY USE IN 2008 TO 2016

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MALARIA AND ANEMIA AMONG PREGNANT WOMEN IN MALI, WEST AFRICA

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NATURALLY ACQUIRED ANTIBODY RESPONSE TO *PLASMODIUM FALCIPARUM* DESCRIBES HETEROGENEITY IN TRANSMISSION ON ISLANDS IN LAKE VICTORIA

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Malaria - Genetics/Genomics

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VARIABILITY OF MALARIA PARASITES FROM NON-HUMAN PRIMATES IN THE BRAZILIAN ATLANTIC FOREST

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DRAMATIC CHANGES IN MALARIA POPULATION GENETIC COMPLEXITY IN DIELMO AND NDIOP, SENEGAL REVEALED USING GENOMIC SURVEILLANCE

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COMPARATIVE LANDSCAPE GENETICS OF *PLASMODIUM FALCIPARUM, ANOPHELES ARABIENSIS*, AND *AN. GAMBIAE* IN KENYA

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PREVALENCE OF HUMAN GENETIC POLYMORPHISMS ASSOCIATED WITH PROTECTION FROM MALARIA IN REGIONS OF UGANDA WITH DIFFERENT LEVELS OF MALARIA ENDEMICITY

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STATISTICAL INFERENCE OF *PLASMODIUM FALCIPARUM* TRANSMISSION NETWORKS BASED JOINTLY ON GENETIC AND EPIDEMIOLOGICAL DATA

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DELETION OF *PF*DXR REVEALS ESSENTIAL ISOPRENOID FUNCTIONS IN *PLASMODIUM FALCIPARUM* CYTOSTOME FORMATION AND MAINTENANCE OF DIGESTIVE VACUOLE

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Shazia Ruybal-Pesántez[1], Kathryn E. Tiedje[1], Gerry Tonkin-Hill[2], Shai Pilosof[3], Abraham Oduro[4], Kwadwo A. Koram[5], Mercedes Pascual[3], Karen P. Day[1]
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THE ROLE OF COMPLEMENT IN ANTIBODY-MEDIATED IMMUNITY AGAINST MALARIA IN PREGNANCY

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THE TRANSCRIPTION FACTOR T-BET SUPPRESSES GERMINAL CENTRE DEVELOPMENT AND HUMORAL IMMUNITY TO BLOOD-STAGE *PLASMODIUM* INFECTION

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Camilla V. Pires[1], Jéssica R. Alves[1], Barbara A. Lima[1], Flora S. Kano[1], Francis B. Ntumngia[2], John H. Adams[2], Luzia H. Carvalho[1]
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Noé Patrick M'bondoukwé[1], Jacques-Mari Ndong Ngomo[1], Jeanne Vanessa Koumba Lengongo[1], Fanny Bertrande Batchy Ognagosso[1], Christian Nziengui Tirogo[2], Denise Patricia Mawili-Mboumba[1], Marielle Karine Bouyou-Akotet[1]
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Liriye Kurtovic[1], Marije Behet[2], Gaoqian Feng[1], Linda Reiling[1], Freya Fowkes[1], James Kazura[3], Kiprotich Chelimo[4], Arlene Dent[3], Robert Sauerwein[2], James Beeson[1]
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Thomas Druetz[1], Gillian Stresman[2], Ruth Ashton[1], Michelle A. Chang[3], Jean Frantz Lemoine[4], Chris Drakeley[2], Thomas P. Eisele[1]
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DEVELOPMENT OF A NOVEL AMPLICON DEEP SEQUENCING MARKER AND DATA ANALYSIS PIPELINE FOR GENOTYPING OF MULTI-CLONAL *PLASMODIUM FALCIPARUM* INFECTIONS

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Japhet M. Matoba[1], Mukuma Lubinda[1], Philip E. Thuma[1], Muleba Mbanga[2], Mike Chaponda[2], James Lupiya[2], Alex Chilabi[3], Douglas E. Norris[4], William J. Moss[5], Jennifer C. Stevenson[4]
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Christine K. Tarr-Attia[1], Guillermo Martínez Pérez[2], Bondey Breeze-Barry[1], Peter D. Lansana[1], Quique Bassat[2], Raquel González[2], Azucena Bardají[2], Anna Rosés[2], Benard Benda[1], Senga Omeonga[1], Ana Meyer[3], Alfredo Mayor Aparicio[2]
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Ruth Ashton[1], Bakary Doumbia[2], Diadier Diallo[3], Thomas Druetz[4], Seydou Fomba[5], Diakalia Koné[5], Jules Mihigo[6], Lia Florey[7], Erin Eckert[8], Thomas P. Eisele[4]
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Wala Kamchedzera, Jobiba Chinkhumba, Patrick Mwale, Atupele Kapito-Tembo, Don Mathanga
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Bridy Moutombi Ditombi, Julienne Minko, Ornella Anaïse Mbang Nguema, France Ovengue, Denise Patricia Mawili-Mboumba, Marielle Karine Bouyou Akotet
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Meghan E. Whalen[1], Nona Chamankhah[1], Liusheng Huang[1], Richard Kajubi[2], Catherine A. Koss[1], Abel Kakuru[2], Francis Orukan[2], Moses R. Kamya[2], Grant Dorsey[1], Philip J. Rosenthal[1], Francesca T. Aweeka[1], Norah Mwebaza[2]
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TOWARD IMPROVED HEALTH SYSTEMS RESPONSIVENESS: A CROSS-SECTIONAL STUDY OF MALARIA ENDEMICITY AND READINESS TO DELIVER SERVICES IN KENYA, NAMIBIA AND SENEGAL

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MALARIA CONTROL: A REALIST REVIEW

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PROTEOMIC CHARACTERIZATION OF ERYTHROCYTE DERIVED MICROVESICLES FROM MALARIA INFECTED CHILDREN

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BRIDGING HISTORICAL LUMINEX® 200™ DATA WITH LUMINEX® FLEXMAP 3D™ DATA

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A SYSTEMATIC REVIEW OF INDOOR RESIDUAL SPRAYING TO INVESTIGATE THE IMPACT OF PYRETHROID RESISTANCE ON MALARIA TRANSMISSION

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CONSIDERATIONS FOR FORECASTING IRS INSECTICIDES

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EVALUATING THE EPIDEMIOLOGICAL IMPACT OF SHIFTING IRS PRODUCTS FROM 2011-2014 IN NORTHERN GHANA

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SPECIATION, SEROTYPING AND ANTIMICROBIAL SUSCEPTIBILITY PATTERN OF *SHIGELLA* ISOLATES IN NORTHERN SRI LANKA

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EARLY CHILDHOOD STUNTING AMONG HIV-EXPOSED, UNINFECTED INFANTS IN KENYA; THE IMPACT OF MATERNAL AND INFANT DIARRHEA

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QUANTITATIVE ANALYSIS OF DIARRHEA ETIOLOGY IN TRAVELERS' DIARRHEA IN NEPAL

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DETECTION *CRYPTOSPORIDIUM* AND *CYCLOSPORA* OF DIGITAL DROPLET PCR (DDPCR) FROM TRAVELERS' DIARRHEA AND NEPALESE STOOLSAMPLES

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ANTIBIOTIC RESISTANCE OF *SALMONELLA ENTERICA* ISOLATES FROM PORK CARCASSES IN SLAUGHTERHOUSES IN LIMA, PERU

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ENTEROPATHOGEN PROFILE IN HUMANS AND DOMESTIC ANIMALS IN COASTAL DISTRICT OF ODISHA, INDIA: POSSIBLE ZOONOTIC TRANSMISSION AND CONCERNS

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EVALUATION OF THE MULTIPLEX LUMINEX GASTROINTESTINAL PATHOGEN PANEL (XTAG GPP) TESTING IN THE DIARRHEIC MILITARY DEPLOYED TO COBRA GOLD AND BALIKATAN EXERCISES

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ANTIMICROBIAL RESISTANCE IN *ESCHERICHIA COLI* AND *SALMONELLA* SPP. ISOLATES FROM FRESH PRODUCE IN THE PHILIPPINES AND THE IMPACT TO CONSUMERS' HEALTH AND SAFETY

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PROJECTING THE POTENTIAL IMPACT AND COST-EFFECTIVENESS OF A DIAGNOSTIC FOR LONG-TERM CARRIAGE IN TYPHOID FEVER

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ASSOCIATION BETWEEN ORAL REHYDRATION SALTS DURING HOME TREATMENT, AND DEHYDRATION AND EXTENDED CASE FATALITY FOLLOWING A MODERATE-TO-SEVERE DIARRHEAL EPISODE IN LOW AND MIDDLE-INCOME COUNTRIES

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VIABILITY OF *VIBRIO CHOLERAE* ISOLATED DURING THE CHOLERA EPIDEMIC IN PERU IN 1991

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A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED TRIAL TO ASSESS THE PROTECTIVE EFFICACY OF ORALLY DELIVERED BOVINE SERUM IMMUNOGLOBULIN (BSIGG) SPECIFIC FOR THE COLONIZATION FACTOR CS6 FOLLOWING CHALLENGE WITH THE CS6-EXPRESSING ENTEROTOXIGENIC *E. COLI* (ETEC) STRAIN B7A

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Bacteriology - Systemic Infections

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CASES OF METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS*: ASSESSING ITS RISE IN HOSPITAL AND COMMUNITY-ASSOCIATED CASES

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HIGH PREVALENCE OF SUSPECTED NOSOCOMIAL COLONIZATION WITH METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* AT A TERTIARY CARE HOSPITAL IN SOUTHERN SRI LANKA

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WHAT IS THE MAJOR ISSUE TO TACKLE NEONATAL INFECTIONS IN LOW INCOME COUNTRIES? EVIDENCE FROM A COMMUNITY-BASED COHORT STUDY IN MADAGASCAR

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TYPHOID FEVER OUTBREAK IN HARARE, ZIMBABWE, 2016-2017

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IMPACT OF NUTRITIONAL STATUS ON PEDIATRIC PATIENTS AGED FROM 6 TO 59 MONTH HOSPITALIZED FOR SUSPECTED INVASIVE BACTERIAL INFECTIONS AT CHU-GT, BAMAKO, MALI

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USE OF C-REACTIVE PROTEIN AND PROCALCITONIN TO TARGET ANTIBIOTIC PRESCRIPTION IN CHILDREN UNDER-FIVE WITH UNDIFFERENTIATED FEVER: RESULTS FROM A CLINICAL TRIAL IN TANZANIA

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BACK-CALCULATION OF THE INCIDENCE OF LEPROSY-RELATED IMPAIRMENT - GLOBAL PATTERNS AND FORECASTS

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DESCRIPTION OF THE LOCAL EPIDEMIOLOGY OF BACTERIAL ETIOLOGY IN CLINICAL NEONATAL SEPSIS IN RURAL SOUTHEASTERN CAMBODIA

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EXPERIMENTAL CONFIRMATION OF UNIQUE, FUNCTIONAL RICIN-B LIKE LECTIN DOMAINS IN PATHOGENIC *LEPTOSPIRA*

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SALMONELLA SEROGROUP C1 SEROVARS ISOLATED FROM BLOOD OF INFANTS IN BAMAKO, MALI, FROM 2002 TO 2014

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THE DEVELOPMENT OF A DUAL-TARGET REAL-TIME PCR ASSAY FOR THE DETECTION OF *BRUCELLA* SPECIES

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SPECTRUM OF MULTI-DRUG RESISTANT GRAM NEGATIVE BACTERIA ISOLATED FROM HOSPITALIZED CHILDREN WITH FEBRILE ILLNESS IN THREE REGIONAL REFERENCE HOSPITALS IN UGANDA

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A NOVEL DIAGNOSTIC KEY FOR LEPROSY BASED ON ARTIFICIAL INTELLIGENCE

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UNRECOGNIZED BURDEN OF LEPTOSPIROSIS IN RURAL NEPAL: EVIDENCE FROM A SERO-EPIDEMIOLOGIC SURVEY

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PATHOGENS AND THEIR SUSCEPTIBILITY TO ANTIMICROBIALS USED FOR EMPIRIC TREATMENT OF INFECTIONS

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THE BURDEN AND DISTRIBUTION OF TYPHOID FEVER IN AFRICA

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CLINICAL CHARACTERIZATION OF LEPROSY IN A TERTIARY CENTER IN PERU

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RICKETTSIAL INFECTION: AN UNEXPECTED CAUSE OF FEVER IN PATIENTS HOSPITALIZED WITH ACUTE FEBRILE ILLNESS IN INDONESIA

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CLINICAL, SEROLOGICAL AND MOLECULAR DIAGNOSIS OF TYPHOID FEVER, A SIGNIFICANT CAUSE OF ACUTE FEBRILE ILLNESS AMONG HOSPITALIZED PATIENTS IN INDONESIA FROM 2013-2016

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Cestodes - Echinococcosis/Hydatid Disease

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HUMAN ECHINOCOCCOSIS: EVALUATION OF DISEASE ACTIVITY BY SEROLOGY

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LUNG AND LIVER CYSTIC ECHINOCOCCOSIS - FACTORS ASSOCIATED WITH HEALTH-RELATED QUALITY OF LIFE AFTER SURGICAL TREATMENT

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Cestodes - Taeniasis and Cysticercosis

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NEUROINFLAMMATION IN NEUROCYSTICERCOSIS USING RAT ORAL INFECTION VERSUS INTRACRANIAL INFECTION

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NEUROINFLAMMATION AT DIFFERENT TIMES AFTER INFECTION WITH *TAENIA SOLIUM* LARVA STAGE USING RAT MODEL

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CLONING AND EXPRESSION OF THE TRYPSIN-LIKE PROTEIN TSAG5 IN AN INSECT'S CELLS EXPRESSION SYSTEM FOR ITS POTENTIAL USE IN THE IMMUNODIAGNOSTICS OF SINGLE CYST NEUROCYSTICERCOSIS

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PRODUCTION OF KIT IN HOUSE IMMUNOELECTROTRANSFER BLOT TEST WITH PURIFIED CYSTICERCUS VESICULAR FLUID ANTIGEN OF *TAENIA SOLIUM* MIX-NATIVE FOR DIAGNOSIS OF HUMAN CYSTICERCOSIS

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BANDING PATTERNS OF THE ENZYME-LINKED IMMUNOELECTROTRANSFER BLOT (EITB) CORRELATE WITH THE INFECTION STATUS IN PORCINE CYSTICERCOSIS

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SOCIALIZING EVIDENCE TO TRANSFORM COMMUNITY BARRIERS IN CYSTICERCOSIS PREVENTION AND SURVEILLANCE IN NORTHERN PERU

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A NOVEL MAGNETIC PARTICLE-BASED APPROACH FOR THE PURIFICATION AND CONCENTRATION OF MONOCLONAL ANTIBODIES FROM CELL CULTURE SUPERNATANT

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FIELD BASED SCREENING FOR CIRCULATING ANTIGEN IN URINE SAMPLES FOR THE DETECTION OF SEVERE FORMS OF NEUROCYSTICERCOSIS

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ANGIOGENESIS AND BLOOD-BRAIN BARRIER DISRUPTION IN RAT MODEL FOR NEUROCYSTICERCOSIS

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ANTIPARASITIC TREATMENT IN NOVEL RAT MODEL FOR NEUROCYSTICERCOSIS

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POTENTIAL CROSS REACTION OF GP50 WITH *TAENIA HYDATIGENA* IN SEROLOGIC DIAGNOSIS OF PORCINE CYSTICERCOSIS USING ON ENZYME-LINKED IMMUNOELECTROTRANSER BLOT (LLGP EITB)

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COMMUNITY ENGAGEMENT AND HEALTH EDUCATION TO INCREASE KNOWLEDGE OF THE *T. SOLIUM* LIFE CYCLE IN NORTHERN PERU: BASELINE AND PRELIMINARY RESULTS

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DIAGNOSIS OF TAENIASIS USING A FIELD ASSAY FOR DETECTION OF COPROANTIGENS IN RURAL COMMUNITIES OF NORTHERN PERU

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SPATIAL AND TEMPORAL VARIATIONS IN *TAENIA SOLIUM* EXPOSURE AMONG PIGS IN RURAL PERU

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EFFECTS OF IMMEDIATE VS. DELAYED IRON THERAPY ON NEUROBEHAVIORAL FUNCTION IN UGANDAN CHILDREN WITH SEVERE MALARIA

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PARASITIC INFECTIONS DURING PREGNANCY IN GABON: BIRTH OUTCOMES AND IMMUNOLOGICAL CHANGES

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PREDICTING MORTALITY FOR ADOLESCENT AND ADULT PATIENTS WITH FEVER IN RESOURCE-LIMITED SETTINGS

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ASSOCIATION OF MIRNA-122 WITH LIPIDS IN A SUB-POPULATION OF HYPERTENSIVE PATIENTS IN SUB-SAHARAN AFRICA

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Q FEVER IN SOUTHERN CALIFORNIA, A CASE SERIES OF TWENTY-ONE PATIENTS

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ANTI-MOSQUITO SALIVA IMMUNITY, MAST CELLS AND CLINICAL PRESENTATION OF DENGUE

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WHERE HAS THE BLOOD GONE IN PATIENTS WITH SEVERE ANAEMIA IN SEVERE MALARIA DUE TO *PLASMODIUM FALCIPARUM* INFECTION AND SEPTICEMIA

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DYING ONE WAY OR ANOTHER: AN ANALYSIS OF COMBAT AND NON-COMBAT DEATHS AMONG U.S. TROOPS IN VIETNAM, 1960-1975

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LIFE AND DEATH IN 17TH CENTURY JAMAICA: TROPICAL DISEASE AND BRITISH COLONIAL AMBITIONS

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TELEPHONE ADMINISTRATION OF THE PATIENT SPECIFIC FUNCTIONAL SCALE (PSFS): A VALID, RELIABLE, AND PATIENT-REPORTED OUTCOME IN GLOBAL SNAKEBITE RESEARCH

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INCIDENCE OF SERIOUS PATHOLOGY IN PATIENTS PRESENTING WITH CHRONIC LOW BACK PAIN IN A SUB-SAHARAN AFRICAN OUTPATIENT SETTING

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THE CLINICAL FEATURES, COMPLICATIONS AND TREATMENT OF NODDING SYNDROME

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PEDIATRIC INPATIENT ANTIBIOTIC PRESCRIPTION PRACTICES IN THE CHAIN NETWORK HOSPITALS AT BASELINE

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DIAGNOSTIC CHALLENGE OF SKIN LESIONS IN RETURNED TRAVELER FROM IVORY COAST

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CLINICAL OUTCOMES OF VENOMOUS SNAKEBITES IN THE ECUADORIAN AMAZON RAINFOREST AFTER IMPLEMENTATION OF A NATIONAL PROTOCOL

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THE EFFECTS OF MALNUTRITION AND DIARRHEA TYPE ON THE ACCURACY OF CLINICAL SIGNS OF DEHYDRATION IN CHILDREN UNDER FIVE: A PROSPECTIVE COHORT STUDY IN BANGLADESH

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Helminths - Nematodes - Filariasis (Cellular and Molecular Biology)

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EVALUATING INTESTINAL PROTEINS IN *BRUGIA MALAYI* ADULT WORMS AS POTENTIAL DRUG TARGETS

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THE MOLECULAR BASIS OF *LOA LOA* CROSS-REACTIVITY IN THE RAPID DIAGNOSTIC TEST FOR LYMPHATIC FILARIASIS

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Helminths - Nematodes - Filariasis (Clinical)

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ASSESSING THE AVAILABILITY, READINESS AND QUALITY OF MORBIDITY MANAGEMENT AND DISABILITY PREVENTION SERVICES FOR CLINICAL LYMPHATIC FILARIASIS IN BANGLADESH

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MULTI-COUNTRY PROSPECTIVE COHORT TO MEASURE THE IMPACT OF SURGERY ON MEN WITH HYDROCOELE CAUSED BY LYMPHATIC FILARIASIS

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SAFETY OF CO-ADMINISTRATION OF A SINGLE DOSE OF IVERMECTIN, ALBENDAZOLE AND DIETHYLCARBAMAZINE IN SUBJECTS WITH AND WITHOUT *WUCHERERIA BANCROFTI* INFECTION IN CÔTE D'IVOIRE

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GENETIC BACKGROUND OF AN ATYPICAL *LEISHMANIA DONOVANI* CAUSING CUTANEOUS LEISHMANIASIS IN SRI LANKA

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USE OF IMMUNOGENIC EPITOPE ALPHA GALACTOSYL (α-GAL) FOR THE DIAGNOSIS OF CHAGAS DISEASE IN CHAGASIC PATIENTS FROM BOLIVIA AND PERU

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EFFICACY OF GENETICALLY MODIFIED LIVE ATTENUATED *LEISHMANIA* VACCINES AGAINST INFECTED SAND FLY BITES

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THE ROLE OF SOCIAL MEDIA IN A NATIONAL TUBERCULOSIS DRUG RESISTANCE SURVEY: LESSONS FROM AN ONGOING SURVEY IN GHANA

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Medical Research Council Unit, The Gambia, Basse, URR, Gambia

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SELECTING A REFERENCE STANDARD FOR EVALUATING RESPIRATORY RATE DEVICES TO DIAGNOSE SYMPTOMS OF PNEUMONIA IN CHILDREN UNDER 5: LESSONS LEARNED FROM RESOURCE-POOR SETTINGS IN SUB-SAHARAN AFRICA AND ASIA

Charlotte Ward, Kevin Baker, Sarah Marks, Karin Källander
Malaria Consortium, London, United Kingdom

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EVALUATION OF THE LOOP MEDIATED ISOTHERMAL AMPLIFICATION METHOD ON THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS IN CAMEROON

Laure Ngando
Centre Pasteur Cameroun, Yaounde, Cameroon

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DIAGNOSTIC, MANAGEMENT AND REFERRAL PATTERNS AMONG PRIVATE HEALTH CARE PROVIDERS FOR PEDIATRIC RESPIRATORY ILLNESSES IN SOUTH INDIA

Rajan Srinivasan[1], Anita Mathews[2], Venkat Raghava Mohan[1], Gagandeep Kang[1]
[1]Christian Medical College, Vellore, India, [2]Tufts University School of Medicine, Boston, MA, United States

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APTAMERS SPECIFIC FOR PYRAZINOIC ACID AS A NEW TOOL TO DETERMINE PYRAZINAMIDE RESISTANCE DIRECTLY FROM SPUTUM SAMPLES CULTURES

Roberto Alcántara[1], Mirko Zimic[2], Patricia Sheen[2], Pohl Milon[3]
[1]Univeridad Peruana Cayetano Heredia and Universidad Peruana de Ciencias Aplicadas, Lima, Peru, [2]Univeridad Peruana Cayetano Heredia, Lima, Peru, [3]Univeridad Peruana de Ciencias Aplicadas, Lima, Peru

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BACTERIAL PROFILE AND DRUG RESISTANT PATTERNS IN PNEUMONIA SUSPECTED HIV PATIENTS AT ART CLINICS IN NORTHERN ETHIOPIA

Gebre Adhanom, **Muthupandian Saravanan**
Mekelle University, Institute of Biomedical Sciences, Mekelle, Ethiopia

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MULTI-DRUG RESISTANT TUBERCULOSIS TREATMENT OUTCOMES IN A HIGH HUMAN IMMUNODEFICIENCY VIRUS (HIV) PREVALENCE PROGRAMMATIC COHORT IN UGANDA

Nansumba Margaret[1], Norbert Tiishekwa[2], Agnes Ngabirano[2], Provia Tumukunde[3], Bright Twinomugisha[2], Francis Mugabi[4]
[1]Mbarara University of Science and Technology, Mbarara, Uganda, [2]Track TB/MSH, Mbarara, Uganda, [3]Mbarara Regional Referral Hospital, Mbarara, Uganda, [4]Mbarara Regional Referral hospital, Mbarara, Uganda

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13-VALENT PCV AGAINST INVASIVE

Ilias I. Hossain
Medical Research Council Unit, The Gambia, Banjul, Gambia

Protozoa - Ameba/Giardia

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ENTAMOEBA SPP IN BANGLADESH

Tuhinur Arju[1], Brittany N. Schnider[2], Mamun Kabir[1], Md. Masud Alam[1], William A. Petri[2], Rashidul Haque[1], Carol A. Gilchrist[2]
[1]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [2]University of Virginia, Charlottesville, VA, United States

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ENTAMOEBA BANGLADESHI IN SOUTH AFRICA

Renay Ngobeni[1], Samie Amidou[1], Shannon Moonah[2], Koji Watanabe[3], William A. Petri[2], Carol A. Gilchrist[2]
[1]University of Venda, Thohoyandou, South Africa, [2]University of Virginia, Charlottesville, VA, United States, [3]National Center for Global Health and Medicine, Tokyo, Japan

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IMPACT OF INTESTINAL PROTOZOA INFECTIONS ON CYTOKINES PROFILES OF INDIVIDUALS INFECTED BY FILARIAL AND/OR INTESTINAL HELMINTHS IN DIFFERENTS AREAS OF GABON

Reinne Moutongo ep Mouandza, Noé Patrick Mbondoukwe, Vanessa Jeanne Lengogo, Jacques Mari Ndong Ngomo, Dénise Patricia Mawili Mboumba, Marielle Bouyou Akotet
Département de Parasitologie Mycologie, Libreville, Gabon

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EVALUATION OF A NEW RAPID TEST FOR AMOEBIASIS, THE *E. HISTOLYTICA QUIK CHEK*™

Blake Hanbury[1], **Li Chen**[1], Carol Gilchrist[2], Jodie Stevens[1], Susan Doyle[1], Kristen Schwab[1], Abdullah Siddique[3], Biplob Hossain[3], Cecilia Burkey[2], Rashidul Haque[3], William Petri[2], Joel Herbein[1]
[1]TechLab Inc., Blacksburg, VA, United States, [2]University of Virginia, Charlottesville, VA, United States, [3]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh

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EVALUATION OF A DIAGNOSTIC SCREENING TEST, THE TRI-COMBO PARASITE SCREEN, FOR DETECTION OF *E. HISTOLYTICA, GIARDIA*, AND *CRYPTOSPORIDIUM* PARASITES IN HUMAN FECAL SPECIMENS

Janice Hencke[1], **Li Chen**[1], Carol Gilchrist[2], Jodie Stevens[1], Susan Doyle[1], Kristen Schwab[1], Abdullah Siddique[3], Mamun Kabir[3], Cecilia Burkey[2], Rashidul Haque[3], William Petri[2], Joel Herbein[1]
[1]TechLab Inc., Blacksburg, VA, United States, [2]University of Virginia, Charlottesville, VA, United States, [3]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh

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THE SEARCH FOR A SMALL MOLECULE THERAPEUTIC FOR THE TREATMENT OF GRANULOMATOUS AMEBIC ENCEPHALITIS

Corin V. White[1], Matthew T. Laurie[1], Kip Guy[2], Joseph L. DeRisi[1]
[1]University of California San Francisco, San Francisco, CA, United States, [2]St. Jude Children's Research Hospital, Memphis, TN, United States

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IMPACT OF GASTROINTESTINAL PARASITES ON GROWTH USING QUANTITATIVE PCR IN A LONGITUDINAL ECUADORIAN BIRTH COHORT

Patricia E. Bryan[1], Andrea Arèvalo Cortès[2], Carlos Sandoval[2], Martha Chico[2], Ashish Damania[1], Philip J. Cooper[2], Rojelio Mejia[1]
[1]National School of Tropical Medicine, Baylor College of Medicine, Houston, TX, United States, [2]Universidad Internacional de Ecuador, Quito, Ecuador

Trematodes – Other

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SEROLOGICAL DIAGNOSIS OF PARAGONIMIASIS USING A RECOMBINANT *PARAGONIMUS KELLICOTTI* ANTIGEN

Kurt C. Curtis[1], Iya Sasse R. Nyaba[2], Makedonka Mitreva[1], Chounna Ndongmo Winston Patrick[2], Ngongeh Glory[2], Ndzeshang Bertrand[2], Gary J. Weil[1], Samuel Wanji[2], Peter U. Fischer[1]
[1]Washington University School of Medicine, St. Louis, MO, United States, [2]University of Buea, Buea, Cameroon

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CLINICAL STAGES, EPIDEMIOLOGICAL AND LABORATORY CHARACTERISTICS OF FASCIOLASIS IN CHILDREN POPULATION AT ANTA COMMUNITY IN CUSCO, PERU

Karen Mozo[1], Maria L. Morales[1], Clinton A. White[2], Andres G. Lescano[3], Karen E. Neira[3], Miguel M. Cabada[1]
[1]Instituto de Medicina Tropical Alexander von Humboldt, Universidad Cayetano Heredia, sede Cusco, Cusco, Peru, [2]Department of Internal Medicine, University of Texas Medical Branch, Galveston, TX, United States, [3]EMERGE, Unidad de Investigación en Enfermedades Emergentes y Cambio Climático. Universidad Peruana Cayetano Heredia, Lima, Peru

Trematodes - Schistosomiasis - Cellular and Molecular Biology

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REGULATION OF GENE TRANSCRIPTION BY JNK AND P38 MAPK SIGNALING PATHWAYS IN *SCHISTOSOMA MANSONI*

Sandra Grossi Gava[1], Naiara Tavares[1], Anna Salim[1], Flávio Araújo[1], Guilherme Oliveira[2], Marina Mourão[1]
[1]CPqRR, Belo Horizonte, Brazil, [2]ITV, Belém, Brazil

(ACMCIP Abstract)

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A SYSTEMS BIOLOGY APPROACH LINKING GENETIC, EPIGENETIC, CYTOPLASMIC AND HOLOBIONT INHERITANCE TO UNDERSTAND RAPID ADAPTATION OF PARASITIC FLATWORMS *(SCHISTOSOMA* SP.)

Christoph Grunau, Celine Cosseau, Eve Toulza, Richard Galinier, Benjamin Gourbal
University of Perpignan Via Domitia, Perpignan, France

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KNOCKDOWN OF A *SCHISTOSOMA MANSONI* TRPML CHANNEL (SMTRPML) DISRUPTS ADULT WORM TEGUMENTAL STRUCTURE

Swarna Bais, Gordon Ruthel, Bruce D. Freedman, Robert M. Greenberg
University of Pennsylvania, Philadelphia, PA, United States

(ACMCIP Abstract)

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QUANTITATIVE PROTEOMIC ANALYSIS OF THE HUMAN URINE FOR NOVEL PROTEIN BIOMARKERS FOR SCHISTOSOMIASIS AND ITS ASSOCIATED BLADDER PATHOLOGIES USING LABEL FREE MASS SPECTROMETRY

Olugbenga Samson Onile[1], Bridget Calder[2], Nelson X. C. Soares[2], Chiaka I. Anumudu[3], Jonathan M. Blackburn[2]
[1]Elizade University, Nigeria, Ilara-Mokin, Ondo State Nigeria, [2]Division of Chemical and System Biology, Department of Integrative Biomedical Sciences, IDM, University of Cape Town, Cape Town, South Africa, [3]Cellular Parasitology Programme, Department of Zoology, University of Ibadan, Nigeria, Ibadan, Nigeria

Trematodes - Schistosomiasis – Immunology

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SCHISTOSOMA MANSONI EXOSOMES AS MODULATORS OF THE HOST IMMUNE SYSTEM

Maude Dagenais, Jerry Aldridge, Timothy Geary, Paula Ribeiro
McGill University, Ste-Anne-de-Bellevue, QC, Canada

(ACMCIP Abstract)

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IDENTIFICATION OF A CD193+ SUBPOPULATION OF B CELLS IN PRE-ADOLESCENT CHILDREN WITH SCHISTOSOMIASIS

Isaac O. Onkanga[1], Huldah Sang[1], Bartholomew Ondigo[1], Rachael Hamilton[2], Thomas Schneider[2], Maurice Odiere[1], Pauline Mwinzi[1], Lisa Ganley Leal[2]
[1]KEMRI/Centers for Disease Control and Prevention, Kisumu, Kenya, [2]2STC Biologics, Cambridge, MA, United States

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IPSE, A UROGENITAL PARASITE-DERIVED HOST MODULATORY PROTEIN, INDUCES GENE EXPRESSION CRITICAL FOR HOST PATHOGENESIS AND PARASITE EGG SURVIVAL AND EXPULSION

Loc Le[1], Christopher Bayne[2], Evaristus Mbanefo[1], Nirad Banskota[1], Abdulaziz Alouffi[3], Franco Falcone[3], Michael Hsieh[2]
[1]Biomedical Research Institute, Rockville, MD, United States, [2]Division of Pediatric Urology, Children's National Health System, Washington, DC, United States, [3]University of Nottingham, Nottingham, United Kingdom

(ACMCIP Abstract)

Water, Sanitation, Hygiene and Environmental Health

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A STUDY OF *SALMONELLA* PREVALENCE IN FROZEN MEATS AND CORRELATION IN TESTS USED FOR SURVEILLANCE TO ASSIST IN A MORE EFFECTIVE FOOD INSPECTION GUIDELINES AT THE FOOD AND ENVIRONMENT LABORATORY IN AJMAN, UAE

Nishi Singh[1], Bashayer A. Al Marzooqi[2], Mohammed Zaman[2], Ban Altoumah[2]
[1]Dubai Women's College, Dubai, United Arab Emirates, [2]Sharjah Women's College, Sharjah, United Arab Emirates

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ABERRATION IN IRON AND MEAN CORPUSCULAR HEMOGLOBIN METABOLISM CAUSED BY LAMBDA CYHALOTHRIN AND AFLATOXINS IN FISH DIET FROM SELECTED AQUATIC SOURCES IN KENYA

Faith O. Onyangore
University of Kabianga, Kericho, Kenya

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DRINKING WATER-SPECIFIC RISK FACTORS FOR MODERATE-TO-SEVERE DIARRHEA IN YOUNG CHILDREN IN THE GLOBAL ENTERIC MULTICENTER STUDY — SUB-SAHARAN AFRICA AND SOUTH ASIA, 2007-2012

Ciara E. O'Reilly[1], Tracy L. Ayers[1], Kirsten P. Fagerli[1], Tamer H. Farag[2], Dilruba Nasrin[2], Yukun Wu[2], William C. Blackwelder[2], Pedro L. Alonso[3], Robert F. Breiman[4], Abu S. Faruque[5], Debasish Saha[6], Samba Sow[7], Dipika Sur[8], Anita K. Zaidi[9], M. Jahangir Hossain[6], Sumon Kumar Das[5], Shahnawaz Ahmed[5], Inacio Mandomando[10], Richard Omore[11], Farheen Quadri[9], James P. Nataro[12], Karen L. Kotloff[2], Myron M. Levine[2], Eric D. Mintz[1]
[1]National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Center for Vaccine Development, University of Maryland School of Medicine, Baltimore, MD, United States, [3]Centre de Recerca en Salut Internacional de Barcelona, Hospital Clinic (CRESIB), Universitat de Barcelona, Barcelona, Spain, and Centro de Investigação em Saúde de Manhiça, Maputo, Mozambique, [4]Centers for Disease Control and Prevention-Kenya, Nairobi, Kenya; and Emory Global Health Institute, Emory University, Atlanta, GA, United States, [5]International Centre for Diarrhoeal Disease Research, Mohakhali, Dhaka, Bangladesh, [6]Medical Research Council, Fajara, Gambia, [7]Centre pour le Développement des Vaccins, Bamako, Mali, [8]National Institute of Cholera and Enteric Diseases, Kolkata, India, [9]Department of Paediatrics and Child Health, the Aga Khan University, Karachi, Pakistan, [10]Centro de Investigação em Saúde de Manhiça, Maputo, Mozambique, [11]Kenya Medical Research Institute/Centers for Disease Control and Prevention, Kisumu, Kenya, [12]Department of Pediatrics, University of Virginia School of Medicine, Charlottesville, VA, United States

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SANITATION, WATER AND INSTRUCTION IN FACE-WASHING FOR TRACHOMA (SWIFT): THE CLUSTER-RANDOMIZED CONTROLLED TRIAL'S PROTOCOL AND RATIONALE

Solomon A. Wondimkun[1], Zerihun Tadesse[1], Kelly Callahan[2], Paul M. Emerson[3], Wondimu Gebeyehu[4], Matthew C. Freeman[5], Dionna M. Fry[6], Vicky Cevallos[6], Travis C. Porco[6], Jeremy D. Keenan[6]
[1]Carter Center Ethiopia, Addis Ababa, Ethiopia, [2]Carter Center, Atlanta, GA, United States, [3]International Trachoma Initiative, Atlanta, GA, United States, [4]Bahir Dar Regional Health and Research Laboratory, Bahir Dar, Ethiopia, [5]Emory University, Atlanta, GA, United States, [6]Francis I. Proctor Foundation for Research in Ophthalmology, University of California San Francisco, San Francisco, CA, United States

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HANDWASHING WITH SOAP PRACTICES AMONG CHOLERA PATIENTS AND THEIR ACCOMPANYING FAMILY MEMBERS IN A HOSPITAL SETTING

Fatema Zohura
International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh

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IMPACT OF INDUSTRIAL FOOD PROCESSING EFFLUENT ON MAJOR DRINKING WATER SOURCES IN TECHIMAN MUNICIPALITY, GHANA: WATER POLLUTION AND POTENTIAL HUMAN HEALTH RISKS

Napoleon Jackson Mensah
WA Polytechnic, Kumasi, Ghana

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HIGH THROUGHPUT DETECTION OF 37 ENTERIC PATHOGENS WITH TAQMAN ARRAY CARDS IN ENVIRONMENTAL SPECIMENS

Tahmina Ahmed[1], Tania Ferdousi[1], Jie Liu[2], Rashidul Haque[1], James A. Platts-Mills[2], Eric R. Houpt[2], Mami Taniuchi[2]
[1]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [2]University of Virginia, Charlottesville, VA, United States

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ASSESSMENT OF WATER, SANITATION, HYGIENE AND INFECTION, PREVENTION AND CONTROL CONDITIONS IN FIFTY TWO HEALTHCARE FACILITIES IN HOIMA DISTRICT OF UGANDA

Habib Yakubu[1], Richard K. Mugambe[2], John Bosco Isunju[2], James Michiel[1], Constance Bwire[3], Fred Owera-Odom[3], Lindsay Denny[1], Emmanuel Opoki[4], Joanne McGriff[1], Christine L. Moe[1]
[1]Emory University, Rollins School of Public Health, Center for Global Safe WASH, Atlanta, GA, United States, [2]Makerere University School of Public Health, Department of Disease Control and Environment, Kampala, Uganda, [3]CARE International Uganda, Kampala, Uganda, [4]World Vision Uganda, Kampala, Uganda

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DETECTION AND QUANTIFICATION OF ROTAVIRUS IN SEWAGE USING DROPLET DIGITAL PCR

Nicholas Kiulia, Joan Rose
Michigan State University, East Lansing, MI, United States

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EFFECT OF SANITATION ON PHYSICO CHEMICAL QUALITY OF GROUNDWATER

Forgive A. Norvivor[1], Chris Gordon[2], Kwasi Appeaning-Addo[3]
[1]University of Health and Allied Sciences, Ho, Ghana, [2]University of Ghana, Institute for Environmental Science and Sanitation Studies, Legon-Accra, Ghana, [3]University of Ghana, Department of Marine and Fisheries Science, Legon-Accra, Ghana

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ASSESSING THE EFFECT OF A NOVEL HOUSEHOLD WATER PASTEURIZATION INTERVENTION ON CHILD DIARRHEA: EVIDENCE FROM A RANDOMIZED CONTROLLED TRIAL IN THE PERUVIAN AMAZON

Kristen Heitzinger[1], Claudio A. Rocha[2], Robert H. Gilman[1], Stephen E. Hawes[3], Carlos A. Alvarez[4], Carlton A. Evans[1]
[1]A. B. Prisma, Lima, Peru, [2]U.S. Medical Research Unit No. 6, Callao, Peru, [3]University of Washington, Seattle, WA, United States, [4]Loreto Regional Ministry of Health, Iquitos, Peru

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PSYCHOSOCIAL FACTORS MEDIATING THE EFFECT OF A HEALTH FACILITY BASED HANDWASHING WITH SOAP AND WATER TREATMENT INTERVENTION IN BANGLADESH (CHOBI7 TRIAL)

Christine Marie George[1], Shwapon Biswas[2], Jamie Perin[1], Robert Dreibelbis[3], Danielle Jung[1], Tahmina Parvin[2], Shirajum Monira[2], Mahamud-ur Rashid[2], K.m. Saif-Ur-Rahman[2], Sazzadul Islam Bhuyian[2], Elizabeth Thomas[1], Elli Leontsini[1], Fatema Zohura[2], Xiaotong Zhang[1], David Sack[1], Munirul Alam[2], R. Bradley Sack[1], Peter J Winch[1]
[1]Johns Hopkins University, Baltimore, MD, United States, [2]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [3]London School of Hygiene & Tropical Medicine, London, United Kingdom

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RISK FACTORS FOR HOUSEHOLD TRANSMISSION OF *VIBRIO CHOLERAE* IN DHAKA, BANGLADESH (CHOBI7 TRIAL)

Vanessa Burrowes[1], Jamie Perin[1], Shirajum Monira[2], David Sack[1], Mahamud-ur Rashid[2], Toslim Mahamud[2], Zillur Rahman[2], Munshi Mustafiz[2], Sazzadul Bhuyian[2], Farzana Begum[2], Fatema Zohura[2], Shwapon Biswas[2], Tahmina Parvin[2], Tasdik Hasan[2], Xiaotong Zhang[1], Bradley Sack[1], K. M. Saif-Ur-Rahman[2], Munirul Alam[2], Christine Marie George[1]
[1]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [2]International Centre for Diarrheal Disease Research, Bangladesh, Dhaka, Bangladesh

Courses Committee Meeting

Hilton - Tilghman (West Building, Third Floor)
Monday, November 6, 12:15 p.m. - 1:30 p.m.

Kean Fellowship Committee Meeting

Hilton - Marshall (West Building, Third Floor)
Monday, November 6, 12:15 p.m. - 1:30 p.m.

Late Breaker Abstract Session 29

Late Breakers in Clinical Tropical Medicine and Global Health

Convention Center - Room 337/338 (Level 300)
Monday, November 6, 12:15 p.m. - 1:30 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 Abstract Schedule booklet in your registration packet for the presentation schedule.

CHAIR

Barbara L. Herwaldt
Centers for Disease Control and Prevention, Atlanta, GA, United States

Noreen A. Hynes
Johns Hopkins School of Medicine, Baltimore, MD, United States

Jason D. Maguire
Pfizer, Pearl River, NY, United States

Symposium 30

Tropical Medicine Postdoctoral Training: Burroughs Wellcome Fund/ASTMH Fellowship Award and Other Opportunities

Convention Center - Room 339/340 (Level 300)
Monday, November 6, 12:15 p.m. - 1:30 p.m.

This symposium will highlight the Burroughs Wellcome Fund/ASTMH Postdoctoral Fellowship and related opportunities. This individual training fellowship provides support for salary and direct research costs to junior investigators who are doing tropical medicine research in a low- or middle-income country. Launched in 2000, the fellowship supported 41 trainees between 2001 and 2015. This symposium provides an overview of the training fellowship, describes the findings of a recent mixed methods training evaluation and provides resources to junior investigators considering this and similar awards. A recent evaluation found remarkable success among previous trainees. Among postdoctoral trainee recipients with more than three years since completing their fellowship, 21/35 (60%) had received career development awards from the NIH. Burroughs Wellcome Fund/ASTMH Fellowship recipients with at least three years of follow-up data had co-authored a mean of 36 publications and 29/35 (82%) held academic positions. The return on investment was 11.9 overall and 31.8 for fellowships awarded between 2001 and 2004. Compared to other postdoctoral training programs, this is highly successful. However, there are other global health awards that are available for junior investigators to support tropical medicine research. This symposium will provide insight from those who have received, evaluated and helped to organize the Burroughs Wellcome Fund/ASTMH Postdoctoral Fellowship and similar tropical medicine research awards.

CHAIR

Joseph Tucker
UNC Project-China, Guangzhou, China

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

12:15 p.m.
HISTORY AND INTRODUCTION TO BURROUGHS WELLCOME FUND/ASTMH POSTDOCTORAL FELLOWSHIP IN TROPICAL INFECTIOUS DISEASES
Terrie Taylor
Michigan State University, East Lansing, NJ, United States

12:25 p.m.
BURROUGHS WELLCOME FUND/ASTMH FELLOWSHIP EVALUATION
Joseph Tucker
UNC Project-China, Guangzhou, China

12:35 p.m.
FACULTY PERSPECTIVE ON BURROUGHS WELLCOME FUND/ASTMH FELLOWSHIP
Peter Weller
Beth Israel Deaconess Medical Center, Boston, MA, United States

12:45 p.m.
AWARDEE PERSPECTIVE ON BURROUGHS WELLCOME FUND/ASTMH FELLOWSHIP
Lynn Matthews
Massachusetts General Hospital, Boston, MA, United States

Meet the Professors 31

Meet the Professors A: Enigmatic and Teaching Cases

Convention Center - Room 341/342 (Level 300)
Monday, November 6, 12:15 p.m. - 1:30 p.m.

Students and trainees are especially encouraged to attend these interactive sessions, which are open to all meeting attendees. The speakers will present a clinical case of a tropical disease specific to a particular region that they have found a challenge to manage or diagnose. The Professors will discuss how their career has developed as examples for students and trainees.

CHAIR
David R. Boulware
University of Minnesota, Minneapolis, MN, United States

PRESENTER
Eric R. Houpt
University of Virginia, Charlottesville, VA, United States

Poster Session A Viewing

Convention Center - Hall F and G (Level 100)
Monday, November 6, 1:45 p.m. - 4 p.m.

Symposium 32

American Committee on Arthropod-Borne Viruses (ACAV) Symposium I: Annual Business Meeting, Awards and Research Presentations by Previous Awardees

Convention Center - Ballroom I (Level 400)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

The American Committee on Arthropod-Borne Viruses provides a forum for exchange of information among people interested in arbovirus research. This session will include the ACAV business meeting, award presentations and research presentations by ACAV award recipients. These presenters will describe their research on arbovirology and emerging diseases. The session will end with an informal reception designed to encourage new members of our community to interact with fellow arbovirologists and become involved in the ACAV subgroup.

CHAIR
Nikos Vasilakis
University of Texas Medical Branch, Galveston, TX, United States
Desiree LaBeaud
Stanford University, Stanford, CA, United States

1:45 p.m.
AWARDS AND ACAV ANNUAL BUSINESS MEETING
Nikos Vasilakis
University of Texas Medical Branch, Galveston, United States

2:05 p.m.
EILAT VIRUS AND ITS APPLICATIONS
Farooq Nasar
U.S. Army Medical Research Institute for Infectious Diseases, Fort Detrick, United States

2:15 p.m.
USING GENOMIC TECHNOLOGIES TO UNDERSTAND ZIKA VIRUS VERTICAL TRANSMISSION AND METAGENOMIC EPIDEMIOLOGY
Kayla Barnes
2016 Robert E. Shope International Fellowship Recipient, Broad Institute, Boston, MA, United States

2:25 p.m.
ACAV STUDENT TRAVEL AWARD RECIPIENT LIGHTNING TALKS

3:15 p.m.
NETWORKING AND SOCIAL TIME

Symposium 33

Geospatial Approaches for Modeling Malaria: From Emergence to Elimination

Convention Center - Ballroom II (Level 400)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

Geospatial approaches applied to understanding the spatial distribution of malaria risk – and forecasting its spread – are key components of public health strategies for malaria control and elimination, and responding to drug resistance; from the factors that underlie the emergence of resistant parasites, the containment of new outbreaks, to the monitoring, control, and elimination of malaria. Understanding where and when to allocate resources in all these situations depends on accurate geocoded demographic, epidemiological and clinical data, but decision-making can be improved by incorporating increasingly high-resolution estimates from models about the distribution and spread of infection, using satellite images, mobile phone data and parasite population genetics and genomic epidemiology to inform model parameters. These geospatial data sources and approaches are being integrated into new models of malaria risk. This symposium will bring together researchers working

on malaria who are developing new geospatial approaches and integrating new data sources to reveal new insights about the risk of infection in space and time in order to design effective control and elimination strategies.

CHAIR

Christopher V. Plowe
Institute for Global Health at the University of Maryland School of Medicine, Baltimore, MD, United States

Caroline Buckee
Harvard T.H. Chan School of Public Health, Boston, MA, United States

1:45 p.m.
PROSPECTS FOR MALARIA ELIMINATION: NEW APPROACHES TO MONITORING HUMAN AND PARASITE MOBILITY
Caroline Buckee
Harvard T.H. Chan School of Public Health, Boston, MA, United States

2:05 p.m.
RISK MAPPING FOR MALARIA ELIMINATION IN THE GREATER MEKONG SUBREGION
Richard Maude
Mahidol University, Bangkok, Thailand

2:25 p.m.
A SPATIALLY EXPLICIT APPROACH FOR IDENTIFYING GEOGRAPHIC PATTERNS OF *PLASMODIUM FALCIPARUM* MIGRATION AND DIVERSITY IN CAMBODIA
Kathleen Stewart
University of Maryland, College Park, MD, United States

2:45 p.m.
MAPPING DYNAMIC DENOMINATORS FOR MALARIA ELIMINATION STRATEGY DESIGN
Nick W. Ruktanonchai
University of Southampton, Southampton, United Kingdom

Symposium 34

Approaches for Understanding and Mitigating Drug-Resistant Malaria

Convention Center - Ballroom III (Level 400)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

Resistance to antimalarial drugs, in particular to the artemisinin derivatives and their combination therapy partner drugs, threatens recent progress toward malaria eradication. Indeed, the emergence of multidrug-resistant malaria parasites in Southeast Asia is compromising the effectiveness of first-line antimalarials in clinical use in this part of the world, making malaria difficult to treat, and potentially derailing regional elimination efforts. This symposium will include a discussion of novel approaches to understand antimalarial drug resistance in both *Plasmodium falciparum* and *Plasmodium vivax,* including clinical approaches, genomic approaches, genetic crosses, and a new mutator rodent parasite model. Such approaches are accelerating the ability of the malaria research community to elucidate mechanisms of resistance and devise strategies to counter the evolution and spread of resistant parasites.

CHAIR

David A. Fidock
Columbia University Medical Center, New York, NY, United States

Shannon Takala
University of Maryland School of Medicine, Center for Vaccine Development, Baltimore, MD, United States

1:45 p.m.
GENOMIC APPROACHES TO UNDERSTAND THE GENETIC BASIS OF ANTIMALARIAL DRUG RESISTANCE
Shannon Takala
University of Maryland School of Medicine, Baltimore, MD, United States

2:10 p.m.
GENETIC INSIGHTS INTO PIPERAQUINE RESISTANCE IN *PLASMODIUM FALCIPARUM*
David A. Fidock
Columbia University Medical Center, New York, NY, United States

2:35 p.m.
A MUTATOR *PLASMODIUM BERGHEI* MODEL TO INVESTIGATE ANTIMALARIAL DRUG RESISTANCE
Toshihiro Mita
Juntendo University School of Medicine, Tokyo, Japan

3 p.m.
PHENOTYPIC AND GENOTYPIC CHARACTERIZATION OF CHLOROQUINE RESISTANCE IN *PLASMODIUM VIVAX*
Ric Price
Menzies School of Health Research, Darwin, Australia

Symposium 35

Adventures in Tropical Dermatology

Convention Center - Ballroom IV (Level 400)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

Clinical dermatology is an essential component of tropical medicine. In this symposium, participants will review 50 clinically-important topics in a stimulating, interactive, Jeopardy-style format, accompanied by superb clinical photographs. Each question/answer will be followed by a two-minute micro-lecture on important diagnostic, therapeutic and pathophysiologic points. Subjects include Fungal Love, Itching at the Equator, Creepy Crawlies, Lumps and Bumps, The Eyes Have It, etc.

CHAIR

Scott A. Norton
Children's National Medical Center, Washington, DC, United States

Karolyn Wanat
University of Iowa, Iowa City, IA, United States

PRESENTERS

Scott A. Norton
Children's National Medical Center, Washington, DC, United States

Karolyn Wanat
University of Iowa, Iowa City, IA, United States

Claire Fuller
Chelsea and Westminster Hospital, London, United Kingdom

Scientific Session 36

Malaria: Novel Insights and Methods in Malaria Diagnostics

Convention Center - Room 318/319/320 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

CHAIR

Sunil Parikh
Yale School of Public Health, New Haven, CT, United States

Kristin E. Poti
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

1:45 p.m.

604

NOVEL GAMETOCYTE BIOMARKERS FOR DETECTION OF THE *PLASMODIUM FALCIPARUM* INFECTIOUS RESERVOIRS

Bryan Grabias[1], Edward Essuman[1], Nitin Verma[1], Hong Zheng[1], Abhai K. Tripathi[2], Godfree Mlambo[2], Isabella Quakyi[3], Miranda Oakley[1], Sanjai Kumar[1]
[1]Food and Drug Administration, Silver Spring, MD, United States, [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [3]University of Ghana, Legon, Ghana

2 p.m.

605

PERFORMANCE OF LOOP-MEDIATED ISOTHERMAL AMPLIFICATION FOR THE IDENTIFICATION OF SUBMICROSCOPIC *P. FALCIPARUM* INFECTION IN UGANDA

Shereen Katrak[1], Maxwell Murphy[1], Patience Nayebare[2], John Rek[2], Mary Smith[1], Emmanuel Arinaitwe[2], Joaniter Nankabirwa[2], Moses Kamya[2], Grant Dorsey[1], Phil Rosenthal[1], Bryan Greenhouse[1]
[1]University of California San Francisco, San Francisco, CA, United States, [2]Infectious Diseases Research Collaboration, Kampala, Uganda

2:15 p.m.

606

INVESTIGATING THE KINETICS OF TRANSGENIC *PLASMODIUM FALCIPARUM* HRP2 PROTEIN PRODUCED BY *P. BERGHEI* IN A NOVEL MURINE MODEL

Kristin E. Poti[1], Amanda Balaban[1], Priya Pal[2], Daniel Goldberg[2], Photini Sinnis[1], David Sullivan[1]
[1]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [2]Washington University, St. Louis, MO, United States

2:30 p.m.

607

COMPARISON OF SIMULTANEOUS CAPILLARY AND VENOUS PARASITEMIA AND GENOTYPING RESULTS FROM CHILDREN AND ADULTS WITH UNCOMPLICATED MALARIA

Aine Lehane[1], Moses Were[2], Musleehat Hamadu[1], Sylvia Kiconco[2], Richard Kajubi[2], Francesca Aweeka[3], Norah Mwebaza[2], **Sunil Parikh**[1]
[1]Yale School of Public Health, New Haven, CT, United States, [2]Infectious Diseases Research Collaboration, Kampala, Uganda, [3]University of California San Francisco, San Francisco, CA, United States

2:45 p.m.

608

BLUE-LASER TECHNOLOGY FOR RAPID SENSITIVE DETECTION OF *PLASMODIUM FALCIPARUM* PARASITEMIA AND GAMETOCYTEMIA

Isaie J. Reuling, Wouter A. van der Heijden, Quirijn de Mast, Rianne Siebelink-Stoter, Kjerstin Lanke, Lisanne van de Schans, Annelies Post, Teun Bousema, Robert W. Sauerwein, Andre J. van der Ven
Radboud University Medical Center, Nijmegen, Netherlands

3 p.m.

609

BREATHPRINTING REVEALS MALARIA-ASSOCIATED BIOMARKERS AND MOSQUITO ATTRACTANTS

Chad Schaber, Nalin Katta, Lucy Bollinger, Indi Trehan, Barani Raman, Audrey Odom John
Washington University, St. Louis, MO, United States

3:15 p.m.

610

THE USE OF SMALL PEPTIDE MICROARRAYS TO DETECT MALARIA EXPOSURE

Andrew Pike[1], Jason A. Bailey[1], Mark A. Travassos[1], Amed Outtara[1], Sonia Agrawal[1], Antoine Dara[1], Lauren M. Cohee[1], Drissa Coulibaly[2], Kirsten E. Lyke[1], Matthew B. Laurens[1], Matthew Adams[1], Shannon Takala-Harrison[1], Bourema Kouriba[2], Abdoulaye K. Kone[2], Ogobara K. Doumbo[2], Mahamadou A. Thera[2], Philip L. Felgner[3], John C. Tan[4], Jigar Patel[4], Christopher V. Plowe[1], Andrea A. Berry[1]
[1]University of Maryland, School of Medicine, Institute for Global Health, Baltimore, MD, United States, [2]Malaria Research and Training Center, University Sciences, Techniques and Technologies, Bamako, Mali, [3]Division of Infectious Diseases, Department of Medicine, University of California Irvine, Irvine, CA, United States, [4]Roche Sequencing Solutions, Madison, WI, United States

Symposium 37

Antimicrobial Resistance: Transforming Diseases of Poverty into Global Threats

Convention Center - Room 321/322/323 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

In developing countries, preventable infectious diseases are a significant cause of morbidity and mortality. Due to inequity in access to resources, diseases like enteric fever and nontyphoidal *Salmonella (*NTS) disproportionately impact marginalized populations. However, with growing antimicrobial resistance (AMR), the impact of these diseases has the potential to spread globally. Multidrug-resistant strains of *Salmonella Typhi* first appeared in the 1970s in Asia and rapidly spread to Africa. Resistance to traditional first-line drugs used to treat NTS is now common. AMR strains of enteric fever and NTS have the potential to spread due to urbanization, environmental degradation and globalization, affecting populations not originally at risk. New studies and surveillance networks are tracking the spread of AMR strains of enteric fever and NTS. This symposium will share a global overview of AMR along with reports from Pakistan, Bangladesh and Kenya to illustrate the patterns, risk factors and cost of resistance. Additionally, the symposium will address how this evidence can inform strategies to contain AMR enteric fever and NTS. The objectives of the symposium are to 1) provide insight into the growing threat of AMR enteric fever and NTS 2) share data on patterns, risk factors and cost of resistance in Pakistan, Bangladesh and Kenya. The symposium will feature an overview about the impact of the global spread of AMR enteric fever and NTS followed by speakers who will present data from their respective countries.

CHAIR

Denise Garrett
Sabin Vaccine Institute, Washington, DC, United States

Steve Luby
Stanford University, Stanford, CA, United States

1:45 p.m.
THE GLOBAL EPIDEMIOLOGY OF TYPHOID AND ASSOCIATED AMR
Vanessa Wong
University of Cambridge, Cambridge, United Kingdom

2:05 p.m.
REPORTS FROM THE FIELD: OUTBREAK OF CEFTRIAXONE RESISTANT *SALMONELLA* IN HYDERABAD, PAKISTAN
Farah Qamar
Aga Khan University, Karachi, Pakistan

2:25 p.m.
POPULATION BIOLOGY AND ANTIMICROBIAL RESISTANCE PATTERNS OF *SALMONELLA TYPHI* AND PARATYPHI IN BANGLADESH
Samir Saha
The Child Health Research Foundation, Dhaka, Bangladesh

2:45 p.m.
EPIDEMIOLOGY AND GENOMICS OF MULTIDRUG RESISTANT NON-TYPHOIDAL *SALMONELLA* IN KENYA
Sam Kariuki
Kenya Medical Research Institute, Nairobi, Kenya

Scientific Session 38

Mosquitoes - Vector Biology - Epidemiology II

Convention Center - Room 324/325/326 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

CHAIR

Matthew V. Cannon
University of Maryland, Institute for Genome Sciences, Baltimore, MD, United States

Clare McCormack
Imperial College London, London, United Kingdom

1:45 p.m.
611

NEW EVIDENCE OF MATING SWARMS OF THE MALARIA VECTOR, *ANOPHELES ARABIENSIS* IN TANZANIA
Emanuel W. Kaindoa[1], Gustav Mkandawile[1], Japhet Kihonda[1], Alex Limwagu[1], John Paliga[1], Emmanuel Mwanga[1], Halfan Ngowo[1], Abdoulaye Diabate[2], Fredros Okumu[1]
[1]Ifakara Health Institute, Morogoro, United Republic of Tanzania, [2]IRSS, Bobo-Dioulasso, Burkina Faso

2 p.m.
612

THE EFFECTS OF METAPOPULATION STRUCTURE ON FINE-SCALE MOSQUITO POPULATION DYNAMICS AND POTENTIAL CONSEQUENCES FOR THE TRANSMISSION DYNAMICS OF DENGUE AND MALARIA
Clare McCormack, Azra C. Ghani, Neil M. Ferguson
Imperial College London, London, United Kingdom

2:15 p.m.
613

CHANGES IN MOSQUITO BEHAVIORS ARE LIKELY TO IMPACT ON THE EFFECTIVENESS OF INDOOR-BASED MALARIA VECTOR CONTROL INTERVENTIONS IN CHIKWAWA, MALAWI
Justin Kumala[1], Themba Mzilahowa[2], Lisa Reimer[3]
[1]Wits Research Institute for Malaria, Johannesburg, South Africa, [2]Malaria Alert Centre, College of Medicine, Blantyre, Malawi, [3]Liverpool School of Tropical Medicine, Liverpool, United Kingdom

2:30 p.m.
614

A NOVEL HIGH-THROUGHPUT SEQUENCING ASSAY TO IDENTIFY AND CHARACTERIZE ALL EUKARYOTIC PARASITES PRESENT IN HUMAN STOOLS AND DISEASE VECTORS
Matthew V. Cannon, David Serre
University of Maryland, Baltimore, Baltimore, MD, United States

(ACMCIP Abstract)

2:45 p.m.
615

NOVEL VECTORS OF THE ZOONOTIC MALARIA PARASITE, *PLASMODIUM KNOWLESI,* IN TWO DISTRICTS OF SARAWAK, MALAYSIAN BORNEO
Joshua Ang Xin De[1], Khamisah Abdul Kadir[1], Dayang Shuaisah Awang Mohamad[1], Asmad Matusop[2], Khatijah Yaman[1], Balbir Singh[1]
[1]Universiti Malaysia Sarawak, Sarawak, Malaysia, [2]Sarawak Department of Health, Sarawak, Malaysia

3 p.m.
616

DIFFERENTIAL EFFECTS OF TIRE LEACHATE ON *AEDES* MOSQUITOES MAY FACILITATE INVASION SUCCESS
Paul T. Leisnham
University of Maryland, College Park, MD, United States

3:15 p.m.
617

INFLUENCE OF RUBBER AND PALM CULTIVATIONS ON HUMAN EXPOSURE TO *AEDES AEGYPTI* EVALUATED BY USING AN IMMUNO EPIDEMIOLOGICAL BIOMARKER
Céline M. Yobo[1], Agnimou M. Sadia-Kacou[2], Akre M. Adja[2], Emmanuel Eilanga-Ndile[3], André B. Sagna[4], Négnorogo Guindo-Coulibaly[2], Anne Poinsignon[4], Franck Remoue[4], Benjamin G. Koudou[1]
[1]Nangui Abrogoua University, Abidjan, Côte D'Ivoire, [2]Felix Houphouet Boigny University, Abidjan, Côte D'Ivoire, [3]Malaria Research Laboratory, Yaoundé, Cameroon, [4]IRD, Monpellier, France

Scientific Session 39

Dengue: Vaccines/Epidemiology

Convention Center - Room 327/328/329 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

CHAIR

Natsuko Imai
Imperial College London, London, United Kingdom

Stephen S. Whitehead
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

1:45 p.m.

618

MAPPING GLOBAL VARIATION IN DENGUE TRANSMISSION INTENSITY AND ASSESSING THE IMPACT OF CONTROL STRATEGIES

Lorenzo Cattarino[1], Isabel Rodríguez-Barraquer[2], Derek Cummings[3], Natsuko Imai[1], Neil Ferguson[1]
[1]Imperial College London, London, United Kingdom, [2]Johns Hopkins University, Baltimore, MD, United States, [3]University of Florida, Gainesville, FL, United States

2 p.m.

619

MAPPING THE GLOBAL ESTIMATES OF DENGUE SEROPREVALENCE AND TRANSMISSION INTENSITY

Natsuko Imai[1], Isabel Rodriguez-Barraquer[2], Wesley Hinsley[1], Derek A. Cummings[3], Neil M. Ferguson[1]
[1]Imperial College London, London, United Kingdom, [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [3]University of Florida, Gainesville, FL, United States

2:15 p.m.

620

A MULTI-COUNTRY STUDY OF THE ECONOMIC BURDEN OF DENGUE FEVER IN SIX COUNTRIES OF DVI FIELD STUDIES: VIETNAM, THAILAND, COLOMBIA, CAMBODIA, BURKINA FASO AND KENYA

Jung-Seok Lee[1], Vittal Mogasale[1], Jacqueline K. Lim[1], Mabel Carabali[1], Kang Sung Lee[1], Chukiat Sirivichayakul[2], Xavier Zongo[3], Sopheak Sorn[4], Hadley Sultani[5], Diana C. Palencia-Florez[6], Hien Anh T. Nguyen[7], Arthorn Riewpaiboon[2], Sammy Njenga[8], Sowath Ly[4], Duc Anh Dang[7], Pornthep Chanthavanich[2], Luis A. Villar[6], Seydou Yaro[9], Brian Maskery[10], Andrew Farlow[11], In-Kyu Yoon[1]
[1]International Vaccine Institute, Seoul, Republic of Korea, [2]Mahidol University, Bangkok, Thailand, [3]AGIR, Ouagadougou, Burkina Faso, [4]Institut Pasteur Cambodia, Phnom Penh, Cambodia, [5]Ministry of Health, Nairobi, Kenya, [6]Clinical Epidemiology Unit, Universidad Industrial de Santander, Bucaramanga, Colombia, [7]National Institute of Hygiene and Epidemiology, Hanoi, Vietnam, [8]Kenya Medical Research Institute, Nairobi, Kenya, [9]Centre Muraz, Bobo-Dioulasso, Burkina Faso, [10]Centers for Disease Control and Prevention, Atlanta, GA, United States, [11]University of Oxford, Oxford, United Kingdom

2:30 p.m.

621

THE ROLE OF HETEROTYPIC NEUTRALIZING ANTIBODY IN PROTECTION FOLLOWING TRIVALENT DENGUE VIRUS VACCINATION AND CHALLENGE

Stephen S. Whitehead[1], Beth D. Kirkpatrick[2], Kristen Pierce[2], Eve Ostrowski[3], Cecilia Tibery[3], Tama Grier[3], Beulah P. Sabundayo[3], Cathy Larsson[2], Yolanda Eby[3], Helen He[3], Sean Diehl[2], Cassandra Ventrone[2], Marya Carmolli[2], Anna P. Durbin[3]
[1]Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, [2]University of Vermont College of Medicine, Burlington, VT, United States, [3]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

2:45 p.m.

622

VIRAL GENETIC DIVERSITY AND PROTECTIVE EFFICACY OF A CYD-TDV TETRAVALENT DENGUE VACCINE IN A PHASE 3 TRIAL IN ASIA

Craig A. Magaret[1], Michal Juraska[1], Jason Shao[2], Lindsay N. Carpp[1], Andrew J. Fiore-Gartland[1], David Benkeser[3], Yves Girerd-Chambaz[4], Edith Langevin[5], Carina Frago[6], Bruno Guy[5], Paul T. Edlefsen[1], Peter B. Gilbert[1]
[1]Fred Hutchinson Cancer Research Center, Seattle, WA, United States, [2]University of Washington, Seattle, WA, United States, [3]University of California Berkeley, Berkeley, CA, United States, [4]Sanofi Pasteur, Marcy-L'Etoile, France, [5]Sanofi Pasteur, Lyon, France, [6]Sanofi Pasteur, Swiftwater, PA, United States

3 p.m.

623

PROGRESS IN DEVELOPMENT OF *TAKEDA'S* TETRAVALENT DENGUE VACCINE CANDIDATE

Vianney Tricou[1], Xavier Sáez-Llorens[2], Delia Yu[3], Luis Rivera[4], Astrid Borkowski[1], Derek Wallace[1]
[1]Takeda Pharmaceuticals International AG, Zurich, Switzerland, [2]Hospital del Niño Dr. José Renán Esquivel, Panama City, Panama, [3]De La Salle Health Sciences Institute, Dasmariñas, Philippines, [4]Hospital Maternidad Nuestra Senora de La Altagracia, Santo Domingo, Dominican Republic

3:15 p.m.

624

CORRELATES OF RISK AND PROTECTION FOR CYD-TDV, THE FIRST LICENSED DENGUE VACCINE IN ENDEMIC COUNTRIES

Zoe Moodie[1], Michal Juraska[1], Ying Huang[1], Yingying Zhuang[2], Youyi Fong[1], Steven G. Self[1], Laurent Chambonneau[3], Robert Small[4], Nicholas Jackson[5], Fernando Noriega[4], Peter B. Gilbert[1]
[1]Fred Hutchinson Cancer Research Center, Seattle, WA, United States, [2]University of Washington, Seattle, WA, United States, [3]Sanofi Pasteur, Marcy-L'Etoile, France, [4]Sanofi Pasteur, Swiftwater, PA, United States, [5]Sanofi Pasteur, Lyon, France

Scientific Session 40

Filariasis: Epidemiology and Control II

Convention Center - Room 331/332 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

CHAIR

Peter Fischer
Washington University School of Medicine, St. Louis, MO, United States

Lindsay Rakers
The Carter Center, Atlanta, GA, United States

1:45 p.m.

625

LOW *LOA LOA* BLOOD MICROFILARIA DENSITY IN HYPO-ENDEMIC ONCHOCERCIASIS AREAS IN NIGERIA: USING THE NEW LOASCOPE TECHNOLOGY TO DETERMINE WHERE IT IS SAFE TO TREAT WITH IVERMECTIN

Lindsay J. Rakers[1], Emmanuel Emukah[2], Barminas Kahansim[2], Bertram E. Nwoke[3], Emmanuel S. Miri[2], Emily Griswold[1], Yisa Saka[4], Ifeoma Anagbogu[4], Emmanuel Davies[4], Cephas Ityonzughul[2], Michael D'Ambrosio[5], Matthew Bakalar[5], Daniel A. Fletcher[5], Thomas Nutman[6], Frank O. Richards[1]
[1]The Carter Center, Atlanta, GA, United States, [2]The Carter Center, Jos, Nigeria, [3]Imo State University, Owerri, Nigeria, [4]Federal Ministry of Health, Abuja, Nigeria, [5]University of California Berkeley, Berkeley, CA, United States, [6]National Institutes of Health, Bethesda, MD, United States

2 p.m.

626

QUANTIFICATION OF VECTOR INFECTION THRESHOLD FOR MAKING PROGRAMMATIC DECISION ON STOPPING OR CONTINUING THE PROGRAM TO ELIMINATE LYMPHATIC FILARIASIS

Subramanian Swaminathan, Sadanandane Candasamy, Vasuki Venkatesan, Jambulingam Purushothaman
Vector Control Research Centre (ICMR), Puducherry, India

2:15 p.m.

627

A SIGNIFICANT STEP TOWARDS LYMPHATIC FILARIASIS ELIMINATION IN CAMEROON: THE DISEASE IS NOT ENDEMIC IN 31 HEALTH DISTRICTS CO-ENDEMIC WITH *LOA LOA* AND HYPOENDEMIC FOR ONCHOCERCIASIS

Benjamin Didier Biholong[1], Patrick Mbia[2], Julie Akame[2], Henri C. Moungui[2], Georges N. Ayissi[1], Samuel Wanji[3], Michel Paradis[2], Steven D. Reid[4], Yaobi Zhang[5]
[1]Ministry of Public Health, Cameroon, Yaoundé, Cameroon, [2]Helen Keller International, Yaoundé, Cameroon, [3]University of Buea, Buea, Cameroon, [4]Helen Keller International, New York, NY, United States, [5]Helen Keller International, Dakar, Senegal

2:30 p.m.

628

PHARMACOKINETICS OF TRIPLE DRUG THERAPY IN PATIENTS WITH AND WITHOUT *WUCHERERIA BANCROFTI* INFECTION

Edi Constant[1], Yashpal S. Chhonker[2], Catherine Bjerum[3], Allassane F. Ouattara[4], Benjamin G. Koudou[5], Abdoulaye Meïté[6], Gary J. Weil[7], Christopher L. King[8], Daryl J. Murry[2]
[1]Centre Suisse de Recherche Scientifique en Côte d'Ivoire, Abidjan, Côte D'Ivoire, [2]UNMC, Omaha, NE, United States, [3]Case Western Reserve University, Cleveland, OH, United States, [4]Centre Suisse de Recherche Scientifique en Côte d'Ivoire and Université Nangui Abrogoua, Abidjan, Côte D'Ivoire, [5]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [6]Programme national de la lutte contre la schistosomiase, les geohelminthiases et la filariose lymphatique, Abidjan, Côte D'Ivoire, [7]Washington University School of Medicine, St. Louis, MO, United States, [8]Center for Global Health and Diseases, Case Western Reserve University and Veterans Affairs Research Service, Cleveland, OH, United States

2:45 p.m.

629

HYDROCOELE SURGERY FOR LYMPHATIC FILARIASIS: MEASURING THE IMPACT ON PATIENT CAREGIVERS IN MALAWI

Sarah Martindale[1], John Chiphwanya[2], Dorothy Emmie Matipula[2], Paul Ndhlovu[2], Hannah Betts[1], Louise Kelly-Hope[1]
[1]Centre for Neglected Tropical Diseases, Department of Parasitology, Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [2]Ministry of Health, Lilongwe, Malawi

3 p.m.

630

LYMPHATIC FILARIASIS TRANSMISSION VARIATION WITHIN AN IMPLEMENTATION UNIT - THE CASE OF THE LIMBE COMMUNE IN THE NORTH DEPARTMENT OF HAITI

Alain Javel[1], Carl Renand Fayette[1], Franck Monestime[1], Cudjoe Bennett[2], Sarah Craciunoiu[2], Abdel Direny[3], Kim Won[4], Caitlin Worrell[4], Katherine Gass[5], Jean-Frantz Lemoine[6]
[1]IMA World Health, Port au Prince, Haiti, [2]IMA World Health, Washington, DC, United States, [3]RTI International, Washington, DC, United States, [4]Centers for Disease Control and Prevention, Atlanta, GA, United States, [5]Task Force for Global Health, Atlanta, GA, United States, [6]Ministry of Public Health and Population, Port au Prince, Haiti

3:15 p.m.

631

MODELLING THE ROLE OF LONG LASTING INSECTICIDE-TREATED BEDNETS IN THE REDUCTION OF LYMPHATIC FILARIASIS PREVALENCE ACROSS A RANGE OF SETTINGS

Emma L. Davis, Deirdre Hollingsworth, Matt J. Keeling
University of Warwick, Coventry, United Kingdom

Scientific Session 41

Kinetoplastida: Diagnosis, Treatment and Vaccine Development

Convention Center - Room 337/338 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

CHAIR

Caryn Bern
University of California San Francisco, San Francisco, CA, United States

Nadira Karunaweera
University of Colombo, Colombo, Sri Lanka

1:45 p.m.

632

ATTENUATED VARIANT OF *L. DONOVANI* CAUSES CUTANEOUS LEISHMANIASIS IN SRI LANKA

Udeshika L. Kariyawasam[1], Angamuthu Selvapandiyan[2], Panduka Karunanayake[3], Yamuna Siriwardena[1], Hira L. Nakhasi[4], **Nadira D. Karunaweera**[1]
[1]Department of Parasitology, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka, [2]JH-Institute of Molecular Medicine, Jamia Hamdard, New Delhi, India, [3]Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka, [4]Laboratory of Emerging Pathogens, Division of Emerging and Transfusion Transmitted Diseases, Center for Biologics Evaluation and Research, Food and Drug Administration, Silver Spring, MD, United States

2 p.m.

633

FROM DECIPHERING THE SPECIFIC IMMUNE RESPONSE TO A NOVEL BIOMARKER FOR MONITORING CHAGAS DISEASE

Maan Zrein[1], Ester C. Sabino[2]
[1]Infynity Biomarkers, Lyon, France, [2]University of Sao Paulo, Sao Paulo, Brazil

2:15 p.m.

634

PERSISTENCE OF *TRYPANOSOMA CRUZI* DNA COPIES BY QUANTITATIVE REAL TIME PCR 12 MONTHS AFTER TREATMENT WITH BENZNIDAZOLE AMONG CHILDREN AGED 4-15 YEARS OLD IN BOLIVIA

Clara Vasquez Velasquez[1], Kota Mochizuki[1], Yelin Roca[2], Jimmy Revollo[2], Angelica Guzman[2], Benjamín Quiroga[3], Alberto Zambrana Ortega[4], Eida Espinoza[4], Mihoko Kikuchi[1], Shusaku Mizukami[1], Graciela Russomando[5], Kenji Hirayama[1]
[1]Institute of Tropical Medicine, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan, [2]Centro Nacional de Enfermedades Infecciosas CENETROP, Santa Cruz, Plurinational State of Bolivia, [3]Programa Departamental de Control de Chagas del Ministerio de Salud, Santa Cruz, Plurinational State of Bolivia, [4]Hospital Municipal Warnes "Nuestra Señora del Rosario", Santa Cruz, Plurinational State of Bolivia, [5]Departamento de Biologia Molecular y Biotecnología, Investigaciones en Ciencias de la Salud, Universidad Nacional de Asunción, Asunción, Paraguay

2:30 p.m.

635

BENZINIDAZOLE TREATMENT IS ASSOCIATED WITH *TRYPANOSOMA CRUZI* BLOOD PCR NEGATIVITY AND LESS CARDIAC LESIONS IN CHAGAS DISEASE: NIH SAMITROP STUDY

Clareci S. Cardoso[1], Ester C. Sabino[2], Claudia D. Oliveira[1], Lea C. Oliveira[2], Enrico A. Colosimo[3], Ana L. Bierrenbach[2], J. L. Silva[4], Ariela M. Ferreira[5], T. H. Lee[6], Marcio Oikawa[7], Michael Busch[6], Antonio L. Ribeiro[4]
[1]Federal University of São João del-Rei, Public Health, Divinopolis, Brazil, [2]University of Sao Paulo, São Paulo, Brazil, [3]Federal University of Santa Maria, Santa Maria, Brazil, [4]Federal University of Minas Gerais, Belo Horizonte, Brazil, [5]State University of Montes Claros, Montes Claros, Brazil, [6]Blood Systems Research Institute, San Francisco, CA, United States, [7]Federal University of ABC, Sao Bernardo, Brazil

2:45 p.m.

636

POTENTIAL IMPROVEMENT IN THE DIAGNOSIS OF CANINE VISCERAL LEISHMANIASIS IN BRAZIL BY IMPLEMENTATION OF AN ELISA TEST USING RECOMBINANT PROTEINS OF *LEISHMANIA*

Lairton S. Borja[1], Matheus S. Jesus[1], Lívia B. Coelho[1], Edimilson D. Silva[2], Antonio G. Ferreira[2], Deborah B. Fraga[1], Patrícia S. Veras[1]
[1]FIOCRUZ/BA - Instituto Gonçalo Moniz, Salvador, Brazil, [2]Instituto de Tecnologia em Imunobiológicos, Bio-Manguinhos, Rio de Janeiro, Brazil

3 p.m.

637

PROGNOSTIC MARKERS OF DEATH FOR CHAGAS DISEASE IN REMOTE AREAS OF BRAZIL

Claudia D. Oliveira[1], Ester C. Sabino[2], Clareci S. Cardoso[1], Lea C. Oliveira[2], Ariela M. Ferreira[3], Ana L. Bierrenbach[2], Enrico Colosimo[4], Carlos H. Moreira[5], Marcio Oikawa[6], Edecio C. Neto[2], Antonio L. Ribeiro[7]
[1]Federal University of São João del-Rei, Public Health, Divinópolis, Brazil, Sao Joao Del Rei, Brazil, [2]University of Sao Paulo, São Paulo, Brazil, [3]State University of Montes Claros, Montes Claros, Brazil, [4]Federal University of Santa Maria, Santa Maria, Brazil, [5]Institute of Tropical Medicine, São Paulo, Brazil, [6]Federal University of ABC, São Paulo, Brazil, [7]Federal University of Minas Gerais, Belo Horizonte, Brazil

3:15 p.m.

638

MAXIMIZING THE UTILITY OF VL CLINICAL TRIAL DATA WITHIN AN ETHICAL DATA-SHARING FRAMEWORK

Philippe J. Guerin[1], Michael Otieno[2]
[1]Infectious Diseases Data Observatory, Oxford, United Kingdom, [2]Drugs for Neglected Diseases initiative, Nairobi, Kenya

Scientific Session 42

One Health: Interface of Human Health/Animal Diseases

Convention Center - Room 339/340 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

CHAIR

Claire Cornelius
U.S. Army, Chicago, IL, United States

Kristy Murray
Baylor College of Medicine, Houston, TX, United States

1:45 p.m.

639

EFFECTS OF HABITAT PERTURBATION ON RODENT ASSEMBLAGES AND THEIR GEOGRAPHIC DISTRIBUTIONS ALONG THE INTER-OCEANIC HIGHWAY IN MADRE DE DIOS, PERU

Maria C. Guezala[1], Tatiana P. Quevedo[2], J. Catherine Dupont-Turkowsky[1], Christian B. Albujar[1], Victor Pacheco[3], Xiangming Xiao[4], Yuanwei Qin[4], A. Townsend Peterson[5], James Mills[6], Gabriela Salmon-Mulanovich[7], Daniel G. Bausch[8]
[1]Naval Medical Research Unit-6, Bellavista, Peru, [2]RAICES, Lima, Peru, [3]Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru, [4]Department of Microbiology and Plant Biology, Center for Spatial Analysis, College of Atmospheric and Geographic Sciences, University of Oklahoma, Norman, OK, United States, [5]Department of Ecology and Evolutionary Biology, University of Kansas, Kansas, KS, United States, [6]Population Biology, Ecology and Evolution Program, Emory University, Atlanta, GA, United States, [7]Unidad de Desarrollo Integral Ambiente y Salud, Facultad de Salud Pública, Universidad Peruana Cayetano Heredia, Lima, Peru, [8]Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States

2 p.m.

640

PARASITES IN THE PARK PART 2: AN EPIDEMIOLOGIC STUDY OF *TOXOCARA SP*. IN NYC PLAYGROUNDS AND USE OF A NOVEL SOIL-TRANSMITTED HELMINTH IDENTIFICATION TOOL

Donna L. Tyungu
University of Texas McGovern Medical School, Houston, TX, United States

2:15 p.m.

641

INVASIVE *POMACEA* SNAILS AS NEW HOST OF *ANGIOSTRONGYLUS CANTONENSIS* IN LAOS, CAMBODIA AND VIETNAM: IMPLICATION FOR OUTBREAKS OF EOSINOPHILIC MENINGITIS

Shan Lu[1], Yunhai Guo[2], Hung Manh Nguyen[3], Muth Sinuon[4], Somphou Sayasone[5], Nathan C. Lo[1], Xiaonong Zhou[2], Jason Andrews[1]
[1]Stanford University School of Medicine, Stanford, CA, United States, [2]National Institute of Parasitic Diseases, China Centers for Disease Control and Prevention, Shanghai, China, [3]Institute of Ecology and Biological Resources, Vietnam Academy of Science and Technology, Hanoi, Vietnam, [4]National Centre for Parasitology, Entomology and Malaria Control, Phnom Penh, Cambodia, [5]National Institute of Public Health, Vientiane, Lao People's Democratic Republic

2:30 p.m.

642

RISK FACTORS FOR MIDDLE EAST RESPIRATORY SYNDROME CORONAVIRUS (MERS-COV) SEROPOSITIVITY AMONG ANIMAL MARKET AND SLAUGHTERHOUSE WORKERS IN ABU DHABI, UNITED ARAB EMIRATES (UAE), 2014-2016

Marie E. Killerby[1], Ahmed Khudhair[2], Mariam Al Mulla[2], Kheir Abou Elkheir[2], Wassim Ternanni[2], Zyad Bandar[2], Stefan Weber[3], Mary Khoury[3], George Donnelly[3], Salama Al Muhairi[4], Abdelmalik Khalafalli[4], Yassir Eltahir[4], Nathalie Thornburg[1], Suvang Trivedi[1], Azaibi Tamin[1], John Watson[1], Susan Gerber[1], Aron Hall[1], Farida Al Hosani[2]
[1]Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Abu Dhabi Health Authority, Abu Dhabi, United Arab Emirates, [3]Sheikh Khalifa Medical City, Abu Dhabi, United Arab Emirates, [4]Abu Dhabi Food Control Authority, Abu Dhabi, United Arab Emirates

2:45 p.m.

643

EMERGING BAT PATHOGENS IN MYANMAR: A ROAD MAP FOR SURVEILLANCE OF POTENTIAL SPILLOVER RELATED TO CAVE UTILIZATION

Heather S. Davies[1], Megan E. Vodzak[2], Ohnmar Aung[2], Kyaw Yan Naing Tun[2], Marc Valitutto[2], Suzan Murray[2], Dawn Zimmerman[2], Michael E. von Fricken[1]
[1]George Mason University, Department of Global and Community Health,

Fairfax, VA, United States, [2]Global Health Program, Smithsonian Biological Conservation Institute, Washington, DC, United States

3 p.m.

644

MEAT AND FISH AS A SOURCE OF EXPOSURE TO ANTIBIOTIC-RESISTANT *ENTEROBACTERIACEAE* IN PHNOM PENH, CAMBODIA

Maya Nadimpalli[1], Kruy Sun Lay[2], Yith Vuthy[2], Malika Gouali[2], Agathe De Lauzanne[2], Laurence Borand[2], Simon Le Hello[1], Laétitia Fabre[1], Bich-tram Huynh[1], Elisabeth Delarocque-Astagneau[1]
[1]Pasteur Institute, Paris, France, [2]Pasteur Institute of Cambodia, Phnom Penh, Cambodia

3:15 p.m.

645

USING GPS TRACKERS TO EXPLORE FINE-SCALE HUMAN AND LIVESTOCK MOVEMENT IN BUSIA COUNTY, KENYA AND ITS IMPLICATIONS FOR ZOONOSES

Jessica R. Floyd[1], Nick W. Ruktanonchai[1], Nicola Wardrop[1], Andrew J. Tatem[1], Eric M. Fèvre[2]
[1]WorldPop Project, University of Southampton, Southampton, United Kingdom, [2]Institute of Infection and Global Health, University of Liverpool, Liverpool, United Kingdom

Scientific Session 43

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Helminths - Cellular, Molecular and Immunoparasitology

Convention Center - Room 341/342 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

Supported with funding from the Burroughs Wellcome Fund

CHAIR
John D. Chan
University of Minnesota, Minneapolis, MN, United States

Alexandra Grote
New York University, New York, NY, United States

1:45 p.m.

2007

METABOLISM AND WHIPWORM INFECTION: MTOR, AND THE LARGE NEUTRAL AMINO ACID SLC7A5, INFLUENCE RESISTANCE TO THE INTESTINAL DWELLING NEMATODE *TRICHURIS MURIS*

Maria Z. Krauss[1], Kevin N. Couper[2], Richard K. Grencis[1]
[1]Wellcome Centre for Cell Matrix Research, Faculty of Biology, Medicine and Health, Manchester Academic Health Science Centre, University of Manchester, Manchester, United Kingdom, [2]Faculty of Biology, Medicine and Health, Manchester Academic Health Science Centre, University of Manchester, Manchester, United Kingdom

2 p.m.

646

GENE EDITING OF *OMEGA-1* OF *SCHISTOSOMA MANSONI* BY CRISPR-CAS MODIFIES DENDRITIC CELL INFLAMMATORY RESPONSE

Wannaporn Ittiprasert[1], Victoria H. Mann[1], Shannon E. Karinshak[1], Apisit Chaidee[2], Christina J. Cochran[1], Paul J. Brindley[1]
[1]The George Washington University, Washington, DC, United States, [2]The George Washington University, and Khon Kaen University, Thailand, Washington, DC, United States

(ACMCIP Abstract)

2:15 p.m.

647

DETERMINING THE MECHANISM OF ENDOSYMBIOSIS BETWEEN FILARIAL NEMATODES AND *WOLBACHIA*

Alexandra Grote[1], Denis Voronin[2], Swapna Sheshadri[3], Dave Curran[3], Sara Lustigman[2], John Parkinson[3], Elodie Ghedin[1]
[1]New York University, New York, NY, United States, [2]New York Blood Center, New York, NY, United States, [3]University of Toronto, Toronto, ON, Canada

(ACMCIP Abstract)

2:30 p.m.

648

GLOBAL TRANSCRIPTOME ANALYSIS OF *WOLBACHIA* STRAIN *WOO* UNDER ANTIBIOTIC PRESSURE *IN VIVO*

Germanus S. Bah[1], Dong Xia[2], Ritesh Krishna[2], Vincent N. Tanya[3], Alistair C. Darby[2], **Ben Makepeace**[2]
[1]Institut de Recherche Agricole pour le Développement, Ngaoundéré, Cameroon, [2]University of Liverpool, Liverpool, United Kingdom, [3]Cameroon Academy of Sciences, Yaoundé, Cameroon

(ACMCIP Abstract)

2:45 p.m.

649

SCHISTOSOMA HAEMATOBIUM IPSE INDUCES CELLULAR PROLIFERATION, CELL CYCLE ALTERATIONS, ANGIOGENESIS, AND TRANSCRIPTIONAL PROFILES CONSISTENT WITH PRO-CARCINOGENIC EFFECTS

Evaristus Mbanefo[1], Irina V. Saltykova[2], Luke Pennington[3], Theodore Jardetzky[3], Burcu Ayoglu[3], P. J. Utz[3], Abdulaziz Alouffi[4], Franco H. Falcone[4], Paul J. Brindley[2], **Michael Hsieh**[1]
[1]Biomedical Research Institute, Rockville, MD, United States, [2]Department of Microbiology, Immunology and Tropical Medicine, and Research Center for Neglected Diseases of Poverty, George Washington University, Washington, DC, United States, [3]Stanford University, Stanford, CA, United States, [4]School of Pharmacy, Division of Molecular Therapeutics and Formulation, University of Nottingham, Nottingham, United Kingdom

(ACMCIP Abstract)

3 p.m.

650

INFILTRINS AS A NEW CLASS OF PATHOGEN-SECRETED, HOST NUCLEUS INFILTRATING PROTEINS IN TREMATODES

Abdulaziz Alouffi[1], Luke F. Pennington[2], Nigel Mongan[1], Robin J. Flynn[3], David M. Heery[1], Ted Jardetzky[2], Evaristus C. Mbanefo[4], Michael H. Hsieh[4], **Franco H. Falcone**[1]
[1]University of Nottingham, Nottingham, United Kingdom, [2]Stanford University School of Medicine, Stanford, CA, United States, [3]University of Liverpool, Liverpool, United Kingdom, [4]Biomedical Research Institute, Rockville, MD, United States

(ACMCIP Abstract)

3:15 p.m.

651

IDENTIFICATION OF ANTHELMINTIC DRUGS BY HIGH THROUGHPUT SCREENING OF A SCHISTOSOME SEROTONIN RECEPTOR

John D. Chan, Jonathan S. Marchant
University of Minnesota, Minneapolis, MN, United States

(ACMCIP Abstract)

Scientific Session 44

Global Health: From Chagas Disease to Nephropathy and Acute Encephalitis Syndrome

Convention Center - Room 343/344 (Level 300)
Monday, November 6, 1:45 p.m. - 3:30 p.m.

CHAIR

Rebecca Fischer
Baylor College of Medicine, Houston, TX, United States

Louise Ivers
Harvard Medical School, Boston, MA, United States

1:45 p.m.

652

MINIMIZING THE COST OF CONGENITAL CHAGAS DISEASE IN THE UNITED STATES THROUGH MATERNAL SCREENING

Eileen Stillwaggon[1], Victoria Perez-Zetune[2], Larry Sawers[3]
[1]Gettysburg College, Gettysburg, PA, United States, [2]Federal Reserve Board, Washington, DC, United States, [3]American University, Washington, DC, United States

2 p.m.

653

RISK FACTORS FOR ACUTE MESOAMERICAN NEPHROPATHY IN NICARAGUAN SUGAR WORKERS

Rebecca S. Fischer[1], Kaila A. Fagerstrom[1], Denis Chavarria[2], Sreedhar Mandayam[1], Melissa N. Garcia[1], Linda L. Garcia[1], Ruth Montenegro[2], Kristy O. Murray[1]
[1]Baylor College of Medicine, Houston, TX, United States, [2]Gerencia de Salud Ocupacional, Nicaragua Sugar Estates Limited, Chichigalpa, Nicaragua

2:15 p.m.

654

BARRIERS TO PEDIATRIC INPATIENT CARE GUIDELINE ADHERENCE: A MIXED METHOD ASSESSMENT OF EIGHT HOSPITALS IN ASIA AND AFRICA

Kirkby D. Tickell[1], Dorothy I. Mangale[1], Stephanie N. Tornberg-Belanger[1], Johnstone Thitiri[2], Molly Timbwa[3], Jenala Njirammadzi[4], Md. Jobayer Chisti[5], Tahmeed Ahmed[5], Md. Al Fazal Khan[6], Ali F. Saleem[7], Zaubina Kazi[7], Ezekiel Mupere[8], John Mukisa[8], Priya Sukhtankar[3], James A. Berkley[9], Judd L. Walson[1], Donna M. Denno[1]
[1]University of Washington, Seattle, WA, United States, [2]KEMRI-Wellcome Trust Research Programme, Kilifi, Kenya, [3]KEMRI-Wellcome Trust Research Programme, Nairobi, Kenya, [4]Queen Elizabeth Central Hospital, Blantyre, Malawi, [5]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [6]International Centre for Diarrhoeal Disease Research, Bangladesh, Matlab, Bangladesh, [7]Aga Khan University, Karachi, Pakistan, [8]Makerere University, Kampala, Uganda, [9]University of Oxford, Oxford, United Kingdom

2:30 p.m.

655

THE PREVALENCE AND DETERMINANTS OF DISCLOSURE OF SEXUAL PRACTICES TO OTHER FAMILY MEMBERS AMONG MEN WHO HAVE SEX WITH MEN IN LOME AND KARA, TOGO

Horacio Ruiseñor-Escudero[1], Carrie Lyons[2], Sosthenes Ketende[2], Vincent Pitche[3], Simplice Anato[4], Jules Tshala[5], Dometo Sodji[6], Stefan Baral[2]
[1]Michigan State University, East Lansing, MI, United States, [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [3]Conseil National de Lutte contre le SIDA, Lome, Togo, [4]Arc en Ciel, Lome, Togo, [5]Espoir Vie, Lome, Togo, [6]FAMME, Lome, Togo

2:45 p.m.

656

SEASONAL FOOD INSECURITY IN HAYDOM, TANZANIA IS ASSOCIATED WITH LOW BIRTH WEIGHT AND ACUTE MALNUTRITION: RESULTS FROM THE MAL-ED STUDY

Elizabeth T. Rogawski[1], Stephen Clark[1], Crystal Patil[2], Jean Gratz[1], Eric R. Houpt[1], Erling Svensen[3], Esto Mduma[4], James A. Platts-Mills[1]
[1]University of Virginia, Charlottesville, VA, United States, [2]University of Illinois Chicago College of Nursing, Chicago, IL, United States, [3]Haukeland University Hospital, Bergen, Norway, [4]Haydom Lutheran Hospital, Haydom, United Republic of Tanzania

3 p.m.

657

MOVING BEYOND PRIMARY HEALTH BENEFITS: EVALUATING THE IMPACT OF DRAINAGE INFRASTRUCTURE IMPROVEMENT PROJECT ON BUSINESSES AND TRAFFIC FLOW IN LUSAKA, ZAMBIA

Manjunath B. Shankar[1], Bishwa B. Adhikari[1], Sydney C. Hubbard[1], Warren Malambo[2], Sunkyung Kim[1], Joan M. Brunkard[1], Martin I. Meltzer[1]
[1]Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Centers for Disease Control and Prevention, Lusaka, Zambia

3:15 p.m.

658

REDUCTION IN CASE FATALITY RATE DUE TO ACUTE ENCEPHALITIS SYNDROME THROUGH INTEGRATED APPROACHES

Akshay C. Dhariwal[1], Rajiv Tandon[2], Shalini Khare[2], Padmalochan Biswal[2], Bhupendra Tripathi[3], Soumya Swaminathan[4]
[1]National Vector Borne Diseases Control Programme (NVBDCP) of Ministry of Health, Government of India, New Delhi, India, [2]PATH, New Delhi, India, [3]Bill & Melinda Gates Foundation, New Delhi, India, [4]Indian Council of Medical Research, Goverment of India, New Delhi, India

TropStop Office Hours

Convention Center - Pratt Street West Lobby Foyer (Level 300)
Monday, November 6, 3 p.m. – 4 p.m.

Meet professionals in the fields of tropical medicine, global health, science and industry who will share their personal career paths and answer questions you may have.

PRESENTERS

Merribeth Morin
PATH Malaria Vaccine Initiative, Washington, DC, United States

Momar Ndao
McGill University, Montreal, QC, Canada

Exhibit Hall Open

Convention Center - Swing Hall (Level 100)
Monday, November 6, 3:15 p.m. - 4:15 p.m.

Coffee Break

Convention Center - Swing Hall (Level 100)
Monday, November 6, 3:30 p.m. - 4 p.m.

Poster Session A Dismantle

Convention Center - Hall F and G (Level 100)
Monday, November 6, 4 p.m. - 6:15 p.m.

Symposium 45

American Committee on Arthropod-Borne Viruses (ACAV) Symposium II: Tick-Borne Viruses

Convention Center - Ballroom I (Level 400)
Monday, November 6, 4 p.m. - 5:45 p.m.

Viruses transmitted by tick vectors are distributed worldwide but are generally understudied and poorly understood. This symposium focuses on current research into the perpetuation and pathogenesis of tick-borne viruses.

CHAIR

Gregory Ebel
Colorado State University, Fort Collins, CO, United States

Laura Kramer
Wadsworth Center, Albany, NY, United States

4 p.m.
TICK-BORNE ENCEPHALITIS - FROM GIS TO NGS
Gerhard Dobler
Bundeswehr Institute of Microbiology, Munich, Germany

4:20 p.m.
TICK-BORNE ENCEPHALITIS VIRUS VS. VIPERIN: MECHANISMS OF AN POTENT ANTIVIRAL PROTEIN
Anna Overby
Umea University, Umea, Sweden

4:40 p.m.
TICK-BORNE VIRUS WORK IN MAXIMUM BIOCONTAINMENT: CHALLENGES AND CURRENT FINDINGS
Dennis A. Bente
University of Texas Medical Branch, Galveston, TX, United States

5 p.m.
TRIM PROTEINS IN HOST DEFENSE AGAINST TICK-BORNE ENCEPHALITIS VIRUS
Sonja Best
National Institute of Allergy and Infectious Diseases, Hamilton, MT, United States

Symposium 46

Alan Magill Symposium on Malaria Eradication

Convention Center - Ballroom II (Level 400)
Monday, November 6, 4 p.m. - 5:45 p.m.

Supported with funding from the Bill & Melinda Gates Foundation

This annual symposium honors the life and work of ASTMH Past President Alan Magill, who at the time of his untimely death in 2015 was promoting the bold goal of global malaria eradication as the Malaria Director at the Bill & Melinda Gates Foundation. The symposium will bring leaders in the malaria field during the ASTMH to summarize the challenge and advances in areas of relevance to the elimination and eradication effort. This year the key topics will include a review of key concepts and potential interventions for residual transmission; the challenge of including fragile populations in the elimination strategy; the approaches being taken by the 21 countries that are aiming to achieve at least one year of no indigenous transmission by 2020; and the new focus on the *P. vivax* research and elimination agenda. These talks will be followed by a panel discussion of prospects of and progress toward malaria eradication at which diverse viewpoints will be solicited from the panelists and audience.

CHAIR

Regina Rabinovich
Harvard T.H. Chan School of Public Health, Boston, MA, United States

Scott Miller
Bill & Melinda Gates Foundation, Seattle, WA, United States

4 p.m.
COUNTRY-DRIVEN AND COUNTRY-OWNED: THE E-2020 INITIATIVE
Kim Lindblade
World Health Organization, Geneva, Switzerland

4:20 p.m.
THE PAST, PRESENT AND THREATENED FUTURE OF RESIDUAL MALARIA TRANSMISSION
Gerry Killeen
Liverpool School of Tropical Medicine and Ifakara Health Institute, Dar Es Salaam, United Republic of Tanzania

4:40 p.m.
CHALLENGES TO INCLUSION IN THE ELIMINATION AGENDA: MALARIA IN WOMEN OF CHILD BEARING POTENTIAL
Clara Menendez
Barcelona Institute for Global Health, Barcelona, Spain

5 p.m.
TARGETING VIVAX MALARIA
Ivo Mueller
Institut Pasteur, Paris, France

Scientific Session 47

Malaria: Enhancing and Optimizing Quality of Care

Convention Center - Ballroom III (Level 400)
Monday, November 6, 4 p.m. - 5:45 p.m.

CHAIR

Kent Kester
Sanofi Pasteur, Swiftwater, PA, United States

Noella Umulisa
Jhpiego, Kigali, Rwanda

4 p.m.

659

USING G6PD TESTS TO ENABLE THE SAFE TREATMENT OF *PLASMODIUM VIVAX* INFECTIONS WITH PRIMAQUINE ON THE THAILAND-MYANMAR BORDER: A COST-EFFECTIVENESS ANALYSIS

Angela Devine[1], Minnie Parmiter[2], Cindy S. Chu[3], Germana Bancone[3], François Nosten[1], Ric Price[4], Yoel Lubell[1], Shunmay Yeung[5]
[1]Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand, [2]Boyd Orr Centre, University of Glasgow, Glasgow, United Kingdom, [3]Shoklo Malaria Research Unit, Mae Sot, Thailand, [4]Global and Tropical Health Division, Menzies School of Health Research and Charles Darwin University, Darwin, Australia, [5]Mahidol Faculty of Infectious and Tropical Disease, The London School of Hygiene & Tropical Medicine-Oxford Tropical Medicine Research Unit, London, United Kingdom

4:15 p.m.

660

DEVELOPMENT OF THE WHO INTERNATIONAL EXTERNAL QUALITY ASSURANCE SCHEME FOR MALARIA NUCLEIC ACID AMPLIFICATION TECHNIQUES

Jaya Shrivastava[1], Jane Cunningham[2], Sandra Incardona[3], Agatha C. Saez[1], Peter L. Chiodini[4]
[1]Public Health England, London, United Kingdom, [2]World Health Organization, Geneva, Switzerland, [3]Foundation for Innovative New Diagnostics, Geneva, Switzerland, [4]Hospital for Tropical Diseases, London, United Kingdom

(ACMCIP Abstract)

4:30 p.m.

661

CLINICAL AND LABORATORY PREDICTORS OF SEVERE KNOWLESI MALARIA: IMPLICATIONS FOR INITIATION OF PARENTERAL ARTESUNATE TREATMENT AND HOSPITAL REFERRAL

Matthew J. Grigg
Menzies School of Health Research and Charles Darwin University, Darwin, Australia

4:45 p.m.

662

BUILDING AND MAINTAINING HEALTH CARE WORKER PERFORMANCE OF MALARIA RAPID DIAGNOSTIC TESTS IN EIGHT SUB-SAHARAN AFRICAN COUNTRIES

James Eliades[1], Victoria Longa Kalota[2], Arune Estavela[3], Fozo Alombah[1], Kelly Davis[1], Jolene Wun[1]
[1]President's Malaria Initiative MalariaCare Project, PATH, Washington, DC, United States, [2]President's Malaria Initiative MalariaCare Project, Medical Care Development International, Lusaka, Zambia, [3]President's Malaria Initiative MalariaCare Project, PATH, Maputo, Mozambique

5 p.m.

663

USING OUTREACH TRAINING AND SUPPORTIVE SUPERVISION TO MAINTAIN MICROSCOPY COMPETENCY IN SEVEN SUB-SAHARAN AFRICAN COUNTRIES

Troy Martin[1], Nicole Whitehurst[2], Rodgers Dena Mwinga[3], Séraphine Kutumbakana[4], Petros Chirambo[5], Kelly Davis[6], Jolene Wun[6]
[1]President's Malaria Initiative MalariaCare Project, PATH, Seattle, WA, United States, [2]President's Malaria Initiative MalariaCare Project, Medical Care Development International, Silver Spring, MD, United States, [3]President's Malaria Initiative MalariaCare Project, PATH, Nairobi, Kenya, [4]President's Malaria Initiative MalariaCare Project, PATH, Kinshasa, Democratic Republic of the Congo, [5]President's Malaria Initiative MalariaCare Project, PATH, Lilongwe, Malawi, [6]President's Malaria Initiative MalariaCare Project, PATH, Washington, DC, United States

5:15 p.m.

664

PERFORMANCE ASSESSMENT OF LABORATORY TECHNICIANS ON MALARIA MICROSCOPY IN 5 HIGH ENDEMIC DISTRICTS OF RWANDA

Noella Umulisa[1], Angelique Mugirente[1], Tharcisse Munyaneza[2], Aniceth Rucogoza[2], Aline Uwimana[3], Beata Mukarugwiro[1], Stephen Mutwiwa[1], Aimable Mbituyumuremyi[3]
[1]Maternal and Child Survival Program/Jhpiego Rwanda, Kigali, Rwanda, [2]National Reference Laboratory (NRL), Rwanda Biomedical Centre (RBC), Kigali, Rwanda, [3]Malaria and Other Parasitic Diseases Division (Mal and OPDD), Kigali, Rwanda

5:30 p.m.

665

IMPLEMENTATION OF A QUALITY IMPROVEMENT APPROACH FOR MALARIA SERVICE DELIVERY IN ZAMBEZIA PROVINCE, MOZAMBIQUE

Baltazar Candrinho[1], Armindo Tiago[2], Custodio Cruz[2], Mercino Ombe[2], Katherine Wolf[3], Maria da Luz Vaz[2], Connie Lee[3]
[1]National Malaria Control Program, Ministry of Health, Maputo, Mozambique, [2]Maternal and Child Survival Program/Jhpiego, Maputo, Mozambique, [3]Jhpiego, Baltimore, MD, United States

Scientific Session 48

Clinical Tropical Medicine I

Convention Center - Ballroom IV (Level 400)
Monday, November 6, 4 p.m. - 5:45 p.m.

CHAIR

Janine Danko
Walter Reed National Military Medical Center, Bethesda, MD, United States

4 p.m.

666

A LARGE NON-HIV OUTBREAK OF AFRICAN HISTOPLASMOSIS IN RURAL COMMUNITY IN KIMPESE CITY, DEMOCRATIC REPUBLIC OF CONGO

Nestor Muyulu Pakasa[1], **Asaf Biber**[2], Samuel Zele Nsiangana[3], Désiré H. Imposo[3], Ernest Kiswaya Sumaili[1], Hypolite Muhindo Mavoko[1], Ali Mapatano[4], Iris Barshack[2], Eli Schwartz[2]
[1]University of Kinshasa Hospital, Kinshasa, Democratic Republic of the Congo, [2]The Chaim Sheba Medical Center, Ramat Gan, Israel, [3]IME Kimpese, Kimpese, Democratic Republic of the Congo, [4]University of Kinshasa, Kinshasa, Democratic Republic of the Congo

4:15 p.m.

667

EFFECT OF ANTI-MYCOBACTERIUM TUBERCULOSIS THERAPY ON MORTALITY AMONG HIV-INFECTED PATIENTS ADMITTED WITH SEVERE SEPSIS TO A REGIONAL REFERRAL HOSPITAL IN UGANDA

Riley H. Hazard[1], Sumit Agarwal[1], Christopher C. Moore[1], Abdallah Amir[2]
[1]University of Virginia, Charlottesville, VA, United States, [2]Mbarara Regional Referral Hospital, Mbarara, Uganda

4:30 p.m.

668

IMMUNE RESPONSE FOLLOWING REACTIVE VACCINATION CAMPAIGN USING FRACTIONAL DOSE YELLOW FEVER VACCINE — KINSHASA, DEMOCRATIC REPUBLIC OF CONGO, 2016

Rebecca M. Casey[1], Meredith Dixon[2], Steve Ahuka-Mundeke[3], Jennifer Harris[2], Kizito Mbunsu[3], Pierre Mutantu[3], Janeen Laven[4], Gilson Paluku[2], Abdou Salam Gueye[5], Terri B. Hyde[2], J. Erin Staples[4], Jean-Jacques Muyembe-Tamfum[3]
[1]Epidemic Intelligence Service, Global Immunization Division, Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Global Immunization Division, Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Institut National de Recherche Biomédicale, Laboratoire de virologie, Kinshasa, Democratic Republic of the Congo, [4]Division of Vector-Borne Diseases, Centers for Disease Control and Prevention, Fort Collins, CO, United States, [5]Division of Global Health Protection, Centers for Disease Control and Prevention, Kinshasa, Democratic Republic of the Congo

4:45 p.m.

669

CEREBROSPINAL FLUID MARKERS TO DISTINGUISH BACTERIAL MENINGITIS FROM CEREBRAL MALARIA IN CHILDREN

James M. Njunge
KEMRI-Wellcome Trust Programme, Kilifi, Kenya

5 p.m.

670

CONTRIBUTING FACTORS FOR ANEMIA IN YOUNG CHILDREN IN COASTAL KENYA

Julia Kao[1], Francis Mutuku[2], Shanique Martin[1], Justin Lee[1], Jackson Muinde[3], Dunstan Mukoko[4], Indu Malhotra[5], Charles King[5], A. Desiree LaBeaud[1]
[1]Stanford School of Medicine, Stanford, CA, United States, [2]Technical University of Mombasa, Mombasa, Kenya, [3]Ministry of Health Kwale, Mombasa, Kenya, [4]Ministry of Health, Nairobi, Kenya, [5]Case Western Reserve University, Cleveland, OH, United States

5:15 p.m.

671

CAUSES OF NON-TRAUMATIC PARAPLEGIA IN MALAWI

Eduard E. Zijlstra[1], Jaap van Hellemond[2], Nyengo Mkandawire[3], Juri Katchanov[4], Camilla Rothe[5]
[1]Rotterdam Centre for Tropical Medicine, Rotterdam, Netherlands, [2]Erasmus Medical Center, Rotterdam, Netherlands, [3]College of Medicine, Blantyre, Malawi, [4]University Hospital Hamburg-Eppendorf, Hamburg, Germany, [5]University Medical Center Hamburg Eppendorf, Hamburg, Germany

5:30 p.m.

672

ACUTE KIDNEY INJURY FOLLOWING MULTIPLE WASP STINGS - A CLINICOPATHOLOGICAL STUDY FROM A MOUNTAINOUS STATE OF INDIA

Sanjay Vikrant
Indira Gandhi Medical College, Shimla (Himachal Pradesh), India

Symposium 49

Climate Change and Health: Tracking Implementation of the Paris Agreement

Convention Center - Room 318/319/320 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

The impacts of climate change on health are only recently being fully appreciated and the health co-benefits of addressing climate change are now widely recognized. Indeed, the 2015 Lancet Commission argued that the response to climate change could be "the greatest global health opportunity of the 21st century". Following from this work, the Lancet Countdown: Tracking Progress on Health and Climate Change was launched. The Lancet Countdown is a global, interdisciplinary research initiative working to monitor action on climate change and the health benefits associated with this. This symposium will bring together experts in health and climate change. Experts from the Lancet Countdown and colleagues will discuss how the Lancet Countdown's indicators will track the implementation of the Paris Agreement, while demonstrating the health co-benefits associated with this; the current health impacts climate change is having globally; and presenting the evidence on how climate change will further affect health in the future if action on climate change remains unabated. This symposium will present the results from the first Lancet Countdown paper reporting on their health and climate change indicators. The five thematic groups of the Lancet Countdown will be presented and discussed, along with the associated indicators and findings. These groups are: health impacts of climate change; adaptation and resilience; co-benefits of mitigation; economics and finance; and political and broader engagement. The broader political significance of these findings will be discussed and the successful implementation of the Paris Agreement to date will be debated. Furthermore, the symposium will also consider the impact that climate change is having on the health of indigenous communities in Peru and how this may evolve in future as the climate changes in these localities. Additionally, the speakers will discuss the policy implications and challenges of climate change, and its impacts on health, using Peru and more widely South America as a case study.

CHAIR

Andres G. Lescano
Universidad Peruana Cayetano Heredia, School of Public Health and Administration, Lima, Peru

Nick Watts
The Lancet Countdown: Tracking Progress on Health and Climate Change, London, United Kingdom

4 p.m.

THE LANCET COUNTDOWN TO 2030: TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE

Nick Watts
The Lancet Countdown: Tracking Progress on Health and Climate Change, London, United Kingdom

4:20 p.m.
THE IMPLICATIONS OF THE PARIS AGREEMENT ON HEALTH AND POLICY CHALLENGES

Howard Frumkin
The University of Washington, School of Public Health, Seattle, WA, United States

4:40 p.m.
THE IMPACT OF THE 2017 COASTAL EL NIÑO IN PERU

Andres G. Lescano
Universidad Peruana Cayetano Heredia, School of Public Health and Administration, Lima, Peru

5 p.m.
PERU, A CASE STUDY ON CLIMATE CHANGE AND HEALTH

Armando Valdes-Velasquez
Universidad Peruana Cayetano Heredia, Lima, Peru

Symposium 50

Current Molecular Approaches for Tracking the Origin and Spread of Malaria Infections

Convention Center - Room 321/322/323 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

Being able to accurately diagnose and track the spread of infectious disease is critical to develop public health policies and practice. However, slow data generation and analysis times due to the lack of standardized and streamlined workflows have limited this technology to the research realm. Molecular tools hold great promise for malaria control and elimination, but efficient development of such tools requires coordination by the malaria research community on best practice, and to share ideas and experiences. This symposium will bring together four experts in malaria molecular and genomic epidemiology who are developing methods for genotyping parasites and associated analytical tools to monitor population structure and track parasite flow and origins. Working in diverse malaria endemic areas including Africa, Southeast Asia, South America and Oceania and on both major human malaria parasites, *P. falciparum* and *P. vivax*, these researchers are developing these tools to support the goals of national malaria control programs. They will discuss their unique approaches and experiences in the development of these tools and future perspectives for this growing area of research. Speakers will focus on different panels of markers including whole genome sequencing, single nucleotide polymorphisms (SNPs), microsatellites and drug resistance *loci*. This symposium aims to advance several goals such as: (i) bring together leaders in the field to share their insights with each other and the wider community, (ii) identify others in the community interested in conducting these studies or already working in this area, (iii) discuss the potential of a universal approach in addition to specialized local approaches designed specifically to target certain populations and (iv) develop a set of agreed minimum markers as standard for large genotyping studies in order to allow different datasets to be combined. This will ensure the research and malaria control communities gain maximum benefit from ongoing studies, and the translation of this important research to useful tools for malaria endemic countries aiming to eliminate the disease.

CHAIR

Alyssa Barry
Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia

Bryan Greenhouse
University of California, San Francisco, CA, United States

4 p.m.
BARCODING USING LOCALLY DERIVED SNPS REVEALS COUNTRYWIDE TRANSMISSION NETWORKS OF *PLASMODIUM FALCIPARUM* AND IDENTIFIES THE SOURCE OF INFECTIONS IN OCEANIA

Alyssa Barry
Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia

4:20 p.m.
TRACKING THE LOCAL AND REGIONAL SPREAD OF *PLASMODIUM FALCIPARUM* IN LOW TRANSMISSION SETTINGS OF AFRICA

Bryan Greenhouse
University of California, San Francisco, United States

4:40 p.m.
SPATIAL AND TEMPORAL GENOMIC DIVERSITY OF *PLASMODIUM FALCIPARUM* IN SOUTHEAST ASIA PROVIDES INSIGHT INTO PARASITE MIGRATION PATTERNS

Shannon Takala
University of Maryland School of Medicine, Center for Vaccine Development, Baltimore, MD, United States

5 p.m.
TRANSLATING POPULATION GENETICS INTO MOLECULAR EPIDEMIOLOGY: INCORPORATING PARASITE DEMOGRAPHY INTO EPIDEMIOLOGICAL STUDIES IN LATIN AMERICA

Ananais Escalante
Temple University, Philadelphis, PA, United States

Scientific Session 51

Mosquitoes: Biochemistry and Molecular Biology

Convention Center - Room 324/325/326 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

CHAIR

Yesseinia Anglero
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Ines Martin-Martin
National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States

4 p.m.
673

EFFECT OF HUMAN C5A PROTEIN ON MOSQUITO CELLS AND ITS IMPLICATIONS IN ZIKA VIRUS TRANSMISSION

Donghun Kim[1], Seokyoung Kang[2], Crystal Gripping[3], Mauricio Figueroa-Lozano[4], Tonya M. Colpitts[5], George Dimopoulos[2], Yoonseong Park[1], Berlin L. Londono-Renteria[1]
[1]Kansas State University, Manhattan, KS, United States, [2]Department of Molecular Microbiology and Immunology, Johns Hopkins University, Baltimore, MD, United States, [3]Department of Tropical Medicine, Tulane University, New Orleans, LA, United States, [4]Universidad de Pamplona, Pamplona, Colombia, [5]University of South Carolina, Columbia, SC, United States

4:15 p.m.

674

ZIKA-*AEDES* MOLECULAR INTERACTIONS AND MOSQUITO IMMUNITY-MEDIATED VIRAL SUPPRESSION

Yesseinia I. Anglero-Rodriguez, Hannah MacLeod, Seokyoung Kang, Jenny Carlson, Natapong Jupatanakul, George Dimopoulos
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

4:30 p.m.

675

CHEMICAL DEPLETION OF GRANULOCYTES REVEALS CONTRIBUTIONS OF HEMOCYTES TO ANTI-*PLASMODIUM* IMMUNITY

Hyeogsun Kwon, Ryan C. Smith
Department of Entomology, Iowa State University, Ames, IA, United States

4:45 p.m.

676

LOSS-OF-FUNCTION STUDIES WITH KNOCK OUT *AEDES AEGYPTI* LINES GENERATED BY CRISPR/CAS9 HIGHLIGHT THE PHYSIOLOGICAL RELEVANCE OF SALIVARY D7 PROTEINS IN BLOOD FEEDING AND PARASITE TRANSMISSION

Ines Martin-Martin[1], Azadeh Aryan[2], Jose M. Ribeiro[1], Zach Adelman[3], Eric Calvo[1]
[1]National Institutes of Health, Rockville, MD, United States, [2]Virginia Tech University, Blacksburgh, VA, United States, [3]Texas A&M University, College Station, TX, United States

5 p.m.

677

IDENTIFICATION OF A RECEPTOR FOR *PLASMODIUM FALCIPARUM* PFS47 IN THE *ANOPHELES GAMBIAE* MIDGUT

Alvaro Molina-Cruz, Gaspar Canepa, Simardeep Nagyal, Smith Agyingi, Thiago Silva, Nathanie Trisnadi, Eric Calvo, Carolina Barillas-Mury
National Institutes of Health, Rockville, MD, United States

5:15 p.m.

678

FACTORS TRIGGERING *PLASMODIUM* DEVELOPMENT FOLLOWING *ANOPHELES* SALIVARY GLAND INVASION

Mai I. Hussein[1], Belal A. Soliman[1], Maha K. Tewfick[1], Kristina Pilitt[2], David A. O'Brochta[2]
[1]Department of Zoology, Faculty of Science, Suez University, Suez, Egypt, [2]Institute for Bioscience and Biotechnology Research, University of Maryland-College Park, Rockville, MD, United States

5:30 p.m.

679

THE ROLE OF TWO FEMALE ATRIAL PROTEASES IN THE REFRACTORINESS OF *ANOPHELES GAMBIAE* MOSQUITOES TO FURTHER MATINGS

Priscila Bascuñan[1], Paolo Gabrieli[2], Enzo Mameli[1], Robert Shaw[3], Matthew Peirce[2], Flaminia Catteruccia[1]
[1]Univeristy of Perugia/Harvard School of Public Health, Boston, MA, United States, [2]University of Perugia, Perugia, Italy, [3]Harvard School of Public Health, Boston, MA, United States

Symposium 52

Lessons from the Ebola Survivors and Clinical Implications: Ebola Viral RNA Persistence, Ebola Survivors' Birth Cohort Findings and Longer-Term Ophthalmologic Findings

Convention Center - Room 327/328/329 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

The 2014-2016 West African Ebola outbreak provided an unprecedented opportunity to understand the clinical, virologic and immunologic consequences of human Ebola virus disease. This symposium highlights recent findings from studies of Ebola survivors. The first talk will focus on longitudinal analysis of Ebola viral RNA shedding in seminal fluid, including mathematical modeling of clearance parameters and infectivity testing in mouse model. In addition, the talk will highlight the risk of virus transmission due to virus persistence in seminal fluid and breast milk. The second presentation will describe retrospectively case cohort study trying to identify clinical characteristics of Ebola virus disease which correlate with the phenotype of Ebola viral persistence, as well as a description of Ebola viral RNA shedding. The next talk with describe the immunologic, virologic and clinical results of a Survivor Birth Cohort Sub-study for pregnant Ebola survivors and their offspring. Finally, data on longer prospective ophthalmologic findings in Ebola survivors, versus controls, and the clinical care implications will be presented.

CHAIR

Elizabeth S. Higgs
National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

Mosoka P. Fallah
Liberian National Public Health Institute, Monrovia, Liberia

4 p.m.

PERSISTENCE OF EBOLA VIRUS RNA IN BODY FLUIDS OF EBOLA VIRUS DISEASE SURVIVORS: MODELLING OF CLEARANCE AND RISK OF TRANSMISSION

Stephan Günther
Bernhard-Nocht-Institute for Tropical Medicine, Hamburg, Germany

4:20 p.m.

SEMINAL EBOLA VIRAL PERSISTENCE: PREDICTORS, PATTERNS AND DECAY

James Soka Moses
Liberian Ministry of Health and Partnership for Ebola Research in Liberia, Monrovia, Liberia

4:20 p.m.

SEMINAL EBOLA VIRAL PERSISTENCE: PREDICTORS, PATTERNS AND DECAY

Dehkontee Gayedyu-Dennis
Partnership for Research on Ebola Virus, Monrovia, Liberia

4:40 p.m.

PROSPECTIVE RESULTS OF THE PREVAIL BIRTH COHORT SURVIVOR STUDY

Mosoka P. Fallah
National Public Health Institute of Liberia, Monrovia, Liberia

5 p.m.

LONG-TERM OPHTHALMIC FINDINGS AND CLINICAL CARE IMPLICATIONS IN EBOLA SURVIVORS

Rachel J. Bishop
National Eye Institute, National Institutes of Health, Baltimore, MD, United States

Allen Eghrari
Wilmer Eye Institute, Baltimore, MD, United States

Scientific Session 53

Water, Sanitation, Hygiene and Environmental Health II

Convention Center - Room 331/332 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

CHAIR

Jade Benjamin-Chung
University of California Berkeley, Berkeley, CA, United States

David Berendes
Georgia Institute of Technology, Atlanta, GA, United States

4 p.m.

680

EFFECTIVENESS OF HAND SANITIZER WITH HAND AND RESPIRATORY HYGIENE EDUCATION IN REDUCING INFLUENZA-LIKE ILLNESS AND LABORATORY CONFIRMED INFLUENZA AMONG SCHOOL CHILDREN IN BANGLADESH, 2015

Debashish Biswas[1], Fahmida Chowdhury[1], Katherine Roguski[2], Makhdum Ahmed[3], Fosiul A. Nizame[1], Shahana Parveen[1], Probir K. Ghosh[1], Sazzad H. Khan[1], A. Danielle Iuliano[2]
[1]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]University of Texas M.D. Anderson Cancer Center and University of Texas Health Science Center, Houston, TX, United States

4:15 p.m.

681

SPILLOVER EFFECTS OF A COMBINED WATER, SANITATION AND HANDWASHING INTERVENTION IN RURAL BANGLADESH: A RANDOMIZED CONTROLLED TRIAL

Jade Benjamin-Chung[1], Nuhu Amin[2], Ayse Ercumen[1], Benjamin F. Arnold[1], Alan Hubbard[1], Leanne Unicomb[2], Mahbubur Rahman[2], Stephen P. Luby[3], John M. Colford, Jr.[1]
[1]University of California Berkeley, Berkeley, CA, United States, [2]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [3]Stanford University, Stanford, CA, United States

4:30 p.m.

682

THE ROLE OF THE ENVIRONMENT IN ROTAVIRUS TRANSMISSION: TEMPERATURE AND HYDROLOGIC FACTORS

Alicia N. Kraay[1], Nan Lin[1], Andrew F. Brouwer[1], Justin V. Remais[2], Phillip A. Collender[2], Joseph N. Eisenberg[1]
[1]University of Michigan Ann Arbor, Ann Arbor, MI, United States, [2]University of California Berkeley, Berkeley, CA, United States

4:45 p.m.

683

IDENTIFICATION OF SPECIFIC ENTEROPATHOGENS AS PREDICTORS OF LINEAR DECLINE IN ENVIRONMENTAL ENTERIC DYSFUNCTION

Sana Syed[1], Najeeha T. Iqbal[2], Furqan Kabir[2], Tauseef Akhund[2], Shahida Qureshi[2], Jie Liu[3], Jennie Z. Ma[3], Shan Guleria[3], Molly A. Hughes[3], Kamran Sadiq[2], S. Asad Ali[2]
[1]University of Virginia/Aga Khan University, Charlottesville, VA, USA/Karachi, Pakistan, [2]Aga Khan University, Karachi, Pakistan, [3]University of Virginia, Charlottesville, VA, United States

5 p.m.

684

ANTIBIOTIC RESISTANCE IN DENSE, LOW-INCOME NEIGHBORHOODS: THE ROLE OF SANITATION IN GENE DISPERSION

David Berendes[1], David Holcomb[2], Jackie Knee[1], Trent Sumner[1], Rassul Nala[3], Joe Brown[1]
[1]Georgia Institute of Technology, Atlanta, GA, United States, [2]University of North Carolina, Chapel Hill, NC, United States, [3]Minesterio da Saude, Maputo, Mozambique

5:15 p.m.

685

EVALUATION OF WATER, SANITATION, AND HYGIENE INFRASTRUCTURE IN RURAL HEALTHCARE FACILITIES — KAMWENGE DISTRICT, UGANDA, 2017

Jarred Mcateer[1], Sae-Rom Chae[1], Emily Atuheire[2], Daniel Kadobera[2], Alex R. Ario[2], Rob Quick[1]
[1]Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Uganda Public Health Fellowship Program, Kampala, Uganda

5:30 p.m.

686

EVALUATION OF A LARGE-SCALE DISTRIBUTION OF WATER FILTERS IN WESTERN PROVINCE, RWANDA

Miles A. Kirby[1], Corey Nagel[2], Ghislaine Rosa[3], Laura Zambrano[1], Marie Mediatrice Umupfasoni[4], Florien Ndagijimana[4], Evan Thomas[5], Thomas Clasen[1]
[1]Emory Rollins School of Public Health, Atlanta, GA, United States, [2]Oregon Health & Science University, Portland, OR, United States, [3]London School of Hygiene & Tropical Medicine, London, United Kingdom, [4]DelAgua Health, Kigali, Rwanda, [5]Portland State University, Portland, OR, United States

Symposium 54

'Leaving No One Behind' The Key to Achieving NTD Elimination? Tools for Programs to Ensure and Measure Equity

Convention Center - Room 337/338 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

This symposium will highlight critical achievements and challenges of disease control interventions for Neglected Tropical Diseases (NTDs) in equitably reaching those populations most vulnerable to being 'left behind' in the Sustainable Development Goals (SDGs) agenda. The symposium will then focus on emerging evidence of barriers to equity of access as control programs shift to elimination as the end goal. The session will aim specifically at program implementers and how they can look to set and monitor effective equity targets and practices within NTD elimination, evaluating both piloted and embedded tools. The SDGs are underpinned by equity and justice, reinforced by the 'leave no one behind' commitment by global leaders. Specifically cited as a global health threat (SDG3), NTDs, affect over 1 billion of the world's poorest, most vulnerable populations and are often regarded as potential 'tracers' for other SDGs concerned with equitable access such as Universal Health Care and Sanitation. Over the last few years, equity and inclusion has become an emergent and critical part of established program monitoring tools. Programs have endeavored to better define and quantify equity and have tested a number of tools for measuring it. When

viewed through an intersectional lens, a complex picture of equity emerges. Access to health interventions is often mediated through a number of social factors, including refugee status, educational enrolment, age, gender, dis/ability and socioeconomic status. When such factors are not considered in program planning and implementation equity is unlikely to be achieved. In addition, repetitive exclusion of such individuals from control programs places these individuals at higher risk of infection and transmission of NTDs. While a rights based approach to health care and the global thrust towards equity demands that vulnerable individuals/groups be treated, we address the additional question of whether failing to reach them could also compromise program effectiveness in breaking transmission cycles or indeed, whether NTD programs' (often unintentional) practices of exclusion could compound social inequity. Presentations are arranged around different vulnerable groups (including non-enrolled children, refugees, gender groups and people with disabilities), crossing a spectrum of NTDs. Each speaker will present new data on the equity of PC (or other control program) coverage, the relevance to control and elimination as well as discussions of the future of measurement of equity and appropriate program adjustments.

CHAIR

Elizabeth Elhassan
Sightsavers, Accra, Ghana

Fiona Fleming
Imperial College London, Schistosomiasis Control Initiative, London, United Kingdom

4 p.m.
REACHING NON-ENROLLED CHILDREN AND UNDER 5S THROUGH A SCHOOL BASED PLATFORM AND USING HOUSEHOLD SURVEYS TO ESTIMATE COVERAGE IN STH AND SCHISTOSOMIASIS PROGRAMS

Jane Whitton
Schistosomiasis Control Initiative, London, United Kingdom

4:15 p.m.
REACHING NON-ENROLLED CHILDREN AND UNDER 5S THROUGH A SCHOOL BASED PLATFORM AND USING HOUSEHOLD SURVEYS TO ESTIMATE COVERAGE IN STH AND SCHISTOSOMIASIS PROGRAMS

Deepak Yadav
Evidence Action Deworm the World Initiative, New Delhi, India

4:30 p.m.
MEASURING ACCESS BY DISABILITY STATUS AND WEALTH IN INTEGRATED TRACHOMA, ONCHOCERCIASIS AND LF PROGRAMS IN 4 AFRICAN COUNTRIES

Nazzaradden Ibrahim
Sightsavers, Kaduna, Nigeria

4:50 p.m.
AN ETHNOGRAPHIC CASE STUDY OF GOVERNANCE ISSUES AFFECTING REFUGEES IN THE UGANDA SLEEPING SICKNESS PROGRAM

Jennifer Palmer
University of Edinburgh, Centre of African Studies, Edinburgh, United Kingdom

5:10 p.m.
PILOTING THE WHO EQUITY TOOL TO MEASURE ACCESS BY GENDER IN NIGERIA

Oluwatosin Adekeye
COUNTDOWN (Joint initiative between Liverpool School Tropical Medicine and Sightsavers), Kaduna, Nigeria

Symposium 55

Doing Global Health Research in an Unequal World: Ethics Case Studies from Africa

Convention Center - Room 339/340 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

This symposium aims to fill the gap between ethics guidelines and their implementation on the ground. Within transnational medical research there is a disjuncture between 'regulatory ethics' – the moral principles imbued in rules set out by ethics review boards and official documents – and 'relational ethics', which refers to the complex and spontaneous pursuit of morally right actions in social interactions with others. Reflecting on relational ethics is particularly crucial in Africa where global health research invariably involves major economic and political inequalities. Such things are often hard to talk about. Being explicit about inequality and its effects can be embarrassing, even humiliating, and there are limited outlets for discussion of such messy ethical issues within the pressures of time-limited trials. Through a creative format of talks and case study materials, this symposium will give ASTMH attendees a space to engage in these important ethical deliberations. The session will open with two keynote talks. the first of which will outline the broad field of ethics in global health research, drawing on work on practical ethical issues arising in genomic research in Africa. The next keynote talk will focus on the perspective of 'ethics-in-the-field.' The second part of the symposium will use case study material to provoke discussion. This section will begin with an introduction to the case study method for encouraging ethical deliberation, followed by a talk about a GLOBVAC-funded research project on the ethics of North/South collaboration in transnational medical research in East Africa and a facilitated discussion of a relational ethics case study 'Whose Capacity?'. The next speaker will introduce the second case study by reflecting on the challenges created by boundaries between research and intervention.

CHAIR

Gemma J. Aellah
Royal Anthropological Institute/London School of Hygiene & Tropical Medicine, London, United Kingdom

Ogobara Doumbo
University of Bamako, Bamako, Mali

4 p.m.
ETHICS IN GLOBAL HEALTH RESEARCH

Paulina Tindana
Navrongo Health Research Centre, Ghana Health Service, Navrongo, Ghana

4:20 p.m.
EHICS IN THE FIELD

Ogobara Doumbo
University of Bamako, Bamako, Mali

4:30 p.m.
WHOSE CAPACITY? COLLABORATION THROUGH CAPACITY BUILDING
Ferdinand Okwaro
University of Oslo, Oslo, Norway

4:45 p.m.
HUNGER IS NOT OUR MANDATE: DEALING WITH POVERTY AMONG RESEARCH PARTICIPANTS
Jennifer Stevenson
Johns Hopkins Malaria Research Institute, Macha, Zambia

5 p.m.
THE CASE STUDY METHOD FOR ETHICAL DELIBERATION
Tracey Chantler
London School of Hygiene & Tropical Medicine, London, United Kingdom

5:15 p.m.
FACILITATOR, CASE STUDY DISCUSSION
Philister Madiega
Kenya Medical Research Institute, Kisumu, Kenya

Scientific Session 56

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Helminths - Immunology

Convention Center - Room 341/342 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

Supported with funding from the Burroughs Wellcome Fund

CHAIR
Britt Andersen
Washington University School of Medicine, St. Louis, MO, United States
Michael Andrew Kron
Medical College of Wisconsin, Milwaukee, WI, United States

4 p.m.
2008

BONE MARROW-DERIVED MONOCYTES MEDIATE HOST PROTECTIVE RESPONSES TO TRICHINELLA SPIRALIS
Chandler Sy, Everett Henry, Juan Manuel Inclan Rico, Mark Siracusa
The Rutgers Graduate School of Biomedical Sciences (GSBS), Newark, NJ, United States

4:15 p.m.
687

THE EFFECT OF CHRONIC HELMINTH INFECTION ON IGE-MEDIATED ANAPHYLAXIS IN SENSITIZED MICE
Laura E. Kropp, Edward Mitre
Uniformed Services University, Bethesda, MD, United States

4:30 p.m.
688

INTERLEUKIN 13 AND HEDGEHOG SIGNALING PATHWAYS REGULATE FIBROSIS COLLABORATIVELY IN SCHISTOSOMIASIS MANSONI
Thiago de Almeida Pereira[1], Lee Borthwick[2], Mariana Verdelho Machado[3], Guanhua Xie[4], Paula Vidigal[5], Izabela Voieta[5], Vivian Resende[5], Rafal Witek[6], José Roberto Lambertucci[5], Anna Mae Diehl[4], Thomas A. Wynn[1]
[1]National Institute of Allergy and Infectious Diseases/National Institutes of Health, Bethesda, MD, United States, [2]Newcastle University, Newcastle, United Kingdom, [3]Hospital Universitário de Santa Maria, Lisbon, Portugal, [4]Division of Gastroenterology, Duke University Medical Center, Durham, NC, United States, [5]Faculdade de Medicina, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil, [6]Thermo Fisher Scientific, Frederick, MD, United States

(ACMCIP Abstract)

4:45 p.m.
689

TRANSCRIPTOMIC-BASED FUNCTIONAL CHARACTERIZATION OF HOST SYSTEMIC ADVERSE EVENTS FOLLOWING LYMPHATIC FILARIASIS TREATMENT
Britt Andersen[1], Bruce Rosa[1], Abdoulaye Meïté[2], Christopher King[3], Makedonka Mitreva[1], Peter Fischer[1], Gary Weil[1]
[1]Washington University School of Medicine, St. Louis, MO, United States, [2]Programme national de la lutte contre la schistosomiase, les geohelminthiases et la filariose lymphatique, Abidjan, Côte D'Ivoire, [3]Case Western Reserve University, Cleveland, OH, United States

(ACMCIP Abstract)

5 p.m.
690

PROTECTIVE IMMUNITY WITH HUMANS IS CONSISTENT WITH A DEFINED IMMUNE RESPONSE AGAINST THE TWO LEAD *O. VOLVULUS* VACCINE CANDIDATES, OV-103 AND OV-RAL-2
Jovvian G. Parakkal[1], Sonia Jain[1], Nancy Tricoche[1], David Abraham[2], Sara Lustigman[1]
[1]New York Blood Center-The Lindsley F. Kimball Research Institute, New York, NY, United States, [2]Thomas Jefferson University, Philadelphia, PA, United States

5:15 p.m.
691

A NOVEL MECHANISM FOR IMMUNE EVASION BY A HUMAN FILARIAL PARASITE
Michael Andrew Kron
Medical College of Wisconsin, Milwaukee, WI, United States

(ACMCIP Abstract)

5:30 p.m.
692

CORD BLOOD ANTI-PARASITE IL-10 AS RISK MARKER FOR COMPROMISED VACCINE IMMUNOGENICITY IN EARLY CHILDHOOD
Indu Malhotra[1], A. Desiree LaBeaud[2], Nathan Morris[1], Maxim McKibben[1], Peter L. Mungai[1], Eric Muchiri[3], Christopher L. King[1], Charles H. King[1]
[1]Case Western Reserve University, Cleveland, OH, United States, [2]Stanford University, Stanford, CA, United States, [3]Division of Vector Borne and Neglected Tropical Diseases, Nairobi, Kenya

(ACMCIP Abstract)

Scientific Session 57

Global Health: Initiatives, Strategies, Approaches and Tools

Convention Center - Room 343/344 (Level 300)
Monday, November 6, 4 p.m. - 5:45 p.m.

CHAIR
Quique Bassat
ISGlobal, Barcelona, Spain
Erin Eckert
U.S. Agency for International Development, Arlington, VA, United States

4 p.m.

693

THE IMPORTANCE OF US FOREIGN AID FOR GLOBAL MALARIA CONTROL AND ELIMINATION

Peter Winskill[1], Hannah C. Slater[1], Jamie T. Griffin[2], Azra C. Ghani[1], Patrick G. Walker[1]
[1]Imperial College London, London, United Kingdom, [2]Queen Mary University of London, London, United Kingdom

4:15 p.m.

694

ESTIMATING THE EFFECT OF HEALTH SYSTEMS ON CHILDHOOD MORTALITY IN SUB-SAHARAN AFRICA FROM 1996-2013

Rebecca Anthopolos[1], Ryan Simmons[2], Wendy Prudhomme O'Meara[2]
[1]Rice University, Houston, TX, United States, [2]Duke University, Durham, NC, United States

4:30 p.m.

695

INFLUENZA VACCINE KNOWLEDGE AND ACCEPTABILITY

Arlene Calvo[1], Rosalba Gonzalez[2], Juan Miguel Pascale[2], Morgan Hess-Holtz[1], SC Kaydos-Daniels[3], Eduardo Azziz-Baumgartner[4], Wilfrido Clara[4], Julio Armero[5], Nestor Sosa[2]
[1]University of South Florida, Panama, Panama, [2]Gorgas Memorial Institute, Panama, Panama, [3]Centers for Disease Control and Prevention, Guatemala, GA, United States, [4]Centers for Disease Control and Prevention, Atlanta, GA, United States, [5]Instituto Nacional de Salud, El Salvador, El Salvador

4:45 p.m.

696

ARE ORAL CHOLERA VACCINES COST-EFFECTIVE AND AFFORDABLE IN DHAKA, BANGLADESH? COST-EFFECTIVENESS OF ORAL CHOLERA VACCINE INTRODUCTION IN DHAKA, BANGLADESH

Ann Levin[1], Denise DeRoeck[2], Dennis Chao[3], Jahangir Khan[4], Abdur R. Sarker[5], Mohammed Ali[6], Firdausi Qadri[5]
[1]Levin and Morgan LLC, Bethesda, MD, United States, [2]Independent, Waltham, MA, United States, [3]Institute for Disease Modeling, Bellevue, WA, United States, [4]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [5]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [6]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

5 p.m.

697

VALIDITY OF A MINIMALLY INVASIVE AUTOPSY TOOL FOR CAUSE OF DEATH DETERMINATION IN PEDIATRIC DEATHS FROM SUB-SAHARAN AFRICA

Quique Bassat[1], Paola Castillo[2], Juan Carlos Hurtado[2], Miguel J. Martínez[3], Mamudo R. Ismail[4], Carla Carrilho[4], Khátia Munguambe[5], Clara Menéndez[6], Jaume Ordi[3]
[1]Barcelona Institute for Global Health; Centro de Investigaçao em Saúde de Manhiça; ICREA, Barcelona, Spain, [2]Barcelona Institute for Global Health, Barcelona, Spain, [3]Barcelona Institute for Global Health; Hospital Clínic de Barcelona, Barcelona, Spain, [4]Hospital Central de Maputo; Faculdade de Medicina da Universidade Eduardo Mondlane, Maputo, Mozambique, [5]Centro de Investigaçao em Saúde de Manhiça; Faculdade de Medicina da Universidade Eduardo Mondlane, Maputo, Mozambique, [6]Barcelona Institute for Global Health; Centro de Investigaçao em Saúde de Manhiça; CIBERESP, Barcelona, Spain

5:15 p.m.

698

EMPIRICAL ESTIMATES OF DISABILITY BURDEN OF A SYMPTOMATIC DENGUE EPISODE

Donald S. Shepard[1], Yara A. Halasa[1], Wu Zeng[1], Laure Durand[2], Laurent Coudeville[2]
[1]Brandeis University, Waltham, MA, United States, [2]Sanofi Pasteur, Lyon, France

5:30 p.m.

699

SATELLITE AND *IN SITU* CLIMATE DATA MEASUREMENTS AT CHIKUNGUNYA AND DENGUE STUDY SITES IN KENYA

Assaf Anyamba[1], Richard Damoah[2], Bryson A. Ndenga[3], Francis M. Mutuku[4], Angelle Desiree LaBeaud[5]
[1]Universities Space Research Association/GESTAR and NASA Goddard Space Flight Center, Greenbelt, MD, United States, [2]Morgan State University/GESTAR and NASA Goddard Space Flight Center, Greenbelt, MD, United States, [3]Centre for Global Health Research, Kenya Medical Research Institute, Kisumu, Nairobi, Kenya, [4]Department of Environment and Health Sciences, Technical University of Mombasa, Mombasa, Kenya, [5]Department of Pediatrics, Division of Infectious Diseases, Stanford University School of Medicine, Stanford, CA, United States

Ben Kean Fellowship Reception - By Invitation Only

Hilton - Latrobe (East Building, First Floor)
Monday, November 6, 5:45 p.m. - 7:15 p.m.

Special Session 58

Special Session: Ponder to Probe: A Cosmopolitan Debate and Peer Networking Session

Hilton - Key Ballroom 1 (West Building, Second Floor)
Monday, November 6, 5:45 p.m. - 6:45 p.m.

The ASTMH Committee on Global Health (ACGH) invites you to come "speak your mind" on contemporary global health issues! Peer networking is an essential skill to establish your global health and tropical medicine career track, and is needed at every stage of your career. The connections you establish with peers today can be the foundation of future employment, career advancement, key collaborations, successful grants and major scientific advances. This peer-to-peer networking event will center around an informal debate on current global health topics of interest to the tropical medicine community, including current infectious disease threats, career challenges and other hot topics pertaining to those pursuing a global health and tropical medicine career. The session will allow participants to present their views on 2-3 pre-determined topics elicited from ACGH members based on current events, field research, scientific discovery, career challenges and general inquiry. Participants will ponder over these issues, probe alternative views, and share ideas in a relaxed setting, while getting to know their peers. Topics discussed can become conversation starters for further networking after the session and throughout the remainder of the Annual Meeting. This session is recommended for students, early career professionals and experts so topics can be discussed from a range of various perspectives.

Please note that this meeting is limited to those who pre-registered for the event.

CHAIR

Koya C. Allen
U.S. European Command Headquarters, U.S. Department of Defense, Stuttgart, Germany

Ryan W. Carroll
Massachusetts General Hospital, Boston, MA, United States

Simon Pollett
Walter Reed Army Institute of Research, Silver Spring, MD, United States

Plenary Session 59

Plenary Session II: Fred L. Soper Lecture

Convention Center - Ballroom III (Level 400)
Monday, November 6, 6:15 p.m. - 7 p.m.

The Fred L. Soper Lecture is an honor bestowed upon distinguished workers in environmental control or preventive medicine. Born in 1893, Dr. Soper received his MD from the University of Chicago and a doctorate in public health from Johns Hopkins University in 1925. He began his career working with the Rockefeller Foundation on hookworm control in Brazil. Soper headed an international group that did revolutionary work in research and control of yellow fever in South America, and eventually became director of the Pan American Health Organization. Dr. Soper died in 1977. The first Lecture was delivered by Thomas Weller in 1978, former president of ASTMH and winner of the 1954 Nobel Prize in Medicine or Physiology, in celebration of the 40th anniversary of the Gorgas Memorial Laboratory. The lecture is now a biannual event for ASTMH and focuses on a topic related to environmental control and preventive medicine.

CHAIR

Robert B. Tesh
University of Texas Medical Branch, Galveston, TX, United States

FRED L. SOPER LECTURE: THE USE OF *WOLBACHIA* TO CONTROL *AEDES AEGYPTI* TRANSMITTED VIRUSES

Scott O'Neill, PhD, FAA, FAAAS
Director, Institute of Vector-Borne Disease
Monash University
Melbourne, Australia

Professor Scott O'Neill, PhD, FAA, FAAAS is the Director of the Institute of Vector-Borne Disease at Monash University, Australia. He has spent his academic career at the University of Illinois, Yale University, the University of Queensland and Monash University where until recently he was the Dean of Science. Dr. O'Neill leads The Eliminate Dengue Program, an international not-for-profit consortium that is working on the development of *Wolbachia* as a novel method to sustainably and cost effectively block transmission of arboviruses like dengue, Zika and chikungunya. The Eliminate Dengue program is undertaking field trials and pilot deployments in multiple countries. A central feature of this program is the emphasis on the use of *Wolbachia* to reduce pathogen transmission rather than suppress mosquito populations. More information can be found at www.eliminatedengue.com. Dr. O'Neill is an elected Fellow of the Australian Academy of Science, the American Association for the Advancement of Science, and the American Academy of Microbiology.

Tuesday, November 7

Registration

Convention Center - Pratt Street West Lobby (Level 300)
Tuesday, November 7, 7 a.m. - 5 p.m.

Speaker Ready Room

Convention Center - Room 336 (Level 300)
Tuesday, November 7, 7 a.m. - 5 p.m.

TropStop- Student/Trainee Lounge

Convention Center - Pratt Street West Lobby Foyer (Level 300)
Tuesday, November 7, 7 a.m. - 5 p.m.

This casual setting, designed with students, trainees and residents in mind (coffee, internet), is your place for a break from the fast-pace of the meeting and relax with colleagues and friends. Check out the "Office Hours," held in the TropStop. This will be your opportunity to meet professionals in the fields of tropical medicine, global health, science and industry who will share their personal career paths and answer your questions about the various bumps and forks in the road.

Meeting Sign-Up Room

Hilton – Stone Room and Chase Room
(West Building, Third Floor)
Tuesday, November 7, 7 a.m. - 10 p.m.

AJTMH Editorial Board Meeting

Hilton - Ruth (East Building, First Floor)
Tuesday, November 7, 7 a.m. - 8 a.m.

Clinical Group (ACCTMTH) Past Presidents Meeting

Hilton - Peale A (East Building, First Floor)
Tuesday, November 7, 7 a.m. - 8 a.m.

Shope Fellowship Committee Meeting

Hilton - Johnson A (East Building, First Floor)
Tuesday, November 7, 7 a.m. - 8 a.m.

Press Room

Convention Center - Room 330 (Level 300)
Tuesday, November 7, 8 a.m. - 5 p.m.

Scientific Session 60

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Malaria - Molecular Biology and Infection

Convention Center - Ballroom I (Level 400)
Tuesday, November 7, 8 a.m. - 9:45 a.m.
Supported with funding from the Burroughs Wellcome Fund

CHAIR
Akimasa Maeta
Juntendo University, Tokyo, Japan

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

8 a.m.

2009

INVITED SPEAKER FROM THE WOODS HOLE MOLECULAR PARASITOLOGY MEETING HELD IN SEPTEMBER 2017. SEE THE MEETING APP AND ONLINE PROGRAM PLANNER FOR SPEAKER INFORMATION.

8:15 a.m.

2010

INVITED SPEAKER FROM THE WOODS HOLE MOLECULAR PARASITOLOGY MEETING HELD IN SEPTEMBER 2017. SEE THE MEETING APP AND ONLINE PROGRAM PLANNER FOR SPEAKER INFORMATION.

8:30 a.m.

700

TIME COURSE OF *PLASMODIUM FALCIPARUM* GAMETOCYTE DEVELOPMENT 1 (PFGDV1) EXPRESSION AND ACTIVITY

Miho Usui[1], Christopher Noetzel[2], Asaf Poran[2], Deepti K. Reddy[1], Lacy M. Simons[3], Beata Czesny[3], Olivier Elemento[2], Björn F. Kafsack[2], Kim C. Williamson[1]
[1]Uniformed Services University of the Health Sciences, Bethesda, MD, United States, [2]Weill Cornell Medicine, New York, NY, United States, [3]Loyola University Chicago, Chicago, IL, United States

(ACMCIP Abstract)

8:45 a.m.

701

LONG-TERM *IN VITRO* CULTURE OF *PLASMODIUM VIVAX* ISOLATES FROM MADAGASCAR MAINTAINED IN *SAIMIRI BOLIVIENSIS* BLOOD

Rajeev K. Mehlotra[1], D'Arbra Blankenship[1], Rosalind E. Howes[2], Tovonahary A. Rakotomanga[3], Thierry Franchard[3], Brune Ramiranirina[3], Stephanie Ramboarina[3], Marlin Linger[3], Melinda Zikursh[1], Arsène Ratsimbasoa[3], Peter A. Zimmerman[1], **Brian T. Grimberg**[1]
[1]Case Western Reserve University, Cleveland, OH, United States, [2]University of Oxford, Oxford, United Kingdom, [3]National Malaria Control Programme, Antananarivo, Madagascar

(ACMCIP Abstract)

9 a.m.

702

AN *EX VIVO* GAMETOCYTE CULTURE METHOD TO DETERMINE *PLASMODIUM FALCIPARUM* GAMETOCYTE COMMITMENT IN THE PATIENT'S PERIPHERAL BLOOD

Surendra K. Prajapati[1], Ruth Ayanful-Torgby[2], Fetsus K. Acquah[2], Elizabeth Cudjoe[2], Courage Kakaney[2], Jones A. Amponsah[2], Evans Obboh[3], Andrea Arku[2], Benjamin K. Abuaku[2], Linda E. Amoah[2], Kim C. Williamson[1]
[1]Uniformed Services University of the Health Sciences, Bethesda, MD, United States, [2]Noguchi Memorial Institute for Medical Research (NMIMR), University of Ghana, Accra, Ghana, [3]University of Cape Coast, Cape Coast, Ghana

(ACMCIP Abstract)

9:15 a.m.

703

NOT1-G IS A NOVEL MEMBER OF THE CAF1/CCR4/NOT COMPLEX THAT IS ESSENTIAL FOR HOST TO VECTOR MALARIAL TRANSMISSION

Kevin J. Hart, Michael P. Walker, Scott E. Lindner
The Pennsylvania State University, University Park, PA, United States

9:30 a.m.

704

PB102,* A NOVEL GENE ESSENTIAL FOR FEMALE FERTILITY OR OOKINETE MATURATION OF MURINE MALARIA PARASITE, *PLASMODIUM BERGHEI

Akimasa Maeta, Makoto Hirai, Toshiyuki Mori, Toshihiro Mita
Juntendo University, Tokyo, Japan

Symposium 61

Triple ACTs as the New Paradigm for Treatment of Uncomplicated falciparum Malaria

Convention Center - Ballroom II (Level 400)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

The spread of artemisinin (ART) resistance, and subsequent ACT partner drug resistance, threatens malaria control in the Greater Mekong Subregion (GMS) and beyond. The efficacies of dihydroartemisinin-piperaquine (DHA-PPQ) and artesunate-mefloquine (AS-MQ) have declined dramatically in the GMS. The spread of multidrug-resistant ***P. falciparum*** to Africa, where most of the world's malaria transmission, morbidity, and mortality occur, would be disastrous. Since new drugs are five years away, there is an urgent need to evaluate alternative treatments using existing drugs. A promising novel approach is the use of Triple ACTs (TACTs), which combine a short-acting ART with two longer-acting partner drugs. TACTs can exploit fortuitous inverse relationships between susceptibility to paired partner drugs, such as amodiaquine (AQ) and lumefantrine (LF), or PPQ and MQ. A large multinational study, the "Tracking Resistance to Artemisinin Collaboration II" (TRAC II) was initiated to map the current spread of resistance and assess the efficacy and safety of TACTs in 17 hospitals in six countries in Asia and one in Africa. This symposium will present the near-final results of this large-scale initiative, and the results of a modelling study that evaluates TACTs as a new treatment paradigm to delay the emergence and spread of drug resistance. The session will describe the prevalence and patterns of spread of ART and partner drug resistance in the GMS, through genetic epidemiology analyses of whole-genome sequencing data from parasite isolates. The symposium will present the near-final results of the large multinational, multicenter randomized clinical TRAC II trial, evaluating two TACTs (DHA-PPQ-MQ, and artemether-LF-AQ, compared to standard ACTs, and an update on the current geographical extent of ART and partner drug resistance. Speakers will model the effects of wide TACT implementation on the emergence and spread of drug resistance in Asia and Africa, to address whether TACTs can slow down the spread of multidrug-

resistant malaria in areas where ART and partner drug resistance is well-established (Southeast Asia) and slow down or prevent the emergence of drug resistance in areas where it has not yet emerged (South Asia and Africa). Data will be presented on the pharmacokinetics, pharmacodynamics, and drug interactions of two TACTs, and discuss modelling approaches to dose optimizing antimalarial drugs. This session will provide valuable insights into the benefits and risks of TACTs for treating multidrug-resistant falciparum malaria, the current genetic epidemiology of ART and partner drug resistance, and the potential role of TACTs as a new paradigm for the global treatment of falciparum malaria.

CHAIR

Rick Fairhurst
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States

Arjen Dondorp
Mahidol Oxford Research Unit, Bangkok, Thailand

8 a.m.
GENETIC EPIDEMIOLOGY OF MULTIDRUG-RESISTANT *PLASMODIUM FALCIPARUM* IN THE GREATER MEKONG SUBREGION

Roberto Amato
Wellcome Trust Sanger Institute, Cambridge, United Kingdom

8:25 a.m.
RESULTS OF A MULTI-NATIONAL OPEN-LABEL RANDOMIZED TRIAL TO ASSESS THE EFFICACY, SAFETY AND TOLERABILITY OF TRIPLE ARTEMISININ COMBINATION THERAPIES (TACTS)

Rob van der Pluijm
Mahidol Oxford Research Unit, Bangkok, Thailand

8:50 a.m.
MODELLING THE TACTS AS A NEW PARADIGM FOR THE TREATMENT OF FALCIPARUM MALARIA IN ASIA AND AFRICA

Lisa White
Mahidol Oxford Research Unit, Bangkok, Thailand

9:15 a.m.
PHARMACOKINETIC AND PHARMACODYNAMIC ASPECTS OF TACTS

Joel Tarning
Mahidol Oxford Research Unit, Bangkok, Thailand

Symposium 62

Malaria Rapid Diagnostic Testing: Understanding and Managing the Threat of PfHRP2/3-Negative *Plasmodium falciparum*

Convention Center - Ballroom III (Level 400)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

This symposium tackles an emerging threat to malaria diagnostic testing in some parts of the world, *P. falciparum* parasites with deletions of the pfhrp2/3 genes that render them undetectable by commonly used rapid diagnostic tests (RDTs). As a result of increasing reports of parasites lacking the pfhrp2/3 genes in parts of the Americas, Africa and Asia, the World Health Organization has prioritized the development of policies to confirm detection of these parasites and deploy alternative diagnostic tests in affected regions. This symposium will address the current scope of the problem, disseminate methodological advances important to surveillance efforts and explore the pipeline of discovery and commercialization of biomarkers for use in RDTs. Most importantly, the session will foster collaboration among diverse stakeholders, including scientists, malaria control programs, policymakers and malaria diagnostic test developers.

CHAIR

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

Michelle Gatton
University of Queensland, Queensland, Australia

8 a.m.
DISCOVERY OF THE HRP2 ANTIGEN: THE JOURNEY FROM BENCH TO BEDSIDE

Thomas E. Wellems
National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

8:20 a.m.
PFHRP2/3 GENE DELETIONS: HOW BIG IS THE PROBLEM?

Jane Cunningham
World Health Organization, Geneva, Switzerland

8:40 a.m.
NEW TECHNIQUES FOR IDENTIFYING PFHRP2/3 DELETIONS AND UNDERSTANDING THEIR EVOLUTION

Jonathan B. Parr
University of North Carolina, Chapel Hill, NC, United States

9 a.m.
NOVEL *P. FALCIPARUM* BIOMARKERS: DISCOVERY AND FIELD TESTING RESULTS

Rhoel D. Dinglasan
University of Florida, Emerging Pathogens Institute, Gainesville, FL, United States

Symposium 63

Clinical Group Symposium I (American Committee on Clinical Tropical Medicine and Travelers' Health – ACCTMTH): "There Ought to Be a Vaccine for That…." The Process, Hurdles and Opportunities in Developing and Utilizing Vaccines for Tropical Infections

Convention Center - Ballroom IV (Level 400)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

Supported with funding from the International Association for Medical Assistance to Travellers (IAMAT)

This symposium features the Vincenzo Marcolongo Memorial Lecture. Immunizations are among the most powerful tools clinicians and public health practitioners have in preventing infection. However, for many of the most common infections of the developing world, and for tropical infections especially, no licensed vaccine exists. There is a critical need to develop more effective vaccines for malaria, dengue and cholera, as well as ones for the common causes of childhood diarrhea. Technical design challenges have frequently hindered vaccine development, but there are myriad hurdles that must be overcome to effectively

develop and introduce a vaccine. For many clinicians, the overall process of selecting a target disease, developing and licensing a vaccine for use is opaque. This symposium is designed to illuminate the process by which need for a vaccine is identified and framed, the vaccine is moved through product development, and then it is adopted for use.

CHAIR

John W. Sanders
Wake Forest University School of Medicine, Winston-Salem, NC, United States

David M. Brett-Major
Henry M. Jackson Foundation; U.S. Military HIV Research Program, Silver Spring, MD, United States

The Marcolongo Lecture honors Vincenzo Marcolongo (1922–1988), founder of IAMAT - International Association for Medical Assistance to Travellers. A graduate of the medical school at the University of Rome, Dr. Marcolongo did his postgraduate training at McGill University in Montreal and returned to Italy to obtain his doctorate in tropical medicine. Dr. Marcolongo made the medical needs of travelers his life's work. In an era of increasing international travel, he realized that there was a need for collaboration among medical practitioners around the world to help travelers. In 1960 he founded IAMAT, a non-profit organization, to coordinate medical services for travelers and to prepare them for their journey. Dr. Marcolongo understood that travelers need comprehensive advice about the health risks and tropical diseases they encounter on trips to increasingly remote and distant destinations. Of particular interest to him was malaria and preventing the unnecessary morbidity and mortality it causes among travelers. Through IAMAT and numerous publications, Dr. Marcolongo worked tirelessly to inform travelers of health risks and raise awareness of travelers' health among travel industry professionals and medical practitioners worldwide. His foresight, compassion and generosity continue to serve as inspiration for IAMAT's work.

8 a.m.
CLINICIANS' ROLES IN VACCINE DEVELOPMENT

David M. Brett-Major
Henry M. Jackson Foundation; U.S. Military HIV Research Program, Silver Spring, MD, United States

8:15 a.m.
THE ROLE OF NONPROFIT PRODUCT DEVELOPMENT PARTNERSHIPS IN VACCINE DEVELOPMENT

Thomas F. Wierzba
PATH, Washington, DC, United States

8:30 a.m.
THE PERSPECTIVE OF INDUSTRY IN VACCINE DEVELOPMENT FOR TROPICAL INFECTIONS

Kent Kester
Sanofi Pasteur, Swiftwater, PA, United States

8:45 a.m.
DETERMINING VACCINE USE

Jon S. Abramson
Wake Forest University School of Medicine, Winston-Salem, NC, United States

9 a.m.
VINCENZO MARCOLONGO MEMORIAL LECTURE: *VIBRIO CHOLERA:* LESSONS FROM HAITI AND ITS PENDING RESEARCH AGENDA

Claudio F. Lanata, MD, MPH
Senior Researcher
Nutritional Research Institute
Lima, Peru

Dr. Lanata is Senior Researcher at the Nutritional Research Institute in Lima, Peru, which he joined in 1983 after returning from his post-graduate training in the United States. He has led extensive research in child health and nutrition areas, mainly on diarrheal and respiratory diseases, micronutrients and vaccine development. His work has resulted in two books, 27 chapters and more than 150 journal publications, mainly in major international journals, as well as in several collaborations. He has been an active collaborator with WHO and PAHO, has served as a Trustee of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) and founded the Child Health and Nutrition Research Initiative (CHNRI) in Switzerland. He also has been a member of the Child Health Epidemiology Reference Group (CHERG), as well as of the Foodborne Epidemiology Reference Group (FERG) of WHO, and continues to be part of several expert committees on diarrheal diseases and vaccine development. Since 2011, Dr. Lanata has been a member of the Pneumonia Etiology Research for Child Health (PERCH) and the Research for Product Development Advisory Committee Strategic Advisory Group of Experts (SAGE), WHO. He is an Adjunct Professor, Department of Pediatrics at Vanderbilt University, and Honorary Professor at the London School of Hygiene & Tropical Medicine. Since 2009, he has been an Associate Member of the Peruvian Academy of Medicine.

9:30 a.m.
NETWORKING AND SOCIAL TIME

Scientific Session 64

Malaria: Epidemology - Following Trends, Making Predictions

Convention Center - Room 318/319/320 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

CHAIR

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

Anna M. van Eijk
New York University, New York, NY, United States

8 a.m.

705

A LONGITUDINAL COHORT STUDY OF MALARIA EXPOSURE AND CHANGING SEROSTATUS IN A MALARIA ENDEMIC AREA OF RURAL TANZANIA

Ryan Simmons[1], Leonard Mboera[2], Marie Lynn Miranda[3], Alison Rand[4], Gillian Stresman[4], Elizabeth Turner[1], Randall Kramer[1], Chris Drakeley[4], Wendy Prudhomme O'Meara[1]
[1]Duke University, Durham, NC, United States, [2]National Institute for Medical Research, Dar es Salaam, United Republic of Tanzania, [3]Rice University, Houston, TX, United States, [4]London School of Hygiene & Tropical Medicine, London, United Kingdom

8:15 a.m.

706

SEASONALITY AND TRENDS OF MALARIA EPIDEMIC IN UNDER-FIVE-YEAR CHILDREN IN LAKESHORE COMPARED TO HIGHLAND AREAS IN ZOMBA DISTRICT, MALAWI

Precious L. Hajison[1], Bonex W. Mwakikunga[2], Don P. Mathanga[3], Shingairai A. Feresu[4]
[1]Invest in Knowledge, Zomba, Malawi, [2]Council for Scientific and Industrial Research, Pretoria, South Africa, [3]College of Medicine, University of Malawi, Blantyre, Malawi, [4]University of Pretoria, School of Health Systems and Public Health, Pretoria, South Africa

8:30 a.m.

707

ONE HUNDRED YEARS OF MALARIA IN PREGNANCY SURVEYS: A SYSTEMATIC REVIEW OF SURVEYS CONDUCTED BETWEEN 1915 AND 2015

Anna M. van Eijk, Jenny Hill, Feiko O. Ter Kuile
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

8:45 a.m.

708

PREDICTORS OF DETECTING ANTIMALARIALS DRUGS IN THE BLOOD IN COMMUNITY SURVEYS IN TANZANIA

Joanna Gallay[1], Emilie Pothin[1], Dominic Mosha[2], Martin Zuakulu[2], Erick Lutahakana[2], Laurent Decosterd[3], Blaise Genton[1]
[1]Swiss Tropical and Public Health Institute, Basel, Switzerland, [2]Ifakara Health Institute, Dar es Salaam, United Republic of Tanzania, [3]Division and Laboratory of Clinical Pharmacology, Department of Laboratories, University Hospital, Lausanne, Switzerland

9 a.m.

709

EVALUATING THE IMPACT OF THE EXPANSION OF MALARIA CONTROL INTERVENTIONS IN KENYA, 2003-2015

Agneta Mbithi[1], Rebecca Kiptui[2], Hellen Gatakaa[1], Abdisalan Noor[3], Christie Hershey[4], Ann Buff[5], Waqo Erjesa[2], Yazoume Yé[6]
[1]MEASURE Evaluation PIMA, Nairobi, Kenya, [2]National Malaria Control Program, Nairobi, Kenya, [3]KEMRI-Wellcome Trust Programme, Nairobi, Kenya, [4]United States Agency for International Development, U.S. President's Malaria Initiative, Washington, DC, United States, [5]U.S. President's Malaria Initiative-Kenya, Malaria Branch, Division of Parasitic Diseases and Malaria, Center for Global Health, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, [6]MEASURE Evaluation, Chapel Hill, NC and ICF, Rockville, MD, United States

9:15 a.m.

710

M-HEALTH INNOVATIONS < THEIR CHALLENGES TO MANAGE MALARIA SENTINEL SURVEILLANCE NETWORK IN MADAGASCAR

Laurence Randrianasolo[1], Stephan Randrianasolo[1], Florian Girond[1], Léa Randriamampionona[2], Jocelyn Razafindrakoto[3], Toky Ramarokoto[1], Fanjasoa Rakotomanana[1], Rindra Randremanana[1], Laurent Kapesa[3], Arsène Ratsimbasoa[2], Laurence Baril[1], Patrice Piola[1]
[1]Institut Pasteur de Madagascar, Antananarivo, Madagascar, [2]Ministry of Health Madagascar, Antananarivo, Madagascar, [3]U.S. Agency for International Development Madagascar, Health Population and Nutrition Office (HPN), Antananarivo, Madagascar

9:30 a.m.

711

MAPPING THE TRAVEL PATTERNS OF PEOPLE WITH MALARIA IN BANGLADESH

Ipsita Sinha[1], Abdullah Abu Sayeed[2], Didar Uddin[1], Sazid Ibna Zaman[1], Amy Wesolowski[3], M. Abul Faiz[4], Aniruddha Ghose[2], M. Ridwanur Rahman[5], Akramul Islam[6], M. Jahirul Karim[7], M. Kamar Rezwan[8], Abul Khair M. Shamsuzzaman[9], Sanya Tahmina Jhora[9], M. M. Aktaruzzaman[9], Hsiao-Han Chang[3], Christopher Jacob[10], Olivo Miotto[1], Dominic Kwiatkowski[11], Arjen M. Dondorp[1], Nicholas P. Day[1], M. Amir Hossain[2], Caroline Buckee[3], Richard Maude[1]
[1]Mahidol Oxford Tropical Research Unit, Bangkok, Thailand, [2]Chittagong Medical College Hospital, Chittagong, Bangladesh, [3]Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA, United States, [4]Dev Care Foundation, Dhaka, Bangladesh, [5]Shaheed Suhrawardy Medical College, Dhaka, Bangladesh, [6]BRAC Centre, Dhaka, Bangladesh, [7]National Malaria Control Programme, Dhaka, Bangladesh, [8]Vector-Borne Disease Control, World Health Organization, Dhaka, Bangladesh, [9]Communicable Disease Control, Directorate General of Health Services, Dhaka, Bangladesh, [10]Wellcome Trust Sanger Institute, Hinxton, United Kingdom, [11]Wellcome Trust Centre for Human Genetics, University of Oxford, Oxford, United Kingdom

Scientific Session 65

Mosquitoes: Insecticide Resistance and Control

Convention Center - Room 321/322/323 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

CHAIR

Nsa Dada
Centers for Diseases Control and Prevention, Atlanta, GA, United States

Eric Lucas
Liverpool School of Tropical Medicine, Liverpool, Switzerland

8 a.m.

712

BAKER'S YEAST-BASED INTERFERING RNA LARVICIDES TARGETING *AEDES AEGPYTI*

Limb K. Hapairai[1], Keshava Mysore[1], Ying-Ying Chen[2], David W. Severson[2], Na Wei[1], Molly Duman Scheel[1]
[1]Indiana University, South Bend, IN, United States, [2]The University of Notre Dame, South Bend, IN, United States

8:15 a.m.

713

FUNCTIONAL DIVERSITY OF *ANOPHELES ALBIMANUS* MICROBIOTA PROVIDES NEW INSIGHTS INTO INSECTICIDE RESISTANCE MECHANISMS

Nsa Dada[1], Mili Sheth[1], Kelly Liebman[2], Jesus Pinto[3], Audrey Lenhart[1]
[1]United States Centers for Diseases Control and Prevention, Atlanta, GA, United States, [2]California Department of Public Health, Richmond, CA, United States, [3]Instituto Nacional de Salud, Lima, Peru

8:30 a.m.

714

EFFECT OF KNOCKDOWN RESISTANCE ON *PLASMODIUM FALCIPARUM* SPOROZOITE RATES IN MALARIA VECTORS SAMPLED FROM WESTERN KENYA

Isaiah Debrah[1], Bernard Guyah[1], Maurice Ombok[2], Eric Ochomo[2]
[1]Maseno University, Kisumu, Kenya, [2]Center for Global Health Research, Kenya Medical Research Institute/Centers for Disease Control and Prevention, Kisumu, Kenya

8:45 a.m.

715

THE *ANOPHELES GAMBIAE* 1000 GENOMES PROJECT PHASE 2: INSECTICIDE RESISTANCE, GENE DRIVE AND GENOME VARIATION IN 1,142 MALARIA MOSQUITOES

Chris S. Clarkson[1], Alistair Miles[2], Nicholas J. Harding[2], Giordano Botta[3], Mara K. Lawniczak[1], Martin J. Donnelly[4], Dominic Kwiatkowski[2], The *Anopheles gambiae* 1000 Genomes Consortium[2]
[1]Wellcome Trust Sanger Institute, Hinxton, United Kingdom, [2]Wellcome Trust Centre for Human Genetics, Oxford, United Kingdom, [3]Universita di Roma - Sapienza, Rome, Italy, [4]Liverpool School of Tropical Medicine, Liverpool, United Kingdom

9 a.m.

716

SCIENCE AND NATURE: SUSCEPTIBILITY OF WILD CAUGHT ADULT *ANOPHELES GAMBIAE* S.S. TO INSECTICIDES MAY NOT DECREASE WITH AGE

Kevin Ochieng' Opondo[1], Martin Donnelly[2], Musa Jawara[1], Amfaal Fofana[1], Julia Mwesigwa[1], Florence Crombe[2], Umberto D'Alessandro[1], David Weetman[2]
[1]Medical Research Council Unit The Gambia, Banjul, Gambia, [2]Liverpool School of Tropical Medicine, Liverpool, United Kingdom

9:15 a.m.

717

THE EVOLUTION OF METABOLIC INSECTICIDE RESISTANCE IN AFRICAN MALARIA VECTORS VIA COPY NUMBER VARIATION

Eric Lucas[1], Alistair Miles[2], David Weetman[1], Dominic Kwiatkowski[3], Martin Donnelly[1], The *Anopheles gambiae* 1000 Genomes Consortium[3]
[1]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [2]Wellcome Trust Centre for Human Genetics, Oxford, United Kingdom, [3]Wellcome Trust Sanger Institute, Cambridge, United Kingdom

9:30 a.m.

718

OXIDATIVE DEFENSE CAPACITY IS CRITICAL FOR FECUNDITY AND XENOBIOTIC METABOLISM IN *ANOPHELES GAMBIAE*

Cody J. Champion, Jiannong Xu
New Mexico State University, Las Cruces, NM, United States

Symposium 66

Mechanisms of Post-Discharge Mortality and Possible Interventional Targets in Low-Resource Settings

Convention Center - Room 324/325/326 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

Children who have been successfully managed in low-resource-setting hospitals too often suffer recurrent illness or death in the post-discharge period. The risk of death among children discharged from the hospital is six-to-eight-fold higher than similarly aged children in the community and for many conditions, and cumulative post-discharge mortality can equal inpatient case fatality rates. Few interventions have demonstrated benefit in reducing post-discharge mortality. Discharge from the hospital therefore represents a critical time period where highly vulnerable children can access interventions that may reduce mortality. This symposium will present novel evidence from ongoing studies that may inform interventions to reduce post-discharge mortality. The symposium will discuss the possible immunological and inflammatory mechanisms that may underpin post-discharge mortality drawing evidence from ongoing work in the FLACSAM trial (registration: NCT02746276), the Childhood Acute Illness and Nutrition (CHAIN) Network cohort and the previously completed randomized control trial of cotrimoxazole prophylaxis for severely malnourished children being discharged from the hospital (NCT00934492). The session will introduce the Toto Bora trial, which tests the efficacy of an empiric short-course of azithromycin in reducing morbidity and mortality in children under five years of age discharged from hospitals in Western Kenya. Preliminary data will be shared on the clinical and pathogen features of children discharged from Kenyan hospitals (registration: NCT02414399). Data will be presented on the carriage of antimicrobial resistant organisms at hospital discharge and their potential role in post-discharge outcomes, using data gather by the Kenya Medical Institute's Center for Microbiology Research. Finally, the session will conclude with a discussion about the nutritional and metabolic deficits associated with malnutrition, which is being explored through samples gathered in a recent study of reformulated F-75 (NCT02246296) and a separate study of three dietary regimes for severe malnutrition (ISRCTN13916953).

CHAIR

Judd L. Walson
University of Washington, Seattle, WA, United States

Kirkby D. Tickell
University of Washington, Seattle, WA, United States

8 a.m.
INFLAMMATION AND IMMUNOLOGICAL DEFICITS AS DRIVERS OF POST-DISCHARGE MORTALITY

James Berkley
University of Oxford, Oxford, Nuffield Department of Medicine, United Kingdom

8:20 a.m.
THE TOTO BORA TRIAL AND ENTERIC AND NASOPHARYNGEAL PATHOGEN DETECTION AT DISCHARGE

Patricia B. Pavlinac
University of Washington, Seattle, WA, United States

8:40 a.m.
CARRIAGE OF ANTIBIOTIC RESISTANT ORGANISMS AT DISCHARGE FROM HOSPITAL AND ITS POTENTIAL SIGNIFICANCE

Samuel Kariuki
Kenya Medical Research Institute (KEMRI), Nairobi, Kenya

9 a.m.
NUTRITIONAL AND METABOLIC DEFICITS AS A MECHANISM FOR POST-DISCHARGE MORTALITY

Robert Bandsma
The Hospital for Sick Children, Toronto, ON, Canada

Scientific Session 67

Ebola and Rotaviruses

Convention Center - Room 327/328/329 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

CHAIR

Benjamin Lee
University of Vermont, Burlington, VT, United States

Milagritos D. Tapia
University of Maryland School of Medicine, Center for Vaccine Development, Baltimore, MD, United States

8 a.m.

719

SAFETY/IMMUNOGENICITY OF A SINGLE INTRAMUSCULAR DOSE OF THE INVESTIGATIONAL RECOMBINANT CHIMPANZEE ADENOVIRUS TYPE 3-VECTORED EBOLA ZAIRE VACCINE (CHAD3-EBO-Z) IN CHILDREN IN AFRICA: A PHASE 2, RANDOMIZED, CONTROLLED STUDY

Milagritos D. Tapia[1], Zaire EBola Research Alliance (ZEBRA) group
[1]University of Maryland School of Medicine, Baltimore, MD, United States

8:15 a.m.

720

SAFETY AND IMMUNOGENICITY OF MONOVALENT AD26. ZEBOV AND MULTIVALENT MVA-BN-FILO HETEROLOGOUS PRIME-BOOST VACCINE REGIMENS AGAINST EBOLA IN AFRICAN HEALTHY ADULT VOLUNTEERS

Zacchaeus Anywaine[1], George Praygod[2], Omu Anzala[3], Samuel Kalluvya[4], Pontiano Kaleebu[1], Gaudensia Mutua[3], Hilary Whitworth[5], Kerstin Luhn[6], Cynthia Robinson[6], Deborah Watson-Jones[5], Macaya Douoguih[6]
[1]MRC/UVRI Uganda Research Unit, Entebbe-Uganda, Uganda, [2]National Institute for Medical Research, Mwanza, United Republic of Tanzania, [3]KAVI - Institute of Clinical Research, College of Health Sciences, University of Nairobi, Nairobi, Kenya, [4]Bugando Medical Centre, Mwanza, United Republic of Tanzania, [5]London School of Hygiene & Tropical Medicine, London, United Kingdom, [6]Janssen Vaccines & Prevention, Leiden, Netherlands

8:30 a.m.

721

SEROLOGIC PROFILING OF THE HUMORAL IMMUNE RESPONSE TO EBOLA VIRUS MINIMALLY OR ASYMPTOMATICALLY INFECTED SUBJECTS

Patrick K. Mukadi[1], Nicole A. Hoff[2], Daniel Mukadi[1], Reena H. Doshi[2], Emile W. Okitolonda[3], Jean-Jacques T. Muyembe[1], Benoit I. Kebela[4], Russel Williams[1], Matthew S. Bramble[5], Brad Nicholson[6], Anne W. Rimoin[2]
[1]National Institute for Biomedical Research, Kinshasa, Democratic Republic of the Congo, [2]University of California Los Angeles Fielding School of Public Health, Los Angeles, CA, United States, [3]Kinshasa School of Public Health, Kinshasa, Democratic Republic of the Congo, [4]Ministère de la Santé , Direction de Lutte Contre la Maladie, Kinshasa, Democratic Republic of the Congo, [5]University of California Los Angeles David Geffen Schoof of Medicine, Human Genetics, Los Angeles, CA, United States, [6]Duke University, Durham, NC, United States

8:45 a.m.

722

PREVALENCE AND PREDICTORS OF ROTAVIRUS SHEDDING AMONG A COHORT OF POST-VACCINATED INFANTS IN EL ALTO, BOLIVIA 2013 - 2015

Shanon M. Smith[1], Paulina A. Rebolledo[2], Jessica Prince-Guerra[1], Juan S. Leon[1], Leonarda Acha Alarcon[3], Lucia Inchauste[3], Rita Revollo[4], Volga Iniguez[3]
[1]Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA, United States, [2]Emory School of Medicine, Atlanta, GA, United States, [3]Instituto de Biotecnología y Microbiología, Universidad Mayor de San Andrés, La Paz, Plurinational State of Bolivia, [4]Servicio Departamental de Salud, La Paz, Plurinational State of Bolivia

9 a.m.

723

LEWIS ANTIGEN AND SECRETOR STATUS MEDIATE SUSCEPTIBILITY TO P-GENOTYPE SPECIFIC ROTAVIRUS INFECTIONS BUT DO NOT AFFECT ROTAVIRUS VACCINE PERFORMANCE AMONG INFANTS IN BANGLADESH

Benjamin Lee[1], Sean A. Diehl[1], E. Ross Colgate[1], Dorothy M. Dickson[1], Muhammad I. Uddin[2], Salma Sharmin[2], Shahidul Islam[2], Taufiqur R. Bhuiyan[2], Mami Taniuchi[3], William A. Petri[3], Firdausi Qadri[2], Rashidul Haque[2], Beth D. Kirkpatrick[1]
[1]University of Vermont, Burlington, VT, United States, [2]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [3]University of Virginia, Charlottesville, VA, United States

9:15 a.m.

724

IMPACT OF ROTAVIRUS VACCINE PERFORMANCE ON INFANT UNDERNUTRITION IN EL ALTO, BOLIVIA

Jessica Prince-Guerra[1], Paulina A. Rebolledo[2], Rachel Burke[3], Anna Fabiszewski de Aceituno[1], Parminder Suchdev[1], Rita Revollo[4], Volga Iñiguez[5], Juan S. Leon[1]
[1]Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA, United States, [2]Emory School of Medicine, Atlanta, GA, United States, [3]Department of Epidemiology, Rollins School of Public Health, Emory University, Atlanta, GA, United States, [4]Servicio Departamental de Salud, La Paz, Plurinational State of Bolivia, [5]Instituto de Biotecnología y Microbiología, Universidad Mayor de San Andrés, La Paz, Plurinational State of Bolivia

9:30 a.m.

725

TRENDS IN CIRCULATING ROTAVIRUS STRAINS IN INDIA FROM 2012-2016: A MULTI-CENTER SURVEILLANCE DATA AMONG UNDER FIVE CHILDREN

Nayana P. Nair[1], Sidhartha Giri[1], Sudhir Babji[1], Girish Kumar[2], Venkatasubramaniam S[2], Rashmi Arora[3], Gagandeep Kang[1]
[1]Christian Medical College, Vellore, India, [2]National Institute of Epidemiology, Chennai, India, [3]Indian Council of Medical Research, New Delhi, India

Scientific Session 68

Bacteriology: Trachoma

Convention Center - Room 331/332 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

CHAIR

Forest M. Altherr
The Carter Center, Los Alamos, NM, United States

Amy Pinsent
Monash University, Melbourne, Australia

8 a.m.

726

INTEGRATING A GEOGRAPHIC INFORMATION SYSTEM TO EXPLORE THE EFFECT OF WATER, SANITATION, AND HYGIENE ON TRACHOMA AT AGGREGATE SPATIAL SCALES

Forest M. Altherr[1], Eshetu Sata[2], Aisha E.P. Stewart[1], Tigist Astale[2], Mulat Zerihun[2], Andrew Nute[1], Demelash Gessesse[2], Gedefaw Ayenew[2], Melsew Chanyalew[3], Berhanu Melak[2], Zerihun Tadesse[2], E. Kelly Callahan[1], Scott D. Nash[1]
[1]The Carter Center, Atlanta, GA, United States, [2]The Carter Center, Addis Ababa, Ethiopia, [3]The Amhara Regional Health Bureau, Bahir Dar, Ethiopia

8:15 a.m.

727

TRACHOMA PREVALENCE AFTER THREE ROUNDS OF MASS DRUG ADMINISTRATION IN KANKAN, MANDIANA AND SIGUIRI, THREE HEALTH DISTRICTS IN GUINEA

André Géopogui[1], Sylvain Haba[2], Mamadou S. Baldé[1], Cece Nieba[1], Lamah Lamine[2], Christelly Badila Flore[2], Bamba Foungotin Ibrahim[2]
[1]Ministry of Health, Conakry, Guinea, [2]Helen Keller International, Conakry, Guinea

8:30 a.m.

728

LONGITUDINAL TRENDS IN TRACHOMA OVER EIGHT YEARS IN A HYPERENDEMIC SETTING UNDER THE SAFE STRATEGY: RESULTS FROM SERIAL IMPACT SURVEYS IN WEST GOJJAM ZONE, ETHIOPIA

Scott D. Nash[1], Eshetu Sata[2], Aisha E.P. Stewart[1], Tigist Astale[2], Mulat Zerihun[2], Demelash Gessesse[2], Gedefaw Ayenew[2], Melsew Chanyalew[3], Berhanu Melak[2], Zerihun Tadesse[2], E. Kelly Callahan[1]
[1]The Carter Center, Atlanta, GA, United States, [2]The Carter Center, Addis Ababa, Ethiopia, [3]Amhara Regional Health Bureau, Bahir Dar, Ethiopia

8:45 a.m.

729

INSIGHTS AND COMPLEXITIES MODELLING SEROLOGICAL DATA FOR TRACHOMA SURVEILLANCE

Amy Pinsent
Monash University, Melbourne, Australia

9 a.m.

730

TRACHOMATOUS TRICHIASIS SCREENING AND ACTIVE CASE FINDING, AN OPPORTUNITY FOR EYE HEALTH PROGRAMS: CASE STUDY OF THE MMDP PROJECT IN BURKINA FASO

Francois Drabo[1], Martin Kabore[1], Issouf Bamba[2], Jean-Paul Djiatsa[2], Fanny Yago-Wienne[2], Yaobi Zhang[3], Awa Dieng[3], Emily Gower[4], Zeina Sifri[5]
[1]Maladies Tropicales Negligees (MTN), Ministry of Health, Ouagadougou, Burkina Faso, [2]Helen Keller International, Ouagadougou, Burkina Faso, [3]Helen Keller International, Dakar, Senegal, [4]University of North Carolina/Helen Keller International, Chapel Hill, NC, United States, [5]Helen Keller International, Washington, DC, United States

9:15 a.m.

731

INFLUENCE OF INDIVIDUAL AND ENVIRONMENTAL FACTORS ON THE PREVALENCE OF TRACHOMA IN THE HEALTH DISTRICT OF MOKOLO, CAMEROON AFTER 3 YEARS OF MASS TREATMENT WITH ZITHROMAX AND TETRACYCLINE

Assumpta Lucienne Bella[1], Emilienne Epée[2], Armelle Ngomba[3], Godefroy Koki[4], Fabrice N. Djouma[5], Georges Nko'o Ayissi[2], Julie Akame[6], Patrick Mbia[6], Henri Moungui[6], Michel Paradis[6], Yaobi Zhang[7]
[1]National Programme for the Prevention of Blindness, Yaoundé, Cameroon, [2]National NTD Coordination Unit Ministry of Public Health, Yaoundé, Cameroon, [3]Department of Public Health, Faculty of Medicine and Pharmaceutical Sciences, University of Douala, Douala, Cameroon, [4]Faculty of Medicine and Biomedical Sciences, University of Yaoundé, Yaoundé, Cameroon, [5]University of Dschang, Dschang, Cameroon, [6]Helen Keller International, Yaoundé, Cameroon, [7]Helen Keller International, Dakar, Senegal

9:30 a.m.

732

THE TRACHOMA END-GAME IN VIETNAM: SURVEYING TRACHOMA HOTSPOTS IN HÀ GIANG PROVINCE

Tran Minh Dat[1], Nguyen Xuan Hiep[1], Jeremiah Ngondi[2], Ngoc Nguyen Viet My[3], Long Nguyen Tien[3], Joshua Sidwell[4], Molly Brady[4], Rob Henry[5], Aryc Mosher[5], Lisa Rotondo[4], Anthony Solomon[6]
[1]Vietnam National Institute of Ophthalmology, Hanoi, Vietnam, [2]RTI International, Dar es Salaam, United Republic of Tanzania, [3]Fred Hollows Foundation, Da Nang, Vietnam, [4]RTI International, Washington, DC, United States, [5]U.S. Agency for International Development, Washington, DC, United States, [6]World Health Organization, Geneva, Switzerland

Symposium 69

Verifying the Elimination of Neglected Tropical Diseases: Implications for Sampling

Convention Center - Room 337/338 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

For many of the neglected tropical diseases (NTDs) outlined in the 2012 London Declaration, the success of their intervention programs has resulted in a massive decline in disease prevalence and infection intensity. While the epidemiology and the interventions required to help eliminate these diseases differ, a common challenge for all NTD elimination programs is measuring programmatic success and deciding when intervention implementation can be interrupted. This requires accurate diagnostic tools, but also efficient survey strategies to apply these tools. This symposium discusses the challenges involved, highlights new quantitative methods to support cessation planning for a range of NTDs, and investigates how the different disease programs must tailor end-game activities to help prevent reemergence taking account of the specific dynamics of the disease of interest. The symposium promotes a dialogue between experts on different diseases and contributes to deeper understanding of the factors complicating the detection of elimination and possible solutions. The symposium covers preventative chemotherapy (PC) diseases (with examples from lymphatic filariasis, onchocerciasis and soil transmitted helminths), and intensified disease management diseases (with examples from human African trypanosomiasis (HAT). Each of these have different disease dynamics and the presenters discuss how they will likely need different measures to investigate whether elimination has been achieved, or optimize a post-elimination surveillance strategy. The talks will focus on survey techniques and sampling strategies for assessing elimination status, informed by mathematical modelling. The speakers will highlight how baseline infection levels can alter the required prevalence threshold for stopping mass drug administration for numerous PC diseases, challenging current guidance which do not yet account for geographic heterogeneity. In addition, the speakers will address the importance of selecting the right end-point statistic to discriminate between elimination and bounce-back, and how the incorporation of a second decision rule to the TAS could help safeguard against micro-***foci*** of infection that might otherwise lead to a recrudescence. For HAT, which already uses screening as a main part of its intervention program, it is unclear what testing strategy should be used to assess progress towards elimination. For both HAT and onchocerciasis, a tiered approach to verifying elimination is examined, where sampling is performed initially at high-risk areas, such as the most recent ***foci*** or close to vector breeding sites, before confirming that no pockets of infection persist elsewhere.

CHAIR

Kat S. Rock
Zeeman Institute: SBIDER (Systems Biology and Infectious Disease Epidemiology Research), The University of Warwick, Coventry, United Kingdom

Marleen Werkman
Imperial College London and The DeWorm3 Project (The Natural History Museum of London), London, United Kingdom

8 a.m.
QUANTIFYING THE END-GAME FOR SLEEPING SICKNESS: ASSESSING SUCCESS AND RISK THROUGH MATHEMATICAL MODELLING
Kat Rock
Zeeman Institute: SBIDER (Systems Biology and Infectious Disease Epidemiology Research), The University of Warwick, Coventry, United Kingdom

8:20 a.m.
TOWARDS IMPROVED GUIDELINES FOR STOPPING MDA AND VERIFYING ELIMINATION OF ONCHOCERCIASIS: CRITICAL THRESHOLDS AND SAMPLING STRATEGIES
Wilma A. Stolk
Erasmus MC, Rotterdam, Netherlands

8:40 a.m.
BETTER UTILIZATION OF THE TRANSMISSION ASSESSMENT SURVEY TO IDENTIFY POTENTIAL *FOCI* OF INFECTION FOR LF
Katherine Gass
Task Force for Global Health, Decatur, GA, United States

9 a.m.
DEWORM3: USING TRANSMISSION MODELS IN STUDY DESIGN: DETECTING ELIMINATION AND THE IMPACT OF PRE-EXISTING TREATMENT PROGRAMS
James E. Truscott
Imperial College London and The DeWorm3 Project (The Natural History Museum of London), London, United Kingdom

Symposium 70

Novel Datasets and Approaches to Study the Emergence of Lyme Disease and Other Tick-Borne Diseases in the United States

Convention Center - Room 339/340 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

Over the last half-century, previously undescribed tick-borne pathogens including the Lyme disease bacteria, *Borrelia burgdorferi*, have rapidly spread across the northeast and midwest United States. Lyme disease is now the most commonly reported vector-borne disease in North America, with over 300,000 estimated cases each year in the United States. Despite its epidemiological importance, many questions remain about this ongoing invasion. Does the observed spread of human cases reflect the ecological spread of the blacklegged ticks or Lyme disease bacteria or does it reflect changes in case reporting and recognition? How do ticks and tick-borne pathogens spread across space and why are tick-borne pathogens currently invading the U.S.? This symposium will explore the evolutionary, ecological and epidemiological history of the Lyme disease invasion in North America using the most current datasets on tick distribution, human disease surveillance and pathogen genomic data. The session will describe novel methodological approaches integrating molecular analyses, statistical and mechanistic modeling to identify climatic and other environmental and anthropogenic factors driving the spread of tick-borne diseases. The investigation methods illustrated in this symposium are of major importance for public health agencies to predict the spread and control the emergence of tick-borne diseases.

CHAIR
Maria Diuk-Wasser
Columbia University, New York, NY, United States
Donal Bisanzio
University of Oxford, Oxford, United Kingdom

8 a.m.
POPULATION EXPANSION OF THE LYME DISEASE TICK VECTOR IN THE UNITED STATES IN THE LAST 20 YEARS
Rebecca Eisen
Centers for Disease Control and Prevention, Fort Collins, CO, United States

8:20 a.m.
RECONSTRUCTING THE INVASION OF THE LYME DISEASE BACTERIUM IN NORTH AMERICA WITH PATHOGEN GENOMES AND HUMAN SURVEILLANCE DATA
Katharine S. Walter
Yale School of Public Health, New Haven, CT, United States

8:40 a.m.
PREDICTING THE INTRODUCTION AND TRANSMISSION OF HIGH-CONSEQUENCE FOREIGN TICK-BORNE DISEASES IN THE UNITED STATES
Sarah Hamer
Texas A&M University, College Station, TX, United States

9 a.m.
TEMPORAL-SPATIAL DYNAMIC MODELING AS TOOL TO STUDY INTRODUCTION, DIFFUSION AND PERSISTENCE OF TICK-BORNE PATHOGENS
Donal Bisanzio
Big Data Institute, Nuffield Department of Medicine, Oxford, United Kingdom

Symposium 71

The Sanitation Hygiene Infant Nutrition Efficacy (SHINE) Trial

Convention Center - Room 341/342 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

Globally, 159 million (26%) under-5-year-old children are stunted (Height-for-age Z (HAZ) score < -2). Stunting occurs between conception and 24 months of age, when the mean HAZ among children in Asia and Africa is -2.0. Stunting increases child mortality, reduces school performance and adult economic productivity and increases chronic disease risk. The best dietary interventions increase HAZ by 0.7; a growth effect equivalent to about one-third of the mean deficit of Asian and African children. Moreover, in Africa, stunting has remained stagnant at ~40% and, due to population growth, the number of stunted children is increasing. Similarly, anemia affects 46% of under-five-year-old children globally; iron supplementation and fortification reduce anemia by 37-62%, leaving a substantial proportion uncorrected. Thus, new interventions are urgently required. The SHINE trial was designed to test the hypothesis that environmental enteric dysfunction (EED) is an underlying cause of stunting and anemia, that EED is primarily caused by high fecal ingestion due to poor WASH conditions, and that the effects of optimizing IYCF will be additive to those of WASH on stunting and anemia. The design and methods of SHINE have been previously reported http://cid.oxfordjournals.org/content/61/suppl_7.toc). From November, 2012

through March 2015, 5280 pregnant women were enrolled into SHINE at a median age of 12.5 gestational weeks. Women and their live-born infants were followed to 18 months postpartum. Village Health Workers made home visits to all enrolled women and delivered interactive behavior-change interventions. In the IYCF arm, women received nutrition education and infants received lipid-based nutrient supplements between 6-18 months; in WASH arms, households received a latrine, two handwashing stations with monthly replenishment of soap, water chlorination and an infant play space. Research staff made eight home visits to measure uptake of the interventions and trial outcomes between baseline and 18 months. At 24 months, early child development was assessed. Data collection was completed June 30, 2017. This symposium will be the first public presentation of SHINE findings. The session will describe SHINE and summarize findings from the WASH Benefits trials conducted in Kenya and Bangladesh by the principal investigator of those trials. WASH Benefits tested similar hypotheses and implemented similar interventions, though in different contexts. Presenting the three trials in the same symposium will consolidate current thinking in the WASH field on the future of interventions for stunting and anemia.

CHAIR

Jean H. Humphrey
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Andrew J. Prendergast
Queen Mary University of London, London, United Kingdom

8 a.m.
BACKGROUND, RATIONALE AND STUDY DESIGN
Robert Ntozini
Zvitambo Institute for Maternal and Child Health Research, Harare, Zimbabwe

8:15 a.m.
IMPACT OF WASH AND IYCF ON STUNTING AND ANEMIA
Jean J. Humphrey
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

8:30 a.m.
IMPACT OF WASH AND IYCF ON EARLY CHILD DEVELOPMENT
Melissa Gladstone
Women's and Children's Health, University of Liverpool, Liverpool, United Kingdom

8:45 a.m.
THE WASH BENEFITS TRIALS: SUMMARY AND UPDATE OF FINDINGS
Jack Colford
University of California Berkeley School of Public Health, Berkeley, CA, United States

9 a.m.
WHAT'S NEXT?
Andrew Prendergast
Queen Mary University of London, London, United Kingdom

Symposium 72

The Full Public Health Value of Vaccines

Convention Center - Room 343/344 (Level 300)
Tuesday, November 7, 8 a.m. - 9:45 a.m.

Supported with funding from Sanofi Pasteur

Interest has increased on considering the full public health value (FPHV) of vaccines when setting priorities, making regulatory decisions and establishing policy for public health activities. This marks a shift away from a historical therapeutic paradigm to a public health paradigm. The former focuses on prospective, blinded and individually-randomized phase III trials to assess direct efficacy and safety. The latter emphasizes a vaccine's population impact using, for example, probe studies or community-randomized trials that can estimate overall efficacy for a range of outcomes. The FPHV of vaccines includes their ability to prevent or reduce health inequity, social and political disruption, individual and household financial ruin, disruption of household integrity, school absenteeism and work loss, health care utilization, long-term/on-going disability, the development of antibiotic resistance, and a range of non-etiologically and etiologically defined clinical outcomes. Several meetings and manuscripts have started to develop the concept of the FPHV of vaccines and the current symposia will extend this work and apply it to vaccines of interest to ASTMH members and meeting attendees. The first talk will focus on the RTS,S malaria vaccine, emphasizing that the burden of malaria is so great in many areas that even a vaccine with modest efficacy will provide great public health value. The second talk will focus on dengue vaccines, and emphasize how vaccines can prevent or minimize outbreaks and the subsequent disruption of health care services, increased school and work absenteeism, and reduction of economic activities such as tourism. The third talk will focus on oral cholera vaccine and implications for an outbreak driven disease in resource poor settings and for which other preventive interventions exist. The final talk will focus on the application of concepts to trial design, outcomes and measures, and implications for regulators and policy-makers, using examples of the recent Ebola vaccine trial in The Gambia and planned typhoid conjugate vaccine trials in Asia and Africa. The goal for this session is for attendees to appreciate that vaccine efficacy and safety are key regulatory concerns but in isolation do not provide information for public health decisions; to understand key measures used to assess a vaccine's public health value such as vaccine preventable disease incidence; to be able to identify the many ways in which vaccines provide public health value other than direct protection of individuals against etiologically confirmed disease; and to apply lessons learned to vaccines for diseases of interest to ASTMH members and meeting attendees.

CHAIR

Bradford D. Gessner
AMP, Paris, AK, United States

David Kaslow
PATH, Seattle, WA, United States

8 a.m.
THE FULL PUBLIC HEALTH VALUE OF MALARIA VACCINES
David Kaslow
PATH, Seattle, WA, United States

8:20 a.m.
THE FULL PUBLIC HEALTH VALUE OF DENGUE VACCINES
Joao Bosco Siqueira
Institute of Tropical Pathology and Public Health, Federal University of Goias, Goiania, Brazil

8:40 a.m.
THE FULL PUBLIC HEALTH VALUE OF ORAL CHOLERA VACCINE
Bradford D. Gessner
AMP, Paris, AK, United States

9 a.m.
SUMMARY OF CONCEPTS AND MOVING FORWARD
Kathy Neuzil
Center for Vaccine Development, Baltimore, MD, United States

Exhibit Hall Open

Convention Center - Swing Hall (Level 100)
Tuesday, November 7, 9:30 a.m. - 10:30 a.m.

Coffee Break

Convention Center - Swing Hall (Level 100)
Tuesday, November 7, 9:45 a.m. - 10:15 a.m.

Sponsored by Sanofi Pasteur CONTRIBUTOR

Poster Session B Set-Up

Convention Center - Hall F and G (Level 100)
Tuesday, November 7, 9:45 a.m. - 10:15 a.m.

Bonus Event

GET A SHOT. GIVE A SHOT.®

Convention Center - Pratt Street Lobby (Level 300)
Tuesday, November 7, 10 a.m. - 5 p.m.

Walgreens' Get a Shot. Give a Shot.® campaign has helped provide more than 20 million lifesaving vaccines to children in need around the world through the United Nations Foundation's Shot@Life campaign. Now, TropMed17 giving attendees an opportunity to give back to the global health communities we serve. Receive your annual flu shot and provide lifesaving vaccines to families in developing countries. Immunizations are one of the world's biggest public health success stories, but not all communities have the same access to vaccines.

Bonus Event

UNDER THE NET

Convention Center - Pratt Street Lobby Foyer (Level 300)
Tuesday, November 7, 10 a.m. - 5 p.m.

Walk in the shoes of 11-year-old Amisa, a refugee living in the Nyarugusu Refugee Camp in Tanzania, through a virtual reality experience (VR) presented by the UN Foundation's Nothing But Nets campaign. Under the Net is the story of Amisa, her mother and six siblings as they struggle to survive each day with no protection from mosquitoes that carry malaria at night. Be sure to stop by the Nothing But Nets exhibit and watch Amisa's story through her eyes – as only VR can present it.

Bonus Event

PROJECT ZERO

Convention Center - Pratt Street Lobby (Level 300)
Tuesday, November 7, 10 a.m. - 5 p.m.

Don't miss the latest virtual reality (VR) films by Huffington Post's Project Zero, an ongoing series created to raise awareness around neglected tropical diseases and efforts to fight them. Three 360-degree VR films tell the untold stories of the victims and health workers battling Elephantiasis, River Blindness and Sleeping Sickness in some of the most remote and underdeveloped regions of the world. Explore the challenges of and progress toward eliminating these diseases in an experience provided through the VR format.

Poster Session B Viewing

Convention Center - Hall F and G (Level 100)
Tuesday, November 7, 10:15 a.m. - Noon

Scientific Session 73

Malaria: Biology and Pathogenesis

Convention Center - Ballroom I (Level 400)
Tuesday, November 7, 10:15 a.m. - Noon

CHAIR

Thomas S. Churcher
Inperial College London, London, United Kingdom

Kenneth Christopher Gavina
University of Alberta, Edmomton, AB, Canada

10:15 a.m.

733

EXPERIMENTAL MALARIA IN PREGNANCY IS ASSOCIATED WITH ALTERED FETAL NEUROGENESIS AND NEUROPSYCHIATRIC DISORDERS IN OFFSPRING

Andrea Weckman[1], Vanessa Tran[2], Chloe McDonald[2], Guang Yang[3], David Kaplan[3], Kevin C. Kain[2]
[1]Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, ON, Canada, [2]Sandra Rotman Centre for Global Health, University Health Network-Toronto General Hospital, Tropical Disease Unit, Department of Medicine, University of Toronto, Toronto, ON, Canada, [3]Program in Neuroscience and Mental Health, Sick Kids Hospital, Toronto, ON, Canada

10:30 a.m.

734

TCR COMBINATORIAL IMMUNORECEPTOR EXPRESSION BY NEUTROPHILS CORRELATES WITH PARASITE BURDEN AND ENHANCED PHAGOCYTOSIS DURING A *PLASMODIUM BERGHEI* ANKA MALARIA INFECTION

Miranda Oakley, Joanna Chorazeczewski, Victoria Majam, Adovi Akue, Mark KuKuruga, Maya Aleshnick, Sanjai Kumar
Food and Drug Administration, Silver Spring, MD, United States

(ACMCIP Abstract)

10:45 a.m.

735

SUBMICROSCOPIC MALARIA INFECTIONS ARE NOT ASSOCIATED WITH NEGATIVE BIRTH OUTCOMES IN PREGNANT WOMEN FROM COLOMBIA

Kenneth Gavina[1], Sedami Gnidehou[2], Eliana Arango[3], Chloe Hamel-Martineau[4], Catherine Mitran[5], Aisha Karidio[4], Shanna Banman[5], Olga Agudelo[3], Carolina Lopez[3], Jaime Carmona-Fonseca[3], Ali Salanti[6], Nicaise Ndam[7], Michael Hawkes[8], Amanda Maestre[3], Stephanie Yanow[5]

[1]Department of Medical Microbiology and Immunology, University of Alberta, Edmonton, AB, Canada, [2]Campus Saint-Jean, University of Alberta, Edmonton, AB, Canada, [3]Universidad de Antioquia, Medellín, Colombia, [4]Campus Saint-Jean, University of Alberta, Edmonton, AB, Canada, [5]School of Public Health, University of Alberta, Edmonton, AB, Canada, [6]University of Copenhagen, Copenhagen, Denmark, [7]University of Ghana, Accra, Ghana, [8]Pediatrics, University of Alberta, Edmonton, AB, Canada

11 a.m.

736

PROBABILITY OF TRANSMISSION OF MALARIA FROM MOSQUITO TO HUMAN IS REGULATED BY PARASITE DENSITY IN NAIVE AND VACCINATED HOSTS

Thomas S. Churcher[1], Robert E. Sinden[1], Nick J. Edwards[2], Ian Poulton[2], Thomas W. Rampling[2], Patrick M. Brock[1], Jamie T. Griffin[1], Leanna M. Upton[1], Sara E. Zakutansky[1], Katarzyna A. Sala[1], Fiona Angrisano[1], Adrian V. Hill[2], Andrew M. Blagborough[1]

[1]Imperial College London, London, United Kingdom, [2]The Jenner Institute, Oxford, United Kingdom

11:15 a.m.

737

CHARACTERIZING THE ROLE OF A UNIQUE PHISTB PROTEIN IN VAR2CSA ADHESION, PLACENTAL MALARIA PATHOGENESIS AND IMMUNITY

Bethany J. Jenkins[1], Sanjay A. Desai[2], Patrick E. Duffy[1], Michal Fried[1]

[1]Laboratory of Malaria Immunology and Vaccinology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States, [2]Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States

(ACMCIP Abstract)

11:30 a.m.

738

TRAFFICKING AND TOPOLOGY IDENTIFICATION OF *PLASMODIUM FALCIPARUM* MAURER'S CLEFT TWO TRANSMEMBRANE PROTEIN

Raghavendra Yadavalli[1], John W. Peterson[2], Judith A. Drazba[2], Tobili Yvonne Sam-Yellowe[1]

[1]Cleveland State University, Cleveland, OH, United States, [2]The Cleveland Clinic, Cleveland, OH, United States

(ACMCIP Abstract)

11:45 a.m.

739

INTRA AND INTER-INDIVIDUAL RED BLOOD CELL VARIABILITY IN BIND TO *PLASMODIUM VIVAX* DUFFY BINDING PROTEIN

Celia Dechavanne[1], Sebastien Dechavanne[1], Rich Fong[1], Sushma Krishnan[1], Lenore Carias[1], Edwin Chen[2], Nicole D. Salinas[2], Anil Ghosh[1], Niraj H. Tolia[2], Christopher L. King[1], Peter A. Zimmerman[1]

[1]Case Western Reserve University, Cleveland, OH, United States, [2]Washington University School of Medicine, St. Louis, MO, United States

Symposium 74

Ivermectin and Mosquitoes: The Vital Role of Pharmacokinetics and Pharmacodynamics

Convention Center - Ballroom II (Level 400)
Tuesday, November 7, 10:15 a.m. - Noon

Ivermectin mass drug administration (MDA) to humans has been proposed as a novel transmission control tool measure to aid global malaria elimination efforts. Field trials in West Africa have indicated that ivermectin MDAs can suppress malaria transmission as measured by mosquito and human parameters. However, there is discordance between *in vitro* mosquito survivorship assays, pharmacokinetic predictions of ivermectin and results from clinical trials. Recent clinical trial evidence indicates that ivermectin treatment of humans has much greater mosquito-lethal impact than initially predicted. This suggests that there may be ivermectin metabolites with mosquito-lethal properties which extend pharmacodynamic effects beyond what the parent compound predicts. It is critical to evaluate and quantify the pharmacokinetic and pharmacodynamic (PK-PD) relationship of human treatment and mosquito killing duration. Two clinical trials have evaluated the pharmacokinetic interaction and mosquito-lethal efficacy of ivermectin and dihydroartemisinin-piperaquine (DHA-PQP) on *Anopheles* survival in Thailand and Kenya. These ivermectin PK-PD results will provide the basis for development of novel drug co-formulations and long-lasting drugs to enhance and extend the mosquito-lethal and therapeutic effects of ivermectin. Current ivermectin formulations as a single dose during MDA can interrupt malaria transmission but this effect could be greater with novel strategies. The dose used for onchocerciasis and lymphatic filariasis MDAs is based on weight. Weight-based dosing of ivermectin hampers the possibility to co-formulate with other fixed-dose drugs. Ongoing studies have evaluated novel single-dose tablets (18 or 36 mg) that would result in the population receiving a wide dosage range rather than a target weight-based dosage. Recently, an oral, ultra-long-acting capsule that can release ivermectin for days to weeks and potentially longer has been developed. Advances presented here include development of an animal model and planning of first human trials. Both novel ivermectin formulations reduce logistical issues during MDA. A mathematical model describing the impact of ivermectin on malaria transmission has been developed to translate the PK-PD data into estimates of potential public health impact. Using new data, efforts have focused on extending the pharmacodynamic component of the model to capture the observed discrepancy between ivermectin levels in the blood and mosquito killing efficacy. The model can inform where a higher dose or novel formulation of ivermectin may be particularly effective, based on the different levels of transmission intensity, seasonality and vector dynamics.

CHAIR

Brian D. Foy
Colorado State University, Fort Collins, CO, United States

Joel Tarning
Mahidol University, Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

10:15 a.m.
IVERMECTIN FOR MALARIA IN SOUTHEAST ASIA (IMSEA STUDY, THAILAND)
Kevin Kobylinski
Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand

10:30 a.m.
HIGH-DOSE IVERMECTIN FOR MALARIA ELIMINATION: A DOSE-FINDING STUDY (IVERMAL STUDY, KENYA)
Menno Smit
Liverpool School of Tropical Medicine at KEMRI/Centers for Disease Control and Prevention, Kisumu, Kenya

10:45 a.m.
SINGLE-DOSE IVERMECTIN TABLET: A NEW PARADIGM
Jose Munoz
Barcelona Institute for Global Health, IS Global, Barcelona, Spain

11:10 a.m.
LEVERAGING THE GI TRACT FOR THERAPEUTIC INNOVATIONS
Giovanni Traverso
Harvard Medical School, Brigham and Women's Hospital, Boston, MA, United States

11:35 a.m.
MODELLING THE IMPACT OF HIGH-DOSE IVERMECTIN ON MALARIA TRANSMISSION
Hannah Slater
Imperial College London, London, United Kingdom

Symposium 75

Tracking the Impact of SMC: An Assessment of the Impact and Cost Effectiveness of Seasonal Malaria Chemoprevention in West and Central Africa

Convention Center - Ballroom III (Level 400)
Tuesday, November 7, 10:15 a.m. - Noon

Eleven countries now have SMC programs targetting about 14 million children in 2016 and 17 million in 2017. This symposium will present an assessment of the impact of these programs in reducing the malaria burden, the cost effectiveness of SMC, and model predictions of how the impact of SMC could be further increased by adapting the strategy to local epidemiological contexts. Malaria surveillance is one of the three pillars of the new Global Technical Strategy for malaria, but it continues to be challenging to make malaria surveillance data available and use them to track progress. The session will feature examples from seven countries (Burkina Faso, Chad, Gambia, Guinea, Mali, Niger and Nigeria) to show how national malaria surveillance data have been used to understand the impact of SMC. Incompleteness, and aggregation to broad age groups, limits the usefulness of these data, so to provide more complete information, sentinel sites have been established in each country. The speakers will present an analysis of these data and argue for the use of sentinel sites for tracking progress and for planning. These direct assessments of impact from facility-based surveillance will be compared with indirect estimates based on modelling. An analysis of the factors influencing the cost-effectiveness of SMC will be presented, leading to recommendations about the most cost-effective delivery strategies and the selection of areas where the intervention will be most cost-effective. In Cameroon, the National Malaria Control Program has recently introduced SMC in a population of 1.4 million children in the northern part of the country. The coordinator of the national program will describe how this was achieved, the approaches used to monitor the impact of the intervention and plans for sustaining the program. The final talk will bring together results from modelling studies to understand how the impact of SMC can be maximized. It was originally envisaged that SMC, limited to under 5's, would not contribute to reducing the overall level of malaria transmission, but research in Senegal has shown that when SMC programs include children up to 10 years of age, the intervention can reduce transmission. A further modification of the strategy that may contribute to further reducing transmission is the administration of an additional cycle or cycles. Model predictions of which of these strategies, alone or in combination, should be used in different areas of the sub-Sahel region, will be presented.

CHAIR
Paul J. Milligan
London School of Hygiene & Tropical Medicine, London, United Kingdom
Ebenezer Baba
Malaria Consortium, Kampala, Uganda

10:15 a.m.
TRACKING PROGRESS AGAINST MALARIA: SURVEILLANCE SYSTEMS IN EIGHT COUNTRIES AND ASSESSMENT OF IMPACT OF SMC
Jean Louis NDiaye
University of Thies, Thies, Senegal

10:20 a.m.
COST EFFECTIVENESS OF SMC IN SEVEN COUNTRIES
David Collins
Management Systems for Health, Medford, MA, United States

10:30 a.m.
MONITORING THE INTRODUCTION OF SMC IN CAMEROON
Dorothy Achu
National Malaria Control Program, Ministry of Public Health - Cameroon, Yaounde, Cameroon

10:40 a.m.
OPTIMIZING THE IMPACT OF SMC: MODELLING THE JOINT EFFECTS OF INCREASING THE AGE RANGE, AND ADDING ADDITIONAL CYCLES
Matthew Cairns
London School of Hygiene & Tropical Medicine, London, United Kingdom

Symposium 76

Clinical Group Symposium II (American Committee on Clinical Tropical Medicine and Travelers' Health – ACCTMTH): Updates in Clinical Practice in Tropical and Travel Medicine

Convention Center - Ballroom IV (Level 400)
Tuesday, November 7, 10:15 a.m. - Noon

The Clinical Group's goal is to strengthen professional excellence in delivering high-quality, evidence-based clinical care in the practice of tropical and travel medicine. This symposium will focus on evolving best practices in tropical and travel medicine.

Presentations will employ clinical cases to update attendees on prevention, diagnosis and treatment of tropical infections. Additionally, changes in travelers' health guidance from CDC will be presented.

CHAIR

John W. Sanders
Wake Forest University School of Medicine, Winston-Salem, NC, United States

David M. Brett-Major
Military HIV Research Program; Henry M. Jackson Foundation, Silver Spring, MD, United States

10:15 a.m.
CASE MANAGEMENT OF TROPICAL INFECTIOUS DISEASES AND TRAVEL MEDICINE

Christina Coyle
Albert Einstein College of Medicine, Bronx, NY, United States

10:35 a.m.
CASE MANAGEMENT OF TROPICAL INFECTIOUS DISEASES AND TRAVEL MEDICINE

Michael Libman
McGill University Health Centre, Montreal, QC, Canada

10:55 a.m.
CASE MANAGEMENT OF TROPICAL INFECTIOUS DISEASES AND TRAVEL MEDICINE

Gregory J. Martin
U.S. Department of State, Washington, DC, United States

11:15 a.m.
CDC UPDATE IN TRAVELERS' HEALTH

Gary Brunette
Centers for Disease Control, Atlanta, GA, United States

11:35 a.m.
ACCTMTH ANNUAL BUSINESS MEETING

John W. Sanders
Wake Forest University School of Medicine, Winston-Salem, NC, United States

Symposium 77

Vector-Borne Diseases and the WHO Global Vector Control Response

Convention Center - Room 318/319/320 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

Major vector-borne diseases of humans include malaria, dengue, lymphatic filariasis, Chagas disease, onchocerciasis, leishmaniasis, Chikungunya, Zika virus disease, Yellow Fever, Japanese encephalitis and schistosomiasis. Other vector-borne diseases are of local importance in specific areas or populations, such as tick-borne diseases. Together these account for around 17% of the estimated global burden of communicable diseases and disproportionately affect poorer populations. They impede economic development through direct medical costs and indirect costs such as loss of productivity and tourism. Social, demographic and environmental factors strongly influence transmission patterns, with major outbreaks of dengue, malaria, Chikungunya, Yellow Fever and Zika virus disease since 2014. Most vector-borne diseases can be prevented by vector control, if it is implemented well. Major reductions in the incidence of malaria, onchocerciasis and Chagas disease have been largely due to strong political and financial commitment. For other vector-borne diseases, vector control has not yet been used to its full potential or had maximal impact. This situation can be reversed by realigning programs to optimize the delivery of interventions that are tailored to the local context. In June 2016, a fast-tracked but broadly consultative process was launched by the WHO Global Malaria Program, WHO Department of Control of Neglected Tropical Diseases, and Special Program for Research and Training in Tropical Diseases to develop a strategy to strengthen vector control globally. The Global Vector Control Response 2017-2030 received strong support from Member States at the World Health Assembly in May 2017, and a resolution was adopted (WHO70.16). The Response calls for improved public health entomology (and malacology) capacity and capability, a well-defined national research agenda, better coordination within and between sectors, community involvement in vector control, strengthened monitoring systems and scale up of vector control supported by better availability and use of novel interventions with proven effectiveness. In this symposium, the technical elements and implementation of the Global Vector Control Response 2017-2030 will be discussed from global, regional and national perspectives.

CHAIR

Pedro L. Alonso
World Health Organization, Global Malaria Programme, Geneva, Switzerland

John Reeder
World Health Organization, Special Programme for Research and Training in Tropical Diseases, Geneva, Switzerland

10:15 a.m.
CURRENT GLOBAL SITUATION OF VECTOR-BORNE DISEASES

Steven W. Lindsay
Durham University, Durham, United Kingdom

10:35 a.m.
GLOBAL VECTOR CONTROL RESPONSE AND ITS IMPLEMENTATION

Tessa B. Knox
World Health Organization, Geneva, Switzerland

10:55 a.m.
STRENGTHENING PUBLIC HEALTH ENTOMOLOGY AND VECTOR CONTROL IN THE REGION OF THE AMERICAS

Luis G. Castellanos
Pan American Health Organization, Washington, DC, United States

11:15 a.m.
PERSPECTIVES AND OPPORTUNITIES FOR OPTIMIZED VECTOR CONTROL IN THE AFRICAN CONTEXT

Eunice Misiani
Malaria and Other Vector Borne Diseases, Pretoria, South Africa

Symposium 78

Research Capacity Development: Harnessing the Sharing Revolution in Global Health Research

Convention Center - Room 321/322/323 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

This symposium brings together four different, bold and impactful research capacity development initiatives that share a common approach: they are all harnessing the digital sharing phenomena to drive the delivery of new skills to enable research where life-saving evidence is missing. These four projects are all engaging with frontline healthcare workers and research staff in low-resource settings, and working with them to create highly effective communities of practice to increase research outputs, quality and standards from the areas of the world where new data to drive changes are drastically limited. In 2013 the WHO said unless low- and middle-income countries become the generators rather that the recipients of data, then there is never going to be any true change in their burdens to public health. These countries are largely still not leading their own research studies and agendas and far too few studies are undertaken in the diseases of poverty that limit health in these nations. To undertake such studies, health workers, in all roles, need to be given the training and support to learn research skills and be encouraged to engage in the effort to gather evidence to change health. This symposium has the following integrated elements: 1. REDe is the Research Capacity Development Network for Disease Outbreaks that is led from the three EU funded Zika consortia and is tasked with creating a regional research network that can respond to emerging infectious diseases (EID). 2. Developing and Nurturing Careers in Research for Healthcare and Laboratory Workers in LMICs: WHO-TDR has developed a single, flexible framework for core competencies in clinical research within a professional membership scheme. 3. Proving scientists can share: The Global Health Network's aim is to enable life-saving evidence to be gathered in the world's poorest countries. This is a digital platform for medical researchers around the world, and it is changing the way that scientists work. Over one million visits have been received, from over 100,000 memberships, with individuals visiting from 196 countries. 4. Working together to deliver 'how-to' research skills: Blended learning is the new buzz phrase but it really does work. Within this initiative over 195,500 online learning modules have been taken in LMIC and these courses were developed by over 20 research organizations (such as WHO, PAHO and the Nuffield Council on Bioethics) who have worked together to create the highest standard teaching to reach all levels of research staff.

CHAIR

Trudie A. Lang
The University of Oxford, Oxford, United Kingdom

Jacqueline Alger
University Hospital in Tegucigalpa, Tegucigalpa, Honduras

10:15 a.m.
DEVELOPING AND NURTURING CAREERS IN RESEARCH FOR HEALTHCARE AND LABORATORY WORKERS IN LMICS

Morenike Ukpong
Obafemi Awolowo University, Ibadan, Nigeria

10:30 a.m.
WORKING TOGETHER TO DELIVER 'HOW-TO' RESEARCH SKILLS

Joby George
Medicity Hospital, Gurgaon, India

10:45 a.m.
PROVING SCIENTIST CAN SHARE

Trudie Lang
University of Oxford, Oxford, United Kingdom

11 a.m.
REDE THE RESEARCH CAPACITY NETWORK FOR LATIN AMERICA

Jacqueline Alger
University Hospital in Tegucigalpa, Tegucigalpa, Honduras

Scientific Session 79

Schistosomiasis: Epidemiology, Control and Diagnostics

Convention Center - Room 324/325/326 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

CHAIR

Nilanjan Lodh
Marquette University, Milwaukee, WI, United States

Renata Russo Frasca Candido
The University of Western Australia, Crawley, Australia

10:15 a.m.
740

PREVALENCE AND INCIDENCE OF SCHISTOSOME INFECTION AND MORBIDITY IN PRE-SCHOOL CHILDREN AGED 6 MONTHS TO 5 YEARS

Derick N. Osakunor[1], Takafira Mduluza[2], Nicholas Midzi[2], Mark E. Woolhouse[1], Francisca Mutapi[1]
[1]University of Edinburgh, Edinburgh, United Kingdom, [2]University of Zimbabwe, Harare, Zimbabwe

10:30 a.m.
741

DETECTION OF MULTI SCHISTOSOME PARASITES FROM SINGLE FILTERED URINE SAMPLES FROM SCHOOL CHILDREN AFTER MDA IN ZAMBIA

Nilanjan Lodh[1], Mary Thao[1], Megan J. Hessler[1], Austin Cyrs[1], Steven C. Krenzke[1], El Shaimaa Mahmoud[1], Chummy Sikasunge[2], James Mwansa[2]
[1]Marquette University, Milwaukee, WI, United States, [2]The University of Zambia, Lusaka, Zambia

10:45 a.m.
742

ASSESSMENT OF MORBIDITY DUE TO *S. MANSONI* IN SCHOOL-AGED-CHILDREN IN MADAGASCAR

Stephen Spencer[1], James Penney[2], Cortland Linder[2], Hannah Russell[2], Stephanie Jokhan[2], Sheena Cruickshank[2], Amaya Bustinduy[3], Alain Rahetilahy[4]
[1]Royal United Hospital, Bath, United Kingdom, [2]University of Manchester, Manchester, United Kingdom, [3]London School of Hygiene & Tropical Medicine, London, United Kingdom, [4]Madagascar Ministry of Public Health, Antananarivo, Madagascar

11 a.m.

743

IMPACT OF THREE YEARS' INTENSIVE, COMMUNITY-WIDE ANTHELMINTHIC TREATMENT ON ALLERGY-RELATED OUTCOMES, HELMINTH PREVALENCE AND HELMINTH-ASSOCIATED PATHOLOGY AMONG HIGH *SCHISTOSOMA MANSONI* TRANSMISSION ISLAND COMMUNITIES OF LAKE VICTORIA, UGANDA: RESULTS OF A CLUSTER-RANDOMIZED TRIAL

Richard E. Sanya[1], Gyaviira Nkurunungi[1], Remy Hoek Spaans[1], Margaret Nampijja[1], Moses Kiiza[1], Joy Kabagenyi[1], Edridah Tukahebwa[2], Emily L. Webb[3], Alison M. Elliott[1]
[1]Medical Research Council/UVRI Uganda Research Unit, Entebbe, Uganda, [2]Vector Control Division, Ministry of Health, Kampala, Uganda, [3]London School of Hygiene & Tropical Medicine, London, United Kingdom

11:15 a.m.

744

A HIGH FIELD GRADIENT MAGNETIC PROBE FOR THE ISOLATION OF SCHISTOSOME EGGS FROM FECAL MATTER BASED ON THEIR INTERACTION WITH MAGNETIC PARTICLES

Renata Russo Frasca Candido[1], Robert Charles Woodward[1], Vivian Favero[2], Catieli Lindholz[2], Alessandra Morassutti[2], Carlos Graeff-Teixeira[2], Malcolm Kenneth Jones[3], Timothy Guy St. Pierre[1]
[1]The University of Western Australia, Crawley, Australia, [2]Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil, [3]The University of Queensland, Brisbane, Australia

11:30 a.m.

745

POINT OF CARE DIAGNOSIS FOR MULTIPLE SCHISTOSOME PARASITES: SPECIES-SPECIFIC DNA DETECTION FROM SINGLE URINE SAMPLE BY LAMP < AND > FOR > PCR

Nilanjan Lodh[1], Kei Mikita[2], Kwabena M. Bosompem[3], William K. Anyan[3], Joseph K. Quartey[3], Joseph Qtchere[3], Miriam Price[1], Clive J. Shiff[4]
[1]Marquette University, Milwaukee, WI, United States, [2]Keio University School of Medicine, Tokyo, Japan, [3]Noguchi Memorial Institute for Medical Research (NMIMR), Accra, Ghana, [4]Johns Hopkins University, Baltimore, MD, United States

11:45 a.m.

746

TREATMENT EFFECTS ON EGG AND ANTIGEN DIAGNOSTICS OF *SCHISTOSOMA MANSONI* INFECTIONS

Joaquin M. Prada[1], Poppy H. Lamberton[2], Moses Adriko[3], Moses Arinaitwe[3], David W. Oguttu[3], Panayiota Touloupou[1], Deirdre Hollingsworth[1]
[1]University of Warwick, Coventry, United Kingdom, [2]University of Glasgow, Glasgow, United Kingdom, [3]Ministry of Health Uganda, Kampala, Uganda

Symposium 80

Fogarty International Center: Advancing Multidisciplinary Research to Understand the Ecology and Evolution of Infectious Diseases

Convention Center - Room 327/328/329 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

Many infectious diseases of global health significance, including zoonotic, vectorborne and waterborne diseases, are poorly controlled using current tools in the context of rapidly changing environments (e.g., urbanization, climate change, deforestation), challenges with insecticide and drug resistance, and increased population mobility. The disease challenges include old enemies such as dengue, Chagas, malaria, schistosomiasis, leptospirosis and cholera, and newly emerging/remerging diseases such as Ebola, Zika, SARS, Nipah virus, H5N1, Buruli ulcer, monkeypox and MERS-CoV, among others. Efforts to address global infectious disease threats through development and distribution of drugs and vaccines, and training clinicians, have grown in recent years. However, there continues to be a significant gap in population-level studies that enable us to predict and interrupt transmission and/or emergence of these diverse and persistent threats. As recent outbreaks have shown, there remains a clear need for improved multidisciplinary, quantitative and qualitative approaches to understand, predict and control these diseases. The Ecology and Evolution of Infectious Diseases (EEID) program is a unique multi-agency competitive research grant program launched by the Fogarty International Center of the National Institutes of Health and the National Science Foundation over fifteen years ago. This partnership now brings together the scientific expertise and resources of several domestic and international agencies to foster a research community that addresses challenges at the interface of ecology and health. The program provides an opportunity for nontraditional research partners (e.g., agriculture, environmental science, evolutionary biology and mathematical modeling) to consider the global health agenda, and it encourages biomedical scientists to consider ecological and environmental factors (e.g., One Health or Planetary Health concept). Through its awards, the EEID program also aims to foster enhanced research capacity for disease ecology research, particularly in low- and middle-income settings. Symposium participants are investigators on tropical disease-focused EEID awards. Participants will share recent advances in the use of mathematical or computational modeling to understand the ecological and evolutionary mechanisms underlying the emergence and transmission of infectious diseases. Scientific presentations will be followed by a panel discussion of the challenges and opportunities for multidisciplinary disease ecology research and research capacity building.

CHAIR

Christine M. Jessup
Fogarty International Center, National Institutes of Health, Bethesda, MD, United States

Barbara Sina
Fogarty International Center, National Institutes of Health, Bethesda, MD, United States

10:15 a.m.
INTRODUCTION: THE MULTIAGENCY ECOLOGY AND EVOLUTION OF INFECTIOUS DISEASES (EEID) PROGRAM

Christine M. Jessup
Fogarty International Center, National Institutes of Health, Bethesda, MD, United States

10:25 a.m.
BIOLOGICAL AND HUMAN DIMENSIONS OF PRIMATE RETROVIRAL TRANSMISSION

Tony Goldberg
University of Wisconsin Madison, Madison, WI, United States

10:45 a.m.
MALARIA SURVEILLANCE, MATHS AND VARIANT ANTIGEN GENES

Karen Day
University of Melbourne, Melbourne, Australia

11:05 a.m.

SLUMS, RATS AND LEPTOSPIROSIS: ECO-EPIDEMIOLOGY OF THE DISEASE IN A BRAZILIAN URBAN SETTLEMENT

Albert I. Ko
Yale University, New Haven, CT, United States

11:25 a.m.

EFFECTS OF AGRICULTURAL EXPANSION AND INTENSIFICATION ON INFECTIONS

Jason R. Rohr
University of South Florida, Tampa, FL, United States

Scientific Session 81

Bacteriology: Other

Convention Center - Room 331/332 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

CHAIR

Elizabeth B. Brickley
Geisel School of Medicine at Dartmouth College, West Lebanon, NH, United States

Jeffrey Donowitz
Virginia Commonwealth University, Richmond, VA, United States

10:15 a.m.

747

BREAST MILK EPIDERMAL GROWTH FACTOR IS ASSOCIATED WITH GROWTH AND DIARRHEA IN BANGLADESHI CHILDREN

Jeffrey Donowitz[1], Masud Alam[2], Rashidul Haque[2], Beth D. Kirkpatrick[3], Hafiz Kakon[2], Bushra Zarin Islam[2], Sajia Afreen[2], E. Ross Colgate[3], Marya P. Carmolli[3], William A. Petri[4]
[1]Virginia Commonwealth University, Richmond, VA, United States, [2]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [3]The University of Vermont College of Medicine, Burlington, VT, United States, [4]University of Virginia, Charlottesville, VA, United States

10:30 a.m.

748

VACCINE-INDUCED MUCOSAL IMMUNITY FROM IPV-BOPV AND IPV-ONLY IMMUNIZATION SCHEDULES: ANALYSIS OF AN OPEN-LABEL, RANDOMIZED CONTROLLED TRIAL IN CHILEAN INFANTS

Elizabeth B. Brickley[1], Wendy Wieland-Alter[2], Ruth I. Connor[1], Margaret E. Ackerman[3], Austin W. Boesch[3], Minetaro Arita[4], Miguel G. O'Ryan[5], Ananda S. Bandyopadhyay[6], Peter F. Wright[2]
[1]Geisel School of Medicine at Dartmouth College, Lebanon, NH, United States, [2]Dartmouth-Hitchcock Medical Center, Lebanon, NH, United States, [3]Thayer School of Engineering at Dartmouth College, Hanover, NH, United States, [4]National Institute of Infectious Diseases, Tokyo, Japan, [5]University of Chile, Santiago, Chile, [6]Bill & Melinda Gates Foundation, Seattle, WA, United States

10:45 a.m.

749

IMMUNOGENICITY AND PROTECTIVE EFFICACY OF A LIVE ATTENUATED ETEC VACCINE CANDIDATE AGAINST VIRULENT ENTEROTOXIGENIC *ESCHERICHIA COLI* (ETEC) IN A HUMAN ETEC CHALLENGE MODEL

Subhra Chakraborty[1], Clayton Harro[1], Jessica Brubaker[1], Barbara DeNearing[1], Nicole Bauers[2], Len Dally[3], Alan Fix[2], Sachin Mani[2], Louis Bourgeois[2], David Sack[1], Richard Walker[2]
[1]Johns Hopkins University, Baltimore, MD, United States, [2]PATH, Washington, DC, United States, [3]The EMMES Corporation, Rockville, MD, United States

11 a.m.

750

WHEN IS A CONTROL NOT A CONTROL? —ANALYSIS OF DIARRHEA AND ENTERIC INFECTION AMONG CONTROLS IN THE GLOBAL ENTERIC MULTICENTER STUDY, KENYA, 2008-2012

David M. Berendes[1], Ciara E. O'Reilly[2], Sunkyung Kim[2], Richard Omore[3], John B. Ochieng[3], Tracy Ayers[2], Kirsten Fagerli[2], Tamer H. Farag[4], Dilruba Nasrin[5], Sandra Panchalingam[5], James P. Nataro[6], Karen L. Kotloff[5], Myron M. Levine[5], Joseph Oundo[3], Kayla Laserson[7], Robert F. Breiman[8], Eric D. Mintz[2]
[1]Georgia Institute of Technology, Atlanta, GA, United States, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Kenya Medical Research Institute, Center for Global Health Research, Kisumu, Kenya, [4]Center for Vaccine Development, University of Maryland School of Medicine/Institute for Health Metrics and Evaluation, Baltimore, MD, United States, [5]Center for Vaccine Development, University of Maryland School of Medicine, Baltimore, MD, United States, [6]Center for Vaccine Development, University of Maryland School of Medicine/Department of Pediatrics, University of Virginia School of Medicine, Baltimore, MD, United States, [7]KEMRI/Centers for Disease Control and Prevention, CDC India, Kisumu, Kenya, [8]Emory Global Health Institute, Atlanta, GA, United States

11:15 a.m.

751

IMPACT OF MENINGOCOCCAL SEROGROUP A CONJUGATE VACCINE ON MENINGITIS EPIDEMIOLOGY—BURKINA FASO, 2011-2015

Alpha Oumar Diallo[1], Heidi M. Soeters[1], Issaka Yameogo[2], Guetawendé Sawadogo[2], Flavien Aké[3], Xin Wang[1], Lassana Sangaré[4], Rasmata Ouédraogo-Traoré[5], Isaïe Medah[2], Brice Bicaba[2], Ryan T. Novak[1]
[1]U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Direction de la Lutte contre la Maladie, Ministère de la Santé, Ouagadougou, Burkina Faso, [3]Davycas International, Ouagadougou, Burkina Faso, [4]Centre Hospitalier Universitaire Yalgado Ouédraogo, Ouagadougou, Burkina Faso, [5]Centre Hospitalier Universitaire Pédiatrique Charles de Gaulle, Ouagadougou, Burkina Faso

11:30 a.m.

752

BIOMARKERS AND IMMUNE MODULATION IN BURULI ULCER DISEASE

Norman Nausch[1], Daniel Antwi-Berko[2], Yusif Mubarik[2], Kabiru M. Abass[3], Wellington Owusu[2], Ellis Owusu-Dabo[2], Linda B. Debrah[2], Alexander Y. Debrah[4], Marc Jacobsen[1], Richard O. Phillips[5]
[1]University Hospital Dusseldorf, Dusseldorf, Germany, [2]Kumasi Centre for Collaborative Research in Tropical Medicine, Kumasi, Ghana, [3]Agogo Presbyterian Hospital, Agogo, Ghana, [4]Kumasi Centre for Collaborative Research in Tropical Medicine and Faculty of Allied Health Sciences of Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, [5]Kumasi Centre for Collaborative Research in Tropical Medicine and School of Medical Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

11:45 a.m.

753

IMMUNE RESPONSE TO RECOMBINANT PROTEINS OF *M. LEPRAE* POTENTIAL APPLICATION FOR LEPROSY DIAGNOSIS

Pedro H. Marçal[1], Lucia Alves Fraga[2], Tom Ottenhoff[3], Annemieke Geluk[3], Malcon Duthie[4], Henrique Couto Teixeira[5]
[1]Universidade Vale do Rio Doce, Governador Valadares, Brazil, [2]Universidade Federal de Juiz de Fora - Campus GV, Governador Valadares, Brazil, [3]Leiden University Medical Center, Amsterdan, Netherlands, [4]Infectious Disease Research Institute (IDRI), Seatle, WA, United States, [5]Universidade Federal de Juiz de Fora, Juiz de Fora, Brazil

Scientific Session 82

Mosquitoes: Molecular Genetics and Genomics

Convention Center - Room 337/338 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

CHAIR

Yuemei Dong
Johns Hopkins University, Baltimore, MD, United States

Zachary R. Popkin-Hall
Texas A&M University, College Station, TX, United States

10:15 a.m.

754

HERITABLE GENE EDITING BY TARGETED DELIVERY OF CAS9 NUCLEASE TO THE MOSQUITO GERMLINE

Jason L. Rasgon[1], Duverney Chaverra Rodreguez[1], Vanessa M. Macias[1], Grant L. Hughes[2], Yasutsugu Suzuki[3], David R. Peterson[1], Sujit Pujhari[1]
[1]Pennsylvania State University, University Park, PA, United States, [2]University of Texas Medical Branch, Galveston, TX, United States, [3]Institut Pasteur, Paris, France

(ACMCIP Abstract)

10:30 a.m.

755

CRISPR-CAS9 MEDITATED GENE KNOCKOUT OF *PLASMODIUM* AGONISTS IN *ANOPHELES GAMBIAE* ENHANCES MOSQUITOES' RESISTANCE TO THE HUMAN MALARIA PARASITE

Yuemei Dong[1], Maria L. Simões[1], Eric Marois[2], George Dimopoulos[1]
[1]Johns Hopkins School of Public Health, Baltimore, MD, United States, [2]Institut de Biologie Moléculaire et Cellulaire, UPR9022 CNRS, Strasbourg, France

10:45 a.m.

756

DEVELOPING EVOLUTIONARILY STABLE GENE DRIVES IN *ANOPHELES GAMBIAE*

Andrea L. Smidler
Harvard University, Boston, MA, United States

11 a.m.

757

SIRNA PESTICIDES TARGETING MULTIPLE MALARIA VECTOR MOSQUITO SPECIES

Molly Duman Scheel[1], Keshava Mysore[1], Limb Haparai[1], Kathleen Eggleson[1], Longhua Sun[2], Elizabeth Harper[1], Yingying Chen[2], Na Wei[2], David W. Severson[2]
[1]Indiana University School of Medicine, South Bend, IN, United States, [2]University of Notre Dame, Notre Dame, IN, United States

11:15 a.m.

758

CYTOGENETIC MECHANISMS OF HYBRID MALE STERILITY IN THE *ANOPHELES GAMBIAE* COMPLEX

Jiangtao Liang, Michael Hodge, Igor V. Sharakhov
Virginia Tech, Blacksburg, VA, United States

11:30 a.m.

759

CHEMOSENSORY GENE EXPRESSION IN THE PROBOSCIS OF *ANOPHELES GAMBIAE* S.L. MOSQUITOES WITH VARYING HOST PREFERENCE

Zachary R. Popkin-Hall[1], Luciano V. Cosme[2], Giridhar Athrey[1], Michel A. Slotman[1]
[1]Texas A&M University, College Station, TX, United States, [2]Yale University, New Haven, CT, United States

11:45 a.m.

760

GENETIC ARCHITECTURE OF *WOLBACHIA*-MEDIATED DENGUE VIRUS BLOCKING IN *AEDES AEGYPTI*

Gerard Terradas[1], Scott L. Allen[2], Stephen F. Chenoweth[2], **Elizabeth A. McGraw**[1]
[1]Monash University, Clayton, Vic, Australia, [2]The University of Queensland, Brisbane, Qld, Australia

Scientific Session 83

Filariasis: Clinical

Convention Center - Room 339/340 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

CHAIR

LeAnne M. Fox
Centers for Disease Control and Prevention, Atlanta, GA, United States

Elise O'Connell
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

10:15 a.m.

761

ABBV-4083: A CLINICAL CANDIDATE FOR THE TREATMENT OF ONCHOCERCIASIS - EFFICACY IN THE *L. SIGMODONTIS* RODENT MODEL

Dominique Bloemker[1], Marc P. Hübner[1], Ivan Scandale[2], Tom von Geldern[3], Kennan Marsh[3], Mark J. Taylor[4], Dale Kempf[3], Achim Hoerauf[1]
[1]University Hospital Bonn, Bonn, Germany, [2]Drugs for Neglected Diseases initiative, Geneva, Switzerland, [3]AbbVie, North Chicago, IL, United States, [4]Liverpool School of Tropical Medicine, Liverpool, United Kingdom

10:30 a.m.

762

DETERMINING THE OPTIMAL DOSE OF MOXIDECTIN FOR ONCHOCERCIASIS VIA PHARMACOKINETIC-PHARMACODYNAMIC (PK-PD) MODELLING OF DATA FROM HEALTHY VOLUNTEERS AND PATIENTS WITH ONCHOCERCIASIS

Kris Jamsen[1], Carl Kirkpatrick[2], Nicholas O. Opoku[3], Simon K. Attah[3], Kwablah Awadzi (Deceased)[3], Annette C. Kuesel[4], Piero Olliaro[4], George Olipoh[3], Victoria Ryg-Cornejo[5], Beesan Tan[6], Mark Sullivan[5], Lawrence Fleckenstein[6], **Craig Rayner**[1]
[1]d3 Medicine LLC – a Certara Company, Parsippany, NJ, United States, [2]Faculty of Pharmacy and Pharmaceutical Sciences, Centre for Medicine Use and Safety, Monash University, Parkville, Australia, [3]Onchocerciasis Chemotherapy Research Centre, Hohoe, Ghana, [4]UNICEF/UNDP/World Bank/World Health Organization Special Programme on Research and Training in Tropical Diseases (TDR), Geneva, Switzerland, [5]Medicines Development for Global Health, Southbank, Australia, [6]University of Iowa, Iowa City, IA, United States

10:45 a.m.

763

A MULTICENTER STUDY OF THE SAFETY OF TRIPLE DRUG MASS DRUG ADMINISTRATION FOR LYMPHATIC FILARIASIS

Gary J. Weil[1], Joshua Bogus[1], Christine Dubray[2], Peter U. Fischer[1], P. Jambulingam[3], Christopher L. King[4], Jean Frantz Lemoine[5], Katiuscia O'Brian[1], Leanne J. Robinson[6], Taniawati Supali[7]
[1]Washington University, St. Louis, MO, United States, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Vector Control and Research Centre, ICMR, Puducherry, India, [4]Case Western Reserve University, Cleveland, OH, United States, [5]Ministry of Public Health and Population, Port-au-Prince, Haiti, [6]Burnet Institute, Melbourne, Australia, [7]Universitas Indonesia, Jakarta, Indonesia

11 a.m.

764

COMMUNITY RANDOMIZED SAFETY TRIAL OF TRIPLE-DRUG MASS DRUG ADMINISTRATION FOR LYMPHATIC FILARIASIS IN PAPUA NEW GUINEA

Livingstone Tavul[1], Samuel Howard[2], Moses Laman[1], Steven Kumai[3], Anna Samuel[1], Bethuel Kotty[1], Lina Lorry[1], Leo Makita[4], Mary Yohogu[4], Lucy John[4], Sibauk Bieb[4], James Wangi[5], Peter Siba[6], Joshua Bogus[7], Katiuscia O'Brian[7], James Kazura[8], Gary J. Weil[7], Daniel Tisch[8], Christopher L. King[8], **Leanne J. Robinson**[9]

[1]PNG Institute of Medical Research, Madang, Papua New Guinea, [2]Case Western Reserve University; PNG Institute of Medical Research, Cleveland, OH, United States, [3]Bogia District Health Administration, Bogia, Papua New Guinea, [4]PNG National Department of Health, Port Moresby, Papua New Guinea, [5]World Health Organisation - PNG, Port Moresby, Papua New Guinea, [6]PNG Institute of Medical Research, Goroka, Papua New Guinea, [7]University of Washington, St. Louis, MO, United States, [8]Case Western Reserve University, Cleveland, OH, United States, [9]Burnet Institute; PNG Institute of Medical Research; Walter & Eliza Hall Institute, Melbourne, Australia

11:15 a.m.

765

IDENTIFICATION OF POTENTIAL CLINICAL CANDIDATES WITH MACROFILARICIDAL EFFICACY FOR THE TREATMENT OF ONCHOCERCIASIS

Natalie Hawryluk[1], Marc Hubner[2], Achim Hoerauf[2], Dominique Blömker Blömker[2], Simon Townson[3], Suzanne Gokool[3], Coralie Martin[4], Nathalya Vallarino-Lhermitte[4], Agnieszka Chojnowsk[5], Tamara Kreiss[5], Monika Prorok[5], John Siekierka[5], Ivan Scandale[6], Stacie Canan[1], Vikram Khetani[7], Joseph Camardo[7]

[1]Celgene Global Health, San Diego, CA, United States, [2]Institute for Medical Microbiology, Immunology and Parasitology, Bonn, Germany, [3]Northwick Park Institute for Medical Research, London, United Kingdom, [4]Biodiversité et Adaptation des Microorganismes Eucaryotes à leur Environnement, Muséum National d'Histoire Naturelle, Paris, France, [5]Sokol Institute of Pharmaceutical Life Sciences, Montclair State University, Montclair, NJ, United States, [6]Drugs for Neglected Diseases initiative, Geneva, Switzerland, [7]Celgene Global Health, Summit, NJ, United States

11:30 a.m.

766

DEVELOPMENT OF *ONCHOCERCA VOLVULUS* IN HUMANIZED NSG MICE

John B. Patton[1], Thomas Nutman[2], Jessica A. Hess[1], April Torigian[1], Sasisekhar Bennuru[2], Sara Lustigman[3], David Abraham[1]

[1]Thomas Jefferson University, Philadelphia, PA, United States, [2]National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, [3]New York Blood Center, New York, NY, United States

11:45 a.m.

767

PRE-CLINICAL USE OF FDA-APPROVED SMALL MOLECULE INHIBITORS AS MACROFILARICIDES IN *ONCHOCERCA VOLVULUS:* A POST-GENOMIC APPROACH

Elise M. O'Connell[1], Fidelis Cho-Nowa[2], Nancy Tricoche[3], Aaron Bell[4], Gargi Pal[3], Sara Lustigman[3], Thomas B. Nutman[1]

[1]National Institutes of Health, Bethesda, MD, United States, [2]Biotechnology Unit, Faculty of Science, University of Buea, Buea, Cameroon, [3]Lindsley F. Kimball Research Institute, New York Blood Center, New York, NY, United States, [4]National Institutes of Health, Lindsley F. Kimball Research Institute, New York Blood Center, New York, NY, United States

(ACMCIP Abstract)

Scientific Session 84

Kinetoplastida: Molecular Biology and Immunology

Convention Center - Room 341/342 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

CHAIR

Hira L. Nakhasi
Food and Drug Administration, Bethesda, MD, United States

10:15 a.m.

768

ALTERATIONS IN THE IL27 PATHWAY ARE CORRELATED WITH THE LOSS OF *TRYPANOSOMA CRUZI*-SPECIFIC T CELLS IN PATIENTS WITH CHRONIC CHAGAS DISEASE

Maria A. Natale[1], Todd Minning[2], Maria G. Alvarez[3], Rodolfo Viotti[3], Graciela Bertocchi[3], Bruno Lococo[3], Maria C. Albareda[1], Rick L. Tarleton[4], Susana A. Laucella[1]

[1]INP Dr. Mario Fatala Chaben, Ciudad Autonoma de Buenos Aires, Argentina, [2]Center for Tropical and Emerging Global Diseases, University of Georgia, Athens, GA, United States, [3]HIGA Eva Peron, San Martin, Argentina, [4]Center for Tropical and Emerging Global Diseases, University of Georgia, Athens, GA, United States

(ACMCIP Abstract)

10:30 a.m.

769

INHIBITORY LIGAND PD-L1 ON MHC CLASS II-EXPRESSING NEUTROPHILS IN HUMAN AND MURINE LEISHMANIASIS

Richard E. Davis[1], Smriti Sharma[2], Yani Chen[1], Shyam Sundar[2], Mary E. Wilson[1]

[1]University of Iowa, Iowa City, IA, United States, [2]Banaras Hindu University, Varanasi, India

(ACMCIP Abstract)

10:45 a.m.

770

TARGETING INHIBITORY RECEPTORS LAG3 AND TIM3 TO ENHANCE ANTI PARASITIC CD4 T CELL RESPONSES IN VISCERAL LEISHMANIASIS

Rajiv Kumar[1], Neetu Singh[1], Bhavana Singh[1], Shashi Bhushan Chauhan[1], Christian Engwerda[2], Shyam Sundar[1]

[1]Banaras Hindu University, Varanasi, India, [2]QIMR Berghofer Medical Research Institute, Brisbane, Australia

(ACMCIP Abstract)

11 a.m.

771

BACTERIAL CO-INFECTION IN MURINE CUTANEOUS LEISHMANIASIS

Tiffany Y. Borbón[1], Gwendolyn Clay[1], Breanna Scorza[1], Alan Sariol[1], Yani Chen[1], Bayan Zhanbolat[1], Fayyaz Sutterwala[2], Mary E. Wilson[1]

[1]University of Iowa, Iowa City, IA, United States, [2]Cedars-Sinai Medical Center, Los Angeles, CA, United States

(ACMCIP Abstract)

11:15 a.m.

772

TRANSCRIPTIONAL SIGNATURES ASSOCIATED WITH CD8+ T-CELLS RESPONSES DURING VISCERAL LEISHMANIASIS

Bhawana Singh[1], Rajiv Kumar[1], Shashi Bhushan Chauhan[1], Christian Engwerda[2], Shyam Sundar[1]
[1]Institute of Medical Sciences, Banaras Hindu University, Varanasi, India, [2]QIMR Berghofer Medical Research Institute, Brisbane, Australia

(ACMCIP Abstract)

11:30 a.m.

773

IMUNIZATION WITH *LEISHMANIA DONOVANI* DOUBLE KNOCK-OUT PARASITES (*LDCEN*$^{-/-}$*MIF*$^{-/-}$) INDUCES LONG TERM MEMORY AND PROTECTION AGAINST VISCERAL LEISHMANIASIS

Jacqueline Araújo Fiuza[1], Sreenivas Gannavaram[2], Soraya Torres Gaze Jangola[1], Érica Alessandra Alves Rocha[1], Letícia Gambogi de Ornellas[1], Carlos Eduardo Calzavara-Silva[1], Andrea Teixeira de Carvalho[3], Hira Nakhasi[2], Rodrigo Correa-Oliveira[1]
[1]Group of Cellular and Molecular Immunology - René Rachou Institute/FIOCRUZ, Brazil, Belo Horizonte, Brazil, [2]Laboratory of Emerging Pathogens, Division of Emerging and Transfusion Transmitted Diseases, Office of Blood Research and Review, Center for Biologics Research and Review, Food and Drug Administration, Silver Spring, MD, United States, [3]Group of Research of Biomarkers - René Rachou Institute/FIOCRUZ, Belo Horizonte, Brazil

(ACMCIP Abstract)

Scientific Session 85

Pneumonia, Respiratory Infections and Tuberculosis

Convention Center - Room 343/344 (Level 300)
Tuesday, November 7, 10:15 a.m. - Noon

CHAIR

Natasha Hochberg
Boston University, Boston, MA, United States

Grant Mackenzie
Medical Research Council Unit, The Gambia, Banjul, Gambia

10:15 a.m.

775

RESPIRATORY VIRUS ASSOCIATED WITH WHEEZING IN EARLY LIFE: A BIRTH COHORT STUDY IN A LOW-INCOME URBAN COMMUNITY IN DHAKA, BANGLADESH

Md. Zakiul Hassan[1], Fahmida Chowdhury[1], Katharine Sturm-Ramirez[2], Kamal Hossain[1], Mejbah Uddin Bhuiyan[3], Mohammed Ziaur Rahman[1], Rashidul Haque[1], Masud Alam[1], Stacey L. Burgess[4], William A. Petri[4], A. Danielle Iuliano[2], Emily S. Gurley[1]
[1]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]The University of Western Australia, Perth, Australia, [4]University of Virginia, Charlottesville, VA, United States

10:30 a.m.

776

SPATIOTEMPORAL DYNAMICS OF COMMON RESPIRATORY VIRUSES CAUSING HOSPITALIZATIONS FOR ACUTE RESPIRATORY INFECTIONS AND PNEUMONIA IN CHILDREN IN NHA TRANG, VIETNAM

Benjamin Althouse[1], Stefan Flasche[2], Le Nhat Minh[3], Vu Dinh Thiem[3], Masahiro Hashizume[3], Koya Ariyoshi[3], Dang Duc Anh[3], Gail L. Rogers[4], Keith P. Klugman[4], Hao Hu[1], Lay-Myint Yoshida[3]
[1]Institute for Disease Modeling, Bellevue, WA, United States, [2]London School of Hygiene & Tropical Medicine, London, United Kingdom, [3]National Institute of Hygiene and Epidemiology, Hanoi, Vietnam, [4]Bill & Melinda Gates Foundation, Seattle, WA, United States

10:45 a.m.

777

VIRAL DETECTION IN SEVERELY MALNOURISHED UNDER-FIVE CHILDREN WITH PNEUMONIA AND ASSOCIATED OUTCOME IN AN URBAN HOSPITAL, BANGLADESH

Fahmida Chowdhury[1], Asm Sayeem Shahid[1], Mustafizur Rahman[1], Pk Bardhan[1], Lubaba Shahrin[1], Katharine Sturm-Ramirez[2], Mohammod Jobayer Chisti[1]
[1]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States

11 a.m.

778

PNEUMONIA ETIOLOGY INVESTIGATING LUNG ASPIRATE SAMPLES USING MULTI-PLEX PCR

Grant Mackenzie[1], Eunice Machuka[1], Philip Hill[2], Brian Greenwood[3]
[1]Medical Research Council Unit, The Gambia, Fajara, Gambia, [2]University of Otago, Dunedin, New Zealand, [3]London School of Hygiene & Tropical Medicine, London, United Kingdom

11:15 a.m.

779

QUANTIFYING THE BURDEN OF LOWER RESPIRATORY INFECTIONS: RESULTS FROM THE GLOBAL BURDEN OF DISEASE STUDY 2016

Chris Troeger, Ibrahim Khalil, Puja Rao, Scott Swartz, Shijun Cao, Simon Hay, Robert Reiner
University of Washington, Seattle, WA, United States

11:30 a.m.

780

HANDHELD POINT-OF-CARE LACTATE MEASUREMENT PREDICTS MORTALITY IN UGANDAN CHILDREN HOSPITALIZED WITH PNEUMONIA

Cary Ma[1], Austin Ericson[1], Sophie Namasopo[2], Robert Opoka[3], Andrea Conroy[4], Michael Hawkes[1]
[1]University of Alberta, Edmonton, AB, Canada, [2]Jinja Regional Referral Hospital, Jinja, Uganda, [3]Makerere University, Kampala, Uganda, [4]Indiana University, Kampala, Uganda

11:45 a.m.

781

CHEST ULTRASOUND VERSUS X-RAY FOR PULMONARY TUBERCULOSIS IN SOUTH AFRICAN CHILDREN

Charlotte C. Heuvelings[1], Sabine Bélard[1], Savvas Andronikou[2], Halvani Moodley[3], Norme Jamieson-Luff[4], Martin P. Grobusch[1], Heather J. Zar[4]
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Exhibit Hall Open and Light Lunch

Convention Center - Swing Hall (Level 100)
Tuesday, November 7, Noon - 1:45 p.m.

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Poster Session B: Presentations and Light Lunch

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DENGUE VIRUS IGG ANTIBODIES AND ITS ASSOCIATION WITH CLIMATE VARIABLES. A COUNTRY-BASED STUDY (MÉXICO)

Mario Rojas-Rusell[1], Irma Y Amaya Larios[2], **Elsa Sarti**[3], José Ramos Castañeda[4], Laura Tirado-Gomez[1], Esteban Puentes Rosas[3], Liliana Castro-Porras[1], Victoria Castro-Borbonio[1], Gustavo Olaiz[5]
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TRENDS IN DENGUE AMONG UNITED STATES TRAVELERS, 2010-2016

Aidsa Rivera, Steve Waterman, Tyler Sharp
Centers for Disease Control and Prevention Dengue Branch, San Juan, Puerto Rico

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ASSOCIATED FACTORS TO DENGUE INFECTION IN SUBJECTS FOLLOWED UP DURING 2.5 YEARS FROM AN ENDEMIC MEXICAN AREA

Ruth A. Martínez-Vega[1], Irma Yvonne Amaya-Larios[2], Fredi A. Díaz-Quijano[3], José Ramos-Castañeda2
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DENGUE IN PREGNANT WOMEN: CHARACTERIZATION OF CASES IN BRAZIL, 2007-2015

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EVALUATION OF DENGUE ANTIBODIES IN SERONEGATIVE SUBJECTS FROM A PHASE III EFFICACY TRIAL DEMONSTRATES A POSITIVE CORRELATION IN GENERATION OF SEROTYPE-SPECIFIC AB WITH INCREASING AGE FOLLOWING VACCINATION

Anthony Byers[1], Alina Munteanu[1], Robert Small[1], Lilibeth Lanza[1], Del Leistritz-Edwards[1], Michael Peredelchuk[1], Matthew Bonaparte[2], Aravinda de Silva[3], Bruno Guy[4], **Janice Moser**[1]
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EVALUATION OF THE EFFECT OF PRE-EXISTING IMMUNITY AGAINST DENGUE ON NEUTRALIZING ANTIBODY RESPONSE INDUCED BY A LIVE ATTENUATED TETRAVALENT DENGUE VACCINE CANDIDATE, KD-382, IN CYNOMOLGUS MONKEYS

Shota Takagi[1], Masaya Yoshimura[1], Kazuhisa Kameyama[1], Yasuhiko Shinmura[1], Kengo Sonoda[1], Yoichiro Kino[1], Sutee Yoksan[2], Takashi Fujii[1]
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SINGLE ADMINISTRATION OF LIVE-ATTENUATED TETRAVALENT DENGUE VACCINE CANDIDATE, KD-382, INDUCED LONG-LASTING (>2 YEARS) NEUTRALIZING ANTIBODY AGAINST ALL FOUR SEROTYPES IN CYNOMOLGUS MONKEYS

Yasuhiko Shinmura[1], Shota Takagi[1], Masaya Yoshimura[1], Kazuhisa Kameyama[1], Kengo Sonoda[1], Yoichiro Kino[1], Sutee Yoksan[2], Takashi Fujii[1]
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EFFECT OF EXPOSURE HISTORY ON DENGUE INFECTION AND DISEASE: A STATISTICAL APPROACH AND ITS APPLICATION TO THE DENGUE COHORT IN NICARAGUA

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GEOSPATIAL ANALYSIS OF DENGUE EMERGENCE IN RURAL AREAS IN THE SOUTHERN PROVINCE OF SRI LANKA: 2012-2013

Charmaine P. Mutucumarana[1], Champica K. Bodinayake[2], Ajith Nagahawatte[2], Vasantha Devasiri[2], Ruvini Kurukulasooriya[2], Thamali Anuradha[2], Aruna Dharshan De Silva[3], Truls Østbye[1], Christopher W. Woods[1], Megan E. Reller[1], L. Gayani Tillekeratne[1], Paul M. Lantos[1]
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SPREAD OF DENGUE 1 AND 2 IN MACHALA, ECUADOR: EVIDENCE OF A DYNAMIC EPIDEMIC GENETICALLY RELATED TO THOSE OF SURROUNDING COUNTRIES OF COLOMBIA, VENEZUELA AND PERU

Irina Maljkovic Berry[1], Anna M. Stewart-Ibarra[2], Wiriya Rutvisuttinunt[1], Efraín Beltrán-Ayala[3], Washington B. Cárdenas[4], Cinthya Cueva[2], Mark Polhemus[2], Sadie J. Ryan[5], Timothy P. Endy[2], Richard G. Jarman[1]
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NEW BIOMARKERS OF LIVER INVOLVEMENT BY DENGUE INFECTION IN ADULT VIETNAMESE PATIENTS

Nguyen Thi Cam Huong[1], Nguyen Phuong Hai[2], Nguyen Van Vinh Chau[3], Pham Thi Le Hoa[4], Mohamed Gomaa Kamel[5], Abdelrahman Tarek Mohammed[6], Kenji Hirayama[7], Nguyen Tien Huy[8]
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BRIDGING EFFICACY OF THE CYD-TDV TETRAVALENT DENGUE VACCINE FROM CHILDREN/ADOLESCENTS TO ADULTS IN HIGH ENDEMIC COUNTRIES BASED ON NEUTRALIZING ANTIBODY RESPONSE

Peter B. Gilbert[1], Ying Huang[1], Michal Juraska[1], Zoe Moodie[1], Youyi Fong[1], Alexander Luedtke[1], Yingying Zhuang[2], Jason Shao[2], Lindsay N. Carpp[1], Nicholas Jackson[3], Laurent Chambonneau[3], Alain Bouckenooghe[4], Betzana Zambrano[5], Carina Frago[4], Sophie Pallardy[3], Fernando Noriega[6]
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ZIKA AND DENGUE VIRUS-SPECIFIC AND CROSS-REACTIVE MEMORY B CELL RESPONSES

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PHASE-III DENGUE VACCINE TRIAL SIMULATIONS QUANTIFY SENSITIVITIES OF VACCINE EFFICACY ESTIMATES TO UNMEASURED HETEROGENEITIES

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DISSECTING THE QUALITY OF NEUTRALIZING ANTIBODY RESPONSES INDUCED BY THE NIH LIVE ATTENUATED TETRAVALENT DENGUE VACCINE TV003

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A SINGLE GLYCOSYLATED AMINO ACID IN DENGUE VIRUS NS1 PROTEIN IS REQUIRED FOR TRIGGERING HUMAN ENDOTHELIAL CELL PERMEABILITY

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BOOSTING EXPLAINS PATTERNS IN RATIOS OF INAPPARENT AND SYMPTOMATIC DENGUE VIRUS INFECTIONS

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CHANGES IN THE FORCE OF INFECTION OF DENGUE FROM 1994 TO 2015 IN A PEDIATRIC DENGUE COHORT STUDY IN NICARAGUA

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THE LIVE ATTENUATED DENGUE VACCINE TV005 IS WELL TOLERATED AND HIGHLY IMMUNOGENIC IN FLAVIVIRUS NAIVE SUBJECTS 50 - 70 YEARS OF AGE

Anna P. Durbin[1], Eve Ostrowski[1], Cecilia Tibery[1], Paltama Grier[1], Denise Adams[1], Noreen A. Hynes[2], Autumn Hentrich[1], Helen Perry[1], Beulah Sabundayo[1], Yolanda Eby[1], Helen He[1], Stephen S. Whitehead[3]
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FLAVIDOT: AN AUTOMATED VIRUS PLAQUE COUNTER FOR MEASUREMENT OF THE SEROLOGICAL NEUTRALIZATION RESPONSE AGAINST ZIKA AND DENGUE VIRUSES

Christian Chávez[1], Leah Katzelnick[1], Ana Coello Escoto[1], Benjamin McElvany[2], Wensheng Luo[3], Henrik Salje[3], Isabel Rodriguez-Barraquer[3], Richard Jarman[4], Sean Diehl[2], Anna Durbin[3], Derek Smith[5], Derek Cummings[1], Stephen Whitehead[6]
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DENGUE SEROTYPE AND DISEASE SEVERITY TRENDS AMONG INFANTS AND YOUNG CHILDREN IN INDIA, 2012-2015: IMPLICATIONS FOR DENGUE VACCINE STUDIES

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BURDEN OF DENGUE IN OUAGADOUGOU, BURKINA FASO

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PERSISTENCE OF A NOVEL DENGUE VIRUS 2 COSMOPOLITAN GENOTYPE LINEAGE THAT EMERGED IN INDONESIA IN 2011, IDENTIFIED IN THE WESTERN AUSTRALIAN TRAVELER COHORT

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DEVELOPMENT OF NOVEL SEROLOGICAL ASSAYS TO DISCRIMINATE BETWEEN DENGUE VIRUS AND ZIKA VIRUS ANTIBODY RESPONSES

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DENGUE PREVALENCE IN A MILITARY VS CIVILIAN POPULATION

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IMMUNOGENICITY AND SAFETY OF TAKEDA'S DENGUE VACCINE CANDIDATE IN CHILDREN AND ADOLESCENTS AGED 2-17 YEARS FROM PANAMA, THE DOMINICAN REPUBLIC AND THE PHILIPPINES: 18-MONTH RESULTS FROM A PHASE 2 RANDOMIZED PLACEBO-CONTROLLED TRIAL

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CIRCULATING DENGUE VIRUS AND CLINICAL CHARACTERISTICS IN PATIENTS WITH ACUTE FEBRILE ILLNESS FROM HUANUCO, PERU

Juana Mercedes del Valle-Mendoza[1], Angela Cornejo Tapia[1], Wilmer Silva-Caso[1], Miguel Angel Aguilar-Luis[1], Carlos Palomares-Reyes[1], Fernando Vásquez-Achaya[1], Pablo Weilg[1], Joselyn Sacramento-Meléndez[2], Beatriz Espejo-Evaristo[2]
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HETEROGENEITY IN EVOLUTIONARY RATES MAY REFLECT ECOLOGICAL AND BIOLOGICAL DIFFERENCES BETWEEN DENGUE GENOTYPES

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Flaviviridae – Other

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CONGENITAL OCULAR PATHOLOGY IN RHESUS MACAQUES INFECTED WITH ZIKA VIRUS *IN UTERO*

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DECREASED TRANSMISSION OF ZIKA VIRUS IN *AEDES AEGYPTI* MOSQUITOES CO-INOCULATED WITH AN INSECT-SPECIFIC FLAVIVIRUS

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ZIKA VIRUS INFECTION AMONG A POPULATION-BASED AMONG A POPULATION BASED COHORT OF PREGNANT WOMEN IN PANAMA CITY, PANAMA, 2016-2017

Juan M. Pascale[1], Arlene Calvo[2], Rosalba Gonzalez[1], Morgan Hess-Holtz[2], Susan Hills[3], Susan Kaydos-Daniels[4], Eduardo Azziz-Baumgartner[5], Nestor Sosa[1]
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PERFORMANCE OF THE CDC TRIOPLEX REAL TIME RT-PCR DURING THE 2016 ZIKA EPIDEMIC IN PUERTO RICO

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EXPERIMENTAL INFECTION OF JAMAICAN FRUIT BATS *(ARTIBEUS JAMAICENSIS)* WITH ZIKA VIRUS

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ANALYSIS OF THE EFFECT OF ZIKA VIRUS INFECTION DURING PREGNANCY ON PLACENTAL DEVELOPMENT AND BIRTH OUTCOMES

Anna Gajewski[1], Raquel Burger-Calderon[2], Liliam Llufrio[1], Matthew Petitt[3], Elsa Videa[1], Guillermina Kuan[4], Douglas Elizondo[1], Juan Carlos Mercado[5], José Victor Zambrana[1], Anna Urbina[1], Jesslie Barrera[1], Carlos Saenz[6], Lenore Pereira[3], Nestor Pavon[7], Angel Balmaseda[5], Eva Harris[2]
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INFLAMMATORY MONOCYTES ARE THE MAIN TARGET OF ZIKA VIRUS INFECTION IN PERIPHERAL BLOOD MONONUCLEAR CELLS FROM PEDIATRIC PATIENTS IN NICARAGUA

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LONGITUDINAL ANALYSIS OF CROSS-NEUTRALIZATION BETWEEN DENGUE AND ZIKA VIRUSES IN TWO PEDIATRIC STUDIES IN NICARAGUA

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A NOVEL ANTIBODY-BASED ASSAY DISCRIMINATES ZIKA VIRUS INFECTION FROM OTHER FLAVIVIRUSES

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PASSIVE TRANSFER OF ZIKA VIRUS-LIKE-PARTICLE-INDUCED IMMUNE SERA TO AG129 MICE PROTECTS AGAINST LETHAL ZIKA VIRUS CHALLENGE

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KNOWLEDGE, PERCEPTIONS AND SOCIOECONOMIC STATUS DRIVING DENGUE PREVENTION PRACTICES IN URBAN COASTAL ECUADOR

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AUSTRALIAN ARBOVIRUSES ASSOCIATED WITH UNDIAGNOSED UNDIFFERENTIATED FEBRILE ILLNESS

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POLICI: AN ONLINE TOOL FOR VISUALIZATION OF POPULATION-LEVEL YELLOW FEVER IMMUNIZATION COVERAGE IN AFRICA

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A COHORT STUDY TO DETERMINE THE INCIDENCE OF ZIKA VIRUS INFECTION AMONG NEWBORNS, SANTOS, BRAZIL, 2016-2017

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PERSISTENCE OF ZIKA VIRUS IN SEMEN OF MEN LIVING IN AN ENDEMIC AREA

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PRIOR INFECTION WITH DENGUE VIRUS SEROTYPE 3 DOES NOT ENHANCE SUBSEQUENT ZIKA VIRUS INFECTION IN RHESUS MACAQUES

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GAPS ON RISK COMMUNICATIONS APPROACH OF NATIONAL ZIKA VIRUS OUTBREAK RESPONSE IN COLOMBIA, BRAZIL, EL SALVADOR, GUATEMALA, HONDURAS AND DOMINICAN REPUBLIC

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DECIPHERING DURABLE NEUTRALIZING ANTIBODY RESPONSES TO ZIKA VIRUS

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ZIKA VIRUS INFECTION OF RHESUS MACAQUES VIA MOSQUITO BITE

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LOW PREVALENCE OF ANTIBODY PERSISTENCE 10 YEARS AFTER HEPATITIS E VIRUS INFECTION AMONG PREGNANT WOMEN IN NORTHERN BANGLADESH

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ARBOVIRUS SURVEILLANCE

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ASSOCIATION BETWEEN SECRETOR STATUS AND NOROVIRUS INFECTIONS IN A BIRTH COHORT IN SOUTH INDIA

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SECRETOR STATUS AND ITS ASSOCIATION WITH THE ROTAVIRUS DIARRHEA AND ANTIBODY RESPONSE IN A BIRTH COHORT FROM SOUTH INDIA

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EFFECT OF AGE AT VACCINATION ON ROTAVIRUS VACCINE EFFECTIVENESS IN BOLIVIAN INFANTS

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ROLE OF MAMMALIAN IMMUNE RESPONSES IN VECTOR-ENHANCED ORBIVIRAL TRANSMISSION

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CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF ONCOLOGICAL PATIENTS INFECTED WITH HUMAN T-CELL LYMPHOTROPIC VIRUS (HTLV-1) AT THE NATIONAL CANCER CENTER OF PERU, 2010-2015

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THE DETECTION OF SPOTTED FEVER GROUP *RICKETTSIA* DNA IN TICKS AND HUMAN SAMPLES FROM PASTORAL COMMUNITIES IN KENYA

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INHIBITION OF B-TRYPTASE BY MOSQUITO SERPINS IS MEDIATED BY DISSOCIATION OF THE ACTIVE TETRAMER

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WANGA IN CELL CULTURE: TOOLS FOR STUDYING ASSOCIATIONS BETWEEN *ANOPHELES* AND *WOLBACHIA*

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THE ADULT *AEDES AEGYPTI* MOSQUITO MIDGUT PERITROPHIC MATRIX PROTEOME

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ELUCIDATING THE ROLE OF LIPOLYTIC PATHWAY IN MOSQUITO REPRODUCTION AND *P. FALCIPARUM* TRANSMISSION

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DISCOVERY OF A NOVEL MOSQUITO JUVENILE HORMONE BINDING PROTEIN ISOLATED FROM THE YELLOW FEVER MOSQUITO, *AEDES AEGYPTI*

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VECTORBASE: DATABASE FOR POPULATION BIOLOGY AND OMICS DATA QUERY, BROWSE AND ANALYSES

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CHOLESTEROL-MODULATED IMMUNE SIGNALLING MEDIATES WOLBACHIA-INDUCED INHIBITION OF O'NYONG NYONG VIRUS IN *ANOPHELES* MOSQUITOES

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NATIONWIDE INSECTICIDE RESISTANCE STATUS AND BITING BEHAVIOR OF MALARIA VECTOR SPECIES IN THE DEMOCRATIC REPUBLIC OF CONGO (DRC) 2013-2016

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INSECTICIDE RESISTANCE STATUS, INTENSITY AND MECHANISMS OF *AN. GAMBIAE* S.L. IN SOUTHERN AND CENTRAL MALI BETWEEN 2014 AND 2016

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INDOOR RESIDUAL SPRAYING WITH FLUDORA FUSION (A CLOTHIANIDIN AND DELTAMETHRIN INSECTICIDE MIXTURE) PROVIDES IMPROVED CONTROL AND LONG RESIDUAL ACTIVITY AGAINST PYRETHROID RESISTANT *ANOPHELES GAMBIAE* SL IN SOUTHERN BENIN

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COMMERCIAL AEROSOLIZED INSECTICIDES CAN SERVE AS A STRONG SELECTION FORCE FOR PYRETHROID-RESISTANCE IN *AEDES AEGYPTI*

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COI BARCODING OF *ANOPHELES COLUZZII* AND INSECTICIDE RESISTANCE MONITORING IN DEMOCRATIC REPUBLIC OF SAO TOME AND PRINCIPE

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MALARIA VECTORS IN ASIA: A COMPOSITE SET OF APPROACHES FOR IMPROVING THEIR CONTROL

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INSECTICIDE-TREATED COW-BAITED TENTS AS A TOOL TO CONTROL OUTDOOR BITING MALARIA VECTORS

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CROSS-RESISTANCE INVOLVING THREE CLASSES OF INSECTICIDES AND TWO MAJOR MALARIA VECTOR SPECIES IMPACTING MALARIA CONTROL IN NCHELENGE, A HIGH MALARIA TRANSMISSION REGION IN NORTHERN ZAMBIA

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PYRETHROID RESISTANCE INTENSITY AND MECHANISMS OF INSECTICIDE RESISTANCE IN THE MALARIA VECTOR *ANOPHELES GAMBIAE* S.L. IN SELECTED DISTRICTS IN NORTHERN GHANA

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LANDSCAPE STRUCTURE AND *ANOPHELES* (DIPTERA: CULICIDAE) COMMUNITIES IN THE URABÁ AND BAJO CAUCA, COLOMBIA

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KNOWLEDGE IS POWER, BY INVESTING IN TRAINING WE ARE SECURING A STRONG AND POWERFUL NATION AND DEVELOPING FUTURE LEADERS

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FUNCTIONAL AND MECHANISTIC CHARACTERIZATION OF *O*-FUCOSYLATION IN MALARIA PARASITES

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(ACMCIP Abstract)

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EXPLOITING MECHANISMS OF GLYCOLYTIC REGULATION IN MALARIA PARASITES

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(ACMCIP Abstract)

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Muneaki Hashimoto, Shohei Yamamura, Masato Tanaka, Hirokazu Sakamoto, Yusuke Ido, Kazuaki Kajimoto, Shouki Yatsushiro, Masatoshi Kataoka
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COMPETENCE IN RDT PERFORMANCE 12 MONTHS POST TRAINING: EVALUATION OF MALARIA TESTING BY CHWS

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MALARIA DIAGNOSTIC TESTING ASSOCIATED WITH SIGNIFICANT INCREASES IN COST OF CARE FOR FAMILIES IN RURAL WESTERN KENYA

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AN OFFLINE VIRTUAL MICROSCOPE-BASED MALARIA MICROSCOPY COURSE TO IMPROVE PERFORMANCE IN THE MICROSCOPIC DIAGNOSIS OF MALARIA

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EFFECTIVENESS OF URINE-BASED RDT AND BLOOD-BASED RDT IN MALARIA DIAGNOSIS

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CONTRIBUTION OF RAPID DIAGNOSIS TEST IN MALARIA CASE MANAGEMENT STRATEGY IN SENEGAL

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A NEW HIGH SENSITIVITY RAPID DIAGNOSTIC TEST FOR *PLASMODIUM FALCIPARUM* DETECTION IN AN ELIMINATION SETTING: INDIVIDUAL DIAGNOSIS OF INFECTION AND MEASUREMENT OF PREVALENCE

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MAXIMIZED DIAGNOSTIC SENSITIVITY REVEALS UNEXPECTED RESERVOIR OF MALARIA INFECTIONS

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ESTABLISHING NATIONAL MALARIA SLIDE BANK: IN ETHIOPIA

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ANTIBIOTIC PRESCRIPTION PRACTICE FOLLOWING INTRODUCTION OF THE MALARIA 'TEST AND TREAT' POLICY IN UGANDA

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ULTRASENSITIVE DETECTION OF HISTIDINE-RICH PROTEIN 2 (HRP2) AS A ROBUST METRIC IN ESTIMATING ACTIVE OR RECENT *PLASMODIUM FALCIPARUM* INFECTION IN HAITI

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IMPROVING QUALITY OF BLOOD SMEAR MALARIA MICROSCOPY THROUGH A DISTRICT-BASED EXTERNAL QUALITY ASSURANCE SCHEME IN UGANDA, 2014-2016

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CLINICAL PERFORMANCE OF A HIGH-SENSITIVITY HISTIDINE-RICH PROTEIN 2 (HRP2)-BASED ELISA FOR DETECTION OF *PLASMODIUM FALCIPARUM* MALARIA

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A RETROSPECTIVE CLINICAL RECORD REVIEW OF MALARIA DIAGNOSES IN HAITI: 2008-2016

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PYRIDO[1,2-*A*]BENZIMIDAZOLES: A NOVEL NON-QUINOLINE β-HAEMATIN INHIBITING ANTIMALARIAL CHEMOTYPE

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BOOSTING IVERMECTIN FOR VECTOR CONTROL: CYTROCHROME-P-450/ABC-TRANSPORTER INHIBITION SYNERGIZES IVERMECTIN AND INCREASES THE MORTALITY OF *ANOPHELES GAMBIAE*

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ANTIMALARIAL THIOTRIAZOLES: DISCOVERY OF A NOVEL PRECLINICAL CANDIDATE WITH CLINICALLY VALIDATED MODE OF ACTION

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DISCOVERY OF NOVEL ANTI-MALARIAL(S) BY HIGH THROUGHPUT SCREENING AND COMBINATORIAL CHEMISTRY

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OPTMIZATION OF POLYMERIC BLENDS-ARTESUNATE-AMODIAQUINE HCL MICROPARTICLES USING DESIGN EXPERT SOFTWARE

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EVALUATION OF THE ANTIOXIDANT POWER AND THE EFFECT OF POTENTIATION AND STUDY OF TOXICITY PARAMETERS OF 2 EXTRACTS OF PLANTS WITH STRONG ANTIMALARIAL ACTIVITY

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MECHANISTIC AND SAR EVALUATION OF HEMOZOIN-INHIBITING COMPOUNDS IDENTIFIED VIA HTS ACTIVE AGAINST *PLASMODIUM FALCIPARUM*

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TRANSLATIONAL PRECLINICAL PLATFORM FOR EVALUATION OF ANTIMALARIAL COMBINATION THERAPY

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MEPICIDES: POTENT INHIBITORS OF ISOPRENOID METABOLISM IN *PLASMODIUM FALCIPARUM*

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SCREENING THE PATHOGEN BOX FOR HITS AGAINST ARTEMISININ-RESISTANT *P. FALCIPARUM* MALARIA

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A PHASE IB STUDY TO INVESTIGATE THE ANTIMALARIAL ACTIVITY OF (+)-SJ000557733 (SJ733) IN INDUCED BLOOD STAGE *PLASMODIUM FALCIPARUM* MALARIA

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TARGETED-REACTIVE CASE DETECTION AT SLEEPING SITES TO INTERRUPT MALARIA TRANSMISSION IN VIETNAM II: REPORTED AND OBSERVED MALARIA PREVENTION, TREATMENT AND RISK BEHAVIORS

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Alphonse Ouedraogo, Amidou Diarra, Désiré Kargougou, Aissata Barry, Nébié Issa Ouédraogo, Alfred Tiono, Sodiomon Bienvenu Sirima
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THE LONG-TERM DURABILITY OF MASS DRUG ADMINISTRATION USING DIHYDROARTEMISININ-PIPERAQUINE AS PART OF A COMPREHENSIVE MALARIA ELIMINATION STRATEGY IN SOUTHERN PROVINCE ZAMBIA

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ASSESSING BIAS AND IMPACT ON DECISION-MAKING FOR MALARIA ELIMINATION WHEN RELYING ON RISK MAPS DERIVED USING CONVENIENCE BASED SAMPLING STRATEGIES IN HAITI

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THE IMPACT OF PRIMAQUINE (PQ) DEPLOYMENT AND INSECTICIDE TREATED UNIFORMS ON *P. VIVAX* INCIDENCE IN A PILOT MALARIA ELIMINATION STUDY IN CAMBODIA

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MOSQUITO DIRECT MEMBRANE FEEDING ASSAY: OVERCOME THE FIELD CONSTRAINTS AND ADAPT THE METHOD FOR THE EVALUATION OF MALARIA TRANSMISSION-BLOCKING INTERVENTIONS

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QUANTITATIVE POINT OF CARE G6PD TESTS FOR RADICAL CURE OF *VIVAX* MALARIA

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TARGETED-REACTIVE CASE DETECTION AT SLEEPING SITES TO INTERRUPT MALARIA TRANSMISSION IN VIETNAM I. RISK BEHAVIORS ASSOCIATED WITH MALARIA CASES SLEEPING IN A FARM OR FOREST

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MALARIA PARASITEMIA AND SEROLOGICAL PREVALENCE IN NEAR-ZERO TRANSMISSION SETTINGS IN SENEGAL

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ZAMBIAN MALARIA RAPID REPORTING SYSTEM: VARIATIONS IN DATA QUALITY ACROSS HEALTH FACILITIES IN SOUTHERN PROVINCE

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MALARIA CONTROL IN MIGRANT LABORERS WORKING IN AGRICULTURAL FARMS IN METEMA REGION, ETHIOPIA: CURRENT PRACTICES, FEASIBILITY AND ACCEPTABILITY OF NEW MALARIA INTERVENTIONS

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DATA USE FOR DECISION-MAKING THROUGH DATA MONITORING POSTERS IN KRIBI CAMEROON

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PREVALENCE OF MALARIA AND ANEMIA AMONG PATIENTS ATTENDING REFERENCE HEALTH CENTER IN NIORO DU SAHEL, MALI, WEST AFRICA

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HAS SEASONAL MALARIA CHEMOPREVENTION DECREASED THE MALARIA BURDEN AMONG CHILDREN UNDER FIVE YEARS IN SENEGAL?

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PREVALENCE OF PARASITEMIA DURING TWO SEASONS IN AN AREA RECEIVING SMC IN NIGER

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GEOGRAPHICAL, TEMPORAL AND SEASONAL TRENDS IN *PLASMODIUM OVALE* AND *PLASMODIUM MALARIAE* INFECTIONS IMPORTED TO THE UK BETWEEN 1987 AND 2015

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A LONGITUDINAL STUDY OVER THREE YEARS LEADS TO THE IDENTIFICATION OF *PLASMODIUM VIVAX* INFECTIONS IN DUFFY BLOOD GROUP NEGATIVE CHILDREN IN BANDIAGARA, MALI

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(ACMCIP Abstract)

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GROWTH TRAJECTORIES OF CHILDREN IN SEASONAL AND PERENNIAL MALARIA TRANSMISSION SETTINGS

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DETERMINANTS OF MALARIA PARASITEMIA AMONG CHILDREN UNDER 5 IN NIGERIA: AN ANALYSIS OF THE DRIVING FORCES THAT INFLUENCE PARASITEMIA

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DISTRIBUTION OF MALARIA BURDEN BY TRANSMISSION STRATUM SENEGAL 2016

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STUDY OF PREGNANCY OUTCOMES IN ASSOCIATION WITH MALARIA AND CO-INFECTION WITHIN MYANMAR'S PUBLIC HEALTH SYSTEM

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THE HIGHLY VARIABLE EPIDEMIOLOGY OF BLACKWATER FEVER

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APPROPRIATENESS OF MALARIA DIAGNOSIS AND TREATMENT OF FEVER EPISODE ACCORDING TO PATIENT HISTORY AND ANTIMALARIAL BLOOD MEASUREMENT

Joanna Gallay[1], Emilie Pothin[1], Dominic Mosha[2], Martin Zuakulu[2], Erick Lutahakana[2], Laurent Decosterd[3], Blaise Genton[4]
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LONGITUDINAL SEROLOGICAL EVALUATION OF MALARIA TRANSMISSION PATTERNS IN BIOKO ISLAND, EQUATORIAL GUINEA

Jackie Cook[1], Joseph Biggs[1], Catherine Mair[1], Dianna Hergott[2], Aveika Akum[3], Lou Herman[1], Julie Niemczura de Carvalho[2], Guillermo Garcia[2], Christopher Schwabe[2], Immo Kleinschmidt[1], Chris J. Drakeley[1]
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TRENDS AND SEASONALITY OF SEVERE MALARIA DEATHS IN RWANDA, 2007-2016

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ASSESSMENT OF THE DYNAMICS OF *PLASMODIUM FALCIPARUM* PARASITEMIA REGARDING THREE ARTEMININ COMBINATION REGIMENS FOR ACUTE UNCOMPLICATED MALARIATREATMENT, BANFORA, BURKINA FASO

Issiaka Soulama, Aboubacar Sam Coulibaly, Jean Moise Kaboré, Maurice San Ouattara, Edith C. Bougouma, Souleymane Sanon, Noélie Henry Béré, Amidou Diarra, Daouda Ouattara, Alphonse Ouédraogo, Amidou Ouédraogo, Benjamin S. Sombié, Issa Nébié Ouédraogo, Alfred B. Tiono, Sodiomon B. Sirima
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THE ECONOMIC BURDEN OF MALARIA CASES IMPORTED FROM HISPANIOLA TO OTHER NON-ENDEMIC COUNTRIES IN THE WESTERN HEMISPHERE (2007- 2013)

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DIVIDE AND CONQUER: PARTITIONING MOSQUITO BITING HETEROGENEITY AND IDENTIFYING MALARIA HOTSPOTS FOR INTERVENTION

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TRACKING MALARIA SLIDE POSITIVITY RATES IN 30 SENTINEL SITES ACROSS GHANA

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PREVALENCE OF ASYMPTOMATIC MALARIA INFECTION AND GLUCOSE-6-PHOSPHATE (G6PD) DEFICIENCY IN A *PLASMODIUM VIVAX*-ENDEMIC SETTING, LAO PDR: IMPLICATIONS FOR SUB-NATIONAL ELIMINATION GOALS

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GLUCOSE-6-PHOSPHATE DEHYDROGENASE (G6PD) DEFICIENCY GENETIC VARIANTS IN MALARIA PATIENTS IN SOUTHWESTERN ETHIOPIA

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HIGH PREVALENCE OF CLINICAL MALARIA IN A POPULATION OF PREGNANT WOMEN LIVING IN LIBREVILLE, GABON

Marie Louise Tshibola Mbuyi[1], Denise Patricia Mawili-Mboumba[1], Tanguy de Dieu Tchantchou[2], Noé Patrick M'bondoukwe[1], Michelle Marrion Ntsame Owono[1], Michelle Marrion Ntsame Owono[1], Marielle Karine Bouyou-Akotet[1]
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PROXIMITY OF HUMAN RESIDENCE TO IRRIGATION DETERMINES MALARIA RISK AT AN IRRIGATED AGRO-ECOSYSTEM IN MALAWI

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EVALUATING THREE YEARS OF A TARGETED IRS CAMPAIGN IN A HIGH TRANSMISSION AREA OF NORTHERN ZAMBIA

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A SITUATIONAL ASSESSMENT OF THE DRIVERS OF MALARIA IN COMMUNITIES ALONG THE ZIMBABWE-MOZAMBIQUE BORDER OF MANICALAND PROVINCE

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THE EFFECT OF DROUGHT ASSOCIATED INDICATORS ON MALARIA IN SOUTHERN ZAMBIA

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OUTBREAK OF MALARIA IN UBON RATCHATHANI, THAILAND (2012-2015)

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DEMOGRAPHIC AND REGIONAL RISK FACTORS FOR MALARIA-ASSOCIATED HOSPITALIZATIONS IN WESTERN AND COASTAL KENYA

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SPATIOTEMPORAL EPIDEMIOLOGY OF MALARIA IN THAILAND 2012-2015

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PROACTIVE COMMUNITY TREATMENT OF CHILDREN UNDER-5: RESULTS OF A PILOT PROJECT IN NORTHERN BENIN

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Malaria - Genetics/Genomics

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A *TLR1* POLYMORPHISM INCREASES THE RISK OF VIVAX MALARIA IN SOUTHERN INDIA

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VARIATION AT THE VAR2CSA LOCUS: RESULTS FROM A CROSS-SECTIONAL STUDY IN DEMOCRATIC REPUBLIC OF CONGO

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WITHIN-VECTOR PARASITE DIVERSITY: INSIGHTS FROM *PLASMODIUM FALCIPARUM* DEEP WHOLE-GENOME SEQUENCING FROM FIELD-CAUGHT MOSQUITOES IN NORTHERN ZAMBIA

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MATCHED PLACENTAL AND PERIPHERAL BLOOD PARASITES ARE GENETICALLY HOMOLOGOUS AT THE *VAR2CSA* ID1-DBL2X LOCUS BY DEEP SEQUENCING

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EVALUATING CROSS-BORDER MALARIA TRANSMISSION BETWEEN ZAMBIA AND THE DEMOCRATIC REPUBLIC OF CONGO: A PARASITE GENETICS APPROACH

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EUPATHDB: POWERFUL DATA-MINING TOOLS FOR EXPLORING THE BIOLOGY OF HOST-PATHOGEN INTERACTIONS

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(ACMCIP Abstract)

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A LARGE-SCALE GENETIC SCREEN OF *PLASMODIUM FALCIPARUM* IDENTIFIES GENOTYPY-PHENOTYPE MUTATIONS AFFECTING TOLERANCE TO FEBRILE TEMPERATURES

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G6PD DEFICIENCY IN CHILDREN IN AN AREA ENDEMIC FOR MALARIA IN BENGO PROVINCE, ANGOLA

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EFFECT OF *P. FALCIPARUM CRT* SINGLE NUCLEOTIDE POLYMORPHISM AND *PLASMEPSIN* 2-3 COPY NUMBER INCREASE ON *EX VIVO* PIPERAQUINE RESISTANCE IN *P. FALCIPARUM* ISOLATES FROM NORTHWESTERN CAMBODIA, 2012-2015

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QUANTIFYING *VAR* GENE EXPRESSION IN UNCOMPLICATED MALARIA INFECTIONS USING WHOLE GENOME SEQUENCE DATA

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(ACMCIP Abstract)

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GENETIC DIVERSITY OF *PLASMODIUM FALCIPARUM* BASED ON *MSP-1* BLOCK2 GENEPOLYMORPHISM ANALYSIS IN ISOLATES FROM TSARATANANA COMMUNE, IFANADINA DISTRICT, SOUTHEAST OF MADAGASCAR

Fanomezantsoa Ralinoro[1], Omega Raobela[1], Tiavina Rakotomanjaka[1], Michel Marolahy[1], Noeline Rasoarialao[1], Brunette Razanadrazanina[1], Tovonahary Rakotomanga[1], Miarimbola Raharizo[2], Arsene Ratsimbasoa[1]
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GENOME-WIDE SCAN OF GENE *LOCI* UNDER POSITIVE SELECTION IN IMPORTED *PLASMODIUM VIVAX* FROM CHINA-MYANMAR BORDER AREA

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(ACMCIP Abstract)

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COMPLEX GENOMIC EVOLUTION OF INSECTICIDE RESISTANCE IN THE MAJOR AFRICAN MALARIA VECTOR *ANOPHELES FUNESTUS*

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STUDY ON MOLECULAR MARKERS ASSOCIATED WITH DIHYDROARTEMISIN-PIPERAQUINE AND OTHER DRUG RESISTANCE IN *PLASMODIUM FALCIPARUM* POPULATION IN BINH PHUOC PROVINCE, VIETNAM 2015-2016

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MALARIA IN HAITI: A GENOMIC APPROACH TO ITS EPIDEMIOLOGY AND BIOLOGY

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(ACMCIP Abstract)

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POPULATION STRUCTURE OF *P. FALCIPARUM* IS DETECTABLE AT SMALL SPATIAL SCALES IN KIHIHI, UGANDA

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Malaria - Immunology

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PATTERNS OF INFLAMMATORY RESPONSES AND PARASITE TOLERANCE VARY WITH MALARIA TRANSMISSION INTENSITY

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(ACMCIP Abstract)

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CHARACTERIZATION OF B CELL SUBSETS OVER THE COURSE OF *PLASMODIUM* YOELII INFECTION AND ROLE OF CD73+ B CELLS IN PROTECTION

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NATURALLY ACQUIRED IMMUNITY TO *P. FALCIPARUM* GAMETOCYTE ANTIGENS

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GLUCOSE AND IRON METABOLISM IN MONOCYTES EXPOSED TO MALARIA

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(ACMCIP Abstract)

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A SINGLE NUCLEOTIDE POLYMORPHISM IN AN AP2 TRANSCRIPTION FACTOR ENCODED IN THE MALARIA CAUSING *PLASMODIUM BERGHEI* ALTERS THE DEVELOPMENT OF HOST IMMUNITY

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LIVER-RESIDENT MEMORY T CELLS CAN BE HARNESSED FOR UNPRECEDENTED PROTECTION AGAINST MALARIA

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IMMUNOBIOLOGY OF THE KUPFFER CELL-SPOROZOITE INTERACTION

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INFLAMMATORY CYTOKINE RESPONSES IN MALARIAL ANAEMIA AMONG MANGALORE RESIDENTS, INDIA

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IDENTIFYING RIFIN AND STEVOR EPITOPES ASSOCIATED WITH MALARIA EXPOSURE USING PEPTIDE AND PROTEIN MICROARRAYS

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UNDERSTANDING THE DECLINE AND REBOUND IN IMMUNITY TO SYMPTOMATIC MALARIA DUE TO INTERVENTION DISRUPTION IN MALARIA TRANSMISSION

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ANTIBODY IN THE SKIN: DO ANTIBODIES HAVE THEIR GREATEST IMPACT AT THE INOCULATION SITE?

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MEMORY IL-4$^+$ CD4 T CELL RESPONSES AS A POTENTIAL SURROGATE OF PROTECTION INDUCED BY *PLASMODIUM FALCIPARUM* RADIATION ATTENUATED SPOROZOITES

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USING MULTI CRITERIA EVALUATION TO IDENTIFY PRIORITY AREA FOR INDOOR RESIDUAL SPRAYING, MADAGASCAR

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ARE PLANTATIONS A HOTSPOT OF MALARIA TRANSMISSION IN CAMBODIA? AN ECOLOGICAL STUDY AND MATHEMATICAL MODEL

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MODELLING THE POTENTIAL OF IVERMECTIN TREATED CATTLE AS A NOVEL MALARIA VECTOR CONTROL TOOL: IMPLICATIONS OF KILLING ZOOPHILIC MOSQUITOES

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ESTIMATING THE MALARIA ATTRIBUTABLE FEVER FRACTION ACCOUNTING FOR PARASITES BEING KILLED BY FEVER AND MEASUREMENT ERROR

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UNDERSTANDING THE MALARIA TRANSMISSION PROCESS IN NEAR-ELIMINATION SETTINGS

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MODELING THE RELATIVE ABUNDANCE OF MAJOR MALARIA *ANOPHELES* SPP. ACROSS GHANA USING A BAYESIAN APPROACH

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PREDICTING NEW YORK CITY COMMUNITIES AT RISK FOR IMPORTED MALARIA: METHODS AND APPLICATIONS

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COSTING MALARIA ELIMINATION IN THE ASIA-PACIFIC

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THE RELATIONSHIP BETWEEN *P. FALCIPARUM* PARASITEMIA FROM MIS DATA AMONG PREGNANT WOMEN AND CHILDREN AND ASSESSING THE USE OF ANC DATA FOR ESTIMATING MALARIA PREVALENCE

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USING MODELED *PLASMODIUM VIVAX* PREVALENCE DATA TO ESTIMATE THE MARKET SIZE FOR *GLUCOSE-6-PHOSPHATE DEHYDROGENASE (G6PD) DEFICIENCY TESTS* TO SUPPORT DECISION-MAKING ON SERVICE DELIVERY MODELS

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A CLUSTER-RANDOMIZED TRIAL TO TARGET SUBSIDIZED ARTEMISININ COMBINATION THERAPY (ACT) IN THE RETAIL SECTOR USING A COMMUNITY-BASED TESTING AND VOUCHER SCHEME

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CONTRIBUTION OF COMMUNITY-BASED HEALTH WORKERS (CBHWS) TO IMPROVING PREVENTION OF MALARIA IN PREGNANCY: PROCESS FOR IMPLEMENTING A FEASIBILITY STUDY

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STRENGTHENING MALARIA SUPPLY CHAINS LEADS TO IMPROVED MALARIA CASE MANAGEMENT

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CLINICAL CONSEQUENCES OF SUBMICROSCOPIC MALARIA PARASITEMIA IN UGANDAN CHILDREN

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IMPROVING QUALITY OF DATA TO ADVANCE MALARIA IN PREGNANCY INDICATOR COVERAGE IN EBONYI STATE, NIGERIA

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ASSESMENT OF BEHAVIOR CHANGE COMMUNICATION (BCC) INTERVENTIONS IN SUPPORT OF MALARIA CONTROL ACTIVITIES CONDUCTED IN BENIN BY PMI'S ARM3 PROJECT

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IMPROVEMENTS IN QUALITY OF MALARIA CASE MANAGEMENT THROUGH COUNTY REFERRAL HOSPITAL MEDICINES AND THERAPEUTICS COMMITTEES IN KENYA: THE MIGORI COUNTY EXPERIENCE

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Damien Georgia[1], Eve Amoussouga[1], Paul Perrin[2], Mohamed Keita[3], Ellenite Zinsou Kpavodé[1], Jacques Saizonou[4], Moussiliou Paraiso[4], Ghislain Sopoh[4], Fortune Dagnon[5], Boniface Denakpo[6]
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USING RAPID TASK ANALYSIS TO STRENGTHEN PRE-SERVICE EDUCATION (PSE) LEARNING AND PERFORMANCE OF CRITICAL MALARIA INTERVENTIONS BY REGISTERED MIDWIVES (RMS) AND MEDICAL LAB TECHNICIANS (MLTS) IN LIBERIA

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UNDERSTANDING THE ENVIRONMENT OF MALARIA-RELATED BEHAVIORS ON BIOKO ISLAND, EQUATORIAL GUINEA

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USE OF CAP380 AS A MARKER FOR *PLASMODIUM FALCIPARUM* OOCYST DEVELOPMENT *IN VIVO* AND *IN VITRO*

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IMPLEMENTING THE GLOBAL TECHNICAL STRATEGY AT THE DISTRICT LEVEL: INDIVIDUAL CAPACITY BUILDING IN MALARIA SURVEILLANCE IN SENEGAL

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CONCORDANCE OF QPCR AND MICROSCOPY FOR ENDPOINT ANALYSIS IN CLINICAL TRIALS OF ANTIMALARIAL DRUGS AND VACCINES

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CAPACITY BUILDING FOR VECTOR BORNE DISEASE CONTROL PROGRAM FOR THE SUB DISTRICT LEVEL SURVEILLANCE AND RAPID RESPONSE TEAM (SRRT) IN KRABI PROVINCE, THAILAND

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LESSONS LEARNED: MALARIA CASE MANAGEMENT TRAINING COMMUNITY IN MADAGASCAR

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ANALYSIS OF LLIN USE IN INFORMAL KORANIC RESIDENTIAL SCHOOLS OF DAROU MOUSTY HEALTH DISTRICT, SENEGAL

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ASSESSMENT OF DATA USE FOR MALARIA PROGRAM DECISION MAKING IN THE DEMOCRATIC REPUBLIC OF THE CONGO

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REPORTED COMMUNITY-LEVEL INDOOR RESIDUAL SPRAY COVERAGE FROM 2-STAGE CLUSTER SURVEYS IN SUB-SAHARAN AFRICA

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PROVIDER ORIENTATION TO MALARIA CASE MANAGEMENT GUIDELINES IN REGIONAL HOSPITALS

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Malaria – Sporozoite Vaccines

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SAFETY, TOLERABILITY, IMMUNOGENICITY AND EFFICACY OF PFSPZ VACCINE VERSUS PFSPZ-CVAC IN EQUATOGUINEAN YOUNG ADULTS

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SAFETY, TOLERABILITY AND IMMUNOGENICITY OF PFSPZ VACCINE IN EQUATOGUINEAN CHILDREN AND OLDER ADULTS

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SAFETY, FEASIBILITY AND TOLERABILITY OF RADIATION ATTENUATED *PLASMODIUM FALCIPARUM* SPOROZOITE (PFSPZ) VACCINE ADMINISTERED BY DIRECT VENOUS INOCULATION TO HEALTHY CHILDREN AND INFANTS 5 MONTHS THROUGH 9 YEARS OF AGE IN WESTERN KENYA

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SAFETY AND TOLERABILITY OF A METABOLICALLY ACTIVE, NON-REPLICATING, WHOLE ORGANISM MALARIA VACCINE IN MALARIA-EXPERIENCED ADULTS IN BURKINA FASO

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PROTECTIVE EFFICACY OF DIRECT VENOUS INOCULATION OF ESCALATING DOSES OF PFSPZ VACCINE AGAINST CHMI BY DIRECT VENOUS INOCULATION OF PFSPZ CHALLENGE IN TANZANIAN ADULTS

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A PHASE 1, BLINDED, RANDOMIZED, DOSE ESCALATION TRIAL OF PFSPZ CHEMOPROPHYLAXIS VACCINATION (PFSPZ-CVAC) ON AN ACCELERATED SCHEDULE IN HEALTHY MALARIA-NAÏVE ADULTS IN THE UNITED STATES

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EXCEPTIONAL TOLERABILITY OF CHLOROQUINE WHEN ADMINISTERED AS CHEMOPROPHYLAXIS WITH ASEPTIC, LIVE, CRYOPRESERVED NON-ATTENUATED WHOLE *PLASMODIUM FALCIPARUM* SPOROZOITES (PFSPZ-CVAC) IN HEALTHY EQUATOGUINEAN YOUNG ADULTS

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TYPHOID FEVER CASE FATALITY RATE IN PATIENTS PRESENTING TO A LABORATORY NETWORK IN DHAKA, BANGLADESH

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A NOVEL MOUSE MODEL OF *CAMPYLOBACTER JEJUNI* ENTEROPATHY AND DIARRHEA

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LONGITUDINAL COHORT STUDY OF ACUTE GASTROENTERITIS AMONG U.S. MILITARY PERSONNEL DEPLOYED TO HONDURAS FROM 2014-2016

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(ACMCIP Abstract)

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PREVALENCE OF ACUTE CHORIOAMNIONITIS AMONG HIV INFECTED AND UNINFECTED PREGNANT UGANDAN WOMEN AND ITS ASSOCIATION WITH ADVERSE BIRTH OUTCOMES

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Clinical Tropical Medicine

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BIOMARKERS OF ENDOTHELIAL AND IMMUNE DYSFUNCTION PREDICT MORTALITY IN FEBRILE OUTPATIENT TANZANIAN ADULTS

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COMMON SCREENING FINDINGS AND EXCLUSION CRITERIA FOR ADULTS WILLING TO ENROLL IN A MALARIA TRANSMISSION BLOCKING VACCINE STUDY IN SOTUBA, MALI

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BURDEN OF COMMON ILLNESSES AND THE PROTECTIVE EFFECT OF BREASTFEEDING IN EARLY CHILDHOOD IN MAL-ED, AN EIGHT-SITE COHORT STUDY

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CHILDHOOD NEURODISABILITY: CHALLENGES FACED BY CHILDREN AND THEIR FAMILIES IN RURAL NEPAL

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A NOVEL PUTATIVE LIPOPROTEIN OF *LEPTOSPIRA INTERROGANS* THAT INTERACTS WITH LAMININ, PLASMINOGEN AND COMPLEMENT COMPONENTS

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ASSESSMENT OF *LEPTOSPIRA INTERROGANS* PROTEINS LIC11711 AND LIC12587 AND THEIR INTERACTIONS WITH EXTRACELLULAR MATRIX AND PLASMA COMPONENTS

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PLASMODIUM FALCIPARUM CONTROLLED HUMAN MALARIA INFECTION IN MALARIA EXPOSED VOLUNTEERS: CAN IT INFORM MALARIA VACCINE TRIALS IN THE FIELD

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CASE REPORT OF SIGNIFICANTLY ABNORMAL LIVER ENZYMES IN HEALTHY VOLUNTEERS ENROLLED IN A MALARIA VACCINE CLINICAL TRIAL: IMPACT OF EMPIRIC ANTIMALARIAL DRUG TREATMENT ON VACCINE SAFETY EVALUATIONS

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THÉ MANAGEMENT OR HYDROCELE UN THÉ HEALTH DISTRICT OF KOLLO

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Helminths - Nematodes - Filariasis (Epidemiology)

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RECENT SUCCESSFUL CROSS-BORDER ONCHOCERCIASIS ELIMINATION ACTIVITIES - OUR EXPERIENCE

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THE SIGNIFICANT SCALE UP AND SUCCESS OF MASS DRUG ADMINISTRATION FOR LYMPHATIC FILARIASIS IN ZAMBIA: ACCELERATING TOWARDS THE ELIMINATION GOAL OF 2020

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THE IMPACT OF SEMI-ANNUAL MASS DRUG ADMINISTRATION FOR MULTI-SPECIES LYMPHATIC FILARIASIS IN INDONESIA: A MODELLING APPROACH

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(ACMCIP Abstract)

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WHERE ARE WE WITH ONCHOCERCIASIS IN MALI AFTER 40 YEARS OF IMPLEMENTATION OF CONTROL ACTIVITIES?

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Helminths - Nematodes - Intestinal Nematodes

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EFFICACY AND SAFETY OF MOXIDECTIN PLUS ALBENDAZOLE, MOXIDECTIN PLUS TRIBENDIMIDINE, AND MOXIDECTIN ALONE VERSUS ALBENDAZOLE PLUS OXANTEL PAMOATE AGAINST *TRICHURIS TRICHIURA* AND CONCOMITANT SOIL-TRANSMITTED HELMINTH INFECTIONS: A RANDOMIZED CONTROLLED TRIAL

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PREVALENCE OF SOIL TRANSMITTED HELMINTHIASIS AND SCHISTOSOMIASIS AMONG SCHOOL GOING CHILDREN IN SELECTED COUNTIES, KENYA, 2013-2015

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CHILD DEVELOPMENT CENTER-BASED SURVEILLANCE AND CONTROL OF SOIL-TRANSMITTED HELMINTH INFECTIONS IN PRESCHOOL-AGE CHILDREN IN SELECTED LOCAL GOVERNMENT UNITS IN THE PHILIPPINES

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CHARACTERISTICS AND OUTCOMES OF STRONGYLOIDIASIS IN SOUTHERN THAILAND

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SYSTEMATIC NON-ADHERENCE TO TREATMENT IN HELMINTH MASS DRUG ADMINISTRATION PROGRAMS: INTERACTIONS WITH DISEASE-SPECIFIC TRANSMISSION DYNAMICS

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SOIL-TRANSMITTED HELMINTHIASIS IS UNDER CONTROL IN SEGOU, SIKASSO, KAYES, MOPTI AND KOULIKORO - FIVE REGIONS IN MALI

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ASSESSING BETWEEN-VILLAGE HETEROGENEITY OF HOOKWORM TRANSMISSION IN A LOW-INTENSITY SETTING

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MULTIPLEX POLYMERASE CHAIN REACTION FOR DETECTION OF HOOKWORMS AND *STRONGYLOIDES STERCORALIS*

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OPERATIONAL CHALLENGES ON THE IMPLEMENTATION OF MASS TEST AND TREAT APPROACH FOR THE ACTIVE SCREENING AND TREATMENT OF HELMINTHS AND PROTOZOA IN PRE-SCHOOL CHILDREN FROM BENGO, ANGOLA

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HIV and Tropical Co-Infection

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ANTIBODY RESPONSES TO *PLASMODIUM FALCIPARUM* ANTIGENS IN HUMAN IMMUNODEFICIENCY VIRUS-INFECTED ADULTS IN BONDO SUB COUNTY HOSPITAL, WESTERN KENYA

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LONGITUDINAL ASSESSMENT OF CD4 RECOVERY AFTER ART INITIATION IN ART-NAÏVE HIV-INFECTED ADULTS IN FOUR AFRICAN COUNTRIES

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EVALUATION OF MALARIA STATUS IN INDIVIDUALS WITH AND WITHOUT HIV INFECTION

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PREVALENCE OF MICROSCOPIC AND SUBMICROSCOPIC MALARIA INFECTION AMONG PATIENTS LIVING WITH HIV INFECTION AND HIV NEGATIVE INDIVIDUALS IN GABON

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CHARACTERIZATION AND IDENTIFICATION OF CYP2B6 POLYMORPHISMS IN A CONGOLESE HIV-1 POSITIVE COHORT NAIVE TO TREATMENT

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RATES OF TUBERCULOSIS DIAGNOSIS AMONG AN HIV-POSITIVE COHORT IN 4 AFRICAN COUNTRIES

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TRENDS IN THE PREVALENCE OF HIV/AIDS IN THE STATE OF MISSISSIPPI: A FIVE YEAR REVIEW

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PROSPECTIVE VALUE OF QUANTIFERON TB GOLD FOR ACTIVE TUBERCULOSIS IN ART NAIVE HIV POSITIVE INDIVIDUALS IN THE AFRICAN COHORT STUDY

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PATTERNS OF HIV STATUS DISCLOSURE TO HOUSEHOLD MEMBERS IN AN AFRICAN COHORT

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POPULATION LEVEL ANALYSES TO EXAMINE COMORBID HIV/AIDS INFECTION IN SUB-SAHARAN AFRICA AND TRANSMISSION OF DRUG RESISTANT MALARIA PARASITES

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CO-INFECTION MALARIA-HELMINTHIASIS IN PREGNANT WOMEN AT THE GENERAL HOSPITAL OF KIMPESE, DEMOCRATIC REPUBLIC OF CONGO

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UNUSUAL MORPHOLOGIES AND REPRODUCTION OF *CRYPTOCOCCUS NEOFORMANS*

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RETROSPECTIVE HOSPITAL REVIEW OF THE INCIDENCE HIV AND SYPHILIS IN HAITI FROM 2008-2016

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Kinetoplastida - Diagnosis and Treatment (Including *Leishmania* and Trypanosomes)

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CHRACTERIZATION OF THE POTENCIAL DIAGNOSTIC OF POLYANTIGNES FOR DETECTING *TRYPANOSOMA CRUZI* IN THE CHRONIC PHASE OF CHAGAS DISEASE

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(ACMCIP Abstract)

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USE OF CHITOSAN MICROPARTICLES TO CAPTURE AND CONCENTRATE *T. CRUZI* DNA IN URINE OF EXPERIMENTALLY INFECTED GUINEA PIGS

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(ACMCIP Abstract)

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ANTI-LEISHMANIAL ACTIVITIES OF SYNTHETIC ENDOPEROXIDES, N-89 AND N-251

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CO-ENCAPSULATED HOST- AND PARASITE-DIRECTED THERAPIES TO TREAT VISCERAL LEISHMANIASIS

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THE STRONG HEARTS PILOT: RESULTS OF A PRIMARY-CARE SCREENING PROGRAM FOR *TRYPANOSOMA CRUZI* IN EAST BOSTON

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HIGH RESOLUTION MELTING ANALYSIS TARGETING HSP70 AS A FAST AND EFFICIENT METHOD FOR THE DISCRIMINATION OF *LEISHMANIA* SPECIES

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(ACMCIP Abstract)

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TISSUE IMPRESSION SMEAR AS A SUPPLEMENTARY DIAGNOSTIC TEST FOR HISTOPATHOLOGY IN CUTANEOUS LEISHMANIASIS

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IDENTIFICATION OF ANTI-*TRYPANOSOMA CRUZI* LEAD COMPOUNDS WITH PUTATIVE IMMUNOMODULATORY ACTIVITY

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CHAGAS DISEASE IN THE GRAN CHACO ECOREGION: FROM SURVEILLANCE AND CONTROL TO DIAGNOSIS AND TREATMENT

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CIRCULATING MIRNAS PROFILE AS POTENTIAL SIGNATURE OF BENZNIDAZOLE TREATMENT TOXICITY IN CHAGAS PATIENTS

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(ACMCIP Abstract)

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THE POTENTIAL IMPACT OF VISCERAL LEISHMANIASIS VACCINES: EXPLORATIONS WITH DIFFERENT DETERMINISTIC AGE-STRUCTURED TRANSMISSION MODELS

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POTENTIATION OF BENZNIDAZOLE EFFECT BY COADMINISTRATION OF REPURPOSED DRUGS ACTING IN THE INVASION OF HOST CELLS BY *TRYPANOSOMA CRUZI*

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BLOOD CLOT BASED QPCR FOR THE DIAGNOSIS OF CHAGAS DISEASE

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(ACMCIP Abstract)

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DIAGNOSIS OF CHAGAS DISEASES BY QPCR IN DIFFERENT SAMPLES FROM NEWBORNS

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(ACMCIP Abstract)

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DIAGNOSING LEISHMANIASIS BY TARGETING THE ARGININE PERMEASE (AAP3) CODING SEQUENCE

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SURROGATE MARKERS OF CURE FOR CHAGAS DISEASE IN CHILDREN TREATED WITH BENZNIDAZOLE DISEASE IN CHILDREN TREATED WITH BENZNIDAZOLE

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Pneumonia, Respiratory Infections and Tuberculosis

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REGIONAL DIFFERENCES OF INFLUENZA LIKE-ILLNESS SYNDROME IN CHILDREN UNDER 5 YEARS, DHS PERU 2010 - 2014

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IMMUNODETECTION OF PYRAZINE-2-CARBOXYLIC ACID

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EFFECT OF CARBOXY TERMINAL MUTATIONS OF RIBOSOMAL PROTEIN S1 OF MYCOBACTERIUM TUBERCULOSIS ON INTERACTION WITH PYRAZINOIC ACID

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HIGH TUBERCULOSIS AND MULTIDRUG RESISTANT TUBERCULOSIS RATES IN A PERUVIAN COHORT

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METHODS OF A STUDY EVALUATING THE IMPACT OF LUNG ULTRASOUND (LUS) ON MANAGEMENT OF PNEUMONIA IN LOW-RESOURCE SETTINGS

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MATERNAL VITAMIN D SUPPLEMENTATION DURING PREGNANCY AND LACTATION TO PREVENT ACUTE RESPIRATORY INFECTIONS IN INFANCY IN DHAKA, BANGLADESH (MDARI TRIAL): A PROSPECTIVE COHORT STUDY NESTED WITHIN A RANDOMIZED CONTROLLED TRIAL DURING PREGNANCY AND LACTATION TO PREVENT RESPIRATORY INFECTIONS IN INFANCY IN BANGLADESH (MDARI TRIAL)

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THE ASSOCIATION OF COUGH FREQUENCY WITH THE MICROBIOLOGICAL DYNAMICS OF TUBERCULOSIS IN PATIENTS WITH ACTIVE PULMONARY TUBERCULOSIS

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WORLD PNEUMONIA DAY 2011-2016: TWITTER CONTENTS AND RETWEETS

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ASSOCIATION BETWEEN SELF-REPORTED SYMPTOMS WITH OBJECTIVE COUGH AND DYNAMIC MYCOBACTERIAL MICROBIOLOGY IN PATIENTS WITH ACTIVE PULMONARY TUBERCULOSIS

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ASIA SURVEILLANCE FOR ACUTE NOVEL RESPIRATORY INFECTIONS

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NON-TREATMENT OF FAST BREATHING PNEUMONIA - THE RETAPP TRIAL

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ACQUISITION OF PROPER TREATMENT FOR EXTENSIVELY DRUG RESISTANT TUBERCULOSIS PATIENTS IN MALI: *WHERE IS THE ISSUE*?

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TUBERCULOSIS RECURRENCE IN POSTPARTUM

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Protozoa - Other Protozoa

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DETERMINATION OF MOLECULAR MECHANISMS BEHIND PARASITE EGRESS IN *CRYPTOSPORIDIUM PARVUM* INFECTION

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VACCINE DEVELOPMENT AGAINST *CRYPTOSPORIDIUM PARVUM* INFECTION USING THE INTERFERON GAMMA RECEPTOR KNOCK-OUT MOUSE MODEL

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(ACMCIP Abstract)

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RESPONSE OF HOST CELLS TO INJECTION WITH EFFECTOR PROTEINS BY *TOXOPLASMA GONDII*

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(ACMCIP Abstract)

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MATHEMATICAL ANALYSIS FOR A MODEL TO CONTROL CHAGAS DISEASE: FIGHTING AN INFECTION WITH AN INFECTION

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EVALUATION OF THREE COMMERCIAL DIAGNOSTIC TESTS FOR *CRYPTOSPORIDIUM* INFECTIONS IN HUMANS

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THE PREVALENCE AND ASSOCIATION WITH DISEASE OF *CRYPTOSPORIDIUM* SPECIES AT URBAN AND RURAL SITES IN BANGLADESH

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HISTOPATHOLOGIC DETECTION OF *TOXOPLASMA GONDII* INFECTION USING A MURINE MODEL UNDER IMMUNOSUPRESSION

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WHAT'S THE COST? PEDIATRIC CRYPTOSPORIDIOSIS IN PERU, BANGLADESH AND KENYA

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COMBINATION EFFICACY OF CLOFAZIMINE AGAINST PIROPMAMOSIS

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GENETIC DIVERSITY OF *BLASTOCYSTIS* SUBTYPES IN PATIENTS WITH CHRONIC URTICARIA

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Trematodes - Schistosomiasis - Epidemiology, Diagnosis and Treatment

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ANTISCHISTOSOMAL ACTIVITY OF PYRIDOBENZIMIDAZOLE DERIVATIVES

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MAGNETIC BEAD-BASED SAMPLE PREPARATION FOR LOW-RESOURCE ENHANCEMENT OF ULTRASENSITIVE LATERAL FLOW ASSAY FOR DETECTION OF *SCHISTOSOMA* BIOMARKER CAA

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THE USE OF GEOGRAPHIC INFORMATION SYSTEM AS A TOOL FOR SCHISTOSOMIASIS SURVEILLANCE IN THE PROVINCE OF DAVAO DEL NORTE, PHILIPPINES

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PREVALENCE OF SCHISTOSOMIASIS AROUN KAINJI AND JEBBA DAMS

Henry A. Okoro-nwanja[1], Ogonna N. Nwankwo[2], Grace I. Nwankwo[3]
[1]World Health Organization, Ibadan, Nigeria, [2]University of Calabar Teaching Hospital, Calabar, Nigeria, [3]Federal Teaching Hospital Abakaliki, Calabar, Nigeria

1266

COINFECTION OF SCHISTOSOMIASIS HAEMATOBIUM AND SEXUALLY TRANSMITTED INFECTIONS IN PREGNANT WOMEN: KISANTU HEALTH ZONE, DEMOCRATIC REPUBLIC OF THE CONGO

Gisele M. Mvumbi[1], Nicole A. Hoff[2], Kamy Musene[3], Adva Gadoth[2], Maxime Masisa[1], Vivian H. Alfonso[2], Emile Okitolonda-Wemakoy[1], Jean-Jacques Muyembe[4], Pamina Gorbach[2], Risa Hoffman[5], Jeffery Klausner[5], Anne W. Rimoin[2]
[1]Kinshasa School of Public Health, Kinshasa, Democratic Republic of the Congo, [2]University of California Los Angeles Fielding School of Public Health, Los Angeles, CA, United States, [3]University of California Los Angeles-DRC Research Program, Kinshasa, Democratic Republic of the Congo, [4]Institut National de Recherche Biomedical, Kinshasa, Democratic Republic of the Congo, [5]University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA, United States

1267

ADDITION OF SNAIL CONTROL TO ACHIEVE DISEASE CONTROL TARGETS FOR SCHISTOSOMIASIS: A COST-EFFECTIVENESS MODELING STUDY

Nathan C. Lo[1], David Gurarie[2], Nara Yoon[2], Jean T. Coulibaly[3], Eran Bendavid[1], Jason R. Andrews[1], Charles H. King[2]
[1]Stanford University School of Medicine, Stanford, CA, United States, [2]Case Western Reserve University, Cleveland, OH, United States, [3]Université Félix Houphouët-Boigny, Centre Suisse de Recherches Scientifiques en Côte d'Ivoire, Swiss Tropical and Public Health Institute, University of Basel, Abidjan, Côte D'Ivoire

1268

ARE WE ON OUR WAY TO ACHIEVING THE 2020 GOALS FOR SCHISTOSOMIASIS MORBIDITY CONTROL USING CURRENT WHO GUIDELINES?

Jaspreet Toor[1], James E. Truscott[1], Ramzi Alsallaq[2], Marleen Werkman[1], Hugo C. Turner[1], David Gurarie[2], James E. Wright[1], Sam H. Farrell[1], Charles H. King[2], Roy M. Anderson[1]
[1]Imperial College London, London, United Kingdom, [2]Case Western Reserve University, Cleveland, OH, United States

1269

CAA AND CCA DETECTION IN SCHISTOSOMIASIS: ASSURED DIAGNOSTIC TOOLS TO BE EMPLOYED WHEN MOVING FROM CONTROL TO ELIMINATION

Govert J. van Dam, Pytsje T. Hoekstra-Mevius, Claudia J. de Dood, Dieuwke Kornelis, Lisette van Lieshout, Paul L. Corstjens
LUMC, Leiden, Netherlands

1270

ASSESSING THE IMPACT OF INTENSIFIED TREATMENT STRATEGIES AGAINST UROGENITAL SCHISTOSOMIASIS IN NIGER

Anna E. Phillips[1], Amina Amadou[2], Amadou Garba[3]
[1]Imperial College, London, United Kingdom, [2]RISEAL Niger, Niamey, Niger, [3]World Health Organization, Geneva, Switzerland

1271

DYNAMIC OF SCHISTOSOMIASIS PREVALENCE FROM 2011 TO 2016 COHORT STUDY IN KALIFABOUGOU MALI

Safiatou N. Doumbo[1], Kadiatou Sidibé[1], Abdrahamane Traoré[1], Jules Sangala[1], Dldier Doumtabe[1], Aissata Ongoiba[1], Tran Tuan[2], Kassoum Kayentao[1], Peter Crompton[2], Boubacar Traoré[1], Ogobara K. Doumbo[1]
[1]Malaria Research and Training Center/ICER/Mali, Bamako, Mali, [2]Immunogenetic Lab, Rockville, WA, United States

1272

PRELIMINARY OBSERVATIONS ON THE FEASIBILITY OF USING A MAGNETIC PROBE FOR ISOLATION OF SCHISTOSOME EGGS FROM URINE

Renata Russo Frasca Candido[1], Robert Charles Woodward[1], Carlos Graeff-Teixeira[2], Malcolm Kenneth Jones[3], Timothy Guy St. Pierre[1]
[1]The University of Western Australia, Crawley, Australia, [2]Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil, [3]The University of Queensland, Brisbane, Australia

1273

SOCIAL DETERMINANTS OF PREVENTIVE CHEMOTHERAPY UPTAKE DURING MASS-DRUG ADMINISTRATION INTERVENTIONS FOR SCHISTOSOMIASIS IN SUB-SAHARAN AFRICA: A SYSTEMATIC REVIEW

Carlos A. Torres-Vitolas, Fiona Fleming, Nadia Ben Meriem, Neerav Dhanani, Elizabeth Hollenberg
Schistosomiasis Control Initiative, Imperial College London, London, United Kingdom

1274

INFLAMMATORY BIOMARKERS ARE RELATED TO CRITICAL PREGNANCY OUTCOMES RELATED TO CRITICAL PREGNANCY OUTCOMES

Ajibola I. Abioye[1], Emily A. McDonald[1], Sangshin Park[1], Jonathan D. Kurtis[2], Hannah Wu[1], Sunthorn Pond-Tor[2], Palmera Baltazar[3], Luz P. Acosta[3], Remigio M. Olveda[3], Veronica Tallo[3], Jennifer F. Friedman[1]
[1]Department of Pediatrics, The Warren Alpert Medical School of Brown University, Providence, RI, United States, [2]Department of Pathology, The Warren Alpert Medical School of Brown University, Providence, RI, United States, [3]Research Institute for Tropical Medicine, Manila, Philippines, Leyte, Philippines

1275

AN EVOLUTION OF PARASITOLOGICAL- AND SEROLOGICAL-BASED METHODS FOR DIAGNOSIS OF INTESTINAL SCHISTOSOMIASIS IN HIGH-LOW ENDEMIC SETTINGS

Hajri Alshehri[1], Michelle C. Stanton[1], Aaron Atuhaire[2], Moses Arinaitwe[2], Aida Wamboko[2], Moses Adriko[2], Narcis B. Kabatereine[2], J. Russell Stothard[1]
[1]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [2]Vector Control Division, Ministry of Health, Kampala, Uganda

1276

EFFICACY AND SAFETY OF PRAZIQUANTEL IN PRESCHOOL-AGED AFRICAN CHILDREN WITH INTESTINAL OR URINARY SCHISTOSOMIASIS - AN INDIVIDUAL-PATIENT DATA META-ANALYSIS

Piero L. Olliaro[1], Michel Vaillant[2], Francisca Mutapi[3], Nicholas Midzi[4], Takafira Muduluza[5], Welcome M. Wami[6], Norman Naush[7], Moussa Sacko[8], Abdoulaye Dabo[9], Mariama S. Lemine[10], Amadou Garba[10]

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1277

PREVALENCE OF S. *MANSONI* INFECTION AND OTHER PARASITIC DISEASES IN PERIPHERAL AREAS OF BARRA MANSA, RIO DE JANEIRO, BRAZIL

Maria Cristina C. Espírito-Santo[1], Pedro Paulo Chieffi[2], Fabiana Martins de Paula[2], Vera Lúcia Pagliusi Castilho[2], Elenice Messias do Nascimento Gonçalves[2], Magali Orban[2], João Renato Rebello Pinho[2], João Renato Rebello Pinho[2], Expedito José de Albuquerque Luna[2], Ronaldo Cesar Borges Gryschek[2]
[1]Centro Universitário de Volta Redonda, UniFOA; Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil, [2]Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil

1278

REVEALING BIOTIC DIVERSITY: HOW DO COMPLEX ENVIRONMENTS OFFER NOVEL WAYS TO CONTROL HUMAN SCHISTOSOMIASIS?

Martina R. Laidemitt[1], Martin W. Mutuku[2], Gerald M. Mkoji[2], Eric S. Loker[1]
[1]University of New Mexico, Albuquerque, NM, United States, [2]Centre for Biotechnology Research and Development, Kenya Medical Research Institute (KEMRI), Nairobi, Kenya

1279

EXAMINING THE IMPACT OF THE SCHISTOSOMIASIS CONTROL INITIATIVE ON PRAZIQUANTEL COVERAGE IN SUB-SAHARAN AFRICAN SCHOOLCHILDREN

Ashley Tseng, Stephen Lee, Grace O'Brien, Natalie Dang
McGill University, Montreal, QC, Canada

1280

MOVING FROM CONTROL TO ELIMINATION OF SCHISTOSOMIASIS IN SUB-SAHARAN AFRICA: TIME TO CHANGE AND ADAPT STRATEGIES

Louis-Albert Tchuem Tchuenté
University of Yaoundé I, Yaoundé, Cameroon

Water, Sanitation, Hygiene and Environmental Health

1281

AN IMPACT EVALUATION OF LARGE-SCALE WATER, SANITATION AND DRAINAGE INFRASTRUCTURE IMPROVEMENTS IN LUSAKA, ZAMBIA: PRELIMINARY FINDINGS IN THE DRAINAGE CATCHMENT AREA

Sydney C. Hubbard[1], Manjunath B. Shankar[1], Bishwa B. Adhikari[1], Warren Malambo[2], Sunkyung Kim[1], Martin I. Meltzer[1], Joan M. Brunkard[1]
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1282

WATER TREATMENT FOR THE REMOVAL OF *SCHISTOSOMA CERCARIAE:* A REVIEW AND IDENTIFICATION OF RESEARCH NEEDS

Laura Braun, Jack E. Grimes, Michael R. Templeton
Imperial College London, London, United Kingdom

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ENVIRONMENTAL PATHOGEN IDENTIFICATION TO CHARACTERIZE SANITATION LEVELS IN LOW AND MIDDLE-INCOME COUNTRIES

Leon Espira, Joseph N. Eisenberg
University of Michigan, Ann Arbor, MI, United States

1284

EFFECTS OF A COMBINED WATER QUALITY, SANITATION, HANDWASHING AND NUTRITIONAL INTERVENTION ON TELOMERE LENGTH AMONG YOUNG CHILDREN IN RURAL BANGLADESH

Audrie Lin[1], Benjamin F. Arnold[1], Andrew N. Mertens[1], Jue Lin[2], Jade Benjamin-Chung[1], Shahjahan Ali[3], Abul K. Shoab[3], Md. Ziaur Rahman[3], Md. Saheen Hossen[3], Palash Mutsuddi[3], Syeda L. Famida[3], Salma Akther[3], Mahbubur Rahman[3], Sarker M. Parvez[3], Leanne Unicomb[3], Firdaus S. Dhabhar[4], Patricia K. Kariger[1], Lia C. Fernald[1], Alan E. Hubbard[1], Christine P. Stewart[5], John M. Colford, Jr.[1], Stephen P. Luby[6]
[1]University of California Berkeley, Berkeley, CA, United States, [2]University of California San Francisco, San Francisco, CA, United States, [3]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [4]University of Miami, Miami, FL, United States, [5]University of California Davis, Davis, CA, United States, [6]Stanford University, Stanford, CA, United States

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ANTIBIOTIC RESISTANT *E.COLI* IN DRINKING WATER SAMPLES FROM RURAL ANDEAN HOUSEHOLDS IN CAJAMARCA, PERU

Stella M. Hartinger[1], Maribel Riveros[1], Gabriela Salmon-Mulanovich[1], Hector Verastegui[1], Nestor Nuño[2], Guido Bendezu[1], Theresa J. Ochoa[1], Daniel Mäusezahl[2]
[1]Universidad Peruana Cayetano Heredia, Lima, Peru, [2]Swiss Tropical and Public Health Institute, Basel, Switzerland

1286

WATER, SANITATION AND HYGIENE EDUCATION IN SCHOOLS TO PREVENT NEGLECTED TROPICAL DISEASES IN ANGOLA: A PROGRAM REVIEW

Vasco Carvalho, Fiona Vincer
The MENTOR Initiative, Crawley, United Kingdom

1287

THE ROLE OF GENDER INEQUITY IN COMMUNITY-LEVEL SOCIAL ORGANIZATION AND REDUCED ENTERIC INFECTION IN RURAL, COASTAL ECUADOR

Sonia T. Hegde[1], James Trostle[2], Joseph Eisenberg[1]
[1]University of Michigan, Ann Arbor, MI, United States, [2]Trinity College, Hartford, CT, United States

1288

THE MODERATING EFFECT OF SOCIAL CAPITAL ON WATER AND SANITATION RELATED ADVERSE PREGNANCY OUTCOMES

Kelly K. Baker, William T. Story, Cody Hansen, Evans Walser-Kuntz, Miriam B. Zimmerman
University of Iowa College of Public Health, Iowa City, IA, United States

1289

SOAP ON A ROPE HALL PASS: A RANDOMIZED CONTROLLED TRIAL OF A DISRUPTIVE CUE TO IMPROVE HANDWASHING BEHAVIOR IN NAMWALA DISTRICT, ZAMBIA

Ilenga Nkhata[1], Christina Wakefield[2], Laurie Markle[1], Rim Abdullah[3], David A. Larsen[3]
[1]Akros, Lusaka, Zambia, [2]The Manoff Group, Washington, DC, United States, [3]Syracuse University, Syracuse, NY, United States

1290

IMPACT OF IMPROVED WATER AND SANITATION PRACTICES ON DIARRHEAL INCIDENCE IN CHILDREN <5 IN A MOUNTAINOUS NORTHEAST PAKISTANI VILLAGE

Aysha Khan[1], Ejaz Hussain[1], Syed Iqbal Azam[2], Farah Bader[1], Lexy Jamison[1], Sahrish Durrani[1], Elizabeth Thomas[1], Julia M. Baker[1], Saba Wasim[2], Wasi Shah[1], Khalil Ahmed[3], Zeba Rasmussen[1]
[1]National Institutes of Health, Bethesda, MD, United States, [2]The Aga Khan University, Karachi, Pakistan, [3]Karakorum International University, Gilgit, Pakistan

1291

A QUALITATIVE ASSESSMENT OF MOTIVATORS AND BARRIERS TO HANDWASHING BEHAVIORS IN AN EMERGENCY SETTING IN NORTH KIVU, DEMOCRATIC REPUBLIC OF CONGO

Lauren S. Blum[1], Anicet Yemweni[2], Victoria Trinies[1], Mimi Kambere[3], Foyeke Tolani[4], Marion O'Reilly[4], Jelena V. Allen[1], Susan T. Cookson[5], Thomas Handzel[5], Pavani K. Ram[6]
[1]Consultant, University at Buffalo, Buffalo, NY, United States, [2]Universtiy of Kinshasa, Kinshasa, Democratic Republic of the Congo, [3]OXFAM, Goma, Democratic Republic of the Congo, [4]OXFAM, Oxford, United Kingdom, [5]Centers for Disease Prevention and Control, Atlanta, GA, United States, [6]University at Buffalo, Buffalo, NY, United States

1292

EVALUATION OF COMMUNITY-DERIVED ECOLOGICAL SANITATION TECHNOLOGY IN THE PERUVIAN AMAZON

Jessica Rothstein, Krista Liguori, Steven J. Chow, Margaret Kosek, Peter J. Winch
Johns Hopkins University, Baltimore, MD, United States

1293

KNOWLEDGE, ATTITUDES AND PRACTICES (KAP) RELATED TO DIARRHEA IN A RURAL CARIBBEAN POPULATION WITH POOR WATER, SANITATION AND HYGIENE CONDITIONS

Maria S. Ruiz-Diaz, Gustavo J. Mora-Garcia, Doris E. Gomez-Camargo
Universidad de Cartagena, Cartagena de Indias, Colombia

CTropMed® Exam Executive Committee Meeting

Hilton - Johnson B (East Building, First Floor)
Tuesday, November 7, 12:15 p.m. - 1:30 p.m.

Late Breaker Abstract Session 87

Late Breakers in Basic Science/Molecular Biology

Convention Center - Room 337/338 (Level 300)
Tuesday, November 7, 12:15 p.m. - 1:30 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 Abstract Schedule booklet in your registration packet for the presentation schedule.

CHAIR

Naomi Forrester
University of Texas Medical Branch, Galveston, TX, United States

Rebekah Kading
Colorado State University, Fort Collins, CO, United States

Mid-Day Session 88

Career Trajectories and Work-Life Balance in Academia, Government and the Private Sector of the Infectious Disease Arena

Convention Center - Room 339/340 (Level 300)
Tuesday, November 7, 12:15 p.m. – 1:30 p.m.

This panel discussion, organized by members of the American Committee on Arthropod-Borne Viruses (ACAV), will convey the unique experience of working on infectious diseases from the perspective of different career tracks and through the lens of eminent leaders in the field. The following points will be addressed: a) How to advance professionally taking these different paths (climbing the ladder); b) What opportunities enable a 'personalized' work-life balance in these settings (workplace climate and flexibility).

CHAIR

A. Desiree LaBeaud
Stanford University, Stanford, CA, United States

Devika Sirohi
Purdue University, West Lafayette, IN, United States

PANELISTS

Anna P. Durbin
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Thomas P. Monath
BioProtection Systems Corp./NewLink Genetics, Inc., Devens, MA, United States

Katey Owen
Bill & Melinda Gates Foundation, Seattle, WA, United States

Ann Powers
Centers for Disease Control and Prevention, Fort Collins, CO, United States

Meet the Professors 89

Meet the Professors B: Enigmatic and Teaching Cases

Convention Center - Room 341/342 (Level 300)
Tuesday, November 7, 12:15 p.m. - 1:30 p.m.

Students and trainees are especially encouraged to attend these interactive sessions, which are open to all meeting attendees. The speakers will present a clinical case of a tropical disease specific to a particular region that they have found a challenge to manage or diagnose. The Professors will discuss how their career has developed as examples for students and trainees.

CHAIR

David R. Boulware
University of Minnesota, Minneapolis, MN, United States

PRESENTER

Michele Barry
Stanford University, Stanford, CA, United States

Poster Session B Viewing

Convention Center - Hall F and G (Level 100)
Tuesday, November 7, 1:45 p.m. - 4 p.m.

Symposium 90

Transmission-Blocking Vaccines: What We Have Achieved So Far

Convention Center - Ballroom I (Level 400)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

Progress toward eradication of malaria requires efficient development of novel transmission-blocking interventions, such as rapidly acting and highly efficacious therapeutics and vaccines. Transmission blocking vaccines (TBVs) induce antibodies that target antigens expressed by the parasite in the mosquito host and can be an integral part of measures for malaria elimination. This symposium aims to discuss recent advances in transmission blocking vaccine development. In this session, scientists involved in developing and testing TBV will describe advances in different methodologies to measure malaria transmission. The session will discuss the latest results of Pfs230D1M-EPA/Alhydrogel and Pfs25M-EPA/Alhydrogel, a transmission blocking vaccine against *Plasmodium falciparum* malaria that was recently performed in Mali. Discussion will cover direct skin feeding assay (DSF) in this study, which has been proposed as a valuable tool for measuring the *in natura* transmission of malaria parasites from human hosts to mosquito vectors across heterogeneous populations. The session will demonstrate the advances of clinical development of a Pfs48/45-based transmission blocking malaria vaccine and discuss immune response to vaccination with the leading TBV candidates Pfs25 and Pfs230. The session will conclude with an explanaion of recent discoveries and design of mosquito based malaria TBVs.

CHAIR

Camila H. Coelho
National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States

1:45 p.m.
CLINICAL DEVELOPMENT OF A PFS48/45-BASED TRANSMISSION-BLOCKING MALARIA VACCINE

Robert Sauerwein
Radboud University Medical Center, Nijmegen, Netherlands

2:05 p.m.
ANAPN1 MOSQUITO-BASED MALARIA TBV, VERSION 2.0: RE-DESIGN AND DELIVERY STRATEGIES

Rhoel David Dinglasan
University of Florida Emerging Pathogens Institute, Gainesville, FL, United States

2:25 p.m.
SAFETY AND IMMUNOGENICITY OF PFS230D1M-EPA/ALHYDROGEL AND PFS25M-EPA/ALHYDROGEL, A TRANSMISSION-BLOCKING VACCINE AGAINST *PLASMODIUM FALCIPARUM* MALARIA, IN ADULTS IN MALI

Issaka Sagara
University of Science, Techniques and Technologies of Bamako (USTTB), Bamako, Mali

2:45 p.m.
ASSESSING HUMORAL RESPONSE TO MALARIA TRANSMISSION-BLOCKING VACCINES

Camila Coelho
National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States

Scientific Session 91

Malaria: Chemotherapy and Drug Resistance - Molecular Biology

Convention Center - Ballroom II (Level 400)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

CHAIR

Allison Demas
Harvard T.H. Chan School of Public Health, Boston, MA, United States

Mariusz Wojnarski
Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand

1:45 p.m. **1294**

A NON-KELCH13 MOLECULAR MARKER OF ARTEMISININ RESISTANCE IDENTIFIED BY *IN VITRO* SELECTION OF RECENTLY-ADAPTED WEST AFRICAN *PLASMODIUM FALCIPARUM* ISOLATES

Allison R. Demas[1], Wesley Wong[1], Angela Early[2], Seth Redmond[2], Selina Bopp[1], Daniel E. Neafsey[2], Sarah K. Volkman[1], Daniel L. Hartl[3], Dyann F. Wirth[1]
[1]Harvard T.H. Chan School of Public Health, Boston, MA, United States, [2]The Broad Institute, Cambridge, MA, United States, [3]Harvard University, Cambridge, MA, United States

(ACMCIP Abstract)

2 p.m. **1295**

PHENOTYPIC CHANGES AND DRUG SENSITIVITY ASSOCIATED WITH AN ATG18 MUTATION IN *PLASMODIUM FALCIPARUM*

Kimberly F. Breglio[1], Richard T. Eastman[1], David Roberts[2], Anna Katharina Simon[2], Craig J. Thomas[1]
[1]National Institutes of Health, Rockville, MD, United States, [2]University of Oxford, Oxford, United Kingdom

(ACMCIP Abstract)

2:15 p.m. **1296**

MULTIPLEX COMPETITIVE GROWTH ASSAYS FOR MEASURING THE BIOLOGICAL IMPACT OF FITNESS IN DRUG-RESISTANT *PLASMODIUM FALCIPARUM*

Manuela Carrasquilla, Oliver Billker, Julian Rayner, Marcus Lee
Wellcome Trust Sanger Institute, Cambridge, United Kingdom

2:30 p.m.

1297

A MALARIA GENETIC CROSS GENERATED IN A HUMANIZED MOUSE INDICATE MULTI-GENE CONTROL OF RESISTANCES TO ARTEMISININ AND PIPERAQUINE

Sage Z. Davis[1], Lisa Checkley[1], Richard S. Pinapati[1], Ashley Vaughan[2], Matthew Fishbaugher[2], Nelly Camargo[2], Marina McDew-White[3], Shalini Nair[3], François H. Nosten[4], Stefan Kappe[2], Ian Cheeseman[3], Timothy JC Anderson[3], Michael T. Ferdig[1]
[1]Eck Institute for Global Health, Department of Biological Sciences, University of Notre Dame, South Bend, IN, United States, [2]Center for Infectious Disease Research, Seattle, WA, United States, [3]Texas Biomedical Research Institute, San Antonio, TX, United States, [4]Shoklo Malaria Research Unit, Mahidol-Oxford Tropical Medicine Research Unit, Mahidol, Mahidol, Thailand

(ACMCIP Abstract)

2:45 p.m.

1298

ISOLATION OF PIPERAQUINE RESISTANT RODENT MALARIA PARASITE FROM MUTATOR MALARIA

Makoto Hirai, Mie Ikeda, Shin-Ichiro Tachibana, Toshihiro Mita
Juntendo University, Bunkyo-ku, Japan

3 p.m.

1299

CURRENT STATE OF MALARONE RESISTANCE IN CAMBODIA AND ITS IMPLICATIONS ON THE TREATMENT OF *PLASMODIUM FALCIPARUM* IN SOUTHEAST ASIA

Mariusz Wojnarski[1], Panita Gosi[1], Andreea Waltmann[2], Jessica Lin[2], Catherine Berjohn[3], Michele Spring[1], Suwanna Chaorattanakawee[1], Nonlawat Boonyalai[1], Pattaraporn Vanachayangkul[1], Dustin Harrison[3], Somethy Sok[4], Mali Ittiverakul[1], Nillawan Buathong[1], Soklyda Chann[5], Worachet Kuntawunginn[1], Vireak Heang[3], Nareth Kong[6], Bolin Chum[3], Agus Ratchmat[3], Andrew Vaughn[3], Satharath Prom[4], Dysoley Lek[6], Philip Smith[1], Mark Fukuda[1], David Saunders[1], Chanthap Lon[1]
[1]Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, [2]Division of Infectious Diseases, University of North Carolina, Chapel Hill, NC, United States, [3]Naval Medical Research Unit-2, Phnom Penh, Cambodia, [4]Ministry of National Defense, Department of Health, Phnom Penh, Cambodia, [5]Armed Forces Research Institute of Medical Sciences, Phnom Penh, Cambodia, [6]National Center for Parasitology, Entomology and Malaria Control, Phnom Penh, Cambodia

3:15 p.m.

1300

TRANSCRIPTIONAL RESPONSE OF *P. VIVAX* PARASITES TO CHLOROQUINE *IN VIVO*

Adam Kim[1], Jean Popovici[2], Didier Menard[2], David Serre[1]
[1]University of Maryland, Baltimore, MD, United States, [2]Institut Pasteur in Cambodia, Phnom Penh, Cambodia

(ACMCIP Abstract)

Scientific Session 92

Malaria: Defining Strategies and Challenges for Optimal Use of Malaria Diagnostics

Convention Center - Ballroom III (Level 400)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

CHAIR

Johanna P. Daily
Albert Einstein College of Medicine, Bronx, NY, United States

Lauren Cohee
Institute for Global Health, University of Maryland, Baltimore, MD, United States

1:45 p.m.

1301

ESTIMATING HEALTH IMPACT OF RAPID DIAGNOSTIC TESTS FOR MALARIA

Elina Pradhan, Jessica Cohen, Joshua Salomon
Harvard T.H. Chan School of Public Health, Boston, MA, United States

2 p.m.

1302

EVIDENCE OF CHANGING CASE MANAGEMENT BEHAVIOURS FOLLOWING AN INTERVENTION TO INTRODUCE MALARIA RAPID DIAGNOSTIC TESTS TO PRIVATE PHARMACIES IN KINSHASA

Marcel Lama[1], Willy Onema[1], Robi Okara[2], Katie MacDonald[1], Nikki Charman[2], Stephen Poyer[2]
[1]Population Services International/ASF, Kinshasa, Democratic Republic of the Congo, [2]Population Services International, Nairobi, Kenya

2:15 p.m.

1303

IMPACT OF A MALARIA RAPID DIAGNOSTIC TEST DETECTING *PLASMODIUM FALCIPARUM*-SPECIFIC HISTIDINE-RICH PROTEIN-2 (RDT-*PF*HRP2) ON THE MANAGEMENT OF FEBRILE CHILDREN UNDER-5 YEARS OF AGE IN A HIGH SEASONAI MALARIA TRANSMISSION AREA

Francois Kiemde[1], **Petra Mens**[2], Achille Bonko[1], Marc Tahita[1], Palpiguine Lompo[1], Halidou Tinto[1], Michael Boele van Hensbroek[2], Henk Schallig[2]
[1]Institut de Recherche en Science de la Sante-Unite de Recherche Clinique de Nanoro, Nanoro, Burkina Faso, [2]Academic Medical Centre, Amsterdam, Netherlands

2:30 p.m.

1304

ASSESSING THE FIELD SENSITIVITY OF MALARIA ANTIGEN DETECTION TESTS USING AN ULTRA-SENSITIVE BEAD-BASED ASSAY

Mateusz Plucinski[1], Eric Rogier[1], Pedro R. Dimbu[2], Filomeno Fortes[2], Eric S. Halsey[1], Michael Aidoo[1]
[1]Centers for Disease Control and Prevention Malaria Branch, Atlanta, GA, United States, [2]National Malaria Control Program, Luanda, Angola

2:45 p.m.

1305

PREVALENCE AND OUTCOMES OF *P. FALCIPARUM* INFECTIONS DETECTED ONLY BY ULTRA-SENSITIVE PCR IN SCHOOL CHILDREN IN SOUTHERN MALAWI

Anna Opoku-Agyeman[1], Gillian Mbambo[2], Sudhanshu Joshi[2], Matthew Adams[2], Jenna E. Coalson[3], Mark L. Wilson[3], Terrie E. Taylor[4], Don P. Mathanga[5], Miriam K. Laufer[2], Lauren M. Cohee[2]
[1]University of Maryland Baltimore County, Baltimore, MD, United States, [2]Division of Malaria Research, Institute for Global Health, University of Maryland School of Medicine, Baltimore, MD, United States, [3]Department of Epidemiology, University of Michigan School of Public Health, Ann Arbor, MI, United States, [4]Department of Osteopathic Medical Specialties, College of Osteopathic Medicine, Michigan State University, East Lansing, MI, United States, [5]Malaria Alert Center, University of Malawi College of Medicine, Blantyre, Malawi

3 p.m.

1306

SENSITIVITY COMPARISONS AMONG MOLECULAR DIAGNOSTIC TOOLS FOR MALARIA DIAGNOSIS REQUIRED FOR MALARIA ELIMINATION IN MADAGASCAR

Stéphanie Ramboarina[1], Fidiarivelo Rabearifeno[2], Fanomezansoa Ralinoro[1], Lovanirina Andrianjafy[1], Melinda Zikursh[3], Brunette Razanadrazina[1], Thierry Franchard[1], Sedera Mioramalala[1], Peter A. Zimmerman[3], Arsene Ratsimbasoa[1]
[1]National Malaria Control Program, Androhibe, Antananarivo, Madagascar, [2]Faculty of Sciences, University of Ankatso, Antananarivo, Madagascar, [3]Case Western Reserve University, Cleveland, OH, United States

3:15 p.m.

1307

REAL-TIME DETECTION OF DEFECTIVE MRDTS IN THE FIELD: THE APPLICATION OF A SURVEILLANCE-RESPONSE SYSTEM FOR POST-MARKET SURVEILLANCE OF DIAGNOSTICS

Santiago Ferro[1], Patrick Adah[2], Orode Doherty[2], Kayla Seadon[1], Ernest Yeung[1], **Nora Zwingerman**[3]
[1]Fio Corporation, Toronto, ON, Canada, [2]Africare, Lagos, Nigeria, [3]University of Toronto, Toronto, ON, Canada

Symposium 93

Movement of Tropical Diseases in Highly-Connected World

Convention Center - Ballroom IV (Level 400)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

Numbers of travelers are increasing year by year. In 2016 alone, more than 1.2 billion people traveled internationally. They could be exposed to various local pathogens during their trip depending on the places, activities and risk behaviors of the person. Some of them develop the diseases after leaving the area and therefore might be seen by physicians are not familiar with local diseases. For example, physicians in Europe or in the U.S. might see returned travelers who have acquired malaria, dengue, scrub typhus, melioidosis, schistosomiasis or other tropical disease during travel. On the other hand, physicians in Asia might see western travelers who have acquired lyme disease in Europe and develop classic skin lesions while they travel in Asia. Clinical approaches to derive at a correct diagnosis or management of these cases are always challenging. It requires clinical skills, epidemiological knowledge and good laboratory support. A manifestation may render many differential diagnoses depending on epidemiological background and underlying conditions. On the other hand, unexpected or unusual presentations may lure doctors away from common diseases. Physicians tend to manage the patients based on their own experiences with diseases occurring locally. Sharing knowledge with experts from various parts of the world will broaden the perspective on clinical approach, management, prevention and control. This symposium will provide insight into real clinical cases. Several cases from different parts of the world will be demonstrated. Some cases will be presented with the unusual manifestations of common tropical diseases. The others will be uncommon cases clinically imitating common diseases. The audience will be challenged and stimulated with various kinds of clinical dilemmas needing both didactic knowledge and pragmatic approach throughout the session.

CHAIR
Watcharapong Piyaphanee
Mahidol University, Bangkok, Thailand

1:45 p.m.
CLINICAL CASE PRESENTATION/DISCUSSION: MOVEMENT OF TROPICAL DISEASES IN HIGHLY-CONNECTED WORLD
Yupaporn Wattanagoon
Mahidol University, Bangkok, Thailand

2:05 p.m.
CLINICAL CASE PRESENTATION/DISCUSSION: MOVEMENT OF TROPICAL DISEASES IN HIGHLY-CONNECTED WORLD
Wirongrong Chierakul
Mahidol University, Bangkok, Thailand

2:25 p.m.
CLINICAL CASE PRESENTATION/DISCUSSION: MOVEMENT OF TROPICAL DISEASES IN HIGHLY-CONNECTED WORLD
William M. Stauffer
University of Minnesota, Minneapolis, MN, United States

2:45 p.m.
CLINICAL CASE PRESENTATION/DISCUSSION: MOVEMENT OF TROPICAL DISEASES IN HIGHLY-CONNECTED WORLD
Andreas Neumayr
Swiss Tropical and Public Health Institute, Basel, Switzerland

Scientific Session 94

West Nile and Other Viruses

Convention Center - Room 318/319/320 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

CHAIR
Kathryn Hanley
New Mexico State University, Las Cruces, NM, United States
Jonathan B. Parr
University of North Carolina, Chapel Hill, NC, United States

1:45 p.m.

1308

Presentation by Burroughs Wellcome Fund–ASTMH Fellowship Recipient

DRIED BLOOD SPOTS ALLOW FOR EFFICIENT, LARGE SCALE SURVEYS OF HEPATITIS C VIREMIA

Jonathan B. Parr[1], Evans Lodge[1], Vera Holzmayer[2], Jacques Pepin[3], Eric H. Frost[3], Michael W. Fried[1], David R. McGivern[1], Stanley M. Lemon[1], Corinna Keeler[1], Michael Emch[1], Kashamuka Mwandagalirwa[1], Antoinette Tshefu[4], Franck Fwamba[5], Jeremie Muwonga[5], Steven R. Meshnick[1], Gavin Cloherty[2]
[1]University of North Carolina, Chapel Hill, NC, United States, [2]Abbott Laboratories, Abbott Park, IL, United States, [3]University of Sherbrooke, Sherbrooke, QC, Canada, [4]Kinshasa School of Public Health, Kinshasa, Democratic Republic of the Congo, [5]Programme National de Lutte contre le SIDA et les IST, Kinshasa, Democratic Republic of the Congo

2 p.m.

1309

A NOVEL ROLE OF SCHLAFEN4 IN WEST NILE VIRUS REPLICATION AND PATHOGENESIS

Francine Azouz, Keeton Krause, Lauren Ching, Vivek Nerurkar, Mukesh Kumar
University of Hawaii at Manoa, Honolulu, HI, United States

2:15 p.m.

1310

A CROSS-SECTIONAL STUDY OF NEUROCOGNITIVE OUTCOMES POST-WEST NILE VIRUS INFECTION

Shannon E. Ronca[1], Melissa N. Garcia[1], Sushmita Datta[2], Koushik Govindarajan[2], Ponnada Narayana[2], Lucrecia Salazar[2], Steven P. Woods[3], Rodrigo Hasbun[2], Kristy O. Murray[1]
[1]Baylor College of Medicine, Houston, TX, United States, [2]UTHealth, Houston, TX, United States, [3]The University of Houston, Houston, TX, United States

2:30 p.m.

1311

EVOLUTION OF STRUCTURAL VARIATION IN THE UNTRANSLATED REGIONS OF THE WEST NILE VIRUS GENOME

Stacey L. Scroggs[1], Johnny A. Sena[2], Anitha Sundararajan[2], Faye D. Schilkey[2], Gregory D. Ebel[3], Kathryn A. Hanley[1]
[1]New Mexico State University, Las Cruces, NM, United States, [2]National Center for Genome Resources, Santa Fe, NM, United States, [3]Colorado State University, Fort Collins, CO, United States

2:45 p.m.

1312

THE IMPACT OF INTRODUCTION OF JAPANESE ENCEPHALITIS VACCINE IN INDIA - THE SUCCESS STORY

Pradeep Haldar[1], Shalini Khare[2], Padmalochan Biswal[2]
[1]Government of India, New Delhi, India, [2]PATH, New Delhi, India

3 p.m.

1313

IMPAIRING THE INFECTION PROCESS OF YELLOW FEVER VIRUS IN *AEDES AEGYPTI* BY MANIPULATING THE MOLECULAR HINGE REGION OF THE ENVELOPE PROTEIN

Yan-Jang S. Huang[1], John T. Nuckols[2], Amy C. Lyons[1], So Lee Park[1], Alan D. Barrett[3], Stephen Higgs[1], Dana L. Vanlandingham[1]
[1]Kansas State University, Manhattan, KS, United States, [2]Walter Reed Army Institute of Research, Silver Spring, MD, United States, [3]University of Texas Medical Branch, Galveston, TX, United States

3:15 p.m.

1314

A PAN-VIRAL CAPTURE SEQUENCING APPROACH TO ELUCIDATE THE VIROME OF ACUTE FEVER AND ENHANCE VIRAL SURVEILLANCE IN WEST AFRICA

Katherine J. Siddle[1], Hayden Metsky[2], Simon Ye[2], Mouhamad Sy[3], Patrick Brehio[4], Adrianne Gladden-Young[4], James Qu[4], Christopher Tomkins-Tinch[4], Daniel Park[4], Christian Happi[5], Daouda Ndiaye[3], Christian B. Matranga[4], Pardis C. Sabeti[1]
[1]Harvard University, Cambridge, MA, United States, [2]Massachusetts Institute of Technology, Cambridge, MA, United States, [3]Universite Cheikh Anta Diop, Dakar, Senegal, [4]The Broad Institute, Cambridge, MA, United States, [5]Redeemer's University, Osun State, Nigeria

Symposium 95

Accelerating Research Toward the Control of Cryptosporidium

Convention Center - Room 321/322/323 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

Cryptosporidium has long been recognized as an agent of diarrheal illness in young children and the immunocompromised (e.g., those with AIDS). However, Global Enteric Multicenter Study (GEMS) brought widespread international recognition to the fact that Cryptosporidium is a major diarrheal pathogen that stunts linear growth and increases risk for a fatal outcome. Of the two main species associated with diarrheal disease in mammals, >75% of the human pediatric diarrheal infections attributed to Cryptosporidium are due to *C. hominis*, which is human host-restricted in nature. Based on the acceptance of the enormous human epidemiologic disease burden attributed to *C. hominis*, there have been calls for accelerated programs to develop therapeutic drugs to treat and vaccines to prevent *C. hominis*. However, there are daunting obstacles on the path to developing drugs and vaccines against *C. hominis.* Principal among these is the inability to culture this parasite *in vitro*, which, were it possible, would facilitate high-throughput screening of potential drugs. The only mammalian model other than human volunteers that results in infection and diarrhea following oral challenge with *C. hominis* is gnotobiotic piglets. Since physiologically relevant animal models of diarrheal infection with human Cryptosporidium strains are limited, the use of closely monitored human experimental challenge studies (human volunteer challenges) are in development. A pivotal experimental challenge study with *C. hominis* in adult volunteers is planned to test the hypothesis that an initial episode of diarrheal illness with ingestion of *C. hominis* oocysts may confer some level of protection against diarrhea following a repeat challenge with the same *C. hominis* strain. Nonetheless, the ability to initiate human challenge studies is precluded by the availability of *C. hominis* oocysts which are regulated by the U.S. FDA. The process of generating challenge oocysts according to current regulatory standards has been a daunting obstacle. This symposium will discuss the epidemiological data substantiating the global burden of diarrheal disease due to Cryptosporidium. Second, the session will describe the current status of *in vitro* methods in use for identifying potential therapeutics against Cryptosporidium. Third, the symposium will present the use of the gnotobiotic piglet model for the development of drugs and vaccines against Cryptosporidium. The symposium will feature a report on the status of development of the human volunteer challenge model for Cryptosporidium. The session will conclude with a discussion of the regulatory obstacles that have been encountered in the development of the human volunteer challenge model.

CHAIR
Wilbur H. Chen
University of Maryland School of Medicine, Baltimore, MD, United States

1:45 p.m.
THE BURDEN OF CRYPTOSPORIDIUM DIARRHEAL DISEASE AMONG CHILDREN <24 MONTHS OF AGE

Khitam Muhsen
Tel Aviv University, Tel Aviv, Israel

2 p.m.
IN VITRO SCREENING FOR DRUGS AGAINST CRYPTOSPORIDIUM

Christopher D. Huston
University of Vermont College of Medicine, Burlington, VT, United States

2:15 p.m.
UNDERSTANDING CRYPTOSPORIDIUM THROUGH THE USE OF THE GNOTOBIOTIC PIGLET MODEL

Saul Tzipori
Tufts University, Cummings School of Veterinary Medicine, North Grafton, MA, United States

2:30 p.m.
THE DEVELOPMENT OF A HUMAN VOLUNTEER CHALLENGE MODEL FOR *C. HOMINIS*

Wilbur Chen
University of Maryland School of Medicine, Baltimore, MD, United States

2:45 p.m.
REGULATORY AND FEASIBILITY OBSTACLES IN ESTABLISHING *C. HOMINIS* OOCYSTS FOR CHALLENGE
Gerald Quinnan, Jr.
Emmes Corporation, Rockville, MD, United States

Symposium 96

Safely Feeding the Planet: A Look to the Future

Convention Center - Room 324/325/326 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

Every year, one in ten people falls ill after eating contaminated food, and nearly half a million die. Foodborne illness also impedes global development by injuring children, straining health care systems and harming economies, tourism and trade. Last but not least, food safety, nutrition and food security are inextricably linked. In this symposium, a diverse panel will explore "big-picture" themes in global food-borne disease, safety and supply chains, as well as new initiatives and challenges facing the global food system, a multi-trillion dollar enterprise that affects nearly everyone on the planet.

CHAIR
Claire Panosian Dunavan
University of California Los Angeles School of Medicine, Los Angeles, CA, United States

Stephen Luby
Stanford University School of Medicine, Stanford, CA, United States

1:45 p.m.
OVERVIEW OF GLOBAL FOODBORNE DISEASE AND FOOD SAFETY MILESTONES
Claire Panosian Dunavan
University of California Los Angeles School of Medicine, Los Angeles, CA, United States

2:05 p.m.
FROM FSMA TO SAFELY FEEDING THE WORLD: THE CASE FOR CAPACITY BUILDING IN AFRICA
Michael Taylor
Meridian Institute, Washington, DC, United States

2:25 p.m.
HIDDEN DANGERS AND PERVERSE INCENTIVES IN THE GLOBAL SPICE TRADE: THE CASE OF BANGLADESH
Jenna Forsyth
Stanford University, School of Earth, Energy and Environmental Sciences, Stanford, CA, United States

2:45 p.m.
INNOVATING FOR URBAN AGRICULTURE: THE STORY OF THE VERTICAL FARM
Dickson Despommier
Columbia University, New York, NY, United States

Symposium 97

American Committee of Medical Entomology (ACME) Symposium I: Annual Business Meeting, Awards and Hoogstraal Medal Presentations and Networking Reception

Convention Center - Room 327/328/329 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

This symposium provides a forum for exchange of information among people interested in research on arthropod vectors of disease. This session features a short ACME business meeting followed by presentation of and by the Hoogstraal medal recipient. The objective of both ACME symposia is to highlight the next generation of medical entomologists. Related to this theme, the session will include the 2017 SC Johnson (SCJ) Innovation Award. The session will also feature a plenary talk on the state of the art in urban mosquito control to contain Zika virus and conclude with an informal reception to foster conversations between trainees and professionals in academia, industry, government and military.

CHAIR
Gonzalo M. Vazquez-Prokopec
Emory University, Atlanta, GA, United States

Philip Armstrong
The Connecticut Agricultural Experiment Station, New Haven, CT, United States

1:45 p.m.
ACME ANNUAL BUSINESS MEETING AND AWARDS PRESENTATION
Gonzalo M. Vazquez-Prokopec
Emory University, Atlanta, GA, United States

2 p.m.
HOOGSTRAAL MEDAL PRESENTATION

2:15 p.m.
SC JOHNSON (SCJ) INNOVATION AWARD

2:30 p.m.
CDC'S ROLE IN THE GLOBAL ZIKA RESPONSE: A PUBLIC HEALTH ENTOMOLOGY CALL TO ACTION
Audrey Lenhart
Centers for Disease Control and Prevention, Atlanta, GA, United States

3 p.m.
NETWORKING AND SOCIAL TIME

Symposium 98

A Frank Discussion about Sustainable Healthcare Delivery with Rwandan, Malawian, Haitian and American Global Health Care Leaders

Convention Center - Room 331/332 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

The global health community has shifted its focus to sustainability with the introduction of the new Sustainable Development Goals. However, sustainable solutions to problems cannot be designed in absentia or isolation. Often the best and most well-intentioned

interventions designed for sustainability result in short-term "fixes". While those in academia work to develop solutions, the voice of those charged with implementing and evaluating long-term solutions may be invited into the conversation too late. Panel members of on-the-ground health care leaders will share lessons learned: stories of success and failure in their personal work on sustainable health care solutions. Stories shared will include tackling quality improvement in Rwandan hospitals, working in Malawi with a Ministry of Health with limited resources and one of the worst nurse-to-patient ratios, moving from silos to integration in Haiti and beyond, and tackling infection control in the Navajo Nation. All of these settings grapple with high rates of infectious diseases, whether HIV, malaria, diarrheal and/or respiratory diseases. Panel members will give special attention to the role of building capacity, improving quality and augmenting the health workforce. The geographic diversity of the panel will provide the audience with perspective on how one size truly does not fit all in health care delivery.

CHAIR

Kimberly Baltzell
University of California San Francisco, San Francisco, CA, United States

1:45 p.m.
CATALYZING IMPLEMENTATION OF QUALITY IMPROVEMENT THROUGH MENTORING AND COACHING IN RESOURCE-LIMITED SETTINGS: LESSONS FROM RURAL DISTRICT HOSPITALS IN RWANDA

Anatole Manzi
Partners In Health, Boston, MA, United States

2 p.m.
MOVING FROM SILOS TO INTEGRATION TO IMPROVE HEALTH IN HAITI

Marc Julmisse
Hôpital Universitaire de Mirebalais, Mirebalais, Haiti

2:15 p.m.
HOW AN NGO AND THE MINISTRY OF HEALTH HARMONIZED TO BRING HEALTH CARE TO RURAL MALAWI

Vera Shaba
Partners In Health, Neno, Malawi

2:30 p.m.
CHALLENGES AND OPPORTUNITIES FOR INFECTION PREVENTION AND CONTROL IN THE NAVAJO NATION

Valerie Tenequer
Chinle Comprehensive Health Care Facility, Chinle, AZ, United States

Symposium 99

Internet and Other Digital 'Big Data' to Enhance Epidemic Surveillance and Public Health Decision-Making in Tropical and Low- to Middle-Income Countries

Convention Center - Room 337/338 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

In recent years digital 'big data' sources have been adopted to enhance communicable disease surveillance, particularly in tropical regions with rising internet access and with limited conventional surveillance infrastructure. Such data sources include internet search engine logs, social media, automated newswire scraping and crowd-sourced participatory disease surveillance. This symposium will highlight the concepts and rationale behind developing such 'digital epidemiology' approaches to tropical diseases. Case studies will examine the accuracy, advantages and drawbacks of applying such real-time data sources to the surveillance and response to global health threats such as Zika, dengue, influenza, Ebola, cholera and malaria, particularly in low-and-middle-income countries. Barriers to the use of such novel forms of surveillance in outbreaks and epidemics will be explored, and a framework for implementing digital 'big data' into public health practice and decision-making will be presented. The first presenter will 'set the stage' for this symposium and provide an introductory overview and timeline of 'digital epidemiology', including fundamental concepts and data types (for instance, internet search engine, social media, internet newswire scraping and participatory surveillance). A wide range of pathogen case examples will be provided, including some of the first applications of digital disease detection to dengue and cholera. The next speaker will focus on the role of internet newswire scraping and the interactive disease-mapping HealthMap web-tool in the response to the recent Zika epidemic in the Americas. The practical use of HealthMap will be demonstrated for clinicians and public health end-users in the audience. Zika forecasting models which employ real-time HealthMap and Google data with other more conventional data streams will be discussed. Following is a presenter who will demonstrate how his statistical physics background in the characterization and modeling of the Internet and other large-scale information networks such as massive air-flight databases and granular population datasets were recently applied to the Ebola epidemic, including the estimation of intervention effectiveness and forecasting of international spread. The final speaker will cover the promises and challenges of participatory and crowd-sourced communicable disease surveillance in tropical regions such as Puerto Rico and Southeast Asia. Valuable perspectives will be offered on how implementing such new technologies in LMIC contrasts with their use in high-resource areas. This presentation will also address uses of participatory surveillance in a One Health context, including animal surveillance.

CHAIR

Simon Pollett
Walter Reed Army Institute of Research, Silver Spring, MD, United States

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

1:45 p.m.
AN INTRODUCTORY OVERVIEW AND TIMELINE OF DIGITAL EPIDEMIOLOGY: CONCEPTS, DATA SOURCES AND APPLICATIONS TO TROPICAL DISEASES

Rumi Chunara
New York University, New York, NY, United States

2:05 p.m.
THE USE OF INTERNET-NEWSWIRE SCRAPING, SEARCH ENGINE DATA AND CROWD-SOURCED HEALTH TRACKING SYSTEMS IN THE RESPONSE TO THE ZIKA PANDEMIC AND OTHER PUBLIC HEALTH EVENTS

Mauricio Santillana
Harvard Medical School, Boston, MA, United States

2:25 p.m.

LARGE-SCALE INFORMATION NETWORKS TO SUPPORT THE FORECASTING AND RESPONSE TO THE EBOLA AND OTHER EPIDEMICS

Alessandro Vespignani
Northeastern University, Boston, MA, United States

2:45 p.m.

PARTICIPATORY AND INTERNET-BASED COHORTS TO ENHANCE EPIDEMIC SURVEILLANCE IN TROPICAL AND LOWER-RESOURCE SETTINGS: OPPORTUNITIES AND CHALLENGES

Jennifer Olsen
Skoll Global Threats Fund, San Francisco, CA, United States

Scientific Session 100

Filariasis: Molecular Biology, Immunology and Diagnostics

Convention Center - Room 339/340 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

CHAIR

Subash Babu
NIH-NIRT-ICER, Chennai, India

Sandra Bonne-Annee
National Institutes of Health, Bethesda, MD, United States

1:45 p.m.

1315

WUCHERERIA BANCROFTI INFECTION IS LINKED TO SYSTEMIC ACTIVATION OF CD4 AND CD8 T CELLS

Inge Kroidl[1], Mkunde Chachage[2], Jonathan Mnkai[2], Jaco J. Verweij[3], Myrna Berninghoff[1], Lucas Maganga[2], Leonard Maboko[2], Petra Clowes[2], Michael Hoelscher[1], Elmar Saathoff[1], Christof Geldmacher[1]
[1]Medical Center of the University of Munich (LMU), Munich, Germany, [2]National Institute for Medical Research Mbeya Medical Research Centre, Mbeya, United Republic of Tanzania, [3]Laboratory for Medical Microbiology and Immunology, Elisabeth Tweesteden Hospital, Tilburg, Netherlands

(ACMCIP Abstract)

2 p.m.

1316

MODULATION OF HUMAN INNATE LYMPHOID CELL FUNCTION BY IL-10 AND TGF-BETA

Sandra Bonne-Annee, Thomas Nutman
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

(ACMCIP Abstract)

2:15 p.m.

1317

BIOMARKERS OF ACTIVE INFECTION WITH _ONCHOCERCA VOLVULUS_

Sasisekhar Bennuru[1], Georgiette Oduro-Boateng[1], Papa M. Drame[1], David Abraham[2], Sara Lustigman[3], Thomas B. Nutman[1]
[1]National Institutes of Health, Bethesda, MD, United States, [2]Thomas Jefferson University, Philadelphia, PA, United States, [3]New York Blood Center, New York, NY, United States

2:30 p.m.

1318

AN INVESTIGATION OF _ONCHOCERCA VOLVULUS_ GEOGRAPHIC POPULATION-SPECIFIC SECRETED MIRNA PROFILES

Carmelle T. Norice-Tra[1], Ian Misner[1], Rahul Tyagi[2], Makedonka Mitreva[2], Thomas B. Nutman[1]
[1]National Institutes of Health, Bethesda, MD, United States, [2]Washington University School of Medicine, St. Louis, MO, United States

(ACMCIP Abstract)

2:45 p.m.

1319

DEVELOPMENT OF AN ANTIGEN-CAPTURE IMMUNOASSAY FOR THE DIAGNOSIS OF ACTIVE _LOA LOA_ INFECTION

Papa M. Drame[1], Marco Biamonte[2], Thomas B. Nutman[1]
[1]National Institutes of Health, Bethesda, MD, United States, [2]Drugs and Diagnostics for Tropical Diseases, San Diego, CA, United States

(ACMCIP Abstract)

3 p.m.

1320

COMPARISON OF PCR-METHODS FOR _ONCHOCERCA VOLVULUS_ DETECTION IN SKIN BIOPSIES FROM THE TSHOPO PROVINCE, DRC

Jessica Prince-Guerra[1], Vitaliano A. Cama[2], Nana Wilson[2], Josias Likwela[3], Nestor Ndakala[4], J. Muzinga Muzinga[4], Nicholas Ayebazibwe[5], Yassa Ndjakani[6], Naomi Awaca[3], D. Mumba[7], Antoinete Tshefu[8], Paul Cantey[2]
[1]ASM/Centers for Disease Control and Prevention Fellowship Program, Atlanta, GA, United States, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Programme National de la Lutte contre l'Onchocercose, Kinshasa, Democratic Republic of the Congo, [4]FELTP, Kinshasa, Democratic Republic of the Congo, [5]AFENET, Kampala, Uganda, [6]CDC-DRC, Kinshasa, Democratic Republic of the Congo, [7]Institut National de Recherche Biomedicale, Kinshasa, Democratic Republic of the Congo, [8]Ecole de Sante Publique, Kinshasa, Democratic Republic of the Congo

3:15 p.m.

1321

IDENTIFYING "WINDOWS OF OPPORTUNITY" FOR THE DETECTION OF PARASITE MATERIAL IN THE EXCRETA/FECES OF VECTOR AND NON-VECTOR MOSQUITOES

Nils Pilotte[1], Darren Cook[2], Lisa J. Reimer[2], Steven A. Williams[1]
[1]Smith College, Northampton, MA, United States, [2]Liverpool School of Tropical Medicine, Liverpool, United Kingdom

Symposium 101

Progress Towards Understanding and Preventing Key Causes of Child Mortality Through the CHAMPS Surveillance Network

Convention Center - Room 341/342 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

Current data on child mortality are limited by needs for extrapolation and modeling from datasets with limited clinical and diagnostic information. The Child Health and Mortality Prevention Surveillance (CHAMPS) Network, funded by the Bill & Melinda Gates Foundation, is designed to yield high-quality mortality burden data, and to drive action to reduce preventable child deaths. An innovative feature of CHAMPS is collection of post-mortem tissues through a non-disfiguring, rapid technique termed "minimally invasive tissue sampling" (MITS). CHAMPS combines social behavioral science, a variety of surveillance

techniques, strengthened diagnostic and pathology capacity and MITS to define causes of neonatal, infant and under-five mortality in six sites in sub-Saharan Africa and South Asia. This symposium will describe mortality surveillance methods, preliminary results from community engagement and mortality surveillance and prospects for effecting change through enhanced understanding of causes of child deaths in high-mortality settings in sub-Saharan Africa and South Asia. The objectives of this symposium are: 1) to describe standardized data collection methods to determine cause of death across diverse CHAMPS surveillance sites, including an assessment of strengths and limitations; 2) to describe social behavioral science findings that have shaped community engagement strategies, and initial data on community acceptability of CHAMPS; 3) to describe preliminary causes of death among neonates, infants and children under five years of age, based on the first CHAMPS sentinel data collection efforts anticipated from Mozambique, South Africa, Kenya, Mali and Bangladesh; 4) to illuminate how CHAMPS surveillance data are used to produce improvements in public health response at the local level, using examples from Kisumu County, Kenya. The session will open with an overview of standardized data collected on pediatric deaths notified by CHAMPS surveillance sites, which include innovative laboratory diagnostics and pathology, as well as medical records abstraction and verbal autopsy interviews. The session will introduce the Determination of Cause of Death ("DeCoDe") expert panel process that aims to integrate these data sources systematically across diverse locations. Data from social behavioral research related to acceptability of mortality surveillance and MITS in representative CHAMPS surveillance sites will be presented. Early findings from the CHAMPS surveillance system and preliminary causes of death will be shared. Finally, to illustrate the central importance of local action in response to surveillance findings, colleagues from Kenya will describe diverse current and intended uses of CHAMPS mortality surveillance data within Kisumu County.

CHAIR

Robert F. Breiman
Emory Global Health Institute, Emory University, Atlanta, GA, United States

Samba Sow
CVD-Mali, Bamako, Mali

1:45 p.m.
THE CHAMPS APPROACH FOR DETERMINATION OF CAUSES OF DEATH (DECODE)

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

2:05 p.m.
COMMUNITY ENGAGEMENT AND FORMATIVE RESEARCH TO ADVANCE MORTALITY SURVEILLANCE IN CHAMPS

Khatia Munguambe
Centro de Investigação em Saúde de Manhiça (CISM), Manhiça, Mozambique

2:25 p.m.
PRELIMINARY CAUSES OF UNDER 5 CHILD MORTALITY ACROSS THE CHAMPS NETWORK

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

2:45 p.m.
HOW KISUMU COUNTY MINISTRY OF HEALTH TRANSLATES CHAMPS SURVEILLANCE DATA TO ACTION IN KENYA

Dickens Onyango
Kisumu County Ministry of Health, Kenya, Kisumu, Kenya

Symposium 102

Pregnancy and Infectious Disease: Ethical, Legal and Global Challenges in Clinical Research

Convention Center - Room 343/344 (Level 300)
Tuesday, November 7, 1:45 p.m. - 3:30 p.m.

Global efforts to develop clinical interventions aimed at stemming the Zika outbreak starkly illuminate a well-known paradox in clinical research: Although pregnant women rely on medical treatments and preventions for a wide variety of health conditions, they are frequently underrepresented in—or altogether excluded from—clinical research studies of those interventions. As a consequence, there is a dearth of research to support interventions that would benefit pregnant women and their potential offspring. Health care providers working with this population must instead rely on anecdote and trial and error when making decisions about treatment and prevention, subjecting each woman, and the fetus she is carrying, to uncertain risk of harm for uncertain benefit. Because pregnancy can affect metabolism rates, and standard dosing is not always accurate, harms can include failure to treat, as well as exposure to medically ineffective or unsafe dosages of medication. Those outcomes raise numerous ethical issues related to social justice, equity, respect for autonomy and the duty to minimize harm and maximize benefit. The intertwined interests of pregnant women and their developing fetuses add an additional layer of ethical and legal complexity. All the foregoing are magnified in the context of infectious disease outbreaks, where risks and potential benefits of rapidly developed interventions may be unknown. This international and multidisciplinary symposium panel, representing the disciplines of medicine, law, bioethics and public health, will offer expert insights on the inclusion of pregnant women in global infectious disease research. Speakers will address the ethical and legal challenges specific to including pregnant women in infectious disease research, such as Ebola, Zika, malaria research and HIV. The panel collectively has experience related to infectious disease research with pregnant women, including: conducting and designing clinical research; participating in multidisciplinary efforts to craft ethics guidance; and, examining systemic obstacles that prevent pregnant women's participation. Addressing the ethical and legal issues related to including pregnant women in infectious disease research is vital to ensuring that pregnant women and their future children will ultimately benefit from interventions essential to their health and well-being.

CHAIR

Anna Mastroianni
University of Washington, Seattle, WA, United States

Miriam K. Laufer
University of Maryland, Baltimore, MD, United States

1:45 p.m.
THE ETHICAL CHALLENGES IN CONDUCTING MALARIA RESEARCH AMONG PREGNANT WOMEN

Titus Divala
Blantyre Malaria Project, University of Malawi College of Medicine, Blantyre, Malawi

2:05 p.m.
ETHICALLY APPROPRIATE POLICY GUIDANCE FOR OUTBREAKS IN LMICS: IMPLICATIONS FOR EBOLA RESEARCH

Jeff Kahn
Johns Hopkins Berman Institute of Bioethics, Baltimore, MD, United States

2:25 p.m.
ZIKA: THE GAP BETWEEN THEORETICAL AND LIVED EXPERIENCES

Leslie M. Henry
University of Maryland, Baltimore, MD, United States

2:45 p.m.
LEGAL BARRIERS TO THE INCLUSION OF PREGNANT WOMEN IN RESEARCH

Anna Mastroianni
University of Washington, Seattle, WA, United States

TropStop Office Hours

Convention Center - Pratt Street West Lobby Foyer (Level 300)
Tuesday, November 7, 3 p.m. – 4 p.m.

Meet professionals in the fields of tropical medicine, global health, science and industry who will share their personal career paths and answer questions you may have.

PRESENTERS

Abdoulaye Djimde
Malaria Research and Training Center, University of Science Techniques and Technologies, Bamako, Mali

Alison Krentel
Bruyere Research Institute, Ottawa, ON, Canada

Exhibit Hall Open

Convention Center - Swing Hall (Level 100)
Tuesday, November 7, 3:15 p.m. - 4:15 p.m.

Coffee Break

Convention Center - Swing Hall (Level 100)
Tuesday, November 7, 3:30 p.m. - 4 p.m.

Poster Session B Dismantle

Convention Center - Hall F and G (Level 100)
Tuesday, November 7, 4 p.m. - 6:15 p.m.

Symposium 103

Mechanisms of Immunity to Malaria – Implications for Vaccine Development

Convention Center - Ballroom I (Level 400)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

A detailed understanding of human immunity to malaria is crucial for advancing and informing the development and evaluation of vaccines for malaria and the development of biomarkers of immunity for vaccine development and evaluation in clinical trials. In this symposium, the speakers will address the current state of knowledge on immunity to malaria, highlight recent major insights into immunity, and present new data on this topic, with a particular focus on mechanisms and targets of human immunity. This will include immunity to malaria caused by *P. falciparum* and *P. vivax*, and will consider humoral and cell-mediated components of the immune response.

CHAIR

James Beeson
Burnet Institute, Melbourne, Australia

Chris King
Case Western Reserve University, Cleveland, OH, United States

4 p.m.
NEW DEVELOPMENTS IN MECHANISMS OF ACQUIRED IMMUNITY TO *PLASMODIUM VIVAX* MALARIA

Christopher L. King
Case Western Reserve University, Cleveland, OH, United States

4:20 p.m.
T CELL IMMUNITY TO *P. FALCIPARUM* - INSIGHTS FROM FIELD STUDIES

Margaret Feeney
University of California San Francisco, San Francisco, CA, United States

4:40 p.m.
MECHANISMS OF HUMORAL IMMUNITY TO DIFFERENT STAGES OF *P. FALCIPARUM* MALARIA

James Beeson
Burnet Institute, Melbourne, Australia

5 p.m.
CORRELATES OF PROTECTION FROM CONTROLLLED HUMAN MALARIA INFECTION STUDIES IN AFRICAN ADULTS

Melissa Kapulu
Kenya Medical Research Institute, Kilifi, Kenya, Kenya

Symposium 104

Monitoring Antimalarial Resistance and *Plasmodium falciparum* Genetic Diversity in Africa: What We Know Now

Convention Center - Ballroom II (Level 400)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

Information on population-level genetics and genomics of the *Plasmodium falciparum* parasite is critical for our understanding of patterns in malaria transmission and the impacts of malaria control interventions. Data on molecular markers of resistance to artemisinin and partners drugs can serve as an early warning to guide further clinical investigations of potentially failing treatments. Genomic data on antigen diversity and selection of specific genotypes can help to guide vaccine development and monitor for vaccine 'escape'. The sustainability of efforts to catalog parasite genetic diversity in Africa hinges on developing approaches that build capacity in the region. This symposium highlights two such efforts, the PMI-supported Antimalarial Resistance in Africa (PARMA) network, and the *Plasmodium* Diversity Network Africa (PDNA). PARMA was established in

2014 to support PMI countries to incorporate molecular testing of drug resistance markers into standard antimalarial Therapeutic Efficacy Studies and to transfer capacity for laboratory testing to local institutions. PARMA has been supporting activities in eight PMI countries since its inception, with plans to extend to at least four more countries in 2017. PDNA is an African-led collaboration of scientists that was first established in 2013 and has now grown to include collaborating institutions in 15 countries. PDNA's goal is the standardized generation and analysis of *Plasmodium* genomic data to inform malaria control and elimination efforts. Symposium presentations will also synthesize the latest knowledge in molecular monitoring of drug resistance and in overall parasite genomic diversity, drawing from data collected across both networks in several African countries. Finally, the topic of lessons learned through capacity-building networks will be discussed through a moderated format which will focus on sharing presenters' experiences and encouraging interaction with the audience.

CHAIR

Eric S. Halsey
Centers for Disease Control and Prevention; U.S. President's Malaria Initiative, Atlanta, GA, United States

Abdoulaye Djimde
University of Science, Techniques and Technology of Bamako, Bamako, Mali

4 p.m.
PMI-SUPPORTED ARTEMISININ RESISTANCE MONITORING IN AFRICA (PARMA NETWORK)

Meera Venkatesan
United States Agency for International Development, Washington, DC, United States

4:15 p.m.
***PLASMODIUM* DIVERSITY NETWORK AFRICA (PDNA): AN AFRICA-LED NETWORK FOR MALARIA GENETICS**

Abdoulaye Djimde
University of Science, Techniques, and Technologies of Bamako, Mali, Bamako, Mali

4:30 p.m.
CURRENT PATTERNS OF ANTIMALARIAL RESISTANCE MARKERS ACROSS PMI COUNTRIES IN AFRICA

Daouda Ndiaye
Cheikh Anta Diop University, Dakar, Senegal, Dakar, Senegal

4:55 p.m.
GENETIC DIVERSITY OF *PLASMODIUM FALCIPARUM* IN PDNA MEMBER COUNTRIES

Alfred A. Ngwa
Medical Research Council Unit, Banjul, Gambia

Scientific Session 105

Malaria: Mass Drug Administration and Reactive Case Detection for Malaria Elimination

Convention Center - Ballroom III (Level 400)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

CHAIR

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

Julia Mwesigwa
Medical Research Council Unit The Gambia, Banjul, Gambia

4 p.m.
1322

IMPACT OF TWO ANNUAL CYCLES OF MASS DRUG ADMINISTRATION ON TEMPORAL TRENDS OF CLINICAL MALARIA

Julia Mwesigwa[1], Jane Achan[1], Archibald Worwui[1], Jean-Pierre Van geertruyden[2], Umberto D'Alessandro[1]
[1]Medical Research Council Unit The Gambia, Banjul, Gambia, [2]University of Antwerp, Antwerp, Belgium

4:15 p.m.
1323

SPEEDING UP MALARIA ELIMINATION; A CLUSTER RANDOMIZED CONTROLLED TRIAL OF MASS DRUG ADMINISTRATION IN SOUTHEAST MYANMAR, AN AREA WITH ARTEMISININ RESISTANCE

James Heaton[1], Alistair McLean[2], Myo Maung Maung Swe[1], Kyaw Soe[1], Chanida Indrasuta[2], Zay Soe Khant[2], Mallika Imwong[3], Elizabeth Ashley[1], Arjen Dondorp[3], Nicholas White[3], Frank Smithuis[1]
[1]Myanmar Oxford Clinical Research Unit, Yangon, Myanmar, [2]Medical Action Myanmar, Yangon, Myanmar, [3]Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand

4:30 p.m.
1324

REACTIVE CASE DETECTION WITH TARGETED MASS DRUG ADMINISTRATION: INTERRUPTING MALARIA TRANSMISSION AND ACHIEVING ELIMINATION BEYOND INTERVENTION AREAS IN NORTHWESTERN PERU

Antonio M. Quispe[1], Fernando A. Quintana[2], Edwar Pozo[3], Margaret N. Kosek[4], Eduardo Gotuzzo[5]
[1]Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [2]Dirección Regional de Salud, Tumbes, Peru, [3]Dirección Regional de Salud, Piura, Peru, [4]Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [5]Instituto de Medicina Tropical Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru

4:45 p.m.
1325

REACTIVE CASE DETECTION FOR MALARIA IN AMHARA NATIONAL REGIONAL STATE, ETHIOPIA: DESCRIPTIVE AND IMPACT EVALUATION ANALYSIS

Asefaw Getachew[1], Asnakew Yeshiwondim[1], Pooja Bansil[2], Belendia Serda[1], Berhane Tesfay[1], Adem Agmas[1], Melkamu T. Zeleke[1], Girma S. Guesses[1], Asmamaw L. Ayenew[1], Worku M. Workie[1], Teklehaimanot G. Kidanemariam[3], Duncan Earle[4], Caterina Guinovart[5], Richard W. Steketee[2]
[1]PATH MACEPA, Addis Ababa, Ethiopia, [2]PATH MACEPA, Seattle, WA, United States, [3]Amhara National Regional State Health Bureau, Addis Ababa, Ethiopia, [4]PATH MACEPA, Lusaka, Zambia, [5]PATH MACEPA/ISGlobal collaboration, Barcelona, Spain

5 p.m.

1326

EVALUATING THE EFFICIENCY OF REACTIVE CASE DETECTION TO ACHIEVE MALARIA ELIMINATION IN RURAL SOUTHERN ZAMBIA USING FOLLOW-UP HOUSEHOLD VISITS AND PARASITE GENOTYPING

Kelly M. Searle[1], Julia Pringle[1], Harry Hamapumbu[2], Michael Musonda[2], Ben Katowa[2], Tamaki Kobayashi[1], Jennifer C. Stevenson[2], Douglas E. Norris[1], Philip E. Thuma[2], William J. Moss[1]
[1]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [2]Macha Research Trust, Macha, Zambia

5:15 p.m.

1327

ACHIEVING INTERRUPTION OF LOCALLY TRANSMITTED *PLASMODIUM FALCIPARUM* MALARIA CASES THROUGH PILOTING A BASIC ESSENTIAL PACKAGE OF ACTIVITIES FOR MALARIA ELIMINATION IN THE CONTEXT OF ARTEMISININ RESISTANCE, 2015-2017

Soy Ty Kheang[1], Say Chy[1], Sokomar Nguon[1], Kong Meng Seak[1], John Hustedt[1], Sam An Sen[1], Linna Khorn[1], Sovann Ek[1], Bunthy Om[2], Pisal Heng[2], Sovannaroth Siv[2], Rekol Huy[2], Rida Slot[3]
[1]University Research Co., LLC, Chevy Chase, MD, United States, [2]National Center for Parasitology, Entomology and Malaria Control, Phnom Penh, Cambodia, [3]President's Malaria Initiative, U.S. Agency for International Development, Phnom Penh, Cambodia

5:30 p.m.

1328

A MULTI-COUNTRY INITIATIVE TO ACCELERATE ELIMINATION BY REDUCING CROSS-BORDER IMPORTATION OF MALARIA

Immo Kleinschmidt[1], Bongani Dlamini[2], Nyasha Mwendera[2], Phelele Fakudze[2], Kudzai Makomva[2], Simon Kunene[3]
[1]London School of Hygiene & Tropical Medicine/Elimination 8, London, United Kingdom, [2]Elimination 8, Windhoek, Namibia, [3]Swaziland Ministry of Health, Mbabane, Swaziland

Symposium 106

Science is Real: Climate Change Impacts on Vector Borne-Diseases

Convention Center - Ballroom IV (Level 400)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

This symposium will address the impact of climate change on vector-borne diseases and how to assess those outcomes. Much of the work demonstrating climate effects on vector-borne diseases goes hand in hand with enhanced prediction of zones that could potentially become more suitable for vector-borne disease transmission in the future. Accurate prediction of these future vector-borne disease outbreaks could mobilize and target limited resources in a proactive and potentially more efficient manner than what has been done with previous emerging diseases. The connection between climate change and variability, and vector-borne disease risk will be discussed from varied perspectives: climate science, disease ecology, mathematical modeling, and archaeo-historic. The session will fature a panel discussion and networking period to highlight the importance of establishing ongoing collaborations and data-sharing networks to ensure the future inclusion of climate change data in global health initiatives, despite federal mandates and restrictions. The first speaker will present his use of remotely sensed climate data to predict vector-borne disease risk for Rift Valley fever and chikungunya outbreaks. The next talk will present the ecological context of climate change impacts on vector-borne disease systems, particularly the impacts of local microclimate on mosquito population dynamics and vector-borne disease transmission. The following presenter will address how mathematical models can capture key nonlinear responses of mosquitoes and vectors to temperature, ultimately affecting vector-borne disease risk under changing climates. The final speaker will showcase the ways in which archaeo-historic datasets can provide cost-effective ways to investigate climate impacts on disease over time, using malaria as a case study. The session will conclude with a panel discussion on climate change collaborations and networks in restricted funding climate.

CHAIR

A Desiree LaBeaud
Stanford University, Stanford, CA, United States

Elysse Grossi-Soyster
Stanford University, Stanford, CA, United States

4 p.m.
CLIMATE TELECONNECTIONS ASSOCIATED WITH RIFT VALLEY FEVER AND CHIKUNGUNYA OUTBREAKS

Assaf Anyamba
Universities Space Research Association, Greenbelt, MD, United States

4:20 p.m.
ESTIMATING VECTOR-BORNE DISEASE TRANSMISSION IN A VARIABLE ENVIRONMENT

Courtney Murdock
University of Georgia, Athens, GA, United States

4:40 p.m.
NONLINEAR EFFECTS OF TEMPERATURE SHAPE THE RESPONSE OF VECTOR-BORNE DISEASE TO CLIMATE CHANGE

Erin Mordecai
Stanford University, Stanford, CA, United States

5 p.m.
IMPROVING VECTOR-BORNE DISEASE PREDICTION MODELING USING CLIMATE PROXY AND ARCHAEO-HISTORIC DATA

Krish Seetah
Stanford University, Stanford, CA, United States

Scientific Session 107

Zika I

Convention Center - Room 318/319/320 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

CHAIR

Nisha Duggal
Centers for Disease Control and Prevention, Fort Collins, CO, United States

Mauricio L. Nogueira
Faculdade de Medicina de Sao Jose do Rio Preto, Sao Jose do Rio Preto, Brazil

4 p.m.

1329

IMMUNE PROFILING AND NETWORK MODELING OF ZIKA VIRUS INFECTION IN CHILDREN WITH OR WITHOUT PRIOR EXPOSURE TO DENGUE VIRUS IN A COHORT STUDY IN NICARAGUA

Daniela Michlmayr[1], Theodore Pak[2], Adeeb Rahman[3], Eun-Young Kim[4], Seunghee Kim-Schulze[3], Lionel Gresh[5], Guillermina Kuan[6], Andrew Kasarskis[2], Steven Wolinksy[4], Angel Balmaseda[7], Eva Harris[1]
[1]Division of Infectious Diseases and Vaccinology, School of Public Health, University of California Berkeley, Berkeley, CA, United States, [2]Department of Genetics and Genomic Sciences, Icahn School of Medicine at Mount Sinai, New York, NY, United States, [3]Department of Oncological Sciences, Tisch Cancer Institute and the Immunology Institute, Icahn School of Medicine at Mount Sinai, New York, NY, United States, [4]Division of Infectious Diseases, Feinberg School of Medicine, Northwestern University, Chicago, IL, United States, [5]Sustainable Sciences Institute, Managua, Nicaragua, [6]Health Center Sócrates Flores Vivas, Ministry of Health, Managua, Nicaragua, [7]Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua

4:15 p.m.

1330

LABORATORY IDENTIFICATION OF PERSISTENT ZIKA VIRAL RNA IN SEMEN OF A U.S. COHORT

Nisha Duggal, Paul Mead, Alison Hinckley, Sarah Hook, Erin McDonald, Mark Delorey, Heidi Becksted, Michael Anishchenko, Ryan Max, Amy Schwartz, Aaron Brault
Centers for Disease Control and Prevention, Fort Collins, CO, United States

4:30 p.m.

1331

STAGING EARLY AND LATE EVENTS IN ACUTE ZIKA VIRUS INFECTION USING RNA+ PUERTO RICAN AND CONTINENTAL U.S. BLOOD DONORS

Graham Simmons[1], Mars Stone[1], Kai Lu[1], Sonia Bakkour[1], Phillip C. Williamson[2], Donald J. Brambilla[3], Michael P. Busch[1], for the NHLBI Recipient Epidemiology and Donor Evaluation Study-III (REDS-III)[4]
[1]Blood Systems Research Institute, San Francisco, CA, United States, [2]Creative Testing Solutions, Tempe, AZ, United States, [3]RTI International, Rockville, MD, United States, [4]NHLBI, Rockville, MD, United States

4:45 p.m.

1332

PRIOR DENGUE VIRUS EXPOSE SHAPES T CELL IMMUNITY TO ZIKA VIRUS IN HUMANS

Alba Grifoni[1], John Pham[1], Patrick H. O'Rourke[1], Bjoern Peters[1], Aruna D. de Silva[2], Michael J. Ricciardi[3], Cassia G. Silveira[4], Alvino Maestri[4], Luzia M. de Oliveira-Pinto[5], Paulo Vieira Damasco[6], Mathew Collins[7], Aravinda M. de Silva[7], Sean A. Diehl[8], Anna P. Durbin[9], Cristhiam Cerpas[10], Angel Balmaseda[10], Guillermina Kuan[11], Josefina Coloma[12], Eva Harris[12], James E. Crowe Jr[13], Mars Stone[14], Phillip J. Norris[14], Michael Busch[14], Hector Vivanco-Cid[15], Barney Graham[16], Julie E. Ledgerwood[16], David I. Watkins[3], Esper G. Kallas[4], Alessandro Sette[1], **Daniela Weiskopf**[1]
[1]La Jolla Institute for Allergy and Immunology, La Jolla, CA, United States, [2]Genetech Research Institute, Colombo, Sri Lanka, [3]University of Miami Miller School of Medicine, Miami, FL, United States, [4]University of Sao Paulo, Sao Paulo, Brazil, [5]Fundação Oswaldo Cruz, Rio de Janeiro, Brazil, [6]Federal University of the State of Rio de Janeiro (UNIRIO), Rio de Janeiro, Brazil, [7]University of North Carolina School of Medicine, Chapel Hill, NC, United States, [8]University of Vermont, College of Medicine and Vaccine Testing Center, Burlington, VT, United States, [9]Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, [10]National Virology Laboratory, National Center for Diagnosis and Reference, Ministry of Health, Managua, Nicaragua, [11]Health Center Sócrates Flores Vivas, Ministry of Health, Managua, Nicaragua, [12]School of Public Health, University of California Berkeley, Berkeley, CA, United States, [13]Vanderbilt University Medical Center, Nashville, TN, United States, [14]Blood Systems Research Institute, San Francisco, CA, United States, [15]Universidad Veracruzana, Veracruz, Mexico, [16]Vaccine Research Center, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

5 p.m.

1333

INDEX CLUSTER STUDY OF ZIKA VIRUS INFECTION IN MANAGUA, NICARAGUA

Raquel Burger-Calderon[1], Karla González[2], Nery Sanchez[3], José Victor Zambrana[3], Sergio Ojeda[3], Cristhiam Cerpas[2], Harold Suazo Laguna[3], Fausto Bustos[1], Josefina Coloma[1], Guillermina Kuan[4], Angel Balmaseda[2], Eva Harris[1]
[1]Division of Infectious Diseases and Vaccinology, School of Public Health, University of California Berkeley, Berkeley, CA, United States, [2]Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua, [3]Sustainable Sciences Institute, Managua, Nicaragua, [4]Health Center Sócrates Flores Vivas, Ministry of Health, Managua, Nicaragua

5:15 p.m.

1334

PREVALENCE AND INCIDENCE OF ZIKA VIRUS INFECTION AMONG HOUSEHOLD CONTACTS OF ZIKA PATIENTS, PUERTO RICO, 2016-2017

Eli Rosenberg[1], Katherine Doyle[2], Jorge L. Munoz-Jordan[3], Liore Klein[4], Laura Adams[3], Matthew Lozier[3], Tyler M. Sharp[3], Gabriela Paz-Bailey[2]
[1]Emory University Rollins School of Public Health, Atlanta, GA, United States, [2]Division of HIV/AIDS Prevention, Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Division of Vector-Borne Diseases, Centers for Disease Control and Prevention, San Juan, PR, United States, [4]Caduceus Healthcare, San Juan, PR, United States

5:30 p.m.

1335

VIRAL LOAD DOES NOT SUPPORT ADE HYPOTHESIS IN DENGUE-PRIMED ZIKA-INFECTED PATIENTS

Ana Terzian[1], Alessandra Schanoski[1], Manlio Mota[1], Rafael Silva[1], Cassia Estofolete[1], Tatiana Colombo[1], Kathryn A. Hanley[2], Nikos Vasilakis[3], Jorge Kalil[4], **Mauricio L. Nogueira**[1]
[1]Faculdade de Medicina de Sao Jose do Rlo Preto, Sao Jose do Rlo Preto, Brazil, [2]New Mexico State University, Las Cruces, NM, United States, [3]University of Texas Medical Branch, Galveston, TX, United States, [4]Universidade de Sao Paulo, Sao Paulo, Brazil

(ACMCIP Abstract)

Symposium 108

Challenges in Cholera Control and Elimination

Convention Center - Room 321/322/323 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

In 1817, two hundred years ago, the *cholera bacillus* first escaped from the delta region of the Ganges River. Carried by travelers along trade routes, the disease spread rapidly. By the early 1820s, trade and colonization had carried the disease throughout Asia, the Middle East, Eastern Africa and the Mediterranean coast. This was the first of seven cholera pandemics that have cumulatively caused millions of deaths around the globe, and unquantifiable human suffering, and social and economic disruption. The first observation of the coma-shaped *"vibrio" bacillus* was made by Filipo Pacini in 1854 in intestinal tissues of cholera victims, the same year that John Snow, one of the fathers of modern epidemiology, provided dramatic evidence of the transmission of cholera through contaminated water. Pacini's observation were later confirmed and expanded by Robert Koch, one of the fathers of modern microbiology. Two hundred years after its global spread and more than 150 years since the discovery of the causative micro-organism and its route of transmission, many parts of the world are still plagued by cholera, typically affecting the world's most poor and vulnerable populations. Every year

an estimated 2.8M cases of cholera occur and 91,000 deaths. This symposium will discuss the role of the current Oral Cholera Vaccines (OCV) in cholera control and present the results of a new systematic review and meta-analysis of the protection conferred by the current generation of OCV from trials and observational studies. Estimates of average protection from the standard two-dose regimen and a reduced one-dose regimen will be discussed, as well as estimates of protection over time to understand how the vaccine protection may wane. Comparative protection in key sub-groups including children will be explored. The Cholera Team Leader from the WHO will explain the role of the Global Task Force on Cholera Control and the Gavi-funded OCV stockpile. He will also share successes and challenges in introducing OCV to help control cholera from affected populations including recent experiences in outbreaks within the Horn of Africa. This symposium will also provide information on the current epidemiology of cholera in Asia and describe challenges in accurately understanding the true burden of disease. Finally the burden of disease and experiences in controlling cholera in Haiti both before and following Hurricane Matthew will be described.

CHAIR

Julia A. Lynch
International Vaccine Institute, Seoul, Republic of Korea

David Sack
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

4 p.m.
KILLED WHOLE CELL ORAL CHOLERA VACCINE EFFICACY AND EFFECTIVENESS: A META-ANALYSIS

Andrew Azman
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

4:20 p.m.
KILLED WHOLE CELL ORAL CHOLERA VACCINE INTRODUCTION: SUCCESSES AND CHALLENGES

Dominique Legros
World Health Organization, Geneva, Switzerland

4:40 p.m.
CHOLERA IN ASIA

Anna Lena Lopez
The Institute of Child Health and Human Development at the University of the Philippines Manila, Manila, Philippines

5 p.m.
EXPERIENCE WITH CHOLERA CONTROL IN HAITI

Louise Ivers
Massachusetts General Hospital, Partners in Health (PIH), Boston, MA, United States

Symposium 109

Evidence-Based Stratification of Malaria Risk: The Role of System and Operational Factors to Successfully and Sustainably Eliminate Transmission

Convention Center - Room 324/325/326 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

Tremendous success has been achieved in reducing malaria burden, but significant challenges remain to increase coverage of effective interventions and move towards elimination strategies. Historical eradication programs such as smallpox have demonstrated the importance of shifting from mass interventions to surveillance-driven elimination measures. In contrast with successful historical eradication programs, malaria elimination must be achieved with a combination of imperfect and impermanent interventions. The increasing heterogeneity of malaria transmission as it declines towards zero requires targeting interventions to where they will be most effective, prioritizing population groups underserved by current strategies, while avoiding over-allocation of limited operational and financial resources. Identifying the most appropriate mix of interventions and how to reach sufficient coverage of target populations for a given place and time, requires disentangling malaria dynamics into the drivers of transmission and of persistent parasite reservoir. Improving system factors driving the effectiveness of malaria programs such as operations, organization, financing and delivery of malaria preventive and curative services will be important to accelerate towards malaria elimination. Opportunities for risk stratification and identifying system determinants accurately have only recently become available given unprecedented availability of remotely-sensed environmental covariates, and new analytical methods for high resolution mapping and modeling of relevant malaria metrics. In addition, analysis of survey and operational data enable the direct evaluation of aspects of systems on program performance, and suggest ways to overcome system bottlenecks. The success of future malaria elimination programs will rely on countries successfully applying analytical tools to make operationally-meaningful stratifications where optimized packages of interventions are targeting at-risk populations to achieve sustainable elimination. This symposium will describe how national malaria programs and their partners design and use operational stratification. Specific emphasis will be given to how malaria dynamics can be decomposed into metrics that can be linked to suitable malaria intervention packages with mathematical models. The example of the Cambodia malaria program will illustrate how the stratification framework can be applied to inform elimination strategies. Based on analysis of extensive survey data, the impact of system factors regarding the effective coverage of malaria interventions and its equitable distribution within populations will be addressed. Lessons learned from operational programs in Zambia to address system gaps will be presented.

CHAIR

Arnaud Le Menach
Clinton Health Access Initiative, Boston, MA, United States

Jaline Gerardin
Institute for Disease Modeling, Seattle, WA, United States

4 p.m.
MALARIA RISK STRATIFICATION AND UNDERSTANDING SYSTEM AND OPERATIONAL DETERMINANTS FOR PLANNING OF TARGETED ELIMINATION INTERVENTIONS

Justin M. Cohen
Clinton Health Access Initiative, Boston, MA, United States

4:15 p.m.
USING MATHEMATICAL MODELS TO DETERMINE RELEVANT MALARIA INTERVENTION STRATA TO ACHIEVE MALARIA ELIMINATION
Emilie Pothin
Swiss Tropical and Public Health Institute, Basel, Switzerland

4:35 p.m.
FROM THEORY TO PRACTICE: INCORPORATING MALARIA MODELING OUTPUT WITH SURVEILLANCE METRICS TO INFORM OPERATIONALLY-RELEVANT STRATIFICATION AND INTERVENTIONS IN CAMBODIA
Siv Sovannaroth
Chief of Technical Bureau, National Center for Parasitology, Entomology and Malaria Control (CNM), Phnom Penh, Cambodia

4:55 p.m.
SYSTEM CONSTRAINTS AND THEIR IMPACT ON DISTRIBUTION AND EFFECTIVENESS OF MALARIA INTERVENTION
Katya Galactionova
Swiss Tropical and Public Health Institute, Basel, Switzerland

5:15 p.m.
MALARIA ELIMINATION IN ZAMBIA
Busiku Hamainza
National Malaria Control Center, Lusaka, Zambia

Symposium 110

American Committee of Medical Entomology (ACME) Symposium II: New and Young Investigators in Medical Entomology

Convention Center - Room 327/328/329 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

This symposium features the work of new and young investigators (graduate students, post-docs, and research fellows) who are working in the laboratories of ACME members or are themselves ACME members. The main aims are to provide an overview of the diverse sub-disciplines in medical entomology and to increase the visibility of early stage investigators. Symposium participants will be invited based on a targeted approach to represent a diversity of taxa of medically relevant arthropods (to include ticks, fleas, mosquitoes, sandflies, black flies, lice, kissing bugs, and bedbugs), of research approaches (to include applied and basic research, and emphasize burgeoning approaches/technologies), geographic regions and institutions, and of demographics (to balance representation of age, gender, race, ethnicity, and training levels).

CHAIR
Philip Armstrong
The Connecticut Agricultural Experiment Station, New Haven, CT, United States
Gonzalo M. Vazquez-Prokopec
Emory University, Atlanta, GA, United States

4 p.m.
PRESENTATION BY ACME TRAVEL AWARD RECIPIENT

4:15 p.m.
PLANT OILS ARE CAPABLE OF ENHANCING DIVERSE INSECTICIDES AGAINST SUSCEPTIBLE AND RESISTANT STRAINS OF MOSQUITOES
Edmund Norris
Iowa State University, Ames, IA, United States

4:30 p.m.
GENOMIC ANALYSIS OF BEHAVIORAL RESISTANCE IN *ANOPHELES COLUZZII* POINTS TOWARDS FLIGHT ACTIVITY AS THE UNDERLYING MECHANISM
Jacob I. Meyers
Texas A&M University, College Station, TX, United States

4:45 p.m.
CLIMATE IMPACTS ON BLACKLEGGED TICK HOST-SEEKING BEHAVIOR
Max McClure
Columbia University, New York, NY, United States

5 p.m.
***AEDES AEGYPTI* GENETIC DIVERSITY AND ARBOVIRAL DISEASE TRANSMISSION**
Andrea Gloria-Soria
Yale University, New Haven, CT, United States

5:15 p.m.
***TRYPANOSOMA CRUZI* TRANSMISSION ECOLOGY AT NON-HUMAN PRIMATE FACILITIES IN TEXAS**
Carolyn Hodo
Texas A&M University, College Station, TX, United States

5:30 p.m.
THE BIOLOGY OF MOSQUITO SPERM
Ethan Degner
Cornell University, Ithaca, NY, United States

Symposium 111

Cystic Echinococcosis: Advocacy to Action

Convention Center - Room 331/332 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

Cystic echinococcosis (CE) is globally distributed in most pastoral areas of the world. The latest estimate for the global burden of CE is 188,000 new cases per annum resulting in 184,000 DALYs (0.98 DALYs per case). The expansion in use of ultrasound (US) in field and clinical studies resulted in the development of US-based cyst staging, the WHO CE cyst classification. It has facilitated the application of uniform standards and principles of treatment currently recommended for each cyst type, yet the individual treatment modalities are still not on firm grounds, not adapted to different settings and not implemented in many parts of the world. In addition, advanced CE requires a multidisciplinary approach for improved outcomes. Although US screening in endemic regions has been performed, guidelines do not exist for whom to screen and with which perspective for the cases detected in low-resource settings. In non-endemic regions CE is being encountered more frequently because of immigration of afflicted person from countries in which the disease is endemic, yet many clinicians are unfamiliar with CE. This symposium is proposed to align with the WHO Informal Working Group on Echinococcosis to address gaps in knowledge and foster collaborations.

CHAIR

Thomas Junghanss
University of Heidelberg, Heidelberg, Germany

Abela-Ridder Bernadette
World Health Organization, Geneva, Switzerland

4 p.m.
WHAT MAKES CYSTIC ECHINOCOCCUS SPECIAL AMONG NTDS?

Abela-Ridder Bernadette
World Health Organization, Geneva, Switzerland

4:20 p.m.
APPLYING WHO CYSTIC ECHINOCOCCUS CYST CLASSIFICATION: INTERACTIVE CASE-BASED DISCUSSION

Christina M. Coyle
Albert Einstein College of Medicine, Bronx, NY, United States

4:40 p.m.
ADVANCES IN PAIR AND OTHER PERCUTANEOUS METHODS: IDENTIFYING THE RIGHT PATIENT

Enrico Brunetti
IRCCS San Matteo Hospital Foundation - University of Pavia, Pavia, Italy

5 p.m.
MULTIDISCIPLINARY MANAGEMENT FOR ADVANCED CE: A MUST FOR BETTER OUTCOMES

Thomas Junghanss
University of Heidelberg, Heidelberg, Germany

5:20 p.m.
CE-SCREENING: WHOM, WHY AND WHAT ARE THE PRECONDITIONS AND LIMITATIONS?

Francesca Tamarozzi
University of Pavia, Pavia, Italy

Symposium 112

The USAID NTD Program – Ten Years of the Largest PCT NTD Implementation Program in History: Lessons Learned and New Directions

Convention Center - Room 337/338 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

In 2006, the U.S. Agency for International Development (USAID) established the Neglected Tropical Disease (NTD) program to support the scale-up of integrated platforms targeting five NTDs: lymphatic filariasis (LF), onchocerciasis, trachoma, soil transmitted helmnithiasis (STH) and schistosomiasis. A major objective of the program was to leverage the significant drug donations being made by pharmaceutical companies to fight these diseases through preventive chemotherapy (PCT). Initially focused on the distribution of medicines through mass drug administration (MDA), the distribution of drugs to all persons at risk of infection in a given geographic area, the USAID NTD program quickly grew in scope and scale to include delineation of disease distribution via NTD mapping, national capacity-building for supervision, administration and supply chain management, strengthening of monitoring and evaluation systems, impact evaluations and more. The USAID NTD program is now the single largest supporter for implementation of national PCT NTD programs in the world and has become both an exemplary public-private partnership and a learning lab for WHO policy and best practices. Established as a proof of concept, the first three years of the program focused on 12 countries and a goal to provide at least 160 million treatments to 40 million people annually within five years. By the end of year four, the program was supporting over 70 million individuals with more than 165 million treatments annually. By 2016, ten years after the start of the program, 2,539 districts whose disease status had been unknown were mapped for at least one NTD, allowing for the expansion of MDA to nearly 300 million persons annually. This ten-year landmark also saw a total of two billion treatments with an estimated commercial value of $15.7 billion USD donated to USAID supported countries equating to approximately $26 dollars in donated medicine for every $1 spent by USAID. USAID's NTD program accomplishments are now unparalleled, having supported the treatment of more than 985 million individuals in 33 countries. As countries begin to achieve their 2020 elimination goals, monitoring and evaluation activities are becoming increasingly important, nearly doubling in quantity every two years. Between 2012 and 2016 alone, 3,348 districts have had disease assessments carried out, mostly for decisions on stopping treatment for LF or trachoma. This symposium will build on the lessons learned over the last ten years in terms of scale-up, advocacy, and partnership, and provide participants with an insight to program successes and challenges. It will include insight into how the program has impacted WHO, partners and countries and provide some ideas on what the next ten years may hold.

CHAIR

Darin S. Evans
U.S. Agency for International Development, Washington, DC, United States

Emily Wainwright
U.S. Agency for International Development, Washington, DC, United States

4 p.m.
NTDS CA. 2006: A GLOBAL SNAPSHOT

Eric Ottesen
Task Force for Global Health, Atlanta, GA, United States

4:20 p.m.
USAID BY THE NUMBERS: 10 YEARS OF IMPLEMENTATION SUPPORT

Violetta Yevstigneyeva
U.S. Agency for International Development, Washington, DC, United States

4:40 p.m.
RESULTS OF THE 2016 USAID NTD PROGRAM EVALUATION

Gilbert Burnham
Johns Hopkins, Bloomberg School of Public Health, Baltimore, MD, United States

5 p.m.
WHO POLICY AT SCALE

Dirk Engles
World Health Organizaion, Geneva, Switzerland

Scientific Session 113

Ectoparasite-Borne Diseases

Convention Center - Room 339/340 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

CHAIR

Mary Lynn Baniecki
The Broad Institute, Cambridge, MA, United States

Allen L. Richards
Naval Medical Research Center, Silver Spring, MD, United States

4 p.m.

1336

HOST BLOODMEAL REMNANT ANALYSIS DEMONSTRATES THE VARIABLE CONTRIBUTION OF WHITE FOOTED MICE TO ENZOOTIC TRANSMISSION OF LYME DISEASE SPIROCHETES

Heidi Goethert, Sam Telford
Tufts University School of Veterinary Medicine, N. Grafton, MA, United States

4:15 p.m.

1337

COMPARISON OF AN ULTRA-SENSITIVE PCR-BASED ASSAY TO TWO-TIER SEROLOGY IN THE DIAGNOSIS OF EARLY LYME DISEASE

John N. Aucott[1], Alison W. Rebman[1], Steven E. Schutzer[2], Ting Yang[1], Michael R. Mosel[3], Mark J. Soloski[1], Mark W. Eshoo[3]
[1]Johns Hopkins University, Baltimore, MD, United States, [2]Rutgers New Jersey Medical School, Newark, NJ, United States, [3]Ibis Biosciences, Inc., Carlsbad, CA, United States

4:30 p.m.

1338

GENOMIC SURVEILLANCE AND DIAGNOSIS OF TICK-BORNE DISEASE *BABESIA MICROTI*

Mary Lynn Baniecki Baniecki[1], Jade Moon[2], Kian Sani[3], Jacob E. Jacob[1], Lisa Freimark[1], Pardis C. Sabeti[1]
[1]The Broad Institute of Massachusetts Institute of Technology and Harvard, Cambridge, MA, United States, [2]Harvard University, Cambridge, MA, United States, [3]Harvard Univesity, Cambridge, MA, United States

4:45 p.m.

1339

NOVEL IMMUNO-DOMINANT *BABESIA MICROTI* ANTIGENS THAT INDUCE PROTECTIVE IMMUNITY AGAINST PARASITE CHALLENGE IN MICE

Nitin K. Verma[1], Edward E. Essuman[1], Hong Zheng[1], Ankit Puri[1], Peter J. Krause[2], Sanjai Kumar[1]
[1]CBER/Food and Drug Administration, Silver Spring, MD, United States, [2]Yale School of Public Health and Yale School of Medicine, New Haven, CT, United States

5 p.m.

1340

SCRUB TYPHUS NO LONGER RESTRICTED TO THE TSUTSUGAMUSHI TRIANGLE

Allen L. Richards
Naval Medical Research Center, Silver Spring, MD, United States

Symposium 114

Etiology and Prevention of Neonatal Infections

Convention Center - Room 341/342 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

Newborn deaths account for more than 40% of all mortality in young children. One-quarter of these deaths are attributable to infection. Since 2000, substantive research has been conducted in South Asia and sub-Saharan Africa to investigate the etiologies, prevention and management of neonatal infection. This symposium will include four speakers who will present the results of recent studies that have evaluated the etiology of community-acquired neonatal sepsis, strategies for the prevention of nosocomial infections in newborns, and community-based strategies for the treatment of neonatal infections.

CHAIR

Pavani K. Ram
University at Buffalo, Buffalo, NY, United States

David H. Hamer
Boston University, Center for International Health and Development, Boston, MA, United States

4 p.m.
AETIOLOGY OF NEONATAL SEPSIS IN SOUTH ASIA (ANISA) MAIN STUDY RESULTS

Samir K. Saha
Child Health Research Foundation, Dhaka, Bangladesh

4:15 p.m.
ANTIMICROBIAL RESISTANCE IN NEWBORN INRFECTIONS

Grace Chan
Harvard Medical School, Boston, MA, United States

4:30 p.m.
CHLORHEXIDINE VERSUS DRY CORD CARE: WHERE AND WHEN?

David H. Hamer
Boston University, Center for International Health and Development, Boston, MA, United States

4:45 p.m.
OPPORTUNITIES FOR INFECTION PREVENTION AND MANAGEMENT IN NEWBORNS

Pavani Ram
University at Buffalo, Buffalo, NY, United States

Symposium 115

Follow-Up Tools for Surgical Quality Assurance

Convention Center - Room 343/344 (Level 300)
Tuesday, November 7, 4 p.m. - 5:45 p.m.

With an estimated one-third of global disease burden requiring surgical and or anesthetic care, there is a dire need for countries to improve surgical capacity and overcome barriers to provide surgical care, including for maternal disease, non-communicable diseases, injuries, neonatal disease and neglected tropical diseases (NTDs). Given this great demand for surgical care, a Resolution was passed at the World Health Assembly in May 2015 to make the strengthening of emergency and essential

surgical care and anesthesia a component of universal health coverage. Over the last few years, increasing funding and attention has focused on addressing morbidity management and disability prevention (MMDP) associated with NTDs. Quality surgery to correct hydrocele and trichiasis are essential elements of the elimination programs for lymphatic filariasis and trachoma. However, in order to achieve these goals, a strong foundation of surgical capacity is needed. For single-disease programs, like lymphatic filariasis or trachoma, low-income countries face challenges in developing their surgical capacity on their own. Addressing the global surgery burden requires collaboration among organizations and partners working in different disciplines to join together to meet the need of quality global surgery. This symposium will bring together experts from the neglected tropical diseases (NTD) and the global surgery communities to highlight current tools and methodologies to assess and ensure surgical quality and readiness to explore opportunities for future collaboration between these two areas. Topics include an overview of the comprehensive activities conducted to assure trichiasis surgery quality in Tanzania, lessons learned from supportive supervision activities related to trichiasis surgery to ensure surgical quality, the Surgical Society of Ethiopia's experience with the hydrocele surgery follow-up tool, and experiences from Burkina Faso and Cameroon where the hydrocele surgery follow-up tool was adapted and used. Together, these presentations underscore the challenges and opportunities for quality surgery and provide a platform for integration across disease-specific programs to improve surgical care globally.

CHAIR

Emily W. Gower
University of North Carolina, Helen Keller International, Chapel Hill, NC, United States

Zeina Sifri
Helen Keller International, Washington, DC, United States

4 p.m.
FOLLOW-UP TOOLS TO ENSURE TT SURGICAL QUALITY IN TANZANIA

Jen Harding
Helen Keller International, Dar es Salaam, United Republic of Tanzania

4:20 p.m.
SUPPORTIVE SUPERVISION EXPERIENCES FROM THE MMDP PROJECT COUNTRIES WITH TT SURGEON TRAINING

Whitney Goldman
Helen Keller International, Washington, DC, United States

4:40 p.m.
FOLLOW-UP OF HYDROCELE SURGERY QUALITY OUTCOMES: THE EXPERIENCE OF THE SURGICAL SOCIETY OF ETHIOPIA

Andualem Deneke
Surgical Society of Ethiopia, Addis Ababa, Ethiopia

5 p.m.
EXPERIENCES FROM BURKINA FASO AND CAMEROON: QUALITY ASSURANCE USING THE HYDROCELE SURGERY FOLLOW-UP TOOL

Adama Guira
Ministry of Health, Kadiogo, Burkina Faso

Special Session 116

Speed-Networking with the Experts

Hilton - Holiday Ballroom 1 (East Building, Second Floor)
Tuesday, November 7, 5 p.m. - 6:45 p.m.

The fifth annual speed-networking session is organized by the five ASTMH subgroups: ASTMH Committee on Global Health (ACGH), the American Committee on Clinical Tropical Medicine and Travelers' Health (ACCTMTH/Clinical Group), the American Committee of Medical Entomology (ACME), the American Committee on Arthropod-Borne Viruses (ACAV) and the American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP). The session is designed to facilitate interactions between senior scientists, physicians and trainees in an informal setting in order to provide an array of important information and possible career paths in tropical medicine. During this session, students and young career scientists will have an opportunity to briefly meet experts who represent each of the subgroup fields, including scientists in global health, clinicians, epidemiologists, entomologists and basic research scientists. Experts will have a broad range of career experiences working in international posts, policy, federal government, and the military, among others. Experts will share information with students about their career choices, trajectories, challenges along the way, and how they see their work fitting into the larger tropical medicine arena. Students in this session will be designated to a subgroup to match their interests and current educational paths.

Please note that this session is limited to those who pre-registered for the event.

CHAIR

Nikos Vasilakis (ACAV)
University of Texas Medical Branch, Galveston, TX, United States

Koya C. Allen (ACGH)
U.S. European Command Headquarters, U.S. Department of Defense, Stuttgart, Germany

Ryan Carroll (ACGH)
Massachusetts General Hospital, Boston, MA, United States

Janine Danko (Clinical Group - ACCTMTH)
Walter Reed Military Medical Center, Silver Spring, MD, United States

Richard Davis (ACMCIP)
University of Iowa, Iowa City, IA, United States

Scott Huang (ACME)
Kansas State University, Manhattan, KS, United States

Diana Ortiz (ACME)
Westminster College, New Wilmington, PA, United States

Plenary Session 117

Plenary Session III: Commemorative Fund Lecture

Convention Center - Ballroom III (Level 400)
Tuesday, November 7, 6:15 p.m. - 7 p.m.

The Commemorative Fund Lecture is presented annually by an invited senior researcher resident in the tropics.

CHAIR
Patricia F. Walker
University of Minnesota and HealthPartners Travel and Tropical Medicine Center, St. Paul, MN, United States

COMMEMORATIVE FUND LECTURE

Jane Cardosa, DPhil
Chief Scientific Officer
Sentinext Therapeutics
Penang, Malaysia and
Founding Director, Institute of Health & Community Medicine
Sarawak, Malaysia

Dr. Jane Cardosa completed a bachelor's degree at Princeton University in 1974, an M.Phil. at Columbia University in New York in 1975 and a D.Phil. at Oxford University in 1984. She has extensive experience conducting research in developing countries and has combined basic research with translational research in Penang and in Sarawak, Malaysia. She has also been actively involved in disease surveillance activities, especially for dengue, Japanese encephalitis and enterovirus 71, as well as for other emerging diseases. Dr. Cardosa has served on a number of international scientific boards and committees, using the insight she developed from working in developing countries to address global health problems. Among others she has been a member of the WHO Advisory Group on Dengue and other Flavivirus Vaccines, the Scientific Board of the Bill & Melinda Gates Foundation initiative, Grand Challenges in Global Health, and the Scientific Advisory Board of the Grand Challenges Canada. In February 2009, she had the honor of giving a Tanner Lecture on Emerging Infectious Diseases on the occasion of the 500th anniversary of Brasenose College, Oxford University. Dr. Cardosa is now retired from academic service and is committed to developing novel vaccines needed by children in developing countries. She is Chief Scientific Officer of Sentinext Therapeutics, a biotechnology startup based in Penang, Malaysia, and is currently deeply involved in overseeing the manufacture of a Virus-Like Particle (VLP) vaccine for enterovirus 71, a virus that causes large outbreaks in the Asia Pacific during which there is significant mortality and morbidity, including encephalitis and flaccid paralysis. A phase I clinical trial is planned for mid-2017.

Special Session 118

Minutes to Die Documentary Film

Convention Center - Ballroom I (Level 400)
Tuesday, November 7, 7:15 p.m. – 9 p.m.

From a Kenyan hospital to a rice paddy in India, victims of venomous snakebites are the faces of death and disability of a staggeringly widespread global crisis the world knows little about. The documentary *Minutes to Die* takes viewers to the homes and hospital beds of snakebite victims, to labs where scientists are working to manufacture antivenom and develop additional antidotes, to meetings of public health officials from the World Health Organization. Unpacking the limitations of rural medical infrastructure, the economic challenges of antivenom, and the financial devastation to the families of snakebite victims—who are mostly agricultural workers and children—the film makes clear that this health issue is also very much an issue of poverty, inequity, and social justice. *Minutes to Die* is directed by James Reid and funded by the Lillian Lincoln Foundation. The 62-minute film will be followed by a panel discussion.

7:15 p.m.
INTRODUCTION
James Reid
Director, Minutes to Die Documentary Film

7:30 p.m.
***MINUTES TO DIE* DOCUMENTARY FILM**

8:30 p.m.
PANEL DISCUSSION
Bernadette Abela-Ridder
World Health Organization, Geneva, Switzerland
David Williams
Global Snakebite Initiative, Melbourne, Australia

Symposium 118A

Harvey, Irma and Maria: Direct Impacts and Global Health Implications of Climate Change and Extreme Weather Events

Convention Center - Ballroom II (Level 400)
Tuesday, November 7, 7:15 p.m. – 9 p.m.

Recent hurricanes Harvey, Irma and Maria resulted in hundreds of deaths, tens of thousands of people with lost homes and property damage, and billions of dollars of economic loss in the Caribbean and southern United States. These are but three of the extreme weather events noted in 2017, which also saw numerous typhoons in the Pacific Region and extreme drought in the Western Horn of Africa. Scientific data increasingly link extreme weather events, including unprecedented summer warmth, forest fires, drought, flooding, hurricanes/typhoons and tornados to global warming as a result of greenhouse gas accumulation, noting that recent years are consistently among the warmest on record. In this special symposium, we will hear from front-line health workers regarding their efforts to monitor and mitigate the health impacts of these extreme weather events as well as explore the greater global health implications of climate change

Wednesday, November 8

Registration

Convention Center - Pratt Street West Lobby (Level 300)
Wednesday, November 8, 7 a.m. - 5 p.m.

Speaker Ready Room

Convention Center - Room 336 (Level 300)
Wednesday, November 8, 7 a.m. - 5 p.m.

TropStop- Student/Trainee Lounge

Convention Center - Pratt Street West Lobby Foyer (Level 300)
Wednesday, November 8, 7 a.m. - 5 p.m.

This casual setting, designed with students, trainees and residents in mind (coffee, internet), is your place for a break from the fast-pace of the meeting and relax with colleagues and friends. Check out the "Office Hours," held in the TropStop. This will be your opportunity to meet professionals in the fields of tropical medicine, global health, science and industry who will share their personal career paths and answer your questions about the various bumps and forks in the road.

Meeting Sign-Up Room

Hilton – Stone Room and Chase Room (West Building, Third Floor)
Wednesday, November 8, 7 a.m. - 10 p.m.

ASTMH Past Presidents Meeting

Hilton - Holiday Ballroom 1 (East Building, Second Floor)
Wednesday, November 8, 7 a.m. - 8 a.m.

Diploma Course Certification Committee Meeting

Hilton - Johnson B (East Building, First Floor)
Wednesday, November 8, 7 a.m. - 8 a.m.

Scientific Program Committee Meeting

Hilton - Key Ballroom 7/8 (West Building, Second Floor)
Wednesday, November 8, 7 a.m. - 8 a.m.

Press Room

Convention Center - Room 330 (Level 300)
Wednesday, November 8, 8 a.m. - 5 p.m.

Burroughs Wellcome Fund/ASTMH Fellowship Committee Meeting

Hilton - Johnson A (East Building, First Floor)
Wednesday, November 8, 8 a.m. - 10 a.m.

Scientific Session 119

Malaria: Advances in Modeling and Technology for Malaria

Convention Center - Ballroom I (Level 400)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

CHAIR

Katelyn A. Walzer
Duke University, Durham, NC, United States

Oliver J. Watson
Imperial College London, MRC Centre for Outbreak Analysis and Modelling, London, United Kingdom

8 a.m.

1341

A SYSTEMIC FUNCTIONAL ANALYSIS OF THE PHOSPHOINOSITIDE METABOLIC PATHWAY IN *PLASMODIUM FALCIPARUM*

Angana Mukherjee, Dominic Gagnon, Zeinab Ebrahimzadeh, Dave Richard
Centre for Infectious Diseases and Immunology, Laval University, Quebec, QC, Canada

8:15 a.m.

1342

CAPTURING DIFFERENTIAL PROTEIN TURNOVER DYNAMICS IN ARTEMISININ RESISTANT *PLASMODIUM FALCIPARUM* USING PULSE-SILAC

Tuo Yang, Simon Cobbold, Stanley C. Xie, Leann Tilley
The University of Melbourne, Melbourne, Australia

8:30 a.m.

1343

USING SINGLE-CELL TRANSCRIPTOMICS TO ELUCIDATE SEXUAL COMMITMENT AND DIFFERENTIATION IN *PLASMODIUM FALCIPARUM*

Katelyn A. Walzer, Liane Y. Emerson, Danielle Kubicki, David L. Corcoran, Jen-Tsan Ashley Chi
Duke University, Durham, NC, United States

(ACMCIP Abstract)

8:45 a.m.

1344

CHARACTERIZING THE POTENTIAL BIAS WITHIN GENOMIC TOOLS FOR INFERRING CHANGES IN *PLASMODIUM FALCIPARUM* TRANSMISSION INTENSITIES

Oliver J. Watson, Robert Verity, Lucy Okell, Azra Ghani
MRC Centre for Outbreak Analysis and Modelling, Imperial College London, London, United Kingdom

9 a.m.

1345

THE CONSEQUENCES OF CENSORING NEW INFECTIONS WHEN DERIVING ANTIMALARIAL EFFICACY AGAINST UNCOMPLICATED *P. FALCIPARUM* MALARIA

Prabin Dahal, on behalf of the WWARN Methods Study Group
WorldWide Antimalarial Resistance Network, Oxford, Oxford, United Kingdom

9:15 a.m.

1346

SINGLE CELL GENOMICS OF MALARIA INFECTIONS

Simon G. Trevino[1], Standwell Nkhoma[2], Shalini Nair[1], Timothy Anderson[1], Karla Moncada[3], Benjamin Daniel[3], **Ian H. Cheeseman**[1]
[1]Texas Biomedical Research Institute, San Antonio, TX, United States, [2]Malawi-Wellcome-Liverpool-Wellcome Trust Clinical Research Programme, Blantyre, Malawi, [3]UTHSCSA, San Antonio, TX, United States

(ACMCIP Abstract)

9:30 a.m.

1347

VARYING IMPACT OF MALARIA INTERVENTIONS AT DISTRICT LEVEL - IMPLICATIONS OF A MATHEMATICAL MODEL FOR STRATEGIC PLANNING

Manuela Runge[1], Emilie Pothin[1], Renata Mandike[2], Ally Mohamed[2], Susan Rumisha[3], Fabrizio Molteni[1], Tom Smith[1], Christian Lengeler[1]
[1]Swiss Tropical and Public Health Institute; University of Basel, Basel, Switzerland, [2]Ministry of Health, Community Development, Gender, Elderly and Children, Dar es Salaam, United Republic of Tanzania, [3]National Institute for Medical Research, Dar es Salaam, United Republic of Tanzania

Symposium 120

Quantifying Immunity to Malaria

Convention Center - Ballroom II (Level 400)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

Understanding the human immune response to malaria has been challenging due high variation in responses between individuals. Although immune responses are observed following infection, there is no consistent immune signature of infection or protection. Both the high antigenic diversity of malaria proteins as well as the within-infection antigenic variation of proteins leads to complexity in the immune response. As a result of the lack of conclusive data of the development of immune responses, mathematical models have traditionally incorporated immunity in a fairly simple manner, often ignoring any variation in immune responses among individuals. With the advent of more sophisticated genomic techniques to measure signatures of immunity, a more fined tuned incorporation of immunity into models may soon be possible. This symposium will bring together malaria immunologists and mathematical modelers to present the current state of the field and to address the quantification of immunity to malaria. They will discuss how best to include these measures in mathematical models, focusing on what features are likely essential and what aspects can safely be ignored. The symposium will focus on *Plasmodium falciparum* malaria, the deadliest of the human malaria species. Types of modeling considered will span various scales from within host population dynamics to those of epidemiological patterns of disease transmission but will focus on models where immune dynamics can quantitatively be incorporated. The goal of the symposium is to provide engagement across disciplines on the role of quantification of immune responses for use in modeling.

CHAIR

Lauren M. Childs
Virginia Tech, Blacksburg, VA, United States

Caroline Buckee
Harvard T.H. Chan School of Public Health, Boston, United States

8 a.m.

ANTIBODY CORRELATES OF PROTECTION FROM CONTROLLED HUMAN MALARIA INFECTIONS

James Tuju
Kenya Medical Research Institute - Wellcome Trust, Kilifi, Kenya

8:25 a.m.

DISENTANGLING ANTIBODY RESPONSES TO MALARIA: MARKERS OF EXPOSURE OR MARKERS OF IMMUNITY?

Isabel Rodríguez-Barraquer
University of California San Francisco, San Francisco, United States

8:50 a.m.

MODELLING THE ACQUISITION OF CLINICAL IMMUNITY TO FALCIPARUM MALARIA: PARASITE DIVERSITY, ANTIBODIES AND CROSS-REACTIVITY

Michelle Gatton
University of Technology, Brisbane, Australia

9:15 a.m.

INFERENCES OF IMMUNE RESPONSE FROM POPULATION DATA MUST ACCOUNT FOR COHORT SELECTION ON INDIVIDUAL CHARACTERISTICS

Gabriela Gomes
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

Symposium 121

School-Based Malaria Interventions: Impact on Health and Transmission

Convention Center - Ballroom III (Level 400)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

School-aged children have the highest burden of malaria infection in many malaria-endemic regions but are not specifically targeted by current malaria control interventions. Malaria has profound effects on the health and educational achievement of this group. Increasing evidence suggests that school-aged children also play a significant role in maintaining malaria transmission in communities. Targeting interventions to schools may be an effective and sustainable strategy to decrease the burden of malaria in school-aged children, and in the wider community. This symposium will address the public health impact of school-based interventions to treat malaria and will also explore the possible impact on transmission. The speakers will present the most recent data from school-based interventions that assess the benefit of treating malaria on health and educational achievement and evidence from epidemiological studies and a clinical trial that identify school-aged children as a major reservoir of malaria transmission. The final speaker will integrate the results of these and other studies into a systematic review that identifies key features that determine the success or failure of a wide range of school-based interventions. The panel will discuss the future directions for school-based interventions to improve health and reduce malaria transmission

CHAIR

Miriam K. Laufer
University of Maryland, Institute for Global Health, Baltimore, MD, United States

Lauren M. Cohee
University of Maryland Institute for Global Health, Baltimore, MD, United States

8 a.m.
MALARIA IN SCHOOL-AGE CHILDREN: IMPACT ON HEALTH AND EDUCATION
Don P. Mathanga
University of Malawi College of Medicine, Blantyre, Malawi

8:20 a.m.
BEYOND HEALTH OUTCOMES: RESULTS OF RECENT TRANSMISSION STUDIES IN BURKINA FASO AND REVIEW OF THE EVIDENCE SUPPORTING THE SIGNIFICANT ROLE FOR SCHOOL-AGE CHILDREN IN TRANSMISSION
Bronner Gonçlaves
London School of Hygiene & Tropical Medicine, London, United Kingdom

8:40 a.m.
EVALUATION OF THE COMMUNITY-LEVEL IMPACT OF IPT FOR MALARIA IN SCHOOLCHILDREN: RESULTS FROM THE START-IPT TRIAL IN UGANDA
Catherine Maiteki-Sebuguzi
Uganda Ministry of Health, National Malaria Control Programme, Kampala, Uganda

9 a.m.
WHERE DO WE GO FROM HERE? SYSTEMATIC REVIEW OF SCHOOL-BASED MALARIA TREATMENT INTERVENTIONS AND KEY FACTORS IN DESIGNING FUTURE INTERVENTIONS
Lauren M. Cohee
University of Maryland Institute for Global Health, Baltimore, MD, United States

Symposium 122

Translational Research Initiatives in the Practice of Travel Medicine

Convention Center - Ballroom IV (Level 400)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

Military personnel are a subset of travelers who are uniquely vulnerable to infectious disease threats during overseas deployment. Translational research efforts at the Uniformed Services University Infectious Diseases Clinical Research Program (IDCRP) focus on research gaps related to the prevention and treatment of infectious disease threats in the deployment/travel setting. Travelers' diarrhea (TD), the most common illness encountered by deployed forces, continues to be met with challenges in providing optimal care while balancing safety issues of antibiotic use. Furthermore, diagnostics in this area are often absent in the deployment setting, and rely on WWII technologies. Culture-independent methods are rapidly growing in promise, but practicable implementation of these methods is still met with challenges. In the area of vector-borne disease, dengue, Chikungunya and Zika infections are emerging and re-emerging threats that currently lack methods of exposure assessment which are critical to inform the burden of disease and identify the effectiveness of individual and population-based vector control measures. Lastly, across the spectrum of travel and deployment health delivery, outcomes research is becoming ever more important in the effort to transition the evidence-based medicine knowledge that has been gained into individual and population health interventions that work. In this symposium, speakers will review recently published and unpublished data from translational research initiatives conducted in the deployment setting by the IDCRP in partnership with military sites outside the continental United States. The first speaker will review the performance characteristics of the TaqMan Array PCR Card assay for detecting TD enteropathogens from stool smears obtained on Whatman FTA Elute cards and how this may change the future of diagnostics in forward deployed settings. The next talk will focus on clinical practice guidelines that were developed using the results of a TD treatment trial (TrEAT-TD) which lays the groundwork for future implementation science initiatives. Results from a prospective cohort study evaluating the seroprevalence of antibodies to *Anopheles* and *Aedes* specific salivary gland antigens, following group deployment to destinations in Central/South America and Africa will be presented as a potential tool necessary for exposure assessment and eventual outcomes necessary to evaluate vector-borne disease risk reduction. The final speaker will present research related to knowledge, attitudes and practices of travel medicine providers, the impact of knowledge gaps on disease burden and cost and provide a framework for which future implementation science initiatives in travel medicine could be considered.

CHAIR
Tahaniyat Lalani
Uniformed Services University of the Health Sciences, Infectious Disease Clinical Research Program, Rockville, MD, United States

David Tribble
Uniformed Services University of the Health Sciences, Infectious Disease Clinical Research Program, Bethesda, MD, United States

8 a.m.
PERFORMANCE CHARACTERISTICS OF A FILTER PAPER BASED STOOL COLLECTION METHOD AND THE TAQMAN ARRAY CARD PCR ASSAY FOR DETECTION OF PATHOGENS ASSOCIATED WITH TRAVELERS' DIARRHEA
Michele D. Tisdale
Infectious Disease Clinical Research Program, Portsmouth, VA, United States

8:20 a.m.
DEVELOPMENT AND IMPLEMENTATION OF DEPLOYMENT HEALTH GUIDELINES FOR MANAGEMENT OF ACUTE DIARRHEA AND GASTROENTERITIS
Mark S. Riddle
Naval Medical Research Center, Silver Spring, MD, United States

8:40 a.m.
UTILITY OF BIOMARKERS FOR DETERMINING *AEDES* AND *ANOPHELES* SPP. EXPOSURE DURING DEPLOYMENTS TO HIGH-RISK REGIONS FOR MALARIA OR ARBOVIRAL INFECTIONS
Tahaniyat Lalani
Infectious Disease Clinical Research Program, Portsmouth, VA, United States

9 a.m.
DEPLOYMENT AND TRAVEL HEALTH: KNOWLEDGE, ATTITUDES, PRACTICE AND OUTCOMES STUDY (KAPOS)
Patrick Hickey
Uniformed Services University, Bethesda, MD, United States

Scientific Session 123

Zika II

Convention Center - Room 318/319/320 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

CHAIR

Lenore Pereira
University of California San Francisco, San Francisco, CA, United States

Tyler M. Sharp
Centers for Disease Control and Prevention, San Juan, PR, United States

8 a.m.

1348

POTENTIAL FOR ZIKA VIRUS TRANSMISSION FROM MATERNAL CIRCULATION TO FETAL BLOOD STREAM BY A PARAPLACENTAL ROUTE ACROSS AMNIOCHORIONIC MEMBRANE AND FETAL SKIN

Matthew Petitt[1], Takako Tabata[1], Daniela MichImayr[2], Henry Puerta-Guardo[2], Eva Harris[2], Lenore Pereira[1]
[1]University of California San Francisco, San Francisco, CA, United States, [2]University of California Berkeley, Berkeley, CA, United States

8:15 a.m.

1349

RAPID DEVELOPMENT OF A REPLICATING VIRAL RNA VACCINE FOR ZIKA VIRUS

Jesse Erasmus, Amit P. Khandhar, Brian Granger, Jacob Archer, Christopher Fox, Steven G. Reed, Rhea Coler, Dan Stinchcomb, Neal Van Hoeven
Infectious Disease Research Institute, Seattle, WA, United States

8:30 a.m.

1350

DIFFERENCES IN PREVALENCE OF SYMPTOMATIC ZIKA VIRUS INFECTION BY AGE AND SEX

Matthew J. Lozier[1], Rachel Burke[2], Juan Lopez[3], Veronica Acevedo[1], Manuel Amador[1], Jennifer S. Read[1], Amanda Jara[4], Stephen H. Waterman[1], Roberto Barrera[1], Jorge Muñoz-Jordan[1], Brenda Garcia-Rivera[5], Tyler M. Sharp[1]
[1]Centers for Disease Control and Prevention, San Juan, Puerto Rico, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Florida State University, Tallahassee, FL, United States, [4]University of Georgia, Athens, GA, United States, [5]Puerto Rico Department of Health, San Juan, Puerto Rico

8:45 a.m.

1351

INCIDENCE OF ZIKA VIRUS INFECTION AND EFFECT OF PRE-EXISTING DENGUE VIRUS EXPOSURE ON ZIKA VIRUS INFECTION AND DISEASE IN A PEDIATRIC COHORT IN NICARAGUA

Angel Balmaseda[1], Damaris Collado[2], Juan Carlos Mercado[1], José Victor Zambrana[2], Sergio Ojeda[2], Nery Sanchez[2], Douglas Elizondo[2], Josefina Coloma[3], Lionel Gresh[2], Leah Katzelnick[3], Raquel Burger-Calderon[3], Aubree Gordon[4], Guillermina Kuan[5], **Eva Harris**[3]
[1]Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua, [2]Sustainable Sciences Institute, Managua, Nicaragua, [3]Division of Infectious Diseases and Vaccinology, School of Public Health, University of California Berkeley, Berkeley, CA, United States, [4]Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI, United States, [5]Health Center Sócrates Flores Vivas, Ministry of Health, Berkeley, CA, United States

9 a.m.

1352

ANALYZING THE IMMUNE RESPONSE TO ZIKA VIRUS USING REPORTER VIRUS PARTICLES, ANTI-ZIKV ANTIBODIES AND EPITOPE MAPPING

Chuck Whitbeck[1], Anu Thomas[1], Aubrey Bryan[1], Lewis J. Stafford[1], Ross Chambers[1], Gopal Sapparapu[2], James E. Crowe Jr[2], Edgar Davidson[1], Benjamin J. Doranz[1]
[1]Integral Molecular, Inc., Philadelphia, PA, United States, [2]Vanderbilt University, Nashville, TN, United States

9:15 a.m.

1353

ZIKA VIRUS CLINICAL ISOLATES REPLICATE IN HUMAN PROSTATE CELLS AND ORGANOIDS

Jennifer L. Spencer, Anismrita Lahon, Linda L. Tran, Ravi P. Arya, Megan B. Vogt, David R. Rowley, Jason T. Kimata, Rebecca R. Rico-Hesse
Baylor College of Medicine, Houston, TX, United States

9:30 a.m.

1354

REPLICATION OF ZIKA VIRUS AND CYTOMEGALOVIRUS IN FIRST-TRIMESTER HUMAN PLACENTAS SHOWS DIVERGENT PATTERNS OF INFECTION AND PATHOGENESIS THAT COULD AFFECT TRANSMISSION

Lenore Pereira[1], Takako Tabata[1], Matthew Petitt[1], Henry Puerta-Guardo[2], Daniela MichImayr[2], Eva Harris[2]
[1]University of California San Francisco, San Francisco, CA, United States, [2]University of California Berkeley, Berkeley, CA, United States

Symposium 124

Medical Education and Public Health Challenges in Iraq

Convention Center - Room 321/322/323 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

Modernization of health and education systems in Iraq face many challenges – political instability, psychological trauma and shifting populations as a result of conflict, rebuilding of medical infrastructure, privatization of health care services and rapid growth. All this in the setting of an economy that is highly dependent on the price of oil. Since 1927 Iraq has established 23 medical schools, with many excellent physicians working in national and regional facilities. However, medical education has focused on producing independent primary care physicians, thus providing limited opportunities to educate students on the full spectrum of public health careers and interdisciplinary teams that are now in such tremendous demand all over the world– health services management, specialty medicine, health policy and social sciences. With support of the U.S. government, the broader international community and non-profit organizations such as the Washington, DC-based IREX (International Research and Exchange), the Al Kindy College of Medicine at the University of Baghdad has initiated significant outreach activities designed to help modernize medical education structure and simultaneously to develop new research and teaching collaborations outside of Iraq. Thus this symposium will provide what is believed to be the first opportunity for Iraqi faculty and administration to speak directly to ASTMH and provide first-hand perspectives on medical education, public health priorities and the prospects for establishment of mutually beneficial international collaboration in global health and clinical tropical medicine.

CHAIR

Michael A. Kron
Medical College of Wisconsin, Milwaukee, WI, United States

8 a.m.
PUBLIC HEALTH PRIORITIES AND MEDICAL SCHOOL ADMINISTRATION IN IRAQ
Mohammed A. Alqortasi
Al Kindy College of Medicine, University of Baghdad, Baghdad, Iraq

8:20 a.m.
MEDICAL EDUCATION AND CURRICULUM IN IRAQ
Ekhlas K. Hameed
Al Kindy College of Medicine, University of Baghdad, Baghdad, Iraq

8:40 a.m.
MEDICAL SCHOOLS GRADUATE COMPETENCIES IN RESPONSE TO WOMEN AND CHILD HEALTH PRIORITY NEEDS
Taghreed Alhaidari
Al Kindy College of Medicine, University of Baghdad, Baghdad, Iraq

9 a.m.
SURGERY AND MEDICAL EDUCATION IN IRAQ
Ibtesam Khalid Al-Shadidi
Al Kindy College of Medicine, University of Baghdad, Baghdad, Iraq

Symposium 125

Wolbachia for Biocontrol of Arboviruses

Convention Center - Room 324/325/326 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

This symposium brings together experts in the field application of *Wolbachia* to achieve *Aedes* sp. mosquito population suppression, or replacement with *Wolbachia* infected mosquitoes, with an overarching goal of preventing arbovirus disease transmission. This symposium, which will showcase laboratory science leading to community level field trials and measurements of disease impact, is timely given the global backdrop of endemic dengue, epidemic Zika and emergent Yellow Fever transmission. The session will begin with an update on the expansion of the Eliminate Dengue Program and progress in the deployment of *Wolbachia* into *Ae. aegypti* mosquito populations and describe clinical trial methods, with a worked example, to enable the impact of novel mosquito control strategies on clinical epidemiology to be measured. Following will be a description of community and stakeholder engagement activities and the entomological and epidemiological outcomes of *Wolbachia* deployments in the city of Yogyakarta, Indonesia. The session will explain the deployment of *Wolbachia*-infected male mosquito releases for the suppression of the *Aedes albopictus* population numbers in China, as well as the application of *Wolbachia*-infected male mosquito releases for the suppression of the *Aedes albopictus* and *Aedes aegypti* populations in the U.S. The symposium will be of interest to a wide audience but particularly to those working in the field of public health, arbovirology and entomology.

CHAIR

Cameron Simmons
Monash University, Clayton, Australia

Amy Morrison
University of California Davis, Davis, CA, United States

8 a.m.
THE ELIMINATE DENGUE PROGRAM
Cameron Simmons
Monash University, Clayton, Australia

8:15 a.m.
***WOLBACHIA* DEPLOYMENTS IN YOGYAKARTA, INDONESIA; ENTOMOLOGY AND PUBLIC HEALTH**
Adi Utarini
University of Gadjha Mada, Yogyakarta, Indonesia

8:30 a.m.
***WOLBACHIA* AS A BIOLOGICAL PESTICIDE TO REDUCE POPULATIONS OF ARBOVIRUS VECTOR MOSQUITOES**
Steve Dobson
University of Kentucky, Lexington, KY, United States

8:55 a.m.
SCALE UP FROM FIELD TRIAL TO OPERATION: THE COMBINED IIT/SIT APPROACH TO ELIMINATE THE PRIMARY DENGUE VECTOR *AEDES ALBOPICTUS* IN CHINA
Xi Zhiyong
University of Michigan, Ann Arbor, MI, United States

Symposium 126

Chagas Disease: Regional Differences in Clinical Research and Patient Care

Convention Center - Room 327/328/329 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

Chagas disease ranks among the world's most neglected diseases. After decades of limited progress, the last few years have witnessed a significant change in the landscape for Chagas disease research and knowledge production. However, even within the Latin American region, procedures and algorithms can vary greatly. Therefore, the symposium will focus mainly on regional differences in the management of patients with cardiac disease and the dynamic of congenital *T. cruzi* transmission and, in addition, will provide an update on research and clinical trials. Encompassing different themes and issues within this broader scope, the symposium will raise the debate regarding management of patients with cardiac disease due to Chagas, describing health workers' approach to the treatment of cardiomyopathy. It will provide an update of current clinical trials testing new regimens of benznidazole in monotherapy or in combination, as well as a new compound of shorter regimen than the current therapies. It will also present the dynamics of congenital transmission, taking regional differences into particular account, with an emphasis on how the variable lineage of *T. cruzi* relates to differences across Latin America, based on the results of recent research. Finally, the symposium will present a proposal for an algorithm to assist health workers in the decision-making process for how to assess response to etiological treatment, since no practical algorithm is currently available in national guidelines.

CHAIR

Sergio Sosa Estani
Drugs for Neglected Diseases initiative – Latin America, Rio de Janeiro, Brazil

Joaquim Gascon
Universitat de Barcelona, Barcelona, Spain

8 a.m.
REAL-WORLD MANAGEMENT OF HEART FAILURE IN CHAGAS DISEASE: INSIGHTS FROM THE BENEFIT TRIAL
Carlos Morillo
Alberta Health Services, Calgary, AB, Canada

8:20 a.m.
UPDATE ON CURRENT CLINICAL TRIALS FOR IMPROVING ETIOLOGICAL TREATMENT OF CHAGAS DISEASE
Joaquim Gascon
Institut de Salut Global de Barcelona, Universitat de Barcelona, Barcelona, Spain

8:40 a.m.
REGIONAL DIFFERENCES IN CONGENITAL TRANSMISSION OF *T. CRUZI* IN LATIN AMERICA
Pierre Buekens
Tulane University, School of Public Health and Tropical Medicine, New Orleans, LA, United States

9 a.m.
DECISION-MAKING ALGORITHM FOR THE EVALUATION OF THERAPEUTIC RESPONSE IN THE HEALTH CARE SYSTEM
Yanina Sguassero
Centro Rosarino de Estudios Perinatales, Rosario, Argentina

Symposium 127

Melioidosis-An Emerging Threat to Low-and-Middle-Income Countries

Convention Center - Room 331/332 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

Melioidosis is a neglected tropical infectious disease that is a potentially serious public health concern in many LMIC nations. Infections are transmitted by soil aerosols and water that are contaminated with *Burkholderia pseudomallei*, a gram-negative soil bacterium. A lack of awareness among health care personnel contributes to underreporting of cases in several endemic countries, and few countries have reliable long- running melioidosis surveillance programs. A recent disease incidence model predicted 165,000 cases and 89,000 deaths per year, while mortality rates can be as high as 70% in some countries. The highest risk zones for melioidosis include Southeast Asia, South Asia, tropical Australia, Western sub-Saharan Africa and South America where *B. pseudomallei* is likely to survive in the soil. Further, the incidence of Type 2 diabetes, which is a major risk factor for melioidosis, is also soaring in developing countries. A long and costly administration of antibiotics is required for treatment, and chronic infections have a poor prognosis. This symposium will address current status and gaps in the understanding of B. pseudomallei genomics, pathogenesis, resistance and diagnostic/prognostic methods.

CHAIR

Mohan Natesan
United States Army Medical Research Institute of Infectious Diseases, Frederick, MD, United States

Enoka M. Corea
University of Colombo, Colombo, Sri Lanka

8 a.m.
PATHOGENESIS OF MELIOIDOSIS: FROM HUMAN IMMUNE RESPONSE PERSPECTIVE
Ganjana Lertmemongkolchai
Khon Kaen University, Khon Kaen, Thailand

8:20 a.m.
ANTIBIOTIC RESISTANCE MECHANISMS IN *BURKHOLDERIA PSEUDOMALLEI*
Herbert P. Schweizer
University of Florida, Gainesville, FL, United States

8:40 a.m.
LARGE-SCALE COMPARATIVE GENOMIC COMPARISONS OF *BURKHOLDERIA PSEUDOMALLEI* PROVIDE INSIGHTS INTO DIAGNOSTICS, HORIZONTAL GENE TRANSFER, ANTIMICROBIAL RESISTANCE AND VIRULENCE
Jason Sahl
Northern Arizona University, Flagstaff, AZ, United States

9 a.m.
HOST AND PATHOGEN SPECIFIC BIOMARKERS FOR MELIOIDOSIS MANAGEMENT
Mohan Natesan
United States Army Research Institute of Infectious Diseases, Frederick, MD, United States

Symposium 128

New Tools and Strategies for the Next Phase of the Global Filariasis Elimination Program

Convention Center - Room 337/338 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

The Global Program to Eliminate Lymphatic Filariasis (GPELF) is the largest public health intervention to date based on mass drug administration. More than 6 billion doses of treatment were provided to hundreds of millions of people in more than 60 countries between 2000 and 2015. Many millions of people have been cured of their infections, and millions of cases of infection and disability have been prevented by this program. While this is an amazing record, global elimination of LF will not be achieved in a number of countries by the target date of 2020.Translational and operational research progress such as modified treatment strategies, improved diagnostics, and social science-guided improvement of compliance have the potential to help struggling countries to get on track for LF elimination. This symposium will consider the program's impressive accomplishments and ongoing challenges at this critical time and consider evidence-based options for improvement.

CHAIR

Gary J. Weil
Washington University School of Medicine, St. Louis, MO, United States

Taniawati Supali
University of Indonesia, Jakarta, Indonesia

8 a.m.
PROGRESS IN 2016 AND POTENTIAL ACHIEVEMENTS BY 2020 IN THE GLOBAL PROGRAM TO ELIMINATE LYMPHATIC FILARIASIS
Jonathan King
World Health Organization, Geneva, Switzerland

8:20 a.m.
ALTERNATIVE TREATMENT OPTIONS FOR LF ELIMINATION PROGRAMS: SEMIANNUAL MDA, "ALBENDAZOLE SEULE" AND IDA

Peter Fischer
Washington University School of Medicine, St. Louis, MO, United States

8:40 a.m.
LET'S DO THE NUMBERS: A FRESH LOOK AT DIAGNOSTICS, HOTSPOTS, AND ENDPOINTS

Gary J. Weil
Washington University School of Medicine, St. Louis, MO, United States

9 a.m.
STRATEGIES TO RE-ENERGIZE PROGRAMS AND INCREASE MDA COMPLIANCE

Alison Krentel
Bruyère Research Institute, Ottawa, ON, Canada

Symposium 129

How to Ensure the Efficacy of Drugs in Soil-Transmitted Helminth Control Programs?

Convention Center - Room 339/340 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

Soil-transmitted helminths (STHs) are a group of parasitic worms that infect millions of children in sub-tropical and tropical countries, resulting in malnutrition, growth stunting, intellectual retardation and cognitive deficits. To fight against STHs, preventive chemotherapy (PC) programs based on mass drug administration (MDA) with one of the benzimidazole (BZ) drugs, namely albendazole (ALB) or mebendazole (MEB), are currently implemented. While the laudable long-term aim is to eliminate STHs as a public health problem by 2020, there are three factors that could jeopardize the success of these programs. First, the therapeutic efficacy of the ALB and MEB differs across STH species. Both drugs are highly efficacious against *Ascaris lumbricoides*, but ALB is more efficacious against hookworms, and both drugs are unsatisfactory against *Trichuris trichiura* infections. Second, there is reliance on two drugs with the same mode of action, and hence the emergence of anthelmintic resistance (AR) as drug coverage expands may occur, as substantiated in veterinary medicine. Moreover, the development of AR against one benzimidazole drug would most likely be accompanied by poor anthelmintic drug efficacy of the other BZ drug. Third, there is a paucity of anthelmintic drugs that are both licensed and commercially available for the treatment of STH infections in humans. Thus, should AR against BZ drugs eventually emerge and spread, MDA-based control of STHs will be even more limited than at present with few acceptable alternative options. The Bill & Melinda Gates Foundation has therefore recently funded two projects, focusing on anthelmintic drug combinations and AR ("Starworms"). This symposium will present exciting new findings generated in the framework of these projects. The session will discuss how the efficacy of drugs in STH control programs could be ensured, and hence sustaining the success of PC programs to eliminate STHs as a public problem by 2020. To this end, there will be a brief introduction of both the rationale and the urgency of strategies to mitigate the emergence of AR, and the need for diagnostic tools both to monitor drug efficacy and to detect early emergence of AR. Subsequently, the session will present an overview of both published and unpublished clinical trials evaluating the efficacy of alternative drugs and drug combinations against STHs. The symposium will also present the results from ongoing studies designed to validate diagnostic tools for the assessment of both drug efficacy and the emergency of AR in STH endemic countries where MDA programs are ongoing.

CHAIR

Bruno Levecke
Ghent University, Merelbeke, Belgium

Jennifer Keiser
Swiss Tropical and Public Health Institute, Basel, Switzerland

8 a.m.
HOW CAN WE ENSURE THE EFFICACY OF DRUGS IN SOIL-TRANSMITTED HELMINTH CONTROL PROGRAMS?

Bruno Levecke
Ghent University, Merelbeke, Belgium

8:15 a.m.
DOSE-FINDING OF IVERMECTIN IN PRESCHOOL AND SCHOOL-AGED CHILDREN INFECTED WITH *TRICHURIS TRICHIURA* IN CÔTE D' IVOIRE

Jean Coulibaly
University Félix Houphouët Boigny, Abidjan, Côte D'Ivoire

8:35 a.m.
EFFICACY OF DRUG COMBINATIONS AGAINST SOIL-TRANSMITTED HELMINTHS: AN UPDATE

Jennifer Keiser
Swiss Tropical and Public Health Institute, Basel, Switzerland

8:55 a.m.
COMPARISON OF KATO-KATZ THICK SMEAR, MINI-FLOTAC, FECPAKG2 AND QPCR FOR THE ASSESSMENT OF THE EFFICACY OF A SINGLE ORAL DOSE OF ALBENDAZOLE AGAINST SOIL-TRANSMITTED HELMINTHS

Johnny Vlaminck
Ghent University, Merelbeke, Belgium

9:15 a.m.
THE OCCURRENCE OF SS - TUBULIN POLYMORPHISMS ASSOCIATED WITH BENZIMIDAZOLE RESISTANCE IN SOIL-TRANSMITTED HELMINTHS

Nour Rashwan
McGill University, Montreal, Quebec, Canada

Symposium 130

Challenges and Opportunities of Conducting Clinical Trials in Pregnant Women and Future Infants in Resource-Limited Settings

Convention Center - Room 341/342 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

Conducting clinical trials in low and middle-income countries (LMICs) is essential to deliver new and improved medical interventions that are safe, effective, appropriate and accessible for the affected population. Pregnant women and their unborn children in LMICs are particularly vulnerable to a range of

infections that can lead to significant mortality and morbidity to mother and baby. There is a need to develop medical products to prevent and treat infection in pregnancy and that can be implemented effectively in LMICs. However, the systematic exclusion of pregnant women from clinical trials conducted by product developers, as well as the challenges (scientific, ethical, social, cultural) of conducting research in pregnant women limit the development, testing and approval of safe, affordable and effective products for pregnant women. Furthermore, such trials can be costly and of long duration where extended infant follow-up post-trial is included. There is a need to maximize the impact of research through collaboration and data sharing from individual trials conducted in pregnant women. This symposium focuses on the practical challenges faced and lessons learned by researchers conducting clinical trials in pregnant women in LMICs. The presentations will focus on malaria, HIV and Zika infection in pregnant women and will share practical experiences from sub-Saharan Africa (Malawi and Mozambique), Asia (Thailand) and South America (Brazil). The symposium will include a final discussion session to summarize recommendations on best practice for conducting clinical trials in pregnant women, including consideration of good participatory practices, ethical and social aspects, as well as how such research can best be conducted in a collaborative network (North and South). The symposium should be of interest to individuals and organizations dealing directly with clinical trials in LMICs and working in the field of maternal and child health.

CHAIR

Pauline Beattie
European and Developing Countries Clinical Trials Partnership (EDCTP), The Hague, Netherlands

Michael Turner
Wellcome Trust, London, United Kingdom

8 a.m.
REPRODUCTIVE HEALTH AND COMMUNITY ENGAGEMENT IN CLINICAL TRIALS

Khátia Munguambe
Universidade Eduardo Mondlane and Centro de Investigacao em Saude de Manhica (CISM), Maputo, Mozambique

8:20 a.m.
EFFECTS OF MALARIA-HIV CO-INFECTIONS ON MOTHER-TO-CHILD-TRANSMISSION OF HIV

Victor Mwapasa
Malawi College of Medicine, Blantyre, Malawi

8:40 a.m.
EFFECT OF MALARIA AND OTHER TROPICAL INFECTIONS ON MATERNAL AND CHILD HEATH

Rose McGready
University of Oxford and Shoklo Malaria Research Unity, Mae Sot, Thailand

9 a.m.
SOCIAL, ETHICAL AND LEGAL IMPLICATIONS OF RESEARCH IN PREGNANT WOMEN DURING THE ZIKA OUTBREAK

Ruth Faden
Johns Hopkins University, Berman Institute of Biomedical Ethics, Baltimore, United States

Symposium 131

Acute Febrile Illness and Acute Encephalitis Surveillance in India in the Context of the Global Health Security Agenda: Unveiling Emerging Pathogens and Informing Disease Prioritization

Convention Center - Room 343/344 (Level 300)
Wednesday, November 8, 8 a.m. - 9:45 a.m.

Acute Febrile Illness (AFI) and Acute Encephalitis Syndrome (AES) are major public health syndromes in India that affect thousands of people every year. Despite advances in laboratory diagnostics, there are still gaps in understanding the burden, etiologic spectrum, and risk factors associated with these syndromes in India. CDC India, Government of India, Manipal University, and the National Institute of Mental Health and Neurosciences (NIMHANS), as part of Global Health Security, are collaborating to determine the specific causes of AFI and AES and to recommend data-driven interventions to reduce illness and mortality. This project, initiated in 2014, is currently being implemented in select districts in 14 states across India as an ongoing surveillance activity, identifying previously-undiagnosed fever and AES pathogens and providing new insights on the burden and geographical distribution of influenza, Japanese encephalitis, leptospirosis, scrub typhus, dengue, malaria, Kyasanur Forest Disease and more than 70 other pathogens. Public health impact and next steps for disease prioritization at the district, state and national level will be discussed during the symposium by leaders of the surveillance activities and Government of India leadership.

CHAIR

Kayla F. Laserson
Centers for Disease Control and Prevention, Delhi, India

Jagdish Prasad
Ministry of Health and Family Welfare, Delhi, India

8 a.m.
ACUTE ENCEPHALITIS SYNDROME SURVEILLANCE ACROSS INDIA

V. Ravi
National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore, India

8:20 a.m.
ACUTE FEVER ILLNESS (AFI) SURVEILLANCE ACROSS INDIA

Dr Govindakarnarvar Arunkumar
Manipal Centre for Virus Research, Manipal University, Manipal, India

8:40 a.m.
DEFINING AND REFINING RESEARCH PRIORITIES USING SURVEILLANCE DATA

Soumya Swaminathan
Indian Council of Medical Research, Delhi, India

9 a.m.
CHANGING DISEASE SURVEILLANCE: DETECT AND RESPONSE; GHSA IMPACT ON PUBLIC HEALTH IN INDIA

Akshay Chandra Dhariwal
National Centre for Disease Control, Delhi, India

Exhibit Hall Open

Convention Center - Swing Hall (Level 100)
Wednesday, November 8, 9:30 a.m. - 10:30 a.m.

Coffee Break

Convention Center - Swing Hall (Level 100)
Wednesday, November 8, 9:45 a.m. - 10:15 a.m.

Poster Session C Set-Up

Convention Center - Hall F and G (Level 100)
Wednesday, November 8, 9:45 a.m. - 10:15 a.m.

Get a Shot. Give a Shot.®

Convention Center - Pratt Street Lobby (Level 300)
Wednesday, November 8, 10 a.m. – 1 p.m.

Walgreens' Get a Shot. Give a Shot.® campaign has helped provide more than 20 million lifesaving vaccines to children in need around the world through the United Nations Foundation's Shot@Life campaign. Now, TropMed17 giving attendees an opportunity to give back to the global health communities we serve. Receive your annual flu shot and provide lifesaving vaccines to families in developing countries. Immunizations are one of the world's biggest public health success stories, but not all communities have the same access to vaccines.

Under the Net

Convention Center - Pratt Street Lobby (Level 300)
Wednesday, November 8, 10 a.m. – 1 p.m.

Walk in the shoes of 11-year-old Amisa, a refugee living in the Nyarugusu Refugee Camp in Tanzania, through a virtual reality experience (VR) presented by the UN Foundation's Nothing But Nets campaign. Under the Net is the story of Amisa, her mother and six siblings as they struggle to survive each day with no protection from mosquitoes that carry malaria at night. Be sure to stop by the Nothing But Nets exhibit and watch Amisa's story through her eyes – as only VR can present it.

Project Zero

Convention Center - Pratt Street Lobby (Level 300)
Wednesday, November 8, 10 a.m. – 1 p.m.

Don't miss the latest virtual reality (VR) films by Huffington Post's Project Zero, an ongoing series created to raise awareness around neglected tropical diseases and efforts to fight them. Three 360-degree VR films tell the untold stories of the victims and health workers battling Elephantiasis, River Blindness and Sleeping Sickness in some of the most remote and underdeveloped regions of the world. Explore the challenges of and progress toward eliminating these diseases in an experience provided through the VR format.

Poster Session C Viewing

Convention Center - Hall F and G (Level 100)
Wednesday, November 8, 10:15 a.m. - Noon

Symposium 132

Approaches to Malaria Elimination in Southern Africa, Southeast Asia and South America: What Operational Research is Needed to Complete the Task?

Convention Center - Ballroom I (Level 400)
Wednesday, November 8, 10:15 a.m. - Noon

Progress in malaria control and elimination is driven by the hard work and dedication of national malaria programs and supported by the malaria research community. An important part of this support is to ensure that the operational research questions originate based on the needs and priorities of the national malaria programs. In doing so, real-world experience can generate the questions researchers need to investigate, with the results feeding back to the malaria programs for piloting, evaluation, potential large-scale implementation, and strategy and policy change. This symposium will feature current and former national malaria program managers and key surveillance personnel from four different malaria-endemic settings offer their practical insights and strategic vision on the operational research needed to reach malaria elimination. National malaria program leaders from Brazil, Indonesia, Swaziland and Thailand, all low-transmission countries aiming to eliminate malaria, will describe the technical challenges and highlight the operational gaps they experience in each of their respective settings, and interact with malaria researchers to identify the operational research questions and solutions to address their programmatic needs. The American Society of Tropical Medicine and Hygiene meeting provides an important opportunity for malaria programs to highlight the challenges they experience in the field and offer guidance on how the malaria research community can best support malaria elimination at country and regional levels. By having a unique set of epidemiologically-diverse countries presenting, similar challenges across national malaria programs will be highlighted, including identifying and mapping remaining *foci*, investigating and managing cases reported through the private sector, maintaining high levels of vector control coverage in remaining *foci*, surveillance and active case detection for mobile and migrant populations and preventing reintroduction. A "Research-meets-real-world-experience" feedback loop is critical to drive the most effective malaria elimination strategies, promote their uptake in the field, and support malaria programs in their efforts to eliminate the disease.

CHAIR

Adam Bennett
University of California San Francisco, San Francisco, CA, United States

Elvieda Sariwati
National Malaria Control Program, Directorate of Vector-Borne Diseases, Ministry of Health, Jakarta, Indonesia

10:15 a.m.
APPROACHES TO MALARIA ELIMINATION IN INDONESIA: CHALLENGES OF POPULATION MOVEMENT BETWEEN ISLANDS AND THE OPERATIONAL RESEARCH NEEDED TO COMPLETE THE TASK

Elvieda Sariwati
National Malaria Control Program, Directorate of Vector-Borne Diseases, Ministry of Health, Jakarta, Indonesia

10:30 a.m.
APPROACHES TO MALARIA ELIMINATION IN BRAZIL: CHALLENGES ELIMINATING MALARIA TRANSMISSION FROM MINING AND OTHER REMOTE COMMUNITIES DEEP IN THE AMAZON

Ana Carolina Faria Silva Santelli
National Malaria Control Program, Ministry of Health of Brazil, Lago Sul, Federal District, Brazil

10:45 a.m.
APPROACHES TO MALARIA ELIMINATION IN SWAZILAND: CHALLENGES WITH MALARIA IMPORTATION AND HOW TO IMPROVE A CHEMOPREVENTION PROGRAM FOR TRAVELERS

Malambe Calsile
National Malaria Control Programme, Swaziland Ministry of Health, Mbabane, Swaziland

11 a.m.
APPROACHES TO MALARIA ELIMINATION IN THAILAND: ROLE OF *FOCI* MAPPING AND CLASSIFICATION FOR STRATIFYING SURVEILLANCE AND RESPONSE ACTIVITIES

Prayuth Sudathip
Bureau of Vector-borne Diseases, Nonthaburi, Thailand

Symposium 133

Moving Toward a PfSPZ Malaria Vaccine for Protecting Travelers and Use in Elimination Campaigns

Convention Center - Ballroom II (Level 400)
Wednesday, November 8, 10:15 a.m. - Noon

The International *Plasmodium falciparum* (Pf) sporozoite (SPZ) vaccine consortium (I-PfSPZ-C), which includes more than 150 members from > 40 organizations in > 20 countries is moving forward to conduct studies that will lead to licensure of PfSPZ-based vaccines for prevention of Pf malaria in travelers, including military, and for use in mass vaccine programs (MVP) campaigns to halt transmission of Pf in endemic areas. Stage 2 clinical trials have been completed or are in progress in the United States, Germany, Tanzania, Kenya, Mali, Burkina Faso and Equatorial Guinea, and will soon begin in Ghana and Gabon. The goal is to finalize immunization regimens that can be used in phase 3 clinical trials to support licensure for both indications. Based on data acquired in already completed clinical trials, it is likely that immunization regimens will be different for the two indications. However, all the current trials are focused on establishing tolerability, safety, immunogenicity, and durable protective efficacy against heterologous/heterogeneous Pf parasites in all age groups, using the least number of PfSPZ administered in the shortest period of time. PfSPZ Vaccine (radiation attenuated PfSPZ) and PfSPZ-CVac (infectious PfSPZ with an antimalarial) are being advanced in parallel, the latter requires less than 10% of the PfSPZ to induce comparable protection. In this symposium, data will be presented on the safety, tolerability and immunogenicity from trials in 6-12 month old infants, young and older children, adolescents and adults in Tanzania, Mali, Equatorial Guineas, U.S. and Germany. Data will also be presented on the protective efficacy against controlled human malaria infection (CHMI) from studies of PfSPZ Vaccine and PfSPZ-CVac in adults in Tanzania, Mali, Germany, Equatorial Guinea and the U.S. The presentations will also include data on two-dose and single-dose immunization regimens, and use of novel anti-malarials in PfSPZ-CVac, including drugs partners that can used to combine mass drug administration (MDA) with MVP campaigns, and drugs that kill all the parasites by the late liver stage, thereby preventing any risk of blood stage infection. The plans and timelines for transition to phase 3 clinical trials and product launch will be discussed.

CHAIR

Judith E. Epstein
Naval Medical Research Center, Silver Spring, MD, United States

Peter G. Kremsner
Institute of Tropical Medicine, Universitätsklinikum Tübingen, Tübingen, Germany

10:15 a.m.
SAFETY, IMMUNOGENICITY AND EFFICACY OF PFSPZ VACCINE AGAINST HETEROLOGOUS CHMI AT THREE AND SIX MONTHS

Alexandra L. Singer
Naval Medical Research Center, Silver Spring, MD, United States

10:35 a.m.
SAFETY, TOLERABILITY AND EFFICACY OF DOSE ESCALATING DIRECT VENOUS INOCULATION WITH RADIATION ATTENUATED *PLASMODIUM FALCIPARUM* NF54 SPOROZOITES (PFSPZ VACCINE) AGAINST NATURAL MALARIA INFECTION AND CHMI IN HEALTHY MALIAN ADULTS

Ogobara K. Doumbo
University of Epidemiologie of Parasitic Diseases; ICER Mali, Faculty of Medicine and Dentistry, University of Sciences Techniques and Technologies, Bamako, Mali

10:55 a.m.
TOWARDS SINGLE-DOSE IMMUNIZATION WITH PFSPZ VACCINES

Benjamin Mordmüller
Institute of Tropical Medicine, Universitätsklinikum Tübingen, Tübingen, Germany

11:15 a.m.
COMPARISON BETWEEN PFSPZ VACCINE AND PFSPZ-CVAC IN AFRICA

Ally I. Olotu
Ifakara Health Institute and Bioko Malaria Vaccine Initiative, Malabo, Equatorial Guinea

Scientific Session 134

Malaria: Prevention - Many Points of View

Convention Center - Ballroom III (Level 400)
Wednesday, November 8, 10:15 a.m. – Noon

CHAIR

Matthew Coldiron
Epicentre, Paris, France

Carol H. Sibley
University of Washington, Seattle, WA, United States

10:15 a.m.

1355

PROTECTIVE EFFECTIVENESS OF SEASONAL MALARIA CHEMOPREVENTION IN NIGER: A PROSPECTIVE CASE-CONTROL STUDY

Matthew E. Coldiron[1], Bachir Assao[2], Alena Koscalova[3], Michel Quere[3], Céline Langendorf[1], Rebecca F. Grais[1]
[1]Epicentre, Paris, France, [2]Epicentre, Maradi, Niger, [3]Médecins Sans Frontières, Geneva, Switzerland

10:30 a.m.

1356

COMMUNITY-LED IMPLEMENTATION OF INTEGRATED MALARIA CONTROL IN SOUTHERN MALAWI

Robert S. McCann[1], Henk van den Berg[1], Michèle van Vugt[2], Dianne J. Terlouw[3], Kamija S. Phiri[4], Peter J. Diggle[5], Themba Mzilahowa[4], Lucinda Manda-Taylor[4], Steve Gowelo[4], Monicah Mburu[1], Alinune N. Kabaghe[2], Michael G. Chipeta[5], Tumaini Malenga[4], Willem Takken[1]
[1]Wageningen University and Research, Wageningen, Netherlands, [2]Academic Medical Centre, University of Amsterdam, Amsterdam, Netherlands, [3]Liverpool School of Tropical Medicine, Liverpool, United Kingdom, [4]College of Medicine, University of Malawi, Blantyre, Malawi, [5]Lancaster University, Lancaster, United Kingdom

10:45 a.m.

1357

INSECTICIDAL WALL LINING FOR MALARIA CONTROL IN LIBERIA: RESULTS FROM A CLUSTER RANDOMIZED CONTROL TRIAL

David J. Giesbrecht[1], Julie Pontarollo[2], Jonas Ecke[3], Sajid Kamal[2], Vincent Koko[4], Levi Hinneh[4], Oliver Pratt[4], Richard Allan[2]
[1]University of Manitoba, Winnipeg, MB, Canada, [2]The MENTOR Initiative, Crawley, United Kingdom, [3]Purdue University, West Lafayette, IN, United States, [4]National Malaria Control Program Liberia, Monrovia, Liberia

11 a.m.

1358

IMPACT OF INDOOR RESIDUAL SPRAYING WITH ACTELLIC 300CS IN MALI ON KEY ENTOMOLOGICAL INDICATORS OF MALARIA TRANSMISSION

Arthur Sovi[1], Chitan Keita[1], Abdourhamane Dicko[2], Dereje Dengela[3], Elie Bankineza[1], Jules Mihigo[4], Kristen George[5], Laura Norris[5], Raymond Beach[6], Richard M. Oxborough[7]
[1]U.S. Agency for International Development PMI AIRS Project, Abt Associates, Bamako, Mali, [2]National Malaria Control Program, Bamako, Mali, [3]U.S. Agency for International Development PMI AIRS Project, Abt Associates, Washington, DC, United States, [4]U.S. Centers for Disease Control and Prevention, Bamako, Mali, [5]U.S. President's Malaria Initiative, US Agency for International Development, Washington, DC, United States, [6]Entomology Branch, Centers for Disease Control and Prevention, Atlanta, GA, United States, [7]U.S. Agency for International Development PMI AIRS Project, Abt Associates, London, United Kingdom

11:15 a.m.

1359

EVALUATION OF THE RESIDUAL EFFECTIVENESS OF FLUDORA FUSION WP-SB, A FORMULATED COMBINATION OF CLOTHIANIDIN AND DELTAMETHRIN, FOR THE CONTROL OF PYRETHROID-RESISTANCE MALARIA VECTORS ON BIOKO ISLAND, EQUATORIAL GUINEA

Godwin Fuseini[1], Wonder Philip Phiri[1], Liberato Motobe Vaz[1], Raul Nguema[1], Abrahan Mathias[1], Jordan Smith[1], J. Luis Segura[1], Justin McBeath[2], Frederic Schmitt[2], Julie Niemczura de Carvalho[3], Guillermo Garcia[3], Christopher Schwabe[3]
[1]Medical Care Development International, Malabo, Equatorial Guinea, [2]Bayer AG, Monheim, Germany, [3]Medical Care Development International, Silver Spring, MD, United States

11:30 a.m.

1360

THE IMPACT OF INDOOR RESIDUAL SPRAYING (IRS) WITH PIRIMIPHOS-METHYL ON ENTOMOLOGICAL INDICES IN A MALARIA HYPERENDEMIC REGION OF WESTERN KENYA

Bernard Abong'o[1], Diana Omoke[1], Eric Ochomo[2], Nabie Bayoh[3], Kiambo Njangi[4], Solomon Karuki[4], Waqo Ejersa[4], Robert Perry[5], Laura Norris[6], Brad Longman[1], John Gimnig[7], Richard Oxborough[8]
[1]U.S. Agency for International Development PMI AIRS Project, Abt Associates, Kisumu, Kenya, [2]Kenya Medical Research Institute, Centre for Global Health Research, Kisumu, Kenya, [3]U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Nairobi, Kenya, [4]National Malaria Control Programme, Nairobi, Kenya, [5]U.S. President's Malaria Initiative, U.S. Agency for International Development, Nairobi, Kenya, [6]U.S. President's Malaria Initiative, U.S. Agency for International Development, Washington, DC, United States, [7]U.S. Centers for Disease Control and Prevention, Division of Parasitic Diseases, Atlanta, GA, United States, [8]U.S. Agency for International Development PMI AIRS Project, Abt Associates, London, United Kingdom

11:45 a.m.

1361

DIFFERENTIAL IMPACTS OF INDOOR RESIDUAL SPRAYING ON THE CHARACTERISTICS OF MALARIA INFECTIONS IN A HIGH TRANSMISSION SETTING IN UGANDA

Joaniter I. Nankabirwa[1], John Rek[2], Emmanuel Arinaitwe[2], Patience Nayebare[2], Shereen Katrak[3], Sarah Staedke[4], Moses Kamya[1], Philip Rosenthal[3], Isabel-Barraquer Rodriguez[3], Bryan Greenhouse[3], Grant Dorsey[3]
[1]Makarere University Kampala, Kampala, Uganda, [2]Infectious Diseases Research Collaboration, Kampala, Uganda, [3]University of California San Francisco, San Francisco, CA, United States, [4]London School of Hygiene & Tropical Medicine, London, United Kingdom

Symposium 135

Lessons Learned From Dengue Vaccination Programs in Asia and Latin America

Convention Center - Ballroom IV (Level 400)
Wednesday, November 8, 10:15 a.m. - Noon

Supported with funding from Sanofi Pasteur

During the past five decades, global dengue incidence has increased 30-fold. Vector control efforts in most areas have failed to halt this spread. Eight dengue vaccine candidates were in clinical development as of Jan 2017. CYD-TDV is the only one that has completed large randomized trials, achieved licensure (13 countries), and to be implemented (sub-national immunization programs in The Philippines and Brazil). Dengue vaccines have substantial public health potential, through outbreak mitigation, disease reduction, health system stabilization, and stronger tourism and other economic outcomes. Additionally, lessons learned from this vaccine will pave the way for other dengue vaccines. This symposium will provide an overview of issues related to dengue vaccine introduction and evaluation based on the experience of implementing countries. The symposium will provide an introduction of and update on vaccine characteristics and a presentation of factors used by countries to decide on vaccine introduction. This will be followed by a review of criteria for the selection of target geographical areas and age groups for vaccine introduction and important principles for vaccine introduction. National experts from Brazil and The Philippines will present their countries' experience with introduction. This will include determining target populations, methods for assessing disease burden, choice of immunization platform,

social mobilization and communication, data on vaccine coverage by dose and lessons learned in program implementation. The two presentations will complement each other as Brazil used a community-based strategy across a wide age group while The Philippines implemented vaccine in a school-based program across a narrow age range. The final speaker will close with a presentation of methods and experience with assessing the impact and public health value of dengue vaccine. This talk will emphasize how vaccines can prevent or minimize outbreaks and the subsequent disruption of health care services, increased school and work absenteeism and reduction of economic activities such as tourism. The symposium will provide some of the first information from real-world experiences with dengue vaccine introduction, including identification of target groups, introduction strategy, demand generation, building an adolescent platform, minimizing immunization drop-outs and success in implementation as judged by coverage. Our primary goal is to provide field-based information on dengue vaccine implementation to public health officials, academicians and key decision makers from dengue endemic countries.

CHAIR

Bradford D. Gessner
AMP, Paris, AK, United States

Sonia Raboni
Universidad Federal do Parana, Parana, Brazil

10:15 a.m.
UPDATE ON VACCINE LICENSING AND PUBLIC SECTOR PROGRAMS AND INTRODUCTION STRATEGIES IN EARLY ADOPTING ASIA AND LATIN AMERICA COUNTRIES

Isabelle Delrieu
AMP, Paris, France

10:35 a.m.
LARGE-SCALE PUBLIC SECTOR VACCINATION PROGRAMS: THE EXPERIENCE FROM INTRODUCTION IN BRAZIL

Sonia Raboni
Universida Federal do Parana, Curitiba - Parana, Brazil

10:55 a.m.
LARGE-SCALE PUBLIC SECTOR VACCINATION PROGRAMS: THE EXPERIENCE FROM INTRODUCTION IN THE PHILIPPINES

Julius Lecciones
Philippine Children's Medical Center, Manila, Philippines

11:15 a.m.
DENGUE VACCINATION IMPACT ASSESSMENT

Bradford Gessner
AMP, Paris, France

Symposium 136

Innovative Approaches to Monitor Resistance and Resistance Management for Effective Vector Control

Convention Center - Room 318/319/320 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

Indoor residual spraying (IRS) and insecticide treated nets (ITNs) continue to be the frontline of vector control interventions. IRS and ITNs have been scaled up across malaria endemic countries, particularly in sub-Saharan Africa, during the past two decades, which has been associated with a dramatic decline in malaria mortality and morbidity. At same time, the emergence and rapid spread of resistance to insecticides, which the efficacy of ITNs and IRS are dependent on, presents growing threats to malaria control gains. It is incumbent on all malaria stakeholders to join hands and make concerted efforts to prevent, slow down and mitigate the impact of insecticide resistance before it undermines malaria vector control programs. The first step in resistance management is establishment of strong, reliable and regular entomological monitoring that includes resistance monitoring to best understand the spatial and temporal distribution of vectors and their resistance status at a local level. Drawing on country examples, this symposium will discuss how insecticide resistance monitoring has been built in insecticide-based vector control programs in 13 countries in Africa and empirical data generated from the monitoring has regularly been used to inform vector control programs, particularly IRS. This symposium also explores how some innovative tools have been used to identify genes and mutations responsible for resistance and detect and monitor metabolic resistance, such as specific biochemical substrates and lateral flow simple immune diagnostic tests, which are key to early detection of resistance. The session will discuss how Bayesian model-based geo-statistics have been used to characterize spatiotemporal variation in insecticide resistance of malaria vectors, how outputs from these will be used in further geospatial analyses of the relative influence of different potential drivers of selection for resistance and the impact of insecticide resistance on malaria transmission in the context of current interventions. The Global Plan for Insecticide Resistance Management launched by World Health Organization in 2012 recommends pre-emptive rotation of insecticides to help preserve the limited public health insecticides available for use in the horizon. However, thus far, there are very limited experiences around pre-emptive rotation and management resistance in malaria vector control. In this symposium, attendees will learn state-of-the-art approaches for evaluating new tools for mitigating the impact of resistance in malaria vectors.

CHAIR

Dereje O. Dengela
Abt Associates, Bethesda, MD, United States

Micheal Coleman
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

10:15 a.m.
HIGH INTENSITY PYRETHROID RESISTANCE AND EMERGING RESISTANCE TO CARBAMATES AND ORGANOPHOSPHATES – A MAJOR THREAT TO MALARIA VECTOR CONTROL

Aklilu Seyoum
Abt Associates, Accra, Ghana

10:35 a.m.
GEOSPATIAL PATTERNS OF INSECTICIDE RESISTANCE

Catherine Moyes
University of Oxford, Oxford, United Kingdom

10:55 a.m.
NEW TOOLS FOR MONITORING INSECTICIDE RESISTANCE

John Vontas
Agricultural University of Athens, Athens, Greece

11:15 a.m.

EVALUATING NEW TOOLS AND APPROACHES FOR MITIGATING THE IMPACTS OF INSECTICIDE RESISTANCE IN MALARIA VECTORS

Hilary Ranson
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

Scientific Session 137

Malaria: Genetics and Genomics

Convention Center - Room 321/322/323 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

CHAIR

Alyssa Barry
Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia

Greg LaMonte
University of California San Diego, La Jolla, CA, United States

10:15 a.m.

1362

POPULATION GENOMICS IN *P. VIVAX*: LEVELS OF GENETIC DIVERSITY IN AMERICA

Thais Crippa de Oliveira[1], Priscila Thihara Rodrigues[1], Maria José Menezes[1], Raquel Muller Gonçalves-Lopes[1], Melissa Silva Bastos[1], Nathália Ferreira Lima[1], Susana Barbosa[1], Alexandra Lehmkuhl Gerber[2], Guilherme Loss Morais[3], Luisa Berná[4], Jody Phelan[5], Carlos Robello[4], Ana Tereza Ribeiro Vasconcelos[2], João Marcelo Alves[1], Marcelo Urbano Ferreira[1]
[1]University of Sao Paulo, Sao Paulo, Brazil, [2]National Laboratory of Scientific Computation, Petrópolis, Brazil, [3]National Laboratory of Scientific Computation, Petropolis, Brazil, [4]Pasteur Institute of Montevideo, Montevideo, Uruguay, [5]London School of Hygiene & Tropical Medicine, London, United Kingdom

(ACMCIP Abstract)

10:30 a.m.

1363

FINE-SCALE POPULATION GENETICS OF *P. FALCIPARUM* IN NORTHERN NAMIBIA

Sofonias Tessema[1], Maxwell Murphy[1], Anna-Rosa Mupiri[2], Jennifer L. Smith[3], Anna Chen[1], Jordan Wilheim[1], Michelle S. Hsiang[1], Hugh J. Sturrock[3], Davis Mumbengegwi[2], Bryan Greenhouse[1]
[1]University of California San Francisco, San Francisco, CA, United States, [2]Multidisciplinary Research Center, University of Namibia, Windhoek, Namibia, [3]Elimination Initiative, Global Health Group, University of California San Francisco, San Francisco, CA, United States

10:45 a.m.

1364

RELATING GENETIC SIGNATURES TO TRANSMISSION CONDITIONS RESPONSIBLE FOR THE EMERGENCE AND SPREAD OF MULTI-DRUG-RESISTANT PARASITES IN CAMBODIA

Edward A. Wenger[1], Roberto Amato[2], Joshua L. Proctor[1], Philip A. Eckhoff[1], Dominic Kwiatkowski[2]
[1]Institute for Disease Modeling, Seattle, WA, United States, [2]Sanger Institute, Cambridge, United Kingdom

11 a.m.

1365

COMPARATIVE LONGITUDINAL POPULATION GENOMIC SURVEYS OF *PLASMODIUM FALCIPARUM* MALARIA PARASITES IN FRENCH GUIANA AND THAILAND

Gustavo C. Cerqueira[1], Stephane Pelleau[2], Alexandre Melnikov[1], Steven F. Schaffner[1], Béatrice Volney[2], Ian H. Cheeseman[3], Yassamine Lazrek[2], Félix Djossou[4], Marina McDew-White[3], Shalini Nair[3], Aung P. Phyo[5], Elizabeth A. Ashley[5], Timothy J. Anderson[3], Eric Legrand[2], François Nosten[5], Bruce Birren[1], Lise Musset[2], Daniel Neafsey[1]
[1]Broad Institute of Massachusetts Institute of Technology and Harvard, Cambridge, MA, United States, [2]Institute Pasteur de la Guyane, Cayenne, French Guiana, [3]Texas Biomedical Research Institute, San Antonio, TX, United States, [4]Tropical Disease Unit, Centre Hospitalier Andrée Rosemon, Cayenne, French Guiana, [5]Shoklo Malaria Research Unit, Mahidol University, Mae Sot, Thailand

11:15 a.m.

1366

DUAL RNA SEQUENCING IDENTIFIES NOVEL HOST BIOMARKERS OF *PLASMODIUM* HEPATIC INFECTION

Gregory M. LaMonte, Pamela Orjuela-Sanchez, Lawrence Wang, Justine Swann, Shangzhong Li, Bing Yu Zou, Annie Cowell, Nathan Lewis, Elizabeth Winzeler
University of California San Diego, La Jolla, CA, United States

(ACMCIP Abstract)

11:30 a.m.

1367

PLASMODIUM VIVAX WHOLE GENOME SEQUENCING TO ASSESS GENETIC RELATEDNESS OF POLYCLONAL RELAPSES IN CAMBODIA

Nicholas F. Brazeau[1], Chanthap Lon[2], Pavitra Rao[3], Christian Parobek[4], Sujata Balasubramanian[5], Mark M. Fukada[6], Mariusz Wojnarski[6], Philip Smith[6], Michele Spring[6], Jonathan J. Juliano[5], Jane M. Carlton[3], David L. Saunders[6], Jessica T. Lin[5]
[1]Department of Epidemiology, University of North Carolina Gillings School of Global Public Health, Chapel Hill, NC, United States, [2]Armed Forces Research Institute of Medical Sciences, Phnom Penh, Cambodia, [3]Center for Genomics and Systems Biology, Department of Biology, New York, NY, United States, [4]University of North Carolina School of Medicine, Chapel Hill, NC, United States, [5]Division of Infectious Diseases, University of North Carolina School of Medicine, Chapel Hill, NC, United States, [6]Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand

11:45 a.m.

1368

ASSOCIATION BETWEEN DIFFERENT POLYMORPHISMS OF MTMR3 AND C1QTNF6 ON CHROMOSOME 22 AND SEVERE MALARIAL ANEMIA IN CHILDREN FROM WESTERN KENYA

Niraj Ganjawala[1], Angela O. Achieng[1], Evans Raballah[2], Qiuying Cheng[1], Douglas J. Perkins[1], Prakasha Kempaiah[1]
[1]University of New Mexico School of Medicine, Albuquerque, NM, United States, [2]University of New Mexico/KEMRI Laboratories, Kisumu, Kenya

Symposium 138

Controlling Typhoid Disease: New Insights on Vaccines and Vaccination Strategies

Convention Center - Room 324/325/326 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

Typhoid fever disproportionately impacts children and poor populations, a trend that is likely to grow with increasing urbanization. Combined with the growing problem of multi-drug resistance, the prevention and control of *Salmonella enterica serovar Typhi (S. Typhi)* is a global health priority. At present, vaccines for typhoid fever are underutilized despite the substantial disease burden and a World Health Organization (WHO) recommendation for the use of typhoid vaccines. New vaccines and vaccination strategies are needed to enable programmatic implementation of typhoid control through vaccination. Typhoid Conjugate Vaccines (TCV)s, which may be given to children as young as six months of age and are expected to have longer duration of immunity than polysaccharide vaccines, should overcome many of the challenges that have impeded

uptake of the earlier vaccines. The expected pre-qualification (PQ) of at least one TCV in the near-term provides a unique opportunity to understand how these vaccines may be used to achieve the greatest impact and ensure typhoid vaccines finally reach those who need them most. Further, already licensed and prequalified vaccines, including an oral vaccine, have been used to control typhoid. Several new initiatives are underway to ensure that available vaccines are used to achieve the greatest impact and ensure typhoid vaccines finally reach those who need them most. The presentations will address typhoid from multiple perspectives in diverse settings.

CHAIR

Kathleen Neuzil
University of Maryland School of Medicine, Center for Vaccine Development, Baltimore, MD, United States

Rosanna Lagos
Hospital de Ninos Roberto Del Rio, Santiago, Chile

10:15 a.m.
EVALUATING TYPHOID CONJUGATE VACCINES: THE CONTROLLED HUMAN INFECTION MODEL

Andrew Pollard
Oxford Vaccine Group, University of Oxford, Oxford, United Kingdom

10:35 a.m.
TYPHOID IN NEPAL: LESSONS FROM A POPULATION-BASED STUDY TO INFORM VACCINE INTRODUCTION

Buddha Basnyat
Oxford Univerrsity Clinical Research Unit, Kathmandu, Nepal

10:55 a.m.
EVALUATION OF THE FIRST LARGE-SCALE PROGRAMMATIC IMPLEMENTATIN OF TYPHOID CONJUGATE VACCINES IN NAVI-MUMBAI INDIA

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

11:15 a.m.
UNDERSTANDING THE ROLE OF CHRONIC CARRIERS IN THE TRANSMISSION AND CONTROL OF TYPHOID FEVER: LESSONS FROM CHILE

Myron Levine
University of Maryland School of Medicine, Center for Vaccine Development, Baltimore, MD, United States

Symposium 139

Improving the Triage and Management of Children with Acute Febrile Illnesses through Point-Of-Care Technologies

Convention Center - Room 327/328/329 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

The management of childhood infections remains challenging in resource-limited countries, resulting in many preventable deaths and the irrational use of medicines. The objective of this symposium is to share learning on how different innovative point-of-care technologies can improve the management of children with acute febrile illnesses at the outpatient level from a variety of studies conducted recently. First, a short overview will be given on the broader questions and reflections around the use point-of-care technologies in such settings. Médecins sans Frontières is currently evaluating the accuracy of a smartphone-based cough sound acoustic analysis tool in detecting the different causes of respiratory infections with a focus on the diagnosis of pneumonia and differentiation of upper from lower respiratory tract infections. Results from a prospective diagnostic accuracy study in India will be presented. The Malawi Ministry of Health recently conducted a three-year implementation study of using pulse oximetry in rural health centers and with community health workers, including more than 14,000 children. Experiences and lessons learned, and potential future implications of pulse oximetry use for the triage and care of children with pneumonia at peripheral health care level in low-middle-income countries will be discussed. The Mahidol Oxford Tropical Research Unit has lead efforts on improving the rational use of antibiotics in patients with acute infections through the use of point-of-care C-reactive protein testing. Findings from a large multi-country clinical trial in Southeast Asia aiming at evaluating the impact of the C-reactive protein on antibiotic prescription, in the context of remote and primary healthcare settings will be presented. The Swiss Tropical and Public Health Institute has aimed at improving case management of children with acute febrile illnesses through the development and evaluation of a tablet-based disease management algorithm that uses different point-of-care tests (C-reactive protein, procalcitonin, hemoglobin and oximetry). Findings from a randomized clinical trial in 3192 children in Tanzania will be shown. The symposium will end with a moderated discussion, which will facilitate a structured discussion linking the different topics presented.

CHAIR

Valérie D'Acremont
Swiss Tropical and Public Health Institute, Basel, Switzerland

Kristina Keitel
Swiss Tropical and Public Health Organization, Basel, Switzerland

10:15 a.m.
USE OF COUGH SOUND ACOUSTIC ANALYSIS THROUGH MOBILE PHONES IN THE DIAGNOSIS OF CHILDHOOD PNEUMONIA IN INDIA – A FIELD EVALUATION STUDY

Nadia Lafferty
Médecins Sans Frontières, Barcelona, Spain

10:35 a.m.
IMPLEMENTATION LESSONS AND POTENTIAL IMPACT OF USING PULSE OXIMETRY FOR THE MANAGEMENT OF CHILD ACUTE RESPIRATORY INFECTION AT PRIMARY CARE AND COMMUNITY LEVEL IN MALAWI

Norman Lufesi
Ministry of Health, Lilongwe, Malawi

10:55 a.m.
C-REACTIVE PROTEIN IN THE MANAGEMENT OF ACUTE FEBRILE ILLNESS: FINDINGS FROM A MULTI-COUNTRY CLINICAL TRIAL IN SOUTHEAST ASIA

Thomas Althaus
Mahidol-Oxford Tropical Medicine Research Unit, Mahidol University, Bangkok, Thailand

11:15 a.m.
A NOVEL ELECTRONIC ALGORITHM USING PULSE OXIMETRY AND HOST BIOMARKER POINT-OF-CARE-TESTS FOR THE MANAGEMENT OF FEBRILE ILLNESS IN CHILDREN: FINDINGS FROM A RANDOMIZED CONTROLLED TRIAL IN TANZANIA

Kristina Keitel
Swiss Tropical and Public Health Institute, Basel, Switzerland

Symposium 140

Household Air Pollution and Health: Recent and Ongoing Research

Convention Center - Room 331/332 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

Globally, nearly three billion people rely on solid fuels for cooking, the vast majority in low- and middle-income countries (LMICs). The resulting household air pollution (HAP) is a leading risk factor in the global burden of disease, accounting for an estimated 2.8 million deaths annually, largely among women and young children. Much of this disease burden consists of pneumonia, the leading killer of young children. There is increasing evidence, however, that HAP is associated with low birthweight and stunting, as well as cardio-pulmonary diseases and cancer. While the health risks associated with HAP are becoming increasingly clear, however, recent field trials and other research of stove interventions in Asia and Sub-Saharan Africa have identified challenges in reducing HAP to levels that may be necessary to achieve health gains. Chief among these are technological limitations that limit the combustion efficiency of even advanced biomass cook stoves to reach targeted levels of emissions. Other factors include continued use of traditional biomass stoves, as well as continued exposure to air pollution from other sources including community biomass smoke, vehicle and industrial emissions, and lighting. This symposium will summarize the results of recent randomized controlled trials and observational studies designed to investigate the potential of improved cooking technology (stoves and fuel) to achieve significant reductions in HAP. It will address the need for field development and testing of technologies prior to programmatic implementation. It will also provide details on ongoing trials, including a multi-country intervention trial to assess the potential liquefied petroleum gas (LPG) cookstoves, likely the cleanest scalable intervention.

CHAIR

Thomas Clasen
Emory University, Rollins School of Public Health, Atlanta, GA, United States

Sumi Mehta
Global Alliance for Clean Cooking, Washington, DC, United States

10:15 a.m.
OVERVIEW OF RECENT RESEARCH ON CLEAN COOKING IN LOW-INCOME COUNTRIES

Sumi Mehta
Global Alliance for Clean Cooking, Washington, DC, United States

10:35 a.m.
CHALLENGES OF REDUCING EXPOSURE TO ACHEIVE HEALTH GAINS

Jill Baumgartner
McGill University, Montreal, Canada

10:55 a.m.
WHY IS IT SO DIFFICULT TO GET PEOPLE TO USE COOKING TECHNOLOGY THAT WILL REDUCE RESPIRATORY DISEASES, AND WHAT CAN BE DONE ABOUT IT?

Joshua Rosenthal
Fogarty International Center, Bethesda, MD, United States

11:15 a.m.
HAPIN: A MULTI-COUNTRY LPG INTERVENTION TRIAL

Thomas Clasen
Emory University, Rollins School of Public Health, Atlanta, GA, United States

Symposium 141

Interim Strategies on Onchocerciasis Elimination in Africa: National Approaches to Transmission Interruption in the Absence of Formal Guidance

Convention Center - Room 337/338 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

The new guidelines for verification of elimination of transmission of onchocerciasis published by the World Health Organization in 2016 set new, more stringent thresholds for determining when mass treatment with ivermectin can safely be stopped. In previously guidance established for use in the Americas, the use of skin snips (<0.1% in children =5 years) and ocular infection were considered sufficient to assess transmission. These new thresholds, established for use in the African region and elsewhere, require the use of the far more sensitive OV16 ELISA test and focuses on a different age group (<0.1% in children <10 years). Unfortunately, these guidelines begin with the decision to stop-treatment and move to post-treatment surveillance while saying nothing about the operational steps of how to reach that point. This creates a challenge in much of the Africa region where the historic focus of onchocerciasis programs has been on morbidity control. In these countries, where treatment is required for as many as 15 years, the decision to begin treatment focused on areas with a prevalence of the parasite in the skin of =40%. With the introduction of a new threshold for elimination in the region, what areas need treatment has become a vital question. In addition, guidance on when alternative treatment strategies (such as twice per year treatment) are needed and deciding when a program is ready for an evaluation are also lacking. In the absence of needed guidance on these issues, many countries have established expert advisory committees in accordance with WHO guidelines and with the support of WHO, to review national data, advise on the development of elimination strategies, and advise national programs on how best to move forward until a common strategy is developed by WHO. This session will review the challenges faced by country programs and some of the interim strategies they have developed to address them. It will also include inputs from WHO on suggested ways forward while awaiting the evidence-base for additional guidance and possible linkages between national programs and the newly form Expanded Special Program for Neglected Diseases (ESPEN).

CHAIR

Yao Sodahlon
Task Force for Global Health, Atlanta, GA, United States

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

10:15 a.m.
THE CHALLENGES OF MOVING FROM CONTROL TO ELIMINATION AND THE NEED FOR INTERIM GUIDANCE
Darin S. Evans
U.S. Agency for International Development, Washington, DC, United States

10:30 a.m.
THE ETHIOPIAN ONCHOCERCIASIS ADVISORY COMMITTEE
Biruck Kebede
Ethiopia Ministry of Health, Addis Ababa, Ethiopia

10:45 a.m.
THE TOGO ONCHOCERCIASIS ADVISORY COMMITTEE
Siamevi Komla
Senior Consultant to the Togo Ministry of Health, Lome, Togo

11 a.m.
THE TANZANIAN ONCHOCERCIASIS ADVISORY COMMITTEE
Andreas M. Nshala
Neglected Tropical Diseases Control Program, HDI Tanzania, Dar Es Salaam, United Republic of Tanzania

11:15 a.m.
THE NIGERIAN ONCHOCERCIASIS ADVISORY COMMITTEE
B.E.B. Nwoke
Imo State University Nigeria, Oweri, Nigeria

11:30 a.m.
THE ROLE OF ESPEN FOR NATIONAL COMMITTEES
Maria Rebollo
WHO/AFRO/ESPEN, Brazzaville, Republic of the Congo

11:45 a.m.
UPDATE: PROGRESS TOWARDS FORMAL OPERATIONAL GUIDANCE
Paul Cantey
World Health Organization, Geneva, Switzerland

Symposium 142

The Evidence is In: Schistosomiasis Control in the 21st Century

Convention Center - Room 339/340 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

This symposium will review and interpret the five-year results of large-scale, randomized, operational research trials on the use of targeted MDA for control of schistosomiasis in endemic areas of Africa. In addition, new field studies will be presented on the role of circulating antigen-based diagnostic testing (in contrast to microscopic egg detection) for surveillance in areas that have been previously reduced to low infection prevalence via MDA. Results of these projects, funded by SCORE, the Schistosomiasis Consortium for Operational Research and Evaluation, are being used to define practical next steps in regional and national schistosomiasis control policy, including dealing with the problem of persistent hot spots within *Schistosoma* transmission zones, and the role of 'egg-negative' schistosomiasis as a continuing local health threat. SCORE's modeling projects, now calibrated using multi-country, multi-community project data, can now project the five- and ten-year outcomes for new control programs, and offer insights on the incremental benefits of adding social and environmental interventions to supplement MDA. Speakers will relate their new findings on: i) The five-year impact of school- vs. community-based mass drug administration for ***S. mansoni*** in Kenya and in Tanzania; ii) The performance of point-of-care antigen detection diagnostics for rapid community screening in follow up of mass treatment campaigns in Egypt; iii) Projections of the influence of persisting 'hot spot' villages on chances for regional elimination, and the long-term value of supplemental interventions to disrupt transmission.

CHAIR
Charles H. King
Case Western Reserve University, Center for Global Health and Disease, Cleveland, OH, United States
Daniel G. Colley
University of Georgia, Center for Tropical and Emerging Global Diseases, Athens, GA, United States

10:15 a.m.
GAINING CONTROL OF HIGH PREVALENCE *S. MANSONI* IN WESTERN KENYA
Pauline N. Mwinzi
Centre for Global Health Research, Kenya Medical Research Institute, Kisumu, Kenya

10:40 a.m.
FIVE-YEAR IMPACT OF MDA IN TANZANIA: FOCUS ON *S. MANSONI*-ASSOCIATED MORBIDITY
Annette Olsen
University of Copenhagen, Copenhagen, Denmark

11:05 a.m.
REASSESSMENT OF *S. MANSONI* INFECTION IN THE NILE DELTA USING THE URINE-CIRCULATING CATHODIC ANTIGEN RAPID TEST VS. THE KATO-KATZ TEST: EXPERIENCE IN LOW-EMDEMICITY AREAS IN EGYPT
Reda M. Ramzy
National Nutrition Institute, Cairo, Egypt

11:30 a.m.
ARE WE ON THE WHO ROADMAP?: USING SCORE RESULTS TO PROJECT THE FUTURE OF SCHISTOSOMIAISIS CONTROL
Charles H. King
Case Western Reserve University, Center for Global Health and Diseases, Cleveland, OH, United States

Scientific Session 143

HIV and Tropical Co-Infections

Convention Center - Room 341/342 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

CHAIR
Hannah Kibuuka
Makerere University Walter Reed Project, Kampala, Uganda
Inge Kroidl
Medical Center of the University of Munich (LMU), Munich, Germany

10:15 a.m.
1369
HIV-EXPOSED BUT UNINFECTED INFANTS ARE AT INCREASED RISK FOR NEONATAL GBS DISEASE: SYSTEMATIC REVIEW AND META-ANALYSIS
Piet Cools[1], Janneke H. van de Wijgert[2], Vicky Jespers[3], Tania Crucitte[3], Eduard Sanders[4], Hans Verstraelen[5], Mario Vaneechoutte[1]
[1]Ghent University, Ghent, Belgium, [2]Liverpool University, Liverpool, United

Kingdom, [3]Institute of Tropical Medicine, Antwerp, Belgium, [4]Oxford University, Oxford, United Kingdom, [5]Ghent University Hospital, Ghent, Belgium

10:30 a.m.

1370

IMMUNOLOGICAL AND CLINICAL OUTCOMES OF HUMAN IMMUNODEFICIENCY VIRUS EXPOSED BUT UNINFECTED INFANTS COMPARED TO UNEXPOSED UNINFECTED INFANTS: A COHORT STUDY IN KISUMU, KENYA

Jessica Ray[1], David Midem[2], Fredrick Opinya[2], Ibrahim Daud[2], Sidney Ogolla[2], Maxwel Majiwa Omenda[2], Edwin Odhiambo[2], Peter Odada Sumba[2], Amy Nowacki[3], Rosemary Rochford[4], Arlene Dent[1]
[1]Case Western Reserve University, Cleveland, OH, United States, [2]Kenya Medical Research Institute, Kisumu, Kenya, [3]Cleveland Clinic Foundation, Cleveland, OH, United States, [4]University of Colorado School of Medicine, Denver, CO, United States

10:45 a.m.

1371

USE OF BED NETS A SURROGATE MARKER FOR RISK BEHAVIOR TOWARDS HIV

Inge Kroidl[1], Petra Clowes[2], Lucas Maganga[2], Leonard Maboko[2], Upendo Mwingira[3], Michael Hoelscher[1], Elmar Saathoff[1]
[1]Medical Center of the University of Munich (LMU), Munich, Germany, [2]National Institute for Medical Research Mbeya Medical Research Centre, Mbeya, United Republic of Tanzania, [3]National Institute for Medical Research, Dar es Salaam, United Republic of Tanzania

11 a.m.

1372

DEMOGRAPHIC AND CONTEXTUAL FACTORS ASSOCIATED WITH HIV MORTALITY IN AN AFRICAN COHORT IN EAST AFRICA AND NIGERIA

Hannah Kibuuka[1], Francis Kiweewa[1], Ezra Musingye[1], Jonah Maswai[2], John Owouth[3], Lucas Maganga[4], Senate Amusu[5], Michael Semwogerere[1], Christina Polyak[6], Julie Ake[6]
[1]Makerere University Walter Reed Project, Kampala, Uganda, [2]Walter Reed Project, Kericho, Kenya, [3]Walter Reed Project HIV Program, Kisumu West Districts, Kisumu, Kenya, [4]Mbeya Medical Research Program, Mbeya, United Republic of Tanzania, [5]U.S. Military HIV Research Program, Abuja, Nigeria, [6]U.S. Military HIV Research Program, Bethesda, MD, United States

11:15 a.m.

1373

RATE OF VIREMIA AND ITS PREDICTORS AMONG ADULT HIV INFECTED PATIENTS IN THE AFRICAN HIV COHORT

Francis Kiweewa[1], Ezra Musingye[1], Hannah Kibuuka[1], Babajide Keshinro[2], Trevor A. Crowell[3], Trevor A. Crowell[3], Trevor A. Crowell[3], Jonah Maswai Maswai[4], John Owuoth[5], Lucas Maganga Maganga[6], Julie Ake Ake[3], Christina Polyak[3]
[1]Makerere University Walter Reed Project (MUWRP), Kampala, Uganda, [2]Walter Reed Program-Nigeria, Abuja, Nigeria, [3]U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, MD, United States, [4]KEMRI/Walter Reed Project, Kericho, Kenya, [5]Walter Reed Program, Kisumu, Kenya, [6]Walter Reed Program-Tanzania, Mbeya, United Republic of Tanzania

11:30 a.m.

1374

CRYPTOCOCCAL ANTIGENEMIA IN HIV-INFECTED ADULTS IN THE AFRICAN COHORT STUDY

Valentine Sing'oei[1], John Owuoth[1], Kavitha Ganesan[2], Ben Andagalu[1], Senate Amusu[3], Emmanuel Bahemana[4], Francis Kiweewa[5], Jonah Maswai[6], Julie Ake[2], Allahna Esber[2], Trevor A. Crowell[2], Christina Polyak[2]
[1]Kenya Medical Research Institute/Walter Reed Project, Kisumu, Kenya, [2]U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, MD, United States, [3]Walter Reed Program, Abuja, Nigeria, [4]Mbeya Medical Research Centre, Mbeya, United Republic of Tanzania, [5]Makerere University-Walter Reed Project, Kampala, Uganda, [6]Kenya Medical Research Institute/Walter Reed Project, Kericho, Kenya

11:45 a.m.

1375

UNFAVORABLE TUBERCULOSIS OUTCOME ASSOCIATED WITH HIV, DRUG RESISTANCE, AND PREVIOUS TREATMENT IN INDONESIA

Dona Arlinda, Retna Mustika Indah, Aris Yulianto, Agus Dwi Harso, Armaji Kamaludi Syarief, Muhammad Karyana
Indonesia National Institute of Health Research and Development, Jakarta, Indonesia

Symposium 144

International Zika Cohort Studies in Pregnant Women

Convention Center - Room 343/344 (Level 300)
Wednesday, November 8, 10:15 a.m. - Noon

Understanding Zika infection during pregnancy and adverse maternal/fetal health outcomes and the risk of vertical transmission requires large cohort studies. These cohort studies are challenging to design and implement during an outbreak. This symposium aims to describe several ongoing studies and opportunities for collaboration and sharing of common data elements to assess rare outcomes in order mitigate the risk of a waning epidemic.

CHAIR

Cristina Cassetti
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States

Nikos Vasilakis
University of Texas Medical Branch, Galveston, TX, United States

10:15 a.m.
ZIP METHODOLOGY AND SUB-STUDIES

Carmen Zorrillla
University of Puerto Rico, San Juan, PR, United States

10:45 a.m.
EU ZIKA COHORT STUDIES ACTION/ALLIANCE/PLAN

Thomas Janeisch
University Hospital Heidelberg, Heidelberg, Germany

11:05 a.m.
CDC COHORT STUDIES

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

11:25 a.m.
INTERNATIONAL COORDINATION AND UTILITY OF INDIVIDUAL PATIENT DATA META-ANALYSIS (IPD)

Lauren Maxwell
World Health Organization, Geneva, Switzerland

Exhibit Hall Open and Light Lunch

Convention Center - Swing Hall (Level 100)
Wednesday, November 8, Noon - 2:30 p.m.

Poster Session 145

Poster Session C: Presentations and Light Lunch

Convention Center - Hall F and G (Level 100)
Wednesday, November 8, Noon - 1:45 p.m.

Poster Session C Directory

Alphaviruses (Includes Chikungunya)

1376

SEROPREVALENCE OF CHIKUNGUNYA IN VIETNAM - EVIDENCE OF PAST BUT NOT PRESENT TRANSMISSION

Quan Minh Tran, Vy Ha Nguyen, Phuong Thi Huynh, Thanh Thi Nguyen, Maciej F. Boni, Hannah Clapham
Oxford University Clinical Research Unit, Ho Chi Minh, Vietnam

1377

CHARACTERIZATION OF SINDBIS VIRUS CIRCULATING IN KENYAN ECOSYSTEMS

Faith Sigei[1], Fredrick Nindo[2], Silvanos Mukunzi[3], Zipporah Ng'ang'a[1], Rosemary Sang[3]
[1]Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya, [2]University of Cape Town, Cape Town, South Africa, [3]Kenya Medical Research Institute, Nairobi, Kenya

1378

PREVALENCE OF CHRONIC JOINT PAIN FOLLOWING CHIKUNGUNYA INFECTION FROM A COLUMBIAN COHORT

Priyanka Kamalapathy[1], Liliana Encinales[2], Karen Martins[3], Patrick Reid[4], Nelly Pachecho[2], Shamila Pacheco[2], Eyda Bravo[2], Marianda Navarno[2], Carlos Encinales[2], Alexandra Porras[2], Alejandro Rico[2], Richard Amdur[1], Gary Firestein[5], Gary Simon[1], Jeff Bethony[1], Aileen Chang[1]
[1]George Washington, Washington, DC, United States, [2]Allied Research Society, Barranquilla, Colombia, [3]U.S. Army Medical Research Institute for Infectious Disease, Washington, DC, United States, [4]University of Nebraska, Lincoln, NE, United States, [5]University of California, San Diego, CA, United States

1379

CHIKUNGUNYA - A RE-EMERGED TROPICAL DISEASE - DEVELOPMENT OF A NEW VACCINE

Nina Wressnigg, Urban Lundberg, Andrea Fritzer, Romana Hochreiter, Andreas Meinke
Valneva Austria GmbH, Vienna, Austria

1380

LOW FIDELITY ARBOVIRUS VACCINE STABILITY

Tiffany F. Kautz, Kamil Khanipov, Mathilde Guerbois, Yuriy Fofanov, Scott C. Weaver, Naomi L. Forrester
University of Texas Medical Branch, Galveston, TX, United States

1381

DENGUE AND CHIKUNGUNYA HUMAN TRANSMISSION IN WESTERN AND COASTAL KENYA: GEOGRAPHIC, CLIMACTIC, VECTORIAL AND SOCIODEMOGRAPHIC RISK FACTORS FOR EXPOSURE AND DISEASE

A. Desiree LaBeaud[1], Bryson A. Ndenga[2], Elysse N. Grossi-Soyster[1], David M. Vu[1], Amy R. Krystosik[1], Harun Njenga Ngugi[3], Assaf Anyamba[4], Richard Damoah[5], Cornelius Kiptoo[2], John Vulule[2], Dunstan Mukoko[6], Uriel Kitron[7], Charles H. King[8], Francis M. Mutuku[9]
[1]Stanford University, Stanford, CA, United States, [2]Kenya Medical Research Institute, Kisian, Kenya, [3]University of Nairobi/Chuka University, Nairobi/Chuka, Kenya, [4]Universities Space Research Association and NASA Goddard Space Flight Center, Greenbelt, MD, United States, [5]Morgan State University and NASA Goddard Space Flight Center, Greenbelt, MD, United States, [6]Ministry of Health, Nairobi, Kenya, [7]Emory University, Atlanta, GA, United States, [8]Case Western Reserve University, Cleveland, OH, United States, [9]Technical University of Mombasa, Mombasa, Kenya

1382

UTILIZING CERVIDS AS SENTINELS FOR EVALUATION OF EASTERN EQUINE ENCEPHALITIS EMERGENCE IN MAINE

Joan L. Kenney[1], Charles Lubelczyk[2], Susan P. Elias[2], Margret Welch[2], Robert P. Smith[2], Sara Robinson[3], John-Paul Mutebi[1]
[1]Centers for Disease Control and Prevention, Fort Collins, CO, United States, [2]Maine Medical Center Research Institute, Scarborough, ME, United States, [3]Maine Centers for Disease Control, Augusta, ME, United States

1383

EPITOPE EXPOSURE ON THE OUTER FACE OF THE CHIKUNGUNYA VIRUS ENVELOPE DETERMINES ANTIBODY NEUTRALIZING EFFICACY

Rachel H. Fong[1], Soma R. Banik[1], Jin Jing[2], Graham Simmons[2], **Benjamin J. Doranz**[1]
[1]Integral Molecular, Inc., Philadelphia, PA, United States, [2]Blood Systems Research Institute, San Francisco, CA, United States

Flaviviridae – Dengue

1384

EL NIÑO AND DENGUE PREDICTION IN ECUADOR

Rachel Lowe[1], **Anna M. Stewart-Ibarra**[2], Desislava Petrova[3], Markel García-Díez[4], Mercy J. Borbor-Cordova[5], Raul Mejía[6], Mary Regato[7], Xavier Rodó[3]
[1]London School of Hygiene & Tropical Medicine, London, United Kingdom, [2]SUNY Upstate Medical University, Syracuse, NY, United States, [3]Barcelona Institute for Global Health (ISGLOBAL), Barcelona, Spain, [4]Predictia Intelligent Data Solutions, Santander, Spain, [5]Escuela Superior Politecnica del Litoral (ESPOL), Guayaquil, Ecuador, [6]National Institute of Meteorology and Hydrology (INAMHI), Guayaquil, Ecuador, [7]National Institute of Public Health Research (INSPI), Guayaquil, Ecuador

1385

EFFICACY OF A DENGUE PURIFIED INACTIVATED VACCINE CANDIDATE IN MACAQUES REVEALS INSIGHTS ON ACCURATE CHARACTERIZATION OF POST-CHALLENGE VIRAL REPLICATION AND ON CORRELATES OF PROTECTION

Maria Beatriz Borges[1], Renata Carvalho-Pereira[1], Renato Marchevsky[1], Ygara S. Mendes[1], Luiz Gustavo Mendes[1], Leonardo Diniz-Mendes[1], Marcos Freire[1], Akira Homma[1], Edith Lepine[2], David Vaughn[3], Clarisse Lorin[2], Marie-Pierre Malice[2], Elena Caride[1], **Lucile Warter**[2]
[1]Fiocruz, Rio De Janeiro, Brazil, [2]GlaxoSmithKline Vaccines, Rixensart, Belgium, [3]GlaxoSmithKline Vaccines, Rockville, MD, United States

1386

DENGUE VIRUS SEROPREVALENCE IN MEXICO

Irma Y Amayo Larios[1], Mario Rosas-Rusell[2], **Elsa Sarti**[3], Laura Tirado-Gomez[2], Esteban Puentes[3], Liliana Castro-Porras[2], Victoria Castro-Borbonio[2], Gustavo Olaiz[2], José Ramos Castañeda[1]
[1]Instituto Nacional de Salud Pública, Cuernavaca, Mexico, [2]Universidad Nacional Autónoma de México, Ciudad de México, Mexico, [3]Sanofi Pasteur, Ciudad de México, Mexico

1387

DEVELOPING AND OPERATIONALIZING NATIONAL-LEVEL EARLY WARNING AND RESPONSE SYSTEMS (EWARS) FOR DENGUE AND OTHER *AEDES*-BORNE ARBOVIRAL DISEASES

Piero Olliaro[1], Axel Kroeger[2], Yesim Tozan[3], Joacim Rocklöv[4]
[1]Special Programme for Research and Training in Tropical Diseases, Geneva, Switzerland, [2]Center for Medicine and Society, University of Freiburg, Freiburg, Germany, [3]New York University College of Global Public Health, New York, NY, United States, [4]Epidemiology and Global Health Unit, Department of Public Health and Clinical Medicine and Umeå Centre for Global Health Research, Umeå University, Umea, Sweden

1388

PATTERNS OF CELLULAR IMMUNITY AFTER INFECTION WITH A HUMAN CHALLENGE STRAIN

Alba Grifoni[1], Michael Angelo[1], Bjoern Peters[1], Aruna D. de Silva[2], Sean A. Diehl[3], Jason Botten[3], Johnathan Boyson[3], Beth D. Kirkpatrick[3], Stephen S. Whitehead[4], Anna P. Durbin[5], Alessandro Sette[1], **Daniela Weiskopf**[1]
[1]La Jolla Institute for Allergy and Immunology, La Jolla, CA, United States, [2]Genetech Research Institute, Sri Lanka, Sri Lanka, [3]University of Vermont, College of Medicine and Vaccine Testing Center, Burlington, VT, United States, [4]National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States, [5]Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States

1389

OPTIMIZATION OF THE PLAQUE REDUCTION NEUTRALIZATION TEST ON 96-WELL PLATES FOR DIVERSE DENGUE VIRUS 1-4 STRAINS

Ana Coello Escoto[1], Leah Katzelnick[1], Christian Chavez[1], Henrik Salje[2], Derek Smith[3], Richard Jarman[4], Derek Cummings[1], Stephen Whitehead[5]
[1]University of Florida, Gainesville, FL, United States, [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [3]University of Cambridge, Cambridge, United Kingdom, [4]Walter Reed Army Institute of Research, Silver Spring, MD, United States, [5]National Institutes of Health, Bethesda, MD, United States

1390

FLAVIVIRUS SEROPREVALENCE IN THE DEMOCRATIC REPUBLIC OF THE CONGO

Alexandra C. Willcox[1], Matthew Collins[1], Ross Boyce[1], Antoinette Tshefu[2], Aravinda de Silva[1], Steven R. Meshnick[1]
[1]University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, [2]Kinshasa School of Public Health, Kinshasa, Democratic Republic of the Congo

1391

SPACE-TIME INTERACTION OF DENGUE CASES IN AN AGENT-BASED MODEL

Jeon-Young Kang, Jared Aldstadt
University at Buffalo, Amherst, NY, United States

1392

IMMUNOGENICITY OF THE CYD TETRAVALENT DENGUE VACCINE (CYD-TDV) USING A COMPRESSED SCHEDULE: RANDOMIZED PHASE II STUDY IN U.S. ADULTS

Judith Kirstein[1], William Douglas[2], Manoj Thakur[3], Mark Boaz[3], Thomas Papa[4], Anna Skipetrova[4], **Eric Plennevaux**[4]
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SPATIOTEMPORAL EPIDEMIOLOGY OF DENGUE IN MYANMAR 2012-2016

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SPATIOTEMPORAL EPIDEMIOLOGY OF DENGUE IN THAILAND 2010-2016

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INTEGRATED IMMUNOGENICITY ANALYSIS OF A TETRAVALENT DENGUE VACCINE (CYD-TDV) UP TO 4 YEARS AFTER VACCINATION

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SOCIO-ECOLOGICAL FACTORS AND PREVENTIVE ACTIONS ASSOCIATED WITH DENGUE INFECTIONS AT THE HOUSEHOLD-LEVEL IDENTIFIED IN A PROSPECTIVE DENGUE SURVEILLANCE STUDY IN MACHALA, ECUADOR

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DESIALYLATION OF PLATELETS CORRELATES WITH THROMBOCYTOPENIA IN ACUTE DENGUE

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LEVERAGING STUDIES IN RETURNED U.S. TRAVELERS TO COMBAT EMERGING INFECTIOUS DISEASES

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MOSQUITO-DELIVERY OF DENGUE VIRUS IN RHESUS MACAQUES DELAYED ONSET AND INCREASED PEAK VIREMIA COMPARED TO SUBCUTANEOUS INOCULATION

Michael K. McCracken[1], Gregory D. Gromowski[1], Lindsey S. Garver[1], Brad A. Goupil[2], Heather Friberg[1], Jeffrey R. Currier[1], Christopher N. Mores[2], David Vaughn[3], Edith Lepine[3], Clarisse Lorin[4], Marie-Pierre Malice[4], Stephen J. Thomas[1], Richard G. Jarman[1], J. Robert Putnak[1], Lucile Warter[4]
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ESTIMATING THE UNDERREPORTING OF DENGUE CASES, ARARAQUARA, BRAZIL, 2015

Expedito J. Luna[1], Gerusa M. Figueiredo[1], Sergio R. Campos[1], Jose E. Levi[1], Walter M. Figueiredo[2], Angela A. Costa[2], Alvina C. Felix[1], Nathalia S. Souza[1], Maria R. Cardoso[1], Claudio S. Pannuti[1]
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A PURIFIED INACTIVATED VIRION-BASED DENGUE VACCINE INDUCES NEUTRALIZING ANTIBODIES THAT TARGET QUATERNARY EPITOPES AND PROTECT FROM CHALLENGE IN RHESUS MACAQUES

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POTENTIAL IMPACT OF DENGUE VACCINATION STRATEGIES WITH SEROTESTING IN VARIOUS ENDEMIC SETTINGS

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A METHODOLOGICAL FRAMEWORK FOR ECONOMIC EVALUATION OF OPERATIONAL RESPONSE TO VECTOR-BORNE DISEASE FORECASTS

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MODELLING THE REQUIREMENTS FOR SUCCESSFUL REACTIVE CASE DETECTION FOR DENGUE IN SINGAPORE

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DEVELOPMENT OF ENVELOPE-MODIFIED TETRAVALENT DENGUE VIRUS-LIKE PARTICLE VACCINE: IMPLICATION FOR FLAVIVIRUS VACCINE DESIGN

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METABOLIC BIOSIGNATURES OF INFECTION: HOW DENGUE, CHIKUNGUNYA AND ZIKA VIRUSES DIFFERENTIALLY PERTURB HOST METABOLIC HOMEOSTASES

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PRIOR YEAR'S TRANSMISSION INTENSITY INFORMS CURRENT RISK OF DENGUE VIRUS INFECTION IN THAI VILLAGES

Kathryn B. Anderson[1], Darunee Buddhari[2], Louis R. Macareo[2], Alden L. Weg[2], Damon H. Ellison[2], Stephen J. Thomas[3], Ananda Nisalak[2], Richard G. Jarman[4], In-Kyu Yoon[5], Jared Aldstadt[6], Daniel H. Libraty[7], Robert V. Gibbons[8], Alan L. Rothman[9], Timothy P. Endy[3]
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TWO WAYS OR ONE: THE RELATIONSHIP OF ENDEMIC AND SYLVATIC DENGUE VIRUS

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THE FIRST COMMUNITY-BASED INTERVENTION TO PREVENT DENGUE FEVER IN BURKINA FASO: AN IMPACT EVALUATION STUDY

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DETECTION OF DENGUE AND WEST NILE ANTIBODIES IN HUMANS IN CIUDAD JUAREZ, MEXICO

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THE DYNAMICS OF DENGUE VIRUS INFECTION IN INDONESIA: OBSERVATIONS FROM A NATIONAL, MULTICENTER STUDY OF ACUTE FEBRILE ILLNESS AMONG HOSPITALIZED PATIENTS

Pratiwi Sudarmono[1], Usman Hadi[2], MH Gasem[3], Ketut Tuti Parwati[4], Ida Laksono[5], Muhammad Karyana[6], Abu Tholib[5], Herman Kosasih[7], Sophia Siddiqui[8]
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ARTHROPOD EXOSOMES MEDIATE DENGUE INFECTION THROUGH A NOVEL EXOSOMAL MARKER

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Flaviviridae - Other

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A COMPARISON OF FOUR SEROLOGICAL METHODS AND TWO RT-PCR ASSAYS FOR DIAGNOSIS AND SURVEILLANCE OF ZIKA

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DIFFERENTIATING ZIKA AND DENGUE VIRUS INFECTIONS WITH A LINEAR PEPTIDE ARRAY

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(ACMCIP Abstract)

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ASSESSMENT OF SEXUAL TRANSMISSION POTENTIAL OF SPONDWENI SEROGROUP VIRUSES

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LONG TERM ASYMPTOMATIC DETECTION OF VIRAL RNA IN URINE AND SALIVA FOLLOWING ACUTE ZIKA INFECTION IN NICARAGUA 2016 - 2017

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A NOVEL MOLECULAR ASSAY FOR THE DETECTION OF ZIKA RNA IN WHOLE BLOOD AND URINE SAMPLES

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POTENT AND BROADLY NEUTRALIZING DOMAIN II ANTIBODIES INDUCED DURING ACUTE ZIKA VIRUS INFECTION OF A PREVIOUSLY DENGUE-EXPOSED INDIVIDUAL

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HUMAN PRIMARY CELL IMMUNE RESPONSES TO FLAVIVIRUSES ARE MODULATED BY BOTH THE VIRAL SPECIES AND THE AGE OF THE DONOR

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(ACMCIP Abstract)

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ZIKA VIRUS INFECTION IN HUMAN SERTOLI CELLS INDUCES ROBUST ANTIVIRAL DEFENSE RESPONSE AND COMPROMISES BLOOD-TESTES BARRIER INTEGRITY

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SEARCHING FOR ZIKA VIRUS IN INDIA

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PROLONGED RNA SHEDDING OF ZIKA VIRUS (ZIKV) AND CHIKUNGUNYA VIRUS (CHIKV) DURING ZIKV AND CHIK CO-INFECTION IN DIFFERENT COMPARTMENTS

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LACK OF EVIDENCE OF ANTECEDENT ZIKA VIRUS INFECTION IN GUILLAIN-BARRE SYNDROME PATIENTS HOSPITALIZED IN A REFERRAL HOSPITAL IN SOUTH INDIA, 2014 - 2016

Vasanthapuram Ravi[1], Monojit Debnath[1], Madhu Nagappa[1], Arun B. Taly[1], Anita Desai[1], Reeta S. Mani[1], Vijayalakshmi Reddy[1], Rakhi Sharma[1], Sampada Sudershan[1], Rahul Wahatule[1], Sundaravadivel Pandarisamy[1], Debprasad Dutta[1], Shafeeq Shahul Hameed[1], Anoop Velayudhan[2], Kayla Laserson[2], Padmini Srikantiah[2]
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SCREENING OF RECOMBINANT ZIKA VIRUS PROTEINS AS ANTIGENS TO DEVELOP AN ELISA FOR THE SERODIAGNOSIS OF ZIKA VIRUS INFECTION

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PUBLIC HEALTH AT THE FOREFRONT: BUILDING LOCAL HEALTH DEPARTMENT CAPACITY TO IMPROVE ZIKA PREGNANCY AND BIRTH DEFECTS SURVEILLANCE AND REFERRAL TO SERVICE IN UNITED STATES (US)

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PREVALENCE OF PREVIOUS AND RECENT INFECTIONS BY ZIKA VIRUS, DENGUE VIRUS AND CHIKUNGUNYA VIRUS IN PREGNANT WOMEN AND SURVEILLANCE FOR CONGENITAL ZIKA INFECTIONS IN SALVADOR, BRAZIL

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GROWTH OUTCOMES OF NEWBORNS BORN TO WOMEN BORN TO WOMEN WITH POSITIVE ZIKA SCREENS DURING PREGNANCY, HIMA SAN PABLO BAYAMÓN CASE SERIES

Maribel Campos[1], Yolymar Poventud[2], José Nieves[3], Javier Noriega[3], Rey Hernandez[4], Alexandra Benitez[4], Lizzie Ramos[3], Wanda Cubero[4], Josefina Romaguera[3], Vivek Nerurkar[5]
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BREAST MILK AND ZIKA VIRUS INFECTION IN PREGNANCY, THAILAND 2016 - 2017

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FUNCTIONAL DIFFERENCES AND HOST ANTIVIRAL RESPONSES TO NICARAGUAN ZIKA VIRUS AND PROTOTYPE STRAINS REVEALED IN FIRST-TRIMESTER VILLUS EXPLANTS

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POTENT ACTIVITY OF THE BROAD SPECTRUM INHIBITOR FAVIPIRAVIR ON *IN VITRO* USUTU VIRUS REPLICATION AND IN A MOUSE INFECTION MODEL

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Flaviviridae - West Nile

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SERODIAGNOSIS OF *FLAVIVIRUS* INFECTIONS AMONG THE BAKA PYGMY POPULATIONS IN CAMEROON USING AN IN-HOUSE MAC-ELISA

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MODELING THE SPREAD OF MOSQUITO-BORNE DISEASE IN THE NORTHERN GREAT PLAINS OF THE U.S.

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INCREASED ANTIBODY DIVERSITY GENERATED BY ADJUVANTS CORRELATES WITH PROTECTION IN RECOMBINANT PROTEIN-BASED FLAVIVIRAL VACCINES

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Viruses - Other

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USE OF QUANTITATIVE REAL-TIME POLYMERASE CHAIN REACTION TO IDENTIFY NOROVIRUS DIARRHEA IN INDIAN CHILDREN IN THE FIRST 3 YEARS OF LIFE: A REANALYSIS OF A BIRTH COHORT STUDY

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POPULATION STRUCTURE AND TRANSMISSION DYNAMICS OF NOROVIRUS IN A PERUVIAN BIRTH COHORT

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PRELIMINARY REPORT OF A STUDY ON EFFECTIVENESS, SAFETY AND ACCEPTABILITY OF CERVICAL CANCER SCREENING USING VISUAL INSPECTION WITH ACETIC ACID AND COLD COAGULATION BASED SINGLE VISIT APPROACH IN YAT SAUK TOWNSHIP IN SHAN STATE, MYANMAR

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AN OUTBREAK OF FEBRILE SYNDROMES IN THE NORTH OF PERU: EMERGING AND REEMERGING ARBOVIRUSES

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SEROPREVALENCE OF EBOLA VIRUS AMONG HEALTH CARE WORKERS IN YAMBUKU HEALTH ZONE, DEMOCRATIC REPUBLIC OF CONGO

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SEROLOGICAL SURVEY TO MONITOR POPULATION IMMUNITY TO MEASLES AND RUBELLA VIRUSES AFTER A NATIONAL MEASLES-RUBELLA VACCINATION CAMPAIGN IN ZAMBIA

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Macarena Vittet[1], Giuliana Oyola[1], Gerardo Sanchez[1], Mayra Ochoa[1], Fabiola Colquechagua-Aliaga[2], Dante Figueroa-Quintanilla[2], Holger Mayta[1], Mayuko Saito[3], Sarah-Blythe Ballard[4], Robert Gilman[4]
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Yadira Galeano-Castañeda[1], Paula A. Urrea[1], Priscila Bascuñán-García[1], Juan David Sánchez-Rodríguez[1], Nicola Segata[2], Francesco Beghini[2], David Serre[3], **Margarita M. Correa**[1]
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Justine Alexander, Brittany Dodson, Jason Rasgon
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Andres Carrazco[1], Victor Zorrilla[2], Hector Olalla[3], Leonardo Fárez-Noblecilla[4], Liz Espada[2], Marisa Lozano[2], Craig A. Stoops[2], **Gissella Vasquez**[2], Renato León[1]
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María Sol Gaspe, María del Pilar Fernandez, Marta V. Cardinal, Gustavo F. Enriquez, Lucía I. Rodríguez-Planes, Natalia P. Macchiaverna, Ricardo E. Gürtler
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Molly Robertson[1], Christelle Gogue[1], Kenzie Tynuv[1], Joseph Wagman[1], Keith Mangam[2], David Larsen[3], Francisco Saute[4], Baltazar Candrinho[5], John Miller[1], Richard Steketee[1], Jeff Bernson[1]
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George Mason University, Fairfax, VA, United States

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Sarah Sneed, Michael Povelones
University of Pennsylvania, Philadelphia, PA, United States

Mosquitoes - Biochemistry and Molecular Biology

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RETENTION OF DUPLICATED LIGHT AND VISUAL RECEPTORS IN MOSQUITO LINEAGES BY POSITIVE SELECTION AND DIFFERENTIAL EXPRESSION

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Shengzhang Dong, Asher Kantor, Jingyi Lin, Alexander W. Franz
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Andrea Ramos, Mabel Taracena, Claudia Paiz, Pamela Flores, Pamela Pennington
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(ACMCIP Abstract)

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Nunya Chotiwan[1], Barbara G. Andre[1], Irma Sanchez-Vargas[1], Jeffrey M. Grabowski[2], Amber Hopf-Jannasch[2], Erik Gough[2], Ernesto Nakayasu[2], Carol D. Blair[1], Catherine A. Hill[2], Richard J. Kuhn[2], Rushika Perera[1]
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Ethan Strayer, John Andersen
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Kristine Werling, Maurice Itoe, Douglas Paton, Flaminia Catteruccia
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William Bart Bryant, Bradley J. Olson, Kristin Michel
Kansas State University, Manhattan, KS, United States

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Michigan State University, East Lansing, MI, United States

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(ACMCIP Abstract)

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Kristin Michel, Victoria L. Rhodes
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Karla L. Saavedra-Rodriguez[1], Corey L. Corey L. Campbell[1], Audrey Lenhart[2], Saul Lozano Fuentes[3], Julian Garcia Rejon[4], Patricia Penilla[5], William C. Black IV[1]
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NOOTKATONE: A NATURALLY OCCURRING, NEXT-GENERATION PEST MANAGEMENT STRATEGY

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Duverney Chaverra-Rodriguez, Vanessa M. Macias, Grant L. Hughes, Yasutsugu Suzuki, David R. Peterson, Sujit Pujhari, Jason L. Rasgon
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Hillery C. Metz
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Seth N. Redmond[1], Maria V. Sharakhova[2], Igor V. Sharakhov[2], Zhijian Tu[2], Carolyn S. McBride[3], Jefrrey R. Powell[4], Bruce Birren[1], Daniel E. Neafsey[1]
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WHY INDELS MATTER: INSERTION-DELETION VARIANTS IN THE *ANOPHELES GAMBIAE* COMPLEX

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INVESTIGATING THE EFFECTS OF LATITUDE AND TEMPERATURE ON THE LIFE HISTORY TRAITS OF THE MAJOR LATIN AMERICAN MALARIA VECTOR, *ANOPHELES DARLINGI*

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Andrew Pike[1], Chifundo Kadangwe[2], Jenna E. Coalson[3], Lauren M. Cohee[1], Andy Bauleni[2], Clarissa Valim[2], Terrie E. Taylor[4], Don P. Mathanga[2], Atupele Kapito-Tembo[2], Mark L. Wilson[3], Edward Walker[5], Miriam K. Laufer[1], Themba Mzilahowa[4]
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Kathryne D. Walker[1], Tobin Rowland[1], Emily McDermott[1], Ying Jin-Clark[1], Ratawan Ubalee[2], Amnart Kayha[2], Waranya Buadok[2], Vichit Phunkitchar[2], Jorge Lopez[1], Silas Davidson[2], Lindsey Garver[1]
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Joseph R. McMillan[1], Rebekah Blakney[1], Andrea Lund[2], Daniel Mead[3], Sarah Coker[3], Donal Bisanzio[4], William Koval[1], Uriel Kitron[1], Gonzalo Vazquez-Prokopec[1]
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Athanase Badolo[1], Aboubacar Sombie[1], Felix Yameogo[1], Dimitri Wangrawa[1], Wamdaogo M. Guelbego[2], Hirotaka Kanuka[3], Antoine Sanon[1], N'Falè Sagnon[2], David Weetman[4], Philip J. McCall[4]
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PILOT PROJECT OF AN ENTOMOLOGICAL AND MOLECULAR SENTINEL SURVEILLANCE SYSTEM BASED IN THE ENTOMOLOGIST CITIZEN IN PUERTO RICO

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(ACMCIP Abstract)

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PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1 (*PF*EMP1) VARIANT EXPRESSION PROFILES IN KENYAN CHILDREN WITH SEVERE MALARIAL ANEMIA FROM WESTERN KENYA

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SEVERE DEFICIENCIES OF AMINO ACID PRECURSORS FOR L-ARGININE *DE NOVO* BIOSYNTHESIS IN PEDIATRIC FALCIPARUM MALARIA: IMPLICATIONS FOR NITRIC OXIDE INSUFFICIENCY

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DIFFERING RECEPTOR EXPRESSION IN BRAIN MICROVESSELS DERIVED FROM WHITE AND GRAY MATTER: IMPLICATIONS FOR CEREBRAL MALARIA

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BIOENERGETIC ANALYSIS REVEALS OXPHOS ACTIVITY IN THE LATE STAGE GAMETOCYTES

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THE *PLASMODIUM FALCIPARUM* 130 KDA MAURER'S CLEFT PROTEIN IS A RESIDENT MAURER'S LEFT PROTEIN PERIPHERALLY ASSOCIATED WITH THE MEMBRANES OF THE CLEFTS

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(ACMCIP Abstract)

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ROLE OF PKA SIGNALING IN ARTEMISININ INDUCED DORMANCY IN RING STAGE *P. FALCIPARUM*

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(ACMCIP Abstract)

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RESISTANCE TO A NONCOVALENT SELECTIVE PROTEASOME INHIBITOR IN *PLASMODIUM FALCIPARUM*

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3D BRAIN MICROVESSEL MODEL FOR THE STUDY OF CEREBRAL MALARIA PATHOGENESIS

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(ACMCIP Abstract)

Malaria - Chemotherapy and Drug Resistance

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THE TOXIC TABLETOP: ACCIDENTAL ANTI-MALARIAL POISONINGS IN FAMILIES OF FRENCH AND U.S. VIETNAM VETERANS

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HUMANIZED MOUSE MODELS TO BOOST ANTIMALARIAL DRUG DISCOVERY

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A NATIONAL MOLECULAR SURVEILLANCE PROGRAM FOR THE DETECTION OF *PLASMODIUM FALCIPARUM* MARKERS OF RESISTANCE TO ANTIMALARIAL MEDICATIONS IN HAITI

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RANDOMIZED CLINICAL TRIAL: EFFICACY OF ARTEMISININ COMBINATION THERAPIES FOR UNCOMPLICATED *PLASMODIUM FALCIPARUM* MALARIA IN SELINGUE, MALI, 2016

Youssouf Diarra[1], Eldin Talundzic[2], Julia Kelley[3], Dragan Ljolje[3], Oumar Kone[1], Ira Goldman[2], Lassina Doumbia[1], Lansana Sangaré[1], Dade Ben Sidi Haidara[4], Mouctar Diallo[1], Ababacar Maiga[1], Halidou Sidibé[5], Jules Mihigo[6], Pharath Lim[7], Donald J. Krogstad[8], Eric S. Halsey S. Halsey[9], Venkatachalam Udhayakumar[2], Naomi Lucchi[2], Erin Eckert[10], Ousmane Koita[1]
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COMPARATIVE EFFICACY OF ARTEMETHER-LUMEFANTRINE AND DIHYDROARTEMISININ-PIPERAQUINE FOR TREATMENT OF UNCOMPLICATED MALARIA IN CHILDREN IN UGANDA

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ASSESSMENT OF EFFICACY OF ARTESUNATE AMODIAQUINE IN DISTRICT OF IFANADIANA MADAGASCAR

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1555

SINGLE DOSE SUPERIOR PHARMACODYNAMICS OF PYRONARIDINE COMPARED TO ARTESUNATE, CHLOROQUINE AND AMODIAQUINE IN A HIGH DENSITY MURINE MALARIA-LUCIFERASE MODEL

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OPPORTUNISTIC PHARMACOKINETIC DETERMINATIONS OF LUMEFANTRINE FROM DRIED BLOOD SPOTS BY LC-MS/MS FOR PHARMACOKINETIC-PHARMACODYNAMIC MODELING OF MALARIA

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INVESTIGATING THE PRESENCE OF MUTATIONS IN THE PFKELCH13 GENE IN CHILDREN FROM UGANDA AFRICA WITH SEVERE MALARIA AND ASYMPTOMATIC PARASITEMIA

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CONTINUED ABSENCE OF *PFCRT* GENE MUTATIONS WITHIN THE HAITIAN *PLASMODIUM FALCIPARUM* POPULATION

Eric Rogier[1], Curtis Huber[1], Camelia Herman[1], Stella Chenet[2], Baby Pierre[3], Ruth Namuyinga[1], Kimberly Mace[1], Ito Journel[4], Sarah Volkman[2], Jacques Boncy[4], Ventkatachalam Udhayakumar[1], Jean F. Lemoine[3], Michelle Chang[1]
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PHENOTYPIC AND GENOTYPIC ANALYSIS OF DIHYDROARTEMISININ-RESISTANT MALARIA PARASITES *PLASMODIUM FALCIPARUM*

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EVALUATION OF THE USE OF PARENTERAL ARTESUNATE BY CARE PROVIDERS FOR THE MANAGEMENT OF SEVERE CASES OF MALARIA IN SENEGAL

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PREDICTING OPTIMAL DIHYDROARTEMISININ-PIPERAQUINE DOSING TO PREVENT MALARIA DURING PREGNANCY FOR UGANDAN WOMEN RECEIVING ANTIRETROVIRAL THERAPY

Erika Wallender[1], Prasanna Jagannathan[2], Paul Natureeba[3], Abel Kakura[3], Mary Muhindo[3], Miriam Nakalembe[4], Philip Rosenthal[1], Diane Havlir[1], Moses Kamya[4], Francesca Aweeka[1], Grant Dorsey[1], Rada Savic[1]
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IMPACT OF DIFFERENT MALARIA CHEMOPREVENTION REGIMENS FOR PREGNANT UGANDAN WOMEN ON *P. FALCIPARUM* DRUG RESISTANCE-MEDIATING POLYMORPHISMS

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CHARACTERIZATION OF ARTEMISININ RESISTANCE IN THREE CONTINENTS: A MULTICENTER TRIAL IN PERU, KENYA AND THAILAND IN PATIENTS WITH UNCOMPLICATED *P. FALCIPARUM* MALARIA

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INVESTIGATION OF MOLECULAR MARKERS OF RESISTANCE IN RECURRENT PARASITES DURING A THERAPEUTIC EFFICACY STUDY CONDUCTED BETWEEN 2013 AND 2015 IN DIORO, MALI

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BASELINE MOLECULAR DATA BEFORE SCALING-UP OF SEASONAL MALARIA CHEMOPREVENTION IN SEVEN COUNTRIES ACROSS THE SAHEL

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UNDERSTANDING AND OPTIMIZING OPERATIONAL SEASONAL MALARIA CHEMOPREVENTION THROUGH DATA ANALYSIS AND MODELING: THE EXAMPLE OF BURKINA FASO

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INVESTIGATING THE MUTATIONAL PATHWAYS TO RESISTANCE FOR CLINICALLY-RELEVANT *PLASMODIUM FALCIPARUM* DIHYDROOROTATE DEHYDROGENASE INHIBITORS

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ELUCIDATING THE ROLE OF EIK1 IN NON-GENETIC RESISTANCE TO HALOFUGINONE

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PHARMACODYNAMIC META-ANALYSIS OF HUMAN *P. FALCIPARUM* MONOTHERAPY DRUG TRIALS

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Malaria - Diagnosis

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DETECTION OF *PLASMODIA* SPP. INFECTION BY MERIDIAN ILLUMIGENE® MALARIA COMPARED TO REFERENCE MICROSCOPY AND REAL-TIME PCR

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MALARIA AND DENGUE INFECTIONS AMONG PATIENTS ATTENDING TERTIARY CARE AND HEALTH CARE CENTERS IN AND AROUND MANGALURU, INDIA: A PROSPECTIVE STUDY

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PERFORMANCE OF STANDARD AND HIGH SENSITIVITY MALARIA RAPID DIAGNOSTIC TESTS FOR THE DETECTION OF ASYMPTOMATIC *PLASMODIUM FALCIPARUM* INFECTIONS

Xavier C. Ding[1], Roxanne Rees-Channer[2], Rushini Perera[2], Babacar Faye[3], Dionicia Gamboa[4], Jennifer Luchavez[5], Didier Ménard[6], Kigbafori Silué[7], Peter L. Chiodini[2], Iveth J. González[1]

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TRACKING HEMOZOIN LEVELS IN SYMPTOMATIC PATIENTS POST TREATMENT USING MAGNETO-OPTICAL DETECTION, MOD

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LIMIT OF DETECTION OF MAGNETO-OPTICAL DETECTION, MOD, ON SAMPLES OF *P. VIVAX* AND *P. FALCIPARUM*

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DISTRICT-BASED SUPERVISION AND MENTORSHIP PROGRAM FOR IMPROVING THE QUALITY OF MALARIA RAPID DIAGNOSTIC TESTING IN UGANDA 2014- 2016

Bosco B. Agaba[1], Jimmy Opigo[1], Ruth Nabwire[1], Damian Rutazaana[1], Joselyne Atuhaire[2], Maureen Amutuhaire[1], Umaru Sekabira[3], Ruth Kigozi[4], Jane Nabakooza[1], Paul Mbaka[5], Charles Katureebe[5], Ann Gasasiira[6]

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SIMULTANEOUS DETECTION OF FOUR HUMAN MALARIA SPECIES FROM WHOLE BLOOD, GIEMSA STAINED SLIDES AND DRIED BLOOD SPOTS ON FILTER PAPER

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(ACMCIP Abstract)

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INTRODUCING MALARIA RAPID DIAGNOSTIC TESTS INTO NON-FORMAL PRIVATE SECTOR OUTLETS IN MYANMAR: PRE-POST RESULTS FROM CROSS SECTIONAL STUDIES

Si Thu Thein, Hnin Su Su Khin, Manuela Tolmino, Moh Moh Lwin
PSI/Myanmar, Yangon, Myanmar

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MOLECULAR RE-EXAMINATION OF FALSE-NEGATIVE HISTIDINE-RICH PROTEIN 2 (HRP2)-BASED RAPID DIAGNOSTIC TESTS (RDTS) FOR MALARIA

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A HIGHLY SENSITIVE MULTIPLEXED BEAD-BASED IMMUNOASSAY FOR POTENTIAL MALARIA DIAGNOSTICS

Julie Clor[1], Mary Otto[2], John Mcdonald[2], Prasanna Jagannathan[3], Bryan Greenhouse[4], Abel Kakaru[5], James Mulry[6], Beatrice Greco[7], **Kamala Tyagarajan**[1]
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WHO IS MORE LIKELY TO PERFORM MALARIA RAPID DIAGNOSTIC TESTS IN THE NON-FORMAL SECTOR IN MYANMAR?

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THE IMPORTANCE OF EXTERNAL QUALITY ASSESSMENT IN FOCUSING IMPLEMENTATION OF QUALITY IMPROVEMENT PROGRAMS ON MALARIA MICROSCOPY IN TANZANIAN MILITARY HEALTH FACILITIES

Saidi Mgata[1], D. Klarkowiski[2], Lucas Mahikwano[1], Akili Kalinga[1], Lucky Temu[1], Charles Mswanya[3], Chris Mwanziva[3], Lalaine Anova[2], Kofi Wurapa[2], Dennis Janga[3], Vesely Brian[2]
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THE USE OF FIONET™ TECHNOLOGY IN MALARIA SURVEILLANCE AND EXTERNAL QUALITY CONTROL OF RAPID DIAGNOSTIC TESTS IN MILITARY HEALTH FACILITIES IN TANZANIA

Christopher Mswanya[1], Akili Kalinga[2], Charles Mwanziva[1], Lucky Temu[3], Sarah Chiduo[3], Lalaine Anova[4], Lucas Mahikwano[3], Saidi Mgata[1], George Amoo[3], Nora Zwingerman[5], Ian Fine[5], Brian Vesely[4], Eyako Wurapa[4], Robert Paris[4], Colin Ohrt[4], Mark Hickman[4], Dennis Janga[1]
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CROSS-SECTIONAL ANALYSIS IN YOUNG NON-PREGNANT AND PREGNANT WOMEN IN BURKINA FASO OF ASSOCIATIONS BETWEEN BIOMARKERS OF IRON STATUS AND EFFECT MODIFICATION BY INFLAMMATION AND *P. FALCIPARUM* INFECTION

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EVALUATION OF PERFORMANCE OF DEKI READER OF MALARIA RAPID DIAGNOSTIC TEST IN RURAL MILITARY HEALTH FACILITIES IN TANZANIA

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DEVELOPMENT OF A MULTIPLEX ASSAY FOR SIMULTANEOUS QUANTIFICATION OF *P. VIVAX* AND *P. FALCIPARUM* INFECTION

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COMPARISON OF COMMERCIALLY AVAILABLE MOBILE MEDICAL APPLICATIONS (MMAS) FOR INTERPRETING MALARIA RAPID DIAGNOSTIC TEST (RDT) RESULTS

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Malaria - Drug Development - Preclinical Studies

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CAUSAL CHEMOPROPHYLACTIC ACTIVITY OF PRIMAQUINE - QUINOXALINE HYBRIDS

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ACTIVITY OF THE HDAC INHIBITOR AR-42 IN A MURINE MALARIA MODEL

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GAMETOCYTIDAL AND CURATIVE LIVER AND BLOOD STAGE ANTIMALARIAL ACTIVITY OF CETHROMYCIN

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DRUG INTERACTIVITY STUDIES TO DEFINE SYNERGISTIC ANTI-MALARIAL COMBINATORIAL REGIMES FOR EMETINE DIHYDROCHLORIDE

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TAFENOQUINE IS NOT NEUROTOXIC FOLLOWING SUPERTHERAPEUTIC DOSING IN RATS

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PYRAZINE, A NOVEL CLASS OF ORALLY ACTIVE ANTIMALARIAL. MAKING PROGRESS TOWARDS HIGH QUALITY MOLECULES

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PRIMAQUINE - 1,4-DI-N-OXIDE QUINOXALINE HYBRIDS: POTENTIAL TISSUE SCHIZONTOCIDE ACTIVITY IN MALARIA

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RESISTANCE SELECTION APPROACH TO IDENTIFY AND VALIDATE TARGETS FOR ANTIMALARIAL DRUG DISCOVERY

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CHROMOBACTERIUM CSP_P MEDIATES ITS ANTIMALARIAL ACTIVITY THROUGH SECRETION OF THE HDAC INHIBITOR ROMIDEPSIN

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DEVELOPING LONG-TERM MALARIAL CHEMOPROPHYLACTIC COMPOUND RELEASING IMPLANTS

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PROVEBLUE, METHYLENE BLUE, AS AN ANTIMALARIAL DRUG

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NOVEL LIVER STAGE ACTIVE ANTIMALARIALS

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NATURAL PRODUCT INSPIRED NOVEL ANTIMALARIALS

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OPTIMIZING THE *IN VIVO* PHARMACODYNAMICS OF THE *P. FALCIPARUM* APICOPLAST INHIBITORS FOSMIDOMYCIN AND CLINDAMYCIN

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(ACMCIP Abstract)

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IDENTIFYING HEXAHYDROQUINOLINES AS NEW ANTIMALARIALS WITH POTENT BLOOD STAGE AND TRANSMISSION-BLOCKING ACTIVITY

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Malaria – Elimination

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MIGRATION AS A DETERMINANT OF MALARIA IN SURINAME: CHALLENGES IN REACHING ELIMINATION

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FORMATIVE ASSESSMENT TO UNDERSTAND AND TARGET HIGH-RISK POPULATIONS FOR MALARIA INFECTION, CHAMPASAK PROVINCE, LAO PDR

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DHIS2 TRACKER DASHBOARD AS A TOOL TO CATALYZE DATA USE IN THE MALARIA ELIMINATION SETTING OF ZIMBABWE

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THE PERFORMANCE OF G6PD RAPID DIAGNOSTIC TESTS IN CAMBODIA AND IMPLICATIONS FOR PRIMAQUINE THERAPY

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IMPACT OF INDOOR RESIDUAL SPRAYING WITH PIRIMIPHOS-METHYL IN THE CONTEXT OF A COMPREHENSIVE MALARIA ELIMINATION STRATEGY IN SOUTHERN PROVINCE ZAMBIA

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MOVEMENT PATTERNS ASSOCIATED WITH MALARIA RISK DERIVED FROM OUTPATIENT REGISTER BOOKS IN AMHARA REGION, ETHIOPIA

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COST AND EFFECTIVENESS ANALYSIS OF MALARIA CONTROL IN SENEGAL: "THEORETICAL" SINGLE INTERVENTIONS VS. "ACTUAL" PACKAGES OF INTERVENTIONS

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MALARIA PARASITEMIA AND SEROLOGICAL PREVALENCE IN NEAR-ZERO TRANSMISSION SETTINGS IN ETHIOPIA

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OPTIMIZING HIGHLY FOCAL MASS DRUG ADMINISTRATION TARGETS FOR MALARIA ELIMINATION ACCELERATION OVER NETWORKED POPULATIONS: THE CASE OF HAITI

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POPULATION GENETIC DIVERSITY OF SAMPLES FROM THE 2012 AND 2015 MALARIA INDICATOR SURVEYS, ZAMBIA

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ADAPTING REACTIVE CASE DETECTION FOR MALARIA IN FOREST WORKERS IN ACEH, INDONESIA

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FIRST-YEAR RESULTS FROM THE COMMUNITY-LED RESPONSES FOR ELIMINATION (CORE) TRIAL ASSESSING THE EFFECTIVENESS OF REACTIVE FOCAL DRUG ADMINISTRATION COMPARED TO REACTIVE FOCAL TEST AND TREAT IN REDUCING *PLASMODIUM FALCIPARUM* INFECTION PREVALENCE AND INCIDENCE IN AN ELIMINATION SETTING IN SOUTHERN PROVINCE, ZAMBIA

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PROGRAMMATIC MASS DRUG ADMINISTRATION IN SOUTHERN PROVINCE, ZAMBIA: AN EVALUATION OF IMPACT AND POSSIBLE SPILL-OVER EFFECTS USING DHIS2 MALARIA CASE INCIDENCE DATA

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MONITORING POPULATION AND TRANSMISSION DYNAMICS OF MALARIA VECTORS ALONG LAKE KARIBA OF SOUTHERN ZAMBIA: IMPLICATIONS FOR THE MALARIA CONTROL AND ELIMINATION PROGRAM

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THE ECONOMIC AND EDUCATIONAL IMPACTS OF A MALARIA ELIMINATION CAMPAIGN IN MOZAMBIQUE

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REACTIVE CASE DETECTION IN A SETTING OF DECLINING TRANSMISSION, SOUTHERN PROVINCE, ZAMBIA

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REACTIVE CASE DETECTION IN TRANSITION TO PROGRAMMATIC SURVEILLANCE, NORTHERN SENEGAL

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Malaria - Epidemiology

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FACTORS ASSOCIATED WITH INTERMITTENT PREVENTIVE TREATMENT OF MALARIA DURING PREGNANCY IN MALI

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IMPACT OF STRATIFICATION METHODS USED TO TARGET INDOOR RESIDUAL SPRAYING IN BIOKO ISLAND, EQUATORIAL GUINEA

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VARIATION IN AMBIENT TEMPERATURE DRIVES THE SEASONALITY OF MALARIA PARASITISM IN WILD CHIMPANZEE RESERVOIRS ACROSS EQUATORIAL AFRICA

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DIFFERING PATTERNS OF PROTECTIVE ASSOCIATIONS FOR ANTIBODIES TO SURFACE ANTIGENS OF *P. FALCIPARUM*-INFECTED ERYTHROCYTES AND MEROZOITES IN IMMUNITY TO MALARIA IN CHILDREN

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SEASONAL MALARIA CHEMOPREVENTION IN ANKILILOAKA, MADAGASCAR

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THE EFFECT OF HOUSING IMPROVEMENTS ON MALARIA IN AFRICA, 2000-2015

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UNDERSTANDING MIGRANT BEHAVIORS AND MALARIA RISK IN AYEYARWADDY REGION, MYANMAR

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MALARIA DISASTER IN VENEZUELA: TIME FOR ACTIONS

Leopoldo Villegas, Maria-Mercedes Villegas, Maria-Victoria Villegas, Maria Guevara
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EFFECT OF MALARIA IN THE FIRST TRIMESTER OF PREGNANCY ON FETAL GROWTH: A PRE-CONCEPTIONAL COHORT STUDY IN BENIN

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FACTORS ASSOCIATED WITH SUBMICROSCOPIC MALARIA PARASITE CARRIAGE IN SICK CHILDREN AGED 6 - 59 MONTHS OLD IN URBAN AND PERI-URBAN FACILITIES IN BLANTYRE, MALAWI

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DECLINE OF MULTIPLE INFECTIONS OF *PLASMODIUM FALCIPARUM* FROM 2007 TO 2012 AND DIFFERENCE IN MULTIPLE INFECTIONS BETWEEN HUMANS AND MOSQUITOES IN WESTERN KENYA

Ying Liu[1], Sheila B. Sergent[1], Benard Abong'o[2], Kephas Otieno[2], John E. Gimnig[1], Edward D. Walker[3], Simon Kariuki[2], Meghna Desai[1], Ya Ping Shi[1], **Zhiyong Zhou**[1]
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AGE-SPECIFIC CHANGES IN THE INCIDENCE OF UNCOMPLICATED *PLASMODIUM FALCIPARUM* MALARIA: SEASONAL MALARIA CHEMOPREVENTION (SMC) IN AN AREA WITH INTENSE TRANSMISSION: DANGASSA, MALI

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1631

EPIDEMIOLOGICAL TRANSITION OF MALARIA IN GABON: DATA FROM A SENTINEL SITE (MELEN 2010-2016)

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1632

REGIONAL BURDEN OF MALARIA IN PATIENTS PRESENTING WITH FEBRILE ILLNESS IN KENYAN HOSPITALS

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ELUCIDATING THE ROLE OF MOSQUITOES IN DRUG RESISTANT MALARIA EPIDEMIOLOGY

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OVERNIGHT TRAVEL AND THE RISK OF MALARIA: PROSPECTIVE COHORT STUDIES AT 3 SITES IN UGANDA OF VARYING MALARIA TRANSMISSION INTENSITY

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LONGITUDINAL SURVEY OF MALARIA BURDEN TO ASSESS THE EFFECTS OF MALARIA CONTROL INTERVENTIONS IN A LOW TRANSMISSION SETTING IN SOUTHERN ZAMBIA

Mukuma Lubinda[1], Ben Katowa[1], Caison Sing'anga[1], Japhet Matoba[1], Jennifer C. Stevenson[2], Timothy Shields[3], Clive Shiff[3], Philip E. Thuma[2], Bill J. Moss[3]
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PREVENTION OF TRANSFUSIONAL MALARIA IN THE STATE OF SAO PAULO BRAZIL

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LESSONS FROM TWO DECADES OF MALARIA SURVEILLANCE IN RHODE ISLAND

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A MALARIA INDICATOR SURVEY IN A MALARIA ELIMINATION AREA OF PHU YEN PROVINCE, COASTAL VIETNAM

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COMMUNITY-BASED SCHEDULED SCREENING AND TREATMENT OF MALARIA DURING PREGNANCY PROVIDES ADDITIONAL PROTECTION AGAINST FEBRILE ILLNESSES DURING THE FIRST YEAR OF LIFE IN A BIRTH COHORT STUDY IN BURKINA FASO

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HOST AGE AND *PLASMODIUM FALCIPARUM* MULTICLONALITY ARE ASSOCIATED WITH GAMETOCYTE PREVALENCE: A 1-YEAR LONGITUDINAL COHORT STUDY

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SCALING IRRIGATION AND MALARIA RISK IN MALAWI

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CONFIRMATION OF MALARIA DIAGNOSIS IN AFRICAN COUNTRIES WITH THE HIGHEST BURDEN

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FIRST TO BED, LAST TO BE BITTEN

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IMPACT OF MASS NET DISTRIBUTIONS ON MALARIA PREVALENCE, ANEMIA AND INTERVENTION COVERAGE IN ABIA AND PLATEAU STATES, NIGERIA

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GEOGRAPHIC TRENDS IN IDENTITY BY DESCENT BETWEEN MALARIA PARASITE POPULATIONS

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Malaria - Genetics/Genomics

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OPTIMIZING APPROACHES TO GENERATE WHOLE-GENOME SEQUENCE FROM NON-LEUKOCYTE DEPLETED *PLASMODIUM FALCIPARUM* CLINICAL SAMPLES

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NEW *PLASMODIUM FALCIPARUM* GENOME ASSEMBLIES FROM DIVERSE ENDEMIC REGIONS ENABLES THE COMPREHENSIVE GENOMIC AND GENETIC CHARACTERIZATION OF CLINICAL ISOLATES

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TARGETED *DE NOVO* ASSEMBLY OF *VAR2CSA* FROM CLINICAL SAMPLES USING SHORT READ WHOLE GENOME SEQUENCE DATA

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WHOLE GENOME SEQUENCE CAPTURE TO GENERATE HIGH QUALITY GENOMIC DATA FOR *PLASMODIUM VIVAX* FROM CLINICAL ISOLATES

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1650

IMPACT OF THE G6PD DEFICIENCY ON THE PREVALENCE OF MALARIA INFECTION IN SICKLE CELL PATIENTS UNDER 15 YEARS OLD LIVING IN BURKINA FASO

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DIFFERENCE IN EXPRESSION AND POLYMORPHISM OF GENE ENCODING FOR THE RECEPTOR FOR ADVANCED GLYCATION ENDPRODUCTS (RAGE) IN FULANI AND DOGON IN MALI

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(ACMCIP Abstract)

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CHARACTERIZING *PLASMODIUM FALCIPARUM* GAMETOCYTE GENE EXPRESSION IN A COHORT OF ASYMPTOMATICALLY-INFECTED ADULTS IN WESTERN KENYA

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DEVELOPMENT OF TOOLS TO VALIDATE *P. FALCIPARUM* GENOME ASSEMBLIES GENERATED WITH PACBIO DATA

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GENETIC DIVERSITY OF *PLASMODIUM FALCIPARUM* IN ASYMPTOMATIC AND SYMPTOMATIC CHILDREN IN AN ENDEMIC MALARIA AREA IN BURKINA FASO

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GENETIC VARIATION IN INTERLEUKIN (IL)-3 AND IL-7 ARE ASSOCIATED WITH ALTERED ERYTHROPOIETIC RESPONSES IN CHILDREN WITH MALARIAL ANEMIA IN SIAYA, KENYA

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TRANSCRIPTIONAL PROFILING AND GENE CO-EXPRESSION NETWORK ANALYSIS IN MALARIA PARASITE IMPROVES UNDERSTANDING OF K13 MECHANISM IN ARTEMISININ RESISTANCE

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VARIATION IN THE *CD40* PROMOTER IS ASSOCIATED WITH SUSCEPTIBILITY TO *P. FALCIPARUM*-INDUCED SEVERE MALARIA ANEMIA IN KENYAN CHILDREN

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SYSTEMS GENETIC APPROACHES TO STUDY THE TEMPORAL DYNAMICS OF HOST AND PARASITE TRANSCRIPTOMES IN MALARIAL CHILDREN IN BURKINA FASO

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GENE CO-EXPRESSION NETWORK ANALYSIS OF MALARIA PARASITE TRANSCRIPTION REFINES POTENTIAL GENE INTERACTION UNDERLYING ARTEMISININ RESISTANCE

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LEUKOCYTE-ASSOCIATED IMMUNOGLOBULIN LIKE RECEPTORS 1 (*LAIR1*) AND 2 (*LAIR2*) EXPRESSION AND POLYMORPHIC VARIATION IN CHILDREN WITH SEVERE MALARIAL ANEMIA FROM WESTERN KENYA

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ASSESSING COMPLEXITY OF *PLASMODIUM FALCIPARUM* INFECTION IN TWO ECOLOGICAL ZONES IN GHANA USING MOLECULAR INVERSION PROBES AND NEXT GENERATION SEQUENCING

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(ACMCIP Abstract)

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CAS-9 BASED SEQUENCING ENRICHMENT FOR MALARIA GENOTYPING

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ACCURATE ASSEMBLY OF REGIONS OF COMPLEX DIVERSITY IN *P. FALCIPARUM* FROM SHOTGUN GENOME SEQUENCING AND ASSESSMENT OF STRAIN SPECIFIC IMMUNITY--TOWARDS OPTIMAL FORMULATION OF POLYVALENT VACCINES

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Malaria - Immunology

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IDENTIFICATION OF PFEMP1 EPITOPES ASSOCIATED WITH SEVERE MALARIA USING A DIVERSITY-COVERING ULTRADENSE PEPTIDE MICROARRAY

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(ACMCIP Abstract)

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PHAGOCYTIC EFFICIENCY OF BEADS COATED WITH VARIOUS MALARIAL PFEMP1 DOMAINS BY MONOCYTES/ MACROPHAGES DEPENDS ON THE DOMAIN IDENTITY AND/ OR BINDING AVIDITY TO MONOCYTE SURFACE RECEPTORS

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(ACMCIP Abstract)

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MOTHER TO FETAL TRANSFER OF NATURALLY OCCURRING *PLASMODIUM FALCIPARUM* ANTIBODIES

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REDUCED HSP70 AND GLUTAMINE IN PEDIATRIC SEVERE MALARIA ANEMIA: ROLE OF HEMOZOIN IN SUPPRESSING HSP70 AND NF-κB ACTIVATION

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CD4 T-CELL EXPRESSION OF IFN-γ AND IL-17 IN PEDIATRIC MALARIAL ANEMIA

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AUTOANTIBODIES IN MALARIA AND SYSTEMIC LUPUS ERYTHEMATOSUS

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(ACMCIP Abstract)

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T FOLLICULAR HELPER CELL SUBSETS AND MEMORY B CELL FUNCTION IN PAPUA NEW GUINEAN CHILDREN WITH SYMPTOMATIC MALARIA AND FEBRILE NON-MALARIA ILLNESS

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QUEST FOR IMMUNE CORRELATES OF PROTECTION USING A STREAMLINED ANALYSIS APPROACH

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(ACMCIP Abstract)

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MULTI-OMIC ANALYSIS OF SEVERITY OF INFECTION IN *MACACA MULATTA* INFECTED WITH *PLASMODIUM CYNOMOLGI*

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(ACMCIP Abstract)

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EFFECT OF MALARIA ON CXCL10 AND ANGIPOYETIN-2 IN PATIENTS FROM A COLOMBIAN ENDEMIC AREA

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THE MOST EFFECTIVE FUNCTIONAL RESPONSES AGAINST *P. FALCIPARUM* MEROZOITE INVASION LIGANDS ARE MEDIATED BY IGG3 SUBCLASS ANTIBODIES

Vashti Irani[1], Peck Szee Tan[2], Andrew J. Guy[1], Dean W. Andrew[1], Gaoqian Feng[1], Linda Reiling[1], Kathirvel Alagesan[3], Daniel Kolarich[3], Bruce D. Wines[1], Mirielle H. Lahoud[2], James G. Beeson[1], Paul A. Ramsland[1], Jack S. Richards[1]
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(ACMCIP Abstract)

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(ACMCIP Abstract)

Malaria - Modeling

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HOW INCREASING ACCESS TO CASE MANAGEMENT COULD BE SUFFICIENT TO ACHIEVE AND MAINTAIN MALARIA ELIMINATION

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MODELLING THE DYNAMICS OF *PLASMODIUM FALCIPARUM* HISTIDINE-RICH PROTEIN 2 IN HUMAN BLOOD STAGE CHALLENGE STUDIES

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NOVEL MODELING APPROACHES TO IMPROVE SPATIAL PREDICTIONS OF MALARIA PREVALENCE

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ASSESSING THE IMPACT OF IMPERFECT ADHERENCE TO ARTEMETHER-LUMEFANTRINE ON MALARIA TREATMENT OUTCOMES USING WITHIN-HOST MODELLING

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MODELING THE EFFECTS OF TRANSMISSION AND HOST POPULATION STRUCTURE ON MALARIA POPULATION GENETICS

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TO SCREEN OR NOT TO SCREEN: AN INTERACTIVE TOOL THAT INTEGRATES COSTS AND SPATIAL HETEROGENEITY TO DETERMINE WHEN MASS-SCREEN-AND-TREAT IS AN EFFECTIVE MALARIA CONTROL STRATEGY

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MODELING THE GLOBAL BURDEN OF PREGNANCY-ASSOCIATED MALARIA DEATHS

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A NOVEL HUMANIZED PSEUDO-LIVER MOUSE MODEL FOR DISCOVERY OF ANTIMALARIAL DRUGS

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IMPACT OF HUMAN MIGRATION PATTERNS ON MALARIA ELIMINATION FEASIBILITY IN THE GREATER MEKONG SUBREGION

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MAPPING MALARIA METRICS USING SURVEILLANCE DATA ACROSS HETEROGENEOUS LANDSCAPES

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PHARMACOKINETIC AND PHARMACODYNAMIC MODELING FOR THE PREDICTION OF THE MOSQUITOCIDAL EFFECT DURATION OF HIGH-DOSE IVERMECTIN (THE IVERMAL PK/PD MODEL)

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DEALING WITH G6PD DEFICIENCY ON THE WAY TO MALARIA ELIMINATION IN MYANMAR

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AWARENESS AND USE OF MALARIA CONTROL STRATEGIES IN KANO AND ZAMFARA STATES, NIGERIA - 2016

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MALARIA CASE MANAGEMENT AND PREVENTIVE PRACTICES IN KANO AND ZAMFARA STATES, NIGERIA: HEALTHCARE WORKERS PERSPECTIVE, 2016

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SCALING UP SEASONAL MALARIA CHEMOPREVENTION IN MALI: IMPLEMENTATION CHALLENGES AND LESSONS LEARNED

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IMPROVING INTERMITTENT PREVENTIVE TREATMENT FOR PREGNANT WOMEN (IPTP) COVERAGE IN 5 DISTRICTS IN CHAD (DOBA, BEBEDJIA, BODO AND BEBOTO) AND KRIBI DISTRICT IN CAMEROON

Kodjo Morgah, Naibei Mbaïbardoum
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IMPROVED METHOD FOR PURIFICATION OF *PLASMODIUM FALCIPARUM* LATE STAGE TROPHOZOITES AND SCHIZONTS FROM *IN VITRO* CULTURES USING MAGNETIC SELECTION

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IMPROVING MALARIA CASE MANAGEMENT AND SURVEILLANCE THROUGH A COMMUNITY-BASED PILOT IN PANAMA

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ANTIMALARIAL PRESCRIPTION PRACTICES AT 21 PUBLIC OUTPATIENT FACILITIES LOCATED IN REGIONS OF VARYING MALARIA ENDEMICITY IN UGANDA

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CONTRIBUTION OF THE IMPROVING MALARIA CARE (IMC) PROJECT TO IMPROVING MALARIA CASE MANAGEMENT IN BURKINA FASO: STRENGTHENING THE CAPACITY OF HEALTH CARE PROVIDERS

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PLASMODIUM RIBOSOMES DO NOT STALL ON POLYA TRACKS

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MAPPING THE POLICY AND PROGRAMMATIC DECISION-MAKING LANDSCAPE FOR MALARIA CONTROL INTERVENTIONS: A CASE STUDY FOR MALI AND ZAMBIA

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CONTRIBUTION OF THE STANDARDS-BASED MANAGEMENT AND RECOGNITION (SBM-R) APPROACH TO FIGHTING MALARIA IN BURKINA FASO

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THE KENYAN MALARIA MARKET AFTER AMFM

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"IT'S BEEN USED FOR A LONG TIME": EXPLORING PRIVATE PROVIDERS' PREFERENCE FOR CONTINUED USE OF ORAL ARTEMISININ-BASED MONOTHERAPY IN MYANMAR

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RESULTS FROM A BASELINE SURVEY TO EVALUATE DIFFERENT INDOOR RESIDUAL SPRAY IMPLEMENTATION STRATEGIES FOR MALARIA CONTROL

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USING SMS TO REPORT STOCK-OUTS OF ANTI-MALARIA MEDICINE AND BED NETS IN GUINEA

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SEASONAL MALARIA CHEMOPREVENTION SCALING UP AND ITS IMPACT ASSESSMENT IN MALI

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SCALING-UP OF SEASONAL MALARIA CHEMOPREVENTION IN SOKOTO AND ZAMFARA STATES, NIGERIA: MONITORING DELIVERY AND IMPACT

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A FATAL CASE OF IMPORTED MALARIA IN MONGOLIA

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AUTOMATION TRIPLES THROUGHPUT OF PFSPZ MALARIA VACCINE EXTRACTION FROM MOSQUITOES WITH 20-FOLD REDUCTION IN TRAINING TIME

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Malaria - Vaccines

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USING ANTIBODIES TO SIMULATE THE CO-ADMINISTRATION OF TRANSMISSION-BLOCKING AND PRE-ERYTHROCYTIC VACCINES ACCELERATES MALARIA ELIMINATION IN MICE

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CONTROLLED *P. VIVAX* BLOOD STAGE REPEATED INFECTION INDUCES PROTECTION AGAINST HETEROLOGOUS CHALLENGE IN THE NON-HUMAN PRIMATE MODEL

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HUMAN TO MOSQUITO TRANSMISSION OF SUB-MICROSCOPIC *P. FALCIPARUM* GAMETOCYTE DENSITIES DURING CONTROLLED HUMAN MALARIA INFECTION AND QUANTIFICATION OF MALE AND FEMALE GAMETOCYTES

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IMMUNOGENICITY OF THE RTS,S/AS01E VACCINE IN AFRICAN CHILDREN: EFFECT OF AGE, MALARIA TRANSMISSION INTENSITY AND ASSOCIATION WITH PROTECTIVE EFFICACY

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IMMUNE CORRELATES OF PROTECTION AFTER VACCINATION WITH RTS,S-AS01E: ROLE OF ANTI-CSP ANTIBODY AVIDITY

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A CONTROLLED HUMAN MALARIA INFECTION MODEL COMPARING LOW-DOSE PIPERAQUINE AND SULFADOXINE-PYRIMETHAMINE TO INDUCE INFECTIOUS MALE AND FEMALE *P. FALCIPARUM* GAMETOCYTES

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ANTIBODY CORRELATES OF NATURALLY ACQUIRED IMMUNITY AGAINST MALARIA IN CHILDREN PARTICIPATING IN THE RTS,S/AS01E PHASE 3 AFRICAN MULTI-CENTER TRIAL

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PARASITE MULTIPLICATION RATES DURING CONTROLLED HUMAN MALARIA INFECTIONS IN TANZANIAN ADULTS

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BUILDING MALARIA VACCINES USING IN SILICO ANALYSIS AND REVERSE ENGINEERING TECHNIQUES TO TARGET CRITICAL T AND B CELL EPITOPES

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DIVERSITY-REFLECTING PEPTIDE MICROARRAY AND MUTATION SCAN ANALYSES DEMONSTRATE HIGH STRAIN SPECIFICITY OF VACCINE-INDUCED ANTIBODIES TO A CRITICAL RESIDUE IN THE *PLASMODIUM FALCIPARUM* AMA1 CLUSTER 1 LOOP

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IMPACT OF PROTEIN TARGETING ON IMMUNOGENICITY OF PFS25 ENCODED BY DNA VACCINE PLASMIDS

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IMMUNIZATION WITH MULTIPLE ALLELES OF *PLASMODIUM FALCIPARUM* FULL LENGTH VAR2CSA DNA CONSTRUCTS TO GENERATE A PLACENTAL MALARIA VACCINE SHOWING BROAD HETEROLOGOUS PROTECTION

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BLOOD TRANSCRIPTOME RESPONSES TO *P. FALCIPARUM* INFECTION AND IMMUNIZATION

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A NOVEL BLOOD-STAGE VACCINE CANDIDATE MEDIATES PROTECTION AGAINST FALCIPARUM MALARIA IN MICE AND CHILDREN

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CORRELATION BETWEEN *PLASMODIUM FALCIPARUM* NF54 STRAIN OOCYSTS AND SPOROZOITES COUNTS IN *ANOPHELES STEPHENSI* MOSQUITOES

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IMPROVED DISPLAY OF THE MALARIA TRANSMISSION BLOCKING PFS25 ANTIGEN ON A SECOND-GENERATION PLANT-PRODUCED VLP

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Malaria/Mosquitoes - Field Prevention

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EFFECTIVENESS OF COMMUNITY-BASED LARVICIDING PROGRAM ON MALARIA VECTOR ABUNDANCE ON BIOKO ISLAND, EQUATORIAL GUINEA

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FACTORS ASSOCIATED WITH THE UPTAKE OF AT LEAST TWO DOSES OF SULFADOXINE/PYRIMETHAMINE FOR THE PREVENTION OF MALARIA IN PREGNANT WOMEN, BENIN, 2015

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TRACKING LONG LASTING INSECTICIDAL NET (LLIN) PHYSICAL INTEGRITY AND BIOEFFICACY 2 YEARS AFTER A MASS CAMPAIGN IN BENIN

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CURRENT PRACTICES IN URBAN INSECTICIDE-TREATED NET DISTRIBUTION ACROSS SUB-SAHARAN AFRICA

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LESSONS LEARNED AROUND IMPROVED IRS PLANNING AND MONITORING IN SOUTHERN AFRICA

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NET MIGRATION OR NON-USE? BED NET OWNERSHIP FOLLOWING MASS DISTRIBUTION CAMPAIGNS ON BIOKO ISLAND, EQUATORIAL GUINEA

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SUSTAINING HIGH NET OWNERSHIP THROUGH CONTINUOUS COMMUNITY DISTRIBUTION

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USING THE ANTENATAL CARE QUALITY IMPROVEMENT TOOL AND TARGETED TRAINING TO STRENGTHEN ANC SERVICES INCLUDING MIP IN KAGERA AND MARA REGIONS, TANZANIA

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NET USE AND PREFERENCE AMONG INDIVIDUALS SLEEPING IN FORESTS OR FARMS IN MALARIA MULTI-DRUG RESISTANT AREAS

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OBSERVATIONAL EVIDENCE OF A COMPLIMENTARY EFFECT OF COMBINING NEXT GENERATION INDOOR RESIDUAL SPRAYING AND SEASONAL MALARIA CHEMOPREVENTION IN THE SÉGOU REGION OF MALI, 2014

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MALARIA VECTOR DENSITY AND PROXIMITY OF HUMAN RESIDENCE TO AN IRRIGATED AGRO-ECOSYSTEM IN MALAWI

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MONITORING THE PROTECTIVE EFFICACY OF SEASONAL MALARIA CHEMOPREVENTION USING CASE-CONTROL STUDIES: METHODOLOGY AND RESULTS FROM 5 COUNTRIES

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SEASONAL BIONOMICS OF MALARIA VECTORS IN KILWA AND KASHOBWE, HAUT-KATANGA PROVINCE, DEMOCRATIC REPUBLIC OF CONGO

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OUTDOOR MALARIA TRANSMISSION IN DANGASSA, A COMMUNITY WHERE MALARIA CONTROL IS FAILING DESPITE THE USE OF LONG-LASTING INSECTICIDAL NETS (LLINS)

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ANALYSES OF THE IMPACT OF SHIFTING IRS OPERATIONS ON MALARIA TRANSMISSION RATES IN THE NORTHERN, UPPER EAST AND UPPER WEST REGIONS OF GHANA: 2014 -2015

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COVERING HOUSE EAVE GAPS AND CEILINGS WITH INSECTICIDE TREATED NETS MAY REDUCE THE RISK OF *PLASMODIUM* INFECTION AMONG CHILDREN IN SIAYA SUB-COUNTY, KENYA

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HPLC-FLUORESCENCE METHOD FOR DETECTION OF IVERMECTIN IN MOSQUITO BLOOD MEALS

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A MURINE MODEL OF DIARRHEA AND GROWTH IMPAIRMENT WITH *SHIGELLA FLEXNERI* INFECTION AND THE ROLE OF ZINC DEFICIENCY

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PLASMA IGA RESPONSES AGAINST THREE *SALMONELLA TYPHI* ANTIGENS IDENTIFY PATIENTS WITH TYPHOID FEVER WITH EXCELLENT SENSITIVITY AND SPECIFICITY IN DHAKA, BANGLADESH

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PREVALENCE OF CHILDHOOD DIARRHEAL ILLNESSES IN A PERUVIAN AMAZON RIVER BASIN COMMUNITY

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MONITORING AND EVALUATION IN A MULTI-COUNTRY SURVEILLANCE SYSTEM: SEVERE TYPHOID IN AFRICA PROGRAM

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LONGITUDINAL ASSESSMENT OF ANTIBIOTIC RESISTANCE IN *E. COLI* ISOLATED FROM THE MAL-ED BIRTH COHORT STUDY IN RURAL TANZANIA

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ETIOLOGY-SPECIFIC DIARRHEA BY QPCR AND LINEAR GROWTH DEFICITS IN BANGLADESHI INFANTS

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FOAM DRY STABILIZATION OF TYORASS, THE RECOMBINANT TY21A-SHIGELLOSIS VACCINE

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SALMONELLA ENTERICA SEROVARS ISOLATED FROM STOOLS OF CHILDREN ENROLLED IN THE GLOBAL ENTERIC MULTICENTER STUDY

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PREVALENCE AND ANTIBIOTIC RESISTANCE OF ENTEROPATHOGENS BACTERIAL ISOLATED FROM FECAL SAMPLES AT A HOSPITAL OF THE PERUVIAN AMAZON

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COST-EFFECTIVENESS OF INTERVENTIONS TO PREVENT DIARRHEA: INTRODUCING A MICROSIMULATION MODEL FOR CHILDREN UNDER FIVE IN EVERY COUNTRY FROM 2005 TO 2015

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GENOMIC AND PHENOTYPIC CHARACTERIZATION OF TYPHOID VACCINE STRAIN TY21A REVEALS INSIGHTS IMPACTING FUTURE VACCINE DEVELOPMENT AND OPTIMIZATION

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ETIOLOGY AND SEVERITY OF DIARRHEAL DISEASE IN INFANTS IN BRAZIL SEMIARID REGION: A CROSS-SECTIONAL CASE-CONTROL STUDY

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HUMAN CHALLENGE MODEL REFINEMENT FOR B7A, AN ENTEROTOXIGENIC *ESCHERICHIA COLI* (ETEC) CHALLENGE STRAIN THAT EXPRESSES CS6

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CORRELATING THE PREVALENCE OF *VIBRIO CHOLERAE* AND *SHIGELLA* SPP. IN HIV-SERO POSITIVE PEDIATRIC PATIENTS WITH THEIR CD4 T-CELLS COUNT ATTENDING THE ART REFERENCE LABORATORY IN CENTRAL HOSPITAL OF NEPAL: FIRST CASE STUDY FROM THE COUNTRY

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Bacteriology - Trachoma

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VILLAGE-LEVEL MEDICATION LOGBOOK AUDIT FOLLOWING A TRACHOMA MASS DRUG ADMINISTRATION CAMPAIGN IN AMHARA REGION, ETHIOPIA IN 2016

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ONE ROUND OF TARGETED SUB-DISTRICT TREATMENT IN THE DISTRICT OF OUSSOUBIDIAGNA, MALI ACHIEVED THE CRITERIA OF STOPPING TRACHOMA MASS DRUG ADMINISTRATION

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PROGRESS TOWARDS ACHIEVING TRACHOMA ELIMINATION: RESULTS FROM 6 LOCALITY-LEVEL IMPACT SURVEYS IN SUDAN

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RELIABILITY OF THE ABBOTT REALTI*M*E ASSAY FOR THE QUANTIFICATION OF C*HLAMYDIA TRACHOMATIS* IN CONJUNCTIVAL SAMPLES FROM A TRACHOMA-ENDEMIC AREA OF ETHIOPIA

Kieran S. O'Brien[1], Jeanne Moncada[1], Julius Schachter[1], Paul M. Emerson[2], Scott D. Nash[2], Zerihun Tadesse[3], Zhaoxia Zhou[1], Charles E. McCulloch[1], Thomas M. Lietman[1], Jeremy D. Keenan[1]
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PROVIDING *TRACHOMATOUS TRICHIASIS* SURGICAL SERVICES IN RURAL TANZANIA

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CONFIRMING *TRACHOMATOUS TRICHIASIS* PREVALENCE: PILOT TT-ONLY SURVEY IN TOUBORO HEALTH DISTRICT IN NORTH CAMEROON

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TRACHOMA ENDGAME IN TANZANIA: TEMPORAL-SPATIAL ANALYSIS OF CLUSTERING OF *TRACHOMATOUS* INFLAMMATION FOLLICULAR (TF) IN DISTRICTS WITH PERSISTENT TF FOLLOWING MASS DRUG ADMINISTRATION WITH AZITHROMYCIN

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THE CHANGING FACE OF TRACHOMA CONTROL IN TANZANIA: RESULTS FROM THE 2016 TRACHOMA IMPACT SURVEYS

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IMPROVING TRACHOMA MASS DRUG ADMINISTRATION UPTAKE AMONG NOMADIC AND PASTORALIST COMMUNITIES OF RURAL TANZANIA

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Clinical Tropical Medicine

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FOLLOW-UP OF TRICHIASIS PATIENTS OPERATED DURING AN EVALUATION OF THE SURGICAL SIMULATION DEVICE HEAD START

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FACTORS ASSOCIATED WITH MORTALITY AMONG PATIENTS WHO ABSCONDED FROM JINJA CHILDREN'S HOSPITAL

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COMMUNITY SENSITIZATION AND DECISION-MAKING FOR TRIAL PARTICIPATION: A MIXED-METHODS STUDY FROM THE GAMBIA

Susan Dierickx[1], Sarah O'Neill[2], Charlotte Gryseels[2], Edna A. Immaculate[3], Melanie Bannister-Tyrell[2], Joseph Okebe[3], Julia Mwesigwa[3], Fatou Jaiteh[3], René Gerrets[4], Raffaella Ravinetto[2], Umberto D'Alessandro[3], Koen Peeters Grietens[2]
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IMPACT OF SEASONAL MALARIA CHEMOPREVENTION ON HOSPITAL ADMISSIONS AND MORTALITY IN CHILDREN UNDER 5 YEARS IN OUELESSEBOUGOU, MALI

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DEVELOPMENT OF AN ANTISENSE RNA (ASRNA) STRATEGY FOR GENE SILENCING IN *LEPTOSPIRA* SPP.

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DIFFERENCES IN SYMPTOMATOLOGY OF CHILDHOOD DENGUE, CHIKUNGUNYA AND MALARIA INFECTION IN KENYA

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IMPROVING EFFICIENCY AND PATIENT EDUCATION IN THE DARTMOUTH TRAVEL CLINIC

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SNAKEBITES IN A RESOURCE POOR AREA ALONG THE SOUTHERN KENYAN COAST: SPATIAL RESULTS AND VICTIM PROFILES

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VALIDATION OF A CLINICAL CASE DEFINITION OF ACUTE MESOAMERICAN NEPHROPATHY USING A LARGE RETROSPECTIVE COHORT IN NICARAGUA

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IMS, CRP AND PROCALCITONIN TO DIFFERENTIATE CAUSES OF ACUTE INFECTIONS IN INDONESIA

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SCHISTOSOMA HAEMATOBIUM EGG EXCRETION IN URINE DOES NOT INCREASE AFTER EXERCISE: IMPLICATIONS FOR DIAGNOSTIC TESTING

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POTENTIALLY SERIOUS DRUG INTERACTIONS RESULTING FROM THE PRE-TRAVEL HEALTH ENCOUNTER

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INCIDENCE AND RISK FACTORS FOR PERIPARTUM FEVER IN PUERTO RICO, OCTOBER 2016 - MARCH 2017

Nicole M. Perez-Rodriguez, Veronica M. Frasqueri-Quintana, Getzabeth E. Bosques-Gomez, Angel L. Perez-Caro, Xiomara Torres-Figueroa, Luzeida Vargas-Lassalle, Luisa I. Alvarado-Domenech
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ENDOTOXIN LEVELS AT THE MATERNAL-FETAL INTERFACE AND THE ASSOCIATION WITH INTRAUTERINE GROWTH

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GUILLAIN-BARRÉ SYNDROME IN PATIENTS WITH ZIKA: CLINICAL SERIES WITH LABORATORY CONFIRMATION IN THE STATE OF YUCATAN

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MALARIA TRANSMISSION AS MEASURED BY DIRECT SKIN FEEDING OVER A TWO-YEAR PERIOD IN MALI AS AN EFFICACY ENDPOINT FOR A TRANSMISSION BLOCKING VACCINE

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CYTOKINES PROFILES IN PATIENTS WITH HANSENS'S DISEASE AND PARASITIC CO-INFECTIONS IN HYPERENDEMIC AREA OF BRASIL: IMPLICATIONS FOR TRANSMISSION

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ALTERED FETAL IMMUNE RESPONSES BY PRENATAL EXPOSURE TO MATERNAL CO-INFECTIONS

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DOUBLE JEOPARDY: RECURRENT CASE OF DENGUE FEVER

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TRAVEL-RELATED BEHAVIORS OF ADOLESCENTS ON SHORT-TERM INTERNATIONAL SERVICE MISSIONS

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IRON, INFLAMMATION AND ERYTHROPOIESIS: ANALYSIS OF FACTORS CONTRIBUTING TO SEVERE ANEMIA IN UGANDAN CHILDREN WITH SICKLE CELL ANEMIA

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THE DEMOGRAPHY, CLINICAL CHARACTERISTICS AND DIAGNOSES OF ACUTE FEBRILE ILLNESS REQUIRING HOSPITALIZATION IN INDONESIA

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WAIT, IS THIS AN ID BOARD QUESTION? CHRONIC HEPATITIS IN A BROADLY EXPOSED LIVER TRANSPLANT PATIENT

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HOT OR NOT? MANAGEMENT OF UNCLASSIFIED FEVER IN CHILDREN IN SUB-SAHARAN AFRICA

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IMPACT OF FIVE YEARS OF CDTI ON ENTOMOLOGICAL TRANSMISSION INDICATORS OF ONCHOCERCIASIS BY *SIMULIUM DAMNOSUM* S.L. IN THE CASCADES REGION OF BURKINA FASO

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ONCHOCERCIASIS IN CAMEROON: A SYSTEMATIC REVIEW OF HISTORY AND IMPACT OF CONTROL INTERVENTIONS

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1797

LYMPHATIC FILARIASIS IN MAINLAND SOUTHEAST ASIA: A SYSTEMATIC REVIEW AND META-ANALYSIS OF PREVALENCE AND DISEASE BURDEN

Benjamin F. Dickson, Patricia M. Graves, William J. McBride
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1798

LYMPHATIC FILARIASIS SERO PREVALENCE IN MOMBASA COUNTY

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1799

EFFECT OF A SINGLE DOSE OF IVERMECTIN ON *LOA LOA* MICROFILAREMIA 18 MONTHS AFTER TREATMENT

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1800

MODELLING ALTERNATIVE STRATEGIES FOR ONCHOCERCIASIS ELIMINATION: THE CASE FOR MOXIDECTIN

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1801

ARE WE ON THE RIGHT TRACK? STOPPING CRITERIA FOR ENDING SOIL-TRANSMITTED HELMINTHS RANDOMIZED CLINICAL TRIALS

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1802

ASSESSMENT OF TWO DENSITOMETRIC READERS TO MEASURE RESULTS OF FILARIASIS TEST STRIPS IN THE DEMOCRATIC REPUBLIC OF CONGO

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1803

EMPIRIC TESTING OF A MODEL TO IDENTIFY DISTRICTS ELIGIBLE FOR SAFE IVERMECTIN-BASED MASS TREATMENTS FOLLOWING INTEGRATED MAPPING FOR ONCHOCERCIASIS, LYMPHATIC FILARIASIS AND LOIASIS

Joseph Kamgno[1], Hugues Nana-Djeunga[2], Jules Tchatchueng-Mbougua[2], Guy-Roger Njitchouang[2], Divine B Agbor-Arrey[2], Aurel Tankeu-Tiakouang[1], André Domche[2], Kisito T Ogoussan[3], Maria P Rebollo[4]
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1804

STOPPING IVERMECTIN DISTRIBUTION IN ONCHOCERCIASIS AND LYMPHATIC FILARIASIS CO-ENDEMIC FOCI. WHAT IS THE WAY FORWARD?

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1805

RESPONSES OF *ONCHOCERCA VOLVULUS* AFTER THE INTRODUCTION OF BIANNUAL TREATMENT WITH IVERMECTIN IN GHANA

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1806

ALL FOR ONE, ONE FOR ALL: ACROSS BORDER LYMPHATIC FILARIASIS TRANSMISSION CAN COMPROMISE NATIONAL ELIMINATION PROGRAMS IN SOME SETTINGS

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1807

LESSONS LEARNED FROM IMPLEMENTING LYMPHATIC FILIARIASIS TRANSMISSION ASSESSMENT SURVEYS IN THE FIRE BELT OF NORTH DEPARTMENT IN HAITI

Carl Renand Fayette[1], Franck Monestime[1], Alain Javel[1], Luula Mariano[1], Ellen Knowles[2], Sarah Craciunoiu[2], Cudjoe Bennett[2], Abdel Direny[3], Jean-Frantz Lemoine[4]
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Helminths - Nematodes - Filariasis (Epidemiology)

1808

THE ROAD MAP TO LF ELIMINATION IN TANZANIA - THE CHALLENGING END GAME

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1809

EPIDEMIOLOGY OF FILARIASIS IN ZAIRE PROVINCE, ANGOLA

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Helminths - Nematodes - Filariasis (Immunology)

1810

THERAPEUTIC POTENTIAL OF *WITHANIA SOMNIFERA* IN FILARIAL INDUCED SECONDARY LYMPHEDEMA

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Helminths - Nematodes - Filariasis (Other)

1811

BARRIERS TO CONTROL AND ELIMINATE LYMPHATIC FILARIASIS IN ZANZIBAR: TACKLING THE REALITY OF THE MASS DRUG ADMINISTRATION PROGRAM

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1812

COMPARISON OF THE *IN VITRO* SUSCEPTIBILITY TO EMODEPSIDE OF MICROFILARIAE, THIRD STAGE LARVAE AND ADULT WORMS OF RELATED FILARIAL NEMATODES

Daniel Kulke[1], Simon Townson[2], Dominique Bloemker[3], Stefan Frohberger[3], Sabine Specht[3], Ivan Scandale[4], Martin Glenschek-Sieberth[5], Achim Harder[6], Achim Hoerauf[3], **Marc P. Hübner**[3]
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1813

INVESTIGATION INTO THE EFFECT OF HOST MIGRATION ON THE TRANSMISSION OF *ONCHOCERCA VOLVULUS* USING A PATCH MODEL

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1814

FOLLOWING 11 ROUNDS OF IVERMECTIN DISTRIBUTION, HOW CLOSE IS INTERRUPTION OF ONCHOCERCIASIS TRANSMISSION IN THE TUNDURU FOCUS IN TANZANIA?

Oscar Kaitaba[1], Andreas Nshala[2], Maria Chikawe[1], Cecilia Uisso[1], Boniphace Idindili[2], Sarah Craciunoiu[3], Delali Bonuedi[4], Kathryn Crowley[4], Darin Evans[5], William Kisoka[6], Mathias Kamugisha[6], Upendo Mwingira[1]
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1815

DEMONSTRATED CAPACITY BUILDING OF LOCAL SURGEONS TO PERFORM HYDROCELECTOMY IN REMOTE HOSPITALS IN TANZANIA

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1816

MULTIPLE PATHS TOWARDS LOSS OF DRUG SENSITIVITY: WHOLE-GENOME SEQUENCING OF *ONCHOCERCA VOLVULUS* INDICATES GENES UNDER SELECTION ARE DEPENDENT ON TRANSMISSION ZONE

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Helminths - Nematodes - Intestinal Nematodes

1817

COMPARISON OF WET MOUNT MICROSCOPY, MINI-FLOTAC AND PCR FOR THE DIAGNOSIS OF *ASCARIS LUMBRICOIDES*

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1818

INSIGHTS FROM MATHEMATICAL MODELS OF SOIL TRANSMITTED HELMINTH (STH) TRANSMISSION INTO POLICY FOR THEIR CONTROL AND ELIMINATION BY MASS DRUG ADMINISTRATION (MDA)

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1819

EFFICACY OF ANTHELMINTHIC DRUGS AND DRUG COMBINATIONS AGAINST SOIL-TRANSMITTED HELMINTHS: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS

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1820

SEASONAL INFLUENCERS FOR *ASCARIS* TRANSMISSION: WHAT COULD THEY MEAN FOR PUBLIC HEALTH PROGRAMS AND THE 2020 GOALS?

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1821

INTESTINAL POLYPARASITISM IN PAMPA DEL INDIO, CHACO PROVINCE, ARGENTINA

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1822

DIFFERENTIAL EXPRESSION OF MEMBRANE AND MEMBRANE-BOUND PROTEINS FROM FILARIFORM LARVAE AND ADULT FEMALE OF *STRONGYLOIDES VENEZUELENSIS*

Fabiana M. Paula[1], Marcelo A. Corral[1], Priscilla D. Marques[1], Dirce Mary C. Meisel[1], Julia Maria Costa-Cruz[2], Maria Cristina Espirito Santo[1], Jonatan M. Campos[3], Bruno Mattei[3], William Castro Borges[4], Ronaldo Cesar Gryschek[1]
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1823

DIAGNOSIS OF *ASCARIS LUMBRICOIDES* INFECTIONS IN ETHIOPIAN CHILDREN AND ADULTS BY THREE COPROLOGICAL TECHNIQUES AND TWO NOVEL SEROLOGICAL TESTS

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1824

PREVALENCE OF INTESTINAL HELMINTH INFECTION IN EQUATOGUINEAN INFANTS, CHILDREN, ADOLESCENT AND ADULTS AND ITS IMPACT ON IMMUNOGENICITY TO A LIVE, ATTENUATED, WHOLE SPOROZOITE MALARIA VACCINE

Jose Raso[1], Maximillian Mpina[2], Elizabeth Nyakarungu[2], Ally Olotu[2], Vicente U. Nsue Ndong Nchama[1], Ali Hamad[2], Ali Mtoro[2], Mwajuma Chemba[2], Stephen R. Manock[3], Esther Eburi[4], Antonio E. Ngua Sama Roca[4], Martin Eka Ondo Mangue[1], Thomas Stabler[5], Yonas Abebe[6], Salomón Nguema Owono[1], Matilde Riloha Rivas[1], Chris Schwabe[7], Julie Niemczura de Carvalho[8], Luis Segura[4], Wonder Phiri[4], Tobias Schindler[9], Elizabeth Saverino[6], Peter F. Billingsley[6], B. Kim Lee Sim[6], Thomas Richie[6], Salim Abdulla[2], Marcel Tanner[9], Stephen Hoffman[6], Claudia Daubenberger[9]
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1825

DETECTION OF SOIL TRANSMITTED HELMINTH DNA IN STOOL SAMPLES DRIED ON FILTER PAPER

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1826

TESTING FOR STH ELIMINATION: MODELLING THE IMPACT OF DIFFERENT DIAGNOSTICS TOOLS

James Truscott, Marleen Werkman, James Wright, Roy Anderson
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1827

COMPARISON OF KATO-KATZ, MINI-FLOTAC AND MULTI-PARALLEL REAL-TIME POLYMERASE CHAIN REACTION TECHNIQUES FOR DETECTION OF SOIL-TRANSMITTED HELMINTHS IN FEIRA DE SANTANA, BRAZIL

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1828

NA-GST-1/ALHYDROGEL HOOKWORM VACCINE CO-ADMINISTERED WITH CPG 10104 IMPROVES IMMUNOGENICITY IN HEALTHY, HOOKWORM NAIVE ADULTS

David Diemert[1], Maria Zumer[1], Doreen Campbell[1], Catherine Hatch[1], Shannon Grahek[1], Jill Brelsford[1], Anna Yakovleva[1], Guangzhao Li[1], Jin Peng[1], Maria Elena Bottazzi[2], Peter Hotez[2], Jeffery Bethony[1]
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Helminths - Nematodes - Intestinal Nematodes

1829

EXPLORING CHAGAS DISEASE ECO-EPIDEMIOLOGY IN CENTRAL PANAMA

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1830

QUANTIFICATION OF INFECTION RESERVOIRS IN HUMAN VISCERAL LEISHMANIASIS BY XENODIAGNOSIS

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1831

A LEISHMANIN SKIN TEST SURVEY OF CUTANEOUS LEISHMANIASIS IN THE HUMAN POPULATION OF DIEMA DISTRICT, WESTERN MALI

Bourama Traoré[1], Oliveira Fabiano[2], Ousmane Faye[3], Cheick A. Coulibaly[1], Adama Dicko[3], Ibrahim M. Sissoko[1], Sibiry Samake[1], Nafomon Sogoba[1], Pierre Traoré[1], Sekou F. Traoré[1], Jennifer M. Anderson[2], Somita Keita[3], Jesus G. Valenzuela[1], Shaden Kamhawi[2], Seydou Doumbia[1]
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1832

BIOGEOGRAPHY OF *TRYPANOSOMA CRUZI* IN AREQUIPA, PERU

Alexander Berry, Michael Z. Levy, Dustin Brisson
University of Pennsylvania, Philadelphia, PA, United States

1833

TRYPANOSOMA CRUZI ECOLOGY AT FACILITIES HOUSING NATURALLY INFECTED NON-HUMAN PRIMATES IN TEXAS, USA

Carolyn L. Hodo[1], Elise C. Birkner[1], Gregory K. Wilkerson[2], Stanton B. Gray[2], Rachel Curtis-Robles[1], Mark Cottingham[3], Geraldine Fleurie[3], Sarah A. Hamer[1]
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1834

ANTIMONY SENSITIVITY OF *LEISHMANIA BRAZILIENSIS* PROMASTIGOTES VARIES ACCORDING TO THE FORM OF LEISHMANIASIS THEY DERIVE

Silvana C. Silva[1], Luiz Henrique Guimarães[2], Juliana A. Silva[1], Viviane Magalhães[1], Lilian Medina[1], Adriano Queiroz[1], Paulo Roberto L. Machado[1], **Albert Schriefer**[1]
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1835

LYMPHATIC FILARIASIS MASS DRUG ADMINISTRATION COVERAGE, COASTAL REGION, KENYA, 2015 AND 2016

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1836

ECO-BIO-SOCIAL DETERMINANTS OF HUMAN INFECTION WITH *TRYPANOSOMA CRUZI* IN RURAL COMMUNITIES IN THE ARGENTINE CHACO

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1837

SEROLOGICAL EVIDENCE OF *TRYPANOSOMA CRUZI* INFECTION AMONG BLOOD DONORS IN MARICOPA COUNTY, ARIZONA, 2007-2016

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1838

CHAGAS DISEASE. A SYSTEMATIC REVIEW OF CASE REPORTS THROUGH THE LAST 50 YEARS

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1839

TRYPANOSOMA CRUZI INFECTION AND CARDIAC OUTCOMES IN GOVERNMENT WORKING DOGS ACROSS THE UNITED STATES

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1840

VISCERAL LEISHMANIASIS IN SYRIA: A SILENT KILLER UNCOVERED

Alice L. Cowley, Jonathan Hollins, Richard Allan
The MENTOR Initiative, Crawley, United Kingdom

1841

HEALTH SECURITY DURING ERA OF CONFLICT AND FORCED DISPLACEMENT: LEISHMANIASIS AS A CASE STUDY

Amina Olabi[1], Mohamad Haj Omar Albathish[2], Rabab Almalki[3], Karina Mondragon-Shem[4], Peter Hotez[5], Alvaro Acosta-Serrano[4], **Waleed S. Al Salem**[6]
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1842

VISCERAL LEISHMANIASIS IN THE URBAN AREA OF TWO MUNICIPALITIES OF SAO PAULO STATE, BRAZIL: A KEY TO UNDERSTAND THE ROLE OF THE STREET LEVEL BUREAUCRATS

Lourdes A. D'Andrea, Elivelton S. Fonseca, Raul B. Guimarães
São Paulo State University, Presidente Prudente, Brazil

1843

EPIDEMIOLOGY OF *TRYPANOSOMA CRUZI* IN URBAN DWELLING OPOSSUM (*DIDELPHIS VIRGINIANA*) AND FERAL CAT (FELIS CATUS) POPULATIONS OF THE RIO GRANDE VALLEY, TEXAS

Italo B. Zecca, Lisa Auckland, Sarah Hamer
Texas A&M University, College Station, TX, United States

One Health: Interface Of Human Health/ Animal Diseases

1844

PILOTING WORKSTATIONS TO IMPROVE HYGIENE PRACTICES AMONG POULTRY WORKERS DURING POULTRY PROCESSING IN A LIVE BIRD MARKET IN BANGLADESH

Nadia A. Rimi[1], Md. H. Fahad[1], Syed M. Mortaza[1], Abdullah A. Mahmud[1], Md. A. Islam[1], Md. Z. Hassan[1], Rebeca Sultana[1], Katharine Sturm-Ramirez[2]
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1845

DOG OWNERS' ATTITUDE, A RISK FACTOR FOR HUMAN RABIES IN NIGERIA RABIES IN NIGERIA

Christianah I. Odita, Ishaya S. Tekki, Gyang D. Moses, Okoh K. Egwu, Stella E. Idachaba, Israel J. Barde, Isioma V. Ifende, Olabisi A. Makanju, James S. Ahmed, Yakubu G. Dashe, Chika I. Nwosuh, Philip A. Okewole
National Veterinary Research Institute Vom Plateau State Nigeria, Jos, Nigeria

1846

MARINE MAMMAL STRANDINGS IN PERUVIAN COAST: A 11 YEARS STUDY

Adrian Vasquez-Mejía, Guillermo Salvatierra R., Andrés G. Lescano
Universidad Peruana Cayetano Heredia, Lima, Peru

1847

RESEARCH ON ZOONOTIC AND NEGLECTED DISEASES IN CHAD: CASE OF TUBERCULOSIS, RIFT VALLEY FEVER, BRUCELLOSIS AND Q FEVER

Ngandolo Bongo Nare B. Nare
Institut de Recherche en Elevage pour le Developpement (IRED), N'Djamena, Chad

1848

EMERGING INFECTIOUS DISEASES PREDICTION: A STUDY ON *IXODES SCAPULARIS*-BORNE PATHOGENS

Tam Tran, Dustin Brisson
University of Pennsylvania, Philadelphia, PA, United States

1849

CATTLE-ASSOCIATED RISK FACTORS FOR HUMAN TUBERCULOSIS IN RURAL LIVESTOCK KEEPING COMMUNITIES, UGANDA

Julianne Meisner[1], Kellie Curtis[2], Thomas W. Graham[2], Michael Apamaku[2], Lisa E. Manhart[1], Gerard Cangelosi[1], Peter R. Rabinowitz[1]
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1850

ANTIMICROBIAL RESISTANCE TRANSMISSION ASSOCIATED WITH SMALL-SCALE FOOD-ANIMAL PRODUCTION IN PERI-URBAN COMMUNITIES OF QUITO, ECUADOR

Jay Paul Graham
Public Health Institute, Oakland, CA, United States

1851

"LET'S GET THIS TICKING TIME BOMB!"

Patricia Pow-Brown, Candice Sant, Karla C. Georges
The University of The West Indies, Mt. Hope, Trinidad and Tobago

1852

THE ROLE OF ANTHROPOGENIC LAND-USE CHANGE IN DRIVING DISEASE EMERGENCE IN HIGHLY-COUPLED VECTOR-HOST SYSTEMS: ZOONOTIC CUTANEOUS LEISHMANIASIS AS A CASE SYSTEM

Gideon Wasserberg[1], Clifford Smyth[1], Ido Tsurim[2]
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1853

MATHEMATICAL MODELLING OF DOG RABIES TRANSMISSION IN AN AFRICAN CITY

Mirjam Laager[1], Celine Mbilo[1], Monique Léchenne[1], Kemdongarti Naissengar[2], Assandi Oussiguéré[2], Rolande Mindekem[3], Jakob Zinsstag[1], **Nakul Chitnis**[1]
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1854

NEEDS ASSESSMENT AND ALTERNATIVE STRATEGIES TO ACHIEVE THE ELIMINATION OF DOG-MEDIATED HUMAN RABIES DEATHS BY 2030 BASED ON DOG VACCINATION

Ryan M. Wallace, **Eduardo A. Undurraga**, Jesse D. Blanton, Julie Cleaton, Richard Franka
Centers for Disease Control and Prevention, Atlanta, GA, United States

1855

THE COST-EFFECTIVENESS OF A NOVEL INTEGRATED BITE CASE MANAGEMENT PROGRAM FOR THE CONTROL OF DOG-MEDIATED HUMAN RABIES, WEST DEPARTMENT, HAITI, 2014-2015

Eduardo A. Undurraga[1], Martin I. Meltzer[1], Cuc H. Tran[1], Charisma Y. Atkins[1], Melissa D. Etheart[1], Max F. Millien[2], Paul Adrien[3], Ryan M. Wallace[1]
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1856

ONE HEALTH APPROACH TO COST-EFFECTIVE RABIES CONTROL IN INDIA

Meagan C. Fitzpatrick[1], Hiral A. Shah[2], Alyssa M. Bilinski[3], Manish Kakkar[4], Andrew D. Clark[5], Jeffrey P. Townsend[6], Syed S. Abbas[4], Alison P. Galvani[6]
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1857

THE CONTROL OF ZOONOTIC VISCERAL LEISHMANIASIS IN EUROPE

Epke Le Rutte[1], Roosmarijn van Straten[2], Paul A. Overgaauw[2]
[1]Erasmus MC, Rotterdam, Netherlands, [2]Faculty of Veterinary Medicine, Utrecht University, Netherlands

1858

HOUSEHOLD PARTICIPATION IN PIG AND HUMAN INTERVENTIONS FOR CONTROL OF *TAENIA SOLIUM* AND LIKELIHOOD OF CONTINUED TRANSMISSION A YEAR LATER IN NORTHERN PERU

Lauralee J. Fernandez[1], Michelle Beam[1], Ruth Atto[2], Roberto Camizan[2], Angela Spencer[1], Brian Garvey[1], Ian Pray[1], Ricardo Gamboa[2], Percy Vilchez[2], Claudio Muro[2], Sandra Olaya[2], Luz Maria Moyano[3], Hector H. Garcia[4], Seth E. O'Neal[1], For the Cysticercosis Working Group in Peru[4]
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1859

REEMERGENCE OF CANINE RABIES IN COMPLEX URBAN ENVIRONMENTS: LESSONS FROM AN OUTBREAK IN AREQUIPA, PERU

Ricardo Castillo-Neyra[1], Valerie Paz-Soldan[2], Alison Buttenheim[3], Hannelore MacDonald[4], Andrew Johnson[4], Cesar Naquira[5], Michael Z. Levy[1]
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Pneumonia, Respiratory Infections and Tuberculosis

1860

ANTIMYCOBACTERIAL EFFECT OF VARYING CONCENTRATIONS OF E559: A NATURAL PLANT PRODUCT IN NIGERIA

Wisdom O. Iyanda-Joel, Emeka E. Iweala, Shalom N. Chinedu
Covenant University, Ota, Nigeria

1861

EVALUATION OF A LOW-COST AIR SAMPLING SYSTEM FOR THE DETECTION OF *MYCOBACTERIUM TUBERCULOSIS* IN COUGHING PATIENTS

Nehal S. Naik[1], Gwenyth O. Lee[2], German Comina[2], Gustavo Hernandez[2], Carlton Evans[3], Sumona Datta[3], Eduardo Ticona[4], Eric Ramos[5], Jorge Coronel[5], Robert Gilman[6], Valerie A. Paz-Soldan[2], Richard Oberhelman[2]
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1862

CO-INFECTION AS A RISK FACTOR FOR DISEASE SEVERITY AMONG PATIENTS WITH ADENOVIRUS INFECTION

Olga D. Lorenzi-Pena[1], Xiomara Torres-Figueroa[2], Jennifer S. Read[1], Brenda C. Torres-Velasquez[1], Carlos Garcia-Gubern[2], Luisa Alvarado[2]
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1863

MEASUREMENT OF POA EFFLUX PUMPS RATE IN *MYCOBACTERIUM SMEGMATIS* STRAINS OBTAINED BY GENE KNOCKOUT

Ricardo Antiparra, Marco Santos, Katherine Vallejos, Fabiana Málaga, Rodolfo Huerta, Patricia Sheen, Mirko Zimic
Universidad Peruana Cayetano Heredia, Lima, Peru

1864

CARETAKERS PERSPECTIVES OF PEDIATRIC TB AND IMPLICATIONS FOR CARE SEEKING BEHAVIORS IN SOUTHERN MOZAMBIQUE

Yolanda Mausse, Khatia Munguambe, Carolina Mindu, Orvalho Augusto, Jose Munoz, Rui Anselmo, Kisito Gondo, Jahit Sacarlal, Alberto Garcia Bateriro, Elisa Lopez-Varela, Pedro Alonso
Manhica Health Research Center, Vila da Manhica, Mozambique

1865

EFFECTIVENESS OF PCV-10 VACCINE AGAINST VACCINE TYPE IPD IN PAKISTAN: IMPACT ASSESSMENT AFTER INTRODUCTION OF PCV-10 IN ROUTINE IMMUNIZATION PROGRAM

Asad Ali, Atif Riaz, Syed Mohiuddin, Tahir Yousafzai, Sara Husain, Furqan Kabir, Anita K. Zaidi
Aga Khan University, Karachi, Pakistan

1866

IMPACT OF PNEUMOCOCCAL CONJUGATE VACCINE (PCV-10) ON PNEUMOCOCCAL NASOPHARYNGEAL CARRIAGE IN CHILDREN IN PAKISTAN: RESULTS OF SERIAL SURVEYS PRE AND POST INTRODUCTION OF VACCINE IN ROUTINE IMMUNIZATION PROGRAM

Imran Nisar, Atif Riaz, Furqan Kabir, Fyezah Jehan, Asad Ali
Aga Khan University, Karachi, Pakistan

1867

FOOD SECURITY AND DIETARY INTAKE OF TUBERCULOSIS PATIENTS IN LIMA, PERU

Gwenyth Lee[1], Valerie Paz-Soldan[1], Andrea Gomez[2], Katerine Villaizan[3], Amy R. Riley-Powell[1], Carla Tarazona[4], Ramya Ambikapathi[5], Katherine Ortiz[1], German Comina[1], Gustavo Hernandez[1], Nehal Naik[6], Richard Oberhelman[1], Cesar Ugarte-Gil[3]
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1868

ANTIMICROBIAL RESISTANCE PATTERNS OF COLONIZING *STREPTOCOCCUS PNEUMONIAE* AMONG YOUNG CHILD-MOTHER PAIRS IN THE RURAL HIGHLANDS OF THE PERUVIAN ANDES

Leigh M. Howard[1], Kathryn M. Edwards[1], Marie R. Griffin[1], Ana I. Gil[2], Erik Mercado[3], Theresa J. Ochoa[3], Gina Minaya[2], **Claudio F. Lanata**[2], Carlos G. Grijalva[1]
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1869

THERAPEUTIC DRUG LEVELS OF FIRST-LINE TUBERCULOSIS MEDICATIONS AMONG CHILDREN FROM RURAL TANZANIA

Museveni Justine[1], Anita Yeconia[1], Nicodemu Ingi[1], Domitila Augustino[1], Jean Gratz[2], Estomih Mduma[1], Sayoki Mfinanga[3], Charles Peloquin[4], Scott Heysell[2], Eric Houpt[2], **Tania A. Thomas**[2]
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1870

DRUG RESISTANT TUBERCULOSIS

Stellah G. Mpagama[1], Peter Mbelele[1], Anna Chongolo[1], Isaack Lekule[1], Johnson Lyimo[2], Scott Heysell[3]
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1871

MYCOBACTERIUM TUBERCULOSIS PREVALENCE IN A MILITARY POPULATION

John Mark Velasco[1], Noel Gaurano[2], Paula Corazon Diones[1], Ma. Theresa Valderama[1], Kathyleen Nogrado[1], Ma. Theresa Alera[1], Domingo Jr Chua[2], Damon Ellison[1], Alden Weg[1], Louis Macareo[1], Brett Swierczewski[1]
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1872

MAPPING LOWER RESPIRATORY INFECTIONS IN SPACE AND TIME IN AFRICA

Robert C. Reiner, Nick Graetz, Scott Swartz, Puja C. Rao, Jonathan Mosser, Aniruddha Deshpande, Aaron Osgood-Zimmerman, Roy Burstein, Chris Troeger, Simon Hay
University of Washington, Seattle, WA, United States

1873

DOES THE ABSENCE OF HYBRIDIZATION WITH THE WILD-TYPE PROBE IN THE GENOTYPE MTBDRPLUS ASSAY MEAN THE MYCOBACTERIUM TUBERCULOSIS ISOLATE IS RIFAMPICIN RESISTANT?

Ngu N. Abanda
University of Hawaii at Manoa, Honolulu, HI, United States

1874

AFFINITY NANOCAGES ENABLE DETECTION OF MYCOBACTERIUM TUBERCULOSIS LAM AND PROTEIN ANTIGENS IN THE URINE OF HIV NEGATIVE PULMONARY TB PATIENTS

Alessandra Luchini[1], Luisa Paris[1], Ruben Magni[1], Jorge Coronel[2], Daniela Kirwan[3], Hannah Steinberg[4], Emanuel Petricoin[1], Roberto Nisini[5], Lance Liotta[1]
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Protozoa - Other Protozoa

1875

QUALITATIVE AND QUANTITATIVE ANALYSIS OF *CRYPTOSPORIDIUM PARVUM* GROWTH IN POLARIZED INTESTINAL EPITHELIAL CELLS

Robert E. Molestina, Biniam Hagos, Timothy T. Stedman
ATCC, Manassas, VA, United States

1876

COMPARATIVE TRANSCRIPTOMICS ANALYSIS OF ZOONOTIC PROTOZOAN PARASITE, *BABESIA MICROTI* FROM MOUSE MODEL

Shen-Bo Chen[1], Hai-Mo Shen[1], Jun-Hu Chen*[1], Wei Hu*[2]
[1]National Institute of Parasitic Diseases, Chinese Center for Disease Control and Prevention, Shanghai, China, [2]School of Life Sciences, Fudan University, Shanghai, China

1877

WHOLE GENOME DNA SEQUENCE CAPTURE APPROACH REVEALS TREMENDOUS GENETIC DIVERSITY IN INTRACELLULAR PATHOGEN *THEILERIA PARVA*

Nicholas C. Palmateer[1], Kyle Tretina[1], Roger Pelle[2], Elias Awino[2], Hanzel T. Gotia[1], Vish Nene[2], Claudia A. Daubenberger[3], Richard P. Bishop[2], Joana C. Silva[1]
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1878

BLASTOCYSTIS AS A MARKER OF FECAL-ORAL OR WATER CONTAMINATION IS ASSOCIATED WITH AN INCREASED RISK FOR GASTROINTESTINAL PARASITIC INFECTION

Kevin Naceanceno[1], Gabriela Matamoros[2], Maria Elena Botazzi[1], Ana Sanchez[3], Rojelio Mejia[1]
[1]Baylor College of Medicine, Houston, TX, United States, [2]National University of Honduras, Tegucigalpa, Honduras, [3]Brock University, St. Catharines, ON, Canada

1879

SINGLE MOLECULE, REAL-TIME SEQUENCING OF PCR PRODUCTS REVEALS *THEILERIA* PARASITE SPECIES AND ANTIGEN DIVERSITY

Kyle Tretina[1], Jamal Badoui[1], Nicholas C. Palmateer[1], Richard P. Bishop[2], Joana C. Silva[1]
[1]University of Maryland School of Medicine, Baltimore, MD, United States, [2]International Livestock Research Institute, Nairobi, Kenya

1880

EVIDENCE OF RNA EDITING IN *BABESIA MICROTI*

Olukemi O. Ifeonu, Ankit Dwivedi, Joana C. Silva
University of Maryland School of Medicine, Baltimore, MD, United States

1881

KILLING OF *CRYPTOSPORIDIUM* SPOROZOITES BY LACTOFERRIN

Jose L. Paredes[1], Hayley Sparks[2], A. Clinton White, Jr.[2], Theresa J. Ochoa[1], Alejandro Castellanos-González[2]
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1882

REAL-TIME PCR STRATEGY FOR DETECTION OF *TOXOPLASMA GONDII* FROM PERIPHERAL BLOOD CLOT

Cusi Ferradas[1], Renzo Gutierrez-Loli[1], Andrea Diestra[1], Aliki Traianou[1], Holger Mayta[1], Maritza Calderon[1], Jaeson S. Calla-Choque[2], Robert H. Gilman[3]
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(ACMCIP Abstract)

1883

URBANORUM SPP. EMERGING MICROORGANISM IN FECAL SAMPLES OF CHILDREN AT THE NATIONAL INSTITUTE OF CHILD HEALTH, AND OF ANIMALS: PIG AND CATTLE FROM LIMA, PERU FROM JANUARY TO MARCH, 2017

Rito Zerpa[1], Norma Uchima[2], Lilian Patiño[3], Norah Tocasca[4], Percy Lezama[5], Edwin Correo[6]
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1884

EVALUATION OF THE IMMUNOSUPPRESSIVE EFFECT OF DEXAMETHASONE IN SWISS MICE INFECTED WITH *TOXOPLASMA GONDII* ME49 STRAIN

Juan Jimenez[1], Raul Ynocente[1], Christian Huaman[1], Noelia Angulo[2], Alejandro Florentini[2], Maritza Calderon[2]
[1]UNMSM, Lima, Peru, [2]UPCH, Lima, Peru

Water, Sanitation, Hygiene and Environmental Health

1885

IMPACT OF IMPLEMENTING A STATE CERTIFIED IMPROVED COOKSTOVE ON CONCENTRATION LEVELS OF PARTICULATE MATTER (PM) AND CARBON MONOXIDE (CO) IN RURAL ANDEAN HOUSEHOLD IN PERU

Patricia Mallma[1], **Stella M. Hartinger**[1], Cesar Carcamo[1], Hector Verastegui[1], Nestor Nuño[2], Daniel Mäusezahl[2]
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1886

IMPACT OF HOUSEHOLD WATER SOURCE ON SCHOOL ABSENCE AMONG CHILDREN LIVING OUTSIDE OF PORT-AU-PRINCE, HAITI

Suyane Viana de O. Mesquita[1], Julia Painter[1], Marie Y. Remy[2], Robert Nicolas[2], Michael E. von Fricken[1]
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1887

INFLUENCE OF ENVIRONMENTAL CONDITIONS ON NUTRITIONAL STATUS AMONG SCHOOL-AGE CHILDREN IN HAITI

Michael E. von Fricken[1], **Chike Achudume**[1], Suyane Viana de O. Mesquita[1], Marie Y. Remy[2], Robert Nicolas[2], Ivan Ng[1]
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1888

THE INFLUENCE OF SANITATION ON CHILDHOOD DIARRHEA IN 2016 AND ITS IMPLICATIONS ON INTEGRATED COMMUNITY CASE MANAGEMENT OF ENDEMIC CHILDHOOD DISEASES IN ABIA STATE, NIGERIA

Ugo U. Enebeli
Federal University of Technology, Owerri, Nigeria

1889

ENVIRONMENTAL IMPACT ON HELMINTH AND PROTOZOA INTESTINAL INFECTIONS IN URBAN SLUMS VERSUS RURAL COLOMBIA

Alejandro Restrepo[1], Patricia E. Bryan[1], Marcela Romero[2], Giovanny Torres[2], Wilber Gómez[2], Marcos Restrepo[2], Rojelio Mejia[1]
[1]Baylor College of Medicine, Houston, TX, United States, [2]Instituto Colombiano de Medicina Tropical, Medellin, Colombia

1890

HOUSEHOLD CONTAMINATION OF BABY BOTTLES USED FOR FORMULA FEEDING IN PERI-URBAN LIMA, PERU

Jessica Rothstein[1], Alejandra Llican Mendoza[2], Lilia Cabrera[3], Maritza Calderon[2], Robert Gilman[1]
[1]Johns Hopkins University, Baltimore, MD, United States, [2]Universidad Peruana Cayetano Heredia, Lima, Peru, [3]Asociación Benéfica PRISMA, Lima, Peru

1891

A SCALABLE HOSPITAL-BASED HANDWASHING WITH SOAP AND WATER TREATMENT INTERVENTION FOR HOUSEHOLD MEMBERS OF DIARRHEA PATIENTS IN BANGLADESH (CHOBI7 TRIAL): INTERVENTION DEVELOPMENT AND USERS' EXPERIENCES

Elizabeth D. Thomas[1], M. Tasdik Hasan[2], Fatema Zohura[2], Md Sohel Rana[1], Tahmina Parvin[2], Md Khobair Hossain[2], Maynul Hasan[2], Khaled Hasan[1], Shirajum Monira[2], Mahamud-ur Rashid[2], Sazzadul Islam Bhuyian[2], Peter J. Winch[1], Elli Leontsini[1], Jamie Perin[1], Alain Labrique[1], Kelsey Zeller[1], Farzana Begum[2], Alana Teman[1], Vanessa Burrowes[1], Fosiul A. Nizame[2], David A. Sack[1], R. Bradley Sack[1], Munirul Alam[2], Christine Marie George[1]
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1892

VARIABILITY IN STRENGTH OF ASSOCIATION WITH DIARRHEA OF PATHOGENIC *E. COLI* ALONG AN URBAN-RURAL GRADIENT IN ECUADOR

Karen Levy[1], Shanon Smith[1], William Cevallos[2], Loreno Montero[3], Maritza Paez[3], Estefania Ortega[3], Xavier Sanchez[2], Edison Puebla[2], Pablo Endara[3], Gabriel Trueba[3]
[1]Emory University, Atlanta, GA, United States, [2]Universidad Central del Ecuador, Quito, Ecuador, [3]Universidad San Francisco de Quito, Quito, Ecuador

1893

DETERMINANTS OF DIARRHEAL DISEASE IN CHILDREN UNDER FIVE YEARS IN THE DEMOCRATIC REPUBLIC OF THE CONGO

Andrea Smith, Janna Wisniewskie, Paul Lusamba, Paul Hutchinson, Joshua Yukich, Paul R. Hotchkiss
Tulane University, New Orleans, LA, United States

1894

ASSOCIATION OF WATER SUPPLY WITH BRETEAU INDEX IN TWO RURAL CARIBBEAN POPULATION

Maria S. Ruiz-Diaz, Gustavo J. Mora-Garcia, Doris E. Gomez-Camargo
Universidad de Cartagena, Cartagena de Indias, Colombia

1895

ASSESSMENT OF ABATTOIRS AND MARKETS SANITATION IN THE FEDERAL CAPITAL TERRITORY(ABUJA) AND ENUGU STATE, NIGERIA

Agwu N. Amadi[1], D. O. Abonyi[2], B. Njoku[1], C. O. Amadi[1], U. Enebelii[1]
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1896

EVERYBODY POOPS: SOCIAL AND CULTURAL NORMS AS PROXY MEASUREMENTS OF INDIVIDUAL-LEVEL DEFECATION PRACTICES

Velma Lopez[1], Veronica Berrocal[1], Pavani Ram[2], Joseph Eisenberg[1]
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Hilton - Peale B (East Building, First Floor)
Wednesday, November 8, 12:15 p.m. - 1:30 p.m.

Membership Committee Meeting

Hilton - Peale A (East Building, First Floor)
Wednesday, November 8, 12:15 p.m. - 1:30 p.m.

Late Breaker Abstract Session 146

Late Breakers in Malaria

Convention Center - Room 337/338 (Level 300)
Wednesday, November 8, 12:15 p.m. - 1:30 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 Abstract Schedule booklet in your registration packet for the presentation schedule.

CHAIR

Stefan Kappe
Center for Infectious Disease Research, Seattle, WA, United States

Mid-Day Session 147

Meet the Editors: Journal Editor Panel

Convention Center - Room 339/340 (Level 300)
Wednesday, November 8, 12:15 p.m. – 1:30 p.m.

The published manuscript is the elemental communication and currency of the sciences. Investigators young and old continually strive to summarize and present their work to maximum effect, both in terms of scientific as well as career advancement. But there are many different opinions and approaches on how to proceed, often varying by author and journal. Furthermore, the advent of open-access, on-line only, and other novel approaches to format and publication may be daunting to authors. In this symposium, editors of some of the preeminent journals in tropical medicine and global health will engage the audience in a discussion of the focus and approaches of their journals, as well as provide reflections on the present status and future of scientific publishing.

CHAIR

Philip J. Rosenthal
Editor-in-Chief, American Journal of Tropical Medicine and Hygiene

PANELISTS

Serap Aksoy
Co-Editor-in-Chief, PLOS Neglected Tropical Diseases

Lindsey Baden
Deputy Editor, New England Journal of Medicine

Marco De Ambrogi
Senior Editor, The Lancet Infectious Diseases

Stephen Higgs
Editor-in-Chief, Vector-Borne and Zoonotic Diseases

Anne Roca
Senior Editor, The Lancet Global Health

Philip J. Rosenthal
Editor-in-Chief, American Journal of Tropical Medicine and Hygiene

Meet the Professors 148

Meet the Professors C: Enigmatic and Teaching Cases

Convention Center - Room 341/342 (Level 300)
Wednesday, November 8, 12:15 p.m. - 1:30 p.m.

Students and trainees are especially encouraged to attend these interactive sessions, which are open to all meeting attendees. The speakers will present a clinical case of a tropical disease specific to a particular region that they have found a challenge to manage or diagnose. The Professors will discuss how their career has developed as examples for students and trainees.

CHAIR

David R. Boulware
University of Minnesota, Minneapolis, MN, United States

PRESENTER

Chandy C. John
Indiana University, Bloomington, IN, United States

Poster Session C Viewing

Convention Center - Hall F and G (Level 100)
Wednesday, November 8, 1:45 p.m. - 4 p.m.

Scientific Session 149

Malaria: Chemotherapy and Drug Resistance - Clinical Studies

Convention Center - Ballroom I (Level 400)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

CHAIR

Abel Kakuru
Infectious Diseases Research Collaboration, Tororo, Uganda

Miriam Laufer
University of Maryland School of Medicine, Institute for Global Health, Baltimore, MD, United States

1:45 p.m.

1897

COMPARATIVE PREVALENCE OF *PLASMODIUM FALCIPARUM* RESISTANCE-ASSOCIATED GENETIC POLYMORPHISMS IN PARASITES INFECTING HUMANS AND MOSQUITOES IN UGANDA

Melissa D. Conrad[1], Daniel Mota[1], Alex Musiime[2], Maxwell Kilama[2], John Rek[2], Moses Kamya[3], Grant Dorsey[1], Philip J. Rosenthal[1]
[1]University of California San Francisco, San Francisco, CA, United States, [2]Infectious Disease Research Collaboration, Kampala, Uganda, [3]Makerere University College of Health Sciences, Kampala, Uganda

2 p.m.

1898

MOLECULAR SURVEILLANCE OF *P. FALCIPARUM* ANTIMALARIAL RESISTANCE IN SENTINEL SITES FROM MOZAMBIQUE

Himanshu Gupta[1], Eusebio Macete[2], Augusto Nahbomba[2], Helder Bulo[2], Crizolgo Salvador[3], Marian Warsame[4], Eva Carvalho[5], Didier Ménard[6], Pascal Ringwald[4], Quique Bassat[7], Sonia Enosse[3], Alfredo Mayor[8]
[1]Barcelona Institute for Global Health, Hospital Clínic - Universitat de Barcelona, Barcelona, Spain, [2]Cento de Investigaçao em Saúde da Manhiça (CISM), Manhiça, Mozambique, [3]Instituto Nacional de Saúde (INS), Ministerio da Saúde, Maputo, Mozambique, [4]World Health Organization, Global Malaria Programme, Geneva, Switzerland, [5]World Health Organization, Maputo, Mozambique, [6]Malaria Molecular Epidemiology Unit, Institut Pasteur du Cambodge, Phnom Penh, Cambodia, [7]Barcelona Institute for Global Health, Hospital Clínic - Universitat de Barcelona, Barcelona, Spain; Cento de Investigaçao em Saúde da Manhiça (CISM), Mozambique; ICREA, Barcelona, Spain, [8]Barcelona Institute for Global Health, Hospital Clínic - Universitat de Barcelona, Barcelona, Spain; Cento de Investigaçao em Saúde da Manhiça (CISM), Manhiça, Mozambique

2:15 p.m.

1899

PATTERN OF K13 POLYMORPHISMS AMONG *PLASMODIUM FALCIPARUM* ISOLATES FROM BORDER AREAS IN THE MEKONG SUBREGION

Chaiyaporn Chaisatit[1], Piyaporn Sai-ngam[1], Kirakarn Kirativanich[1], Thay Kheang Heng[1], Worachet Kuntawunginn[1], Jariyanart Gaywee[1], David Saunders[2], Chanthap Lon[1], Krisada Jongsakul[1], Michele Spring[1], Mariusz Wojnarski[1], Philip Smith[1], Mark Fukuda[1], Panita Gosi[1]
[1]Armed Forces Institute of Medical Sciences, Bangkok, Thailand, [2]U.S. Army Medical Materiel Development Activity, Fort Detrick, MD, United States

2:30 p.m.

1900

IMPACT OF DIHYDROARTEMISININ-PIPERAQUINE FOR INTERMITTENT PREVENTIVE TREATMENT OF MALARIA DURING PREGNANCY ON MALARIA INCIDENCE IN EARLY CHILDHOOD

Abel Kakuru[1], Jaffer Okiring[1], Mary K. Muhindo[1], Paul Natureeba[1], Patricia Awori[1], Miriam Nakalembe[2], Bishop Opira[1], Peter Olwoch[1], John Ategeka[1], Patience Nayebare[1], Tamara D. Clark[3], Margret E. Feeney[3], Edwin D. Charlebois[3], Theodore Ruel[3], Diane V. Havlir[3], Moses R. Kamya[2], Grant Dorsey[3], Prasanna Jagannathan[4]
[1]Infectious Diseases Research Collaboration, Kampala, Uganda, [2]Makerere University College of Health Sciences, Kampala, Uganda, [3]University of California San Francisco, San Francisco, CA, United States, [4]Stanford University, Stanford, CA, United States

2:45 p.m.

1901

EFFICACY OF ARTEMISININ-BASED AND QUININE-BASED TREATMENTS FOR UNCOMPLICATED FALCIPARUM MALARIA IN PREGNANCY IN ASIA: A SYSTEMATIC REVIEW AND INDIVIDUAL PATIENT DATA META-ANALYSIS

Makoto Saito[1], Rashid Mansoor[1], Mary E. Tyrosvoutis[2], Kalynn E. Kennon[1], Kasia Stepniewska[1], Georgina S. Humphreys[1], Mupawjay Pimanpanarak[2], Moo Kho Paw[2], François H. Nosten[2], Philippe J. Guérin[1], Rose McGready[2]
[1]WorldWide Antimalarial Resistance Network, Oxford, United Kingdom, [2]Shoklo Malaria Research Unit, Mae Sot, Thailand

3 p.m.

1902

RELATIONSHIP BETWEEN LUMEFANTRINE PHARMACOKINETCS AND THE SELECTION OF DRUG RESISTANCE MUTATIONS FOLLOWING ARTEMETHER-LUMEFANTRINE IN HIV-UNINFECTED AND HIV-INFECTED CHILDREN ON ANTIRETROVIRAL THERAPY

Joyce Ou[1], Richard Kajubi[2], Martina Wade[3], Liusheng Huang[4], Moses Were[2], Norah Mwebaza[2], Francesca Aweeka[4], **Sunil Parikh**[3]
[1]Yale University, New Haven, CT, United States, [2]Infectious Diseases Research Collaboration, Kampala, Uganda, [3]Yale School of Public Health, New Haven, CT, United States, [4]University of California San Francisco, San Francisco, CA, United States

3:15 p.m.

1903

ELECTROCARDIOGRAPHIC EFFECTS OF THE ANTIMALARIAL DRUG DIHYDROARTEMISININ-PIPERAQUINE

Joel Tarning[1], Thanaporn Wattanakul[1], Rita Baiden[2], Markus Winterberg[1], Bernhards Ogutu[2], Fred Binka[2]
[1]Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand, [2]INDEPTH Network, Accra, Ghana

Scientific Session 150

Malaria: Elimination - Tools and Evidence, Moving toward Zero

Convention Center - Ballroom III (Level 400)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

CHAIR

Jaline Gerardin
Institute for Disease Modeling, Seattle, WA, United States

Helene Hiwat
Ministry of Health Suriname, Paramaribo, Suriname

1:45 p.m.

1904

SURINAME ON THE ROAD TO ZERO MALARIA; AN EPIDEMIOLOGIC DESCRIPTIVE STUDY

Hedley Cairo, **Helene Hiwat**, Loretta Hardjopawiro
Ministry of Health Malaria Program, Paramaribo, Suriname

2 p.m.

1905

MALARIA ELIMINATION: ENGAGING COMMUNITIES THROUGH NATIONWIDE CAMPAIGNS

Yakou Dieye[1], Ouleye Beye[2], Elizabeth Chiyende[1], Gnagna Dieng[3], Coumba N. Diouf[4], Moussa Diop[3], Ernest Kakoma[5], Oumar Sarr[2], Cheikh S. Senghor[4], Chilumba Sikombe[1], Fagueye Sonko[3], Stacey Naggiar[1], Pauline Wamulume[5], Hana Bilak[6], Philippe Guinot[3], Todd Jennings[1]
[1]PATH MACEPA, Lusaka, Zambia, [2]National Malaria Control Program, Senegal, Dakar, Senegal, [3]PATH MACEPA, Dakar, Senegal, [4]Ministry of Health, Senegal, Dakar, Senegal, [5]National Malaria Elimination Centre, Zambia Ministry of Health, Lusaka, Zambia, [6]PATH MACEPA, Geneva, Switzerland

2:15 p.m.

1906

USE OF ROUTINE HEALTH INFORMATION SYSTEM DATA TO EVALUATE IMPACT OF MALARIA INTERVENTIONS IN ZANZIBAR DURING THE PERIOD 2000-2015

Ruth Ashton[1], Adam Bennett[2], Abdul-Wahid Al-Mafazy[3], Ali Abass[3], Mwinyi Msellem[4], S. René Salgado[5], Peter McElroy[6], George Greer[7], Lynn Paxton[8], S. Patrick Kachur[9], Steven Yoon[6], Abdullah S. Ali[3], Joshua Yukich[1], Thomas P. Eisele[1], Achuyt Bhattarai[6]
[1]MEASURE Evaluation, Center for Applied Malaria Research and Evaluation, Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States, [2]Malaria Elimination Initiative, Global Health Group, University of California, San Francisco, CA, United States, [3]Zanzibar Malaria Elimination Programme, Ministry of Health, Zanzibar, United Republic of Tanzania, [4]Mnazi Mmoja Hospital, Zanzibar, United Republic of Tanzania, [5]U.S. President's Malaria Initiative, United States Agency for International Development, Arlington, VA, United States, [6]U.S. President's Malaria Initiative, Malaria Branch, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, [7]U.S. President's Malaria Initiative, United States Agency for International Development, Dar es Salaam, United Republic of Tanzania, [8]U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Dar es Salaam, United Republic of Tanzania, [9]Malaria Branch, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States

2:30 p.m.

1907

EVIDENCE OF TRANSMISSION DECLINE DURING MASS DRUG ADMINISTRATION TRIALS IN SOUTHERN ZAMBIA THROUGH PARASITE GENOMICS: AN EXAMPLE OF BARCODING AND ITS UTILITY FOR MALARIA PROGRAMS

Sarah K. Volkman[1], Rachel Daniels[2], Hawela Moonga[3], Conceptor Mulube[4], Brenda Mambwe[4], John M. Miller[4], Richard W. Steketee[5], Adam Bennett[6], Thomas P. Eisele[7]
[1]Harvard T.H. Chan School of Public Health/Broad Institute/Simmons College, School of Nursing and Health Sciences Collaboration, Boston, MA, United States, [2]Harvard T.H. Chan School of Public Health-Broad Institute Collaboration, Boston, MA, United States, [3]National Malaria Elimination Centre, Lusaka, Zambia, [4]PATH MACEPA, Lusaka, Zambia, [5]PATH MACEPA, Seattle, WA, United States, [6]University of California San Francisco, San Francisco, CA, United States, [7]Tulane University, School of Public Health and Tropical Medicine, New Orleans, LA, United States

2:45 p.m.

1908

PCR INCIDENCE OF *PLASMODIUM FALCIPARUM* INFECTIONS IN COHORT SAMPLES OVER TIME DURING A MALARIA MDA RANDOMIZED CONTROL TRIAL IN SOUTHERN PROVINCE ZAMBIA

Mulenga Mwenda[1], Sandra Chishimba[1], Brenda Mambwe[1], Conceptor Mulube[1], Victor Chalwe[2], Hawela Moonga[3], Busiku Hamainza[3], Richard W. Steketee[4], Gonzalo Domingo[5], Sampa Pal[5], Kafula Silumbe[1], Ruben Conner[4], Adam Bennett[6], Travis Porter[7], Thomas P. Eisele[7], John M. Miller[1], Daniel J. Bridges[1]
[1]PATH MACEPA, Lusaka, Zambia, [2]Zambia Ministry of Health, Mansa, Zambia, [3]National Malaria Elimination Centre, Zambia Ministry of Health, Lusaka, Zambia, [4]PATH MACEPA, Seattle, WA, United States, [5]PATH, Seattle, WA, United States, [6]Malaria Elimination Initiative, Global Health Group, University of California San Francisco, San Francisco, CA, United States, [7]Center for Applied Malaria Research and Evaluation, Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States

3 p.m.

1909

PREVENTING REESTABLISHMENT OF MALARIA IN RECENTLY-ELIMINATED AREAS: A MODELING STUDY OF REACTIVE CASE DETECTION AND ADAPTIVE RESPONSE

Jaline Gerardin[1], Caitlin A. Bever[1], Daniel Bridenbecker[1], Thomas P. Eisele[2], John M. Miller[3], Philip A. Eckhoff[1], Edward A. Wenger[1]
[1]Institute for Disease Modeling, Seattle, WA, United States, [2]Tulane University, New Orleans, LA, United States, [3]PATH-MACEPA, Lusaka, Zambia

3:15 p.m.

1910

DEVELOPING A NATIONAL MALARIA ELIMINATION INVESTMENT CASE: A FRAMEWORK AND APPLICATION

Anton L.V. Avancena[1], Arian Hatefi[2], William Parr[3], Rima Shretta[1]
[1]University of California San Francisco Global Health Group, San Francisco, CA, United States, [2]University of California San Francisco, San Francisco, CA, United States, [3]Parr and Associates, Picton, New Zealand

Scientific Session 151

Malaria: Vaccines

Convention Center - Ballroom IV (Level 400)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

CHAIR

Urszula Krzych
Walter Reed Army Institute of Research, Silver Spring, MD, United States

Navin Venkatraman
University of Oxford, Jenner Institute, Oxford, United Kingdom

1:45 p.m.

1911

HIGH LEVEL EFFICACY IN HUMANS OF A NEXT-GENERATION *P. FALCIPARUM* ANTI-SPOROZOITE VACCINE: R21 IN MATRIX-M™ ADJUVANT

Navin Venkatraman[1], Georgina Bowyer[1], Nick J. Edwards[1], Oliver Griffiths[1], Jonathan Powlson[1], Daniel Silman[1], Richard Morter[1], Pedro M. Folegatti[1], Angela Minassian[1], Ian Poulton[1], Katharine Collins[1], Florian Brod[1], Philip Angell-Manning[1], Eleanor Berrie[1], Nathan Brendish[2], Greg Glenn[3], Louis Fries[3], Jake Baum[4], Andrew M. Blagborough[4], Rachel Roberts[1], Alison M. Lawrie[1], David J. Lewis[5], Saul N. Faust[2], Sarah Gilbert[1], Katie J. Ewer[1], Adrian V. Hill[1]
[1]University of Oxford, Oxford, United Kingdom, [2]NIHR/Wellcome Trust Southampton Clinical Research Facility, Southampton, United Kingdom, [3]Novavax, Gaithersburg, MD, United States, [4]Imperial College, London, United Kingdom, [5]NIHR/Wellcome Trust Imperial Clinical Research Facility, London, United Kingdom

2 p.m.

1912

SAFETY AND IMMUNOGENICITY OF THE NOVEL *PLASMODIUM FALCIPARUM* BLOOD-STAGE VACCINE RH5.1/AS01B IN A PHASE I/IIA CLINICAL TRIAL

Angela M. Minassian[1], Sarah E. Silk[1], Ian D. Poulton[1], Celia H. Mitton[1], Jing Jin[1], Kazutoyo Miura[2], Ababacar Diouf[2], Antonio Querol-Rubiera[3], Karen Bisnauthsing[3], Tatiana Ogrina[4], Ruth O. Payne[1], Pedro Folegatti[1], Daniel Silman[1], Rahul Batra[3], Nathan Brendish[4], Iona J. Taylor[1], Robert Smith[5], Eleanor Berrie[5], Danielle Morelle[6], Marc Lievens[6], Amy R. Noe[7], Lorraine A. Soisson[8], Rebecca Ashfield[1], Carole A. Long[2], Anna L. Goodman[3], Saul N. Faust[4], Fay L. Nugent[1], Alison M. Lawrie[1], Simon J. Draper[1]
[1]University of Oxford, Oxford, United Kingdom, [2]Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Diseases/National Institutes of Health, Bethesda, MD, United States, [3]Guy's and St. Thomas' Hospital NHS Trust, London, United Kingdom, [4]NIHR Wellcome Trust Clinical Research Facility, University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom, [5]Clinical Biomanufacturing Facility, Oxford, United Kingdom, [6]GlaxoSmithKline Vaccines, Wavre, Belgium, [7]Leidos Life Sciences, Fredrick, MD, United States, [8]United States Agency for International Development, Washington, DC, United States

2:15 p.m.

1913

INTEGRATED ANALYSIS OF ANTIBODY, CYTOKINE AND T CELL RESPONSES INDUCED BY RTS,S/AS01E VACCINATION WITHIN THE AFRICAN PEDIATRIC PHASE 3 TRIAL: SEARCHING FOR CORRELATES OF PROTECTION

Gemma Moncunill[1], Augusto Nhabomba[2], Maximillian Mpina[3], Itziar Ubillos[1], Stephen De Rosa[4], Aintzane Ayestaran[1], Hector Sanz[1], Chenjerai Jairoce[2], Ruth Aguilar[1], Joseph Campo[5], Alfons Jimenez[1], Marta Vidal[1], Dlana Barrios[1], Kristen Cohen[4], Daryl Morris[4], Sheetij Dutta[6], Jaroslaw Harezlak[7], Nuria Diez-Padrisa[1], Nana Williams[1], John Aponte[1], Clarissa Valim[8], Juliana McElrath[4], Claudia Daubenberger[9], **Carlota Dobaño**[1]
[1]ISGlobal, Barcelona, Spain, [2]Manhiça Health Research Center, Manhiça, Mozambique, [3]Ifakara Health Institute, Bagamoyo, United Republic of Tanzania, [4]Fred Hutchinson Cancer Research Center, Seattle, WA, United States, [5]Antigen Discovery Inc., Irvine, CA, United States, [6]Walter Reed Army Institute of Research, Silver Spring, MD, United States, [7]Indiana University, Bloomington, IN, United States, [8]Michigan State University, East Lansing, MI, United States, [9]Swiss Tropical and Public Health Institute, Basel, Switzerland

2:30 p.m.

1914

IGG PROTEOMICS AND BCR SEQUENCING OF SPECIFIC B CELLS FOR ANTIBODY REPERTOIRE ASSESSMENT AFTER MALARIA TRANSMISSION BLOCKING VACCINATION IN MALIAN ADULTS

Camila Henriques Coelho[1], Patricia Gonzales[1], Yai Doritchamou[1], Bob Morrison[1], Olga Muratova[1], Justin Taylor[2], Allison Schwartz[2], Ogobara Doumbo[3], Issaka Sagara[3], Julie Rytlewski[4], Marissa Vignali[4], Catherine Sanders[4], Charles Anderson[1], Michal Fried[1], Patrick Duffy[1]
[1]National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States, [2]Fred Hutchinson Cancer Research Center, Seattle, WA, United States, [3]Malaria Research and Training Center, Bamako, Mali, [4]Adaptive Biothecnologies Corp, Seattle, WA, United States

(ACMCIP Abstract)

2:45 p.m.

1915

DIFFERENTIAL IMMUNE-RESPONSIVENESS TO PFSPZ VACCINE IN MALARIA-NAÏVE, SEMI-IMMUNE AND IMMUNE POPULATIONS FROMINFANCY TO ADULTHOOD

Sumana Chakravarty[1], Adam J. Ruben[1], Thomas L. Richie[1], Natasha KC[1], B. Kim Lee Sim[1], Said Jongo[2], Claudia A. Daubenberger[3], L. W. Preston Church[1], Salim Abdulla[4], Kirsten E. Lyke[5], Robert A. Seder[6], Mahamadou S. Sissoko[7], Sara A. Healy[8], Ogobara Duombo[7], Patrick E. Duffy[8], Stephen L. Hoffman[1]
[1]Sanaria Inc., Rockville, MD, United States, [2]Ifakara Health Institute, Bagamoyo Research and Training Centre, Bagamoyo, United Republic of Tanzania, [3]Department of Medical Parasitology and Infection Biology, Swiss Tropical and Public Health Institute and University of Basel, Basel, Switzerland, [4]Bagamoyo Research and Training Centre, Ifakara Health Institute, Bagamoyo, United Republic of Tanzania, [5]Center for Vaccine Development and Division of Malaria Research, Institute for Global Health, University of Maryland School of Medicine, Baltimore, MD, United States, [6]Vaccine Research Center (VRC), National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, [7]Mali National Institute of Allergy and Infectious Diseases International Centers for Excellence in Research, University of Science, Techniques and Technologies of Bamako, Bamako, Mali, [8]Laboratory of Malaria Immunology and Vaccinology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

(ACMCIP Abstract)

3 p.m.

1916

HUMAN TO MOSQUITO TRANSMISSION OF *P. VIVAX* GAMETOCYTES DURING CONTROLLED HUMAN MALARIA INFECTION AND DEVELOPMENT OF VIVAX SPOROZOITES

Katharine A. Collins[1], Hayley Mitchell[1], Matthew Adams[1], Melanie Rampton[1], Gregory J. Robinson[1], Claire Wang[2], Stephan Chalon[3], Jörg J. Möhrle[3], James S. McCarthy[1]
[1]QIMR Berghofer Medical Research Institute, Brisbane, Australia, [2]QPID Pty Ltd, Brisbane, Australia, [3]Medicines for Malaria Venture, Geneva, Switzerland

3:15 p.m.

1917

A NOVEL HIGHLY PROTECTIVE *PLASMODIUM* ANTIGEN - A FALCIPARUM VACCINE CANDIDATE

joao Aguiar[1], Nonenipha Rangel[1], Kyosuke Oda[1], Jianyang Wang[1], John Sacci[2], Arnel Belmonte[1], Rachel Velasco[1], Mengyan Du[1], Kathryn Burkert[1], Kalpana Gowda[1], Jessica Bolton[1], Joanne M. Lumsden[1], Martha Sedegah[1], Noelle B. Patterson[1], Thomas L. Richie[3], Robert Gerbasi[1], Emily Smith[1], Keith Limbach[1], Eileen D. Villasante[1]
[1]Naval Medical Research Center, Silver Spring, MD, United States, [2]The University of Maryland School of Medicine, Baltimore, MD, United States, [3]Sanaria Inc., Rockville, MD, United States

(ACMCIP Abstract)

Symposium 152

Disrupting the Paradigm: Bite Prevention Technologies for Malaria Control and Elimination

Convention Center - Room 318/319/320 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

Reducing human-vector contact is a cornerstone of effective vector control and has been achieved with dramatic impact following the scale-up of insecticide treated nets around the globe, protecting humans when they sleep. The next frontier of bite prevention is protecting humans outside of nets in their homes and outdoors. Bite prevention technologies emerging from both military research and industry, motivated by consumer markets, have largely focused on topical repellents, bed nets, spatial repellents, and insecticide treated materials, including clothing and blankets. These technologies have been on the market for decades and continue to be developed and evaluated in "niche" high-risk populations, including military populations, mobile labor markets and refugee camps, among others. While some tools such as topical repellents can be highly effective for personal protection given high compliance from individual users, they have not been found to reduce population-level malaria transmission. Other tools, including nets, spatial repellents and insecticide treated clothing, have had more success in randomized controlled trials in reducing transmission. To achieve the impact required for elimination, however, scalable innovation is needed to address critical gaps in protection. The first presentation will address the questions: How could we engineer the future of bite prevention today? What does an ideal technology look like? Is it possible to have "autonomous" technologies that do not require human compliance? What can we learn from the past? Pooling expertise from industry, social marketing, military, academia and implementing partners could contribute to a new wave of bold ideas. The second talk will address significant research that is underway to explore new technology options, including new chemistries, bite proof clothing and passive emanators. The presentation wil also describe the current pipeline and identify gaps for further research and development. The next speaker will focus on these questions: What is the ideal Target Product Profile for bite prevention technologies? How can modeling help us think through the ideal protective efficacy and coverage estimates? Instead of considering bite prevention in a vacuum, how might these tools interact with others to target under-exploited vector behaviors and human-vector interactions? The final talk will address key barriers to achieving impact with bite prevention tools include uptake and accessibility. The speaker will explore concepts around user-center design and consumer-driven marketing to imagine future products driven by the end users. What approaches have been useful in engaging communities and consumers in bite prevention product development? How can the private sector market be leveraged to extend access to at risk populations?

CHAIR

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

Jason H. Richardson
IVCC, Liverpool, United Kingdom

1:45 p.m.
RETHINKING BITE PREVENTION FOR MALARIA CONTROL AND ELIMINATION

Daniel A. Strickman
Bill & Melinda Gates Foundation, Seattle, WA, United States

2 p.m.
THE BITE PREVENTION TECHNOLOGY PIPELINE: GAPS AND OPPORTUNITIES

Daniel Szumlas
Armed Forces Pest Management Board, Silver Spring, MD, United States

2:15 p.m.
HOW GOOD IS GOOD: PROTECTIVE EFFICACY GOALS OF BITE PREVENTION TOOLS

Sarah Moore
Ifakara Health Institute, Ifakara, United Republic of Tanzania

2:30 p.m.
INNOVATING FROM THE GROUND UP: USER-CENTER DESIGN FOR BITE PREVENTION TECHNOLOGIES

David Eland
SC Johnson & Sons, Racine, WI, United States

Scientific Session 153

Intestinal and Tissue Helminths: Soil-Transmitted Helminths - Biology and Immunology

Convention Center - Room 321/322/323 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

CHAIR

Makedonka Mitreva
Washington University School of Medicine, St. Louis, MO, United States

Jill Weatherhead
Baylor College of Medicine, Houston, TX, United States

1:45 p.m.

1918

HELMINTH INDUCED ALTERATIONS IN T CELL, B CELL, DENDRITIC CELL AND MONOCYTE SUBSETS AND THEIR REVERSAL FOLLOWING TREATMENT

Anuradha Rajamanickam[1], Saravanan Munisankar[1], Yukthi Bhootra[1], Dolla Chandrakumar[2], Thomas B Nutman[3], Subash Babu[1]
[1]NIH-ICER-National Institute for Research in Tuberculosis, Chennai, India, [2]National Institute for Research in Tuberculosis, Chennai, India, [3]Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, USA, Chennai, India

(ACMCIP Abstract)

2 p.m.

1919

IMMUNOLOGIC IMPACT OF ASCARIASIS ON THE HOST LUNG

Jill Weatherhead[1], Leroy Versteeg[1], John Knight[1], Ana Maria Jaramillo[2], Amy Coffey[1], Dana Hydel[1], Burton Dickey[2], Bin Zhan[1], Maria Elena Bottazzi[1], Coreen Beaumier[1], David Corry[1], Peter Hotez[1]
[1]Baylor College of Medicine, Houston, TX, United States, [2]University of Texas M.D. Anderson, Houston, TX, United States

(ACMCIP Abstract)

2:15 p.m.

1920

ALLERGIC SENSITIZATION COINCIDENT WITH HELMINTH INFECTION DRIVES A TH2-DOMINATED IMMUNE RESPONSE THAT LIMITS PARASITE BURDEN

Pedro H. Gazzinelli-Guimaraes, Thomas B. Nutman
National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

(ACMCIP Abstract)

2:30 p.m.

1921

TAXONOMIC AND FUNCTIONAL MICRO BIOME ASSEMBLAGES IN INDIVIDUALS INFECTED WITH STHS

Makedonka Mitreva[1], Bruce Rosa[1], Taniawati Supali[2], Lincoln Gankpala[3], Erliyani Sartono[4], Yenny Djuardi[2], Kerstin Fischer[1], Rahul Tyagi[1], Fatoma Bolay[3], Peter Fischer[1], Maria Yazdanbakhsh[4]
[1]Washington University School of Medicine, St. Louis, MO, United States, [2]Universitas Indonesia, Jakarta, Indonesia, [3]Liberian Institute for Biomedical Research, Charlesville, Liberia, [4]Leiden University Medical Center, Leiden, Netherlands

2:45 p.m.

1922

COMPARISON OF WHOLE GENOME TO 16S SEQUENCING ANALYSIS OF INTESTINAL MICROBIOME IN ARGENTINIAN CHILDREN WITH HELMINTH AND PROTOZOA INFECTIONS

Ashish Damania[1], Rubén Cimino[2], Alejandro Krolewiecki[2], Laurie Mazzola[3], Joanna Bybee[3], Barton Slatko[3], Rojelio Mejia[1]
[1]Baylor College of Medicine, Houston, TX, United States, [2]Universidad Nacional de Salta Argentina, Salta, Argentina, [3]New England BioLabs, Inc., Ipswich, MA, United States

(ACMCIP Abstract)

3 p.m.

1923

WHOLE GENOME SEQUENCING OF *ASCARIS LUMBRICOIDES* WORMS REVEALS CHANGES IN SPACE AND TIME

Alice V. Easton[1], Eric Dahlstrom[2], Stephen F. Porcella[2], Rita G. Oliveira[3], Jianbin Wang[4], Shenghan Gao[4], Richard E. Davis[4], Sammy M. Njenga[5], Charles Mwandawiro[5], Joanne P. Webster[6], Roy M. Anderson[3], Thomas B. Nutman[1]
[1]Helminth Immunology Section, Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Disease, National Institutes of Health, Bethesda, MD, United States, [2]Research Technology Branch, Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rocky Mountain Laboratories, Hamilton, MT, United States, [3]Department of Infectious Disease Epidemiology, Faculty of Medicine, Imperial College London, London, United Kingdom, [4]Department of Biochemistry and Molecular Genetics, University of Colorado School of Medicine, Aurora, CO, United States, [5]Eastern and Southern Africa Centre of International Parasite Control (ESACIPAC), Kenya Medical Research Institute (KEMRI), Nairobi, Kenya, [6]Department of Pathobiology and Population Science and London Centre for Neglected Tropical Disease Research (LCNTDR), The Royal Veterinary College, Hawkshead Lane, Hatfield, Hertfordshire, United Kingdom

3:15 p.m.

1924

THE EFFECT OF SOIL-TRANSMITTED HELMINTHS ON CHILD DEVELOPMENT: IS IT MEDIATED BY ANEMIA?

Brittany Blouin
McGill University, Montreal, QC, Canada

Symposium 154

Emerging Tick-Borne Infections: Entomological and Clinical Aspects

Convention Center - Room 324/325/326 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

This symposium aims to integrate recent entomological and clinical information on select emerging tick-borne infections including Powassan virus, borreliosis and rickettsiosis.

CHAIR

Lin H. Chen
Mount Auburn Hospital and Harvard Medical School, Cambridge, MA, United States

Sam R. Telford
Tufts University Cummings School of Veterinary Medicine, North Grafton, MA, United States

1:45 p.m.
TICKS, TICK ECOLOGY AND PREVENTION OF TBD
Sam R. Telford
Tufts University Cummings School of Veterinary Medicine, North Grafton, MA, United States

2:10 p.m.
POWASSAN VIRUS
Erin Staples
Centers for Disease Control and Prevention, Fort Collins, CO, United States

2:35 p.m.
BORRELIOSIS
Bobbi Pritt
Mayo Clinic, Rochester, MN, United States

3 p.m.
RICKETTSIOSIS
Philippe Parola
University Hospital Institute for Infectious Diseases, Marseille, France

Symposium 155

The Dengue Controlled Human Infection Model (CHIM) - A Tool to Deconstruct the Immune Response Toward the Identification of Immune Correlates of Protection

Convention Center - Room 327/328/329 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

The four serotypes of dengue virus are a major cause of mosquito-borne viral disease globally. Approximately 40% of the world's population is at risk of dengue infection and all serotypes cause clinical disease. The incidence of dengue is increasing dramatically throughout the world, both in regions with known disease and in new areas where the mosquito vectors have expanded. Dengue infection causes a spectrum of clinical disease from asymptomatic infection to life-threatening hemorrhagic fever. Primary infection leads to lifelong protection from symptomatic infection with the homotypic serotype and short-lived cross-protection from infection with the other serotypes. Severe disease (dengue shock syndrome and/or hemorrhagic fever) may be associated with organ impairment, plasma leakage and the need for fluid management, and may be fatal in the absence of appropriate medical care. Severe disease occurs most frequently in infants and young children, although all ages are affected. Primary infection with one serotype and insufficiently cross-reactive antibodies to the other serotypes is thought to predispose to more severe disease following a second infection with a serotype that is distinct from the first infection. Safe, tetravalent vaccines which are protective against all four serotypes concurrently are urgently needed since disease-specific therapeutics other than supportive care and fluid management for dengue are not available. A robust immune correlate which predicts protection from disease is necessary to assess candidate dengue vaccines, particularly as they are tested in endemic countries. Although serum neutralizing antibodies have been the gold standard in the past, recent data has questioned the use of this marker and prompted the evaluation of new correlates of protection. Controlled human infection models (CHIM) with dengue have been shown to be safe and reproducible. These models provide ideal platforms upon which immune correlates of protection can be evaluated via deconstruction of the human immune response to dengue infection. This symposium will include new data, tools and methods in the identification of dengue immune correlates of protection.

CHAIR

Beth D. Kirkpatrick
University of Vermont College of Medicine, Burlington, VT, United States

Anna P. Durbin
Johns Hopkins School of Public Health, Center for Immunization Research, Baltimore, MD, United States

1:45 p.m.
USE OF THE NIH DENGUE VACCINE HUMAN CHALLENGE MODEL; THE IMPORTANCE OF NEUTRALIZING ANTIBODY RESPONSES
Anna P. Durbin
Johns Hopkins School of Public Health, Baltimore, MD, United States

2:05 p.m.
MOLECULAR DISSECTION OF THE NEUTRALIZING ANTIBODY RESPONSE AFTER DENV VACCINATION
Aravinda DeSilva
University of North Carolina, Chapel Hill, NC, United States

2:25 p.m.
PLASMABLAST REPETOIRES AND MEMORY B CELL RESPONSES TO DENGUE VACCINATION AND CONTROLLED INFECTION
Sean A. Diehl
University of Vermont College of Medicine, Burlington, VT, United States

2:45 p.m.
EVALUATING THE ROLE OF CD4 AND CD8 ANTIGEN-SPECIFIC RESPONSES AS PART OF A CORRELATE OF PROTECTION FROM DENGUE INFECTION AND DISEASE
Jason Botten
University of Vermont College of Medicine, Burlington, VT, United States

Scientific Session 156

Kinetoplastida: Epidemiology and Diagnosis

Convention Center - Room 331/332 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

CHAIR

Shaden Kamhawi
National Institutes of Health, Bethesda, MD, United States

Ester C. Sabino
University of Sao Paulo, São Paulo, Brazil

1:45 p.m.

1925

A CLOUD-BASED EPIDEMIOLOGICAL SURVEILLANCE PLATFORM WITH APPLICATION TO CHAGAS DISEASE VECTOR CONTROL

Jennifer Kate Peterson[1], Sasha Gutfraind[2], Erica Billig[1], Claudia Arevalo Nieto[3], Gian Franco Condori[3], Narender Tankasala[2], Justin Sheen[1], Ricardo Castilo[1], Priyanka Anand[1], Michael Z. Levy[1]
[1]University of Pennsylvania, Philadelphia, PA, United States, [2]University of Illinois at Chicago, Chicago, IL, United States, [3]Universidad Cayetano Heredia, Lima, Peru

2 p.m.

1926

MOLECULAR EPIDEMIOLOGY OF CUTANEOUS LEISHMANIASIS AMONG REFUGEES IN NORTH LEBANON

Dima El Safadi[1], Waleed Al-Salem[2], Alvaro Acosta-Serrano[3], Monzer Hamze[1]
[1]Laboratory of Health and Environmental Microbiology (LMSE), Doctoral School for Sciences and Technology, Faculty of Public Health, Lebanese University, Tripoli, Lebanon, [2]Saudi Ministry of Health, Riyadth, Saudi Arabia, [3]Department of Parasitology and Department of Vector Biology, Liverpool School of Tropical Medicine, Liverpool, United Kingdom

2:15 p.m.

1927

FIELD TRIAL TO ASSESS LEISHMANIASIS VACCINE EFFECTIVENESS AS A POTENTIAL IMMUNOTHERAPY IN ASYMPTOMATIC DOGS

Angela J. Toepp[1], Mandy Larson[1], Tara Grinnage-Pulley[1], Geneva Wilson[1], Carolyne Bennett[1], Adam Lima[1], Michael Anderson[1], Hailie Fowler[1], Bryan Anderson[1], Molly Parrish[1], Kelsey Willardson[1], Germine Alfonse[1], Jane Jefferies[2], George Seier[3], Javan Esfandiari[4], Caitlin Cotter[5], Radhika Gharpure[5], Christine Petersen[1]
[1]The University of Iowa, Iowa City, IA, United States, [2]Noah's Ark Animal Clinic, Kansas City, MO, United States, [3]Cobb Ford Pet Health Center, Prattville, AL, United States, [4]ChemBio Diagnostic Systems, Inc., Medford, NY, United States, [5]Johns Hopkins University, Baltimore, MD, United States

(ACMCIP Abstract)

2:30 p.m.

1928

LOCAL DYNAMICS, SPATIAL INTERACTIONS AND DISPERSAL ROUTES OF VISCERAL LEISHMANIASIS IN 45 MUNICIPALITIES OF SAO PAULO STATE, BRAZIL

Elivelton Da Silva Fonseca, Raul Borges Guimarães
São Paulo State University, Presidente Prudente, Brazil

2:45 p.m.

1929

USING DYNAMIC MODE DECOMPOSITION TO PRIORITIZE REGIONAL SCREENING FOR HAT IN THE DEMOCRATIC REPUBLIC OF CONGO

Cody A. Palmer[1], Joshua L. Proctor[1], Matthew Steele[2], Crispin Lumbala[3], Caitlin A. Bever[1]
[1]Institute For Disease Modeling, Bellevue, WA, United States, [2]Bill & Melinda Gates Foundation, Seattle, WA, United States, [3]Programme National de Lutte contre la Trypanosomiase Humaine Africain (PNLTHA), Kinshasa, Democratic Republic of the Congo

3 p.m.

1930

USE OF SALIVA FOR LARGE SCALE *TRYPANOSOMA CRUZI SCREENING*

Lea C. Oliveira[1], Carlos H. Moreira[1], Claudia D. Lorenzo[2], Ana L. Bierrenbach[1], Erika R. Manuli[1], Natália B. Pereira[1], Flavia C. Salles[1], Marcela Souza-Basquera[1], **Ester C. Sabino**[1]
[1]Laboratory of Parasitology (LIM46), Institute of Tropical Medicine, University of São Paulo, São Paulo, Brazil, [2]Federal University of São João Del Rei, Divinópolis, Brazil

3:15 p.m.

1931

POLICY RECOMMENDATIONS FOR REACHING ELIMINATION OF VISCERAL LEISHMANIASIS ON THE INDIAN SUBCONTINENT: A COMPARISON OF MULTIPLE TRANSMISSION MODELS

Epke A. Le Rutte[1], Lloyd A. Chapman[2], Luc E. Coffeng[1], Graham F. Medley[3], José A. Ruiz Postigo[4], Deirdre T. Hollingsworth[2], Sake J. de Vlas[1]
[1]Erasmus MC, University Medical Center Rotterdam, Rotterdam, Netherlands, [2]Warwick University, Warwick, United Kingdom, [3]London School of Hygiene & Tropical Medicine, London, United Kingdom, [4]World Health Organization, Geneva, Switzerland

Symposium 157

Global Elimination of Trachoma: Refocusing the End Game

Convention Center - Room 337/338 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

Trachoma is caused by ocular infection with the bacterium *Chlamydia trachomatis*. The World Health Organization recommends a comprehensive approach for trachoma elimination, comprising surgery for trichiasis, antibiotics to treat ocular *C. trachomatis*, and facial cleanliness and environmental improvement to reduce transmission (the SAFE strategy). Since the launch of SAFE in 1993, interventions have been gradually scaled-up, such that they currently cover the majority of countries that still have trachoma as a public health problem. Use of the SAFE strategy has produced notable results, including: 1) diminishing trachoma from being the second leading cause of preventable blindness worldwide to now being the fifth; and 2) sufficient progress towards elimination of trachoma as a public health problem to allow eight countries to claim attainment of elimination prevalence thresholds in each formerly endemic district. By November 2017, there will be 38 months left to achieve the objectives of the Alliance for Global Elimination of Trachoma by 2020. This symposium will focus on recent milestones and lessons learned from the Global Trachoma Mapping Project (GTMP), the largest mapping exercise of its kind in the world, which used population-based surveys to

estimate trachoma prevalence in >1500 suspected endemic districts, enabling planning and scale-up of SAFE in 29 countries. Following completion of the GTMP, its methods and systems for undertaking surveys have been carried over to develop the collaborative, multi-organizational project known as Tropical Data. Tropical Data is an innovative platform that supports ministries of health to conduct, quality-control and quality-assure trachoma prevalence surveys, and allows for integration with surveys for other diseases. As progress is made towards the 2020 targets, many more surveys will be needed to assess impact of SAFE strategy and validate elimination of trachoma. The symposium focuses on lessons learned from the GTMP and how these lessons have been applied to develop and implement Tropical Data. In addition, the session will examine the cost of population-based surveys using unique datasets. These analyses will provide insight into survey cost ranges which may aid efficient planning and budgeting of future work, for trachoma and other diseases. Finally, while trachoma elimination thresholds based on prevalence of clinical signs are well established, there are knowledge gaps as to whether alternative indicators, based on laboratory evidence of current or lifetime chlamydial infection, may be more relevant. This session will present data on approaches that have classically been used for trachoma surveillance, and integration-friendly developmental approaches for post-validation surveillance.

CHAIR

Jeremiah Ngondi
RTI International, Dar es Salaam, United Republic of Tanzania

Aryc W. Mosher
U.S. Agency for International Development, Washington, DC, United States

1:45 p.m.
FROM THE GLOBAL TRACHOMA MAPPING PROJECT TO TROPICAL DATA: REFINING METHODS FOR ASSESSING ELIMINATION OF TRACHOMA

Anthony W. Solomon
World Health Organization, Geneva, Switzerland

2:05 p.m.
HOW MUCH DOES IT COST TO SURVEY TRACHOMA: COST ANALYSIS FROM THE GLOBAL TRACHOMA MAPPING PROJECT

Guillaume A. c. Trotignon
Sightsavers, Haywards Heath, United Kingdom

2:25 p.m.
WHAT IS THE COST OF MONITORING ELIMINATION OF TRACHOMA: PROJECTING COSTS OF TRACHOMA IMPACT AND SURVEILLANCE SURVEYS

Rachel D. Stelmach
RTI International, Washington, DC, United States

2:45 p.m.
METHODS FOR TRACHOMA SURVEILLANCE: LESSONS LEARNED AND POSSIBLE FUTURE APPROACHES

Jeremiah Ngondi
RTI International, Dar es Salaam, United Republic of Tanzania

Symposium 158

Praziquantel Studies in Preschool Children and Mothers with Schistosomiasis: Is the Research Agenda Comprehensive Enough?

Convention Center - Room 339/340 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

Schistosomiasis causes both overt and subclinical disease in preschool children and their mothers, and praziquantel (PZQ) is the only available drug to treat it. Evidence is growing on the negative impact of early schistosomiasis on child's health with detectable early fibrotic morbidity by ultrasound and established anemia in children under five years of age. Under current WHO recommendations for schistosomiasis control, these clinical manifestations arising in preschool years remain untreated until the child reaches school, the time when the first round of PZQ will be delivered through preventive chemotherapy (PTC) campaigns. The treatment of pregnant women is also seldom happening despite recent robust evidence demonstrating PZQ safety and efficacy in both vulnerable groups. Alternative PZQ delivery platforms such as individual-level treatment at the health centers is not common practice, unlike the delivery of other deworming drugs such as mebendazole both for preschool children and pregnant women. The ongoing double PZQ treatment gap for preschool children and pregnant women (not included in PTC campaigns and no individual treatment at the health centers) is permissive to the development and progression of schistosomiasis-associated morbidity. Researchers and policymakers agree on a very needed expansion of PZQ treatment to these at-risk groups. However, there is currently a strategic void in how to best achieve this. Some of the difficulties in the pathway to scaling up PZQ include a future drug supply that is bottlenecked, a safe pediatric formulation that is still in development, age-appropriate PZQ dosing that is still under study and cultural barriers to an optimal uptake of pregnancy deworming strategies. This symposium will invite experts in the field of PZQ pharmacology, PZQ treatment in pregnancy and policymaking to provide insight on the current evidence on PZQ safety and efficacy in preschool children and pregnant women and alternative delivery platforms for PZQ delivery. It will also raise the question of areas that are currently understudied such as preschool morbidity and reversibility after treatment and studies integrating PK/PD evidence to inform appropriateness of PZQ dosing. Speakers will be asked to share their suggestion for future research efforts to address the existing PZQ double treatment gap.

CHAIR

Amaya Bustinduy
London School of Hygiene & Tropical Medicine, London, United Kingdom

Jennifer Keiser
Swiss Tropical and Public Health Institute, Basel, Switzerland

1:45 p.m.
DOSE-FINDING STUDIES WITH PRAZIQUANTEL IN *SCHISTOSOMA MANSONI* AND *S. HAEMATOBIUM* INFECTED PRE-SCHOOLERS

Jean T. Coulibally
Swiss Tropical and Public Health Institute, Basel, Switzerland

2 p.m.
PHARMACOKINETIC STUDIES WITH PRAZIQUANTEL IN PRESCHOOLERS AND SCHOOL-AGED CHILDREN
Jennifer Keiser
Swiss Tropical Institute, Basel, Switzerland

2:15 p.m.
LONGITUDINAL PRAZIQUANTEL PK FOLLOW UP STUDY ON YOUNG UGANDAN CHILDREN WITH INTESTINAL SCHISTOSOMIASIS
Grace Macklin
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

2:35 p.m.
PRAZIQUANTEL IN PREGNANCY: SAFETY, EFFICACY AND BARRIERS TO UPTAKE
Jennifer F. Friedman
Brown University, Providence, United States

3 p.m.
WHO POSITION ON PZQ FOR PRESCHOOL CHILDREN AND PREGNANT WOMEN
Amadou G. Garba
World Health Organization, Geneva, Switzerland

Symposium 159

Immigration and Chagas Disease: Barriers to Access to Treatment and New Challenges in the U.S., Europe and Latin America

Convention Center - Room 341/342 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

Chagas disease is inextricably linked to both ecological and socioeconomic factors (Briceño-León 2009). Immigration has been a major facet of rapid globalization during the past few decades. Driven by a host of factors including poverty, economic crises, demand for labor in wealthy economies, environmental degradation, war and narcoviolence, millions of Latin Americans have migrated to North America, Europe, Asia and Australia. Because of this dynamic, populations with Chagas disease are now found in non-endemic settings where public health systems are often ill-prepared to offer care. According to estimates, there are over 300,000 Latin American immigrants with Chagas disease in the United States and up to 120,000 in Europe. However, <1% of expected cases in the U.S. and <10% in Europe have been diagnosed, and even fewer have been offered appropriate care and treatment (Manne-Goehler et al. 2016, Basile et al. 2011). In both contexts, a significant number of immigrants with Chagas disease are undocumented. Latin American migrants with Chagas disease face significant challenges to accessing healthcare, including restrictive government policies related to provision of publicly funded healthcare and other public assistance to non-citizens, economic marginalization, language barriers, and social stigma (both as migrants and as potential carriers of a disease associated with poverty). Increasingly, this is being exacerbated by growing anti-immigrant sentiment and policies in host countries. In light of these developments, it is clearer than ever that expanding access to treatment for Chagas disease among immigrant populations will involve not only innovation in the development of new medicines and approaches to healthcare delivery, but a clear understanding of the social and political contexts which are shaping the healthcare sphere for immigrant populations in unprecedented ways. This symposium will analyze the care and treatment needs and describe access-related research with immigrant populations with Chagas disease in different settings. Questions to be explored include: What is the current socioeconomic profile and state of access to medical services for people with Chagas disease? What steps are needed in the coming years to expand access to treatment of Chagas disease beyond its current low levels and what new threats and opportunities are on the horizon? What innovations will be necessary to overcome barriers to access to care for migrant populations with Chagas disease?

CHAIR
Sheba K. Meymandi
Center of Excellence for Chagas Disease at Olive View-University of California Los Angeles Medical Center, Sylmar, CA, United States

1:45 p.m.
MIGRANTS, INFECTIOUS DISEASES AND THE POLITICAL ECONOMIC LANDSCAPE IN 2017
Peter J. Hotez
Baylor University, Houston, TX, United States

2:05 p.m.
IMMIGRATION AND CHAGAS DISEASE IN EUROPE: NEW CHALLENGES
Joaquim Gascon
Institut de Salut Global de Barcelona, Barcelona, Spain

2:25 p.m.
CHAGAS DISEASE IN THE BOLIVIAN POPULATION OF SÃO PAULO, BRAZIL
Maria A. Shikanai-Yasuda
University of Sao Paulo School of Medicine, Sao Paulo, Brazil

2:45 p.m.
CHAGAS DISEASE IN A TIME OF IMMIGRANT BACKLASH: CHALLENGES FOR EXPANDING ACCESS TO TREATMENT IN LOS ANGELES AND BEYOND
Colin J. Forsyth
Drugs for Neglected Diseases Initiative, New York, NY, United States

Symposium 160

Innovative Approaches to Encourage Broader Public Engagement with Tropical Medicine

Convention Center - Room 343/344 (Level 300)
Wednesday, November 8, 1:45 p.m. - 3:30 p.m.

Translating tropical medicine and hygiene advances into public health impact has always relied heavily on the effective dissemination of scientific information to a broad range of publics, many of whom may have limited or no interest in science. While the technologies behind scientific research are advancing at a seemingly inexorable rate, the importance of communication and engagement with non-specialist audiences remains as important now as it did in the days of the pioneers of our field. If anything, recent events such as the Ebola and Zika epidemics have emphasized the need for high quality and clear information sharing with large numbers of people. As well as this operational need, effective public engagement and science communication

are becoming increasingly important elements in the skillset of scientists and healthcare professionals, and in some cases a requirement for career advancement. Amidst this background of increasing need, there is an upsurge in innovative methods and approaches to science engagement, and rich resources and opportunities available. This symposium will showcase new innovations in public engagement that are particularly relevant to global health and tropical medicine. It will emphasize the importance of dialogue and discussion in public engagement as a vehicle to disseminate knowledge and research findings, and will showcase strategies that invite such dialogue with children, adults, families and communities. Speakers include both researchers and engagement professionals with expertise in the field and who deliver innovative engagement practice. They will discuss new methods to reach large numbers of people, emphasize the importance of engaging with hard-to-reach audiences in both endemic and non-endemic countries, and discuss the ethical issues of engaging with vulnerable populations. The symposium will conclude with an interactive session to gather attitudes, opinions and feedback from attendees. The insights and experiences shared will underscore the rich opportunities that engagement provides for scientists and healthcare professionals to receive information about societal opinions and barriers to scientific information uptake, and inspire new research opportunities.

CHAIR

Julian C. Rayner
Wellcome Trust Sanger Institute, Cambridge, United Kingdom

Lyric Bartholomay
University of Wisconsin, Madison, WI, United States

1:45 p.m.
PUBLIC ENGAGEMENT AS AN ESSENTIAL PART OF TROPICAL MEDICINE RESEARCH

Julian C. Rayner
Wellcome Trust Sanger Institute, Cambridge, United Kingdom

1:55 p.m.
THE URBAN ECOSYSTEMS PROJECT: TEACHING AND LEARNING MOSQUITO BIOLOGY AND PUBLIC HEALTH WITH YOUNG SCIENTISTS IN HISTORICALLY EXCLUDED COMMUNITIES

Lyric Bartholomay
University of Wisconsin, Madison, WI, United States

2:15 p.m.
I'M A SCIENTIST GET ME OUT OF HERE - AUDIENCE-LED PUBLIC ENGAGEMENT IN TROPICAL MEDICINE

Shane McCracken
Gallomanor Communications, Bath, United Kingdom

2:35 p.m.
ETHICAL ISSUES IN COMMUNITY ENGAGEMENT WITH VULNERABLE POPULATIONS

Phaik Yeong Cheah
Mahidol-Oxford Tropical Research Unit, Bangkok, Thailand

TropStop Office Hours

Convention Center - Pratt Street West Lobby Foyer (Level 300)
Wednesday, November 8, 3 p.m. – 4 p.m.

Meet professionals in the fields of tropical medicine, global health, science and industry who will share their personal career paths and answer questions you may have.

PRESENTERS

Louise Ivers
Center for Global Health, Massachusetts General Hospital, Boston, MA, United States

Gonzalo M. Vazquez-Prokopec
Emory University, Atlanta, GA, United States

Break

Wednesday, November 8, 3:30 p.m. - 4 p.m.

Poster Session C Dismantle

Convention Center - Hall F and G (Level 100)
Wednesday, November 8, 4 p.m. - 5 p.m.

Scientific Session 161

Malaria: Epidemiology - Measuring Changes

Convention Center - Ballroom I (Level 400)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

CHAIR

Simon P. Kigozi
London School of Hygiene & Tropical Medicine, London, United Kingdom

Leanne J. Robinson
Burnet Institute, Melbourne, Australia

4 p.m.

1932

A LONGITUDINAL ASSESSMENT OF GAMETOCYTE PRODUCTION AND INFECTIVITY IN CHRONIC AND ACUTE *P. FALCIPARUM* INFECTIONS

Aissata Barry[1], Bronner Goncalves[2], Moussa W. Guelbeogo[1], Alphonse Ouedraogo[1], Issiaka Soulama[1], Issa Nebie[1], Amidou Diarra[1], Kjerstin Lanke[3], Mireille Ouedraogo[1], Desire Kargougou[1], Zongo Zoumanaba[1], Chris Drakeley[2], Alfred B. Tiono[1], Teun Bousema[3]
[1]Centre National de Recherche et de Formation sur le Paludisme, Ouagadougou, Burkina Faso, [2]London School of Hygiene & Tropical Medicine, London, United Kingdom, [3]Radboudumc, Nijmegen, Netherlands

4:15 p.m.

1933

MALARIA BURDEN THROUGH ROUTINE REPORTING: RELATIONSHIPS BETWEEN INCIDENCE ESTIMATES

Simon P. Kigozi[1], Ruth N. Kigozi[2], Arthur Mpimbaza[3], Asadu Sserwanga[3], Joaniter Nankabirwa[4], Sarah Staedke[1], Moses Kamya[4], Grant Gorsey[5], Rachel Pullan[1]
[1]London School of Hygiene & Tropical Medicine, London, United Kingdom, [2]Malaria Consortium, Kampala, Uganda, [3]Infectious Disease Research Collaboration, Kampala, Uganda, [4]College of Health Sciences Makerere University, Kampala, Uganda, [5]University of California San Francisco, San Francisco, CA, United States

4:30 p.m.

1934

LONGITUDINAL CLINICAL AND MOLECULAR ANALYSIS OF ASYMPTOMATIC MALARIA INFECTION IN MALAWI

Andrea Geri Buchwald[1], Miriam Ismail[1], Courtney Aceto[2], Alaina Halbach[1], Alick Sixpence[3], Mabvuto Chimenya[3], Millius Damson[3], John D. Sorkin[4], Karl Seydel[5], Don Mathanga[3], Terrie E. Taylor[6], Miriam K. Laufer[1]
[1]Division of Malaria Research, Institute for Global Health, University of Maryland School of Medicine, Baltimore, MD, United States, [2]Stevenson University, Baltimore, MD, United States, [3]Malaria Alert Center, University of Malawi College of Medicine, Blantyre, Malawi, [4]University of Maryland Baltimore and Baltimore Veterans Affairs Medical Center GRECC, Baltimore, MD, United States, [5]Michigan State University, East Lansing, MI, United States, [6]Michigan State University College of Osteopathic Medicine, East Lansing, MI, United States

4:45 p.m.

1935

TRACKING MALARIA: PREGNANT WOMEN AS A SENTINEL POPULATION FOR MALARIA SURVEILLANCE

Nina C. Brunner[1], Frank Chacky[2], Renata Mandike[2], Ally Mohamed[2], Christian Lengeler[1], Fabrizio Molteni[1], Manuel W. Hetzel[1]
[1]Swiss Tropical and Public Health Institute, University of Basel, Basel, Switzerland, [2]National Malaria Control Programme, Ministry of Health, Community Development, Gender, Elderly and Children, Dar Es Salaam, United Republic of Tanzania

5 p.m.

1936

COMBINING LONG-LASTING INSECTICIDAL NETS AND INDOOR RESIDUAL SPRAYING FOR MALARIA PREVENTION IN ETHIOPIA: A CLUSTER RANDOMIZED CONTROLLED TRIAL

Eskindir Loha[1], Wakgari Deressa[2], Taye Gari[1], Meshesha Balkew[2], Oljira Kenea[2], Tarekegn Solomon[1], Alemayehu Hailu[2], Bjarne Robberstad[3], Meselech Assegid[2], Hans J. Overgaard[4], Bernt Lindtjørn[3]
[1]Hawassa University, Hawassa, Ethiopia, [2]Addis Ababa University, Addis Ababa, Ethiopia, [3]University of Bergen, Bergen, Norway, [4]Norwegian University of Life Sciences, Aas, Norway

5:15 p.m.

1937

DEVELOPMENT OF A NOVEL GENOTYPING AND MATHEMATICAL ALGORITHM FOR ESTIMATION OF MULTIPLICITY OF INFECTION OF MALARIA PARASITES

Rebecca M. Mitchell[1], Zhiyong Zhou[2], Sheila Sergent[2], Mili Sheth[2], Vishal Nayak[2], Mike Frace[2], Bin Hu[2], Scott Sammons[2], Simon Kariuki[3], Meghna Desai[2], Ymir Vigfusson[1], Ya Ping Shi[2]
[1]Emory University, Atlanta, GA, United States, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]KEMRI, Kisumu, Kenya

5:30 p.m.

1938

UNDERSTANDING THE HIGHLY DYNAMIC NATURE OF DECLINING MALARIA TRANSMISSION IN PAPUA NEW GUINEA

Leanne J. Robinson[1], Maria Ome-Kaius[2], Cristian Koepfli[3], Johanna H. Kattenberg[4], Dulcie Lautu-Ninda[5], Natalie E. Hofmann[6], Daniela Rodriguez[6], Michelle Katusele[5], John B. Keven[7], Daisy Mantila[5], Benishar Kombut[5], Shadrach Jally[5], Elisheba Malau[8], Thomas Obadia[9], Edward D. Walker[7], Alyssa Barry[10], Manuel Hetzel[6], Stephan Karl[2], Christopher L. King[11], Ingrid Felger[6], Moses Laman[5], James Kazura[11], Ivo Mueller[12]
[1]Burnet Institute; PNG Institute of Medical Research; Walter & Eliza Hall Institute, Melbourne, Australia, [2]Walter & Eliza Hall Institute & PNG Institute of Medical Research, Melbourne, Australia, [3]University of California Irvine, Irvine, CA, United States, [4]Institute of Tropical Medicine, Antwerp, Belgium, [5]PNG Institute of Medical Research, Madang, Papua New Guinea, [6]Swiss Tropical and Public Health Institute, Basel, Switzerland, [7]Michigan State University, Lansing, MI, United States, [8]Federation University, Melbourne, Australia, [9]Institut Pasteur, Paris, France, [10]Walter & Eliza Hall Institute, Melbourne, Australia, [11]Case Western Reserve University, Cleveland, OH, United States, [12]Walter & Eliza Hall Institute & Pasteur Institut, Melbourne, Australia

Symposium 162

Landscape of the Druggable *Plasmodium* Genome

Convention Center - Ballroom II (Level 400)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

Malaria, despite ongoing global health intervention, remains a devastating global problem, infecting hundreds of millions and killing nearly 500,000, mostly children, annually. As drug resistance continues to escalate worldwide, the need to identify antimalarial drugs with novel means of action, as a way to overcome existing resistance, is more critical than ever. This panel will highlight new approaches to identify potential targets for novel antimalarial compounds, which will inform antimalarial compound design for the next 10-20 years. This session will begin with a short introduction of results from *in vitro* evolution studies against more than 50 potential lead compounds. Sequencing of parasites resistant to these compounds has led to the discovery of 10-12 potential new antimalarial targets. In addition, with over 200 sequenced drug-resistant parasite genomes, the sheer scope of this dataset allows for a global view of the genes which either convey generalized drug resistance or represent direct drug targets. These results bring us far closer to identifying the parasite druggable genome and the maximum biological range which exists for medicinal chemistry and compound design. The session will present works on drug development in *Plasmodium falciparum* utilizing genomic and proteomic approaches to understand drug mode of action and resistance mechanisms. Symposium presenters have been using a drug-sensitive yeast strain as a model system to identify targets of antimalarial compounds which are considered irresistible in *Plasmodium*. This session will address research interests that lie in the detection and characterization of proteolytic enzymes that are involved in disease, and describe how a lab uses a mass spectrometry based platform technology to uncover the proteolytic activity differences between healthy cells and parasitic organisms. The session will conclude with a presentation of methods to identify biochemical pathway architectures in the malaria parasite, including a detailed exploration of the interconnectivity between genetic and metabolic variation. This symposium will present approaches for finding new targets for small molecular inhibitors applies to a range of infectious diseases, with *P. falciparum* as a model, and will be of utmost interest to a diverse set of researchers.

CHAIR

Elizabeth A. Winzeler
University of California San Diego, La Jolla, CA, United States

Sabine Ottilie
University of California San Diego, La Jolla, CA, United States

4 p.m.

PROLINE HOMEOSTASIS: A NOVEL MEDIATOR OF DRUG RESISTANCE IN *PLASMODIUM FALCIPARUM*

Lola Fagbami
Harvard T. H. Chan School of Public Health, Boston, MA, United States

4:15 p.m.
TARGET IDENTIFICATION OF SMALL ANTIMALARIAL COMPOUNDS USING A DRUG SENSITIVE YEAST MODEL
Greg LaMonte
University of California San Diego, La Jolla, CA, United States

4:30 p.m.
USING SUBSTRATE SPECIFICITY PROFILES TO DESIGN PROTEASE INHIBITORS THAT SELECTIVELY TARGET PARASITIC ORGANISMS
Anthony J. O'Donoghue
University of California San Diego, Skaggs School of Pharmacy and Pharmaceutical Sciences, La Jolla, CA, United States

4:45 p.m.
CHARACTERIZING THE MODE OF ACTION OF NOVEL ANTIMALARIAL DRUGS BY HIGH THROUGHPUT METABOLOMICS
Manuel Llinas
Pennsylvania State University, University Park, PA, United States

Symposium 163

The Burden and Control of falciparum and vivax Malaria in Pregnancy in Asia

Convention Center - Ballroom III (Level 400)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

Recent estimates indicate that the number of pregnancies at risk of malaria in areas of low malaria transmission greatly exceed the number of pregnancies occurring in areas with stable *P. falciparum* malaria in sub-Saharan Africa. Yet, relatively little is known about the burden of malaria in pregnancy in endemic areas outside of Africa, where infection rates are much lower but they are more likely to cause symptomatic and severe disease, preterm births, and fetal loss. There are currently no formal guidelines for the control of malaria in pregnancy for Asia, where control in pregnant women relies mainly on case management. The symposium will present the results of recently completed burden studies of the impact of *P. falciparum* and *P. vivax* malaria in pregnancy and of trials on the treatment and prevention of malaria in pregnancy in India, Indonesia and the Thai-Myanmar border.

CHAIR
Jenny Hill
Liverpool School of Tropical Medicine, Liverpool, United Kingdom
Feiko ter Kuile
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

4 p.m.
THE ASSOCIATION BETWEEN VIVAX AND FALCIPARUM MALARIA IN PREGNANCY IN A LOW TRANSMISSION AREA ON ADVERSE PREGNANCY OUTCOMES (MISCARRIAGE, PRETERM BIRTH, SMALL FOR GESTATION AND NEONATAL DEATH) INCLUDING A SYSTEMATIC REVIEW AND META-ANALYSIS OF STILLBIRTH
Kerryn Moore
Burnet Institute, Melbourne, Australia

4:20 p.m.
RANDOMIZED TRIAL OF 3 ARTEMISININ COMBINATION THERAPIES (MEFLOQUINE-ARTESUNATE, DIHYDROARTEMISININ-PIPERAQUINE, COARTEMETHER) FOR TREATMENT OF *P. FALCIPARUM* AND *P. VIVAX* MALARIA IN PREGNANCY ON THE THAILAND-MYANMAR BORDER
Rose McGready
Oxford University, Oxford, United Kingdom

4:40 p.m.
RCT ON THE EFFICACY AND SAFETY OF INTERMITTENT SCREENING AND TREATMENT (IST) WITH AS+SP VERSUS PASSIVE CASE DETECTION IN INDIA
Daniel Chandramohan
London School of Hygiene & Tropical Medicine, London, United Kingdom

5 p.m.
INTERMITTENT SCREENING AND TREATMENT OR INTERMITTENT PREVENTIVE THERAPY WITH DP VERSUS SINGLE SCREENING AND TREATMENT FOR THE CONTROL OF MALARIA IN PREGNANCY IN INDONESIA (STOPMIP-INDONESIA): AN OPEN LABEL CLUSTER-RANDOMIZED CONTROLLED SUPERIORITY TRIAL
Feiko ter Kuile
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

Symposium 164

Challenges in Medical Humanitarian Settings – Experiences from MSF, ALIMA and Doctors for Global Health

Convention Center - Ballroom IV (Level 400)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

This symposium will look at challenges in diagnosis, implementation of programs and access to quality treatment found in humanitarian settings presenting various examples of the experience of medical humanitarian NGOs such as Médecins Sans Frontières in different countries. The topics will range from the complex interactions of infectious diarrhea and severe acute malnutrition, the challenges of managing of outbreaks in refugee camp settings, and difficulties of chasing the last cases of a devastating disease such as Human African Trypanosomiasis amidst violent conflict to eliminate transmission. The session will conclude with a panel discussion.

CHAIR
Estrella Lasry
Medecins Sans Frontieres, Barcelona, Spain
Bhargavi Rao
Medecins Sans Frontieres, London, United Kingdom

4 p.m.
ELIMINATION IN WAR: HAT IN CAR
Carolina Jimenez
Medecins Sans Frontieres, Barcelona, Spain

4:15 p.m.
DIARRHEA AMIDST SEVERE MALNUTRITION: DRIVERS AND DIAGNOSTICS
Bruno Akpakpo
ALIMA (Alliance for International Medical Action), Chad

4:30 p.m.
CHALLENGES AND OPPORTUNITIES IN TRAINING COMMUNITY HEALTH PROMOTERS AND ESTABLISHING BASIC HEALTH SERVICES
Lanny Smith
Doctors for Global Health, Decatur, GA, United States

4:45 p.m.
OPERATION YELLOW MAMA - A HEPATITIS E OUTBREAK IN A REFUGEE CAMP
Philipp Du Cros
Medecins Sans Frontieres, London, United Kingdom

Symposium 165

Lassa Fever: A New Look at an Old Disease

Convention Center - Room 318/319/320 (Level 300)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

Lassa virus (LASV), a member of the *Arenaviridae* family, is the etiologic agent of Lassa fever (LF), an acute and frequently fatal illness endemic to West Africa. LASV is a category A select agent. The natural reservoir for LF is the multi-mammate rat *(Mastomys natalensis),* which is found in abundance throughout sub-Saharan Africa. Approximately 300,000 to 500,000 LF infections occur each year. Humans are believed to acquire infection via exposure to the excreta from this rat species. LF has an insidious onset often presenting with fever, severe sore throat, headache, conjunctivitis, head and neck edema and abdominal pain. Civil war halted studies of this disease in the 1990s. Over the past decade, new research efforts have increased our knowledge of LF. However, major questions about transmission, risk factors and disease pathophysiology still remain. In addition to being a significant public health problem, LF, as an endemic disease, could serve as a model for the treatment of epidemic VHFs. New advances in genetics, diagnostics and our understanding of the underlying pathophysiology have the potential to pave the way for new therapeutic modalities for this disease and other VHFs.

CHAIR
John S. Schieffelin
Tulane University, New Orleans, LA, United States

Daniel Bausch
Public Health Rapid Support Team-UK PHRST Public Health England/London School of Hygiene & Tropical Medicine, London, United Kingdom

4 p.m.
REVISITING ASSOCIATIONS BETWEEN THE CLINICAL PRESENTATION OF LASSA FEVER AND HOSPITAL OUTCOMES
Donald Grant
Lassa Fever Program, Kenema Government Hospital, Kenema, Sierra Leone

4:25 p.m.
NEW INSIGHTS INTO THE PATHOPHYSIOLOGY OF LASSA FEVER
John Schieffelin
Tulane University, New Orleans, LA, United States

4:50 p.m.
UNCOVERING HUMAN GENETIC DETERMINANTS OF LASSA FEVER SUSCEPTIBILITY
Kayla Barnes
The Broad Institute, Cambridge, MA, United States

5:15 p.m.
THE EPIDEMIOLOGY AND EPIZOOLOGY OF LASSA FEVER: WHAT WE KNOW AND WHAT WE THINK WE KNOW
Daniel G. Bausch
Public Health Rapid Support Team-UK PHRST Public Health England/London School of Hygiene & Tropical Medicine, London, United Kingdom

Symposium 166

Neurocysticerocis: IDSA/ASTMH Guidelines and Beyond

Convention Center - Room 324/325/326 (Level 300)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

Neurocysticercosis (NCC) is a potentially fatal, but preventable, neglected parasitic infection caused by the larval form of *Taenia solium.* Patients with symptomatic disease usually have signs and symptoms, which commonly manifest as seizures or increased intracranial pressure. Since there are many persons living in the United States who emigrated from highly disease-endemic countries, clinicians are often faced with managing this disease in their practices. Despite advances in the diagnosis and management of neurocysticercosis, there remain many unanswered questions. IDSA/ASTMH guidelines for NCC have been developed and will be discussed during the symposium.

CHAIR
Christina M. Coyle
Albert Einstein College of Medicine, Bronx, NY, United States

A. Clinton White
University of Texas Medical Branch at Galveston, Galveston, TX, United States

4 p.m.
IDSA GUIDELINES: CASE-BASED DISCUSSION
A. Clinton White
University of Texas Medical Branch, Galveston, TX, United States

4:20 p.m.
ALBENDAZOLE PLUS PRAZIQUANTEL FOR NCC: NOW AND MOVING FORWARD
Hugo Garcia
Universidad Peruana Cayetano Heredia, Lima, Peru

4:40 p.m.
HIPPOCAMPAL ATROPHY SECONDARY TO NCC
Oscar H. Del Brutto
Universidad Espiritu Santo, Guayaquil, Ecuador

5 p.m.
SUBARACHNOID NCC: COMPLICATIONS AND MANAGEMENT
Christina M. Coyle
Albert Einstein College of Medicine, Bronx, NY, United States

5:20 p.m.
ANTIGEN USE AND REVIEW OF THE NIH EXPERIENCE
Theodore E. Nash
National Institute of Health, Bethesda, MD, United States

Symposium 167

Building Clinical Trial Capacities in Africa Through North-South Networking and Public-Private Partnership: Final Outcome of the West African Network for Clinical Trials of Antimalarial Drugs (WANECAM)

Convention Center - Room 327/328/329 (Level 300)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

Malaria remains a major public health challenge in many sub-Saharan African countries, including the Sahel belt of West Africa. New and better artemisinin-based combination therapies (ACT) are required to sustain the progress toward malaria elimination. This symposium will present the final results and achievements, challenges and lessons learned from the West African Network for Clinical Trials on Anti-Malarial drugs, an African-led project funded by European and Developing Countries Clinical Trials Partnership (EDCTP) and Medicines for Malaria Venture (MMV). The project was designed to assess the long term safety and efficacy of the Artemisinin-based Combination Therapies (ACTs), including artesunate-pyronaridine (AP), dihydroartemisinin-piperaquine (DHA-PQP) and comparators i.e. artemether-lumefantrine (AL) or artesunate-amodiaquine (ASAQ). The trial, which started in 2011 and completed in 2016 is one of the largest ACT longitudinal studies with repeated treatment with the same ACT over two years after randomization. In three West Africa countries (Burkina Faso, Guinea and Mali) the 4,710 patients randomized experienced 7,279 uncomplicated malaria episodes for a total of 11,989 malaria episodes followed up during the two-year observation period. The main findings of the study are being submitted for publication, which will be timed to coincide with the presentation of this symposium. In addition to the primary outcomes of the study, exploratory investigations have provided valuable data that will be presented. Issues related to human capacity building, infrastructure creation/enhancement, South-South, North-South and North-North networking, GCP, ethics and regulatory will be presented. An example of capacity building where a team started from one scientist to grow into a vibrant research team capable of GCP compliant clinical trial in just a few months will also be presented.

CHAIR

Abdoulaye Djimde
University of Science, Techniques and Technologies of Bamako, Bamako, Mali

Stephan Duparc
MMV, Geneva, Switzerland

4 p.m.
REPEATED TREATMENT OF UNCOMPLICATED MALARIA IN WEST AFRICA WITH PYRONARIDINE-ARTESUNATE OR DIHYDROARTEMISININ-PIPERAQUINE: EFFICACY RESULTS OF A RANDOMIZED CONTROLLED TRIAL VERSUS FIRST-LINE THERAPY

Issaka Sagara
University of Science, Techniques and Technologies of Bamako, Bamako, Mali

4:15 p.m.
REPEATED TREATMENT OF UNCOMPLICATED MALARIA IN WEST AFRICA WITH PYRONARIDINE-ARTESUNATE OR DIHYDROARTEMISININ-PIPERAQUINE: EFFICACY RESULTS OF A RANDOMIZED CONTROLLED TRIAL VERSUS FIRST-LINE THERAPY

Aminatou Kone
University of Science, Techniques and Technologies of Bamako, Bamako, Mali

4:30 p.m.
A GENETIC BASIS FOR THE RISK OF PIPERAQUINE-DRIVEN QTC PROLONGATION - A POTENTIAL BASIS FOR FUTURE PERSONALIZED ACT

Jose Pedro Gil
Karolinska Institutet, Stockholm, Sweden

4:45 p.m.
PHARMACOKINETIC-PHARMACODYNAMIC INTERACTIONS IN PATIENTS TREATED WITH ARTEMETHER-LUMEFANTRINE OR ARTESUNATE-AMODIAQUINE FOR REPEATED *P. FALCIPARUM* MALARIA EPISODES

Steffen Borrmann
University of Tubingen, Tubingen, Germany

5 p.m.
RESEARCH CAPACITY DEVELOPMENT IN REPUBLIC OF GUINEA CONAKRY

Abdoul H. Beavogui
Centre National de Recherche Maferenya, Conakry, Guinea

Symposium 168

Operationalizing One Health: One Health Tools in the Context of Global Health Security

Convention Center - Room 331/332 (Level 300)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

Multisectoral collaboration is key for operationalizing the One Health concept. This symposium highlights a few key tools that have been used to assist countries and regions with multisectoral collaboration, disease prioritization, process mapping and gap analysis.

CHAIR

Casey Barton Behravesh
Centers for Disease Control and Prevention, Atlanta, GA, United States

Tracey Dutcher
United States Department of Agriculture, St. Paul, MN, United States

4 p.m.
CDC ONE HEALTH ZOONOTIC DISEASE PRIORITIZATION TOOL

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

4:15 p.m.
OVERVIEW OF IHR PVS TOOL

Enrique Perez
Pan American Health Organization, Washington, DC, United States

4:30 p.m.
MAKING ONE HEALTH OPERATIONAL: IMPROVING INTERAGENCY COLLABORATION THROUGH ONE HEALTH SYSTEMS MAPPING AND ANALYSIS

Katey Pelican
University of Minnesota, St. Paul, MN, United States

4:45 p.m.
THE RABIES BLUEPRINT AND STEP-WISE APPROACH TO RABIES ELIMINATION

Louis H Nel
University of Pretoria and Global Alliance for Rabies Control, Pretoria, South Africa

Symposium 169

Understanding the Factors That Motivate and Sustain Community Drug Distributors (CDD) in the Changing Context of Neglected Tropical Disease (NTD) Control and Elimination

Convention Center - Room 337/338 (Level 300)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

The contribution of CDDs to the success of Mass Drug Administration (MDA) for Preventive Chemotherapy Neglected Tropical Diseases (PC-NTD) to date cannot be overemphasized. Through their efforts, millions of tablets have been distributed to endemic populations to such an extent that some communities have been freed of one or more of the five PC-NTDs. In recent times, NTD program managers have faced implementation challenges with the use of volunteers for MDA programs. This was expressed during a brainstorming session held with African program managers in Ghana (2015) and during the Program Managers session at the 2014 Coalition for Operations Research on Neglected Tropical Diseases (COR-NTD) meeting. These meetings recognized the following important factors: changes in the socio-cultural, economic and programmatic landscape, the paradigm shift from single disease focused programs to integrated programs, the shift from a community directed approach to a more nationally driven format, an increase in the number of partners involved in NTD elimination programs and an increasing reliance on CHWs (and CDDs). The use of the CDD has increased, while their job prospects, financial incentives or training appears not to have improved at the same rate. All these appear to have affected the motivation of the CDDs and may have contributed to a sub-optimal impact of some national NTD programs. It is known that less than optimal CDD performance and systemic losses of volunteers due to high attrition risks may negatively impact the program and if not addressed, can affect the 2020 goals. In view of the above challenges, there is an urgent need to address the issue of incentives and motivation of CDDs involved in the provision of MDA. As countries move towards the realization of the 2020 goals, maintaining and maximizing the current CDD workforce becomes of paramount importance since MDAs have become the mainstay of NTD programs globally. In view of this, recent mixed methods research explored how the function of the health system, programmatic changes and the changing sociocultural landscape affect CDD performance and motivation. Specifically, the symposium will discuss which incentives have been shown to be most acceptable to CDDs, describe how the introduction of new NTD programmatic activities affects current motivation and CDD performance, present the opportunity costs and out of pocket costs CDDs incur during their participation in NTD program activities as well as share a collection of stories from CDDs working in Ivory Coast, Uganda and Indonesia. The symposium organizers are confident that these research results will contribute towards a realization of improved motivation of CDDs in the delivery of the current NTD regimens as well as with new treatment options.

CHAIR

Margaret Gyapong
Centre for Health Policy and Implementation Research, Institute for Health Research, University of Health and Allied Sciences, Ho, Ghana

Mary Amuyunzu Nyamongo
African Institute for Health and Development, Nairobi, Kenya

4 p.m.
WHICH INCENTIVES ARE MOST ACCEPTABLE TO CDD'S WORKING FOR THE NTD PROGRAM IN IVORY COAST?

Adam Mama Djima
Ministry of Health, National Programme against Schistosomiasis, STH and Lymphatic Filariasis, Abidjan, Côte D'Ivoire

4:20 p.m.
THE IMPACT OF COMMUNITY SUPPORT ON CDD PERFORMANCE IN UGANDA

Edridah Muheki Tukahebwa
National NTD Control Programme, Kampala, Uganda

4:40 p.m.
OPPORTUNITY AND OUT OF POCKET COSTS INCURRED BY CDD DURING MDA IN AFRICA

Deborah A. McFarland
Emory University, Rollins School of Public Health, Atlanta, GA, United States

5 p.m.
STORIES FROM THE FIELD: WHAT WE CAN LEARN FROM CDDS WORKING IN UGANDA, COTE D'IVOIRE AND INDONESIA

Alison Krentel
Bruyere Research Institute, Ottawa, Canada

Symposium 170

The WASH Benefits Study: The Effect of Single and Combined Water, Sanitation, Handwashing and Nutrition Interventions on Environmental Contamination, Parasite Infection, Environmental Enteric Dysfunction and Child Development

Convention Center - Room 339/340 (Level 300)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

Infection and inadequate diet are risk factors for undernutrition and early life growth faltering; the two processes likely act reciprocally in a vicious cycle that perpetuates physiologic and metabolic deficits, increases the infection and mortality risk, and potentially delays cognitive development. There is limited high-quality evidence to determine whether water quality, sanitation, and handwashing (WASH) interventions can prevent parasite infection, environmental enteric dysfunction, or cognitive development delays in young children and whether nutritional

interventions could be enhanced if provided concurrently with WASH interventions. There is also limited evidence about whether combined WASH interventions reduce these outcomes more than single interventions. To help fill this evidence gap, the WASH Benefits study delivered interventions designed to reduce infection and improve nutrition in two cluster-randomized controlled trials in rural Bangladesh and Kenya between 2012 and 2016 (funding: Bill & Melinda Gates Foundation). In each country, geographically matched clusters were randomized to one of six intervention arms: 1) water quality, 2) sanitation, 3) handwashing, 4) nutrition, 5) combined water+sanitation+handwashing 6) nutrition + combined water + sanitation + handwashing; or a double sized control arm. The interventions included the following hardware: Water - chlorine water treatment supplies in both countries and a safe storage vessel in Bangladesh; Sanitation - child potties, scoops to remove feces from household environments, latrine upgrades; Handwashing - handwashing stations including soap; Nutrition - Lipid-based Nutrient Supplement (LNS) for children aged 6-24 months and promotion of the exclusive breastfeeding and complementary feeding. Combined arms received hardware for each single arm. Intervention participants were visited by community health promoters to encourage intervention uptake. The trials enrolled pregnant mothers during their second or third trimester and their newborn children (N=5,551 in Bangladesh and N=8,246 in Kenya) and measured outcomes 1 and 2 years after intervention delivery. Secondary outcomes included markers of environmental enteric dysfunction, soil-transmitted helminth and protozoan infection, and child development scores (verbal, motor and personal/social). The trial also measured the effect of interventions on fecal contamination of water, hands, food and sentinel toys. The symposium will include the impact of the interventions on measures of environmental contamination and secondary outcomes from Bangladesh and Kenya. These presentations will provide insights into the separate and integrated roles of WASH and nutrition interventions in promoting health and development in early life.

CHAIR

John M. Colford
University of California Berkeley, Berkeley, CA, United States

4 p.m.
OVERVIEW OF THE STUDY
John M. Colford
University of California Berkeley, Berkeley, CA, United States

4:05 p.m.
EFFECT OF INTERVENTIONS ON ENVIRONMENTAL CONTAMINATION IN BANGLADESH
Ayse Ercumen
University of California Berkeley, Berkeley, CA, United States

4:15 p.m.
EFFECT OF INTERVENTIONS ON ENVIRONMENTAL CONTAMINATION IN KENYA
Amy J. Pickering
Tufts University, Medford, MA, United States

4:25 p.m.
EFFECT OF INTERVENTIONS ON SOIL-TRANSMITTED HELMINTH IN BANGLADESH
Ayse Ercumen
University of California Berkeley, Berkeley, CA, United States

4:35 p.m.
EFFECT OF INTERVENTIONS ON PROTOZOAN INFECTION IN BANGLADESH
Audrie Lin
University of California, Berkeley, Berkeley, CA, United States

4:45 p.m.
EFFECT OF INTERVENTIONS ON SOIL-TRANSMITTED HELMINTH AND PROTOZOAN INFECTION IN KENYA
Amy J. Pickering
Stanford University, San Francisco, CA, United States

4:55 p.m.
EFFECT OF INTERVENTIONS ON ENVIRONMENTAL ENTERIC DYSFUNCTION IN BANGLADESH AND KENYA
Audrie Lin
University of California Berkeley, Berkeley, CA, United States

5:05 p.m.
EFFECT OF INTERVENTIONS ON CHILD DEVELOPMENT IN BANGLADESH
Stephen P. Luby
Stanford University, Stanford, CA, United States

5:15 p.m.
EFFECT OF INTERVENTIONS ON CHILD DEVELOPMENT IN KENYA
Clair Null
Emory University, Rollins School of Public Health, Atlanta, GA, United States

Symposium 171

The Washington, DC Primer: Advocating for R&D Funding – The Who, What, Where, Why and How

Convention Center - Room 341/342 (Level 300)
Wednesday, November 8, 4 p.m. – 5:45 p.m.

Every day, research, program, funding and policy decisions are being made by influential international actors and at the U.S. federal level. Whether you realize it or not, you are directly or indirectly impacted by these decisions. Unfortunately, the overwhelming majorities of these decision-makers have not been exposed to scientific training or education and as a result, look at these issues through lenses very different than yours. What are the Top 10 Things you need to know about U.S. government funding for the issues that ASTMH cares so deeply about? Who are the key actors? How do you convey the value of your work to those who play a role in increasing or cutting support for the work you do every day? Talking longer or offering more data points is a surefire way to hasten the end of a meeting with policymakers and staffers. What are the Do's and Don'ts? As a whole, the research community is late in thinking and acting like constituents. Learn how to recognize the moment when you know what you are saying is connecting. Listen to the experienced perspectives from the ASTMH President, Executive

Director and the ASTMH Washington, DC-based lobbyist. Pick up tips to help avoid unintentional science-speak overload with policymakers (and the media and public).

CHAIR

Karen A. Goraleski
American Society of Tropical Medicine and Hygiene, Oakbrook Terrace, IL, United States

4 p.m.
GLOBAL HEALTH FUNDING: WHAT A DIFFERENCE ADVOCACY MAKES

Jodie Curtis
The District Policy Group, Washington, DC, United States

4:25 p.m.
ADVOCATING FOR GLOBAL HEALTH R&D POLICIES: PRACTICAL TIPS FOR HOW TO TALK TO POLICYMAKERS

Jodie Curtis
The District Policy Group, Washington, DC, United States

Karen A. Goraleski
American Society of Tropical Medicine and Hygiene, Oakbrook Terrace, IL, United States

5 p.m.
WARNING: FAILURE TO BE AN ADVOCATE CAN BE HAZARDOUS TO YOUR RESEARCH CAREER

Karen A. Goraleski
American Society of Tropical Medicine and Hygiene, Oakbrook Terrace, IL, United States

5:25 p.m.
SCIENTISTS ON THE FRONT LINES: THE IMPORTANCE OF ADVOCACY

Patricia F. Walker
University of Minnesota and HealthPartners Travel and Tropical Medicine Center, St. Paul, MN, United States

Scientific Session 172

Bacteriology: Cholera

Convention Center - Room 343/344 (Level 300)
Wednesday, November 8, 4 p.m. - 5:45 p.m.

CHAIR

Richelle Charles
Massachusetts General Hospital, Boston, MA, United States

Christine M. George
Johns Hopkins University, Baltimore, MD, United States

4 p.m.

1939

GENETIC RELATEDNESS OF *VIBRIO CHOLERAE* ISOLATES WITHIN AND BETWEEN HOUSEHOLDS DURING OUTBREAKS IN DHAKA, BANGLADESH

Christine Marie George[1], Mahamud Rashid[2], Mathieu Almeida[3], K.M. Saif-Ur-Rahman[2], Shirajum Monira[2], Md. Sazzadul Islam Bhuyian[2], Khaled Hasan[1], Toslim Mahmud[2], Shan Li[4], Jessica Brubaker[1], Zillur Rahman[2], Munshi Mustafiz[2], David Sack[1], Bradley Sack[1], Munirul Alam[2], O. Colin Stine[4]
[1]Johns Hopkins University, Baltimore, MD, United States, [2]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [3]University of Maryland, Baltimore, MD, United States, [4]University of Maryland School of Medicine, Baltimore, MD, United States

4:15 p.m.

1940

IL-23 EXPRESSION DISTINGUISHES MUCOSAL IMMUNE RESPONSES TO LIVE COMPARED TO KILLED *VIBRIO CHOLERAE*

Ana A. Weil[1], Crystal N. Ellis[1], Taufiqur R. Bhuiyan[2], Rasheduzzaman Rashu[2], Daniel L. Bourque[1], Ashraf I. Khan[2], Fahima Chowdhury[2], Regina C. LaRocque[1], Edward T. Ryan[1], Stephen B. Calderwood[1], Firdausi Qadri[2], Jason B. Harris[1]
[1]Massachusetts General Hospital, Boston, MA, United States, [2]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh

4:30 p.m.

1941

DEVELOPMENT OF A NEW DIPSTICK FOR RAPID DETECTION OF *VIBRIO CHOLERAE* O1 IN ACUTE WATERY DIARRHEAL STOOLS

Md. Abu Sayeed[1], Jakia Amin[2], Kamrul Islam[1], Motaher Hossain[1], Nishat Sultana[2], Noor Jahan Akter[2], Farhana Khanam[1], Jason R. Andrews[3], Edward T. Ryan[4], **Firdausi Qadri[1]**
[1]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [2]Incepta Pharmaceuticals Ltd, Savar, Dhaka, Bangladesh, [3]Stanford University School of Medicine, Stanford, California, CA, United States, [4]Massachusetts General Hospital, Boston, MA, United States

4:45 p.m.

1942

BIVALENT ORAL CHOLERA VACCINE INDUCES MEMORY B CELL RESPONSES

Brie W. Falkard[1], Richelle C. Charles[1], Leslie M. Mayo-Smith[1], Wilfredo R. Matias[2], Jessica E. Teng[3], Peng Xu[4], Pavol Kováč, Edward T. Ryan[1], Molly F. Franke[5], Louise C. Ivers[3], Jason B. Harris[1]
[1]Division of Infectious Diseases, Massachusetts General Hospital, Boston, MA, United States, [2]Harvard Medical School, Boston, MA, United States, [3]Division of Global Health Equity, Brigham and Women's Hospital, Boston, MA, United States, [4]National Institute of Diabetes and Digestive and Kidney Diseases, LBC, National Institutes of Health, Bethesda, MD, United States, [5]Department of Global Health and Social Medicine, Harvard Medical School, Boston, MA, United States

5 p.m.

1943

IMMUNE RESPONSES AGAINST O-SPECIFIC POLYSACCHARIDE (OSP) DEVELOP AFTER VACCINATION WITH ORAL CHOLERA VACCINE CVD 103-HGR (VAXCHORA) AND THESE RESPONSES ARE ASSOCIATED WITH PROTECTION AGAINST EXPERIMENTAL INFECTION WITH *VIBRIO CHOLERAE* O1 EL TOR INABA IN NORTH AMERICAN VOLUNTEERS

Kamrul Islam[1], Meagan Kelly[2], Leslie Mayo Smith[2], Richelle Charles[2], Taufiqur R. Bhuiyan[1], Pavol Kováč, Peng Xu[3], Regina LaRocque[2], Stephen Calderwood[2], J. K. Simon[4], W. H. Chen[5], D. Haney[6], M. Lock[6], C. E. Lyon[7], B. D. Kirkpatrick[7], M. Cohen[8], M. M. Levine[5], M. Gurwith[6], Jason B. Harris[2], Firdausi Qadri[1], **Edward T. Ryan[2]**
[1]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [2]Massachusetts General Hospital, Boston, MA, United States, [3]National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, United States, [4]Merck & Co., Inc., Kenilworth, NJ, United States, [5]Center for Vaccine Development, University of Maryland School of Medicine, Baltimore, MD, United States, [6]PaxVax, Inc., Redwood City, CA, United States, [7]University of Vermont College of Medicine, Burlington, VT, United States, [8]Cincinnati Children's Hospital Medical Center, Cincinnati, OH, United States

5:15 p.m.

1944

EPIDEMIC CHOLERA AND MICRONUTRIENT DEFICIENCY — GRANDE SALINE, HAITI, 2011

Sae-Rom Chae[1], Jacques Boncy[2], Gerard A. Joseph[2], Parminder S. Suchdev[1], Sunkyung Kim[1], Eric D. Mintz[1], Brendan R. Jackson[1]
[1]Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Laboratoire National de Santé Publique, Port-au-Prince, Haiti

5:30 p.m.

1945

WHO IS AT RISK OF CHOLERA IN AFRICA? QUANTIFYING POTENTIAL VACCINE DEMAND AND IMPACT POLICY-RELEVANT SPATIAL LEVELS

Sean M. Moore[1], Andrew S. Azman[2], Heather S. McKay[2], Justin Lessler[2]
[1]University of Notre Dame, Notre Dame, IN, United States, [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Special Session 173

Moving back Home: Strategies for Returning back to LMICs after Training Abroad

Hilton - Peale C (East Building, First Floor)
Wednesday, November 8, 4 p.m. - 5 p.m.

An informal networking and strategy meeting tailored towards students and early career professionals working in medicine, research and other scientific endeavors. This session will discuss the particular needs of those from low- and middle-income countries who have trained abroad in technologically-advanced countries and want to plan for a move back to their home countries. Ideally suited to participants from sub-Saharan and North Africa, Latin America and relevant Asian countries. Effective strategies for planning a return trip home will be discussed. Participants are expected to help move the discussion along as this is an opportunity to share and learn from one another.

CHAIR

Johanna Daily
Albert Einstein College of Medicine, Bronx, NY, United States

Abiola Fasina
Henry M. Jackson Foundation/MHRP, Washington, DC, United States

Plenary Session 174

Plenary Session IV: President's Address and Annual Business Meeting

Convention Center - Ballroom III (Level 400)
Wednesday, November 8, 6:15 p.m. - 7:45 p.m.

CHAIR

David R. Hill
Quinnipiac University, Hamden, CT, United States

Karen A. Goraleski
American Society of Tropical Medicine and Hygiene, Oakbrook Terrace, IL, United States

6:15 p.m.
INTRODUCTION

Martin S. Cetron
Centers for Disease Control and Prevention, Atlanta, GA, United States

6:30 p.m.
MIGRATION MEDICINE: NOTES ON A YOUNG SCIENCE

Patricia F. Walker, MD, DTM&H, FASTMH
Professor of Medicine, University of Minnesota
Medical Director, HealthPartners Travel and Tropical Medicine Center
Staff Physician, HealthPartners Center for International Health
Associate Medical Director, Global Health Pathway, University of Minnesota
St. Paul, MN, United States

Dr. Patricia Walker is an internist specializing in refugee and immigrant health, and clinical tropical and travel medicine. She is a Professor of Medicine at the University of Minnesota, and from 1988-2011, served as the Medical Director at HealthPartners Center for International Health, a nationally known refugee and immigrant health clinic. She continues to practice medicine and teach resident physicians at the Center. She attended Mayo Medical School and Mayo Graduate School of Medicine, where she received a Graduate Travel Award for Outstanding Achievement in Internal Medicine. In addition to other awards, in 2004 she was honored as one of the Top 100 Influential Health Care Leaders in Minnesota. She received a Distinguished Alumnus in Medicine award from Gustavus Adolphus College in 2010. From 2002 through 2004, she chaired the State of Minnesota Immigrant Health Task Force, a statewide group of 70 experts who developed best practices in care for refugees and immigrants in Minnesota. These best practices are being shared nationally and internationally. Dr. Walker has published multiple articles and book chapters on refugee and immigrant health, and co-edited a medical textbook published in October 2007, "Immigrant Medicine", the first of its kind. She serves as the Associate Medical Director of the Global Health Pathway at the University of Minnesota. Her research focuses on best practices in refugee and immigrant health, and she serves as HealthPartners Principle Investigator for the CDC's Refugee Centers of Excellence. Her work was profiled in the Lancet in February, 2017. Dr. Walker received her Diploma in Tropical Medicine and Hygiene from the London School of Hygiene & Tropical Medicine in 1997, and further studied clinical tropical medicine as part of a Bush Medical Leadership Fellowship at Chiang Mai University in Thailand. She received her Certificate in Tropical Medicine and Travelers' Health from the American Society of Tropical Medicine and Hygiene, and a Certificate of Knowledge in Clinical Tropical Medicine from the International Society of Travel Medicine. She speaks Thai and Cambodian, and enjoys teaching tropical medicine, learning from people all over the world and international travel. Dr. Walker is a Fellow in the American Society of Tropical Medicine and Hygiene and is current President of the Society.

7 p.m.
ANNUAL BUSINESS MEETING

Open to all Attendees

David R. Hill
Quinnipiac University, Hamden, CT, United States

Karen A. Goraleski
American Society of Tropical Medicine and Hygiene, Oakbrook Terrace, IL, United States

Thursday, November 9

Registration

Convention Center - Pratt Street West Lobby (Level 300)
Thursday, November 9, 7 a.m. - 10:30 a.m.

Speaker Ready Room

Convention Center - Room 336 (Level 300)
Thursday, November 9, 7 a.m. - 10:30 a.m.

Meeting Sign-Up Room

Hilton – Stone Room and Chase Room (West Building, Third Floor)
Thursday, November 9, 7 a.m. – Noon

ASTMH Council Meeting

Hilton - Holiday Ballroom 6 (East Building, Second Floor)
Thursday, November 9, 7:30 a.m. - 9:30 a.m.

Scientific Session 175

Malaria: Mosquito Transmission and Interruption

Convention Center - Ballroom II (Level 400)
Thursday, November 9, 8 a.m. - 9:45 a.m.

CHAIR

Jennifer Stevenson
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Guofa Zhou
University of California Irvine, Irvine, CA, United States

8 a.m.

1946

MALARIA TRANSMISSION AT THREE SENTINEL SITES IN WESTERN KENYA FROM 2002 TO 2016: THE RESURGENCE AND CAUSALITY ANALYSIS

Guofa Zhou[1], Guiyun Yan[1], Andew K. Githeko[2], Harrysone E. Atieli[2]
[1]University of California Irvine, Irvine, CA, United States, [2]Kenya Medical Research Institute, Kisumu, Kenya

8:15 a.m.

1947

HIGH *PLASMODIUM FALCIPARUM* OOCYST LOADS IN NATURALLY INFECTED MOSQUITOES IN AFRICA

Anais Bompard[1], Dari F. Da[2], Serge Yerbanga[2], Isabelle Morlais[1], Thierry Lefèvre[1], Thomas S. Churcher[3], Anna Cohuet[1]
[1]Institut de Recherche pour le Développement, Montpellier, France, [2]Institut de Recherche en Sciences de la Santé, Bobo-Dioulasso, Burkina Faso, [3]MRC Centre for Outbreak Analysis and Modelling, Infectious Disease Epidemiology, Imperial College, London, United Kingdom

8:30 a.m.

1948

IMPACT OF PYRETHROID EXPOSURE ON RESISTANT MOSQUITO FITNESS

Alida Kropf[1], Behi Kouadio Fodjo[2], Marius Zoh Gonze[2], Bassirou Bonfoh[2], **Chouaibou Mouhamadou**[2]
[1]MIE, Bouake, Côte D'Ivoire, [2]CSRS, Abidjan, Côte D'Ivoire

8:45 a.m.

1949

TARGETING CATTLE FOR MALARIA ELIMINATION: MARKED REDUCTION OF *ANOPHELES ARABIENSIS* SURVIVAL FOR OVER SIX MONTHS USING A SLOW-RELEASE IVERMECTIN FORMULATION

Kija Ng´habi[1], Gloria Abizanda[2], Marta Alustiza[2], Gerry Killeen[1], Fredros Okumu[1], **Carlos J. Chaccour**[2]
[1]Ifakara Health Institute, Ifakara, United Republic of Tanzania, [2]Universidad de Navarra, Pamplona, Spain

9 a.m.

1950

INVESTIGATING THE ACTIVITY OF THE MACROCYCLIC LACTONES IVERMECTIN AND MOXIDECTIN AGAINST MALARIA VECTORS

Cielo Pasay[1], Paul Mills[2], Milou Dekkers[3], Romal Stewart[4], Leon Hugo[4], Oselyne Ong[4], Chen Wu[4], Greg Devine[4], James McCarthy[1]
[1]Clinical Tropical Medicine, QIMR Berghofer Medical Research Institute, Brisbane, Queensland, Australia, [2]School of Veterinary Science, University of Queensland, Gatton, Queensland, Australia, [3]Queensland Animal Science Precinct, University of Queensland, Gatton, Queensland, Australia, [4]Mosquito Control Laboratory, QIMR Berghofer Medical Research Institute, Brisbane, Queensland, Australia

9:15 a.m.

1951

THE CONTRIBUTION OF SYMPTOMATIC AND ASYMPTOMATIC INFECTIONS TO THE INFECTIOUS RESERVOIR OF *PLASMODIUM FALCIPARUM* AND *PLASMODIUM VIVAX* IN ETHIOPIA

Fitsum G. Tadesse[1], Wakweya Chali[1], Kjerstin Lanke[2], Hassen Mamo[3], Abraham Aseffa[1], Robert Sauerwein[2], Delenasaw Yewhalaw[4], Chris Drakeley[5], Endalamaw Gadissa[1], Teun Bousema[2]
[1]Armauer Hansen Research Institute, Addis Ababa, Ethiopia, [2]Radboud UMC, Nijmegen, Netherlands, [3]Addis Ababa University, Addis Ababa, Ethiopia, [4]Jimma University, Jimma, Ethiopia, [5]London School of Hygiene & Tropical Medicine, London, United Kingdom

9:30 a.m.

1952

OUTDOOR PRIMARY AND "SECONDARY" VECTORS CONTRIBUTING TO RESIDUAL TRANSMISSION IN ZAMBIA

Jennifer C. Stevenson[1], Mbanga Muleba[2], Limonty Simubali[3], Twig Mudenda[3], Esther Cardol[4], James Lupiya[2], David Mbewe[2], Christine M. Jones[1], Giovanna Carpi[1], Douglas E. Norris[1]
[1]Department of Molecular Microbiology and Immunology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [2]Tropical Diseases Research Centre, Ndola, Zambia, [3]Macha Research Trust, Choma, Zambia, [4]Radboud University, Nijmegen, Netherlands

Symposium 176

Swift, Wide and Deep: New Tools and Approaches for Generating Accurate Targeted Large-Scale Genetic Data from Complex Samples

Convention Center - Ballroom III (Level 400)
Thursday, November 9, 8 a.m. - 9:45 a.m.

While the declining costs of second generation sequencing have allowed for a massive increase in available genetic data and in particular whole genome sequencing data for malaria parasites, this approach may not always be the most efficient for targeted questions or the cost-effective means of studying parasite diversity. In particular, highly complex samples, which contain multiple strains of parasites, and fully defining drug-resistance, are often problematic for this approach. Techniques are now available for generating genetic data on large numbers of complex samples which can increase the speed and cost efficiency of data acquisition. This symposium will discuss new experimental approaches and bioinformatics tools for generating accurate and large scale genetic data from complex samples that leverage single and multi-target deep sequencing approaches to disentangle the complex data from both individual samples and pooled samples. These approaches have the potential to rapidly scale the amount of data and the rate at which this data is collected and analyzed for parasite populations. The session will highlight practical applications of these approaches and discuss how these techniques can easily be integrated into ongoing studies and malaria surveillance programs, providing a breadth of molecular information for minimal financial and personnel investment. These applications include transmission network analysis, parasite importation, rapid molecular assessment of drug resistance and assessment of gene flow in parasite populations. Disentangling accurate genetic data from complex samples is critical for understanding multiple areas of parasite biology including population genetics, population dynamics, transmission and parasite evolution and selection, all of which are critical to understand for successful malaria control and elimination.

CHAIR

Jonathan J. Juliano
University of North Carolina, Chapel Hill, NC, United States

Jeffrey Bailey
University of Massachusetts Medical School, Worcester, MA, United States

8 a.m.
NEW MOLECULAR APPROACHES FOR MULTI-LOCUS GENOTYPING COMPLEX SAMPLES
Jeffrey Bailey
University of Massachusetts Medical School, Worcester, MA, United States

8:20 a.m.
COUNTRY-WIDE ASSESSMENT OF ANTIMALARIAL RESISTANCE ALLELES FROM POOLED SAMPLES USING MULTI-LOCUS DEEP SEQUENCING AND INTEGRATION INTO CURRENT CONTROL STRATEGIES
Anita Ghansah
Noguchi Memorial Institute for Medical Research, Accra, Ghana

8:40 a.m.
ANALYTICAL STRATEGIES FOR GETTING USEFUL GENETIC INFORMATION FROM COMPLEX MALARIA SAMPLES
Bryan Greenhouse
University of California San Francisco, San Francisco, CA, United States

9 a.m.
RECRUDESCENCE OR RELAPSE? LARGE-SCALE GENETIC DATA PROVIDE NEW INSIGHTS ON *P. VIVAX* DRUG RESISTANCE
David Serre
University of Maryland School of Medicine, Baltimore, MD, United States

Scientific Session 177

Clinical Tropical Medicine II

Convention Center - Ballroom IV (Level 400)
Thursday, November 9, 8 a.m. - 9:45 a.m.

CHAIR

Rebecca Fischer
Baylor College of Medicine, Houston, TX, United States

8 a.m.
1953
IMPACT OF PNEUMOCOCCAL CONJUGATE VACCINE ON INVASIVE PNEUMOCOCCAL DISEASE IN THE GAMBIA: POPULATION-BASED SURVEILLANCE OVER 9 YEARS
Grant Mackenzie[1], Philip Hill[2], David Jeffries[1], Ilias Hossain[1], Malick Ndiaye[1], Henry Badji[1], Usman Ikumapayi[1], Rasheed Salaudeen[1], Sheikh Jarju[1], Martin Antonio[1], Lamin Ceesay[3], Dawda Sowe[3], Momodou Jasseh[1], Kim Mulhollan[4], Maria Knoll[5], Orin Levine[6], Stephen Howie[7], Richard Adegbola[8], Brian Greenwood[9], Tumani Corrah[1]
[1]Medical Research Council Unit, The Gambia, Banjul, Gambia, [2]University of Otago, Dunedin, New Zealand, [3]Ministry of Health, Gambia Government, Banjul, Gambia, [4]Murdoch Childrens Research Institute, Melbourne, Australia, [5]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [6]Bill & Melinda Gates Foundation, Seattle, WA, United States, [7]University of Auckland, Auckland, New Zealand, [8]GlaxoSmithKline, Wavre, Belgium, [9]London School of Hygiene & Tropical Medicine, London, United Kingdom

8:15 a.m.
1954
SAFETY, TOLERABILITY AND EFFICACY OF A THREE-DOSE REGIMEN OF RADIATION ATTENUATED *PLASMODIUM FALCIPARUM* NF54 SPOROZOITES (PFSPZ VACCINE) IN HEALTHY MALIAN ADULTS
Mahamadou S. Sissoko[1], Sara A. Healy[2], Abdoulaye Katile[1], Irfan Zaidi[2], Erin Gabriel[3], Bourama Kamate[1], Yacouba Samake[1], Kourane Sissoko[1], Cheick O. Guindo[1], Amagana Dolo[1], Karamoko Niare[1], Amadou Konate[1], Fanta Koita[1], Kadidia Baba Cisee[1], Amadou Niangaly[1], Amatigue Ziguime[1], Merepen A. Guindo[1], M'Bouye Doucoure[1], Boucary Ouologuem[1], Souleymane Traore[1], Boubacar Fomba[1], Sidiki Perou[1], Eric R. James[4], Tooba Murshedkar[4], B. Kim Lee Sim[4], Peter F. Billingsley[4], Thomas L. Richie[4], Stephen L. Hoffman[4], Patrick E. Duffy[2], Ogobara Doumbo[1]
[1]MRTC, University of Science, Techniques and Technologies, Bamako, Mali, [2]Laboratory of Malaria Immunology and Vaccinology/National Institute of Allergy and Infectious Diseases/National Institutes of Health, Rockville, MD, United States, [3]BRB/National Institute of Allergy and Infectious Diseases/ National Institutes of Health, Rockville, MD, United States, [4]Sanaria Inc., Rockville, MD, United States

8:30 a.m.

1955

HEPATITIS C, SYPHILIS, AND G6PD DEFICIENCY IN CAMEROONIAN BLOOD DONORS

Stephanie M. Lauden[1], Stella Chongwain[2], Anzeh Achidi[2], Ethan Helm[2], Sarah Cusick[1], Amelia Krug[1], Tina Slusher[1], Troy Lund[1]
[1]University of Minnesota, Minneapolis, MN, United States, [2]Mbingo Baptist Hospital, Mbingo, Cameroon

8:45 a.m.

1956

OUTCOMES OF A PILOT HYDROCELE SURGERY CAMP IN ETHIOPIA

Andualem Deneke[1], Fikreab Kebede[2], Belete Mengistu[2], Biruk Kebede[2], Tigist Hirpa[2], Molly Brady[3], Sunny Mante[4], Zeina Sifri[5], Scott McPherson[6]
[1]Surgical Society of Ethiopia, Addis Ababa, Ethiopia, [2]RTI International, Addis Ababa, Ethiopia, [3]RTI International, Washington, DC, United States, [4]African Filariasis Morbidity Project, Accra, Ghana, [5]Helen Keller International, Washington, DC, United States, [6]RTI International, Research Triangle Park, NC, United States

9 a.m.

1957

IDENTIFYING CLINICAL PREDICTORS FOR PROGRESSION TO CHRONIC KIDNEY DISEASE IN MESOAMERICAN NEPHROPATHY

Rebecca S. Fischer[1], Chandan Vangala[1], Sreedhar Mandayam[1], Denis Chavarria[2], Kristy O. Murray[1]
[1]Baylor College of Medicine, Houston, TX, United States, [2]Gerencia de Salud Ocupacional, Nicaragua Sugar Estates Limited, Chichigalpa, Nicaragua

9:15 a.m.

1958

A NOVEL, PORTABLE INFRARED 3D SCANNER QUICKLY PROVIDES ACCURATE LIMB VOLUME AND CIRCUMFERENCE MEASUREMENTS IN PATIENTS WITH FILARIAL LYMPHEDEMA

Channa Yahathugoda[1], Michael Weiler[2], Ramakrishna Rao[3], Lalindi Da Silva[1], Mirani Weerasooriya[1], Gary Weil[3], **Philip J. Budge**[3]
[1]University of Ruhuna, Galle, Sri Lanka, [2]LymphaTech, Atlanta, GA, United States, [3]Washington University in St. Louis, St. Louis, MO, United States

9:30 a.m.

1959

ABORTION RATE IS MUCH HIGHER THAN MICROCEPHALY RATE IN ZIKA VIRUS INFECTIONS OCCURRING IN THE FIRST TRIMESTER OF PREGNANCY

Danillo L. Espósito[1], Adriana A. Ferreira[1], Flávia M. Moraes[1], Michelli R. Persona[1], Beatriz dos Ribeiro[1], Suzi V. Fábio[2], Luzia Márcia R. Passos[2], Ana Alice M. Castro e Silva[2], **Benedito A. Fonseca**[1]
[1]School of Medicine of Ribeirão Preto, Ribeirão Preto, S.P, Brazil, [2]Ribeirão Preto Health Department, Ribeirão Preto, S.P, Brazil

Symposium 178

Household Enumeration for Targeted Interventions: Data, Tools and Experiences from Malaria Elimination

Convention Center - Room 318/319/320 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

As various countries strive towards malaria elimination in the next decade, identifying approaches and implementing solutions for improved program efficiencies and larger intervention impact is required. Interventions and program activities, such as Indoor Residual Spraying (IRS) and Mass Drug Administration (MDA) that require house-to-house visits, are time- and resource-intensive and require detailed understanding of target populations both for facilitating implementation and evaluating intervention coverage. For IRS programs, the WHO recommends that countries assemble enumeration data of target households. These data can be compiled through ground enumeration such as population census. However, these activities are also resource-intensive and become outdated quickly. As an alternative, remote enumeration uses technologies such as remote sensing data and crowd sourcing via Open Street Map (OSM) to provide an opportunity to assemble enumeration data and understand target populations at relatively low costs and at more frequent time points. In order to use the enumeration data for targeting, additional information (malaria burden metrics, previous year's intervention coverage estimates, operational constraints and logistical concerns etc.) is required. User-friendly decision-support tools that allow translation of complex data and analysis to simple information can support evidence-based programmatic decisions making at various levels within the health system. Experiences from malaria programs using enumeration data to target house-to-house interventions are valuable to share for future such implementations and have direct relevance to a number of other disease control and elimination efforts.

CHAIR

Deepa Kishor Pindolia
Clinton Health Access Initiative, Nairobi, Kenya

Hugh Sturrock
University of California San Francisco, San Francisco, CA, United States

8 a.m.

DATA TYPES AND METHODOLOGIES FOR ASSEMBLING LARGESCALE, FINE RESOLUTION HOUSEHOLD AND POPULATION ENUMERATION DATASETS

Andrew J. Tatem
Southampton University, Southampton, United Kingdom

8:20 a.m.

SUPPORTING NATIONAL MALARIA PROGRAMS TO DEVELOP HOUSEHOLD ENUMERATION DATASETS FOR IMPROVED TARGETING, PRIORITIZATION AND MONITORING AND EVALUATION OF INDOOR RESIDUAL SPRAYING PROGRAMS

Katelyn Woolheater
Clinton Health Access Initiative, Boston, MA, United States

8:40 a.m.

DEVELOPMENT OF A DISEASE SURVEILLANCE AND RISK MONITORING (DISARM) PLATFORM TO SUPPORT DATA-DRIVEN TARGETING OF INTERVENTIONS

Hugh Sturrock
University of California San Francisco, San Francisco, CA, United States

9 a.m.

POPULATION CENSUS AND GROUND ENUMERATION DATA FOR TARGETING MALARIA INTERVENTIONS: THE EXPERIENCE OF A PILOT MALARIA ELIMINATION PROJECT IN SOUTHERN MOZAMBIQUE

Francisco Saute
Manhica Health Research Center, Maputo, Mozambique

Symposium 179

Introduction to the Rotavirus Vaccine Impact on Diarrhea in Africa (VIDA) Study

Convention Center - Room 321/322/323 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

Diarrheal illness is the second leading cause of post-neonatal death among children under 5 years of age. The Global Enteric Multicenter Study (GEMS) was conducted in 2006-2009 to elucidate the incidence, etiology and adverse outcomes of moderate-to-severe diarrhea (MSD) among children <5 years in seven developing countries. GEMS demonstrated unequivocally that rotavirus was the leading etiology of MSD during the first two years of life followed by *Cryptosporidium, Shigella* and heat-stable toxin-producing enterotoxigenic *E. coli*. Since GEMS, many developing countries have added rotavirus vaccine to their routine infant immunization programs, and marked reductions in child deaths and hospitalizations from rotavirus diarrhea are expected. The impact of vaccine introduction on diarrheal diseases will likely extend beyond changes in rotavirus-associated morbidity and mortality; shifts in predominant pathogens and adverse outcomes associated with MSD are also expected. Continued progress in diarrheal disease control will require a new fund of knowledge to develop and prioritize strategies relevant to the causes and consequences of diarrheal disease in the future. Drawing on methods used in GEMS, the 36-month Vaccine Impact on Diarrhea in Africa (VIDA) case-control study will characterize the etiologic landscape and the overall burden of MSD in a censused population of children living Basse, The Gambia, Bamako, Mali and Siaya County, Kenya—3 African communities that also participated in GEMS. To identify a comprehensive panel of pathogens, quantitative PCR is used in addition to standard methods thereby helping to distinguish infection from colonization, and increasing the ability to identify bacteria despite recent antibiotic use. The VIDA study also will estimate impact and effectiveness of rotavirus vaccines, and will explore changes in adverse clinical consequences (death, growth faltering, persistent diarrhea) following MSD. The VIDA study began in May 2015 and is ongoing. Participants in this symposium will become familiar with the objectives and methods of the VIDA study, and will review data from the first 18 months of enrollment.

CHAIR
Karen Kotloff
University of Maryland Baltimore, Baltimore, MD, United States

8 A.M.
OVERVIEW OF THE OBJECTIVES AND METHODS OF THE VIDA STUDY
Karen Kotloff
University of Maryland Baltimore, Baltimore, MD, United States

8:30 a.m.
ETIOLOGY OF MODERATE-TO-SEVERE DIARRHEA
Richard Onyando Omore
Centers for Disease Control and Prevention/Kenya Medical Research Institute at the Centre for Global Health Research, Kisumu, Kenya

8:55 a.m.
IMPACT OF VACCINE INTRODUCTION ON THE FREQUENCY OF ADVERSE CLINICAL CONSEQUENCES OF MODERATE-TO-SEVERE DIARRHEA
Jahangir Hossain
Medical Research Council (UK), The Gambia Unit, Banjul, United States

9:20 a.m.
IMPACT AND EFFECTIVENESS OF ROTAVIRUS VACCINATION IN THE VIDA STUDY
Samba O. Sow
Center for Vaccine Development-Mali, Bamako, United States

Scientific Session 180

Mosquitoes: Operational Control

Convention Center - Room 324/325/326 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

CHAIR
Brian Lovett
University of Maryland, College Park, MD, United States
Maggy Sikulu-Lord
The University of Queensland, St Lucia, Australia

8 a.m.
1960
PROJECT PREMONITION PROJECT: FIELD TRIALS OF A ROBOTIC SMART TRAP FOR MOSQUITO IDENTIFICATION AND BIONOMICS
Douglas E. Norris[1], Anandasankar Ray[2], Tom Guda[2], Eamonn Keogh[3], Shailendra Singh[3], Yan Zhu[3], Mustapha Debboun[4], Martin Reyna[4], Maximilian Vigilant[4], Giovanna Carpi[1], Alex Ching[5], Patrick Therien[5], Jonathan Carlson[5], Ethan Jackson[5]
[1]Department of Molecular Microbiology and Immunology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, [2]Department of Entomology, University of California Riverside, Riverside, CA, United States, [3]Department of Computer Science, University of California Riverside, Riverside, CA, United States, [4]Mosquito Control Division, Harris County Public Health and Environmental Services, Houston, TX, United States, [5]Microsoft Research, Redmond, WA, United States

8:15 a.m.
1961
PREVENTING MALARIA PARASITE TRANSMISSION WITH TRANSGENIC ENTOMOPATHOGENIC FUNGI
Brian Lovett[1], Etienne Bilgo[2], Abdoulaye Diabate[2], Raymond J. St. Leger[1]
[1]University of Maryland, College Park, MD, United States, [2]Centre Muraz/IRSS, Bobo-Dioulasso, Burkina Faso

8:30 a.m.
1962
MITIGATION OF PYRETHROID-RESISTANT *AEDES AEGYPTI* USING PRE-SEASON, NON-PYRETHROID INDOOR RESIDUAL SPRAYING
Mike W. Dunbar[1], Pablo Manrique-Saide[2], Anuar Medina[2], Azael Che-Mendoza[3], Felipe Dzul-Manzanilla[4], Fabian Correa-Morales[4], Guillermo Guillermo-May[2], Wilbert Bibiano-Marín[2], Valentín Uc-Puc[2], Eduardo Geded-Moreno[2], José Vadillo-Sánchez[2], Hugo Delfín-González[2], Abdiel Martin-Park[2], Gabriela González-Olvera[2], Jorge Palacio-Vargas[4], Scott Ritchie[5], Audrey Lenhart[6], Gonzalo M. Vazquez-Prokopec[1]
[1]Emory University, Atlanta, GA, United States, [2]Autonomous University of Yucatan, Merida, Mexico, [3]Ministry of Health, Veracruz, Mexico, [4]Ministry of Health, Merida, Mexico, [5]James Cook University, Townsville, Australia, [6]Centers for Disease Control and Prevention, Atlanta, GA, United States

8:45 a.m.

1963

EPI INFOTM FOR MOSQUITO SURVEILLANCE: A FREE MOBILE APPLICATION AND ANALYSIS DASHBOARD TO IMPROVE FIELD DATA COLLECTION AND PROVIDE AUTOMATED ANALYSIS THAT ENABLES DATA-DRIVEN DECISION MAKING FOR VECTOR CONTROL

Rebecca S. Levine, Daniel Impoinvil, Asad Islam, Mohammed Lamtahri, Jose Aponte, Sachin Agnihotri, Matthew Burrows, Audrey Lenhart
Centers for Disease Control and Prevention, Atlanta, GA, United States

9 a.m.

1964

NEXT GENERATION MOSQUITO SURVEILLANCE TECHNIQUE: THE NEAR INFRA-RED SPECTROSCOPY

Maggy Sikulu-Lord[1], Robert Wirtz[2], Leon Hugo[3], Jill Ulrich[1], Gregor Devine[3], Milali P. Masabho[4], Rafael de Freitas[5], Floyd Dowell[6]
[1]The University of Queensland, St. Lucia, Australia, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]QIMR Berghofer Medical Research Institute, Brisbane, Australia, [4]Marquette University, Milwaukee, WI, United States, [5]Instituto Oswald Cruz-Fiocruz, Rio de Janeiro, Brazil, [6]U.S. Department of Agriculture, Kansas City, KS, United States

9:15 a.m.

1965

CHARACTERIZING THE BEHAVIOR OF SUSCEPTIBLE AND RESISTANT STRAINS OF *ANOPHELES GAMBIAE* AT THE LLIN INTERFACE USING SIMPLE NEW LABORATORY VIDEO TESTS

Angela Hughes, Hilary Ranson, Philip McCall
Liverpool School of Tropical Medicine, Liverpool, United Kingdom

9:30 a.m.

1966

DELTAMETHRIN RESISTANCE IN *AEDES AEGYPTI* RESULTS IN VECTOR CONTROL FAILURE IN MERIDA, MEXICO

Gonzalo M. Vazquez-Prokopec[1], Anuar Medina-Barreiro[2], Azael Che-Mendoza[3], Felipe Dzul-Manzanilla[3], Fabian Correa Morales[3], Guillermo Guillermo-May[2], Wilbert Bibiano-Marin[2], Valentin Uc-Puc[2], Eduardo Geded-Moreno[2], Jose Vadillo-Sanchez[2], Scott A. Ritchie[4], Audrey Lenhart[5]
[1]Emory University, Atlanta, GA, United States, [2]Autonomous University of Yucatan, Merida, Mexico, [3]Centro Nacional de Programas Preventivos y Control de Enfermedades (CENAPRECE), Mexico City, Mexico, [4]James Cook University, Cairns, Australia, [5]Centers for Disease Control and Prevention, Atlanta, GA, United States

Symposium 181

Lasers, Rays and Dyes: Tools and Initiatives in the Fight against Substandard and Falsified Medicines

Convention Center - Room 327/328/329 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

The problem of substandard and falsified (SF) medicines has been increasing over the last decade, despite gains in organizations and programs working to effectively and sustainably increase the supply of quality assured medicines. Literature suggests that between 10% and 30% of medicines in developing countries may be substandard or falsified, while the World Health Organization estimates the market for the falsification of medicines to be over $350 billion. The myriad implications of the problem, most prevalent in lower-middle-income countries (LMICs), include increased morbidity and mortality, the escalation of antimicrobial resistance, loss of trust in the healthcare system, undermining efforts of legitimate pharmaceutical manufacturers and National Medicine Regulatory Authorities (NMRAs). Those working in this space have realized that, as with most systemic problems, the only solution is a systems-based one. According to the U.S. Agency for International Development's Vision for Health Systems Strengthening (HSS) "strengthen[ing] medicines regulatory capacity to protect public health from counterfeit and substandard products…" is one of the priority objectives within the core function of medical products, vaccines and technologies. The manifest key to protecting public health from SF medicines, thereby assuring the quality of medicines, is their correct identification. Identification generally occurs at multiple points along the supply chain, during manufacturing and both pre- and post-registration of the product. Throughout the manufacturing process and during registration by the NMRA, a product often undergoes partial or complete analytical testing. This testing incorporates the use of advanced laboratory-based equipment to identify and quantitate the active pharmaceutical ingredient (API) and its impurities and characterize the performance of the product *in vitro*. After registration, continuous monitoring of product quality occurs in many countries. Post market quality surveillance (PMQS) can take place all along the supply chain; at the ports of entry, during import, and at points of distribution, sale and use, such as warehouses, pharmacies and hospitals. Unlike pre-registration testing, PMQS often occurs in field-settings that lack laboratory-based equipment and at times electricity and clean water. As a result, staff may be obligated to use portable screening technologies. This symposium will introduce some of these screening technologies and how they are being implemented in various settings. It will also highlight some of the global initiatives underway related to the development and evaluation of existing and emerging screening technologies and discuss the future of these valuable and constantly evolving tools.

CHAIR

Lukas Roth
United States Pharmacopeial Convention, Rockville, MD, United States

Paul Newton
Mahosot Hospital, Vietiane, Lao People's Democratic Republic

8 a.m.

HOW TO FIND BAD APPLES IN PHARMACIES

Celine Caillet
Lao-Oxford-Mahosot Hospital Wellcome Trust Research Unit, Vientiane, Lao People's Democratic Republic

8:20 a.m.

SCREENING SUSPECT AND COUNTERFEIT DRUG USING PORTABLE AND BENCHTOP SPECTROMETERS

Ravi Kalyanaraman
Bristol-Myers Squibb, New Brunswick, NJ, United States

8:40 a.m.

NO HPLC, NO PROBLEM: PAPER TEST CARDS FOR DETECTION OF SUBSTANDARD ANTIBIOTICS

Marya Lieberman
University of Notre Dame, Notre Dame, IN, United States

9 a.m.

FIGHTING SUBSTANDARD AND FALSIFIED MEDICINES WITH SCREENING TECHNOLOGIES AND LOCAL EMPOWERMENT

Lukas Roth
U.S. Pharmacopeial Convention, Rockville, MD, United States

Scientific Session 182

Intestinal and Tissue Helminths: Soil-Transmitted Helminths - Epidemiology and Control

Convention Center - Room 331/332 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

CHAIR

Philip Cooper
Universidad Internacional de Ecuador, Quito, Ecuador

Piero L. Olliaro
World Health Organization, Geneva, Switzerland

8 a.m.

1967

TOXOCARA INFECTION IN AN ECUADORIAN BIRTH COHORT: FROM BIRTH TO 5 YEARS OF AGE

Yisela Oviedo[1], Martha Chico[1], Maritza Vaca[1], Sofia Loor[1], Mauricio L. Barreto[2], Neuza Alcantara-Neves[2], **Philip Cooper**[3]
[1]Fundacion Ecuatoriana Para Investigacion en Salud, Quito, Ecuador, [2]Universidad Federal da Bahia, Salvador, Brazil, [3]Universidad Internacional de Ecuador, Quito, Ecuador

8:15 a.m.

1968

SEROPREVALENCE OF ANTIBODIES TO *TOXOCARA* SPECIES IN THE UNITED STATES AND ASSOCIATED RISK FACTORS, 2011-2014

Eugene W. Liu[1], Holly M. Chastain[1], Sun Hee Shin[1], Ryan Wiegand[1], Deanna Kruszon-Moran[2], Sukwan Handali[1], Jeffrey L. Jones[1]
[1]Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Centers for Disease Control and Prevention - National Center for Health Statistics, Hyattsville, MD, United States

(ACMCIP Abstract)

8:30 a.m.

1969

CHARACTERIZING SOIL-TRANSMITTED HELMINTH SINGLE AND MULTIPLE INFECTIONS RESPONSE TO TREATMENT WITH BENZIMIDAZOLES AND OTHER DRUGS

Piero L. Olliaro[1], Michel Vaillant[2], Aissatou Diawara[3], Eliézer K. N'Goran[4], Shaali Ame[5], Xiao-Nong Zhou[6], Marco Albonico[7], Benjamin Speich[8], Stefanie Knopp[8], Peter Steinmann[8], Juerg Utzinger[8], Jennifer Keiser[8]
[1]Special Programme for Research and Training in Tropical Diseases (World Health Organization/TDR), Geneva, Switzerland, [2]Luxemburg Institute of Health, Luxemburg, Luxembourg, [3]Biology program, Division of Science and Mathematics, New York University Abu Dhabi (NYUAD), Abu Dhabi, United Arab Emirates, [4]Université Félix Houphouët-Boigny de Cocody-Abidjan, Abidjan, Côte D'Ivoire, [5]Public Health Laboratory-Ivo de Carneri, Chake Chake, United Republic of Tanzania, [6]National Institute of Parasitic Diseases, Chinese Center for Disease Control and Prevention, Shanghai, China, [7]Centre for Tropical Diseases, Negrar, Verona, Italy, [8]Swiss Tropical and Public Health Institute, Basel, Switzerland

8:45 a.m.

1970

A SINGLE DOSE OF IVERMECTIN, DEC PLUS ALBENDAZOLE IS SUPERIOR TO DEC PLUS ALBENDAZOLE FOR TREATMENT OF *TICHURIS TRICHIURA* IN INDONESIA

Taniawati Supali[1], Yenny Djuardi[1], Michael Christian[1], Elisa Iskandar[1], Roospita Maylasari[1], Sarah Wondmeneh[2], Gary J. Weil[2], Peter U. Fischer[2]
[1]University of Indonesia, Jakarta, Indonesia, [2]Washington University School of Medicine, St. Louis, MO, United States

9 a.m.

1971

SOIL-TRANSMITTED HELMINTH INFECTION AND MASS DRUG ADMINISTRATION IN MYANMAR: ARE ADULTS PERPETUATING TRANSMISSION?

Julia C. Dunn[1], Alison A. Bettis[1], Nay Yee Wyine[2], Aye Moe Moe Lwin[3], Nay Soe Maung[3], Roy M. Anderson[1]
[1]Imperial College London, London, United Kingdom, [2]Myanmar NTD Research Collaboration, Yangon, Myanmar, [3]University of Public Health, Yangon, Myanmar

9:15 a.m.

1972

ENZYME-LINKED IMMUNOSORBENT ASSAY AS AN ENDGAME DIAGNOSTIC METHOD FOR SOIL-TRANSMITTED HELMINTH INFECTIONS

Rita G. Oliveira[1], Alice V. Easton[2], Poppy H. Lamberton[3], Johnny Vlaminck[4], Coreen M. Beaumier[5], Jimmy H. Kihara[6], Sammy M. Njenga[6], Charles S. Mwandawiro[6], Peter Geldhof[4], Chris Drakeley[7], Simon J. Brooker[8], Roy M. Anderson[1]
[1]Imperial College London, London, United Kingdom, [2]National Institutes of Health, Washington, DC, United States, [3]University of Glasgow, Glasgow, United Kingdom, [4]Ghent University, Merelbeke, Belgium, [5]Baylor College of Medicine, Houston, TX, United States, [6]Kenya Medical Research Centre, Nairobi, Kenya, [7]London School of Hygiene & Tropical Medicine, London, United Kingdom, [8]Bill & Melinda Gates Foundation, Seattle, WA, United States

(ACMCIP Abstract)

9:30 a.m.

1973

POOL THE STOOL: POOLING STOOL SAMPLES AS A STRATEGY FOR INCREASING THE EFFICIENCY AND EFFECTIVENESS OF REAL-TIME PCR FOR SOIL-TRANSMITTED HELMINTHS (STH)

Marina Papaiakovou[1], Nils Pilotte[1], Yan Hu[2], Raffi V. Aroian[2], Judd L. Walson[3], Steven A. Williams[1]
[1]Smith College, Nothampton, MA, United States, [2]University of Massachusetts Medical School, Worcester, MA, United States, [3]University of Washington, Seattle, WA, United States

(ACMCIP Abstract)

Scientific Session 183

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Kinetoplastida - Molecular, Cellular and Immunobiology

Convention Center - Room 337/338 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

Supported with funding from the Burroughs Wellcome Fund

CHAIR

Jyoti Pant
City University of New York, Rego Park, NY, United States

Melissa L. Sykes
Eskitis Institute for Drug Discovery, Brisbane, Australia

8 a.m.

2011

SPECIES SPECIFIC TRYPANOSOME RESISTANCE IS GOVERNED BY APOL1 VARIATION IN BABOONS

Joey Verdi, Russel Thomson, Jayne Raper

Hunter College, CUNY, New York, NY, United States

8:15 a.m.

2012

TCMCS-PARASITE PRESSURE GAUGE: REGULATORY ROLE OF A MECHANOSENSITIVE CHANNEL IN *T. CRUZI* PHYSIOLOGICAL MECHANISMS

Noopur Dave[1], Patricia Barrera[1], Ugur Cetiner[2], Sergei Sukharev[2], Veronica Jimenez[1]
[1]Center for Applied Biotechnology Studies and Department of Biological Science, Natural Sciences and Mathematics, California State University, Fullerton, CA, United States, [2]Department of Biology, University of Maryland, College Park, MD, United States

8:30 a.m.

1974

IMAGE-BASED TECHNOLOGY IDENTIFIES CANDIDATES FOR THE *IN VITRO* SINGLE-TREATMENT OF *TRYPANOSOMA CRUZI* AND *TRYPANOSOMA BRUCEI* PARASITES FROM THE MMV PATHOGEN BOX COLLECTION OF COMPOUNDS

Melissa L. Sykes
Eskitis Institute for Drug Discovery, Brisbane, Australia

8:45 a.m.

1975

ANTI-LEISHMANIAL LUCIFERASE BASED *IN VITRO* HIGHTHROUGHPUT SCREENING OF INTRACELLULAR AMASTIGOTES OF GEOGRAPHICALLY DIVERSE PARASITES

Mozna Khraiwesh, Erica Penn, Susan Leed, Juan Mendez, Chad Black, Mara Kreishman-Deitrick, Mark Hickman, Brian Vesely
Walter Reed Army Institute of Research, Silver Spring, MD, United States

9 a.m.

1976

COORDINATE REGULATION OF CELLULAR PROCESSES BY INOSITOL PHOSPHATES DURING *TRYPANOSOMA BRUCEI* LIFE CYCLE DEVELOPMENT

Ken Stuart, Atashi Anupama, Igor Cestari
Center for Infectious Disease Research, Seattle, WA, United States

(ACMCIP Abstract)

9:15 a.m.

1977

UNDERSTANDING THE TLF MEDIATED KILLING OF *LEISHMANIA* SP.

Jyoti Pant[1], Maria Nelson[2], Mert K. Keceli[3], Jayne Raper[1]
[1]The Graduate Center, City University of New York, New York, NY, United States, [2]City University of New York, New York, NY, United States, [3]Hunter College, New York, NY, United States

(ACMCIP Abstract)

9:30 a.m.

1978

INTERFERING POLYAMINES METABOLISM IN TRYPANOSOMATIDS, A VALID APPROACH FOR DRUG DEVELOPMENT

Esteban A. Panozzo Zenere[1], Exequiel O. Porta[1], Diego Benitez[2], Shane Wilkinson[3], Sigrid C. Roberts[4], Marcelo Comini[2], Gut Jiri[5], Juan Engel[5], James McKerrow[5], Babu Tekwani[6], Guillermo R. Labadie[1]
[1]IQUIR, Rosario, Argentina, [2]Institute Pasteur, Montevideo, Uruguay, [3]Queen Mary University of London, London, United Kingdom, [4]Pacific University of London, Oregon, OR, United States, [5]University of California San Francisco, San Francisco, CA, United States, [6]University of Mississippi, Mississippi, MS, United States

Symposium 184

Update on Pneumonia Innovations 2017

Convention Center - Room 339/340 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

Pneumonia persists as the leading infectious killer of children under five, more than HIV, tuberculosis and malaria combined. As deaths due to other common childhood diseases decrease worldwide, pneumonia mortality remains unacceptably high. Please join this symposium for a 2017 update on global pneumonia prevention and treatment innovations targeting low-resource settings where the pneumonia burden is highest.

CHAIR

Amy Ginsburg
Save the Children, Fairfield, CT, United States

Keith Klugman
Bill & Melinda Gates Foundation, Seattle, WA, United States

8 a.m.
IMMUNIZATION STRATEGIES TO REDUCE MORTALITY FROM PNEUMONIA AND NEONATAL SEPSIS

Keith Klugman
Bill & Melinda Gates Foundation, Seattle, WA, United States

8:20 a.m.
RECENT INNOVATIONS IN PNEUMONIA DIAGNOSTICS AND PROGNOSTICS

Amy Ginsburg
Save the Children, Fairfield, CT, United States

8:40 a.m.
UPDATE ON ONGOING RESEARCH IN PNEUMONIA TREATMENT

Fyezah Jehan
Aga Khan University, Karachi, Pakistan

9 a.m.
NON-INVASIVE VENTILATION AS A TREATMENT FOR CHILDHOOD PNEUMONIA IN LOW-RESOURCE SETTINGS

Eric McCollum
Johns Hopkins University, Baltimore, MD, United States

Symposium 185

New Approaches to Health Impact Measurement in Water, Sanitation and Hygiene (WASH) Trials

Convention Center - Room 341/342 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

The existing evidence base for water, sanitation, and hygiene interventions is dominated by trials using self-reported diarrhea or anthropometry as primary outcome measures, both of which are subject to considerable bias. In addition, there is increasing evidence that repeated and cumulative exposure to enteric pathogens may be more relevant for longer term child health outcomes such as growth faltering and cognitive impairment than measurements of acute cases of diarrhea (in the absence of severe dehydration). Recent developments in methods to directly measure enteric infections include multiplex stool diagnostic assays, serological assays, strain typing and other emerging molecular methods that are transforming the field. Such

measures have the advantages of being objectively measurable, highly sensitive and specific across a range of etiologies, and have the potential to yield more nuanced information about transmission pathways that will provide insights into control strategies. This symposium will focus on recent, current and proposed studies of WASH and enteric infection risk, with a focus on novel outcome measures and the opportunities and challenges they present.

CHAIR

Joe Brown
Georgia Institute of Technology, School of Civil and Environmental Engineering, Atlanta, GA, United States

Karen Levy
Emory University, Rollins School of Public Health, Atlanta, GA, United States

8 a.m.
THE F DIAGRAM REIMAGINED: MOLECULAR FINGERPRINTS OF ENTERIC PATHOGEN EXPOSURE PATHWAYS

Kelly Baker
University of Iowa, Iowa City, IA, United States

8:20 a.m.
SEROLOGICAL ANTIBODY MEASURES OF ENTERIC PATHOGEN EXPOSURE AS ENDPOINTS IN TRIALS

Benjamin Arnold
University of California Berkeley, Berkeley, CA, United States

8:40 a.m.
ASSOCIATION OF MARKERS OF EED TO ROTAVIRUS VACCINE SEROCONVERSION

Roma Chilengi
Centre for Infectious Disease Research in Zambia (CIDRZ), Lusaka, Zambia

9 a.m.
TOWARD MICROBIAL DISEASE DIAGNOSIS USING METAGENOMICS: A CASE OF THE RUNS

Kostas Konstantinidis
Georgia Institute of Technology, School of Civil and Environmental Engineering, Atlanta, GA, United States

Scientific Session 186

Bacteriology: *Salmonella*/Typhoid/Fever

Convention Center - Room 343/344 (Level 300)
Thursday, November 9, 8 a.m. - 9:45 a.m.

CHAIR

Jason R. Andrews
Stanford University School of Medicine, Stanford, CA, United States

Megan E. Reller
Duke University, Durham, NC, United States

8 a.m.

1979

INCIDENCE OF AMONG YOUNG CHILDREN IN SUB-SAHARAN AFRICA: MAL055 RTS,S/AS01 *SALMONELLA* ANCILLARY STUDY

Calman A. MacLennan[1], Ryan Wiegand[2], Nelli Westercamp[2], Simon Kariuki[3], Clinical Trials Partnership Committee Investigators[4]
[1]University of Oxford, Oxford, United Kingdom, [2]Centers for Disease Control and Prevention, Atlanta, GA, United States, [3]Kenya Medical Research Institute/ Centers for Disease Control and Prevention, Kisumu, Kenya, [4]Clinical Trials Partnership Committee, Kisumu, Kenya

8:15 a.m.

1980

UNDERSTANDING THE POTENTIAL VALUE OF NEW DIAGNOSTICS FOR ENTERIC FEVER: INSIGHTS FROM DECISION ANALYTIC MODELING

Jason R. Andrews[1], Paul Arora[2], Isaac I. Bogoch[3], Edward T. Ryan[4]
[1]Stanford University School of Medicine, Stanford, CA, United States, [2]Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada, [3]University of Toronto, Toronto, ON, Canada, [4]Massachusetts General Hospital, Harvard Medical School, Boston, MA, United States

8:30 a.m.

1981

COMPARISON OF STRATEGIES AND THRESHOLDS FOR VI CONJUGATE VACCINES AGAINST TYPHOID FEVER: A COST-EFFECTIVENESS MODELING STUDY

Nathan C. Lo[1], Ribhav Gupta[1], Jeffrey D. Stanaway[2], Denise O. Garrett[3], Isaac I. Bogoch[4], Stephen P. Luby[1], Jason R. Andrews[1]
[1]Stanford University School of Medicine, Stanford, CA, United States, [2]Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA, United States, [3]Typhoid Programs, Sabin Vaccine Institute, Washington, DC, United States, [4]University of Toronto, Toronto General Hospital, Toronto, ON, Canada

8:45 a.m.

1982

RICKETTSIAL INFECTIONS AS A MAJOR ETIOLOGY OF ACUTE FEBRILE ILLNESS: A PROSPECTIVE STUDY IN NORTHERN SABAH, BORNEO, EAST MALAYSIA

Megan E. Reller[1], Mathew Grigg[2], Timothy William[3], Tsin Yeo[4], Emily G Clemens[5], J. Stephen Dumler[5]
[1]Duke University, Durham, NC, United States, [2]Menzie School of Health Research, Darwin, Australia, [3]Queen Elizabeth Hospital, Sabah, Malaysia, [4]Nanyang Technological University, Singapore, Singapore, [5]Uniformed Services University of the Health Sciences, Bethesda, MD, United States

9 a.m.

1983

TIMING AND SPATIAL HETEROGENEITY OF LEPTOSPIROSIS TRANSMISSION IN NORTHEAST THAILAND

Katharine A. Owers[1], Soawapak Hinjoy[2], James E. Childs[1], Vincent Herbreteau[3], Peter J. Diggle[4], Albert I. Ko[1]
[1]Yale School of Public Health, New Haven, CT, United States, [2]Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health, Nonthaburi, Thailand, [3]IRD, ESPACE-DEV (IRD, UM2, UR, UAG), Saint-Pierre, France, [4]Division of Medicine, Lancaster University, Lancaster, United Kingdom

9:15 a.m.

1984

DNA AND RNA SEQUENCING-BASED METAGENOMICS FOR UNBIASED PATHOGEN DETECTION AMONG TANZANIAN ADULTS WITH UNDIFFERENTIATED FEBRILE ILLNESS

Matthew P. Rubach[1], Erin H. Graf[2], Kornelia Edes[2], Holly M. Biggs[1], Wilbroad Saganda[3], Bingileki F. Lwezaula[3], Venance P. Maro[4], John A. Crump[1], Robert Schlaberg[2]
[1]Duke University, Durham, NC, United States, [2]University of Utah, Salt Lake City, UT, United States, [3]Mawenzi Regional Referral Hospital, Moshi, United Republic of Tanzania, [4]Kilimanjaro Christian Medical University College, Moshi, United Republic of Tanzania

9:30 a.m.

1985

SYSTEMIC INFLAMMATION AND NEURODEVELOPMENTAL OUTCOMES IN BANGLADESHI INFANTS GROWING UP IN ADVERSITY

Nona M. Jiang[1], Fahmida Tofail[2], Jennie Z. Ma[1], Rashidul Haque[2], Beth D. Kirkpatrick[3], Charles A. Nelson, III[4], William A. Petri, Jr.[1]
[1]University of Virginia, Charlottesville, VA, United States, [2]International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, [3]University of Vermont, Burlington, VT, United States, [4]Boston Children's Hospital, Harvard Medical School, Boston, MA, United States

Coffee Break

Convention Center - Pratt Street West Lobby (Level 300)
Thursday, November 9, 9:45 a.m. - 10:15 a.m.

Plenary Session 187

Plenary Session V

Convention Center - Ballroom III (Level 400)
Thursday, November 9, 10:15 a.m. - 11 a.m.

CHAIR

Patricia F. Walker
University of Minnesota and HealthPartners Travel and Tropical Medicine Center, St. Paul, MN, United States

HIV/AIDS PANDEMIC: A FEASIBLE GOAL

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases, National Institutes of Health
Bethesda, Maryland

Anthony S. Fauci, MD, is a physician-scientist who directs the NIAID-NIH in Bethesda, MD. He oversees an extensive research program on infectious diseases such as HIV/AIDS, influenza, tuberculosis, Ebola and Zika, as well as diseases of the immune system. Dr. Fauci also serves as one of the key advisors to the White House and Department of Health and Human Services on global infectious disease issues. He was one of the principal architects of the President's Emergency Plan for AIDS Relief (PEPFAR), a program that has saved millions of lives throughout the developing world. Dr. Fauci also is the long-time chief of the NIAID Laboratory of Immunoregulation, where he has made numerous important discoveries related to HIV/AIDS and is one of the most-cited scientists in the field. He is a member of the U.S. National Academy of Sciences and the U.S. National Academy of Medicine, and has received numerous prestigious awards for his scientific and global health accomplishments, including the National Medal of Science, the Robert Koch Medal, the Mary Woodard Lasker Award for Public Service, and the Presidential Medal of Freedom. He has been awarded 43 honorary doctoral degrees and is the author, coauthor, or editor of more than 1,300 scientific publications, including several major textbooks.

Break

Thursday, November 9, 11 a.m. – 11:15 a.m.

Scientific Session 188

Malaria: Applications of Innovative Technologies

Convention Center - Ballroom II (Level 400)
Thursday, November 9, 11:15 a.m. - 1 p.m.

CHAIR

Kent Kester
Sanofi Pasteur, Swiftwater, PA, United States

Adugna Woyessa
Ethiopian Public Health Institute, Addis Ababa, Ethiopia

11:15 a.m.

1986

SURVEILLANCE OF MALARIA AMONG UNITED STATES PEACE CORPS VOLUNTEERS USING ELECTRONIC MEDICAL RECORDS

Elizabeth Davlantes[1], Lauren Lewis[1], Susan Henderson[2], Rennie Ferguson[2], Kathrine Tan[1]
[1]Centers for Disease Control and Prevention, Atlanta, GA, United States, [2]Peace Corps, Washington, DC, United States

11:30 a.m.

1987

CHARACTERIZATION OF PHYSIOLOGICAL SIGNATURES OF *PLASMODIUM* INFECTIONS IN NONHUMAN PRIMATES USING A CONTINUOUS TELEMETRY SYSTEM

Jessica Brady[1], Monica Cabrera-Mora[2], Allison Hankus[2], Ebru Karpuzoglu[2], Jennifer S. Wood[3], Jay C. Humphrey[4], Mustafa V. Nural[5], Jeremy DeBarry[5], Rabindra Tirouvanziam[6], Alberto Moreno[7], Jessica Kissinger[8], Mary R. Galinksi[7], Juan B. Gutierrez[9], MaHPIC Consortium[10], Hammer Consortium[11]
[1]College of Engineering, University of Georgia, Athens, GA, United States, [2]Emory Vaccine Center, Yerkes National Primate Research Center, Emory University, Atlanta, GA, United States, [3]Division of Animal Resources, Yerkes National Primate Research Center, Emory University, Atlanta, GA, United States, [4]Institute of Bioinformatics, The Center for Tropical and Emerging Global Diseases, Department of Genetics, University of Georgia, Athens, GA, United States, [5]Institute of Bioinformatics, University of Georgia, Athens, GA, United States, [6]Department of Pediatrics, Emory University, Atlanta, GA, United States, [7]Emory Vaccine Center, Yerkes National Primate Research Center, Department of Infectious Diseases, Department of Medicine, Emory University, Atlanta, GA, United States, [8]Institute of Bioinformatics, Department of Genetics, University of Georgia, Athens, GA, United States, [9]Institute of Bioinformatics, Department of Mathematics, University of Georgia, Athens, GA, United States, [10]Malaria Host-Pathogen Interaction Center; http://systemsbiology.emory.edu, GA, United States, [11]Host Acute Models of Malaria to study Experimental Resilience, GA, United States

11:45 a.m.

1988

A SPATIAL DECISION SUPPORT SYSTEM APPROACH TO IMPLEMENTING MALARIA SURVEILLANCE AS A CORE INTERVENTION ACTIVITY IN HIGH PRIORITY AREAS OF VIETNAM

Sara E. Canavati[1], Thuan Huu Vo[2], Thinh Ngoduc[3], Duong Thanh Tran[4], Thang Duc Ngo[4], Gerard Kelly[5], Nicholas J. Martin[6]
[1]Vysnova Partners Inc.; Center for Biomedical Research, Burnet Institute, Melbourne, Australia, Hanoi, Vietnam, [2]Vysnova Partners Inc.; Faculty of Social Sciences, University of Tampere, Tampere, Finland, Hanoi, Vietnam, [3]Provincial Malaria Department, Phu Yen Province, Vietnam, Phu Yen, Vietnam, [4]National Institute of Malariology, Parasitology and Entomology (NIMPE), Ha Noi, Vietnam, [5]Research School of Population Health, College of Medicine, Biology and Environment, The Australian National University, Queensland, Australia, [6]Naval Medical Research Center-Asia, Singapore, Singapore

Noon

1989

CLIMATE VARIABILITY AND MALARIA TRANSMISSION IN ETHIOPIA: APPLICATION OF A NEW CLIMATE DATASET FOR DISTRICT-BASED MALARIA ELIMINATION STRATEGY

Adugna Woyessa[1], Aisha Owusu[2], Madeleine Thomson[2], Dereje Dilu[3], Hiwot Solomon[3]
[1]Ethiopian Public Health Institute, Addis Ababa, Ethiopia, [2]International Research Institute for Climate and Society, Palisades, NY, United States, [3]National Malaria Control Program, Federal Ministry of Health of Ethiopia, Addis Ababa, Ethiopia

12:15 p.m.

1990

IN-HAND, IN-FIELD, IN-TIME DATA: EFFECTIVELY DIRECTING MOP-UPS IN AN INDOOR RESIDUAL SPRAY CAMPAIGN

Anne C. Martin[1], Derek Pollard[1], Silvia Renn[1], Busiku Hamainza[2], David Larsen[3], Anne Winters[1]
[1]Akros, Lusaka, Zambia, [2]National Malaria Elimination Center, Government of Zambia, Lusaka, Zambia, [3]Syracuse University, Syracuse, NY, United States

12:30 p.m.

1991

TOWARDS INCORPORATION OF MALARIA CONTROL INTO PLANNING AND MANAGEMENT OF WATER INFRASTRUCTURE

Jonathan Lautze[1], Solomon Kibret[2], Matthew McCartney[3], Luxon Nhamo[1]
[1]International Water Management Institute, Pretoria, South Africa, [2]University of California, Irvine, CA, United States, [3]International Water Management Institute, Vientianne, Lao People's Democratic Republic

12:45 p.m.

1992

BED NET EFFECTIVENESS VARIES BY INSECTICIDE ACROSS AFRICA: A LARGE, POPULATION-BASED OBSERVATIONAL STUDY

Mark M. Janko, Michael E. Emch, Steven R. Meshnick
University of North Carolina at Chapel Hill, Chapel Hill, NC, United States

Symposium 189

Taking Innovations to Market: Ideas and Products from the Ebola and Zika and Future Threats Grand Challenges for Development

Convention Center - Ballroom III (Level 400)
Thursday, November 9, 11:15 a.m. - 1 p.m.

Grand Challenges call on the brightest minds across the globe to share their bold ideas. Over the past three years, the U.S. Agency for International Development has issued two Grand Challenges that aim to curb the spread of infectious diseases and help strengthen the world's ability to prevent, detect and respond to future disease outbreaks: Fighting Ebola and Combating Zika and Future Threats. In response to the two Challenges, USAID received over 2,400 ideas and funded portfolios of 14 and 26 innovations across Ebola and Zika, respectively, for accelerated development, testing and deployment. The diverse portfolios cover a range of topics, from personal protective equipment and decontamination to vector control and disease surveillance. This symposium will feature seven interactive lightning talks from USAID-funded innovators, and a panel of experts who will briefly discuss the solutions following each talk. In addition, the session will share the lessons learned from innovating in the midst of a health crisis, discuss how USAID has supported innovators as they develop and test their solutions, and highlight opportunities for partnership and collaboration. At the end of the symposium participants will be aware of the commitment taken by USAID to actively assist innovations to take their products to market and how this process may be a roadmap to be applied to other public health threats.

CHAIR

May Chu
Colorado School of Public Health, Aurora, CO, United States

11:15 a.m.
DRIP ASSIST INFUSTION MONITOR

Beth Kolko
Shift Labs, Seattle, WA, United States

11:25 a.m.
A SAFER AND FASTER-DOFFING PPE

Youseph Yazdi
Johns Hopkins University, Baltimore, MD, United States

11:35 a.m.
POWDERED BLEACH ADDITIVE

Jason Kang
Kinnos, US, Brooklyn, NY, United States

11:45 a.m.
FIELD ASSESSMENT OF YEAST INTERFERING RNA LARVICIDES TARGETING ZIKA VECTOR MOSQUITOES IN BELIZE

Molly Duman Scheel
Indiana University School of Medicine, South Bend, IN, United States

11:55 a.m.
VECTORWEB: A LOW-COST NETWORK OF CLOUD CONNECTED OVITRAPS FOR AUTOMATED MOSQUITO SURVEILLANCE

Meg Glancey
Johns Hopkins University, Baltimore, MD, United States

12:05 p.m.
ZIKA: A FAST NEW INTERVENTION AND INNOVATIVE EVALUATION METHOD

Greg Devine
University of Queensland, Brisbane, Australia

12:15 p.m.
POCPAK, POINT-OF-CARE CONNECTIVITY AND POWER KIT, AND ASPECT DATA PLATFORM

Tamara Sloan
SystemOne, Springfield, MA, United States

REVIEW PANEL

Jennifer Fluder
U.S. Agency for International Development, Arlington, VA, United States

Vikas Meka
U.S. Agency for International Development, Arlington, VA, United States

Marissa Leffler
U.S. Agency for International Development, Arlington, VA, United States

Adriana Velazquez-Berumen
World Health Organization, Geneva, Switzerland

Symposium 190

The Epidemic of Cancer in Africa: Prevention, Early Detection and the Role of Infection Control

Convention Center - Ballroom IV (Level 400)
Thursday, November 9, 11:15 a.m. - 1 p.m.

This symposium will cover the main aspects of cancer development in the continent of Africa, focusing specifically on the sub-Saharan Africa region. As the life expectancy of the population in Africa continues to increase, cancer has become an increasing problem that will need more action based on prevention in the years to come. This symposium will focus on four cancers, three of which are infectious-related, and one non-infectious related. These have been chosen on the basis of high impact due to reported frequency, but more importantly, due to the possibility of prevention and early detection. In general, sub-Saharan Africa lacks the resources to treat tumors at a more advanced stage. However, many of the most lethal cancers can be easily treated if detected early. Therefore, programs to promote prevention and early detection are critical. This symposium will focus on the following: a) Liver cancer related to hepatitis B infection has shown a more aggressive behavior in Africa, and it has a great chance of prevention via vaccination, but also burden can be reduced through early detection by screening and simple local treatments. b) Cervical cancer associated to human papilloma virus infection in East Africa has the highest incidence and mortality in the world, also preventable with vaccination, which is not yet widely available throughout the continent. Secondary prevention with VIA promotes a "one stop" intervention for screening and treatment of pre-malignant state, important in resource-limited settings c) HIV-related tumors have been a long-standing burden in Africa. As much attention has focused on "opportunistic infectious diseases" during HIV infection, little emphasis is placed on health care workers to understand and approach related malignancies like Kaposi's sarcoma. Also common cancers like those from cervix and liver behave differently during HIV infection. d) Breast cancer frequency is increasing dramatically in Africa and is the most common cancer in women in the continent. This tumor also presents a unique challenge as it carries a social stigma due to the external visibility of the affected area, distressing family life early on. Simple tools like self-examination of the breast have an important impact in early detection and treatment. This symposium will be presented by experts in the field in each of these tumors, all of them working in Africa. Participants will be provided with with the latest epidemiological details of these tumors, as well as with simple high impact approaches to decrease their burden. The session will detail successful programs that have been implemented in different areas of the continent to deal with this epidemic.

CHAIR

Jose D. Debes
University of Minnesota, Minneapolis, MN, United States

Randy Hurley
Health Partners, St. Paul, MN, United States

11:15 a.m.
HEPATITIS B AND HEPATOCELLULAR CARCINOMA
Jose D. Debes
University of Minnesota, USA/ALMC Arusha, Tanzania, Minneapolis, MN, United States

11:35 a.m.
THE EPIDEMIC OF BREAST CANCER: MISCONCEPTIONS AND PREVENTION
Tara J. Rick
St. Catherine University, St. Paul, MN, United States

11:55 a.m.
HIV-RELATED TUMORS: BEYOND KAPOSIS
Randy Hurley
Health Partners Institute, St. Paul, MN, United States

12:15 p.m.
CERVICAL CANCER IN AFRICA, VIA SCREENING AND CRYOTHERAPY
Katrin Mwimbe Boehl
Dodoma Christian Medical Center, Dodoma, United Republic of Tanzania

Symposium 191

Clinico-Epidemiologic Studies and Laboratory Diagnostic Approaches during the 2016 Zika Outbreak in Puerto Rico

Convention Center - Room 318/319/320 (Level 300)
Thursday, November 9, 11:15 a.m. - 1 p.m.

Following the introduction of Zika virus to Puerto Rico in late 2015, more than 38,000 laboratory-positive Zika virus disease cases were reported throughout the island in 2016 and transmission has continued to date albeit at low levels. Clinical and epidemiologic investigations conducted by CDC Dengue Branch have focused on estimation of the median duration of Zika virus persistence in various body fluids, evaluating the association of Zika virus infection with Guillain-Barre syndrome, and community-based surveys to assess the ratio of symptomatic-to-asymptomatic Zika virus infections and underreporting of cases to passive surveillance systems. Zika infection is often asymptomatic. If symptomatic, the disease is usually mild. However, severe manifestations of Zika infection have been described. Based on a large cohort of symptomatic Zika-infected patients in Puerto Rico, this session will present a description of the spectrum of clinical manifestations of Zika infection and virologic aspects. Beginning with the identification of Zika virus transmission in Brazil, the epidemic that spread throughout the Americas was characterized by uncertainties. Early in the epidemic, limited data and novel analyses were used to assess the risk of severe consequences of infection, namely congenital birth defects and Guillain Barré syndrome. Then there was assessment of the potential impact of the Zika epidemic in Puerto Rico and development of additional tools to monitor the epidemic as it progressed. The Zika Virus produces low, but persistent viremias in symptomatic and asymptomatic individuals; and the virus is present in other body fluids different from blood, such as semen and urine. Because serological tests for Zika may detect antibodies for other flaviviruses, even those from previous infections, Zika diagnosis heavily relies on molecular detection

methods such as PCR. During the last year, several molecular tests have been developed for Zika detection; but arbovirus diagnosis and surveillance still lacks similar tests for dengue or chikungunya. The Trioplex test developed by CDC fulfills the need for simultaneous detection of these three pathogens in serum, urine and other body fluids. The U.S. Virgin Islands Department of Health tested a large number of symptomatic persons and pregnant women for Zika infection by Zika IgM, dengue IgM, and plaque reduction neutralization. Analysis of these results among over 1000 confirmed infections, and additional efforts to estimate the burden of Zika among pregnant women will be presented.

CHAIR

Stephen Waterman
Centers for Disease Control and Prevention, San Juan, PR, Puerto Rico

11:15 a.m.
UNDERSTANDING THE PATHOPHYSIOLOGY OF ZIKA VIRUS THROUGH CLINICAL AND EPIDEMIOLOGIC INVESTIGATIONS IN PUERTO RICO

Tyler Sharp
Centers for Disease Control and Prevention, San Juan, PR, Puerto Rico

11:35 a.m.
SYMPTOMATIC ZIKA INFECTIONS, CLINICAL AND VIROLOGIC ASPECTS

Jennifer Read
University of Vermont, Burlington, VT, United States

11:55 a.m.
CONFRONTING UNCERTAINTY: DATA AND ANALYTICS TO SUPPORT THE ZIKA RESPONSE IN PUERTO RICO

Michael Johansson
Centers for Disease Control and Prevention, San Juan, Puerto Rico

12:15 p.m.
RELIANCE OF ZIKA DIAGNOSIS ON MOLECULAR DETECTION

Jorge Munoz
Centers for Disease Control and Prevention, San Juan, PR, Puerto Rico

12:35 p.m.
ZIKA IN THE U.S. VIRGIN ISLANDS

Brett Ellis
U.S. Virgin Islands Department of Health, Christiansted, Virgin Islands, U.S.

Scientific Session 192

American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP): Malaria and Protozoal Diseases – Biology and Pathogenesis

Convention Center - Room 321/322/323 (Level 300)
Thursday, November 9, 11:15 a.m. - 1 p.m.
Supported with funding from the Burroughs Wellcome Fund

CHAIR

Anne Kessler
Albert Einstein College of Medicine, Bronx, NY, United States

Nicanor Obaldia
Instituto Conmemorativo Gorgas, Panama, Panama

11:15 a.m.

INVITED SPEAKER FROM THE WOODS HOLE MOLECULAR PARASITOLOGY MEETING HELD IN SEPTEMBER 2017. SEE THE MEETING APP AND ONLINE PROGRAM PLANNER FOR SPEAKER INFORMATION.

11:30 a.m.

INVITED SPEAKER FROM THE WOODS HOLE MOLECULAR PARASITOLOGY MEETING HELD IN SEPTEMBER 2017. SEE THE MEETING APP AND ONLINE PROGRAM PLANNER FOR SPEAKER INFORMATION.

11:45 a.m.

1993

PTEX COMPONENT EXP2 IS REQUIRED FOR PROTEIN EXPORT AND SMALL MOLECULE TRANSPORT ACROSS THE MALARIA PARASITE VACUOLE MEMBRANE

Josh Beck[1], Matthias Garten[2], Svetlana Glushakova[2], Armiyaw S. Nasamu[1], Jacquin C. Niles[3], Joshua Zimmerberg[2], Daniel E. Goldberg[1]
[1]Washington University School of Medicine, St. Louis, MO, United States, [2]National Institutes of Health, Bethesda, MD, United States, [3]Massachusetts Institute of Technology, Cambridge, MA, United States

(ACMCIP Abstract)

Noon

1994

LINKING EPCR-BINDING PFEMP-1 TO BRAIN SWELLING IN PEDIATRIC CEREBRAL MALARIA

Anne Kessler[1], Selasi Dankwa[2], Maria Bernabeu[2], Visopo Harawa[3], Samuel Danziger[2], Fergal Duffy[2], Sam Kampondeni[4], Michael Potchen[5], Nicholas Dambrauskas[2], Vladimir Vigdorovich[2], Brian Oliver[2], Noah Sather[2], Ian MacCormick[3], Wilson Mandala[3], Stephen Rogerson[6], John Aitchison[2], Terrie Taylor[4], Sarah Hochman[7], Wenzhu Mowrey[1], Karl Seydel[4], Joseph Smith[2], Kami Kim[1]
[1]Albert Einstein College of Medicine, Bronx, NY, United States, [2]Center for Infectious Disease Research, Seattle, WA, United States, [3]Malawi-Liverpool Wellcome Trust Clinical Research Programme, Blantyre, Malawi, [4]Blantyre Malaria Project, Blantyre, Malawi, [5]University of Rochester Medical Center, Rochester, NY, United States, [6]University of Melbourne, Melbourne, Australia, [7]New York University Langone Medical Center, New York, NY, United States

12:15 p.m.

1995

THE BONE MARROW AS A MAJOR RESERVOIR FOR *P. VIVAX* INFECTION

Nicanor III Obaldia[1], Elamaran Meibalan[2], Juliana Martha Sa[3], Siyuan Ma[4], Pedro Mejia[2], Roberto Moraes Barros[3], William Otero[5], Manoj T. Duraisingh[2], Danny Milner[2], Curtis Huttenhower[4], Dyann F. Wirth[2], Tom Wellems[3], Matthias Marti[6]
[1]Department of Immunology and Infectious Diseases, Harvard | T.H. Chan School of Public Health, Boston, MA and Instituto Conmemorativo Gorgas, Panama, Panama, [2]Department of Immunology and Infectious Diseases, Harvard | T.H. Chan School of Public Health, Boston, MA, United States, [3]Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States, [4]Department of Biostatistics, Harvard | T.H. Chan School of Public Health, Boston, MA, United States, [5]Tropical Medicine Research/Instituto Conmemorativo Gorgas, Panama, Panama, [6]Wellcome Trust Center for Molecular Parasitology, University of Glasgow, Glasgow, United Kingdom

12:30 p.m.

1996

FUNCTIONAL CONSERVATION OF AN ESSENTIAL HOST CELL INVASION LIGAND BETWEEN *P. FALCIPARUM* AND *P. VIVAX,* AND A PLATFORM TO ACCELERATE VACCINE DEVELOPMENT

Damien R. Drew, Paul R. Sanders, Gretchen Weiss, Paul R. Gilson, Brendan S. Crabb, **James G. Beeson**
The Burnet Institute, Melbourne, Australia

(ACMCIP Abstract)

12:45 p.m.

1997

NANO-SCALE IMAGING REVEALS HOST CELL REMODELLING AND KNOB ASSEMBLY MECHANISMS IN *PLASMODIUM FALCIPARUM*

Oliver Looker[1], Emma McHugh[1], Boyin Liu[1], Adam Blanch[1], Shannon Kenny[1], Dean Andrew[1], Eric Hannsen[2], Paul McMillan[3], Leann Tilley[1], **Matthew W. Dixon**[1]
[1]Department of Biochemistry and Molecular Biology, Bio21 Institute, University of Melbourne, Melbourne, Australia, [2]Melbourne Advance Microscopy Facility, Bio21 Institute, University of Melbourne, Melbourne, Australia, [3]Biological Optical Microscopy Platform, Bio21 Institute, The University of Melbourne, Melbourne, Australia

(ACMCIP Abstract)

Symposium 193

Deciphering Immune Responses Elicited by Four Major Human Diarrheal Pathogens [ETEC, *Shigella, Salmonella* and Cholera]: Identification of Imunocorrelates with Practical Vaccine Applications

Convention Center - Room 324/325/326 (Level 300)
Thursday, November 9, 11:15 a.m. - 1 p.m.

Correlates of protective immunity have remained elusive for bacterial enteric pathogens that cause diarrheal disease. While there are extensive immunological data from natural infections, controlled human challenge studies and vaccine studies, these are not comprehensive and very little has been translated into disease-specific biomarkers and immunological responses that can be used as correlates in vaccine efficacy studies. This symposium will be focused on the immune responses and immunological correlates of protection for ETEC, *Shigella, Salmonella* and cholera. Subsequent to this review, a panel discussion will compare and contrast immune responses raised against each of these four pathogens with the goal of identifying possible common indicators of protection against enteric pathogens. This data interrogation can also help to identify gaps in our knowledge and abilities to address the unique challenges encountered in the development of vaccines against these four diarrheal disease pathogens of global public health importance.

CHAIR

Sachin Mani
PATH, Washington, DC, United States

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

11:15 a.m.
MUCOSAL IMMUNE RESPONSES AND CORRELATES OF PROTECTION AGAINST ETEC

A. Louis Bourgeois
PATH, Washington, DC, United States

11:35 a.m.
IMMUNE RESPONSES AND CORRELATES OF PROTECTION AGAINST *SHIGELLA*

Daniel Cohen
Tel Aviv University, School of Public Health, Tel Aviv, Israel

11:55 a.m.
IMMUNE RESPONSES AND CORRELATES OF PROTECTION AGAINST CHOLERA

Jason B. Harris
Massachusetts General Hospital, Boston, MA, United States

12:15 a.m.
IMMUNE RESPONSES AND CORRELATES OF PROTECTION AGAINST TYPHOID FEVER

Marcelo B. Sztein
University of Maryland School of Medicine, Center for Vaccine Development, Baltimore, MD, United States

12:35 p.m.
PANEL DISCUSSION ON CORRELATES OF VACCINE INDUCED PROTECTION

Marcela Pasetti, Moderator
University of Maryland School of Medicine, Baltimore, MD, United States

Symposium 194

NTDs and Micronutrient Malnutrition: The Dual Burden of Two Neglected Conditions

Convention Center - Room 331/332 (Level 300)
Thursday, November 9, 11:15 a.m. - 1 p.m.

Neglected tropical diseases (NTDs) and micronutrient deficiencies are both widespread diseases of poverty which overlap in communities and in individual hosts. However, the dual burden and confounding effects of these conditions are often overlooked. Many studies investigate the outcomes of either infection or nutrition in isolation; however, ignoring the other condition can have serious implications on the interpretation of study results and subsequent interventions. Not only can micronutrient deficiencies and infection lead to common morbidities such as anemia, synergistic or antagonistic effects could impact disease presentation and even the transmission of infection. Given the overlap of these two neglected conditions and the paucity of data on this subject, the goal of this symposium is to increase the knowledge of the dual burden of infection and micronutrient deficiencies in helminth infection and leprosy. Through presentations by experts in the field of NTDs and nutrition, it will highlight the potential confounding effects on outcomes and morbidity of the two conditions and stress the need to incorporate micronutrient testing into field work on NTDs. With increased awareness and more comprehensive investigations, further work to integrate control of this dual burden in endemic areas will be possible.

CHAIR

Jessica K. Fairley
Emory University, Atlanta, GA, United States

Laila Woc-Colburn
Baylor College of Medicine/National School of Tropical Medicine, Houston, TX, United States

11:15 a.m.
INTRODUCTION TO NTDS AND MICRONUTRIENTS

Peter J. Hotez
Baylor College of Medicine, Houston, TX, United States

11:25 a.m.
CURRENT KNOWLEDGE ON SOIL-TRANSMITTED HELMINTHS AND IRON METABOLISM

Parminder Suchdev
Emory University, Atlanta, GA, United States

11:45 a.m.
VITAMIN D, VITAMIN A AND LEPROSY: IMPLICATIONS FOR MORBIDITY AND TRANSMISSION

Jessica Fairley
Emory University, Atlanta, GA, United States

12:05 p.m.
MICRONUTRIENTS AND HELMINTH INFECTION IN CAMBODIAN CHILDREN

Brechje de Gier
National Institute for Public Health and the Environment (RIVM), Bilthoven, Netherlands

12:25 p.m.
IMPACT OF INTESTINAL PARASITES ON THE MICROBIOME AND METAGENOMICS IN ARGENTINIAN CHILDREN: CHANGES IN MICRONUTRIENTS

Rojelio Mejia
Baylor College of Medicine, Houston, TX, United States

Scientific Session 195

Schistosomiasis: Immunology and Pathology

Convention Center - Room 337/338 (Level 300)
Thursday, November 9, 11:15 a.m. - 1 p.m.

CHAIR

Andrew DiNardo
Baylor College of Medicine, Houston, TX, United States

Christoph Grevelding
Justus-Liebig-University Giessen, Germany

11:15 a.m.

1998

ROLE OF THE AMP-ACTIVATED PROTEIN KINASE (AMPK) PATHWAY IN SCHISTOSOME DEVELOPMENT AND HOST-PARASITE INTERACTIONS

Kasandra Hunter, Stephen Davies
Uniformed Services University of the Health Sciences, Bethesda, MD, United States

(ACMCIP Abstract)

11:30 a.m.

1999

ATYPICAL PHARMACOLOGY OF SCHISTOSOME TRPA1-LIKE ION CHANNELS

Swarna Bais, Corbett T. Berry, Xiaohong Lu, Gordon Ruthel, Bruce D. Freedman, **Robert M. Greenberg**
University of Pennsylvania, Philadelphia, PA, United States

(ACMCIP Abstract)

11:45 a.m.

2000

DECODING GONAD-SPECIFIC AND PAIRING-DEPENDENT GENE EXPRESSION IN *SCHISTOSOMA MANSONI* BY COMPARATIVE TRANSCRIPTOMICS DELIVERED MOLECULAR INSIGHTS RELEVANT FOR BASIC AND APPLIED RESEARCH

Christoph G. Grevelding[1], Steffen Hahnel[1], Thomas Quack[1], Nicolas J. Wheeler[2], Timothy A. Day[2], Florian Sessler[3], Nancy Holroyd[4], Matthew Berriman[4], Zhigang Lu[1]
[1]Justus-Liebig-University Giessen, Germany, Giessen, Germany, [2]Iowa State University, Ames, IA, United States, [3]Wellcome Trust Sanger Institute, Hinxton, United Kingdom, [4]Wellcome Trust Sanger Institute, Giessen, United Kingdom

(ACMCIP Abstract)

Noon

2001

THE MICROBIOME IN THE COURSE OF URINARY SCHISTOSOMIASIS AND INDUCED PATHOLOGIES

Adewale Adebayo[1], Mangesh Survayanshi[2], Shrinkath Bhute[2], Raphael Isokpehi[3], Atinuke Agunloye[1], **Chiaka Anumudu**[1], Yogesh Shouche[2]
[1]University of Ibadan, Ibadan, Nigeria, [2]National Centre for Cell Science, Pune, India, [3]Bethune Cookman University, Daytona Beach, FL, United States

(ACMCIP Abstract)

12:15 p.m.

2002

HELMINTHS INDUCE PERSISTENT EPIGENETICALLY-MEDIATED PERTURBATIONS IN THE TUBERCULOSIS IMMUNE RESPONSE

Andrew DiNardo[1], Godwin Mtetwa[2], Temhlanga Mndzebele[2], Gugu Maphalala[3], Tomoki Nishiguchi[1], Rojelio A. Mejia[1], Alexander Kay[2], Emily M. Mace[1], George Makedonas[1], Anna Mandalakas[1]
[1]Baylor College of Medicine, Houston, TX, United States, [2]Baylor-Swaziland Children's Foundation, Mbabane, Swaziland, [3]Swaziland National Tuberculosis Laboratory, Mbabane, Swaziland

(ACMCIP Abstract)

12:30 p.m.

2003

DICHOTOMOUS EFFECTS OF IL-4 AND IL-10 ON HUMAN SCHISTOSOMIASIS IMMUNE RESPONSES

Huldah Sang[1], Rachael Hamilton[2], Isaac Onkanga[1], Bartholomew Ondigo[1], Thomas Schneider[2], Maurice Odiere[1], Pauline Mwinzi[1], Lisa Ganley-Leal[2]
[1]Kenya Medical Research Institute, Kisumu, Kenya, [2]STC - Biologics, Cambridge, MA, United States

(ACMCIP Abstract)

12:45 p.m.

2004

DEVELOPMENT OF AN INTERLEUKIN-4-INDUCING PRINCIPLE OF *SCHISTOSOMA MANSONI* EGGS (IPSE)-SPECIFIC PCR PLATFORM TO QUANTIFY EGG BURDENS ASSOCIATED WITH SCHISTOSOMIASIS

Dannah Farah[1], Evaristus Mbanefo[2], Michael Hsieh[3]
[1]The George Washington University School of Medicine and Health Sciences, Washington, DC, United States, [2]Biomedical Research Institute, Rockville, MD, United States, [3]Children's National Medical Center, Washington, DC, United States

Symposium 196

Preparing for the Next Epidemic through Military and Civilian Partnerships in West Africa

Convention Center - Room 339/340 (Level 300)
Thursday, November 9, 11:15 a.m. - 1 p.m.

The West African Ebola outbreak in 2014-2015 highlighted gaps in the global public health response and a lack of countermeasures. To help address this, the U.S. Department of Defense (DoD) invested in a strategic initiative called the Joint West Africa Research Group (JWARG) to leverage existing research platforms and relationships to improve bio-preparedness in the region. This symposium aims to highlight the unique role JWARG plays in capacity building and health system strengthening in the West African sub-region. The session is centered around perspectives of West African scientists and features early career investigators. The first panel will highlight capacity-building activities through partnerships. Speakers from the U.S., Nigeria, Ghana and Liberia will describe efforts to improve diagnostics and clinical surveillance of infectious disease leveraging the network. From building wells for clean water supply to getting a microbiology lab running and completing the first blood culture in Liberia for several years, speakers will highlight challenges faced. The second panel will introduce the research agenda around emerging infectious diseases through collaborative efforts among partner laboratory and research organizations. Speakers will discuss efforts around site and protocol development to begin surveillance studies and vaccine trials. The regulatory and ethical framework around research studies in this setting will be addressed.

CHAIR

Abiola Fasina
Henry Jackson Foundation/U.S. Military HIV Research Program, Bethesda, MD, United States

Julie Ake
Walter Reed Army Institute of Research/U.S. Military HIV Research Program, Bethesda, MD, United States

11:15 a.m.
INTRODUCTION

Julie Ake
U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Bethesda, MD, United States

11:20 a.m.
PANEL I: BUILDING CAPABILITY THROUGH PARTNERSHIPS

Kayla G. Barnes, Moderator
Broad Institute of Massachusetts Institute of Technology and Harvard, Cambridge, MA, United States

Brigadier General Nurudeen Ayoola Hussein
Nigerian Ministry of Defense, Abuja, Nigeria

Fatorma Bolay
Liberia Institute of Medical Research, Monrovia, Liberia

Jefferson Sibley
Phebe Hospital and School of Nursing, Gbarnga City, Liberia

Michelle Rozo
Austere Environments Consortium for Enhanced Sepsis Outcomes (ACESO), Fort Detrick, MD, United States

David Brett-Major
Henry M. Jackson Foundation/U.S. Military HIV Research Program, Bethesda, MD, United States

12:05 p.m.
PANEL 2: ADVANCING THE EMERGING INFECTIOUS DISEASE (EID) RESEARCH AGENDA IN WEST AFRICA

Andrew Letizia, Moderator
U.S. Navy Medical Research Unit - 3 Ghana Detachment, Accra, Ghana

George Oduro
Komfo Anokye Teaching Hospital, Kumasi, Ghana

Onikepe Folarin
African Center of Excellence for Genomics of Infectious Disease, Ede, Nigeria

Edward Nyarko
37th Military Hospital, Accra, Ghana

Senate Amusu
Walter Reed Program - Nigeria, Nigeria, Nigeria

Eugene Richardson
Harvard Medical School, Boston, MA, United States

Symposium 197

Use of Seroepidemiology to Guide Public Health Action

Convention Center - Room 341/342 (Level 300)
Thursday, November 9, 11:15 a.m. - 1 p.m.

The detection and quantitation of immune responses in serum (serosurveillance) is increasingly recognized as an important public health and scientific tool to aid in estimation of pathogen exposure and disease risk. Serosurveys provide measures of immunological encounters between individuals and pathogen, and overcome the limitations of clinical and microbial surveillance. Serosurveys have been used as an epidemiological tool to help estimate risk and exposure to various pathogens for public health decision-making. For example, seroepidemiological methods have been proposed and utilized as tools to guide vaccination strategies for several vaccine-preventable diseases, as well as to target control interventions. Recent advances in computational modeling and serologic assay technologies have increased the potential of seroepidemiology as a tool to guide public health action. This symposium has assembled a group of speakers who have experience with seroepidemiologic applications in a variety of neglected tropical diseases (NTDs). Three speakers will highlight cutting-edge research on the use of seroepidemiology for efforts against 1) malaria, 2) cholera, and 3) helminths and other enteric infections. The final speaker will present an overview of the current knowledge gaps and research opportunities in seroepidemiology. A panel discussion with audience participation will follow these talks.

CHAIR

Daniel T. Leung
University of Utah, Salt Lake City, UT, United States

Isabel Rodríguez-Barraquer
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

11:15 a.m.
USE OF CROSS-SECTIONAL SEROLOGIC DATA TO ESTIMATE RECENT EXPOSURE TO *VIBRIO CHOLERAE*
Andrew Azman
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

11:35 a.m.
TRACKING MALARIA BY ITS SHADOWS: SEROLOGICAL TOOLS TO CHARACTERIZE MALARIA TRANSMISSION
Isabel Rodríguez-Barraquer
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

11:55 a.m.
MULTIPLEX SEROLOGICAL ASSAYS PROVIDE RICH INFORMATION TO MEASURE CHANGES IN EXPOSURE, HETEROGENEITY OF TRANSMISSION AND CONCURRENT INFECTION OF INFECTIOUS DISEASES: EXAMPLES FROM HELMINTHS AND VIRAL, BACTERIAL AND PROTOZOAN ENTERIC PATHOGENS
Benjamin Arnold
University of California Berkeley, Berkeley, CA, United States

12:15 p.m.
EPIDEMIOLOGICAL DARK MATTER: USING SEROLOGY TO PROBE THE LANDSCAPE OF SUSCEPTIBILITY IN GLOBAL HEALTH
Jessica Metcalf
Princeton University, Princeton, NJ, United States

Thursday, November 9, 1 p.m.

ASTMH 66th Annual Meeting Adjourns

See you next year at the Sheraton New Orleans and New Orleans Marriott in New Orleans, Louisiana!

Presenter Index I:
Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions (Speakers and Session Chairs)

The number(s) following each individual's name indicates the session number.

See page 350 for the list of abstract authors of abstracts presented during Scientific Sessions and Poster Sessions

Presenter Index I: Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions (Speakers and Session Chairs)

The number(s) following each individual's name indicates the session number.

See page 350 for the list of abstract authors of abstracts presented during Scientific Sessions and Poster Sessions

Presenter Index II : Abstract Authors (Scientific Sessions and Poster Sessions)

The number(s) following the author name indicates the abstract number.

See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

A

Presenter Index II : Abstract Authors (Scientific Sessions and Poster Sessions)

The number(s) following the author name indicates the abstract number.

See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

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See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

B

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See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

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See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

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Presenter Index II : Abstract Authors (Scientific Sessions and Poster Sessions)

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See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

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See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

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Presenter Index II : Abstract Authors (Scientific Sessions and Poster Sessions)

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See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

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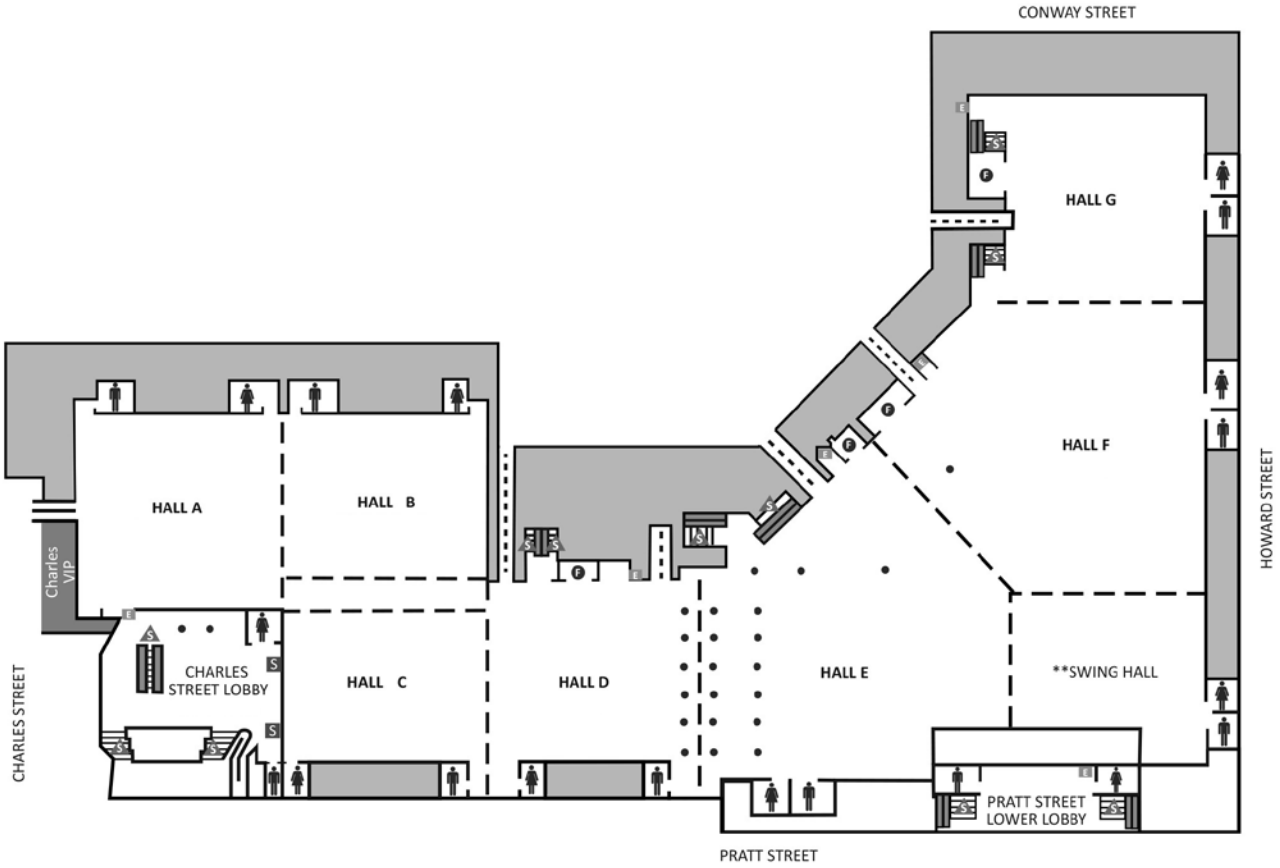
Z

Presenter Index II :
Abstract Authors (Scientific Sessions and Poster Sessions)

The number(s) following the author name indicates the abstract number.

See page 348 for the list of speakers and session chairs in Plenary, Symposium, Meet the Professors, Mid-Day and Special Sessions.

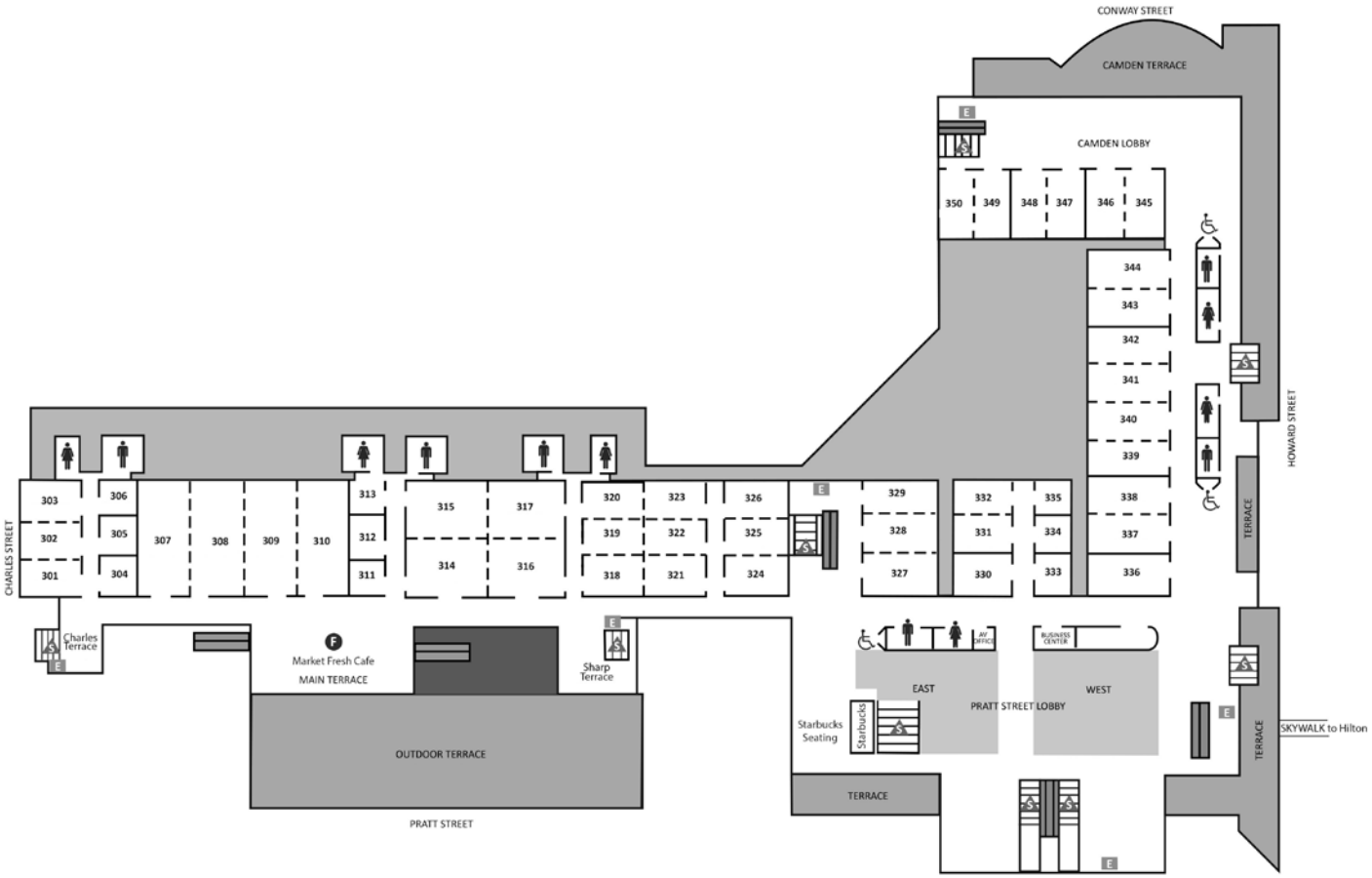
Level 100



Meeting Rooms

Swing Hall (Exhibit Hall)
Hall F and G (Poster Hall)

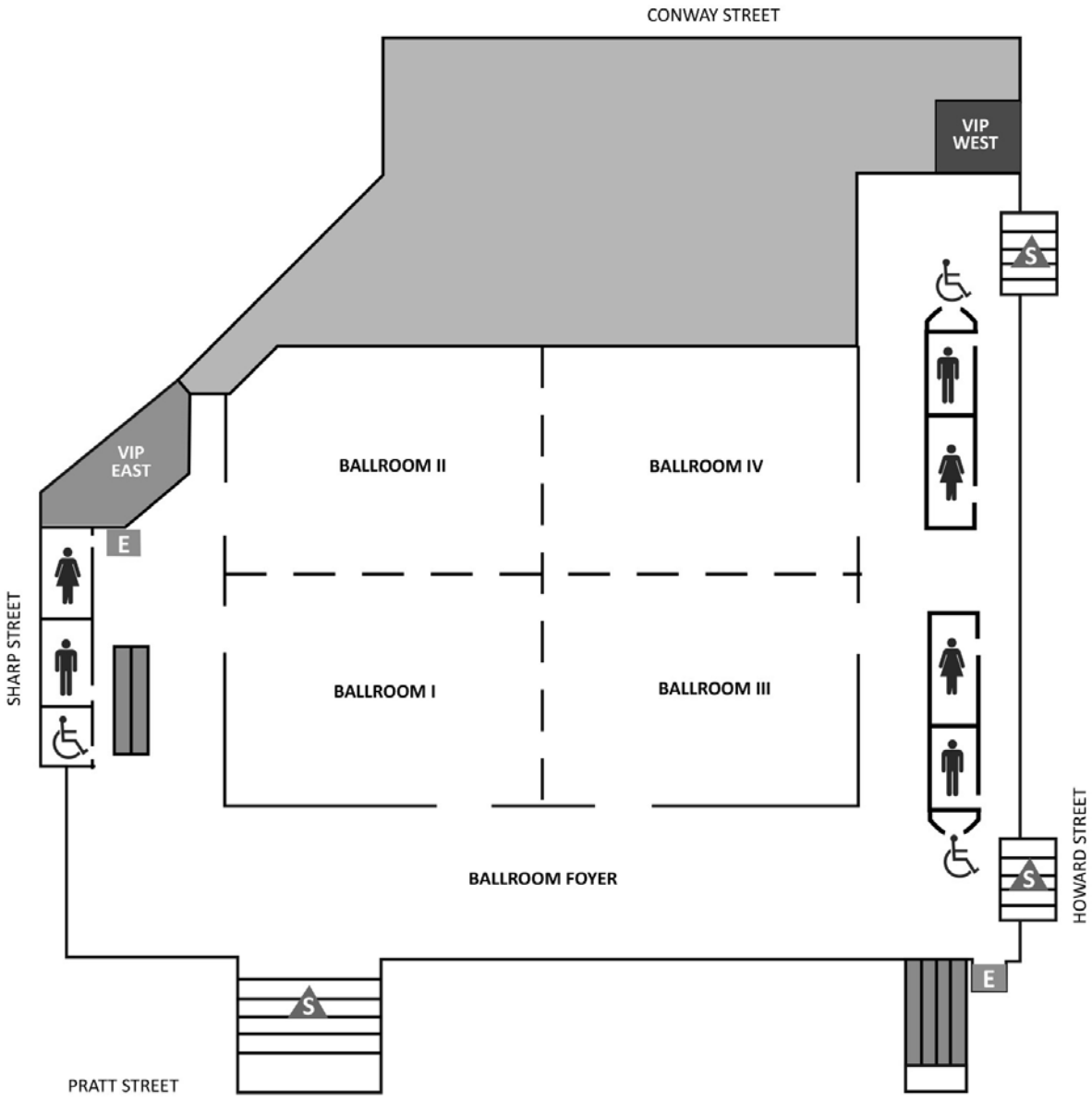
Level 300



Meeting Rooms

Skywalk to Hilton Baltimore
Pratt Street West Lobby (Registration)
Pratt Street West Lobby Foyer (TropStop Student Lounge)
Pratt Street East Lobby
Pratt Street East Lobby Foyer
Room 318/319/320
Room 321/322/323
Room 324/325/326
Room 327/328/329
Room 330 (Press Room)
Room 331/332
Room 334
Room 335
Room 336 (Speaker Ready Room)
Room 337/338
Room 339/340
Room 341/342
Room 343/344
Room 345
Room 346

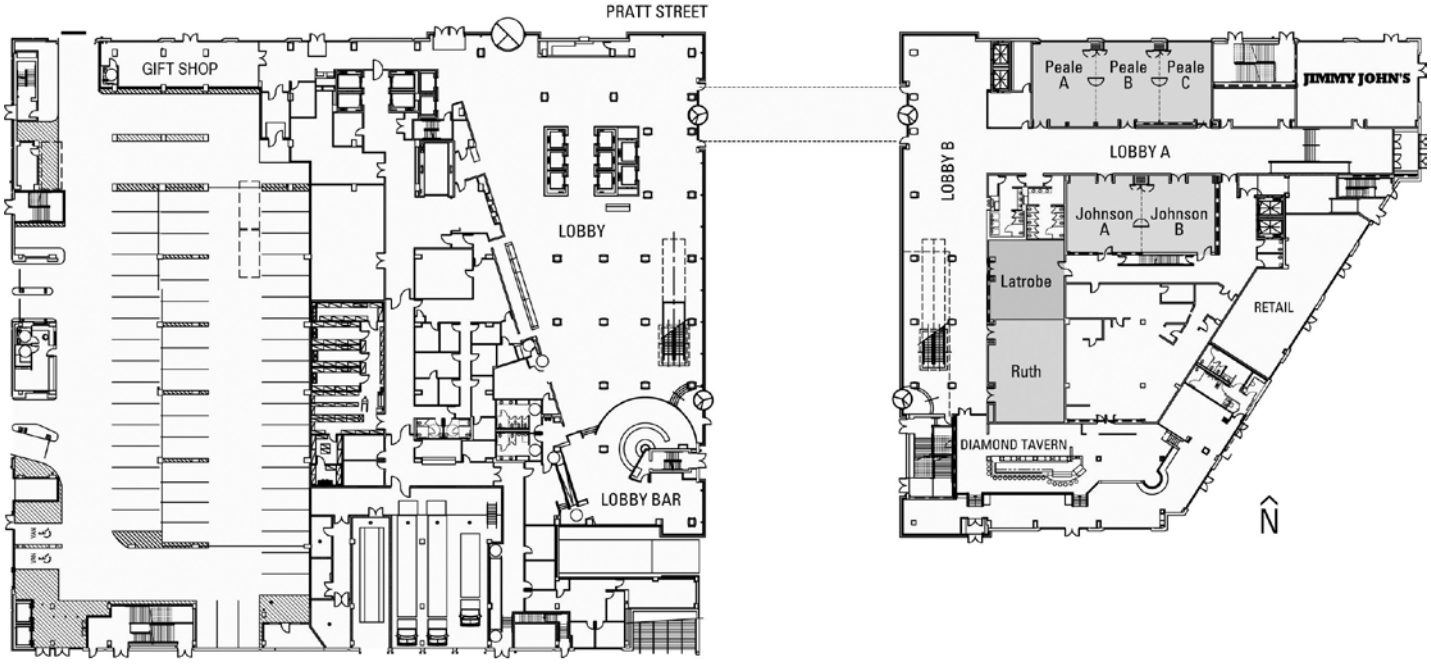
Level 400



Meeting Rooms

Ballroom I
Ballroom II
Ballroom III
Ballroom IV

First Floor

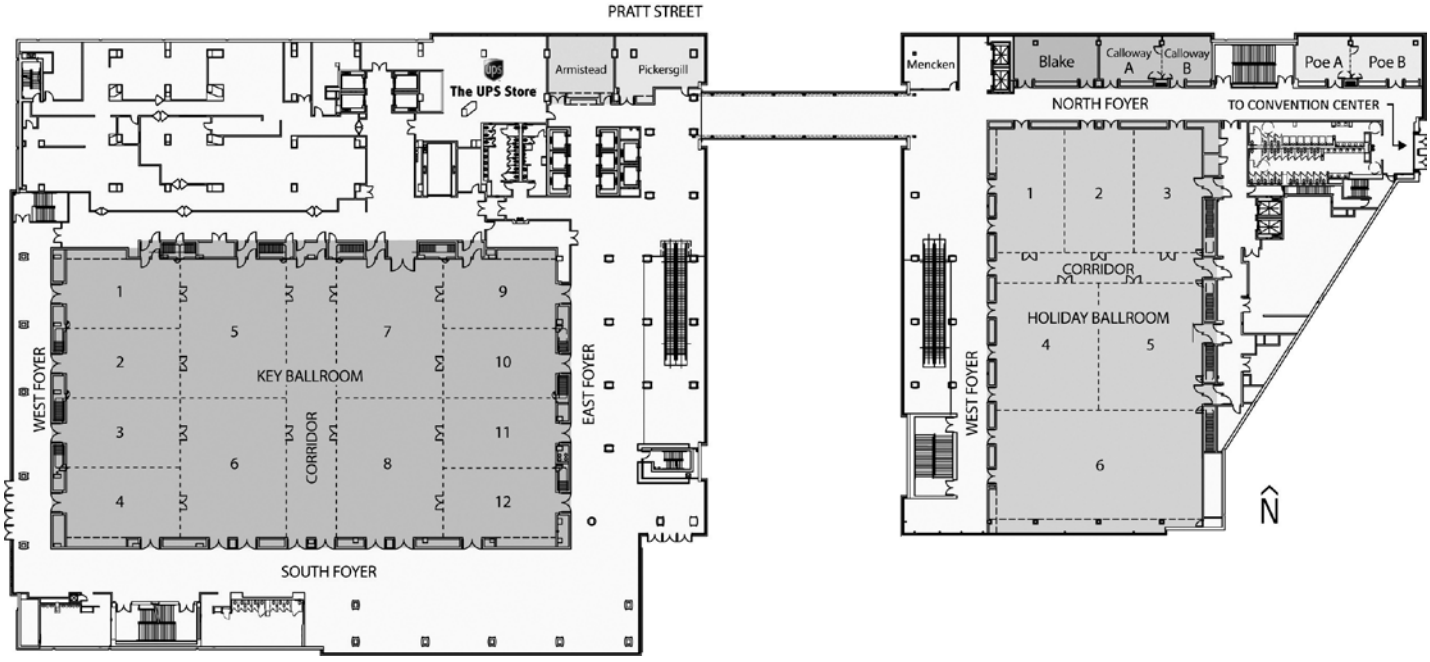


Meeting Rooms

First Floor – East Building

Johnson A
Johnson B
Latrobe
Peale A
Peale B
Peale C
Ruth

Second Floor



Meeting Rooms

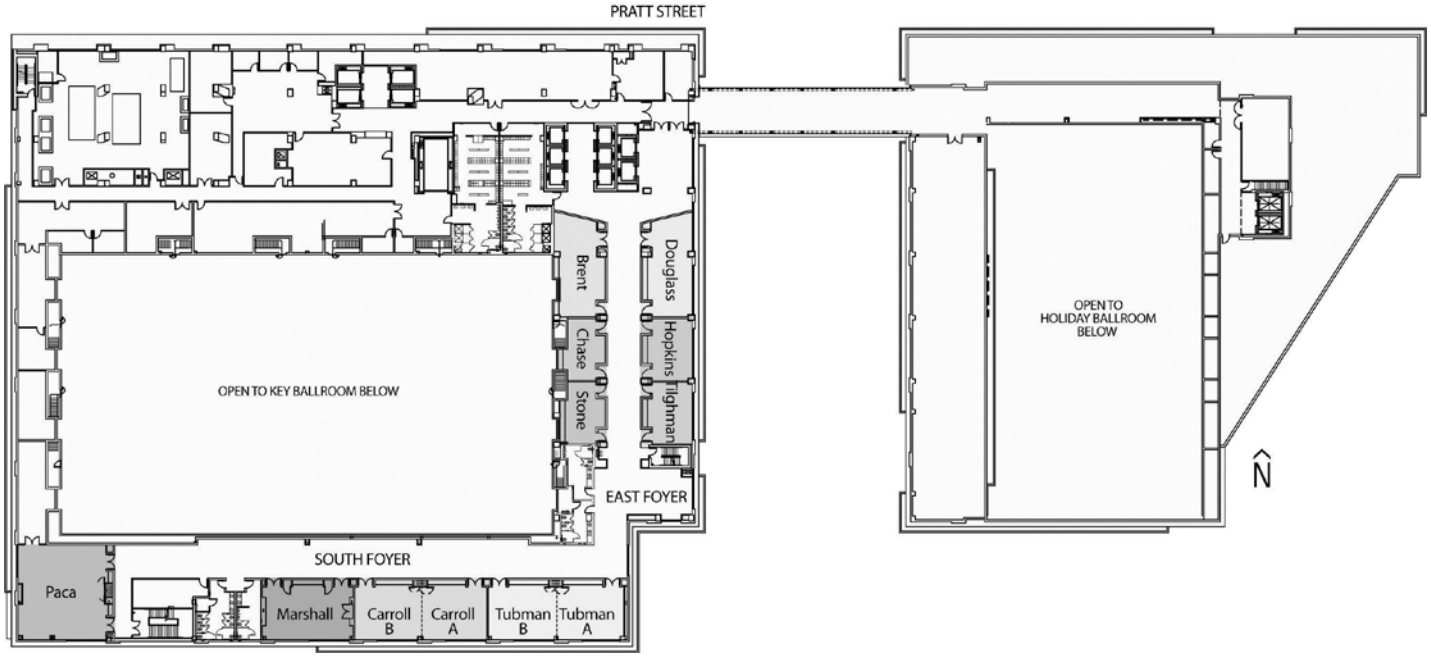
Second Floor – West Building

Armistead
Key Ballroom 1
Key Ballroom 2
Key Ballroom 3
Key Ballroom 4
Key Ballroom 5
Key Ballroom 6
Key Ballroom 7
Key Ballroom 8
Key Ballroom 9
Key Ballroom 10
Key Ballroom 11
Key Ballroom 12
Pickersgill

Second Floor – East Building

Skywalk to Baltimore Convention Center
Blake
Calloway A
Calloway B
Holiday Ballroom 1
Holiday Ballroom 2
Holiday Ballroom 3
Holiday Ballroom 4
Holiday Ballroom 5
Holiday Ballroom 6
Mencken (Lactation Room)

Third Floor



Meeting Rooms

Third Floor – West Building

Brent
Carroll A
Caroll B
Chase
Douglass
Hopkins
Marshall
Paca
Stone
Tilghman
Tubman A
Tubman B

ASTMH

AMERICAN SOCIETY OF TROPICAL MEDICINE & HYGIENE

ADVANCING GLOBAL HEALTH SINCE 1903

MARK YOUR CALENDAR!

66th Annual Meeting
November 5–9, 2017 (Sunday through Thursday)
The Baltimore Convention Center
Baltimore, Maryland USA

67th Annual Meeting
October 28 – November 1, 2018 (Sunday through Thursday)
Sheraton New Orleans and New Orleans Marriott
New Orleans, Louisiana USA

68th Annual Meeting
November 20–24, 2019 (Wednesday through Sunday)
Gaylord National Resort and Convention Center
National Harbor, Maryland USA (adjacent to Washington, DC)

69th Annual Meeting
November 15-19, 2020 (Sunday through Wednesday)
Metro Toronto Convention Centre
Toronto, Ontario, Canada

70th Annual Meeting
November 17-21, 2021
Gaylord National Resort and Convention Center
National Harbor, Maryland USA (adjacent to Washington, DC)

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