



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

SIXTY-SEVENTH

# ANNUAL MEETING

Sheraton New Orleans and New Orleans Marriott | New Orleans, LA USA

October 28 – November 1, 2018

## LATE BREAKER ABSTRACTS PRESENTATION SCHEDULE

“There will be epidemics...”

**EBOLA: WORLD GOES ON RED ALERT**

-2014

**Six Dead, 17 Sick From  
Drug-Resistant TB**

-2017

**Spread of Spanish Flu Menaces War Production**

-1918

**Charity to Help Fight  
Malaria in Africa**

-2010

**Ebola Out of Control**

-2014

**Success in Tests of Yellow  
Fever Serum Reported**

-1932

**Dengue Dengue  
EVERYWHERE**

-2017

**ASTMH Annual Meeting  
Canceled Due to  
Spanish Flu Outbreak**

-1918

**FDA Busts Fake  
Malaria Medicines**

-2013

**African Countries to Plot New Malaria Vaccine**

-2017

**ZIKA THREAT  
ON OUR  
DOORSTEP**

-2016

**An American  
Plague:  
Yellow Fever  
Epidemic of 1793**

-2005

**Island Declares State of Emergency  
Over Zika Virus, Dengue Fever Outbreak**

-2016

**Brace for  
Dengue**

-2017

**Zika Spreads Worldwide**

-2016

**DIPHTHERIA:  
Why Is It Back?**

-2017

**New Hope  
for AIDS Drug**

-1996

**Malaria Cases  
on the Rise  
in Last 3 Years**

-2016

**QUARANTINE WANTED  
as Yellow-Fever Spreads**

-1878

**Officials: Texas Sees Growing  
Number of Typhus Cases**

-2017

**Death Toll Growing as Influenza  
Claims Many Score Victims**

-1918

**Cholera Epidemic  
in Yemen Now  
Affects One  
Million People**

-2017

**Been to an Ebola-affected country?  
Stay away from ASTMH meeting, Louisiana says**

-2014

**Panic as  
1,500  
Die of  
Malaria**

-1888



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**Late-Breaker Abstract Session 23**  
**Late-Breakers in Clinical and Applied Sciences**  
**Oral Presentations**

Monday, October 29, 12:15 p.m. - 1:30 p.m.  
Marriott - Mardi Gras D (3rd Floor)

**CHAIR**

Barbara L. Herwaldt  
Centers for Disease Control and Prevention, Atlanta, GA, United States

Noreen A. Hynes  
Johns Hopkins University School of Medicine, Baltimore, MD, United States

Jason D. Maguire  
Pfizer, White Plains, NY, United States

**12:15 p.m.**

**LB-5200**

**Zika virus circulation and microcephaly in Angola**

**Sarah C. Hill**<sup>1</sup>, Jocelyne Vasconcelos<sup>2</sup>, Zoraima Neto<sup>2</sup>, Domingos Jandondo<sup>2</sup>, Renato de Aguiar<sup>3</sup>, Joilson Xavier<sup>4</sup>, Julien Thézé<sup>1</sup>, Marinela Mirandela<sup>2</sup>, Cruz Sebastião<sup>2</sup>, Ana Luísa Cândido<sup>2</sup>, Filipa Vaz<sup>2</sup>, Joana Afonso<sup>2</sup>, Nuno R. Faria<sup>1</sup>

<sup>1</sup>University of Oxford, Oxford, United Kingdom, <sup>2</sup>Instituto Nacional de Investigação em Saúde, Luanda, Angola, <sup>3</sup>Instituto de Biologia, Rio de Janeiro, Brazil, <sup>4</sup>Instituto Oswaldo Cruz, Rio de Janeiro, Brazil

**12:25 p.m.**

**LB-5201**

**Outbreak of Nipah Virus Disease in Kerala, India, 2018**

**Govindakarnavar Arunkumar**<sup>1</sup>, Jazeel Abdulmajeed<sup>1</sup>, Sushama Aswathyraj<sup>1</sup>, Devadiga Santhosha<sup>1</sup>, Jayaram Anup<sup>1</sup>, Nittur Sudheesh<sup>1</sup>, Jagadesh Anitha<sup>1</sup>, S. Robin<sup>1</sup>, Sasidharanpillai Sabeena<sup>1</sup>, Mohammed Shakir<sup>1</sup>, A S Anoop Kumar<sup>2</sup>, Chandni Radhakrishnan<sup>3</sup>, K G Sajeeth Kumar<sup>3</sup>, Vasudevan Jayasree<sup>4</sup>, K J Reena<sup>5</sup>, R L Sarita<sup>5</sup>  
<sup>1</sup>Manipal Academy of Higher Education, UDUPI, Karnataka, India, <sup>2</sup>Baby Memorial Hospital, Kozhikode, India, <sup>3</sup>Government Medical College, Kozhikode, India, <sup>4</sup>Directorate of Health Services, Government of Kerala, Kozhikode, India, <sup>5</sup>Directorate of Health Services, Government of Kerala, Thiruvananthapuram, India

**12:35 p.m.**

**LB-5202**

**Rift Valley Fever Outbreak in Kenya, 2018**

**Hassan Abdala**<sup>1</sup>, Fred Andayi<sup>2</sup>, Jack Omollo<sup>1</sup>, Elizabeth Oele<sup>1</sup>, Maurice Omondi<sup>1</sup>, Albert Ngonga<sup>1</sup>, Ali Noor<sup>1</sup>, Mathew Mutiiria<sup>1</sup>, Dominic Wamamba<sup>1</sup>, Mark Obonyo<sup>1</sup>, Jane Githuku<sup>1</sup>, Waqo Boru<sup>1</sup>, Abduba Liban<sup>3</sup>, Victor Ofula<sup>4</sup>, Mathew Muturi<sup>5</sup>, Abdikadir Issack<sup>6</sup>, Adam Hassan<sup>6</sup>, Solomon Gikundi<sup>7</sup>, Timothy Nzomo<sup>7</sup>, Tura Galgalo<sup>2</sup>, Marc-Alain Widdowson<sup>2</sup>, Kevin De Cock<sup>2</sup>, Sara Lowther<sup>2</sup>, Zeinab Gura<sup>1</sup>, Peninah Munyua<sup>2</sup>

<sup>1</sup>Field Epidemiology and Laboratory Training Program, Kenya, Nairobi, Kenya, <sup>2</sup>Centre for Disease Control and Prevention, Kenya, Nairobi, Kenya, <sup>3</sup>Marsabit County Department of Health, Kenya, Marsabit, Kenya, <sup>4</sup>Kenya Medical Research Institute, Nairobi, Kenya, <sup>5</sup>Kenya Zoonotic Disease Unit, Nairobi, Kenya, <sup>6</sup>Wajir County Department of Health, Kenya, Wajir, Kenya, <sup>7</sup>National Public Health Laboratory, Kenya, Nairobi, Kenya

**12:45 p.m.**

**LB-5203**

**One-Year Follow-up of Fractional-Dose Yellow Fever Vaccine Recipients - Kinshasa, Democratic Republic of Congo (DRC), 2017**

**Rebecca M. Casey**<sup>1</sup>, Jennifer B. Harris<sup>1</sup>, Steve Ahuka-Mundeke<sup>2</sup>, Pierre M. Nsele<sup>2</sup>, Gabriel M. Kizito<sup>2</sup>, Meredith G. Dixon<sup>1</sup>, Janeen Laven<sup>1</sup>, Abdou S. Gueye<sup>1</sup>, Raimi Ewetola<sup>1</sup>, Terri B. Hyde<sup>1</sup>, J. Erin Staples<sup>1</sup>, Jean-Jacques Muyembe-Tamfum<sup>2</sup>  
<sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>Institut National de Recherche Biomédicale, Kinshasa, Democratic Republic of the Congo

**Late-Breaker Abstract Session 23**  
**Late-Breakers in Clinical and Applied Sciences**  
**Oral Presentations**

*Monday, October 29, 12:15 p.m. - 1:30 p.m.*  
*Marriott - Mardi Gras D (3rd Floor)*

**12:55 p.m.**

**LB-5204**

**Efficacy of double and triple drug treatment for *Brugia timori* infection in Indonesia**

**Yenny Djuardi**<sup>1</sup>, Michael Christian<sup>1</sup>, Elisa Iskander<sup>1</sup>,  
Adriani Lomiga<sup>2</sup>, Gary J. Weil<sup>3</sup>, Peter U. Fischer<sup>3</sup>,  
Taniawati Supali<sup>1</sup>

<sup>1</sup>*Department of Parasitology, Universitas Indonesia, Jakarta, Indonesia,* <sup>2</sup>*Universitas Nusa Cendana, Kupang, Indonesia,* <sup>3</sup>*Washington University School of Medicine, St. Louis, MO, United States*

**1:05 p.m.**

**LB-5205**

**The resistance of Azithromycin, administered in combination with seasonal malaria chemoprevention among children under five years old, was not decreased one year after the intervention**

**Jean Bosco Ouedraogo**<sup>1</sup>, Soumeya Hema-Ouangaoua<sup>2</sup>, Issaka Zongo<sup>1</sup>, Irene Kuepfer<sup>3</sup>,  
Matthew Cairn<sup>3</sup>, Frederic Nikiema<sup>1</sup>, Serge R. Yerbanga<sup>1</sup>, Halidou Tinto<sup>1</sup>, Daniel Chandramohan<sup>3</sup>,  
Brian Greenwood<sup>3</sup>

<sup>1</sup>*IRSS, Bobo-Dioulasso, Burkina Faso,* <sup>2</sup>*Centre Muraz, Bobo-Dioulasso, Burkina Faso,* <sup>3</sup>*London School of Hygiene and Tropical Medicine, London, United Kingdom*

**1:15 p.m.**

**LB-5206**

**Safety and Immunogenicity of a Single-Dose Live Oral Cholera Vaccine in Children and Adolescents**

**Sean R. Bennett**<sup>1</sup>, James McCarty<sup>2</sup>, Lisa Bedell<sup>1</sup>,  
Michael Lock<sup>1</sup>, Douglas J. Haney<sup>1</sup>, Cynthia Strout<sup>3</sup>,  
Marc Gurwith<sup>1</sup>, Lisa Danzig<sup>1</sup>

<sup>1</sup>*PaxVax, Inc., Redwood City, CA, United States,* <sup>2</sup>*Stanford University School of Medicine, Stanford, CA, United States,* <sup>3</sup>*Coastal Carolina Research Center, Mt Pleasant, SC, United States*

## Late-Breaker Abstract Session 78

### Late-Breakers in Basic Sciences

Tuesday, October 30, 12:15 p.m. - 1:30 p.m.

Marriott - Mardi Gras D (3rd Floor)

#### CHAIR

Naomi Forrester

University of Texas Medical Branch, Galveston, TX, United States

Nicholas A. Bergren

Colorado State University, Fort Collins, CO, United States

**12:15 p.m.**

#### LB-5396

**The mosquito mycobiome is diverse and distinct from its larval environment**

**Patil Tawidian**, Kristin Michel, Ari Jumpponen  
Kansas State University, Manhattan, KS, United States

**12:25 p.m.**

#### LB-5397

**A novel insecticide developed from a non-live preparation of the bacterium *Chromobacterium* sp. *Panama* (Csp\_P) effectively kills *Aedes aegypti* larvae**

**Eric Caragata**, Luisa Otero, George Dimopoulos  
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

**12:35 p.m.**

#### LB-5398

**The effect of pathogens, genetics and human odour on attractiveness to mosquitoes**

**James G. Logan**<sup>1</sup>, Ailie Robinson<sup>1</sup>, Julien Martinez<sup>1</sup>, Katherine Oke<sup>1</sup>, Anette Busula<sup>2</sup>, Richard Mukabana<sup>3</sup>, John Pickett<sup>4</sup>, John Armour<sup>5</sup>, Steve Lindsay<sup>6</sup>, Willem Takken<sup>7</sup>, Jetske de Boer<sup>7</sup>  
<sup>1</sup>London School of Hygiene & Trop. Med. and ARCTEC, London, United Kingdom, <sup>2</sup>Kaimosi Friends University College, Kenya, Kenya, <sup>3</sup>School of Biological Sciences, University of Nairobi, Nairobi, Kenya, <sup>4</sup>Cardiff University, Cardiff, United Kingdom, <sup>5</sup>University of Nottingham, London, United Kingdom, <sup>6</sup>Durham University, Durham, United Kingdom, <sup>7</sup>Laboratory of Entomology, Wageningen University, Wageningen, Netherlands

**12:45 p.m.**

#### LB-5399

**Ubiquitous, nonlinear effects of temperature on vector-borne disease: malaria, dengue, Zika, West Nile, and beyond**

**Erin A. Mordecai**<sup>1</sup>, Leah R. Johnson<sup>2</sup>, Jason R. Rohr<sup>3</sup>, Sadie J. Ryan<sup>4</sup>, Van Savage<sup>5</sup>, Marta S. Shocket<sup>1</sup>, Anna Stewart Ibarra<sup>6</sup>, Matthew B. Thomas<sup>7</sup>  
<sup>1</sup>Stanford University, Stanford, CA, United States, <sup>2</sup>Virginia Polytechnic Institute and State University, Blacksburg, VA, United States, <sup>3</sup>University of South Florida, Tampa, FL, United States, <sup>4</sup>University of Florida, Gainesville, FL, United States, <sup>5</sup>University of California Los Angeles, Los Angeles, CA, United States, <sup>6</sup>State University of New York Upstate Medical University, Syracuse, NY, United States, <sup>7</sup>Pennsylvania State University, State College, PA, United States

**12:55 p.m.**

#### LB-5400

**Downregulation of female *doublesex* expression by RNA interference reduces numbers and fitness of *Anopheles gambiae* adult females**

**Mabel L. Taracena**<sup>1</sup>, Catherine Hunt<sup>1</sup>, Mark Q. Benedict<sup>1</sup>, Pamela Pennington<sup>2</sup>, Ellen M. Dotson<sup>3</sup>  
<sup>1</sup>CDC Foundation, Atlanta, GA, United States, <sup>2</sup>Universidad del Valle de Guatemala, Guatemala City, Guatemala, <sup>3</sup>CDC, Atlanta, GA, United States

**Late-Breaker Abstract Session 78**

**Late-Breakers in Basic Sciences**

*Tuesday, October 30, 12:15 p.m. - 1:30 p.m.*

*Marriott - Mardi Gras D (3rd Floor)*

**1:05 p.m.**

**LB-5401**

**Comparative 3D Genome Organization in Apicomplexan Parasites link genome organization and gene expression in more virulent pathogens**

Evelien M. Bunnik<sup>1</sup>, Aarthi Venkat<sup>2</sup>, Jianlin Shao<sup>2</sup>, Kathryn McGovern<sup>3</sup>, Gayani Batugedara<sup>3</sup>, Jacques Prudhomme<sup>3</sup>, Stacey Lapp<sup>4</sup>, Chiara Andolina<sup>5</sup>, Leila S. Ross<sup>6</sup>, Photini Sinnis<sup>7</sup>, Francois Nosten<sup>5</sup>, David A. Fidock<sup>6</sup>, Emma H. Wilson<sup>3</sup>, Rita Tewari<sup>8</sup>, Mary R. Galinski<sup>4</sup>, Choukri Ben Mamoun<sup>9</sup>, Ferhat Ay<sup>2</sup>, **Karine G. Le Roch**<sup>3</sup>

<sup>1</sup>The University of Texas Health Science Center, San Antonio, TX, United States, <sup>2</sup>La Jolla Institute for Allergy & Immunology, La Jolla, CA, United States, <sup>3</sup>UNIVERSITY OF CALIFORNIA, Riverside, CA, United States, <sup>4</sup>Emory University, Atlanta, GA, United States, <sup>5</sup>Mahidol-Oxford Tropical Medicine Research Unit, Mae Sot, Thailand, <sup>6</sup>Columbia University Medical Center, New York, NY, United States, <sup>7</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>8</sup>University of Nottingham, Nottingham, United Kingdom, <sup>9</sup>Yale School of Medicine, Connecticut, CT, United States

**1:15 p.m.**

**LB-5402**

**SmNPP5 - a key schistosome tegumental enzyme - cleaves host purinergic signaling nucleotides to potentially exert both anti-thrombotic and anti-inflammatory effects**

**Catherine S. Nation**, Akram A. Da'darah, Patrick J. Skelly  
*Cummings School of Veterinary Medicine at Tufts University, North Grafton, MA, United States*

## Late-Breaker Abstract Session 134

### Late-Breakers in Malaria

Wednesday, October 31, 12:15 p.m. - 1:30 p.m.

Marriott - Mardi Gras D (3rd Floor)

#### CHAIR

Urszula Krzych

Walter Reed Army Institute of Research, Silver Spring, MD, United States

**12:15 p.m.**

**LB-5596**

#### **Transcriptional signatures identified by systems biology predict protection after whole *Plasmodium falciparum* sporozoite and RTS,S/AS01E immunization**

**Gemma Moncunill**<sup>1</sup>, Anja Scholzen<sup>2</sup>, Maximilliam Mpina<sup>3</sup>, Augusto J. Nhabomba<sup>4</sup>, Aurore Bouyoukou Hounkpatin<sup>5</sup>, Lourdes Osaba<sup>6</sup>, Raquel Valls<sup>7</sup>, Joseph J. Campo<sup>8</sup>, Héctor Sanz<sup>8</sup>, Chenjerai Jairoce<sup>4</sup>, Nana Aba Williams<sup>9</sup>, Erica M. Pasini<sup>10</sup>, David Arteta<sup>6</sup>, Joan Maynou<sup>6</sup>, Lourdes Palacios<sup>11</sup>, Miquel Duran-Frigola<sup>12</sup>, John J. Aponte<sup>13</sup>, Clemens H. M. Kocken<sup>14</sup>, Selidji Todagbe Agnandji<sup>15</sup>, José Manuel Mas<sup>7</sup>, Benjamin Mordmüller<sup>16</sup>, Claudia Daubenberger<sup>17</sup>, Robert W. Sauerwein<sup>2</sup>, Carlota Dobaño<sup>18</sup>

<sup>1</sup>ISGlobal, Barcelona, Spain, <sup>2</sup>Department of Medical Microbiology, Radboud University Medical Center, Nijmegen, Netherlands, <sup>3</sup>Ifakara Health Institute. Bagamoyo Research and Training Centre. P.O. Box 74 Bagamoyo, Tanzania. <sup>4</sup>Swiss Tropical and Public Health Institute, Socinstrasse 57, 4002 Basel, Switzerland. <sup>5</sup>University of Basel, Petersplatz 1, 4001 Basel, Switzerland., <sup>6</sup>Bagamoyo, United Republic of Tanzania, <sup>7</sup>Centro de Investigação em Saúde de Manhiça (CISM), Rua 12, Cambeve, Vila de Manhiça, CP 1929, Maputo, Mozambique, <sup>8</sup>Centre de Recherches Médicales de Lambaréné (CERMEL), Lambaréné, Gabon, <sup>9</sup>Progenika Biopharma. A Grifols Company, S.A., Derio, Vizcaya, Spain, <sup>10</sup>Anaxomics Biotech, S.L, Barcelona, Spain, <sup>11</sup>ISGlobal, Hospital Clínic - Universitat de Barcelona, Barcelona, Catalonia, Spain., <sup>12</sup>ISGlobal, Hospital Clínic - Universitat de Barcelona, Barcelona, Spain, <sup>13</sup>ISGlobal, Hospital Clínic - Universitat de Barcelona, Barcelona, Catalonia, Spain, <sup>14</sup>Department of Parasitology, Biomedical Primate Research Centre, Rijswijk, Netherlands, <sup>15</sup>Progenika Biopharma, S.A., Derio, Vizcaya, Spain, <sup>16</sup>Institute for Research in Biomedicine (IRB Barcelona). The Barcelona Institute of Science and Technology, Barcelona, Spain, <sup>17</sup>ISGlobal, Hospital Clínic - Universitat de Barcelona, Barcelona, Catalonia, Spain, <sup>18</sup>Department of Parasitology, Biomedical Primate Research Centre, Rijswijk, Netherlands, <sup>19</sup>Centre de Recherches Médicales de Lambaréné (CERMEL), BP 242, Lambaréné, Gabon. <sup>20</sup>Institute of Tropical Medicine and German Center for Infection Research, University of Tübingen, Wilhelmstraße 27 D-72074,

Lambaréné, Gabon, <sup>21</sup>Institute of Tropical Medicine and German Center for Infection Research, University of Tübingen, Wilhelmstraße 27 D-72074, Tübingen, Germany, <sup>22</sup>Swiss Tropical and Public Health Institute, Socinstrasse 57, 4002 Basel, Switzerland. <sup>23</sup>University of Basel, Petersplatz 1, 4001, Basel, Switzerland, <sup>24</sup>ISGlobal, Hospital Clínic - Universitat de Barcelona, Barcelona, Catalonia, Spain. <sup>25</sup>Centro de Investigação em Saúde de Manhiça (CISM), Rua 12, Cambeve, Vila de Manhiça, CP 1929, Maputo, Mozambique., <sup>26</sup>Barcelona, Spain

**12:25 p.m.**

**LB-5597**

#### **A Phase IIa, Open-label, CHMI Study to Evaluate the Efficacy, Immunogenicity and Safety of RTS,S/AS01E and RTS,S/AS01B Administered at Various Dosages and Regimens in Healthy Malaria-Naïve Adults**

**James E. Moon**, on behalf of the RTS,S Working Group  
Walter Reed Army Institute of Research, Silver Spring, MD, United States

**12:35 p.m.**

**LB-5598**

#### **Safety and causal prophylactic efficacy of KAF156 in a controlled human malaria infection model**

**James G. Kublin**<sup>1</sup>, Daniel Stein<sup>2</sup>, Sean Murphy<sup>3</sup>, Jay Prakash Jain<sup>4</sup>, Janine Maenza<sup>1</sup>, Kelly Shipman<sup>1</sup>, Budhaditya Goswami<sup>5</sup>, Danielle Spera<sup>2</sup>, Rachel Soon<sup>2</sup>, Rong Zhao<sup>6</sup>, Joel Loeng<sup>7</sup>, Peter Pertel<sup>8</sup>, William Prince<sup>8</sup>  
<sup>1</sup>Fred Hutchinson Cancer Research Center, Seattle, WA, United States, <sup>2</sup>Novartis, East Hanover, NJ, United States, <sup>3</sup>University of Washington, Seattle, WA, United States, <sup>4</sup>Novartis Institutes of Tropical Diseases, Emeryville, CA, United States, <sup>5</sup>Novartis Healthcare, Hyderabad, India, <sup>6</sup>Highland Capital, Shanghai, China, <sup>7</sup>Drug Discovery and Development, Agency for Science, Technology and Research, Singapore, Singapore, <sup>8</sup>Novartis Institutes of Biomedical Research, Cambridge, MA, United States

**Late-Breaker Abstract Session 134**

**Late-Breakers in Malaria**

Wednesday, October 31, 12:15 p.m. - 1:30 p.m.  
Marriott - Mardi Gras D (3rd Floor)

**12:45 p.m.**

**LB-5599**

**Modulation of triple artemisinin-based combination therapy pharmacodynamics by *Plasmodium falciparum* genotype**

**Richard T. Eastman**<sup>1</sup>, Megan R. Ansbro<sup>1</sup>, Zina Itkin<sup>1</sup>, Lu Chen<sup>1</sup>, Chanaki Amaratunga<sup>1</sup>, Olivo Miotto<sup>2</sup>, Tyler Peryea<sup>1</sup>, Juliana M. Sa<sup>1</sup>, Rob W. van der Pluijm<sup>2</sup>, Thomas E. Wellems<sup>1</sup>, Craig J. Thomas<sup>1</sup>  
<sup>1</sup>National Institutes of Health, Rockville, MD, United States, <sup>2</sup>Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand

**12:55 p.m.**

**LB-5600**

**A Quantitative Assessment of the Spatial Decision Support System as a Novel Surveillance system in Vietnam**

**Nicholas J. Martin**<sup>1</sup>, Kinley Wangdi<sup>2</sup>, Sara E. Canavati<sup>3</sup>, Thang D. Ngo<sup>4</sup>, Thu M. Nguyen<sup>3</sup>, Long K. Tran<sup>3</sup>, Duong T. Tran<sup>4</sup>, Archie CA Clements<sup>2</sup>  
<sup>1</sup>United States Naval Medical Research Unit TWO, Singapore, Singapore, <sup>2</sup>Research School of Population Health, Australian National University, Canberra, Australia, <sup>3</sup>Vysnova Partners, Inc., Bethesda, MD, United States, <sup>4</sup>The National Institute of Malariology, Parasitology, and Entomology, Hanoi, Vietnam

**1:05 p.m.**

**LB-5601**

**Characterization of the impact of the mosquito complement-like response on shaping the transmitted malaria parasite populations**

**Maria Giorgalli**, Chiamaka Valerie Ukegbu, Dina Vlachou, George K. Christophides  
Imperial College London, London, United Kingdom

**1:15 p.m.**

**LB-5602**

**Resolving within-host malaria parasite diversity using single cell sequencing**

**Ian H. Cheeseman**<sup>1</sup>, Standwell C. Nkhoma<sup>2</sup>, Simon G. Trevino<sup>1</sup>, Karla Gorena<sup>3</sup>, Shalini Nair<sup>1</sup>, Stanley Khoswe<sup>2</sup>, Catherine Jett<sup>1</sup>, Roy Garcia<sup>1</sup>, Benjamin Daniel<sup>3</sup>, Aliou Dia<sup>1</sup>, Dianne Terlouw<sup>2</sup>, Stephen A. Ward<sup>4</sup>, Timothy J. Anderson<sup>1</sup>  
<sup>1</sup>Texas Biomedical Research Institute, San Antonio, TX, United States, <sup>2</sup>Malawi-Liverpool-Wellcome Trust Clinical Research Programme, Blantyre, Malawi, <sup>3</sup>University of Texas Health Science Center San Antonio, San Antonio, TX, United States, <sup>4</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom



**Poster Session 22**  
**Poster Session A**  
**Late Breakers in Basic Sciences**  
*Monday, October 29, Noon - 1:45 p.m.*  
*Marriott - Grand Ballroom (3rd Floor)*

Arthropods/Entomology .....	#LB-5000 through LB-5014
Cestodes .....	#LB-5015 through LB-5018
Helminths - Nematodes.....	#LB-5019 through LB-5027
Malaria .....	#LB-5028 through LB-5059
One Health: Interface of Human Health/Animal Diseases .....	#LB-5060 through LB-5071
Viruses .....	#LB-5072 through LB-5081

**LB-5000**

**Molecular determinants affecting vector competence of Zika and West Nile Viruses**

**Yee Tsuey Ong**, Kimberly M. Anderson, Juliette Dean, Karen L. Boroughs, Janae L. Stovall, Aaron Brault, Claire Y.-H. Huang  
*Arboviral Diseases Branch, Division of Vector-Borne Diseases, Centers for Disease Control and Prevention, Fort Collins, CO, United States*

**LB-5001**

**Insecticide resistance status of *Aedes aegypti* mosquitoes in Bangladesh**

**Mohammad Shafiul Alam**<sup>1</sup>, Hasan Mohammad Al-Amin<sup>1</sup>, Seth Robert Irish<sup>2</sup>, Fatema Tuj Johora<sup>1</sup>, Lucrecia Vizcaino<sup>2</sup>, Audrey Lenhart<sup>2</sup>  
<sup>1</sup>*icddr,b, Dhaka, Bangladesh*, <sup>2</sup>*Centers for Disease Control and Prevention, Atlanta, GA, United States*

**LB-5002**

**Investigation of potential causes of febrile illness in Khon Kaen Province, Thailand with focus on scrub typhus, rickettsioses, malaria infection and dengue virus infection**

**WARANYA BUADOK**  
*USAMD-AFRIMS, Bangkok, Thailand*

**LB-5003**

**A preliminary statewide survey of the tick fauna and associated pathogens in Alabama**

**Raphael R. Wood**, Jonathan Rayner, John McCreadie  
*University of South Alabama, Mobile, AL, United States*

**LB-5004**

**Can a 3D printed mosquito light trap be a cost-effective sampling tool?**

**Tomonori Hoshi**<sup>1</sup>, Shigeharu Sato<sup>2</sup>, Victor A. Brugman<sup>1</sup>, Thomas Ant<sup>1</sup>, Gaku Masuda<sup>3</sup>, Bumpei Tojo<sup>3</sup>, Satoshi Kaneko<sup>4</sup>, Kazuhiko Moji<sup>3</sup>, James G. Logan<sup>1</sup>  
<sup>1</sup>*London School of Hygiene & Tropical Medicine, London, United Kingdom*, <sup>2</sup>*Universiti Malaysia Sabah Faculty of Medicine and Health Sciences, Sabah, Malaysia*, <sup>3</sup>*Nagasaki University School of Tropical Medicine and Global Health, Nagasaki, Japan*, <sup>4</sup>*Nagasaki University Institute of Tropical Medicine, Nagasaki, Japan*

**LB-5005**

**Long-read and Hi-C- based *de novo* assembly of the *Aedes albopictus* genome**

Jeffrey R. Powell<sup>1</sup>, Sergey Koren<sup>2</sup>, Arang Rhie<sup>2</sup>, Jay Ghurye<sup>3</sup>, Spencer J. Johnston<sup>4</sup>, Jake Tu<sup>5</sup>, Maria Sharakova<sup>5</sup>, Adam M. Phillippy<sup>2</sup>, **Mariangela Bonizzoni**<sup>6</sup>  
<sup>1</sup>*Yale University, New Haven, CT, United States*, <sup>2</sup>*National Institutes of Health, Bethesda, MD, United States*, <sup>3</sup>*National Human Genome Research Institute and University of Maryland, Bethesda, MD, United States*, <sup>4</sup>*Texas A&M University, College Station, TX, United States*, <sup>5</sup>*Virginia Tech, Blacksburg, VA, United States*, <sup>6</sup>*University of Pavia, Pavia, Italy*

**Poster Session A**  
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### LB-5006

**Detection of *Rickettsia spp* and *Coxiella burnetti* in ticks collected in Northern and Southern Ghana**

**JANICE A. TAGOE<sup>1</sup>, Shirley Nimo-Painstil<sup>2</sup>, Mba Mosore<sup>1</sup>, Seth O. Addo<sup>1</sup>, Clara Yeboah<sup>1</sup>, Bright Agbodzie<sup>1</sup>, Eric Behene<sup>1</sup>, Danielle Ladzekpo<sup>1</sup>, Charlotte A. Addae<sup>1</sup>, Courage Dafeamekpor<sup>3</sup>, Allen L. Richards<sup>4</sup>, Jeff Koehler<sup>5</sup>, Randal Schoepp<sup>5</sup>, Anne Fox<sup>2</sup>, Andrew Letizia<sup>2</sup>, Joseph W. W. Diclaro II<sup>6</sup>, Samuel Dadzie<sup>1</sup>**

<sup>1</sup>Noguchi Memorial Institute for Medical Research, Greater Accra, Ghana, <sup>2</sup>Naval Medical Research Unit No3, Ghana Detachment, Greater Accra, Ghana, <sup>3</sup>Ghana Armed Forces, Greater Accra, Ghana, <sup>4</sup>Naval Medical Research Center, Silver Spring, MD, United States, <sup>5</sup>United States Army Medical Research Institute of Infectious Diseases, Frederick, MD, United States, <sup>6</sup>Navy Entomology Center of Excellence, Jacksonville, FL, United States

### LB-5007

**Kinetics of dengue virus infection in *Aedes aegypti***

**Mario Novelo Canto**

The Pennsylvania State University, State College, PA, United States

### LB-5008

**Genomic and chromosomal differentiation between *Culex pipiens* forms *pipiens* and *molestus***

**Reem A. Masri<sup>1</sup>, Andrey A. Yurchenko<sup>2</sup>, Megan L. Fritz<sup>3</sup>, Maria V. Sharakhova<sup>1</sup>**

<sup>1</sup>Virginia Tech, Blacksburg, VA, United States, <sup>2</sup>Gustave Roussy Cancer Center, Paris, France, <sup>3</sup>University of Maryland, Maryland, MD, United States

### LB-5009

**Eave ribbons treated with the spatial repellents, transfluthrin, can effectively protect against indoor-biting and outdoor-biting malaria mosquitoes**

**Arnold S. Mmbando**, Halfan S. Ngowo, Alex J. Limwagu, Masoud Kilalangongono, Khamis Kifungo, Fredros O. Okumu  
Ifakara Health Institute, Morogoro, United Republic of Tanzania

### LB-5010

**Genomic and symbiotic analyses of *Asaia sp. W12* isolated from the gut of the mosquito *Anopheles stephensi***

Shicheng Chen, **Edward D. Walker**  
Michigan State University, East Lansing, MI, United States

### LB-5011

**Mitochondrial-nuclear interactions in *Aedes aegypti* and their effects on *Wolbachia***

**Heather A. Flores**, Jyotika Taneja De Bruyne, Silk Lin, Etienne C. Pacidonio, Scott L. O'Neill, Cameron P. Simmons  
Monash University, Clayton, Australia

### LB-5012

**How house design affects malaria transmission and indoor climate: an experimental study in rural Gambia**

**Ebrima Jatta<sup>1</sup>, Musa Jawara<sup>2</sup>, John Bradley<sup>3</sup>, David Jeffries<sup>2</sup>, Balla Kandeh<sup>4</sup>, Jakob Knudsen<sup>5</sup>, Anne Wilson<sup>1</sup>, Margaret Pinder<sup>1</sup>, Umberto D'Alessandro<sup>2</sup>**  
<sup>1</sup>Durham University, Durham City, United Kingdom, <sup>2</sup>MRC Unit The Gambia at LSHTM, Fajara, Gambia, <sup>3</sup>LSHTM, London, United Kingdom, <sup>4</sup>NMCP, Banjul, Gambia, <sup>5</sup>KADK, Copenhagen, Denmark

### LB-5013

**Abundance Pattern of *Anopheles* Mosquitoes Species in three Environments in Northwestern Argentina**

**María Julia Dantur-Juri<sup>1</sup>**, Gabriela Flores<sup>1</sup>, Liliana Galindo<sup>2</sup>, Mirta Santana<sup>2</sup>, Edecio Villarroel-Martínez<sup>1</sup>, Mario Zaidenberg<sup>3</sup>  
<sup>1</sup>Unidad Ejecutora Lillo (CONICET-Fundación Miguel Lillo), San Miguel de Tucumán- Tucumán, Argentina, <sup>2</sup>Facultad de Medicina, Universidad Nacional de Tucumán, San Miguel de Tucumán- Tucumán, Argentina, <sup>3</sup>Coordinación Nacional de Control de Vectores, Ministerio de Salud de la Nación, San Miguel de Tucumán- Tucumán, Argentina

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**LB-5014**

**Larval Habitats of *Anopheles* Species in Peri Rural and Rural Environments on the Malaria Endemic Area of Northwest Argentina**

**María Julia Dantur-Juri**<sup>1</sup>, Gabriela Flores<sup>1</sup>, Liliana Galindo<sup>2</sup>, Mirta Santana<sup>3</sup>, Edecio Villarroel-Martínez<sup>1</sup>, Mario Zaidenberg<sup>4</sup>

<sup>1</sup>Unidad Ejecutora Lillo (CONICET-Fundación Miguel Lillo), San Miguel de Tucumán- Tucumán, Argentina, <sup>2</sup>Cátedra de Bioestadística, Facultad de Medicina, Universidad Nacional de Tucumán, San Miguel de Tucumán- Tucumán, Argentina, <sup>3</sup>Facultad de Medicina, Universidad Nacional de Tucumán, San Miguel de Tucumán- Tucumán, Argentina, <sup>4</sup>Coordinación Nacional de Control de Vectores, Ministerio de Salud de la Nación, San Miguel de Tucumán- Tucumán, Argentina

**LB-5015**

**Characterization of the Calcification Process of Brain Cysts in Pigs with Neurocysticercosis**

**Javier A. Bustos**<sup>1</sup>, Laura Baquedano<sup>1</sup>, Gianfranco Arroyo<sup>1</sup>, Juan F. Calcina<sup>2</sup>, Ana Vargas-Calla<sup>2</sup>, Castillo Erick<sup>3</sup>, Juan Chacaltana<sup>3</sup>, Armando E. Gonzalez<sup>2</sup>, Robert H. Gilman<sup>4</sup>, Hector H. Garcia<sup>1</sup>

<sup>1</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>Universidad Nacional Mayor de San Marcos, Lima, Peru, <sup>3</sup>Instituto Nacional de Ciencias Neurológicas, Lima, Peru, <sup>4</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

**LB-5016**

**Genomic phylogeny of human- and non-human-infective tapeworms in genus *Taenia***

**Christina M. Bergey**<sup>1</sup>, Stephen M. Johnson<sup>1</sup>, Abby Koenig<sup>1</sup>, Alexis P. Sullivan<sup>1</sup>, Belgees Boufana<sup>2</sup>, Philip S. Craig<sup>3</sup>, Yesenia Castillo<sup>4</sup>, Siddhartha Mahanty<sup>5</sup>, Héctor H. García<sup>4</sup>, George Perry<sup>1</sup>

<sup>1</sup>Pennsylvania State University, University Park, PA, United States, <sup>2</sup>National Reference Laboratory for *Echinococcus* & *Trichinella*, Animal and Plant Health Agency (APHA), York, United Kingdom, <sup>3</sup>University of Salford, Greater Manchester, United Kingdom, <sup>4</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>5</sup>University of Melbourne, Melbourne, Australia

**LB-5017**

**A novel experimental pig model for neurocysticercosis via carotid *Taenia solium* oncosphere infection: Determination of the minimal infective dose and histopathological characterization**

**Gianfranco Arroyo**<sup>1</sup>, Javier A. Bustos<sup>1</sup>, Laura Baquedano<sup>1</sup>, Juan F. Calcina<sup>2</sup>, Ana M. Vargas-Calla<sup>2</sup>, Nancy Chile<sup>1</sup>, Juan Chacaltana<sup>3</sup>, Manuela Verastegui<sup>1</sup>, Robert H. Gilman<sup>4</sup>, Armando E. Gonzalez<sup>2</sup>, Hector H. Garcia<sup>1</sup>

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**LB-5018**

**Design of a recombinant protein expression against classical swine fever virus and *Taenia solium* using *Salmonella enteritidis* as vector**

**Katherine Calderon**<sup>1</sup>, Manolo Fernandez<sup>1</sup>, Eloy Gonzalez<sup>2</sup>, Eliana Icochea<sup>2</sup>, Teresa Lopez-Urbina<sup>2</sup>, Ana Vargas-Calla<sup>2</sup>, Luis A. Gomez-Puerta<sup>2</sup>, Armando E. Gonzalez<sup>2</sup>

<sup>1</sup>Farmacologicos Veterinarios SAC (FARVET), Ica, Peru, <sup>2</sup>Universidad Nacional Mayor de San Marcos, Lima, Peru

**LB-5019**

**Antigenic cross-reactivity between *Schistosoma mansoni* and the house dust mite *Dermatophagoides farinae*: a role for cross-reactive carbohydrate determinants (CCDs) and implications for the hygiene hypothesis**

**Fatou Gai**

University of Nottingham, Nottingham, United Kingdom

**LB-5020**

**Prevalence of anisakid nematode larvae in food fishes in Lima, Peru**

**Ana Vargas-Calla**<sup>1</sup>, Luis A. Gomez-Puerta<sup>1</sup>, Claudio R. Zuñiga<sup>1</sup>, Nathaly M. Gil<sup>1</sup>, Maria T. Lopez-Urbina<sup>1</sup>, Hector H. Garcia<sup>2</sup>, Armando E. Gonzalez<sup>1</sup>

<sup>1</sup>Univ Nacional Mayor de San Marcos, Lima, Peru, <sup>2</sup>Univ Peruana Cayetano Heredia, Lima, Peru

**LB-5021**

**Initial results from the first international external quality assessment scheme (EQAS) for PCR-based detection of Soil Transmitted Helminths (STH) and *Schistosoma* in stool**

**Lisette van Lieshout**

Representing the board of the Parasitology section of the Dutch Foundation for Quality Assessment in Medical Laboratories (SKML) and the international Helminth External Molecular Quality Assessment Scheme (HEMQAS) workgroup, Netherlands

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### **LB-5022**

#### **Pyruvate kinase as a potential anti-filarial target for filarial nematodes**

**Waleed Ali**, Denis Voronin  
New York Blood Center, New York, NY, United States

### **LB-5023**

#### ***Loa loa* microfilaremia drives false positivity in skin snips: consequences for onchocerciasis monitoring and evaluation in *L. loa*-endemic areas**

**Hugues Nana Djeunga**<sup>1</sup>, Joseph Kubofick<sup>2</sup>, Floribert Fossuo-Thotchum<sup>1</sup>, Sébastien Pion<sup>3</sup>, Cédric Chesnais<sup>3</sup>, Amy Klion<sup>2</sup>, Charles Mackenzie<sup>4</sup>, Michel Boussinesq<sup>3</sup>, Thomas Nutman<sup>2</sup>, Joseph Kamgno<sup>1</sup>  
<sup>1</sup>Centre for Research on Filariasis and other Tropical Diseases (CRFiMT), Yaoundé, Cameroon, <sup>2</sup>Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States, <sup>3</sup>IRD UMI 233-INSERM U1175-Montpellier University, Montpellier, France, <sup>4</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom

### **LB-5024**

#### **Estimating soil-transmitted helminth prevalence through pooling: choosing and optimizing pooling protocol**

**James Truscott**<sup>1</sup>, Julia Dunn<sup>1</sup>, Marina Papaïakovou<sup>2</sup>, Marleen Werkman<sup>1</sup>, Fabian Schaer<sup>2</sup>, Tim Littlewood<sup>2</sup>, Judd Walson<sup>3</sup>, Roy Anderson<sup>1</sup>  
<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>Natural History Museum, London, United Kingdom, <sup>3</sup>University of Washington, Seattle, WA, United States

### **LB-5025**

#### **Investigating *Phortica variegata* distribution and behaviour in the UK: the potential for autochthonous transmission of *Thelazia callipaeda***

**John Graham-Brown**<sup>1</sup>, Jennifer Palfreyman<sup>2</sup>, Paul Gilmore<sup>3</sup>, Benjamin Makepeace<sup>1</sup>, Diana J. Williams<sup>1</sup>  
<sup>1</sup>Infection and Global Health, Liverpool, United Kingdom, <sup>2</sup>Institute of Veterinary Science, Liverpool, United Kingdom, <sup>3</sup>Liverpool Veterinary Parasitology Diagnostics, Liverpool, United Kingdom

### **LB-5026**

#### **Porcine neurocysticercosis: effect of anti-inflammatory pretreatment on Treg and Th17**

#### **responses after anthelmintic-induced inflammation**

**Renzo Gutierrez-Loli**, David Castañeda, Ayme Yupari, Cristina Guerra-Giraldez  
Universidad Peruana Cayetano Heredia, Lima, Peru

### **LB-5027**

#### **Effects of FDA-approved Antibiotics on *Brugia pahangi* and *Wolbachia* *in vitro* and *in vivo***

**Emma Gunderson**<sup>1</sup>, Christina Bulman<sup>1</sup>, Ian Vogel<sup>1</sup>, Laura Chappel<sup>2</sup>, KC Lim<sup>1</sup>, Chelsea Fischer<sup>1</sup>, Jiri Gut<sup>1</sup>, Nancy Tricoche<sup>3</sup>, Denis Voronin<sup>3</sup>, Sara Lustigman<sup>3</sup>, William Sullivan<sup>2</sup>, Judy Sakanari<sup>1</sup>  
<sup>1</sup>Center for Parasitic Diseases, University of California San Francisco, San Francisco, CA, United States, <sup>2</sup>Department of Molecular, Cell and Developmental Biology, Sinsheimer Labs, University of California Santa Cruz, Santa Cruz, CA, United States, <sup>3</sup>Lindsley F. Kimball Research Institute, New York Blood Center, New York, NY, United States

### **LB-5028**

#### **The Search for a Thermostable Rapid Diagnostic Test (RDT) Positive Control for Military and Clinical Trial Use in Malaria Endemic Countries**

Patricia Lee, **Susan Leed**, Lisa Read, David Donkin, Margarita Vidal, Eric Kim, Sophia Kish, Richard Sciotti, Daniel Erwin, Jangwoo Lee, Scott Seronello, Chad Black, Mara Kreishman-Deitrick, Mark Hickman  
Walter Reed Army Institute of Research, Silver Spring, MD, United States

### **LB-5029**

#### **Re-evaluating the coverage indicator for Indoor Residual Spraying (IRS): Who are we truly protecting in malaria control and elimination?**

**Mercy Opiyo**<sup>1</sup>, Krijn Paaijmans<sup>2</sup>  
<sup>1</sup>ISGLOBAL, Barcelona, Spain, <sup>2</sup>Arizona State University, Tempe, AZ, United States

### **LB-5030**

#### **CRISPR/Cas9-mediated gene knockout of *Plasmodium falciparum* DNA gyrase reveals its essentiality in blood-stage parasites apicoplast but no change in sensitivity to bacterial gyrase inhibitors**

**SooNee Tan**, Devaraja G. Mudeppa, Pradipsinh K. Rathod  
University of Washington, Seattle, WA, United States

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**LB-5031**

**Indoor residual spraying in Sub-Saharan Africa; mapping trends of insecticide classes from 1997 to 2017**

**Julie-Anne A. Tangena**<sup>1</sup>, Anna Trett<sup>1</sup>, Penny Hancock<sup>2</sup>, Alison Reynolds<sup>1</sup>, Catherine Moyes<sup>2</sup>, Michael Coleman<sup>1</sup>  
<sup>1</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>2</sup>Big Data Institute, University of Oxford, Oxford, United Kingdom

**LB-5032**

**Phosphofructokinase, a key enzyme in glycolysis, is involved in resistance to antiplasmodial glycosides**

**Gillian M. Fisher**<sup>1</sup>, Simon A. Cobbold<sup>2</sup>, Andrew Jezewski<sup>3</sup>, Emma Carpenter<sup>4</sup>, Megan Arnold<sup>1</sup>, Tina S. Skinner-Adams<sup>1</sup>, Marcus Lee<sup>4</sup>, Audrey Odom John<sup>3</sup>, Elizabeth Winzeler<sup>5</sup>, Malcolm McConville<sup>2</sup>, Sally-Ann Poulsen<sup>1</sup>, Katherine T. Andrews<sup>1</sup>  
<sup>1</sup>Griffith University, Nathan, Australia, <sup>2</sup>University of Melbourne, Melbourne, Australia, <sup>3</sup>Washington School of Medicine, St Louis, MO, United States, <sup>4</sup>Wellcome Sanger Institute, Cambridge, United Kingdom, <sup>5</sup>University of California, San Diego, CA, United States

**LB-5033**

**Analysis of reactive strategies for malaria control and elimination**

**Nakul Chitnis**, Theresa Reiker, Thomas A. Smith  
*Swiss Tropical and Public Health Institute, Basel, Switzerland*

**LB-5034**

**Early Inhibition of Fatty Acid Synthesis Reduces Generation of Memory Precursor Effector T cells in Chronic Infection**

**Samad A. Ibitokou**<sup>1</sup>, Brian E. Dillon<sup>1</sup>, Mala Sinha<sup>1</sup>, Bartosz Szczesny<sup>1</sup>, Añahi Delgadillo<sup>1</sup>, Doaa Reda Abdelrahman<sup>1</sup>, Csaba Szabo<sup>1</sup>, Lutfi Abu-Elheiga<sup>2</sup>, Craig Porter<sup>1</sup>, Demidmaa Tuvdendorj<sup>1</sup>, Robin Stephens<sup>1</sup>  
<sup>1</sup>University of Texas Medical Branch, Galveston, TX, United States, <sup>2</sup>Baylor College of Medicine, Houston, TX, United States

**LB-5035**

**Evaluating the efficacy of AMA1-RON2, RH5, RIPR and CyRPA antibody combinations in inhibiting growth of *P. falciparum***

**Yvonne Azasi**<sup>1</sup>, Ababacar Diouf<sup>1</sup>, Michael P. Fay<sup>2</sup>, Kazutoyo Miura<sup>1</sup>, Rebecca A. Dabbs<sup>3</sup>, Jing Jin<sup>3</sup>, Syed Y. Mian<sup>4</sup>, David L. Narum<sup>5</sup>, Carole A. Long<sup>1</sup>, Deepak Gaur<sup>4</sup>, Simon J. Draper<sup>3</sup>, Louis H. Miller<sup>1</sup>  
<sup>1</sup>Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States, <sup>2</sup>Biostatistics Research Branch, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States, <sup>3</sup>The Jenner Institute, University of Oxford, Oxford, United Kingdom, <sup>4</sup>Laboratory of Malaria and Vaccine Research, School of Biotechnology, Jawaharlal Nehru University, New Delhi, India, <sup>5</sup>Laboratory of Malaria Immunology and Vaccinology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States

**LB-5036**

**A single step PCR method for improved characterization of *P. falciparum* parasites with *hrp2* gene deletions**

**Sophie Jones**, Michael Aidoo, Eldin Talundzic  
*Centers for Disease Control and Prevention, Atlanta, GA, United States*

**LB-5037**

**Transcriptomic signatures of severe malarial anemia in a comparative non-human primate model study**

**Amber I. Raja**  
*National Institutes of Health, Rockville, MD, United States*

**LB-5038**

**A sub-lethal temporary feeding interruption effect of pyrethroids could reduce the impact of pyrethroid resistant mosquitoes on malaria transmission**

**Joel Hellewell**, Ellie Sherrard-Smith, Tom Churcher  
*Imperial College London, LONDON, United Kingdom*

**LB-5039**

***Plasmodium falciparum* infected erythrocytes can bind to host receptor integrin  $\alpha$ V $\beta$ 3 through DBL2 domain of PFL2665c PfEMP1 protein**

Olga Chesnokov<sup>1</sup>, Jordan Merritt<sup>1</sup>, Sergey O. Tcherniuk<sup>1</sup>, Neta Milman<sup>2</sup>, **Andrew V. Oleinikov**<sup>1</sup>  
<sup>1</sup>CES College of Medicine, Florida Atlantic University, Boca Raton, FL, United States, <sup>2</sup>Seattle Biomedical Research Institute, Seattle, WA, United States

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### LB-5040

**Genome wide assessment of gene copy number and SNP variation in *Plasmodium vivax* isolates from Ethiopia**

**Anthony Ford**<sup>1</sup>, Eugenia Lo<sup>1</sup>, Daniel Janies<sup>1</sup>, Karthigayan Gunalan<sup>2</sup>, Louis H. Miller<sup>2</sup>, Julian C. Rayner<sup>3</sup>, Guiyun Yan<sup>4</sup>, Delenasaw Yewhalaw<sup>5</sup>, Beka Raya<sup>6</sup>

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### LB-5041

**Comprehensive analysis of antibody responses to full-length PfEMP1 domains**

**Eizo Takashima**<sup>1</sup>, Bernard N. Kanoi<sup>1</sup>, Hikaru Nagaoka<sup>1</sup>, Masayuki Morita<sup>1</sup>, Michael T. White<sup>2</sup>, Nirianne M. Palacpac<sup>3</sup>, Edward H. Ntege<sup>1</sup>, Betty Balikagala<sup>1</sup>, Adoke Yeka<sup>4</sup>, Thomas G. Egwang<sup>5</sup>, Toshihiro Horii<sup>3</sup>, Takafumi Tsuboi<sup>1</sup>  
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### LB-5042

**High-throughput RFLP assay for the identification of glycoprotein B deletion variants**

**Dominic S. Amuzu**<sup>1</sup>, Kirk Rockett<sup>2</sup>, Ellen Leffler<sup>3</sup>, Felix Ansah<sup>1</sup>, Nicholas Amoako<sup>1</sup>, Christina Hubbard<sup>2</sup>, Kate Rowlands<sup>2</sup>, Anna Jeffreys<sup>2</sup>, Lucas Amenga-Etego<sup>1</sup>, Dominic Kwiatkowski<sup>4</sup>, Gordon A. Awandare<sup>1</sup>  
<sup>1</sup>West Africa Centre for Cell Biology of Infectious Pathogens, Department of Biochemistry, Cell and Molecular Biology, University of Ghana, Accra, Ghana, <sup>2</sup>Wellcome Centre for Human Genetics, Nuffield Department of Medicine, University of Oxford, Oxford, United Kingdom, <sup>3</sup>Wellcome Sanger Institute, Wellcome Genome Campus, Hinxton, Cambridgeshire, United Kingdom, <sup>4</sup>Big Data Institute, University of Oxford, Oxford, United Kingdom

### LB-5043

**Multi-omics Approaches to Identify the Molecular Targets and Mode of Action of Quinoline Antimalarials in *Plasmodium falciparum***

**Grennady Wirjanata**, Ka Diam Go, Jerzy Michal Dziekan, Han Yu, Par Nordlund, Zbynek Bozdech  
Nanyang Technological University, Singapore, Singapore

### LB-5044

**Antimalarial drug exposure triggers distinct cellular responses in drug sensitive versus resistant *Plasmodium falciparum* parasites**

Sharareh Maleki, Sarah J. Reiling, **Petra Rohrbach**  
Institute of Parasitology, McGill University, Ste. Anne de Bellevue, QC, Canada

### LB-5045

**A novel Duffy-binding like domain identified in an atypical VAR2CSA expressed by a maternal *Plasmodium falciparum* isolate**

**Justin Y. Doritchamou**<sup>1</sup>, Robert Morisson<sup>1</sup>, Jose Ribeiro<sup>2</sup>, Michal Fried<sup>1</sup>, Patrick E. Duffy<sup>1</sup>  
<sup>1</sup>Laboratory of Malaria Immunology & Vaccinology, National Institute of Allergy and Infectious Disease, Rockville, MD, United States, <sup>2</sup>Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Disease, Rockville, MD, United States

### LB-5046

**Understanding the impact of human movement and landuse on the resurgence of malaria in urban areas of Ghana. erstanding the impact of human movement and landuse on the resurgence of malaria in urban areas of Ghana**

**CHEIKH C. DIENG**

UNC CHARLOTTE, CHARLOTTE, NC, United States

### LB-5047

**The *Plasmodium berghei* *abcg* gene is associated with oxidative stress and altered drug sensitivity**

**Emilee E. Colón-Lorenzo**, Angélica de Jesús-Sosa, Ricardo González-Méndez, Adelfa E. Serrano  
University of Puerto Rico-School of Medicine, San Juan, Puerto Rico

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### LB-5048

#### **Building the capacity of partner militaries malaria control programs in Africa**

**Samuel K. Dadzie**<sup>1</sup>, Joseph W. Diclaro<sup>2</sup>, Maxwell A. Appawu<sup>1</sup>, Abraham K. Anang<sup>1</sup>, Jason Rice<sup>3</sup>, Thomas Gilbreath<sup>4</sup>, Edward Nyarko<sup>5</sup>, Edward Korsterman<sup>6</sup>  
<sup>1</sup>*Noguchi Memorial Institute for Medical Research, Accra, Ghana*, <sup>2</sup>*Navy Entomology Centre of Excellence (NECE), Florida, FL, United States*, <sup>3</sup>*Navy Environmental and Preventive Medicine Unit No. 7, Rota, Spain*, <sup>4</sup>*Malaria Diagnostic Center, USAMRD-K, Kisumu, Kenya*, <sup>5</sup>*Public Health Department, 37 Military Hospital, Ghana Armed Forces, Accra, Ghana*, <sup>6</sup>*USAFRICOM Command Surgeon Office, Stuttgart, Germany*

### LB-5049

#### **Large-scale implementation of seasonal malaria chemoprevention (SMC) in far north Cameroon: The use of geographic information system (GIS) tracking in supply chain management (SCM)**

**Philippe Marien Tache**<sup>1</sup>, Patrick GAPARAYI<sup>1</sup>, Dorothy Achu Fosah<sup>2</sup>, Glenn Gimuh Muffih<sup>1</sup>, Jean Pierre Kidwang<sup>2</sup>, Wilfried Wenceslas Amougou Tobo<sup>1</sup>, Sali Djele<sup>2</sup>, Alexis Tougordi<sup>3</sup>, Clerisse Lemke<sup>4</sup>, Cisse Badara<sup>5</sup>  
<sup>1</sup>*Chemonics International Inc., Yaounde, Cameroon*, <sup>2</sup>*National Malaria Control Program, Yaounde, Cameroon*, <sup>3</sup>*WHO, Yaounde, Cameroon*, <sup>4</sup>*USAID, Washington, DC, United States*, <sup>5</sup>*RBM partnership to end Malaria, Dakar, Senegal*

### LB-5050

#### **Elimination of Intravascular Thrombi Prevents Early Mortality and Reduces Gliosis in Hyper-inflammatory Experimental Cerebral Malaria**

Kyle D. Wilson<sup>1</sup>, Lorenzo F. Ochoa<sup>1</sup>, Olivia D. Solomon<sup>1</sup>, Rahul Pal<sup>1</sup>, Sandra M. Cardona<sup>2</sup>, Victor H. Carpio<sup>1</sup>, Philip H. Keiser<sup>1</sup>, Astrid E. Cardona<sup>2</sup>, Gracie Vargas<sup>1</sup>, **Robin Stephens**<sup>1</sup>  
<sup>1</sup>*University of Texas Medical Branch, Galveston, TX, United States*, <sup>2</sup>*University of Texas San Antonio, San Antonio, TX, United States*

### LB-5051

#### **Rapid profiling of the intraerythrocytic developmental cycle in the malaria parasite *Plasmodium falciparum***

**Aliou Dia**, Catherine Jett, Marina McDew-White, Timothy J.C. Anderson, Ian H. Cheeseman

*Department of Genetics - Texas Biomedical Research Institute, San Antonio, TX, United States*

### LB-5052

#### **Realistic temperature fluctuations modify the relationship between *Plasmodium falciparum* gametocytemia and infections in mosquitoes in unexpected ways**

**Ash Pathak**, Courtney Murdock  
*University of Georgia, Athens, GA, United States*

### LB-5054

#### **RALP1 is localized to rhoptries in sporozoites and involved in infection of the mammalian liver**

**Minami Baba**, Mina Fujii, Yuka Sugino, Motomi Torii, Tomoko Ishino  
*Ehime University, Toon, Japan*

### LB-5055

#### **O- and C-glycosylation of *Plasmodium falciparum* thrombospondin repeats is essential for sexual development, transmission and virulence in humanized mice**

Sash Lopaticki<sup>1</sup>, Charlie Jennison<sup>1</sup>, Nichollas Scott<sup>2</sup>, Alan John<sup>1</sup>, Annie Yang<sup>1</sup>, Matthew O'Neill<sup>1</sup>, Lachlan Whitehead<sup>1</sup>, Norman Kneteman<sup>3</sup>, Ethan Goddard-Borger<sup>1</sup>, **Justin Boddey**<sup>1</sup>  
<sup>1</sup>*Walter and Eliza Hall Institute of Medical Research, Melbourne, Australia*, <sup>2</sup>*University of Melbourne, Melbourne, Australia*, <sup>3</sup>*University of Alberta, Alberta, AB, Canada*

### LB-5056

#### **Performance of health facilities selected as "Centers of Excellence" (COEs) compared with non-COEs in select health zones supported by the President's Malaria Initiative in the Democratic Republic of the Congo**

**Johanna Karemere**  
*MEASURE Evaluation, University of North Carolina at Chapel Hill and ICF, Chapel Hill, Democratic Republic of the Congo*

**Poster Session A**  
**Late Breakers in Basic Sciences**  
Monday, October 29, Noon - 1:45 p.m.

### **LB-5057**

#### **Developing a bioinformatics and data science training program in Mali: Approach, perspective, and sustainability**

**JEFFREY G. SHAFFER**<sup>1</sup>, Mamadou Wele<sup>2</sup>, Jian Li<sup>1</sup>, Sudesh K. Srivastav<sup>1</sup>, Donald J. Krogstad<sup>1</sup>, Seydou O. Domba<sup>2</sup>  
<sup>1</sup>Tulane University, New Orleans, LA, United States, <sup>2</sup>University of Sciences, Techniques and Technologies of Bamako, Bamako, Mali

### **LB-5058**

#### **Proguanil - old drug new tricks**

Tina Skinner-Adams<sup>1</sup>, Andrew Riches<sup>2</sup>, Gillian Fisher<sup>1</sup>, Oliver Hutt<sup>2</sup>, Jeremy Burrows<sup>3</sup>, Jack Ryan<sup>2</sup>, **Kathy Andrews**<sup>1</sup>  
<sup>1</sup>Griffith University, Nathan, Australia, <sup>2</sup>Commonwealth Scientific and Industrial Research Organization, Victoria, Australia, <sup>3</sup>Medicines for Malaria Venture, Geneva, Switzerland

### **LB-5059**

#### **Limited differentiation among *P. vivax* populations from the Northwest and to the South Pacific Coast of Colombia: a malaria corridor?**

**M. Andreina Pacheco**<sup>1</sup>, Kristan A. Schneider<sup>2</sup>, Nora Céspedes<sup>3</sup>, Sócrates Herrera<sup>3</sup>, Myriam Arévalo-Herrera<sup>3</sup>, Ananias A. Escalante<sup>1</sup>  
<sup>1</sup>Biology Department, Institute for Genomics and Evolutionary Medicine, Temple University, Philadelphia, PA, United States, <sup>2</sup>University of Applied Sciences Mittweida, Mittweida, Germany, <sup>3</sup>Caucaseco Scientific Research Center and Malaria Vaccine and Drug Development Center, Cali, Colombia

### **LB-5060**

#### **Zika Virus Surveillance at the Human-Animal Interface in Brazil, Colombia, and Peru, 2017-2018**

**Stephanie J. Salyer**<sup>1</sup>, G. Porfirio<sup>2</sup>, R. Dezengrini-Silhessarenko<sup>3</sup>, T.O. Morgado<sup>4</sup>, V. Contreras<sup>5</sup>, S.Y. Rondon Robayo<sup>6</sup>, T.P. Quevedo<sup>7</sup>, E. Hannon<sup>8</sup>, J.R. Head<sup>1</sup>, H.M. Herrera<sup>2</sup>, G. Sabino-Santos<sup>9</sup>, L.M.S. Maia<sup>3</sup>, H. Contreras<sup>5</sup>, C.M. Leon<sup>6</sup>, S.A. Jenkins<sup>10</sup>, M.B. Parsons<sup>1</sup>, C.C. Netto<sup>11</sup>, H.G. Dias<sup>12</sup>, E.H. Miranda<sup>13</sup>, M. Atencia<sup>5</sup>, M.J. Hoyos Loaiza<sup>6</sup>, C.N. Mores<sup>10</sup>, A. Balish<sup>1</sup>, S.M.B. Lima<sup>13</sup>, F.B. Santos<sup>12</sup>, G. Arrieta<sup>5</sup>, A. Link<sup>14</sup>, A.M. Bispo de Filippis<sup>12</sup>, L.T.M. Figueiredo<sup>9</sup>, A. Pauvolid-Corrêa<sup>12</sup>, S. Mattar<sup>5</sup>, C. González<sup>6</sup>, M.C.

Guezala<sup>10</sup>, N. Komar<sup>8</sup>, J. Montgomery<sup>1</sup>  
<sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>Universidade Católica Dom Bosco (UCDB), Campo Grande, Brazil, <sup>3</sup>Faculdade de Medicina, Universidade Federal de Mato Grosso (UFMT), Cuiabá, Brazil, <sup>4</sup>Hospital Veterinário, Universidade Federal de Mato Grosso (UFMT), Cuiabá, Brazil, <sup>5</sup>Instituto de Investigaciones Biológicas del Trópico-IIBT, Universidad de Córdoba, Montería, Colombia, <sup>6</sup>Centre for Research in Tropical Microbiology and Parasitology (CIMPAT). Department of Biological Sciences. Universidad de Los Andes, Bogotá, Colombia, <sup>7</sup>Vysnova Partners Inc., Lima, Peru, <sup>8</sup>Centers for Disease Control and Prevention, Ft. Collins, CO, United States, <sup>9</sup>Faculdade de Medicina, Universidade de São Paulo (USP), Ribeirão Preto, Brazil, <sup>10</sup>U.S. Naval Medical Research Unit 6 (NAMRU-6), Lima, Peru, <sup>11</sup>Centro de Reabilitação de Animais Silvestres (CRAS), Campo Grande, Brazil, <sup>12</sup>Instituto Oswaldo Cruz, Fundação Oswaldo Cruz (Fiocruz), Rio de Janeiro, Brazil, <sup>13</sup>Bio-Manguinhos, Fundação Oswaldo Cruz (Fiocruz), Rio de Janeiro, Brazil, <sup>14</sup>Departamento de Ciencias Biologicas y Facultad de Administracion, Universidad de Los Andes, Bogota, Colombia

### **LB-5061**

#### **Review and Assessment of Autochthonous Chagas Disease in the United States**

**Mary K. Lynn**  
University of South Carolina, Greenville, SC, United States

### **LB-5062**

#### **Red Meat Allergy after Tick Bites: A Meta-analysis of Cases in the United States**

**James H. Diaz**  
Louisiana State University Health Sciences Center, New Orleans, LA, United States

### **LB-5063**

#### **Detection of Zika virus in Brazilian neotropical non-human primates: urban transmission and experimental infection**

Ana Carolina B. Terzian<sup>1</sup>, Nathalia Zini<sup>1</sup>, Livia Sacchetto<sup>2</sup>, Rebeca F. Rocha<sup>2</sup>, Maisa C. Parra<sup>1</sup>, Ana Carolina F. Dias<sup>2</sup>, Natalia C. Fernandes<sup>3</sup>, Josué Díaz-Delgado<sup>3</sup>, Vivian V. Costa<sup>2</sup>, Leila S. Ullmann<sup>4</sup>, João P. Araújo Jr<sup>4</sup>, Betânia P. Drumond<sup>2</sup>, Nikos Vasilakis<sup>5</sup>, Mauro Teixeira<sup>2</sup>, **Maurício L. Nogueira**<sup>1</sup>  
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**Poster Session A**  
**Late Breakers in Basic Sciences**  
Monday, October 29, Noon - 1:45 p.m.

## LB-5064

### **Rift Valley Fever Outbreak in East Africa, 2018: Signature of Climate Extremes**

**Assaf Anyamba**<sup>1</sup>, Radina Soebiyanto<sup>1</sup>, Jennifer L. Small<sup>2</sup>, Kenneth J. Linthicum<sup>3</sup>, Brett M. Forshey<sup>4</sup>, Christine F. Toolin<sup>4</sup>, Wassila M. Thiaw<sup>5</sup>, Jean-Paul Chretien<sup>6</sup>, Compton J. Tucker<sup>7</sup>  
<sup>1</sup>USRA & NASA Goddard Space Flight Center, Greenbelt, MD, United States, <sup>2</sup>SSAI & NASA Goddard Space Flight Center, Greenbelt, MD, United States, <sup>3</sup>USDA-Center for Medical, Agricultural & Veterinary Entomology, Gainesville, FL, United States, <sup>4</sup>Armed Forces Health Surveillance Branch Global Emerging Infections Surveillance (GEIS), Silver Spring, MD, United States, <sup>5</sup>NOAA Climate Prediction Center, College Park, MD, United States, <sup>6</sup>National Center for Medical Intelligence, Ft. Detrick, MD, United States, <sup>7</sup>NASA Goddard Space Flight Center, Greenbelt, MD, United States

## LB-5065

### **Landscape and zoonotic malaria risks, a cross sectional survey in Northern Sabah, Malaysia**

**Kimberly M. Fornace**<sup>1</sup>, Tommy R. Abidin<sup>2</sup>, Lynn Grignard<sup>1</sup>, Lou S. Herman<sup>1</sup>, Tock H. Chua<sup>2</sup>, Sylvia Daim<sup>2</sup>, Timothy William<sup>3</sup>, Kevin Tetteh<sup>1</sup>, Jon Cox<sup>1</sup>, Chris J. Drakeley<sup>1</sup>  
<sup>1</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>2</sup>Universiti Malaysia Sabah, Kota Kinabalu, Malaysia, <sup>3</sup>Infectious Diseases Society Kota Kinabalu, Kota Kinabalu, Malaysia

## LB-5066

### **Differential expression of exosomal microRNA let-7i-5p in individuals with sickle cell trait (HbAS), anemia (HbSS), and HbAA controls**

**Keri Harp**<sup>1</sup>, Felix Botchway<sup>2</sup>, Yvonne-Del Adomakoh<sup>2</sup>, Michael Wilson<sup>2</sup>, Jonathan K. Stiles<sup>1</sup>, Adel Driss<sup>1</sup>  
<sup>1</sup>Morehouse School of Medicine, Atlanta, GA, United States, <sup>2</sup>University of Ghana SOM, Accra, Ghana

## LB-5067

### **Barriers to zoonotic disease prevention in communities that hunt bushmeat in West Africa**

**Sagan Friant**<sup>1</sup>, Jerry K. Jacka<sup>2</sup>, Tony L. Goldberg<sup>3</sup>, Clement B. Alawa<sup>4</sup>, David Ogar<sup>5</sup>, Jessica M. Rothman<sup>6</sup>  
<sup>1</sup>Pennsylvania State University, University Park, PA, United States, <sup>2</sup>University of Colorado - Boulder, Boulder, CO, United States, <sup>3</sup>University of Wisconsin

- Madison, Madison, WI, United States, <sup>4</sup>University of Abuja, Abuja, Nigeria, <sup>5</sup>University of Calabar, Calabar, Nigeria, <sup>6</sup>Hunter College of The City University of New York, New York, NY, United States

## LB-5068

### **de novo sequencing of two vectors of scrub typhus, *Leptotrombidium deliense* and *L. scutellare***

**Tsai-Ying Yen**<sup>1</sup>, Chien-Yueh Lee<sup>2</sup>, Chien-Chung Chao<sup>3</sup>, Yin-Wen Wu<sup>4</sup>, Tzu-Pin Lu<sup>1</sup>, Wei-Mei Ching<sup>3</sup>, Kun-Hsien Tsai<sup>5</sup>  
<sup>1</sup>Institute of Epidemiology and Preventive Medicine, National Taiwan University, Taipei, Taiwan, <sup>2</sup>Graduate Institute of Biomedical Electronics and Bioinformatics, National Taiwan University, Taipei, Taiwan, <sup>3</sup>Viral and Rickettsial Diseases Department, Infectious Diseases Directorate, Naval Medical Research Center, Silver Spring, MD, United States, <sup>4</sup>Department of Food Science, National Quemoy University, Kinmen, Taiwan, <sup>5</sup>Institute of Environmental Health, National Taiwan University, Taipei, Taiwan

## LB-5069

### **Historical perspective on the Epidemiology of *Trypanosoma cruzi* and human exposure for Chagas disease in California**

**ALBA R. VALDEZ-TAH**<sup>1</sup>, Carlos N. Ibarra-Cerdeña<sup>2</sup>  
<sup>1</sup>University of California, Irvine, CA, United States, <sup>2</sup>Departamento de Ecología Humana, Cinvestav-Mérida, Merida, Mexico

## LB-5070

### **Potential of Recombination site in *Leptospira interrogans* serovar Hardjo str. Norma genome delineated by Comparative Genomics**

**Maria R. Cosate**<sup>1</sup>, Joao P. Haddad<sup>2</sup>, Jose M. Ortega<sup>2</sup>, Tiago A. Mendes<sup>1</sup>  
<sup>1</sup>Universidade Federal de Viçosa, Viçosa, Brazil, <sup>2</sup>Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

**Poster Session A**  
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### **LB-5071**

#### **Cat sporotrichosis by more than one *Sporothrix brasiliensis* isolate: a possibility in hyperendemic areas?**

Pâmella A. Macêdo-Sales<sup>1</sup>, Lucieri O. Souza<sup>2</sup>, Vivian S. Baptista<sup>1</sup>, Anderson M. Rodrigues<sup>3</sup>, Leila Maria Lopes-Bezerra<sup>4</sup>, Elisabeth M. Rocha<sup>1</sup>, Márcia R. Pinto<sup>1</sup>, Ricardo Luiz D. Machado<sup>1</sup>, Andre Luis S. Santos<sup>2</sup>, **Andrea Regina S. Baptista<sup>1</sup>**  
<sup>1</sup>Fluminense Federal University, Niteroi, Brazil, <sup>2</sup>Rio de Janeiro Federal University, Rio de Janeiro, Brazil, <sup>3</sup>São Paulo Federal University, São Paulo, Brazil, <sup>4</sup>Rio de Janeiro State University, Rio de Janeiro, Brazil

### **LB-5072**

#### **Seromonitoring MERS-CoV in camel population in Kazakhstan**

Abylay R. Sansyzbai<sup>1</sup>, Ian Mendenhall<sup>2</sup>, Gavin Smith<sup>2</sup>, Rashida A. Rystayeva<sup>1</sup>, Raikhan K. Nisanova<sup>1</sup>, Sergazy Sh. Nurabayev<sup>1</sup>, Aslan A. Kerimbayev<sup>1</sup>, Syrym K. Kopeyev<sup>1</sup>, Elmira T. Tailakova<sup>1</sup>, Zamira D. Omarova<sup>1</sup>, **Mukhit B. Orynbayev<sup>1</sup>**  
<sup>1</sup>RIBSP, Otar, Kazakhstan, <sup>2</sup>Duke-NUS Graduate Medical School, Program in Emerging Infectious Diseases, Singapore, Singapore

### **LB-5073**

#### **Potential effects of the recent Zika epidemic in Latin America on observed dengue incidence**

**Rebecca Borchering<sup>1</sup>**, Angkana Huang<sup>1</sup>, Stephanie Cinkovich<sup>1</sup>, Diana Rojas<sup>1</sup>, Gregory King<sup>1</sup>, Silvio Martinez<sup>1</sup>, Luis Mier-y-Teran Romero<sup>2</sup>, Isabel Rodriguez-Barraquer<sup>3</sup>, Justin Lessler<sup>4</sup>, Derek Cummings<sup>1</sup>  
<sup>1</sup>University of Florida, Gainesville, FL, United States, <sup>2</sup>Biomedical Advanced Research and Development Authority, Washington D.C., DC, United States, <sup>3</sup>University of California San Francisco, San Francisco, CA, United States, <sup>4</sup>Johns Hopkins University, Baltimore, MD, United States

### **LB-5074**

#### **The AHEAD100 Program: Pre-pandemic therapeutics for microbial pathogens most likely to cause human outbreaks**

**James Crowe**  
Vanderbilt University Medical Center, Nashville, TN, United States

### **LB-5075**

#### **Development of a Semi-Quantitative Blockade-of-Binding ELISA to Evaluate Zika Virus Serostatus**

**Eduardo J. Nascimento**, Matthew I. Bonaparte, Ping Luo, Timothy S. Vincent, James K. George, Germán Áñez, Fernando Noriega, Lingyi Zheng, James W. Huleatt  
Sanofi Pasteur, Swiftwater, PA, United States

### **LB-5076**

#### **Investigation of Dengue Infection in Aceh, Indonesia: Public Health and Molecular Epidemiology**

**Harapan Harapan<sup>1</sup>**, Samsul Anwar<sup>2</sup>, Aslam Bustaman<sup>3</sup>, Arsil Radiansyah<sup>3</sup>, Pradiba Angraini<sup>3</sup>, Riny Fasli<sup>3</sup>, Salwiyadi Salwiyadi<sup>3</sup>, Reza A. Bastian<sup>3</sup>, Ade Oktiviyari<sup>3</sup>, Imaduddin Akmal<sup>3</sup>, Muhammad Iqbalamin<sup>3</sup>, Jamalul Adil<sup>3</sup>, Fenni Henrizal<sup>3</sup>, Darmayanti Darmayanti<sup>3</sup>, Rovy Pratama<sup>3</sup>, Abdul M. Setiawan<sup>4</sup>, Mudatsir Mudatsir<sup>3</sup>, Panji F. Hadisoemarto<sup>5</sup>, Mandira L. Dhimal<sup>6</sup>, Setia Pramana<sup>7</sup>, Ziv Shkedy<sup>8</sup>, Ulrich Kuch<sup>6</sup>, David A. Groneberg<sup>6</sup>, Meghnath Dhimal<sup>9</sup>, Ruth Müller<sup>6</sup>, Allison Imrie<sup>1</sup>  
<sup>1</sup>School of Biomedical Sciences, University of Western Australia, Crawley, Australia, <sup>2</sup>Department of Statistics, Faculty of Mathematics and Natural Sciences, Syiah Kuala University, Banda Aceh, Indonesia, <sup>3</sup>Medical Research Unit, School of Medicine, Syiah Kuala University, Banda Aceh, Indonesia, <sup>4</sup>Department of Microbiology, Medical Faculty, Maulana Malik Ibrahim State Islamic University, Malang, Indonesia, <sup>5</sup>Department of Public Health, Faculty of Medicine, Padjadjaran University, Bandung, Indonesia, <sup>6</sup>Institute of Occupational Medicine, Social Medicine and Environmental Medicine, Goethe University, Frankfurt am Main, Germany, <sup>7</sup>Institute of Statistics, Jakarta, Indonesia, <sup>8</sup>Center for Statistics, Hasselt University, Diepenbeek, Belgium, <sup>9</sup>Nepal Health Research Council (NHRC), Ministry of Health Complex, Kathmandu, Nepal

### **LB-5077**

#### **Enhancement of protein secretion by modified alphavirus replicons**

**Jesse H. Erasmus**, Jasmine Fuerte-Stone, Neal Van Hoven, Rhea Coler  
Infectious Disease Research Inst., Seattle, WA, United States

**Poster Session A**  
**Late Breakers in Basic Sciences**  
*Monday, October 29, Noon - 1:45 p.m.*

### **LB-5078**

#### **Development and Characterization of a Zaire Ebola (ZEBOV) specific IgM ELISA**

**Tanmaya Atre**, Elke Bergmann-Leitner  
*The Walter Reed Army Institute of Research, Silver Spring, MD, United States*

### **LB-5079**

#### **Comparison of Formalin-inactivated and Psoralen-inactivated Dengue Vaccines in Mice**

**Appavu K. Sundaram**<sup>1</sup>, Daniel Ewing<sup>1</sup>, Maria Blevins<sup>2</sup>, Sandy Sink<sup>2</sup>, Josef Lissan<sup>2</sup>, Zhaodong Liang<sup>1</sup>, Kanakatte Raviprakash<sup>1</sup>, Maya Williams<sup>1</sup>, John Sanders<sup>2</sup>, Kevin Porter<sup>1</sup>  
<sup>1</sup>*Naval Medical Research Center, Silver Spring, MD, United States*, <sup>2</sup>*Wake Forest School of Medicine, Winston-Salem, NC, United States*

### **LB-5080**

#### **Bacterial-expressed ds-eGFP reduces infection rates in recombinant Sindbis-eGFP-infected *Aedes aegypti***

**Corey L. Campbell**<sup>1</sup>, Konstantinos Lympereopoulos<sup>2</sup>, Richard Sayre<sup>3</sup>, Kenneth Olson<sup>1</sup>  
<sup>1</sup>*Colorado State University, Fort Collins, CO, United States*, <sup>2</sup>*Little Fly Division, Pebble Labs USA Inc., Los Alamos, NM, United States*, <sup>3</sup>*Pebble Labs USA Inc., Los Alamos, NM, United States*

### **LB-5081**

#### **Zika virus evolution during persistent infection in a prostate cell line model**

**Francesca D. Frentiu**<sup>1</sup>, Rhys Izuagbe<sup>1</sup>, Daniela Loessner<sup>2</sup>  
<sup>1</sup>*Queensland University of Technology, Brisbane, Australia*, <sup>2</sup>*Queen Mary University of London, London, United Kingdom*

**Poster Session 22**  
**Poster Session A**  
**Late Breakers in Clinical and Applied Sciences**

Monday, October 29, Noon - 1:45 p.m.  
Marriott - Grand Ballroom (3rd Floor)

Arthropods/Entomology .....	#LB-5082 through LB-5089
Bacteriology and Diarrhea .....	#LB-5090 through LB-5100
Global Health.....	#LB-5101 through LB-5130
Integrated Control of Neglected Tropical Diseases .....	#LB-5131 through LB-5142
Malaria .....	#LB-5143 through LB-5180
Viruses .....	#LB-5181 through LB-5193
Malaria .....	#LB-5194 through LB-5199

**LB-5082**

**EVALUATION OF VISUAL BLOOD MEAL DETECTION AMONG MALARIA VECTOR ANOPHELES SPECIES DURING ROUTINE ENTOMOLOGICAL SURVEILLANCE IN MANICALAND, ZIMBABWE**

**Nobert N. Mudare**

*Africa University, Mutare, Zimbabwe*

**LB-5083**

**Mark, release, recapture of male *Aedes aegypti*: Estimation of movement, mating and population parameters for sterile male releases**

**Brendan Trewin**

*CSIRO, Brisbane, Australia*

**LB-5084**

**Population genetics and connectivity of *Aedes aegypti* along major transport corridors outside the major urban centre of south east Queensland, Australia**

**Brendan Trewin**

*CSIRO, Brisbane, Australia*

**LB-5085**

**Attractive targeted sugar baits ATSB: A new paradigm for the control of malaria parasite transmission in Africa**

**Mohamed M. Traore**<sup>1</sup>, Silas Majambere<sup>2</sup>, Sekou F. Traore<sup>1</sup>, Seydou Doumbia<sup>1</sup>, Aboubakr S. Kone<sup>1</sup>, Edita Revay<sup>3</sup>, Vasilij Kravchenko<sup>4</sup>, John C. Beier<sup>5</sup>, Gunter C. Muller<sup>1</sup>

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*Mali, <sup>2</sup>Mosquito Consulting, Moss, Norway, <sup>3</sup>Department of Anatomy and Cell Biology, Bruce Rappaport Faculty of Medicine, Technion, Haifa, Israel, <sup>4</sup>Department of Zoology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv, Israel, <sup>5</sup>Department of Public Health Sciences, University of Miami Miller School of Medicine, Miami, FL, United States*

**LB-5086**

**Relative reductions in *Aedes aegypti* DENV transmission potential, mediated by multiple *Wolbachia* strains (wMelCS, wAlbB, and wMel), after feeding on patient-derived blood meals**

**Lauren B. Carrington**<sup>1</sup>, Giang T. Nguyen<sup>1</sup>, Nhu T. Vu<sup>1</sup>, Trang T. Huynh<sup>1</sup>, Van T. Huynh<sup>1</sup>, Dui T. Le<sup>1</sup>, Long T. Vo<sup>1</sup>, Thuy V. Nguyen<sup>1</sup>, Vi T. Tran<sup>1</sup>, Bridget Wills<sup>1</sup>, Cameron P. Simmons<sup>2</sup>

<sup>1</sup>*Oxford University Clinical Research Unit, Ho Chi Minh City, Vietnam, <sup>2</sup>Monash University, Melbourne, Australia*

**LB-5087**

**Culicidae diversity in the Metropolitan Area and Southern of Puerto Rico**

**Juan C. Orengo**<sup>1</sup>, Emilee Colon-Lorenzo<sup>2</sup>, Adelfa Serrano<sup>2</sup>, Robert Rodriguez<sup>1</sup>, Mariana Padilla<sup>1</sup>, Alejandro Veintidos<sup>1</sup>, Maria Gonzalez<sup>1</sup>, Kayra Rosado<sup>1</sup>, Vivian Green<sup>1</sup>

<sup>1</sup>*Public Health Program, Ponce Health Sciences University, Ponce, PR, United States, <sup>2</sup>University of Puerto Rico, San Juan, PR, United States*

**Poster Session A**  
**Late Breakers in Clinical and Applied Sciences**  
*Monday, October 29, Noon - 1:45 p.m.*

### **LB-5088**

#### **Insecticide Resistance of Malaria Vectors Review in the Democratic Republic of the Congo**

**Thierry L. Bobanga**<sup>1</sup>, Solange L. Umesumbu<sup>2</sup>  
<sup>1</sup>University of Kinshasa, KINSHASA, Democratic Republic of the Congo, <sup>2</sup>National Malaria Control Program, KINSHASA, Democratic Republic of the Congo

### **LB-5089**

#### **Phenotypic and genotypic resistance to commonly used insecticides in *Aedes aegypti* among four cities in southern Ecuador**

Sadie J. Ryan<sup>1</sup>, Marco Neira<sup>2</sup>, **Stephanie J. Mundis**<sup>1</sup>, Catherine A. Lippi<sup>1</sup>, Efrain Beltrán-Ayala<sup>3</sup>, Alex Aguirre<sup>4</sup>, Tania Ordoñez<sup>5</sup>, Froilan Heras<sup>6</sup>, Anna M. Stewart-Ibarra<sup>7</sup>  
<sup>1</sup>Quantitative Disease Ecology and Conservation (QDEC) Lab, Department of Geography, University of Florida, Gainesville, FL, United States, <sup>2</sup>Center for Research on Health in Latin America, Exact and Natural Sciences Department, Pontificia Universidad Católica del Ecuador, Quito, Ecuador, <sup>3</sup>Universidad Técnica de Machala, Machala, Ecuador, <sup>4</sup>Center for Research on Health in Latin America (CISEAL), Exact and Natural Sciences Department, Pontificia Universidad Católica del Ecuador, Quito, Ecuador, <sup>5</sup>Ministerio de Salud Pública, Machala, Ecuador, <sup>6</sup>Universidad Técnica de Machala, Machala, Ecuador, <sup>7</sup>Institute for Global Health and Translational Science, Upstate Medical University, Syracuse, NY, United States

### **LB-5090**

#### **Cardiac involvement in Enteric fever among travelers**

**Asaf Biber**, Eyal Nof, Eli Schwartz  
*The Chaim Sheba medical center, Ramat Gan, Israel*

### **LB-5091**

#### **Molecular analysis of *Escherichia coli* clinical isolates harboring major virulence genes using RAPD-PCR**

**Ziad W. Jaradat**  
*Jordan University of Science and Technology, Irbid, Jordan*

### **LB-5092**

#### **Deployment of the mHealth Platform 'Outbreak Responder' for Cholera Outbreak Detection Across Bangladesh**

Ashraf I. Khan<sup>1</sup>, M. Salimuzzaman<sup>2</sup>, Mazharul I. Zion<sup>1</sup>, Hasnat Sujon<sup>2</sup>, Robyn Ball<sup>3</sup>, Stace Maples<sup>3</sup>, Md Mahbubur Rashid<sup>1</sup>, Azimuddin Ahmed<sup>1</sup>, Jasmine A. Mack<sup>4</sup>, Matthew Gurka<sup>4</sup>, Chisti Jobayer<sup>1</sup>, Shafiqul A. Sarker<sup>1</sup>, Farhana Haque<sup>2</sup>, Mahmudur Rahman<sup>2</sup>, Firdausi Qadri<sup>1</sup>, Meerjady S. Flora<sup>2</sup>, **Eric J. Nelson**<sup>4</sup>  
<sup>1</sup>International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>2</sup>Institute of Epidemiology, Disease Control and Research, Bangladesh Ministry of Health and Family Welfare, Dhaka, Bangladesh, <sup>3</sup>Stanford University, Stanford, CA, United States, <sup>4</sup>University of Florida, Gainesville, FL, United States

### **LB-5093**

#### **Investigating the role of undernutrition and dietary habits as risk factors for leprosy in North Gondar Zone, Ethiopia**

**Puneet Anantharam**<sup>1</sup>, Lisa Emerson<sup>1</sup>, Kassahun D. Bilcha<sup>1</sup>, Abebe G. Bayih<sup>2</sup>, Feleke M. Yehuala<sup>2</sup>, Jessica K. Fairley<sup>1</sup>, Annisa B. Tesfaye<sup>2</sup>  
<sup>1</sup>Emory University, Atlanta, GA, United States, <sup>2</sup>University of Gondar, Gondar, Ethiopia

### **LB-5094**

#### **Population-based Prevalence of Antibodies to *Chlamydia trachomatis* in 4 Districts with varying levels of trachoma endemicity in Amhara, Ethiopia**

**Danaya Bethea**<sup>1</sup>, Tigist Astale<sup>2</sup>, Eshetu Sata<sup>2</sup>, Mulat Zerihun<sup>2</sup>, Andrew W. Nute<sup>3</sup>, Aisha E.P. Stewart<sup>3</sup>, Demelash Gessese<sup>2</sup>, Gedefaw Ayenew<sup>2</sup>, Zebene Ayele<sup>2</sup>, Berhanu Melak<sup>2</sup>, Melsew Chanyalew<sup>4</sup>, Zerihun Tadesse<sup>2</sup>, E. Kelly Callahan<sup>3</sup>, Diana L. Martin<sup>1</sup>, Scott D. Nash<sup>3</sup>  
<sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>The Carter Center, Addis Ababa, Ethiopia, <sup>3</sup>The Carter Center, Atlanta, GA, United States, <sup>4</sup>Amhara Regional Health Bureau, Bahir Dar, Ethiopia

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**LB-5095**

***Campylobacter* spp: preliminary results from an ongoing birth cohort of an under recognized agent of infant diarrhea in Nicaragua**

**Samuel Vilchez**<sup>1</sup>, Filemon Bucardo<sup>1</sup>, Yaoska Reyes<sup>1</sup>, Roberto Herrera<sup>1</sup>, Lester Gutierrez<sup>1</sup>, Christian Toval<sup>1</sup>, Margarita Paniagua<sup>1</sup>, Nadja A. Vielot<sup>2</sup>, Natalie Bowman<sup>2</sup>, Luther A. Bartelt<sup>2</sup>, Jonathan J. Juliano<sup>2</sup>, Sylvia Becker-Dreps<sup>2</sup>  
<sup>1</sup>UNAN-Leon, Leon, Nicaragua, <sup>2</sup>UNC-Chapel Hill, Chapel Hill, NC, United States

**LB-5096**

**Refractory *Pseudomonas aeruginosa* Mediated Infections of a Lung Transplant Patient Successfully Treated with Intravenous Bacteriophage Cocktails**

**Christopher A. Duplessis**<sup>1</sup>, Robert T. Schooley<sup>2</sup>  
<sup>1</sup>Naval Medical Research Center, Silver Spring, MD, United States, <sup>2</sup>Department of Medicine, University of California, San Diego, San Diego, CA, United States

**LB-5097**

**The estimated cost-effectiveness of a *Shigella* vaccine in children under five in Ethiopia**

**Katherine L. Rosettie**, Marcia Weaver, James Collins, Alec W. Deason, Michelle Park, Abraham D. Flaxman, Ibrahim Khalil, Kelly Compton, Paola Pedroza, Ali H. Mokdad  
Institute for Health Metrics and Evaluation, Seattle, WA, United States

**LB-5098**

**Feasibility of rapid diagnostic detection of *Cryptosporidium* and *Giardia* in children 6 to 24 months with diarrhea in outpatient clinics, NdjamenaChad**

**Susan Shepherd**  
Alliance for International Medical Action, Hopewell, NJ, United States

**LB-5099**

**Exploring poverty-related risk factors for leprosy transmission in a highly endemic area of Brazil: Focus on helminth co-infections and micronutrients**

**Cori L. Dennison**<sup>1</sup>, Lucia A. de O. Fraga<sup>2</sup>, Lorena B. de Oliveira<sup>2</sup>, Jose A. Ferreira<sup>3</sup>, Erica B. Magueta<sup>2</sup>, Rosemary S. e Lima<sup>4</sup>, Bailey Conner<sup>1</sup>, Maria Aparecida de F. Grossi<sup>5</sup>, Jessica K. Fairley<sup>6</sup>

<sup>1</sup>Emory University Rollins School of Public Health, Atlanta, GA, United States, <sup>2</sup>Universidade Federal de Juiz de Fora, Campus GV, Governador Valadares, Brazil, <sup>3</sup>FASEH, Vespasiano, Brazil, <sup>4</sup>Universidade Vale do Rio Doce, Governador Valadares, Brazil, <sup>5</sup>Secretaria de Estado da Saúde de Minas Gerais, Belo Horizonte, Brazil, <sup>6</sup>Emory University Rollins School of Medicine, Atlanta, GA, United States

**LB-5100**

**Use of Dried Blood Spots for Serosurveillance of *Vibrio cholerae* O1 in Southern Vietnam**

**Tai T. Diep**<sup>1</sup>, Thuong Nguyen Van<sup>1</sup>, Nhi Thi Ngoc Nguyen<sup>1</sup>, Thu Anh Ngoc Nguyen<sup>1</sup>, Nghia Van Truong<sup>2</sup>, Son Thanh Vo<sup>2</sup>, Ngan Dang Le<sup>2</sup>, Tuyen Trung Ho<sup>3</sup>, Hien Thu Thi Vo<sup>3</sup>, Cole P. Anderson<sup>4</sup>, Andrew S. Azman<sup>5</sup>, Daniel T. Leung<sup>4</sup>  
<sup>1</sup>Pasteur Institute in Ho Chi Minh city, Ho Chi Minh, Vietnam, <sup>2</sup>Provincial Preventive of Medicine Center, Tien Giang Province, Vietnam, <sup>3</sup>Provincial Preventive of Medicine Center, Ben Tre Province, Vietnam, <sup>4</sup>University of Utah, Salt Lake City, UT, United States, <sup>5</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, GA, United States

**LB-5101**

**Digitalizing Global Health's data infrastructure: A pilot design of WIRE system in Laos PDR**

**Tarek Abdelhamid Numair**<sup>1</sup>, Futoshi Nishimoto<sup>2</sup>, Tiengkham Pongvongsa<sup>3</sup>, Daniel Harrel<sup>1</sup>, Satoshi Kaneko<sup>4</sup>, Kazuhiko Moji<sup>2</sup>  
<sup>1</sup>Graduate School of Biomedical Sciences, Department of Eco-Epidemiology – Nagasaki University, Nagasaki, Japan, <sup>2</sup>Graduate School of Tropical Medicine and Global Health (TMGH) – Nagasaki University, Nagasaki, Japan, <sup>3</sup>Savannakhet Provincial Health Department, Savannakhet, Lao People's Democratic Republic, <sup>4</sup>Department of Eco-Epidemiology, Institute of Tropical Medicine (NEKKEN) – Nagasaki University, Nagasaki, Japan

**LB-5102**

**In Vitro Diagnostics (IVDs) Regulation, Quality, and Public Health**

**Daniel K. Bempong**<sup>1</sup>, Elliot P. Cowan<sup>2</sup>, Paul O. Nkansah<sup>1</sup>, Farouk A. Umaru<sup>1</sup>  
<sup>1</sup>US Pharmacopeia, Rockville, MD, United States, <sup>2</sup>Partners in Diagnostics, LLC, Rockville, MD, United States

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### **LB-5103**

#### **The limits of the verbal autopsy for cause of death determination**

**Clara Menendez**<sup>1</sup>, Llorenç Quinto<sup>1</sup>, Paola Castillo<sup>2</sup>, Carla Carrilho<sup>3</sup>, Mamudo R. Ismail<sup>3</sup>, Cesaltina Lorenzoni<sup>3</sup>, Fabiola Fernandes<sup>3</sup>, Juan Carlos Hurtado<sup>1</sup>, Natalia Rakislova<sup>2</sup>, Khatia Munguambe<sup>4</sup>, Maria Maixenchs<sup>1</sup>, Eusebio Macete<sup>4</sup>, Inacio Mandomando<sup>4</sup>, Miguel J. Martinez<sup>2</sup>, Pedro L. Alonso<sup>1</sup>, Quique Bassat<sup>1</sup>, Jaume Ordi<sup>2</sup>  
<sup>1</sup>ISGlobal, Barcelona, Spain, <sup>2</sup>Hospital Clínic - Universitat de Barcelona, Barcelona, Spain, <sup>3</sup>Hospital Central de Maputo, Maputo, Mozambique, <sup>4</sup>Centro de Investigação em Saude de Manhica - CISM, Maputo, Mozambique

### **LB-5104**

#### **Online Ebola Simulation Training for Just in Time Education, Pilot Trial**

**Lacey MenkinSmith**

*MUSC, Charleston, SC, United States*

### **LB-5105**

#### **Laboratory-Based Performance Evaluation of Multi-Micronutrient and Environmental Enteric Dysfunction Assessment Tool (MEEDAT)**

**Michael B. Arndt**<sup>1</sup>, Jason Cantera<sup>1</sup>, David S. Boyle<sup>1</sup>, Robert K. Choy<sup>2</sup>  
<sup>1</sup>PATH, Seattle, WA, United States, <sup>2</sup>PATH, San Francisco, CA, United States

### **LB-5106**

#### **Iron ingots vs. enhanced standard of care with oral iron supplements: Assessing treatment efficacy and non-adherence after 12-month use among anemic pre-school aged children in Consuelo, DR**

**Nahara L. Saballos**<sup>1</sup>, Elizabeth D. Lowenthal<sup>2</sup>, Maria Dunn<sup>2</sup>, Ramona Cordero<sup>3</sup>, Ingrid Japa<sup>3</sup>, Antonio Matos<sup>3</sup>, Ryan M. Close<sup>2</sup>  
<sup>1</sup>Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA, United States, <sup>2</sup>Children's Hospital of Philadelphia, Philadelphia, PA, United States, <sup>3</sup>Niños Primeros en Salud, Consuelo, Dominican Republic

### **LB-5107**

#### **What we did differently: the impact of the WHO Health Emergencies Programme in managing a**

#### **new outbreak of Ebola in the Democratic Republic of Congo**

**Ibrahima-Soce Fall**<sup>1</sup>, WHO Ebola Response Team<sup>2</sup>  
<sup>1</sup>World Health Organisation, Brazzaville, Republic of the Congo, <sup>2</sup>Republic of the Congo

### **LB-5108**

#### **Global Trends in Preventative Chemotherapy for Soil-Transmitted Helminthiasis, with a focus on Pre-school age children**

**Michael Diaz**, Alex Jones, Rubina Imtiaz  
*Children Without Worms, The Task Force for Global Health, Decatur, GA, United States*

### **LB-5109**

#### **Country progress on preventative chemotherapy implementation and coverage among all children at risk of Soil-Transmitted Helminthiasis**

**Alex Jones**, Michael Diaz, Rubina Imtiaz  
*Children Without Worms, The Task Force for Global Health, Decatur, GA, United States*

### **LB-5110**

#### **Etiology of fever in Ugandan children: identification of microbial pathogens using metagenomic next-generation sequencing and IDseq, a platform for unbiased metagenomic analysis**

**Akshaya Ramesh**<sup>1</sup>, Sara Nakielny<sup>1</sup>, Jennifer Hsu<sup>1</sup>, Mary Kyohere<sup>2</sup>, Oswald Byaruhanga<sup>2</sup>, Charles de Bourcy<sup>3</sup>, Rebecca Egger<sup>3</sup>, Boris Dimitrov<sup>3</sup>, Yun-Fang Juan<sup>3</sup>, Jonathan Sheu<sup>3</sup>, James Wang<sup>3</sup>, Katrina Kalantar<sup>1</sup>, Charles Langelier<sup>1</sup>, Theodore Ruel<sup>1</sup>, Arthur Mpimbaza<sup>4</sup>, Michael Wilson<sup>1</sup>, Philip Rosenthal<sup>1</sup>, Joseph DeRisi<sup>1</sup>  
<sup>1</sup>University of California, San Francisco, San Francisco, CA, United States, <sup>2</sup>Infectious Diseases Research Collaboration, Kampala, Uganda, <sup>3</sup>Chan Zuckerberg Initiative, LLC, San Francisco, CA, United States, <sup>4</sup>Makerere University, Kampala, Uganda

### **LB-5111**

#### **Complications of silicone cosmetic procedures among medical tourists: a case series from the Bronx, NY**

**Crystal Zheng**<sup>1</sup>, Jeremy Quentzel<sup>2</sup>, James Brust<sup>2</sup>  
<sup>1</sup>Tulane University, New Orleans, LA, United States, <sup>2</sup>Albert Einstein College of Medicine & Montefiore Medical Center, Bronx, NY, United States

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### **LB-5112**

#### **Gut microbial community members indicative of *Campylobacter* burden and linear growth shortfalls in Peru**

**Saba Rouhani**<sup>1</sup>, Nicholas Griffin<sup>2</sup>, Pablo P. Yori<sup>1</sup>, Maribel P. Olortegui<sup>2</sup>, Jeanette Gehrig<sup>2</sup>, Michael J. Barratt<sup>2</sup>, Margaret N. Kosek<sup>1</sup>, Jeffrey I. Gordon<sup>2</sup>  
<sup>1</sup>*Johns Hopkins University, Baltimore, MD, United States*, <sup>2</sup>*Washington University School of Medicine, St Louis, MO, United States*

### **LB-5113**

#### **Contagious kindness and pay-it-forward dual gonorrhea/chlamydia test uptake among men who have sex with men in China: A pragmatic, quasi-experimental study**

**Joseph Tucker**  
*University of North Carolina at Chapel Hill, Rutherfordton, NC, United States*

### **LB-5114**

#### **Clinico-Pathological Discrepancies in the Diagnosis of Causes of Death in Adults in Mozambique**

**Jaumeordi**<sup>1</sup>, Paola Castillo<sup>2</sup>, Alberto L. Garcia-Basteiro<sup>1</sup>, Cinta Moraleda<sup>1</sup>, Fabiola Fernandes<sup>3</sup>, Llorenç Quinto<sup>1</sup>, Juan Carlos Hurtado<sup>1</sup>, Emili Letang<sup>1</sup>, Lucilia Lovane<sup>3</sup>, Dercio Jordao<sup>3</sup>, Rosa Bene<sup>3</sup>, Tacilta Nhampossa<sup>4</sup>, Mamudo R. Ismail<sup>3</sup>, Cesaltina Lorenzoni<sup>3</sup>, Natalia Rakislova<sup>2</sup>, Ariadna Sanz<sup>1</sup>, Anelsio Cossa<sup>4</sup>, Inacio Mandomando<sup>4</sup>, Maria Maixenchs<sup>1</sup>, Khatia Munguambe<sup>4</sup>, Eusebio Macete<sup>4</sup>, Pedro L. Alonso<sup>1</sup>, Quique Bassat<sup>1</sup>, Miguel J. Martinez<sup>1</sup>, Carla Carrilho<sup>3</sup>, Clara Menendez<sup>1</sup>  
<sup>1</sup>*ISGlobal, Barcelona, Spain*, <sup>2</sup>*Hospital Clínic - Universitat de Barcelona, Barcelona, Spain*, <sup>3</sup>*Hospital Central de Maputo, Maputo, Mozambique*, <sup>4</sup>*Centro de Investigação em Saude de Manhiça - CISM, Maputo, Mozambique*

### **LB-5115**

#### **Teen Pregnancy: Assessing Risk Factors for Unintended Pregnancy in Teenagers in Masiphumelele, Cape Town, South Africa**

**Monalisa A. Hassan**, Julia Rushing, Candice McNeil  
*Wake Forest School of Medicine, Winston-Salem, NC, United States*

### **LB-5116**

#### **Etiology of undifferentiated acute febrile illness in Kenya**

**Jennifer R. Verani**<sup>1</sup>, Eric Ng'eno<sup>2</sup>, Elizabeth A. Hunsperger<sup>1</sup>, Eric Osoro<sup>2</sup>, Peninah Munyua<sup>1</sup>, Doris Marwanga<sup>3</sup>, Godfrey Bigogo<sup>4</sup>, Derrick Amon<sup>3</sup>, Melvin Ochieng<sup>3</sup>, Barry Fields<sup>5</sup>, Victor Bandika<sup>6</sup>, Paul Etau<sup>7</sup>, John Kiogora<sup>8</sup>, John W. Burton<sup>9</sup>, Lynda Makayotto<sup>10</sup>, Amwayi S. Anyangu<sup>10</sup>, Njenga M. Kariuki<sup>2</sup>, Joel M. Montgomery<sup>5</sup>, Marc-Alain Widdowson<sup>1</sup>  
<sup>1</sup>*Centers for Disease Control and Prevention, Nairobi, Kenya*, <sup>2</sup>*Washington State University, Nairobi, Kenya*, <sup>3</sup>*Kenya Medical Research Institute, Nairobi, Kenya*, <sup>4</sup>*Kenya Medical Research Institute, Kisumu, Kenya*, <sup>5</sup>*Centers for Disease Control and Prevention, Atlanta, GA, United States*, <sup>6</sup>*Coast General Provincial Hospital, Mombasa, Kenya*, <sup>7</sup>*Kenyatta National Hospital, Nairobi, Kenya*, <sup>8</sup>*International Rescue Committee, Nairobi, Kenya*, <sup>9</sup>*United Nations High Commissioner for Refugees, Nairobi, Kenya*, <sup>10</sup>*Ministry of Health, Nairobi, Kenya*

### **LB-5117**

#### **Community Based Health Workers Can Enhance Coverage of Intermittent Preventive Treatment of Malaria in Pregnancy and Promote Antenatal Attendance**

**William R. Brieger**<sup>1</sup>, Mathurin Dodo<sup>2</sup>, Danielle Burke<sup>3</sup>, Ousmane Badolo<sup>2</sup>, Justin Tiendrebeogo<sup>2</sup>, Kristen Vibbert<sup>3</sup>, Susan J. Youll<sup>4</sup>, Julie R. Gutman<sup>5</sup>  
<sup>1</sup>*Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States*, <sup>2</sup>*Jhpiego, Ougadougou, Burkina Faso*, <sup>3</sup>*Jhpiego, Baltimore, MD, United States*, <sup>4</sup>*US President's Malaria Initiative, US Agency for International Development, Washington, DC, United States*, <sup>5</sup>*Malaria Branch, Center for Global Health, US Centers for Disease Control and Prevention, Atlanta, GA, United States*

### **LB-5118**

#### **Using Twitter to Track Unplanned School Closures: Georgia Public Schools, 2015-17**

Jennifer O. Ahweyevu<sup>1</sup>, Ngozi P. Chukwudebe<sup>1</sup>, Brittany M. Buchanan<sup>1</sup>, Jingjing Yin<sup>1</sup>, Xiaolu Zhou<sup>1</sup>, Zion Tsz Ho Tse<sup>2</sup>, Gerardo Chowell<sup>3</sup>, Bishwa B. Adhikari<sup>4</sup>, **Isaac Chun-Hai Fung**<sup>1</sup>  
<sup>1</sup>*Georgia Southern University, Statesboro, GA, United States*, <sup>2</sup>*The University of Georgia, Athens, GA, United States*, <sup>3</sup>*Georgia State University, Atlanta, GA, United States*, <sup>4</sup>*Centers for Disease Control and Prevention, Atlanta, GA, United States*



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**LB-5119**

**Analytical Performance of the FilmArray®  
Global Fever Panel**

**Jared R. Helm**

*BioFire Defense, Salt Lake City, UT, United States*

**LB-5120**

**Use of mobile data collection tools to improve  
implementation of epidemiological trials in  
Iquitos, Peru**

**Anna B. Kawiecki**<sup>1</sup>, William H. Elson<sup>1</sup>, Marisa Donnelly<sup>1</sup>, Julia Schwarz<sup>2</sup>, Jody K. Simpson<sup>1</sup>, Thomas W. Scott<sup>1</sup>, Nicole L. Achee<sup>3</sup>, Amy C. Morrisson<sup>1</sup>  
<sup>1</sup>University of California, Davis, Davis, CA, United States, <sup>2</sup>Icahn School of Medicine at Mount Sinai, New York, NY, United States, <sup>3</sup>Eck Institute for Global Health, Notre Dame, IN, United States

**LB-5121**

**How do spousal communication and household  
dynamics influence care seeking for sick  
children under five years of age in Nigeria?**

**Leanne Dougherty**

*John Snow, Inc., Rosslyn, VA, United States*

**LB-5122**

**To share or not to share your data - A survey of  
data sharing perceptions**

**Pornpimon Adams**, Jaranit Kaewkungwal, Boosaree Titapiwatanakun, Jetsumon S. Prachumsri  
*Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand*

**LB-5123**

**"First do no harm": Opinions on conducting  
Human Challenge Trials in Thailand**

**Jaranit Kaewkungwal**, Pornpimon Adams, Boosaree Titapiwatanakun, Jetsumon Prachumsri  
*Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand*

**LB-5124**

**Reproductive Health Sequelae in Women Who  
Survived Ebola Virus Disease in Liberia**

**Christine Godwin**<sup>1</sup>, David Wohl<sup>2</sup>, William A. Fischer<sup>2</sup>, Kavita Singh<sup>3</sup>, Darrell Hawks<sup>4</sup>, Sam Tozay<sup>5</sup>, Edwina Reeves<sup>5</sup>, Korto Pewu<sup>5</sup>, Elizabeth E. Devore<sup>6</sup>  
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**LB-5125**

**A spatial analysis of central nervous system  
infections in Lao PDR**

Sayaphet Rattanavong<sup>1</sup>, Audrey Dubot-Pérès<sup>2</sup>, Mayfong Mayxay<sup>3</sup>, Manivanh Vongsouvath<sup>1</sup>, Sue J. Lee<sup>4</sup>, Julien Cappelle<sup>5</sup>, Paul N. Newton<sup>6</sup>, **Daniel M. Parker**<sup>7</sup>

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**LB-5126**

**Are new national malaria strategic plans  
informed by the previous ones? A  
comprehensive assessment focused on  
President's Malaria Initiative (PMI) priority  
countries from 2000 to present**

**Andrew Andrada**, Samantha Herrera, Yazoume Ye  
*ICF, Rockville, MD, United States*

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**LB-5127**

**The Association between Maternal and Infant Anemia; A Cohort Study in Coastal Kenya**

**Indu Malhotra**<sup>1</sup>, Francis Mutuku<sup>2</sup>, Jackson Muinde<sup>3</sup>, Ronald Ottichilo<sup>4</sup>, Dunstan Mukoko<sup>3</sup>, A. Desiree LaBeaud<sup>5</sup>, Charles H. King<sup>1</sup>

<sup>1</sup>Case Western Reserve University, Cleveland, OH, United States, <sup>2</sup>Technical University of Mombasa, Mombasa, Kenya, <sup>3</sup>Division of Vector borne and neglected tropical Diseases, Nairobi, Kenya, <sup>4</sup>Maseno University, Kisumu, Kenya, <sup>5</sup>Stanford University, Stanford, CA, United States

**LB-5128**

**Cost effectiveness of *Wolbachia* when deployed at scale in Indonesia**

Oliver Brady<sup>1</sup>, Lauren Carrington<sup>2</sup>, Emilie Hendricx<sup>1</sup>, Dinar Kharisma<sup>3</sup>, Ida S. Laksanawati<sup>4</sup>, Kathleen O'Reilly<sup>1</sup>, **Donald S. Shepard**<sup>3</sup>, Cynthia Tschamp<sup>3</sup>, Nandyan N. Wilastonegoro<sup>5</sup>, Laith Yakob<sup>1</sup>, Wu Zeng<sup>3</sup>  
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**LB-5129**

**Mycetoma - Results of the global WHO survey 2014-2016**

**Till F. Omansen**<sup>1</sup>, Lise Grout<sup>2</sup>, Albis F. Gabrielli<sup>2</sup>, Kingsley Asiedu<sup>2</sup>  
<sup>1</sup>University Medical Center Groningen, Groningen, Netherlands, <sup>2</sup>WHO Department of Neglected Tropical Diseases, Geneva, Switzerland

**LB-5130**

**Diagnostic accuracy of CareStart G6PD deficiency RDT among children under 5 years: follow-up on previous study in Ghana**

**Dennis Adu-Gyasi**, Harry Danwonno, Dennis Konadu Gyasi, Veronica Agyemang, Prince Agyarpong, Kwaku Poku Asante  
Kintampo Health Research Centre, Kintampo North, Ghana

**LB-5131**

**Seroprevalence and Seroincidence indicators of the anthroponborne and zoonotic infections among male communities (aged 18-35) in the Republic of Azerbaijan**

**Surkhay Mammadov**<sup>1</sup>, Eric Garges<sup>2</sup>, Namig Huseynov<sup>3</sup>, Telman Ahmedkhanov<sup>3</sup>, Allen Richards<sup>4</sup>, Christina Farris<sup>5</sup>, Robert Rivard<sup>6</sup>, Roman Woelfel<sup>7</sup>  
<sup>1</sup>Ministry of Defense of the Republic of Azerbaijan, Baku, Azerbaijan, <sup>2</sup>Walter Reed Army Institute of Research (WRAIR), MD, VA, United States, <sup>3</sup>Ministry of Defense Center for Sanitary and Epidemiologic Control, Baku, Azerbaijan, <sup>4</sup>Naval Medical Research Center, MD, VA, United States, <sup>5</sup>Naval Medical Research Center, MD, USA, MD, VA, United States, <sup>6</sup>USAMRIID, Baku, Azerbaijan, <sup>7</sup>Bundeswehr Institute of Microbiology, Munich, Germany

**LB-5132**

**A comparative analysis of social dimensions of podoconiosis and leprosy on affected households in the northwest region of cameroon**

**Ayok M. Tembei**<sup>1</sup>, Jonas A. Kengne Ouaffo<sup>2</sup>, Bonekeh John<sup>3</sup>, Theobald M. Nji<sup>4</sup>, Peter Enyong<sup>5</sup>, Theresa Nkuo-Akenji<sup>6</sup>, Gail Davey<sup>7</sup>, Samuel Wanji<sup>8</sup>  
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### LB-5133

#### **Impact of School Feeding on the Control and Possible Elimination of Intestinal Helminthiasis in School Pupils, Anambra State, Nigeria**

**Ogechukwu B. Aribodor**<sup>1</sup>, Chinyelu A. Ekwunife<sup>1</sup>, Sammy O. Sam-Wobo<sup>2</sup>, Dennis N. Aribodor<sup>1</sup>, Abidemi K. Awopeju<sup>3</sup>

<sup>1</sup>Nnamdi Azikiwe University, Awka, Anambra State, Nigeria., Awka, Nigeria, <sup>2</sup>Department of Pure and Applied Zoology, Federal University of Agriculture, Abeokuta, Nigeria, <sup>3</sup>Department of Statistics, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria., Awka, Nigeria

### LB-5134

#### **R-Praziquantel Integrated Population Pharmacokinetics in Preschool- and School-Aged African Children Infected with *Schistosoma mansoni* and *S. haematobium* and Laotian Adults Infected with *Opisthorchis viverrini* in Two Phase 2a Studies**

**Christine Falcoz**<sup>1</sup>, Serge Guzy<sup>2</sup>, Jana Kovač<sup>3</sup>, Isabel Meister<sup>3</sup>, David Wesche<sup>4</sup>, Jennifer Keiser<sup>3</sup>  
<sup>1</sup>Certara, Paris, France, <sup>2</sup>Technion, Haifa, Israel, <sup>3</sup>Swiss Tropical and Public Health Institute, Basel, Switzerland, <sup>4</sup>Certara, Saint Louis, MO, United States

### LB-5135

#### **Evaluation of the School Trachoma Health Program After One Year of Program Implementation in Primary Schools of Amhara Regional State, Ethiopia**

**Eshetu Sata**<sup>1</sup>, Ayenachew Kerie<sup>1</sup>, Kassa Bulcha<sup>1</sup>, Melak Haileleule<sup>2</sup>, Awoke Dagnaw<sup>2</sup>, Ewnetu Bazie<sup>3</sup>, Mitiku Adugna<sup>3</sup>, Berhanu Melak<sup>1</sup>, Abebe Fisseha<sup>1</sup>, Demelash Gessese<sup>1</sup>, Aisha E.P. Stewart<sup>4</sup>, Scott D. Nash<sup>4</sup>, Zebene Ayele<sup>1</sup>, Amsayaw Tefera<sup>1</sup>, Mulaw Abebe<sup>2</sup>

<sup>1</sup>The Carter Center, Addis Ababa, Ethiopia, <sup>2</sup>Amhara Bureau of Education, Bahir Dar, Ethiopia, <sup>3</sup>Amhara Regional Health Bureau, Bahir Dar, Ethiopia, <sup>4</sup>The Carter Center, Atlanta, GA, United States

### LB-5136

#### **Seroprevalence of Chikungunya virus infection in a French population-based cohort of people living with HIV after the 2014 Caribbean outbreak**

**Elodie CURLIER**<sup>1</sup>, Laurence FAGOUR<sup>2</sup>, Cécile HERMANN-STORCK<sup>1</sup>, Adrien STAELEN<sup>2</sup>, Sébastien BREUREC<sup>1</sup>, Sylvie ABEL<sup>2</sup>, Sandrine PIERRE-

FRANCOIS<sup>2</sup>, Raymond CESAIRE<sup>2</sup>, Bruno HOEN<sup>1</sup>, André CABIE<sup>2</sup>

<sup>1</sup>CHU Guadeloupe, Pointe-à-Pitre, France, <sup>2</sup>CHU Martinique, Fort-de-France, France

### LB-5137

#### **Intensified Dengue Control Measures in Urban Sri Lanka: Interrupted Time Series Analysis With Economic Evaluation**

**Prasad C. Liyanage**<sup>1</sup>, Joacim Rocklöv<sup>2</sup>, Hasitha A. Tissera<sup>1</sup>, Paba Palihawadana<sup>1</sup>, Annelies Wilder-Smith<sup>3</sup>, Yesim Tozan<sup>4</sup>

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### LB-5138

#### **Analyses on the expression, immunohistochemical property and diagnostic potentials of Peroxiredoxin-4 in *Schistosoma japonicum***

**Minh-Anh DANG-TRINH**<sup>1</sup>, Jose Ma. M. ANGELES<sup>2</sup>, Kharleezelle J. MOENDEG<sup>3</sup>, Adrian Miki C. MACALANDA<sup>4</sup>, Luna HIGUCHI<sup>5</sup>, Masashi KIRINOKI<sup>6</sup>, Yuichi CHIGUSA<sup>6</sup>, Yasuyuki GOTO<sup>7</sup>, Shin-ichiro KAWAZU<sup>1</sup>

<sup>1</sup>National Research Center for Protozoan Diseases, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Japan, <sup>2</sup>Department of Parasitology, College of Public Health, University of the Philippines Manila, Manila, Philippines, <sup>3</sup>Department of Biology, School of Science and Engineering, Ateneo de Manila University, Manila, Philippines, <sup>4</sup>College of Veterinary Medicine and Biomedical Sciences, Cavite State University, Indang, Philippines, <sup>5</sup>National Research Center for Protozoan Diseases, Obihiro, Japan, <sup>6</sup>Department of Tropical Medicine and Parasitology, Dokkyo Medical University, Tochigi, Japan, <sup>7</sup>Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan

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### **LB-5139**

#### **Estimating Population Denominators and Coverage of Mass Drug Administration for Trachoma Using Polio's Vaccination Tracking System in Nigeria**

**Timothy P. Finn**<sup>1</sup>, Adamani William<sup>2</sup>, Ezra Yarmina<sup>2</sup>, Christian Nwosu<sup>2</sup>, Ruth Dixon<sup>3</sup>, Philip Downs<sup>4</sup>, Nicholas Olobio<sup>5</sup>, Sunday Isiyaku<sup>2</sup>  
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### **LB-5140**

#### **Safety of the co-administration of azithromycin, albendazole and ivermectin versus standard treatment regimens during mass drug administration (MDA) in Ethiopia: a cluster-randomized trial**

**Scott McPherson**  
*London School of Hygiene and Tropical Medicine, Durham, NC, United States*

### **LB-5141**

#### **Results of trachomatous trichiasis-only surveys in four districts in Niger**

Nassirou Beido<sup>1</sup>, **Hadiara Adamou**<sup>2</sup>, Kadri Boubacar<sup>1</sup>, Tchouloum Toudja<sup>2</sup>, Abdou Amza<sup>1</sup>, Steven D. Reid<sup>3</sup>, Amy Veinoglou<sup>3</sup>  
<sup>1</sup>National Eye Health Program - Ministry of Health, Niamey, Niger, <sup>2</sup>Helen Keller International, Niamey, Niger, <sup>3</sup>Helen Keller International, New York, NY, United States

### **LB-5142**

#### **Comparative analysis of transmission of Chagas disease in twin versus singleton births in Percy Boland Maternity Hospital, Santa Cruz, Bolivia**

**Freddy Tinajeros**<sup>1</sup>, Edward Valencia<sup>2</sup>, María del Carmen Mendiña<sup>3</sup>, Clariza Chavez<sup>1</sup>, Jean Karla Velarde<sup>1</sup>, Manuela Verástegui<sup>2</sup>, Edith Malaga<sup>2</sup>, Edith Hinojosa<sup>1</sup>, Federico Urquizu<sup>3</sup>, Caryn Bern<sup>4</sup>, Robert Gilman<sup>5</sup>  
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### **LB-5143**

#### **Genetic diversity of *Plasmodium falciparum* field isolates from western Kenya**

**Hoseah M. Akala**<sup>1</sup>, Luise A. Ingasia<sup>2</sup>, Mateusz Konczal<sup>3</sup>, Agnes Cheruiyot R. Cheruiyot<sup>2</sup>, Dennis W. Juma<sup>2</sup>, Fyodor Kondrashov<sup>4</sup>, Matthew L. Brown<sup>2</sup>, Ben Andagalu<sup>2</sup>, Edwin Kamau<sup>5</sup>, Jim R. Managbanag<sup>6</sup>  
<sup>1</sup>Kenya Medical Research Institute/US Army Medical Research Unit - Kenya/Novartis Africa Mobility Program, Kisumu, Kenya, <sup>2</sup>Kenya Medical Research Institute/US Army Medical Research Unit - Kenya, Kisumu, Kenya, <sup>3</sup>Centre for Genomic Regulation (CRG), The Barcelona Institute of Science and Technology, Dr Aiguader 88, 08003, Barcelona, Spain/ Evolutionary Biology Group, Faculty of Biology, Adam Mickiewicz University, Poznan, Poland., Poznan, Poland, <sup>4</sup>Centre for Genomic Regulation (CRG), The Barcelona Institute of Science and Technology, Dr Aiguader 88, 08003, Barcelona, Spain, Barcelona, Spain, <sup>5</sup>Walter Reed National Military Medical Center, Bethesda, MD, United States, Bethesda, MD, United States, <sup>6</sup>US Army Medical Research Unit - Kenya/Novartis Africa Mobility Program, Kisumu, Kenya

### **LB-5144**

#### **Genome variation in 7,000 *Plasmodium falciparum* samples from around the world: the MalariaGEN Pf6 open access dataset**

**Richard D. Pearson**, on behalf of the MalariaGEN *Plasmodium falciparum* Community Project  
*Wellcome Sanger Institute, Cambridge, United Kingdom*

### **LB-5145**

#### **T follicular helper (Tfh) cell responses to blood-stage malaria antigen RH5 elicited by vaccination with protein/AS01 are superior to those induced using heterologous viral vectors**

**Carolyn M. Nielsen**, Ane Ogbe, Susanne E. Doeleman, Isabela Pedroza-Pacheco, Sarah E. Silk, Jordan R. Barrett, Sean C. Elias, Ruth O. Payne, Angela M. Minassian, Persephone Borrow, Simon J. Draper  
*University of Oxford, Oxford, United Kingdom*

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**LB-5146**

**Tracking of Malaria Vectors Using Stable Isotopes to Measure the Contribution of Aestivation to Dry Season Persistence**

**Adama Dao**<sup>1</sup>, Roy Faiman<sup>2</sup>, Alpha S. Yaro<sup>1</sup>, Moussa Diallo<sup>1</sup>, Zana L. Sanogo<sup>1</sup>, Djibril Samake<sup>1</sup>, Yossi Ousmane<sup>1</sup>, Gabriel Hamer<sup>3</sup>, Christine A. France<sup>4</sup>, Tovi Lehmann<sup>2</sup>

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**LB-5147**

**Cerebral Malaria Associated Expression of Neuregulin-1 in Human Brain**

**Juan C. Cespedes**, Jonathan Stiles, Mingli Liu, Nana Wilson, Annette Nti  
*Morehouse School of Medicine, Athens, GA, United States*

**LB-5148**

**Malaria Service Data Quality Improvement (MSDQI) Package: A new tool to improve malaria services at health facilities: Baseline results from the MSDQI- assisted supportive supervision on malaria management in Southern Tanzania**

**Joseph MUGASA**<sup>1</sup>, Abdallah Lusasi<sup>2</sup>, Guido Libaba<sup>3</sup>, Jongo Machage<sup>3</sup>, Margareth Makuchilo<sup>3</sup>, Patrick Kitali<sup>3</sup>, John Gamaliel<sup>1</sup>, Genchwele Makenge<sup>4</sup>, Chonge Kitojo<sup>5</sup>, Emeka Okechukwu<sup>1</sup>, Halima Mwenesi<sup>6</sup>, Marina Njelekela<sup>7</sup>

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**LB-5149**

**The impact of the addition of azithromycin to the antimalarials used for seasonal malaria chemoprevention on mortality and morbidity in African children**

**Daniel Chandramohan**<sup>1</sup>, Alassane Dicko<sup>2</sup>, Jean-Bosco Ouedraogo<sup>3</sup>, Issaka Zongo<sup>3</sup>, Issaka Sagara<sup>2</sup>, Irene Kuepfer<sup>1</sup>, Modibo Diarra<sup>2</sup>, Amadou Barry<sup>2</sup>, Amadou Tapily<sup>2</sup>, Frederic Nikiema<sup>3</sup>, Serge Yerbanga<sup>3</sup>, Ismaila Thera<sup>2</sup>, Abdourhamane Traore<sup>3</sup>, Paul Milligan<sup>1</sup>, Halidou Tinto<sup>3</sup>, Matthew Cairns<sup>1</sup>, Ogobara Doumbo<sup>2</sup>, Brian Greenwood<sup>1</sup>

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**LB-5150**

**Factors related to LLIN use behavior during travel in western Kenya**

**Elizabeth J. Anderson**<sup>1</sup>, Jenna Coalson<sup>1</sup>, Maurice Agawo<sup>2</sup>, Stephen Munga<sup>3</sup>, Kacey C. Ernst<sup>1</sup>  
<sup>1</sup>*University of Arizona, Tucson, AZ, United States*, <sup>2</sup>*Department of Biomedical Sciences and Technology, School of Public Health and Community Development, Maseno University, Maseno, Kenya*, <sup>3</sup>*Kenyan Medical Research Institute, Kisian, Kenya*

**LB-5151**

**Prevalence, epidemiological risk and clinical effects of asymptomatic malaria based on ultrasensitive diagnostics**

**Dewdunee H. Marasinghe**<sup>1</sup>, James Cheaveau<sup>2</sup>, Seble G. Demissie<sup>3</sup>, Adugna Abera<sup>3</sup>, Sindew Feleke<sup>3</sup>, Lemu Golassa<sup>4</sup>, Abu Naser Mohon<sup>2</sup>, Ruth Legese<sup>2</sup>, Nirujah Balasingam<sup>2</sup>, Dylan R. Pillai<sup>2</sup>  
<sup>1</sup>*McGill University, Montreal, QC, Canada*, <sup>2</sup>*University of Calgary, Calgary, AB, Canada*, <sup>3</sup>*Ethiopian Public Health Institute, Addis Ababa, Ethiopia*, <sup>4</sup>*Addis Ababa University, Addis Ababa, Ethiopia*

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### LB-5152

**The optimization of loop-mediated isothermal amplification (LAMP) as a diagnostic tool for low-density parasitemia malaria along the Vietnam-Cambodia border**

Leanna Surrao<sup>1</sup>, Vashti Irani<sup>1</sup>, Duy Thanh Vo<sup>1</sup>, Nguyen Xuan Thang<sup>2</sup>, Ha Nam Nguyen<sup>2</sup>, James O'Donnell<sup>1</sup>, Ricardo Ataide<sup>1</sup>, An Le<sup>1</sup>, Gerard Kelly<sup>1</sup>, Sara Canavati<sup>1</sup>, Joshua Tram<sup>1</sup>, David Piedrafita<sup>3</sup>, Andrew Greenhill<sup>3</sup>, Gary Dahl<sup>4</sup>, Mauricio Vazquez<sup>4</sup>, Jack Hopper<sup>5</sup>, Bill Hopper<sup>5</sup>, Xavier Ding<sup>6</sup>, Duc Van Bui<sup>7</sup>, Ngo Duc Thang<sup>2</sup>, Tran Thanh Duong<sup>2</sup>, Jack Richards<sup>1</sup>

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### LB-5153

**Challenges in the treatment of acute falciparum malaria in Vietnam**

Chau H. Nguyen, Hoa T. Nhu, Hien T. Tran  
Oxford University Clinical Research Unit, Ho Chi Minh, Vietnam

### LB-5154

**Scaling up vector control interventions for malaria control and elimination in southern Zambia: progress, challenges, and opportunities**

Javan Chanda<sup>1</sup>, Kochelani Saili<sup>1</sup>, Reuben Zulu<sup>2</sup>, John M. Miller<sup>1</sup>, Busiku Hamainza<sup>2</sup>  
<sup>1</sup>PATH Malaria Control and Elimination Partnership in Africa (MACEPA), Lusaka, Zambia, <sup>2</sup>Ministry of Health, Lusaka, Zambia

### LB-5155

**Using Experiential Media as an Approach to Create Awareness and Demand of Malaria Interventions: Experience from ComCase Campaign- Tanzania Mainland**

LEAH J. NDEKUKA<sup>1</sup>, JACOB MACHA<sup>2</sup>, NAOMI KASPAR<sup>3</sup>  
<sup>1</sup>NATIONAL MALARIA CONTROL PROGRAM-MINISTRY OF HEALTH, DAR ES SALAAM, United Republic of Tanzania, <sup>2</sup>TANZANIA COMMUNICATION AND DEVELOPMENT CENTRE, DAR ES SALAAM, United Republic of Tanzania, <sup>3</sup>US PRESIDENT'S

MALARIA INITIATIVE- UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT, DAR ES SALAAM, United Republic of Tanzania

### LB-5156

**Rapid reduction and sustained low levels of transmission through the implementation of a malaria elimination project in Magude District, Southern Mozambique**

Beatriz Galatas<sup>1</sup>, Helena Martí-Soler<sup>1</sup>, Julia Montañà<sup>1</sup>, Caterina Guinovart<sup>1</sup>, Humberto Munguambe<sup>2</sup>, Lidia Nhamussua<sup>2</sup>, Wilson Simone<sup>2</sup>, Pedr L. Alonso<sup>1</sup>, N. Regina Rabinovich<sup>1</sup>, Clara Menéndez<sup>1</sup>, Quique Bassat<sup>1</sup>, Laia Cirera<sup>1</sup>, Krijn Paaijmans<sup>1</sup>, Francisco Saúte<sup>2</sup>, Pedro Aide<sup>2</sup>  
<sup>1</sup>ISGlobal, Barcelona, Spain, <sup>2</sup>CISM, Manhiça, Mozambique

### LB-5157

**Evaluation of a laboratory quality assurance pilot programme for malaria diagnostics in low transmission areas of Kenya, 2013**

ROSE A. ADENY<sup>1</sup>, Elizabeth Wanja<sup>2</sup>, Rachel Achilla<sup>3</sup>, Caroline Moseti<sup>1</sup>, Victor Otieno<sup>1</sup>, Collins Moranga<sup>4</sup>, Derek R. Monthei<sup>5</sup>, Bernhards Ogutu<sup>1</sup>, Ephantus Murigi<sup>6</sup>, John Nyamuni<sup>6</sup>, Ann M. Buff<sup>7</sup>  
<sup>1</sup>United States Army Medical Research Directorate, Kenya/ Kenya Medical Research Institute, Kisumu, Kenya, <sup>2</sup>Walter Reed Army Institute of Research, Washington, WA, United States, <sup>3</sup>United States Army Medical Research Directorate, Kenya/ Kenya Medical Research Institute, Nairobi, Kenya, <sup>4</sup>University of Ghana, Accra, Ghana, <sup>5</sup>Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, <sup>6</sup>Ministry of Health, National Malaria Control Program, Nairobi, Kenya, <sup>7</sup>Centre for Global Health/Centre for Disease Control and Prevention, Atlanta, GA, United States

### LB-5158

**Molecular markers of *Plasmodium falciparum* drug resistance and parasite diversity across two different malaria endemic sites in Mali**

Seidina A. S. Diakite  
MRTC/USTTB (WACCBIP-DELTAS PostDOc Fellow), Bamako, Mali

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**LB-5159**

**Use of a malaria in pregnancy facility assessment tool to identify key challenges in implementing IPTp in Moramanga District, Madagascar, January 2018**

**Marianne Henry**<sup>1</sup>, Aimee Ravaoarinosy<sup>2</sup>, Jocelyn Razafindrakoto<sup>3</sup>, Lalanirina Ravony<sup>4</sup>, Lia Florey<sup>5</sup>, Laurent Kapesa<sup>3</sup>, Annett Cotte<sup>6</sup>, Catherine Dentinger<sup>7</sup>, Julie Gutman<sup>8</sup>, Susan Youll<sup>5</sup>  
<sup>1</sup>US President's Malaria Initiative, US Agency for International Development & Medical Care Development International, Washington, DC, United States, <sup>2</sup>National Malaria Control Program, Ministry of Health, Antananarivo, Madagascar, <sup>3</sup>US President's Malaria Initiative, US Agency for International Development, Antananarivo, Madagascar, <sup>4</sup>USAID/Maternal and Child Survival Program, Antananarivo, Madagascar, <sup>5</sup>US President's Malaria Initiative, US Agency for International Development, Washington, DC, United States, <sup>6</sup>Malaria Branch, Division of Parasitic Diseases and Malaria, Centers for Disease Control and Prevention, and US President's Malaria Initiative, Atlanta, GA, United States, <sup>7</sup>Malaria Branch, Division of Parasitic Diseases and Malaria, Centers for Disease Control and Prevention, and US President's Malaria Initiative, Antananarivo, Madagascar, <sup>8</sup>Malaria Branch, Division of Parasitic Diseases and Malaria, Center for Global Health, Centers for Disease Control and Prevention, and US President's Malaria Initiative, Atlanta, GA, United States

**LB-5160**

**Review of the utilisation of long lasting insecticidal bed nets (LLIN) in malaria endemic areas of Bangladesh**

**Mohammad Moktadir Kabir**, Shamsun Naher, Md. Akramul Islam, Amit Kumer Neogi, Ashraf Siddiqui, Shahidul Islam Laskar  
BRAC, Dhaka, Bangladesh

**LB-5161**

**Malaria infection in pregnant women in semi-urban and rural health centers in Ouelessebougou, Mali**

**Moussa Traore**<sup>1</sup>, Almahamoudou Mahamar<sup>1</sup>, Amadou Barry<sup>1</sup>, Djibrilla Issiaka<sup>1</sup>, Gaoussou Santara<sup>1</sup>, Oumar Attaher<sup>1</sup>, Sekouba Keita<sup>1</sup>, Bakary Soumana Diarra<sup>1</sup>, Moussa Bamba Kanoute<sup>1</sup>, Kadidia Baba Cisse<sup>1</sup>, Adama Dembele<sup>1</sup>, Adama Sissoko<sup>1</sup>, Idrissa Samake<sup>1</sup>, Boubacar N'tji Diarra<sup>2</sup>, Patrick Emmet Duffy<sup>3</sup>, Michal Fried<sup>3</sup>, Alassane Dicko<sup>1</sup>  
<sup>1</sup>Malaria Research & Training Center, Faculty of Medicine, Pharmacy and Dentistry, University of

Bamako, Mali, Bamako, Mali, <sup>2</sup>Reference Health Center of Ouelessebougou, Ouelessebougou, Mali, <sup>3</sup>Laboratory of Malaria Immunology and Vaccinology, NIH/NIAID, Rockville, MD, United States

**LB-5162**

**Antibodies to subdomain 1 of PvDBP recognize VAR2CSA in non pregnant populations from Colombia and Brazil**

**Angie Y. Mena Palacios**<sup>1</sup>, Catherine J. Mitran<sup>1</sup>, Hazel Lugo<sup>1</sup>, Eliana Arango<sup>2</sup>, Amanda Maestre<sup>2</sup>, Flora S. Kano<sup>3</sup>, Luzia H. Carvalho<sup>3</sup>, Michael F. Good<sup>4</sup>, Sedami Gnidehou<sup>1</sup>, Stephanie S. Yanow<sup>1</sup>  
<sup>1</sup>University of Alberta, Edmonton, AB, Canada, <sup>2</sup>Universidad de Antioquia, Medellin, Colombia, <sup>3</sup>Fundacao Oswaldo Cruz, Belo Horizonte, Brazil, <sup>4</sup>Griffith, Gold Coast, Australia

**LB-5163**

**Autoantibodies as biomarkers to differentiate children with *P.falciparum* malaria from bacterial bloodstream infections**

**Nicole Struck**<sup>1</sup>, Ralf Krumpkamp<sup>1</sup>, Marlow Zimmermann<sup>1</sup>, Eva Lorenz<sup>1</sup>, Thomas Jacobs<sup>1</sup>, John Amuasi<sup>2</sup>, Nimako Sarpong<sup>2</sup>, Daniel Eibach<sup>1</sup>, Jürgen May<sup>1</sup>  
<sup>1</sup>Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, <sup>2</sup>Kumasi Centre for Collaborative Research in Tropical Medicine, Kumasi, Ghana

**LB-5164**

**Is chronic malnutrition associated with an increase in malaria incidence? A cohort study in children aged under 5 years in rural Gambia**

**Anne L. Wilson**<sup>1</sup>, John Bradley<sup>2</sup>, Ballah Kandeh<sup>3</sup>, Kolawole Salami<sup>4</sup>, Umberto D'Alessandro<sup>4</sup>, Margaret Pinder<sup>4</sup>, Steve W. Lindsay<sup>1</sup>  
<sup>1</sup>Durham University, Durham, United Kingdom, <sup>2</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>3</sup>National Malaria Control Programme, Banjul, Gambia, <sup>4</sup>Medical Research Council Unit The Gambia at the London School of Hygiene and Tropical Medicine, Banjul, Gambia

**Poster Session A**  
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### LB-5165

#### **Preliminary entomological profiles of households in *Plasmodium falciparum* case foci and comparison areas in Grand'Anse, Haiti**

**Vena Joseph**<sup>1</sup>, Ruth A. Ashton<sup>1</sup>, Thomas Druetz<sup>1</sup>, Cyrille Czeher<sup>2</sup>, Jean Frantz Lemoine<sup>3</sup>, Thomas P. Eisele<sup>1</sup>, Joseph Keating<sup>1</sup>, Daniel Impoinvil<sup>4</sup>  
<sup>1</sup>Tulane University, New Orleans, LA, United States, <sup>2</sup>Institut de Recherche pour le Développement, Montpellier, France, <sup>3</sup>Ministère de la santé publique et de la population, Port-au-Prince, Haiti, <sup>4</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States

### LB-5166

#### **Final primary and secondary outcome data from RIMDAMAL: Repeat ivermectin mass drug administrations for control of malaria: a cluster-randomized trial to evaluate efficacy and risk of harms**

**Brian D. Foy**<sup>1</sup>, Haoues Alout<sup>1</sup>, Jonathan A. Seaman<sup>1</sup>, Sangeeta Rao<sup>1</sup>, Tereza Magalhaes<sup>1</sup>, Martina Wade<sup>2</sup>, Sunil Parikh<sup>2</sup>, Dieudonne D. Soma<sup>3</sup>, Andre B. Sagna<sup>4</sup>, Florence Fournet<sup>4</sup>, Hannah C. Slater<sup>5</sup>, Roland Bougma<sup>6</sup>, Francois Drabo<sup>6</sup>, Abdoulaye Diabate<sup>3</sup>, Abdoulaye Diabate<sup>3</sup>, A. Gafar Couliadiaty<sup>3</sup>, Roch K. Dabiré<sup>3</sup>  
<sup>1</sup>Colorado State University, Fort Collins, CO, United States, <sup>2</sup>Yale School of Public Health, New Haven, CT, United States, <sup>3</sup>Institut de Recherche en Sciences de la Santé, Bobo Dioulasso, Burkina Faso, <sup>4</sup>Laboratoire Mixte International sur les Maladies à Vecteurs (LAMIVECT), Bobo Dioulasso, Burkina Faso, <sup>5</sup>Imperial College, London, United Kingdom, <sup>6</sup>Ministère de la Santé, Ouagadougou, Burkina Faso

### LB-5167

#### **Chemoprophylaxis Vaccination (PfSPZ-CVac) with high dose of Sanaria® PfSPZ Challenge NF54 under Pyrimethamine is Safe and Prevents Development of Blood Stage Parasites**

**Agnes Mwakingwe-Omari**<sup>1</sup>, Sara A. Healy<sup>1</sup>, Jacquelyn Lane<sup>1</sup>, Susan Pfeiffer<sup>1</sup>, David Cook<sup>1</sup>, Sahand Kalthori<sup>1</sup>, Charles Wyatt<sup>1</sup>, Alemush Imeru<sup>1</sup>, Martha Nason<sup>1</sup>, Irfan Zaidi<sup>1</sup>, Junhui Duan<sup>1</sup>, Jill Neal<sup>1</sup>, Jen C. Hume<sup>1</sup>, Charles Anderson<sup>1</sup>, Hope Decerdefelt<sup>1</sup>, Tooba Murshedkar<sup>2</sup>, Adam J. Ruben<sup>2</sup>, Sumana Chakravarty<sup>2</sup>, Anita Manoj<sup>2</sup>, Anusha Gunasekera<sup>2</sup>, B. Kim Lee Sim<sup>3</sup>, Peter F. Billingsley<sup>2</sup>, Eric R. James<sup>2</sup>, Thomas L. Richie<sup>2</sup>, Stephen L. Hoffman<sup>2</sup>, Patrick E. Duffy<sup>1</sup>  
<sup>1</sup>National Institutes of Health, Rockville, MD, United States, <sup>2</sup>Sanaria Inc, Rockville, MD, United States, <sup>3</sup>Protein Potential, LLC, Rockville, MD, United States

### LB-5168

#### **Semi-field studies to evaluate the effects of eave tubes on mosquito behavior & mortality**

**Antoine MG Barreaux**<sup>1</sup>, N'Guessan Brou<sup>2</sup>, Ludovic P. Ahoua Alou<sup>2</sup>, Alphonsine A. Koffi<sup>2</sup>, Raphaël N'Guessan<sup>3</sup>, Eleanore D. Sternberg<sup>1</sup>, Matthew B. Thomas<sup>1</sup>  
<sup>1</sup>The Pennsylvania State University, University Park, PA, United States, <sup>2</sup>Institut Pierre Richet / Institut National de santé Publique (INSP), Bouaké, Côte D'Ivoire, <sup>3</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom

### LB-5169

#### **Towards better malaria surveillance in Mozambique: Findings, identified bottlenecks and recommendations from 2018 national comprehensive surveillance assessment**

**Arantxa Roca-Feltrer**<sup>1</sup>, Elizabeth Streat<sup>2</sup>, Sergio Gomane<sup>2</sup>, Fabião Luis<sup>3</sup>, Guidion Mathe<sup>4</sup>, Sergio Tsabete<sup>4</sup>, Sergio Lopes<sup>5</sup>, Pelágio Marrune<sup>4</sup>, Francisco Saute<sup>3</sup>, Abdisanar Noor<sup>6</sup>, Baltazar Candrinho<sup>4</sup>  
<sup>1</sup>Malaria Consortium, London, United Kingdom, <sup>2</sup>Malaria Consortium, Maputo, Mozambique, <sup>3</sup>CISM, Maputo, Mozambique, <sup>4</sup>NMCP, Maputo, Mozambique, <sup>5</sup>Independent consultant, Coimbra, Portugal, <sup>6</sup>WHO-GMP, Geneva, Switzerland

### LB-5170

#### **Knockdown resistance (Kdr) mutations found in Eastern Ethiopia *Anopheles arabiensis***

**Shantoy Hansel**<sup>1</sup>, Tamar E. Carter<sup>2</sup>, Araya Gebresilassie<sup>3</sup>, Solomon Yared<sup>3</sup>, Daniel Janies<sup>1</sup>  
<sup>1</sup>University of North Carolina at Charlotte, Charlotte, NC, United States, <sup>2</sup>Baylor University, Waco, TX, United States, <sup>3</sup>Jigjiga University, Jigjiga, Ethiopia

### LB-5171

#### **CONTRIBUTION OF RAPID DIAGNOSIS TEST IN MALARIA CASE MANAGEMENT STRATEGY IN SENEGAL**

**MAMADOU L. DIOUF**  
MINISTRY OF HEALTH, DAKAR, Senegal



**Poster Session A**  
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**LB-5172**

**Molecular Surveillance for Drug Resistant *Plasmodium falciparum* imported to Ontario**

**Ruwandi Kariyawasam**<sup>1</sup>, Eric Shao<sup>2</sup>, Rachel Lau<sup>3</sup>, Adrienne Showler<sup>4</sup>, Filip Ralevski<sup>3</sup>, Andrea K. Boggild<sup>1</sup>

<sup>1</sup>University of Toronto, Toronto, ON, Canada, <sup>2</sup>Western University, London, ON, Canada, <sup>3</sup>Public Health Ontario, Toronto, ON, Canada, <sup>4</sup>Georgetown University, Washington, DC, United States

**LB-5173**

**Immunogenicity of a Fractional Third and Fourth Dose of RTS,S/AS01 Malaria Candidate Vaccine: A Controlled Human Malaria Parasite Infection (CHMI) Trial in Adults**

**James E. Moon**<sup>1</sup>, Jason A. Regules<sup>1</sup>, Elke Bergmann-Leitner<sup>1</sup>, Christian Ockenhouse<sup>2</sup>, Ulrike Wille-Reece<sup>2</sup>, Cynthia Lee<sup>2</sup>, Danielle Morelle<sup>3</sup>, Erik Jongert<sup>3</sup>, Marc Lievens<sup>3</sup>  
<sup>1</sup>Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>2</sup>PATH's Malaria Vaccine Initiative, Center for Vaccine Innovation and Access, Washington, DC, United States, <sup>3</sup>GSK, Wavre, Belgium

**LB-5174**

**Using SMFA and ELISA for decision-making during clinical development of Pfs25 and Pfs230D1 transmission blocking vaccines against *Plasmodium falciparum***

**Maryonne Snow-Smith**<sup>1</sup>, Charles Anderson<sup>1</sup>, Issaka Sagara<sup>2</sup>, Mahamadou Sissoko<sup>2</sup>, Mahamadoun Assadou<sup>2</sup>, Abdoulaye Katile<sup>2</sup>, M'bouye D. Kone<sup>2</sup>, Olga Muratova<sup>1</sup>, Emily Kelnhofer<sup>1</sup>, Ashley McCormack<sup>1</sup>, David Narum<sup>1</sup>, Scaria Puthupparampil<sup>1</sup>, Kelly Rausch<sup>1</sup>, Bruce Swihart<sup>1</sup>, Agnes Mwakingwe<sup>1</sup>, Sara Healy<sup>1</sup>, Patrick Duffy<sup>1</sup>, Ogobara K. Doumbo<sup>2</sup>, Nicholas J. MacDonald<sup>1</sup>, Danielle Morelle<sup>3</sup>, Marc Lievens<sup>3</sup>  
<sup>1</sup>National Institute of Health, Rockville, MD, United States, <sup>2</sup>National Institute of Health, Bamako, Mali, <sup>3</sup>GlaxoSmithKline, Wavre, Belgium

**LB-5175**

**Safety and Functional Immunogenicity of Pfs230D1M-EPA/AS01 Transmission Blocking Vaccine against *Plasmodium falciparum* in Malian Adults**

**Issaka Sagara**<sup>1</sup>, Sara A. Healy<sup>2</sup>, Mamady Kone<sup>1</sup>, Mahamadoun H. Assadou<sup>1</sup>, Abdoulaye Katile<sup>1</sup>, Bruce Swihart<sup>3</sup>, Jennifer Kwan<sup>4</sup>, Mahamadou S. Sissoko<sup>1</sup>,

Merepen A. Guindo<sup>1</sup>, M'Bouye Doucoure<sup>1</sup>, Daman Sylla<sup>1</sup>, Adama Sacko<sup>1</sup>, Danielle Morelle<sup>5</sup>, Marc Lievens<sup>5</sup>, Charles Anderson<sup>2</sup>, Kelly Rausch<sup>2</sup>, David L. Narum<sup>2</sup>, Puthupparampil Scaria<sup>2</sup>, Nicholas J. MacDonald<sup>2</sup>, Daming Zhu<sup>2</sup>, Olga Muratova<sup>2</sup>, Mamadou Coulibaly<sup>1</sup>, Agnes Mwakingwe-Omari<sup>2</sup>, Jen C. Hume<sup>2</sup>, Amagana Dolo<sup>1</sup>, Sekou F. Traore<sup>1</sup>, Ogobara K. Doumbo<sup>1</sup>, Patrick E. Duffy<sup>2</sup>  
<sup>1</sup>MRTC, University of Science, Techniques and Technologies, Bamako, Mali, <sup>2</sup>LMIV/NIAID/NIH, Rockville, MD, United States, <sup>3</sup>BRB/NIAID/NIH, Rockville, MD, United States, <sup>4</sup>LCIM/NIAID/NIH, Bethesda, MD, United States, <sup>5</sup>GSK, Wavre, Belgium

**LB-5176**

**Low Sequence Heterogeneity of *Plasmodium falciparum* Isolates Imported to Ontario, Canada from West Africa over a 10-year Period with Increased Molecular Markers of Resistance to Proguanil**

Rachel Lau<sup>1</sup>, Michelle Dong<sup>2</sup>, Jason Kwan<sup>3</sup>, Ruwandi Kariyawasam<sup>4</sup>, Eric Shao<sup>5</sup>, Filip Ralevski<sup>1</sup>, **Andrea K. Boggild**<sup>4</sup>  
<sup>1</sup>Public Health Ontario, Toronto, ON, Canada, <sup>2</sup>Harvard University, Boston, MA, United States, <sup>3</sup>McMaster University, Hamilton, ON, Canada, <sup>4</sup>University of Toronto, Toronto, ON, Canada, <sup>5</sup>Western University, London, ON, Canada

**LB-5177**

**Dual-Allele *P. falciparum* FVO and 3D7 MSP1 antigenic Coverage Achieved using SAPN Vaccine Platform**

**Christopher Mann**  
Walter Reed Army Institute of Research, Silver Spring, MD, United States

**LB-5178**

**Formulation stability assessments of preclinical vaccines containing malaria candidates Pfs230D1M-EPA and CSP(3D7)-EPA in liposomal and oil-based adjuvants**

**Kelly M. Rausch**, Emma K. Barnafo, Karine Reiter, Richard L. Shimp, Puthupparampil Scaria, David L. Narum, Patrick E. Duffy  
National Institutes of Health/National Institute of Allergy and Infectious Diseases/Laboratory of Malaria Immunology and Vaccinology, Rockville, MD, United States

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**LB-5179**

**Prospects of eliminating malaria in Zimbabwe: Foci analysis and evaluation in 20 elimination districts**

**Joseph MBERIKUNASHE**<sup>1</sup>, Busisani Dube<sup>1</sup>, Brighton Gambia<sup>2</sup>, Anderson Chimusoro<sup>3</sup>, Patience Dhliwayo<sup>1</sup>, Munashe Madinga<sup>2</sup>  
<sup>1</sup>National Malaria Control Programme, Harare, Zimbabwe, <sup>2</sup>Clinton Health Access Initiative, Harare, Zimbabwe, <sup>3</sup>World Health Organization, Geneva, Switzerland

**LB-5180**

**Tanzania School Net Program: Maturing to semi auto-piloted Implementation**

**Waziri Nyoni**<sup>1</sup>, David Dadi<sup>1</sup>, Noela Kisoka<sup>1</sup>, Kanuth Disomo<sup>1</sup>, George Kabulika<sup>1</sup>, Eric Shoo<sup>2</sup>, Winifred Mwafongo<sup>3</sup>, Ally Mohamed<sup>3</sup>, George Greer<sup>4</sup>, Naomi Kaspar<sup>5</sup>, Eric Filemyr<sup>1</sup>, Hannah Koenker<sup>1</sup>, Matt Lynch<sup>1</sup>, Ato Selby<sup>1</sup>  
<sup>1</sup>Johns Hopkins Center for Communication Programs, Baltimore, MD, United States, <sup>2</sup>Population Services International, Dar es Salaam, United Republic of Tanzania, <sup>3</sup>National Malaria Control Program, Dar es Salaam, United Republic of Tanzania, <sup>4</sup>President's Malaria Initiative, Dar es Salaam, United Republic of Tanzania, <sup>5</sup>President's Malaria Initiative, Dar es Salaam, United Republic of Tanzania

**LB-5181**

**Feasibility of an Ovine Model of Male ZIKV Infection**

**Erika R. Schwarz**<sup>1</sup>, Ruiyu Pu<sup>1</sup>, Sarah Beachboard<sup>1</sup>, Kelli L. Barr<sup>2</sup>, Maureen T. Long<sup>1</sup>  
<sup>1</sup>University of Florida, Gainesville, FL, United States, <sup>2</sup>Baylor University, Waco, TX, United States

**LB-5182**

**Validation of a real-time PCR based detection system for Yellow Fever Virus specific RNA**

Patricia Sequeira<sup>1</sup>, Hussein El Halas<sup>2</sup>, Karin Rottengatter<sup>2</sup>, Simone Alves Sampaio<sup>1</sup>, Ana Bispo de Filippis<sup>1</sup>, **Leonie-Sophie Hecht**<sup>2</sup>  
<sup>1</sup>Instituto Oswaldo Cruz – Fiocruz, Rio de Janeiro, Brazil, <sup>2</sup>Altona Diagnostics, San Francisco, CA, United States

**LB-5183**

**Dengue, Zika and Chikungunya viruses and pregnancy outcomes in Jamaica**

**Tracy Evans-Gilbert**<sup>1</sup>, J.Peter Figueroa<sup>2</sup>, Maung Aung<sup>3</sup>  
<sup>1</sup>Cornwall Regional Hospital, Montego Bay, Jamaica, <sup>2</sup>University of the West Indies, Kingston, Jamaica, <sup>3</sup>Western Regional Health Authority, Montego Bay, Jamaica

**LB-5184**

**Dengue illness impacts daily human mobility patterns in Iquitos, Peru**

**Kathryn L. Schaber**<sup>1</sup>, Valerie A. Paz-Soldan<sup>2</sup>, Amy C. Morrison<sup>3</sup>, William H. Elson<sup>3</sup>, Alan L. Rothman<sup>4</sup>, Thomas W. Scott<sup>3</sup>, Lance Waller<sup>1</sup>, Uriel D. Kitron<sup>1</sup>, John P. Elder<sup>5</sup>, Gonzalo M. Vazquez-Prokopec<sup>1</sup>  
<sup>1</sup>Emory University, Atlanta, GA, United States, <sup>2</sup>Tulane University, New Orleans, LA, United States, <sup>3</sup>University of California Davis, Davis, CA, United States, <sup>4</sup>University of Rhode Island, Providence, RI, United States, <sup>5</sup>San Diego State University, San Diego, CA, United States

**LB-5185**

**Estimating the duration of protection following a booster dose of the inactivated Japanese encephalitis vaccine IXIARO, IC51 in children**

**Christian Taucher**<sup>1</sup>, Michael Kundi<sup>2</sup>  
<sup>1</sup>Valneva Austria GmbH, Vienna, Austria, <sup>2</sup>Center for Public Health, Medical University of Vienna, Vienna, Austria

**LB-5186**

**CMV Seroprevalence in Sierra Leone**

**Monika L. Dietrich**, John S. Schieffelin  
Tulane University, New Orleans, LA, United States

**LB-5187**

**Epidemiology of Severe Fever with Thrombocytopenia Syndrome Virus in South Korea**

**KEUN HWA LEE**<sup>1</sup>, Jeong Rae Yoo<sup>1</sup>, Sang Taek Heo<sup>1</sup>, Young Ree Kim<sup>1</sup>, Yu Mi Wi<sup>2</sup>, Sung-Cheol Yun<sup>3</sup>, Sung-Han Kim<sup>3</sup>  
<sup>1</sup>Jeju National University College of Medicine, JEJU, Republic of Korea, <sup>2</sup>Sungkyunkwan University Hospital, Changwon-si, Republic of Korea, <sup>3</sup>Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea

**Poster Session A**  
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**LB-5188**

**Phase 1 First in Human Study in Healthy Volunteers Support Safety and Tolerability of Anti-Zika Antibody Tyzivumab, a Therapeutic Candidate for Zika Disease**

Justin HJ Ng<sup>1</sup>, Megan McBee<sup>1</sup>, Yok-Hian Chionh<sup>1</sup>, Yuan Wei<sup>2</sup>, Ganesh Lekurwale<sup>2</sup>, Yee-Leong Teoh<sup>2</sup>, Yadunanda Budigi<sup>1</sup>, Eng-Eong Ooi<sup>1</sup>, **Jenny G. Low**<sup>3</sup>  
<sup>1</sup>Tychan Pte Ltd, Singapore, Singapore, <sup>2</sup>Singapore Clinical Research Institute Pte Ltd, Singapore, Singapore, <sup>3</sup>Singapore General Hospital, Singapore, Singapore

**LB-5189**

**Impact of an additional dose and longer immunization interval on the safety and immunogenicity of an AS03<sub>B</sub>-adjuvanted dengue purified inactivated vaccine up to 12 months after administration in healthy U.S. adults**

**Michael Koren**<sup>1</sup>, Kirsten E. Lyke<sup>2</sup>, Leyi Lin<sup>1</sup>, Kenneth H. Eckels<sup>1</sup>, Edith Lepine<sup>3</sup>, Monica A. McArthur<sup>2</sup>, Paul Keiser<sup>1</sup>, Rafael De La Barrera<sup>1</sup>, David W. Vaughn<sup>3</sup>, Robert Paris<sup>3</sup>, Stephen J. Thomas<sup>1</sup>, Richard G. Jarman<sup>1</sup>, Alexander C. Schmidt<sup>3</sup>  
<sup>1</sup>Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>2</sup>Institute for Global Health, Center for Vaccine Development and Global Health, University of Maryland, Baltimore, MD, United States, <sup>3</sup>GSK, Rockville, MD, United States

**LB-5190**

**Immunogenicity 28 days and one year after a Dengue Vaccine Booster in Healthy Adolescents and Adults in Latin America after 4 to 5 Years of a Primary 3-Dose Schedule**

Diana Coronel<sup>1</sup>, Enid Garcia-Rivera<sup>2</sup>, Doris Maribel Rivera<sup>3</sup>, José Luis Arredondo<sup>4</sup>, Betzana Zambrano<sup>5</sup>, Zhenghong Chen<sup>6</sup>, Matthew Bonaparte<sup>7</sup>, Ana Paula Perroud<sup>8</sup>, **Gustavo Dayan**<sup>7</sup>, Carlos A. DiazGranados<sup>7</sup>, Andrey Rojas<sup>9</sup>, Margarita Cortés<sup>9</sup>, Fernando Noriega<sup>7</sup>  
<sup>1</sup>Sanofi Pasteur, Mexico City, Mexico, <sup>2</sup>University of Puerto Rico, Puerto Rico, Puerto Rico, <sup>3</sup>Inversiones en Investigación Médica, Tegucigalpa, Honduras, <sup>4</sup>Instituto Nacional de Pediatría, Clinical Research Unit, Mexico City, Mexico, <sup>5</sup>Sanofi Pasteur, Montevideo, Uruguay, <sup>6</sup>Sanofi Pasteur, Beijing, China, <sup>7</sup>Sanofi Pasteur, Swiftwater, PA, United States, <sup>8</sup>Sanofi Pasteur, São Paulo, Brazil, <sup>9</sup>Sanofi Pasteur, Bogotá, Colombia

**LB-5191**

**iPS derived dendritic cells for *in vitro* dengue virus infection model**

**Kenji Hirayama**<sup>1</sup>, Shyam Prakash Dumre<sup>1</sup>, Dao Huy Manh<sup>1</sup>, Shusaku Mizukami<sup>1</sup>, Muhareva Raekiansyah<sup>1</sup>, Satoru Senju<sup>2</sup>, Yasuharu Nishimura<sup>2</sup>, Juntra Karbwang<sup>1</sup>, Nguyen Tien Huy<sup>1</sup>, Kouichi Morita<sup>1</sup>  
<sup>1</sup>Institute of Tropical Medicine (NEKKEN), Nagasaki, Japan, <sup>2</sup>Kumamoto University Graduate School of Medical Sciences, Kumamoto, Japan

**LB-5192**

**Modelling the heterogeneity of dengue transmission in Sri Lanka from age-specific case surveillance data**

**Nayantara Wijayanandana**<sup>1</sup>, Natsuko Imai<sup>2</sup>, Flavio Finger<sup>1</sup>, Neil Ferguson<sup>2</sup>, Hasitha Tissera<sup>3</sup>, Neal Alexander<sup>1</sup>  
<sup>1</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>2</sup>Imperial College London, London, United Kingdom, <sup>3</sup>Ministry of Health, Colombo, Sri Lanka

**LB-5193**

**Environmental Risk Factors associated with Dengue Virus infection from Novel Family Cohort Study in Kamphaeng Phet, Thailand during year 2016-2017**

**Chaleaw Saengchan**<sup>1</sup>, Darunee Buddhari<sup>1</sup>, Kathryn B. Anderson<sup>2</sup>, Sopon Iamsirithaworn<sup>3</sup>, Butsayaya Thaisomboonsuk<sup>1</sup>, Ananda Nisalak<sup>1</sup>, Alongkot Ponlawat<sup>1</sup>, Anon Srikiatkachorn<sup>4</sup>, Alan L. Rothman<sup>4</sup>, Alden L. Weg<sup>1</sup>, Damon W. Ellison<sup>1</sup>, Louis R. Macareo<sup>1</sup>, Timothy P. Endy<sup>5</sup>  
<sup>1</sup>Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, <sup>2</sup>University of Minnesota Medical School, Minneapolis, MN, United States, <sup>3</sup>Department of Disease Control, Ministry of Public Health, Nonthaburi, Thailand, <sup>4</sup>University of Rhode Island, Providence, RI, United States, <sup>5</sup>State University of New York, Syracuse, NY, United States

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**LB-5194**

**The impact of improved water, sanitation and hygiene on oral rotavirus vaccine immunogenicity in Zimbabwean infants: a substudy of a cluster-randomised trial**

**James A. Church**<sup>1</sup>, Sandra Rukobo<sup>2</sup>, Margaret Govha<sup>2</sup>, Benjamin Lee<sup>3</sup>, Marya P. Carmolli<sup>3</sup>, Bernard Chasekwa<sup>2</sup>, Robert Ntozini<sup>2</sup>, Kuda Mutasa<sup>2</sup>, Florence D. Majo<sup>2</sup>, Naume V. Tavengwa<sup>2</sup>, Monica McNeal<sup>4</sup>, Lawrence H. Moulton<sup>5</sup>, Jean H. Humphrey<sup>5</sup>, Beth D. Kirkpatrick<sup>3</sup>, Andrew J. Prendergast<sup>1</sup>

<sup>1</sup>Queen Mary University of London, London, United Kingdom, <sup>2</sup>Zvitambo Institute of Maternal & Child Health Research, Harare, Zimbabwe, <sup>3</sup>University of Vermont, Burlington, VT, United States, <sup>4</sup>University of Cincinnati, Cincinnati, OH, United States, <sup>5</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

**LB-5195**

**Mass distribution of household water filters dramatically reduces diarrheal disease rates in Liberia**

**Kristen R. Alford**, Stacy Lynn De Ruitter, Randall Pruim, Jason E. VanHorn, Abigail G. Stratton, Jared T. Deighton, Matthew B. Bone, Jamison L. Koeman  
*Calvin College, Grand Rapids, MI, United States*

**LB-5196**

**WASH Factors and Leprosy-Schistosomiasis Co-infections in North Gondar, Ethiopia: Risk Factors for Leprosy Transmission?**

**Lisa E. Emerson**<sup>1</sup>, Puneet Anantharam<sup>1</sup>, Kassahun D. Bilcha<sup>2</sup>, Feleke M. Yehaula<sup>3</sup>, Abebe G. Bayih<sup>3</sup>, Annisa B. Tesfaye<sup>3</sup>, Jessica K. Fairley<sup>2</sup>

<sup>1</sup>Emory University Rollins School of Public Health, Atlanta, GA, United States, <sup>2</sup>Emory University School of Medicine, Atlanta, GA, United States, <sup>3</sup>University of Gondar College of Medicine and Health Sciences, Gondar, Ethiopia

**LB-5197**

**Effects of water, sanitation, handwashing and nutritional interventions on enteropathogen burden in young children: a cluster-randomized controlled trial in rural Bangladesh**

**Jessica Grembi**<sup>1</sup>, Md. Abdul Karim<sup>2</sup>, Md. Ohedul Islam<sup>2</sup>, Rana Miah<sup>2</sup>, Audrie Lin<sup>3</sup>, Benjamin Arnold<sup>3</sup>, Elizabeth Rogawski<sup>4</sup>, James Platts-Mills<sup>4</sup>, Mami Taniuchi<sup>4</sup>, Jie Liu<sup>4</sup>, Eric Houpt<sup>4</sup>, Rashidul Haque<sup>2</sup>, Susan Holmes<sup>1</sup>, Stephen Luby<sup>1</sup>

<sup>1</sup>Stanford University, Palo Alto, CA, United States, <sup>2</sup>icddr, Dhaka, Bangladesh, <sup>3</sup>University of California, Berkeley, Berkeley, CA, United States, <sup>4</sup>University of Virginia, Charlottesville, VA, United States

**LB-5198**

**The role of gender in community-level social organization and WASH insecurity in rural, coastal Ecuador**

**Sonia T. Hegde**<sup>1</sup>, Marisa Eisenberg<sup>1</sup>, James Trostle<sup>2</sup>, Joseph Eisenberg<sup>1</sup>

<sup>1</sup>University of Michigan, Ann Arbor, MI, United States, <sup>2</sup>Trinity College, New Haven, CT, United States

**LB-5199**

**Infectious disease outbreaks upon occurrence of storm events in the United States 2014-2018**

Aliyah Scott, Anthony Edwards, Wilson Curtis, Maurice Hanns, **Sabina D. Otienoburu**  
*Johnson C. Smith University, Charlotte, NC, United States*

**Poster Session 77**  
**Poster Session B**  
**Late Breakers in Basic Sciences**  
*Tuesday, October 30, Noon - 1:45 p.m.*  
*Marriott - Grand Ballroom (3rd Floor)*

Arthropods/Entomology .....	#LB-5207 through LB-5221
Malaria .....	#LB-5222 through LB-5253
Pneumonia, Respiratory Infections and Tuberculosis .....	#LB-5254 through LB-5255
Protozoa .....	#LB-5256 through LB-5260
Trematodes .....	#LB-5261 through LB-5263
Viruses .....	#LB-5264 through LB-5273

**LB-5207**

**Further exploration of the resistance of *Aedes aegypti* to ebola virus infection**

**Alexander Gold**  
*Boston University, Boston, MA, United States*

**LB-5208**

**Modelling the occurrence and abundance of *Aedes aegypti* and *Aedes albopictus* in Florida**

**Bingyi Yang**<sup>1</sup>, Brooke A. Borgert<sup>1</sup>, John P. Smith<sup>2</sup>, Florida Mosquito Control Consortium<sup>1</sup>, Derek A. Cummings<sup>1</sup>  
<sup>1</sup>*University of Florida, Gainesville, FL, United States,*  
<sup>2</sup>*Florida State University, Panama City, FL, United States*

**LB-5209**

**Insecticide resistance in *Anopheles gambiae* s.l. populations from the 15 counties in Liberia, West Africa**

**Ibrahima Baber**<sup>1</sup>, Agnes Nador<sup>2</sup>, George Gweh<sup>2</sup>, George Dehnue<sup>2</sup>, Chrispin Williams<sup>2</sup>, Paye Nyansaiye<sup>2</sup>, Peter Obenauer<sup>3</sup>, Christie Reed<sup>4</sup>, Ramlat Jose<sup>5</sup>, Jessica Kafuko<sup>6</sup>, Pamela Dasher<sup>7</sup>, Aklilu Seyoum<sup>7</sup>, Jennifer Armistead<sup>8</sup>, Christen Fornadel<sup>8</sup>  
<sup>1</sup>*U.S. Agency for International Development (USAID) U.S. President Malaria Initiative (PMI) VectorLink (VL) Project, Abt Associates Inc., Monrovia, Liberia,*  
<sup>2</sup>*National Malaria Control Program, Monrovia, Liberia,*  
<sup>3</sup>*PMI, Navy and Marine Corps Public Health Center Detachment, Centers for Disease Control and Prevention (CDC), Atlanta, GA, United States,*  
<sup>4</sup>*PMI, CDC, Atlanta, United States (Currently Global Immunization Division), Nairobi, Kenya,*  
<sup>5</sup>*PMI, USAID Liberia (Currently Global Fund Malaria/Ministry of Health), Luanda, Angola,*  
<sup>6</sup>*PMI,*

*USAID, Monrovia, Liberia,*  
<sup>7</sup>*PMI VectorLink (VL) Project, Abt Associates Inc., Bethesda, MD, United States,*  
<sup>8</sup>*PMI, USAID, Washington, DC, United States*

**LB-5210**

**Mosquito population during hurricane and non-hurricane seasons (2017)**

**Emilee E. Colón-Lorenzo**<sup>1</sup>, Harry G. Ramírez<sup>2</sup>, Robert Rodríguez<sup>3</sup>, Vivian S. Green<sup>3</sup>, Juan C. Orengo<sup>3</sup>, Adelfa E. Serrano<sup>1</sup>  
<sup>1</sup>*University of Puerto Rico-School of Medicine, San Juan, Puerto Rico,*  
<sup>2</sup>*University of Puerto Rico-Rio Piedras Campus, San Juan, Puerto Rico,*  
<sup>3</sup>*Ponce Health Sciences University, Ponce, Puerto Rico*

**LB-5211**

**Contact irritancy response of *Aedes albopictus* to several plant-derived compounds using the high throughput screening system**

**Diana I. Ortiz**<sup>1</sup>, Zachary N. Johns<sup>2</sup>, Cameron D. Yard<sup>2</sup>  
<sup>1</sup>*Westminster College, New Wilmington, PA, United States,*  
<sup>2</sup>*Westminster College (alumni), New Wilmington, PA, United States*

**LB-5212**

**Molecular analysis of secondary vector species in the Democratic Republic of Congo**

**Allison L. Hendershot**<sup>1</sup>, Lily Yu<sup>1</sup>, Emile Manzambi<sup>2</sup>, Francis Wat'senga<sup>2</sup>, Richard Oxborough<sup>3</sup>, Seth Irish<sup>4</sup>, Neil F. Lobo<sup>1</sup>  
<sup>1</sup>*University of Notre Dame, Notre Dame, IN, United States,*  
<sup>2</sup>*Institut National de Recherche Biomedicale, Kinshasa, Democratic Republic of the Congo,*  
<sup>3</sup>*Abt Associates, Rockville, MD, United States,*  
<sup>4</sup>*Centers for Disease Control, Atlanta, GA, United State*

**Poster Session B  
Late Breakers in Basic Sciences**

Tuesday, October 30, Noon - 1:45 p.m.

**LB-5213**

**Mosquito surveillance in Alabama highlights regions of potential arboviral risk**

**Benjamin A. McKenzie**<sup>1</sup>, Jaclyn S. Everly<sup>2</sup>, Megan K. Thurmond<sup>1</sup>, Grace L. Gable<sup>3</sup>, Ansley E. Murphy<sup>4</sup>, Sarah Zohdy<sup>1</sup>  
<sup>1</sup>Auburn University, Auburn, AL, United States, <sup>2</sup>University of Southern Mississippi, Hattiesburg, MS, United States, <sup>3</sup>University of North Carolina at Charlotte, Charlotte, NC, United States, <sup>4</sup>Sewanee: University of the South, Sewanee, TN, United States

**LB-5214**

**Multi-Scalar Analysis of *Anopheles* Mosquito Larval Distribution in a Gravity-fed Irrigation System in Malawi**

**April N. Frake**<sup>1</sup>, Grivin Chipula<sup>2</sup>, Joseph P. Messina<sup>1</sup>, Leo Zulu<sup>1</sup>, Themba Mzilahowa<sup>3</sup>, Edward D. Walker<sup>1</sup>  
<sup>1</sup>Michigan State University, East Lansing, MI, United States, <sup>2</sup>Lilongwe University of Agriculture and Natural Resources, Lilongwe, Malawi, <sup>3</sup>University of Malawi College of Medicine, Blantyre, Malawi

**LB-5215**

**Leveraging Big Data for Public Health: Mapping Malaria Vector Habitat Suitability in Malawi with Google Earth Engine**

**April N. Frake**, Brad G. Peter, Joseph P. Messina, Edward D. Walker  
Michigan State University, East Lansing, MI, United States

**LB-5216**

**Does Overlap of Malaria Vector Control and Agricultural Pest Management Exacerbate Vector Resistance?**

**Mike W. Dunbar**<sup>1</sup>, Robert S. McCann<sup>2</sup>, Themba Mzilahowa<sup>3</sup>  
<sup>1</sup>Emory University, Atlanta, GA, United States, <sup>2</sup>Wageningen University, Wageningen, Netherlands, <sup>3</sup>MAC Communicable Diseases Action Centre, College of Medicine, University of Malawi, Chichiri, Malawi

**LB-5217**

**Profiling insecticide resistance in the dengue vector *Aedes aegypti* in Colombia**

**Clare Strode**<sup>1</sup>, Yurany Granada<sup>2</sup>, Ana María Mejía-Jaramillo<sup>2</sup>, Omar Triana-Chavez<sup>2</sup>

<sup>1</sup>Edge Hill University, Ormskirk, United Kingdom, <sup>2</sup>Universidad de Antioquia, Medellín, Colombia

**LB-5218**

**Screening for Arboviral Infection in *Aedes aegypti* Populations from South-western Ecuador: Preliminary Results**

Andrea López-Rosero<sup>1</sup>, Anna M. Stewart-Ibarra<sup>2</sup>, Froilán Heras<sup>3</sup>, Sadie J. Ryan<sup>4</sup>, Erin Mordecai<sup>5</sup>, **Marco Neira**<sup>1</sup>  
<sup>1</sup>Center for Research on Health in Latin America-CISEAL, Department of Exact and Natural Sciences, Pontificia Universidad Católica del Ecuador, Quito, Ecuador, <sup>2</sup>Institute for Global Health and Translational Science, SUNY Upstate Medical University, Syracuse, NY, United States, <sup>3</sup>Universidad Técnica de Machala, Machala, Ecuador, <sup>4</sup>Quantitative Disease Ecology and Conservation (QDEC) Lab, Department of Geography, University of Florida, Gainesville, FL, United States, <sup>5</sup>Department of Biology, Stanford University, Stanford, CA, United States

**LB-5219**

**Speciation with introgression in the *Anopheles funestus* Subgroup**

**Scott T. Small**<sup>1</sup>, Frederic Labbe<sup>1</sup>, Neil F. Lobo<sup>1</sup>, Chadwick H. Sikaala<sup>2</sup>, Lizzette L. Koekemoer<sup>3</sup>, Daniel E. Neafsey<sup>4</sup>, Michael C. Fontaine<sup>5</sup>, Nora J. Besansky<sup>1</sup>  
<sup>1</sup>University of Notre Dame, Notre Dame, IN, United States, <sup>2</sup>National Malaria Control Program, Lusaka, Zambia, <sup>3</sup>University of Witwatersrand, Johannesburg, South Africa, <sup>4</sup>Harvard University, Cambridge, MA, United States, <sup>5</sup>University of Groningen, Groningen, Netherlands

**LB-5220**

**Enhanced gene flow is associated with landscape factors for *Anopheles arabiensis* and *Anopheles gambiae* in Kenya**

**Elizabeth Hemming-Schroeder**<sup>1</sup>, Eugenia Lo<sup>2</sup>, Daibin Zhong<sup>1</sup>, Harrysone Atieli<sup>1</sup>, Samuel Kahindi<sup>1</sup>, Andrew Githeko<sup>1</sup>, Guiyun Yan<sup>1</sup>  
<sup>1</sup>University of California, Irvine, Irvine, CA, United States, <sup>2</sup>University of North Carolina, Charlotte, Charlotte, NC, United States

**Poster Session B**  
**Late Breakers in Basic Sciences**  
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### LB-5221

#### **Evaluating current and future potential distribution of Phebotominae sand flies in Italy under climate change scenarios**

**Camila Gonzalez**<sup>1</sup>, Marco Pombi<sup>2</sup>, Gioia Bongiorno<sup>3</sup>, Johan Calderón<sup>1</sup>, Luigi Gradoni<sup>3</sup>, Simona Gabrielli<sup>2</sup>  
<sup>1</sup>Centre for Research in Tropical Microbiology and Parasitology (CIMPAT). Department of Biological Sciences. Faculty of Sciences. Universidad de Los Andes, Bogota, Colombia, <sup>2</sup>Dipartimento di Sanità Pubblica e Malattie Infettive, Università di Roma Sapienza., Rome, Italy, <sup>3</sup>Dipartimento di Malattie Infettive, Reparto di malattie trasmesse da vettori, Istituto Superiore di Sanità, Rome, Italy

### LB-5222

#### **Training outcome for malaria microscopy during an antimalarial therapeutic efficacy study Zanzibar 2017**

**Safia M. Ali**<sup>1</sup>, Majda H. Nassor<sup>1</sup>, Bakar J. Mohammed<sup>1</sup>, Bimkubwa K. Kombo<sup>1</sup>, Makame M. Kombo<sup>1</sup>, Abdullah S. Ali<sup>1</sup>, Hamid K. Pandu<sup>1</sup>, Chonge K. Kitojo<sup>1</sup>, Naomi K. Kaspar<sup>2</sup>, Erik J. Reaves<sup>2</sup>  
<sup>1</sup>Zanzibar Malaria Elimination Program, Zanzibar, United Republic of Tanzania, <sup>2</sup>USAID -Tanzania, Dar-es-salaam, United Republic of Tanzania

### LB-5223

#### **Saglin, an *Anopheles gambiae* saliva protein, plays a major role in early stage *Plasmodium* infection in the mosquito vector**

**Frank Criscione**<sup>1</sup>, Eric Calvo<sup>1</sup>, Lampouguin Yenkoidiok Douti<sup>1</sup>, David O'Brochta<sup>2</sup>, Jose Ribeiro<sup>1</sup>  
<sup>1</sup>NIH, Bethesda, MD, United States, <sup>2</sup>FNIH, Bethesda, MD, United States

### LB-5224

Dr

Mohammed H Abdelraheem<sup>1</sup>, Devendra Bansal<sup>2</sup>, Mohammed A Idris<sup>1</sup>, Moawia M Mukhtar<sup>3</sup>, Moawia M Mukhtar<sup>4</sup>, Muzamil M Abdel Hamid<sup>5</sup>, Zainb S Imam<sup>5</sup>, Sisay Getachew<sup>6</sup>, Rakesh Sehgal<sup>7</sup>, Salama Al-Hamidhi<sup>1</sup>, Amal A H Gadalla<sup>8</sup>, Zainab S Al-Hashami<sup>1</sup>, Ali A Al-Jabri<sup>1</sup>, Ali A Sultan<sup>9</sup>, **Hamza A. Babiker**<sup>1</sup>  
<sup>1</sup>Sultan Qaboos University, Al-khod, Oman, <sup>2</sup>Department of Microbiology and Immunology, Weill Cornell Medicine-Qatar, Cornell University, Qatar Foundation-Education City, Doha, Qatar, Qatar, <sup>3</sup>Institute of Endemic Diseases, University of Khartoum, Sudan, <sup>4</sup>Institute of Endemic Diseases, University of Khartoum, Sudan, <sup>5</sup>Institute of Endemic

Diseases, University of Khartoum, Sudan, Sudan, <sup>6</sup>Addis Ababa University, Addis Ababa, Ethiopia, Ethiopia, <sup>7</sup>Department of Medical Parasitology, Postgraduate Institute of Medical Education and Research, Chandigarh, India., India, <sup>8</sup>Division of Population Medicine, School of Medicine, College of Biomedical Sciences, Cardiff University, Cardiff, UK, United Kingdom, <sup>9</sup>2 Department of Microbiology and Immunology, Weill Cornell Medicine-Qatar, Cornell University, Qatar Foundation-Education City, Doha, Qatar

### LB-5225

#### **ELISA units and IgG subclass ratio determined functional activity of mouse anti-Pfs230 antibodies judged by a standard membrane-feeding assay with *Plasmodium falciparum***

**Kazutoyo Miura**<sup>1</sup>, Bingbing Deng<sup>1</sup>, Yimin Wu<sup>2</sup>, Luwen Zhou<sup>1</sup>, Thao P. Pham<sup>1</sup>, Ababacar Diouf<sup>1</sup>, Chia-Kuei Wu<sup>2</sup>, Shwu-Maan Lee<sup>2</sup>, Merribeth J. Morin<sup>2</sup>, Carole A. Long<sup>1</sup>  
<sup>1</sup>Laboratory of Malaria and Vector Research/NIAID/NIH, Rockville, MD, United States, <sup>2</sup>PATH's Malaria Vaccine Initiative, Washington, DC, United States

### LB-5226

#### **Arginine enables the adaptive proline response to halofuginone in *P. falciparum***

**Lola Fagbami**<sup>1</sup>, Amy A. Deik<sup>2</sup>, Amanda K. Lukens<sup>2</sup>, Clary B. Clish<sup>2</sup>, Dyann F. Wirth<sup>3</sup>, Ralph Mazitschek<sup>4</sup>  
<sup>1</sup>Harvard Graduate School of Arts and Sciences, Cambridge, MA, United States, <sup>2</sup>Broad Institute, Cambridge, MA, United States, <sup>3</sup>Harvard T.H. Chan School of Public Health, Boston, MA, United States, <sup>4</sup>Massachusetts General Hospital, Boston, MA, United States

**Poster Session B**  
**Late Breakers in Basic Sciences**  
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### LB-5227

#### **Exploring the role of environmental and socio-political drivers of malaria incidence in El Oro province, Ecuador**

Isabel Fletcher<sup>1</sup>, Anna Stewart-Ibarra<sup>2</sup>, Mercy Silva<sup>3</sup>, Efrain Beltran-Ayala<sup>4</sup>, Tania Ordonez<sup>5</sup>, Jefferson Adrian<sup>6</sup>, Kate Jones<sup>7</sup>, **Rachel Lowe**<sup>1</sup>  
<sup>1</sup>*London School of Hygiene & Tropical Medicine, London, United Kingdom*, <sup>2</sup>*Institute for Global Health and Translational Sciences, State University of New York Upstate Medical University, Syracuse, NY, United States*, <sup>3</sup>*Hospital Teofilo Davila, Ministerio de Salud Pública, Machala, Ecuador*, <sup>4</sup>*Universidad Técnica de Machala, Machala, Ecuador*, <sup>5</sup>*Distrito de Salud 07D02 del Ministerio de Salud Pública, Machala, Ecuador*, <sup>6</sup>*Universidad Técnica Particular de Loja, Loja, Ecuador*, <sup>7</sup>*Centre for Biodiversity and Environment Research, Department of Genetics, Evolution and Environment, University College London, London, United Kingdom*

### LB-5228

#### **Longitudinal analysis of *Plasmodium falciparum*-induced alterations in dendritic cell phenotype and function**

**Anton Götz**<sup>1</sup>, Mei San Tang<sup>2</sup>, Maureen C. Ty<sup>2</sup>, Charles Arama<sup>3</sup>, Aissata Ongoiba<sup>3</sup>, Didier Doumtabe<sup>3</sup>, Boubacar Traore<sup>3</sup>, P'ng Loke<sup>2</sup>, Ana Rodriguez<sup>2</sup>, Peter D. Crompton<sup>1</sup>  
<sup>1</sup>*NIH/NIAID, Rockville, MD, United States*, <sup>2</sup>*NYU School of Medicine, New York, NY, United States*, <sup>3</sup>*International Center of Excellence in Research, University of Sciences, Technique, and Technology of Bamako, Bamako, Mali*

### LB-5229

#### **Use of the LQAS method to determine the reference level of certain performance indicators of the Malaria and Neglected Tropical Diseases project in the Sahel in 19 health districts of Mali**

**Yaya I. Coulibaly**<sup>1</sup>, Kueshivi Midodji ATSOU<sup>1</sup>, Housseini DOLO<sup>1</sup>, Adama Y. BERTHE<sup>1</sup>, Fanta N. KONIPO<sup>1</sup>, Moussa B. SANGARE<sup>1</sup>, Hadiza MAIGA<sup>1</sup>, Siaka Y. COULIBALY<sup>1</sup>, Salif S. DOUMBIA<sup>1</sup>, Abdallah DIALLO<sup>1</sup>, Michel E. COULIBALY<sup>1</sup>, Lamine SOUMAORO<sup>1</sup>, Boubacar DAOU<sup>1</sup>, Klion D. Amy<sup>2</sup>, Ogobara DOUMBO<sup>1</sup>, Thomas B. NUTMAN<sup>2</sup>  
<sup>1</sup>*ICER-Mali, Bamako, Mali*, <sup>2</sup>*NIH, Washington, WA, United States*

### LB-5230

#### ***Plasmodium* coinfections in *Anopheles* mosquitoes in Madagascar**

**Micaela Finney**, Sarah Zohdy  
*Auburn University, Auburn, AL, United States*

### LB-5231

#### **Dissecting the role of *plasmepsin II* and *III* in piperazine resistant *P. falciparum* lines**

**Selina Bopp**, Robert Summers, Breanna Walsh, Sarah K. Volkman, Dyann F. Wirth  
*Harvard T.H. Chan School of Public Health, Boston, MA, United States*

### LB-5232

#### **Discovery of new drug leads for malaria chemoprevention**

Tina Skinner-Adams<sup>1</sup>, Andrew Riches<sup>2</sup>, Gillian Fisher<sup>1</sup>, Oliver Hutt<sup>2</sup>, Jeremy Burrows<sup>3</sup>, Jack Ryan<sup>2</sup>, **Katherine Andrews**<sup>1</sup>  
<sup>1</sup>*Griffith University, Nathan, Australia*, <sup>2</sup>*Commonwealth Scientific and Industrial Research Organization, Victoria, Australia*, <sup>3</sup>*Medicines for Malaria Venture, Geneva, Switzerland*

### LB-5233

#### **Malaria prevention and treatment in migrant agricultural workers in Dangur district, Benishangul-Gumuz, Ethiopia: Social and behavioral aspects**

Yehualashet Tedesse<sup>1</sup>, Seth Irish<sup>2</sup>, Sheleme Chibsa<sup>3</sup>, Sisay Dugassa<sup>4</sup>, Lorenz Lena<sup>5</sup>, Asfawesen Gebreyohannes<sup>1</sup>, Hiwot Teka<sup>3</sup>, Hiwot Solomon<sup>6</sup>, Eshetu Gezahegn<sup>1</sup>, Yonas Petros<sup>1</sup>, Mesfin Haile<sup>1</sup>, Mesfin Eshetu<sup>1</sup>, **Matthew Murphy**<sup>2</sup>  
<sup>1</sup>*Private Health Sector Project, Abt Associates Inc., Addis Ababa, Ethiopia*, <sup>2</sup>*Centers for Disease Control and Prevention, Atlanta, GA, United States*, <sup>3</sup>*U.S. Agency for International Development, Addis Ababa, Ethiopia*, <sup>4</sup>*Aklilu Lemma Institute of Pathobiology, Addis Ababa, Ethiopia*, <sup>5</sup>*London School of Hygiene and Tropical Medicine, London, United Kingdom*, <sup>6</sup>*Disease Prevention and Control Directorate, Federal Ministry of Health, Addis Ababa, Ethiopia*



**Poster Session B**  
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### **LB-5234**

#### **Production and evaluation of new Malaria seromarkers for the Peruvian Amazon**

**Katherine Garro**<sup>1</sup>, Pamela Rodríguez<sup>1</sup>, Elizabeth Villasis<sup>1</sup>, Beronica Infante<sup>1</sup>, Gabriel Carrasco<sup>1</sup>, Dionicia Gamboa<sup>2</sup>, Katherine Torres<sup>1</sup>  
<sup>1</sup>Universidad Peruana Cayetano Heredia, Lima, Peru,  
<sup>2</sup>Departamento de Ciencias Celulares y Moleculares, Facultad de Ciencias y Filosofía. Universidad Peruana Cayetano Heredia, Lima, Peru

### **LB-5235**

#### **PfRipr\_5: a potent blood-stage malaria vaccine candidate antigen**

**Hikaru Nagaoka**<sup>1</sup>, Bernard N. Kanoi<sup>1</sup>, Edward H. Ntege<sup>1</sup>, Akihisa Fukushima<sup>2</sup>, Takafumi Tsuboi<sup>1</sup>, Eizo Takashima<sup>1</sup>  
<sup>1</sup>Division of Malaria Research, Proteo-Science Center, Ehime University, Matsuyama, Ehime, Japan,  
<sup>2</sup>Sumitomo Dainippon Pharma Co.,Ltd, Tokyo, Japan

### **LB-5236**

#### **Plasmodium falciparum haplotype sharing between human and malaria vectors in an endemic region of western Kenya: a preliminary report**

**ANDREW A. OBALA**<sup>1</sup>, **KELSEY M. SUMNER**<sup>2</sup>, **ELIZABETH FREEDMAN**<sup>3</sup>, **LUCY ABEL**<sup>4</sup>, **JUDY MANGENI**<sup>5</sup>, **STEVE M. TAYLOR**<sup>3</sup>, **WENDY PRUDHOMME O'MEARA**<sup>6</sup>  
<sup>1</sup>School of Medicine, College of Health Sciences, Moi University, Eldoret, Kenya, <sup>2</sup>Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina, Chapel Hill, NC, United States, <sup>3</sup>Duke Global Health Institute, Duke University School of Medicine, Durham, NC, United States, <sup>4</sup>Academic Model Providing Access to Health Care, Eldoret, Kenya, <sup>5</sup>School of Nursing, College of Health Sciences, Moi University, Eldoret, Kenya, <sup>6</sup>Duke Global Health Institute, Duke University School of Medicine, Durham, NC, United States; School of Public Health, College of Health Sciences, Moi University, Eldoret, Kenya

### **LB-5237**

#### **Malaria Testing, Treating and Tracking Policy Implementation in Angola: a retrospective cross-sectional study to assess the progress achieved after 4 years of program implementation**

**SERGIO LOPES**<sup>1</sup>, Rukaaka Mugizi<sup>1</sup>, João Pires<sup>2</sup>, Fernando David<sup>3</sup>, José Martins<sup>4</sup>, Pedro Rafael Dimbu<sup>4</sup>, Filomeno Fortes<sup>4</sup>, Joana Martinho do Rosário<sup>3</sup>, Richard Allan<sup>1</sup>  
<sup>1</sup>The MENTOR Initiative, Crawley, United Kingdom,  
<sup>2</sup>National School of Public Health, Luanda, Angola,  
<sup>3</sup>World Learning, Luanda, Angola, <sup>4</sup>National Malaria Control program, Luanda, Angola

### **LB-5238**

#### **Evidence of low community level protection from malaria transmission despite high LLIN-coverage in a village of Burkina Faso**

Eleonora Perugini<sup>1</sup>, Marco Pombi<sup>1</sup>, Wamdaogo M. Guelbeogo<sup>2</sup>, Maria Calzetta<sup>1</sup>, Verena Pichler<sup>1</sup>, Hilary Ranson<sup>1</sup>, N'Fale Sagnon<sup>2</sup>, **Alessandra della Torre**<sup>1</sup>  
<sup>1</sup>University of Rome SAPIENZA, Rome, Italy, <sup>2</sup>Centre National de Recherche et de Formation sur le Paludisme, Ouagadougou, Burkina Faso

### **LB-5239**

#### **B cell and T follicular helper cell phenotypes during acute malaria**

**Maria S. Mackroth**<sup>1</sup>, Lea Kaminski<sup>2</sup>, Michael Ramharter<sup>1</sup>, Thomas Jacobs<sup>2</sup>  
<sup>1</sup>University Hospital Hamburg-Eppendorf, Hamburg, Germany, <sup>2</sup>Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany

### **LB-5240**

#### **Regional collaboration and planning to support elimination - update on the MOSASWA Initiative**

**Patrick Devanand Moonasar**<sup>1</sup>, Baltazar Candrinho<sup>2</sup>, Quinton Dlamini<sup>3</sup>, Bradley Didier<sup>4</sup>, Natasha Morris<sup>5</sup>, Francisco Saute<sup>6</sup>, Rajendra Maharaj<sup>5</sup>  
<sup>1</sup>Malaria, Other Vector-borne and Zoonotic Disease Directorate, National Department of Health, South Africa; School of Public Health and Health Systems, University of Pretoria, South Africa, Pretoria, South Africa, <sup>2</sup>National Malaria Control Programme, Ministério da Saúde, Maputo, Mozambique, <sup>3</sup>National Malaria Programme, Ministry of Health, Kingdom of Eswatini, Mbabane, Swaziland, <sup>4</sup>Clinton Health Access Initiative, Mbabane, Swaziland, <sup>5</sup>South Africa Medical Research Council, Durban, South Africa, <sup>6</sup>Centro de investigação de Saúde de Manhiça, Mozambique, Manhiça, Mozambique

**Poster Session B**  
**Late Breakers in Basic Sciences**

*Tuesday, October 30, Noon - 1:45 p.m.*

**LB-5241**

**The implementation and the impact of adapting technologies to support residual malaria transmission: a case study in Unguja, Zanzibar**

Dickson Msaky<sup>1</sup>, Revocatus Musiba<sup>1</sup>, Kimberly Mihayo<sup>1</sup>, Juma Mucha<sup>2</sup>, Khamis Haji<sup>2</sup>, Brian B. Tarimo<sup>1</sup>, **Samson S. Kiware**<sup>1</sup>  
<sup>1</sup>Ifakara Health Institute, Dar es salaam, United Republic of Tanzania, <sup>2</sup>Zanzibar Malaria Elimination Program, Unguja, United Republic of Tanzania

**LB-5242**

**The adaptive landscape of gametocyte expressed orthologous genes in *Plasmodium falciparum* and *Plasmodium vivax***

Michael W. Vandewege, M. Andreina Pacheco, **Ananias A. Escalante**  
*Biology Department, Institute for Genomics and Evolutionary Medicine, Temple University, Philadelphia, PA, United States*

**LB-5243**

**Comparison of cytokine levels in Malawian children presenting with either uncomplicated or cerebral malaria**

**Visopo C. Harawa**<sup>1</sup>, Madi Njie<sup>2</sup>, Anne Kessler<sup>3</sup>, Kami Kim<sup>4</sup>, Anthony Jaworowski<sup>5</sup>, Terrie Taylor<sup>6</sup>, Wilson L. Mandala<sup>7</sup>, Karl B. Seydel<sup>6</sup>, Stephen J. Rogerson<sup>2</sup>  
<sup>1</sup>Malawi-Liverpool Wellcome Trust Clinical Research Programme, Blantyre, Malawi, <sup>2</sup>University of Melbourne, Melbourne, Australia, <sup>3</sup>Albert Einstein College of Medicine, New York, NY, United States, <sup>4</sup>University of South Florida, Tampa, FL, United States, <sup>5</sup>RMIT University, Melbourne, Australia, <sup>6</sup>Michigan State University, East Lansing, MI, United States, <sup>7</sup>Malawi University of Science and Technology, Thyolo, Malawi

**LB-5244**

**Additional blood-feeding after *Plasmodium* infection reduces malaria parasite survival in the mosquito host**

**Rebekah Reynolds**, Hyeogsun Kwon, Ryan Smith  
*Iowa State University, Ames, IA, United States*

**LB-5245**

**Novel mutations in the *Plasmodium falciparum* digestive vacuole-resident membrane protein PfCRT mediate resistance to the first-line antimalarial drug piperazine**

**SATISH K. DHINGRA**<sup>1</sup>, Sachel Mok<sup>1</sup>, Tomas Yeo<sup>1</sup>, Leila Ross<sup>1</sup>, Benoit Witkowski<sup>2</sup>, Frederic Ariey<sup>3</sup>, Didier Menard<sup>4</sup>, David A. Fidock<sup>1</sup>  
<sup>1</sup>Columbia University Medical Center, New York, NY, United States, <sup>2</sup>Pasteur Institute in Cambodia, Phnom Penh, Cambodia, <sup>3</sup>Institut Cochin, Paris, France, <sup>4</sup>Pasteur Institute, Paris, France

**LB-5246**

**Effects of ambient temperature and humidity on *An. gambiae* activity around an occupied bed net**

**James F. Sutcliffe**  
*Trent University, Peterborough, ON, Canada*

**LB-5247**

**Cytoadherence of *Plasmodium vivax*-infected erythrocytes to monocytes**

**Chanaki Amaratunga**<sup>1</sup>, Sokunthea Sreng<sup>2</sup>, Sivanna Mao<sup>3</sup>, Seila Suon<sup>2</sup>, Rick M. Fairhurst<sup>1</sup>  
<sup>1</sup>Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States, <sup>2</sup>National Center for Parasitology, Entomology, and Malaria Control, Phnom Penh, Cambodia, <sup>3</sup>Sampov Meas Referral Hospital, Pursat, Cambodia

**LB-5248**

**Effects of biting time on vector competence of malaria mosquitoes and the implications for behavioral resistance**

**Eunho Suh**, Marissa K. Grossman, Jessica L. Waite, Matthew B. Thomas  
*Penn State University, University Park, PA, United States*

**Poster Session B**  
**Late Breakers in Basic Sciences**

Tuesday, October 30, Noon - 1:45 p.m.

**LB-5249**

**Evolution and genetic diversity of the *k13* encoding gene associated to artemisinin-resistance in *Plasmodium falciparum***

**M. Andreina Pacheco**<sup>1</sup>, Esha R. Kadakia<sup>1</sup>, Zainab Chaudhary<sup>1</sup>, Douglas J. Perkins<sup>2</sup>, Julia Kelley<sup>3</sup>, Shashidhar Ravishankar<sup>4</sup>, Eldin Talundzic<sup>5</sup>, Venkatachalam Udhayakumar<sup>5</sup>, Ananias A. Escalante<sup>1</sup>

<sup>1</sup>Biology Department, Institute for Genomics and Evolutionary Medicine, Temple University, Philadelphia, PA, United States, <sup>2</sup>Center for Global Health, University of New Mexico Health Sciences Center, Albuquerque, NM, United States, <sup>3</sup>Atlanta Research and Education Foundation, VAMC, Atlanta, GA, United States, <sup>4</sup>School of Biological Sciences, Georgia Institute of Technology, Atlanta, GA, United States, <sup>5</sup>Malaria Branch, Division of Parasitic Diseases and Malaria, Center for Global Health, Centers for Disease Control and Prevention, Atlanta, GA, United States

**LB-5250**

**Identification and Validation of ABCI3 As a Novel Antimalarial Resistance Mediator**

**James Murithi**<sup>1</sup>, Manu Vanaerschot<sup>1</sup>, Kelly Rubiano<sup>1</sup>, Olivia Coburn-Flynn<sup>1</sup>, Eva Istvan<sup>2</sup>, Virginia Franco<sup>3</sup>, Elizabeth Winzeler<sup>4</sup>, Francisco Javier-Gamo<sup>3</sup>, Daniel Goldberg<sup>2</sup>, David Fidock<sup>1</sup>

<sup>1</sup>CUIMC, NYC, NY, United States, <sup>2</sup>Washington University, St. Louis, MO, United States, <sup>3</sup>GSK, Madrid, Spain, <sup>4</sup>UCSD, San Diego, CA, United States

**LB-5251**

**Microfluidic Assessment of Red Blood Cell Deformability and Microvascular Occlusion Risk in Sickle Cell Disease and Malaria**

Yuncheng Man, Erdem Kucukal, Quentin D. Watson, Jürgen Bosch, Jane A. Little, Peter A. Zimmerman, **Umut A. Gurkan**  
Case Western Reserve University, Cleveland, OH, United States

**LB-5252**

**Monitoring of Malaria RDTs quality in Public Sector Health Facilities in Six Geopolitical Zones of Nigeria**

**Genevieve N. Eke**<sup>1</sup>, Sonachi Ezeiru<sup>1</sup>, Diwe Ekweremadu<sup>1</sup>, Chukwudi Uche<sup>1</sup>, Victoria Erinle<sup>1</sup>, Victor Adebayo<sup>1</sup>, Bala Mohammed Audu<sup>2</sup>, Wellington A. Oyibo<sup>3</sup>

<sup>1</sup>Catholic Relief Services, Abuja, Nigeria, <sup>2</sup>National

Malaria elimination Programme, Abuja, Nigeria, <sup>3</sup>ANDI Centre of excellence for Malaria Diagnosis, College of Medicine, University of Lagos, Lagos, Nigeria

**LB-5253**

**Engineering viral-like particles as an antigenic platform for a Pfs47-based malaria transmission blocking vaccine**

Adeline Williams, Gaspar Canepa, Lampouguin Douli, **Alvaro Molina-Cruz**, Carolina Barillas-Mury  
NIH, Rockville, MD, United States

**LB-5254**

**Factors Associated with Healthcare-Associated Respiratory Illness among Adults in Tertiary Care Public Hospitals- 2016-2017, Bangladesh**

**Syeda Mah-E-Muneer**<sup>1</sup>, Probir Kumar Ghosh<sup>1</sup>, Md. Zakiul Hassan<sup>1</sup>, Fahmida Chowdhury<sup>1</sup>, Mejbah Uddin Bhuiyan<sup>2</sup>, Mahmudur Rahman<sup>1</sup>, Emily S. Gurley<sup>3</sup>, Shua J. Chai<sup>4</sup>

<sup>1</sup>icddr, Dhaka, Bangladesh, <sup>2</sup>The University of Western Australia, Perth, Australia, <sup>3</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>4</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States

**LB-5255**

**Risk factors for Acute and Febrile Respiratory Infections (ARI/FRI) in A Semi-Closed Military Setting A Case-Control Study**

**Aysha Farwin**

Saw Swee Hock School of Public Health, Singapore, Singapore

**LB-5256**

***Trypanosoma cruzi* in rodents trapped across post Katrina New Orleans**

**Bruno M. Ghersi**<sup>1</sup>, Anna C. Peterson<sup>1</sup>, Henry Pronovost<sup>2</sup>, Asha Dash<sup>2</sup>, Hannah Schwartzenburg<sup>2</sup>, Anna Sanford<sup>2</sup>, Samantha Hobbs<sup>2</sup>, Ardem Elmayan<sup>2</sup>, Weihong Tu<sup>2</sup>, Claudia Riegel<sup>3</sup>, Claudia Herrera<sup>2</sup>, Michael J. Blum<sup>1</sup>

<sup>1</sup>University of Tennessee, Knoxville, TN, United States, <sup>2</sup>Tulane University, New Orleans, LA, United States, <sup>3</sup>New Orleans Mosquito, Termite and Rodent Control Board, New Orleans, LA, United States

**Poster Session B**  
**Late Breakers in Basic Sciences**

Tuesday, October 30, Noon - 1:45 p.m.

**LB-5257**

**The immunological interplay between *Giardia duodenalis* and *Toxoplasma gondii* during murine co-infection**

**CAMILA H. COELHO**<sup>1</sup>, ALINE SARDINHA-SILVA<sup>2</sup>, MARC Y. FINK<sup>3</sup>, DIEGO L. COSTA<sup>4</sup>, PEDRO H. GAZZINELLI-GUIMARAES<sup>5</sup>, MICHAEL E. GRIGG<sup>6</sup>, STEVEN M. SINGER<sup>3</sup>

<sup>1</sup>LMIV/NIAID/NIH, Rockville, MD, United States, <sup>2</sup>Molecular Parasitology Section LPD/NIAID/NIH, Bethesda, MD, United States, <sup>3</sup>Georgetown University, Department of Biology, Washington, DC, United States, <sup>4</sup>Immunobiology Section LPD/NIAID/NIH, Bethesda, MD, United States, <sup>5</sup>Helminth Immunology Section - LPD/NIAID/NIH, Bethesda, MD, United States, <sup>6</sup>LPD/NIAID/NIH, Bethesda, MD, United States

**LB-5258**

**ARMD Mutagenesis in recent *Plasmodium falciparum* isolates from Cambodia and India**

**John White**<sup>1</sup>, SooNee Tan<sup>1</sup>, Anjali Mascarenhas<sup>2</sup>, Ligia Pereira<sup>2</sup>, Rashmi Dash<sup>2</sup>, Shiva Kumar<sup>1</sup>, Devaraja Mudeppa<sup>1</sup>, Jordan Rixon<sup>1</sup>, Yifan Lu<sup>1</sup>, Patricia Galvez<sup>1</sup>, Jayashri Walke<sup>2</sup>, Edwin Gomes<sup>2</sup>, Laura Chery<sup>1</sup>, Pradipsinh Rathod<sup>1</sup>

<sup>1</sup>University of Washington, Seattle, WA, United States, <sup>2</sup>Goa Medical College and Hospital, Bambolim, Goa, India

**LB-5259**

**Validation of EdU incorporation as an endpoint for monitoring growth of the brain-eating amoebae *Naegleria fowleri***

**Emma Troth**, Dennis E. Kyle  
University of Georgia, Athens, GA, United States

**LB-5260**

**Gene silencing in *Cryptosporidium*: A rapid approach to identify novel targets for drug development**

**Alejandro Castellanos-Gonzalez**, Samantha Nava, Kayla Fishbeck, Griselle Traverso-Martinez, Clinton A. White Jr  
UTMB, Galveston Tx, TX, United States

**LB-5261**

**Using a novel phenotype of praziquantel to identify a schistocidal compound targeting flatworm voltage operated calcium channels**

**John D. Chan**  
Medical College of Wisconsin, Milwaukee, WI, United States

**LB-5262**

**Biomechanical interactions of *Schistosoma mansoni* eggs with vascular endothelial cells**

Yi-Ting Yeh<sup>1</sup>, **Danielle E. Skinner**<sup>2</sup>, Brian M. Suzuki<sup>2</sup>, Youjeong Na<sup>2</sup>, James H. McKerrow<sup>2</sup>, Juan C. Alamo<sup>1</sup>, Conor R. Caffrey<sup>2</sup>

<sup>1</sup>Department of Mechanical and Aerospace Engineering, Jacob School of Engineering, University of California, San Diego, La Jolla, CA, United States, <sup>2</sup>Center for Discovery & Innovation in Parasitic Diseases, Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California, San Diego, La Jolla, CA, United States

**LB-5263**

**Progress towards developing functional genomic tools to further investigate the roles of the *Schistosoma mansoni* cercarial elastase (SmCE) expanded gene family**

**Danielle E. Skinner**, Brian M. Suzuki, Youjeong Na, James H. McKerrow  
Center for Discovery & Innovation in Parasitic Diseases, Skaggs School of Pharmacy and Pharmaceutical Sciences, University of California, San Diego, La Jolla, CA, United States

**LB-5264**

**Discovery of Zika Virus-Specific Epitopes with an Arbovirus Protein Microarray**

**David Camerini**, Xiaowu Liang  
Antigen Discovery Inc., Irvine, CA, United States

**LB-5265**

**Adaptive immune memory response abrogates antibody boosting following vaccination**

Eugenia Ong<sup>1</sup>, Esther Gan<sup>1</sup>, Ruklanthi de Alwis<sup>1</sup>, Limin Wijaya<sup>2</sup>, **Xin Mei Ong**<sup>1</sup>, Menglan Zhang<sup>1</sup>, Abigail Wong<sup>2</sup>, Yin Bun Cheung<sup>1</sup>, Raphaël Zellweger<sup>1</sup>, Eng Eong Ooi<sup>1</sup>, Jenny Low<sup>2</sup>  
<sup>1</sup>Duke NUS Medical School, Singapore, Singapore, <sup>2</sup>Singapore General Hospital, Singapore, Singapore

**Poster Session B**  
**Late Breakers in Basic Sciences**  
*Tuesday, October 30, Noon - 1:45 p.m.*

**LB-5266**

**Reversion to ancestral Zika virus NS1 residues increases competence of *Ae. albopictus***

**Alexander Ciota**  
*Wadsworth Center, NYS Dept of Health, Slingerlands, NY, United States*

**LB-5267**

**Ebola Virus Testing of Cervical Secretions of Women surviving the West African Outbreak**

**Amy J. Loftis**<sup>1</sup>, Saturday G. Quellie<sup>2</sup>, Kelly Chason<sup>1</sup>, Emmanuel Sumo<sup>2</sup>, Mason Toukolon<sup>2</sup>, Heinzfried Ellerbrok<sup>3</sup>, Sam Tozay<sup>4</sup>, Jerry Brown<sup>4</sup>, David A. Wohl<sup>1</sup>, William A. Fischer II<sup>1</sup>  
<sup>1</sup>*University of North Carolina at Chapel Hill, Chapel Hill, NC, United States*, <sup>2</sup>*Phebe Hospital, Suakoko, Liberia*, <sup>3</sup>*Robert Koch Institute, Berlin, Germany*, <sup>4</sup>*Eternal Love Winning Africa Hospital, Monrovia, Liberia*

**LB-5268**

**Ex vivo profiling of innate immune responses to NIAID LATV DENV vaccine candidate in primary human cells**

**Jessica Pintado Silva**  
*Icahn School of Medicine at Mount Sinai, New York, NY, United States*

**LB-5269**

**Lack of *Aedes aegypti* to transmit Rift Valley fever virus transovarially**

**Nicholas A. Bergren**, Erin M. Borland, Daniel Hartman, Rebekah C. Kading

*Colorado State University, Fort Collins, CO, United States*

**LB-5270**

**Heterologous flavivirus immunity impacts Zika virus pathogenesis in a mouse model of infection**

**Mariah Hassert**, James D. Brien, Amelia K. Pinto  
*Saint Louis University, St. Louis, MO, United States*

**LB-5271**

**Proposal for reclassification of Mirim virus, *Orthobunyavirus*, *Peribunyaviridae*, as an unclassified virus**

**Valéria L. Carvalho**, Daniele Barbosa Medeiros, Márcio Roberto Teixeira Nunes, Sandro Patroca da Silva, Clayton Pereira de Lima, Jedson Ferreira Cardoso, Livia Caricio Martins, Pedro Fernando da Costa Vasconcelos  
*Evandro Chagas Institute, Belém, Brazil*

**LB-5272**

**Molecular basis of Flavivirus and host-gene expression machinery interactions**

**Marine Petit**, Ariana Nagainis, Shahabal Khan, Priya Shah  
*UC Davis, Davis, CA, United States*

**LB-5273**

**Lassa fever in post-Ebola Sierra Leone**

**JEFFREY G. SHAFFER**<sup>1</sup>, John S. Schieffelin<sup>1</sup>, Donald S. Grant<sup>2</sup>, Augustine Goba<sup>2</sup>, Foday Alhasan<sup>2</sup>, Nicole Roberts<sup>1</sup>, Robert F. Garry<sup>1</sup>  
<sup>1</sup>*Tulane University, New Orleans, LA, United States*, <sup>2</sup>*Lassa Fever Program, Kenema Government Hospital, Kenema, Sierra Leone*

**Poster Session 77**  
**Poster Session B**  
**Late Breakers in Clinical and Applied Sciences**

Tuesday, October 30, Noon - 1:45 p.m.  
Marriott - Grand Ballroom (3rd Floor)

Arthropods/Entomology .....	#LB-5274 through LB-5281
Cestodes .....	#LB-5282 through LB-5284
Global Health.....	#LB-5285 through LB-5314
Helminths - Nematodes.....	#LB-5315 through LB-5327
Integrated Control Measures for Neglected Tropical Diseases .....	#LB-5328 through LB-5339
Malaria .....	#LB-5340 through LB-5377
One Health: Interface of Human Health/Animal Diseases .....	#LB-5378 through LB-5382
Malaria .....	#LB-5383 through LB-5395

**LB-5274**

**Impact of aerial ultra-low volume application of insecticide for the control of *Aedes aegypti* in an urban area of Mexico**

Fabian Correa-Morales<sup>1</sup>, Felipe Dzul-Manzanilla<sup>1</sup>, Wilbert Bibiano-Marín<sup>2</sup>, Jose Vadillo-Sanchez<sup>2</sup>, Anuar Medina-Barreiro<sup>2</sup>, Armando Elizondo-Quiroga<sup>3</sup>, Audrey Lenhart<sup>4</sup>, **Gonzalo Vazquez Prokopec**<sup>5</sup>, Pablo Manrique-Saide<sup>2</sup>

<sup>1</sup>Centro Nacional de Programas Preventivos y Control de Enfermedades (CENAPRECE) Secretaría de Salud México, Mexico DF, Mexico, <sup>2</sup>Collaborative Unit for Entomological Bioassays, Campus de Ciencias Biológicas y Agropecuarias, Universidad Autónoma de Yucatán., Merida, Mexico, <sup>3</sup>Secretaria de Salud Jalisco., Guadalajara, Mexico, <sup>4</sup>Entomology Branch, Division of Parasitic Diseases and Malaria, Center for Global Health, Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>5</sup>Department of Environmental Sciences, Emory University, Atlanta, GA, United States

**LB-5275**

**Spatial-Temporal Trend and Climatic and Other Geospatial Risk Factors for Scrub Typhus in Thailand**

**Nutthanun Auysawasdi**<sup>1</sup>, Piyada Linsuwanon<sup>1</sup>, Elizabeth Wanja<sup>1</sup>, Sirima Wongwairot<sup>1</sup>, Surachai Leepitakrat<sup>1</sup>, Chawin Limsuwan<sup>1</sup>, Taweesak Monkanna<sup>1</sup>, Allen Richards<sup>2</sup>, Silas Davidson<sup>1</sup>

<sup>1</sup>Department of Entomology, United States Medical Directorate Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, <sup>2</sup>Naval Medical Research Center, Silver Spring, MD, United States

**LB-5276**

**Vector mapping on the Bijagos Archipelago of Guinea-Bissau**

**Thomas H. Ant**<sup>1</sup>, Erin Foley<sup>1</sup>, Adriana Goncalves<sup>1</sup>, Scott Tytheridge<sup>1</sup>, Colin Johnson<sup>1</sup>, Muna Affara<sup>2</sup>, Chris Grundy<sup>1</sup>, David Mabey<sup>1</sup>, Anna Last<sup>1</sup>, James G. Logan<sup>1</sup>

<sup>1</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>2</sup>MRC Unit, The Gambia, Banjul, Gambia

**LB-5277**

**Arachnid Envenomations: A Systematic Review of Envenomation Prevention Measures, Therapeutics, and Antivenom Accessibility**

**Avinash N. Mukkala**<sup>1</sup>, Christian Lecce<sup>2</sup>, Aisha Khatib<sup>1</sup>, Michael Klowak<sup>3</sup>, Priyanka Challa<sup>1</sup>, Tianna Chong-Kit<sup>4</sup>, Eric Shao<sup>5</sup>, Jason Kwan<sup>3</sup>, Andrea K. Boggild<sup>1</sup>

<sup>1</sup>University of Toronto, Toronto, ON, Canada, <sup>2</sup>Ryerson University, Toronto, ON, Canada, <sup>3</sup>McMaster University, Hamilton, ON, Canada, <sup>4</sup>University of Waterloo, Waterloo, ON, Canada, <sup>5</sup>Western University, London, ON, Canada

**Poster Session B**  
**Late Breakers in Clinical and Applied Sciences**  
*Tuesday, October 30, Noon - 1:45 p.m.*

**LB-5278**

**Detection of human pathogens in *Ixodes scapularis* collected from Minnesota - 2018**

**Harry Langston**<sup>1</sup>, Lynne M. Sloan<sup>2</sup>, Jenna K. Bjork<sup>3</sup>, David F. Neitzel<sup>3</sup>, Bobbi S. Pritt<sup>2</sup>  
<sup>1</sup>London School of Hygiene & Tropical Medicine, Bloomsbury, United Kingdom, <sup>2</sup>Mayo Clinic, Rochester, MN, United States, <sup>3</sup>Minnesota Department of Health, St. Paul, MN, United States

**LB-5279**

**High Densities of Adult *Aedes aegypti* Mosquitoes during 2017 Zika Outbreak in Yurimaguas, Peru**

**Helvio Astete**<sup>1</sup>, Sarah A. Jenkins<sup>1</sup>, Wesley Campbell<sup>1</sup>, Julia Sonia Ampuero<sup>1</sup>, Tatiana Quevedo<sup>1</sup>, Crystyan Siles<sup>1</sup>, Amy C. Morrison<sup>1</sup>, Joel Montgomery<sup>2</sup>, Christopher M. Mores<sup>1</sup>  
<sup>1</sup>NAMRU-6, Iquitos, Peru, <sup>2</sup>EISL Branch, Division of Global Health Protection, Center for Global Health, CDC, Atlanta, GA, United States

**LB-5280**

**Metagenomic analysis of *Anopheles gambiae* 1000 Genome (Ag1000G) dataset**

Andrzej Pastusiak<sup>1</sup>, **Michael R. Reddy**<sup>1</sup>, Isaiah Hoyer<sup>1</sup>, James Pippas<sup>2</sup>, Giovanna Carpi<sup>3</sup>, Douglas E. Norris<sup>3</sup>, Jonathan Carlson<sup>1</sup>, Ethan Jackson<sup>1</sup>  
<sup>1</sup>Microsoft, Redmond, WA, United States, <sup>2</sup>University of Pittsburgh, Pittsburgh, PA, United States, <sup>3</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

**LB-5281**

**Optimizing the CDC bottle bioassay for susceptibility testing of clothianidin**

**Kazunori Ohashi**<sup>1</sup>, Natsumi Sakamoto<sup>1</sup>, Yousif E. Himeidan<sup>2</sup>, John R. Lucas<sup>3</sup>, Norihisa Sakamoto<sup>1</sup>, Yoshinori Shono<sup>1</sup>  
<sup>1</sup>Sumitomo Chemical Co. Ltd., Takarazuka, Japan, <sup>2</sup>Vector Health International, Arusha, United Republic of Tanzania, <sup>3</sup>John Lucas Consulting Services, London, United Kingdom

**LB-5282**

**Imaging and serum enzyme-linked immunoelectrotransfer blot (EITB) profile correlations among 623 Indian patients with Neurocysticercosis (NCC)**

**Ranjith K. Moorthy**<sup>1</sup>, Prabhakaran Vasudevan<sup>1</sup>, Anna Oommen<sup>1</sup>, Michael Anderson<sup>2</sup>, Vedantam Rajshekhar<sup>1</sup>, Helene Carabin<sup>2</sup>  
<sup>1</sup>Christian Medical College, Vellore, India, <sup>2</sup>The University of Oklahoma Health Sciences Center, Oklahoma City, OK, United States

**LB-5283**

**A novel, highly repetitive *T.solium*-specific DNA sequence is a reliable biomarker for subarachnoid neurocysticercosis**

**Elise M. O'Connell**, Eric Dahlstrom, Theodore Nash, Thomas B. Nutman  
National Institutes of Health, Bethesda, MD, United States

**LB-5284**

**Prevalence of Intrahousehold Aggregation of Human Cystic Echinococcosis in a Hyperendemic Community from Peruvian Highlands**

Percy Soto-Becerra<sup>1</sup>, Raul Enriquez<sup>1</sup>, Cesar Sedano<sup>1</sup>, Karina Bardales-Ortiz<sup>1</sup>, Luis Tello<sup>2</sup>, Hector H. Garcia<sup>3</sup>, **Saul J. Santivanez**<sup>4</sup>  
<sup>1</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>Instituto Peruano de Parasitología Clínica y Experimental, Lima, Peru, <sup>3</sup>Center for Global Health - Tumbes and Department of Microbiology, Universidad Peruana Cayetano Heredia, and Cysticercosis Unit, Instituto Nacional de Ciencias Neurológicas, Lima, Peru, Lima, Peru, <sup>4</sup>Center for Global Health - Lima, Universidad Peruana Cayetano Heredia, and Instituto Peruano de Parasitología Clínica y Experimental, Lima, Peru

**LB-5285**

**Establishment of an Electronic Integrated Disease Surveillance and Response System in Sierra Leone**

**Brigitte L. Gleason**<sup>1</sup>, Ansumana Kamara<sup>1</sup>, Nelson Clemens<sup>2</sup>, Les de Wit<sup>2</sup>, David K. Kargbo<sup>3</sup>  
<sup>1</sup>U.S. Centers for Disease Control and Prevention, Freetown, Sierra Leone, <sup>2</sup>eHealth Africa, Freetown, Sierra Leone, <sup>3</sup>Ministry of Health and Sanitation, Freetown, Sierra Leone

**Poster Session B**  
**Late Breakers in Clinical and Applied Sciences**  
*Tuesday, October 30, Noon - 1:45 p.m.*

**LB-5286**

**Use of screening technologies (STs) for the detection of substandard and falsified medicines**

**Stephen Kimatu**, Hariram Ramanathan, Daniel Bempong  
*United States Pharmacopeia(USP), Rockville, MD, United States*

**LB-5287**

**Monitoring Different Social Media Platforms to Report Unplanned School Closures Due to Wildfires in California, October & December 2017**

Brittany M. Buchanan<sup>1</sup>, Haley I. Evans<sup>1</sup>, Emily A. Duncan<sup>1</sup>, Jingjing Yin<sup>1</sup>, Xiaolu Zhou<sup>1</sup>, Zion Tsz Ho Tse<sup>2</sup>, Bishwa B. Adhikari<sup>3</sup>, Martin I. Meltzer<sup>3</sup>, Gerardo Chowell<sup>4</sup>, **Isaac Chun-Hai Fung**<sup>1</sup>  
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**LB-5288**

**An examination of attitudes associated with Zika virus infection and personal protective technologies (PPT) in high-risk individuals in Colombia**

**Grace M. Power**<sup>1</sup>, Thomas Ant<sup>1</sup>, Robert Jones<sup>1</sup>, Gloria-Isabel Jaramillo<sup>2</sup>, Carolina Mendoza<sup>3</sup>, James G. Logan<sup>1</sup>  
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**LB-5289**

**Assessment of LyseNow® Perforated Cards on Preservation of Dengue Virus RNA in Whole Blood**

**Cheng-Rei R. Lee**  
*HJF/NMRC, Silver Spring, MD, United States*

**LB-5290**

**Vaccination Campaign Coverage among Displaced Rohingyas, Cox's Bazar, Bangladesh, 2018**

**Leora R. Feldstein**<sup>1</sup>, Sarah D. Bennett<sup>1</sup>, Concepcion Estivariz<sup>1</sup>, Mallick Masum Billah<sup>2</sup>, Gretchen Cooley<sup>1</sup>, Lauren Weil<sup>1</sup>, Kathleen A. Wannemuehler<sup>1</sup>, Rajendra Bohara<sup>3</sup>, Maya Vandenant<sup>4</sup>, Jucy Merina Adhikari<sup>4</sup>, Mainul Hasan<sup>5</sup>, M Salim Uzzaman<sup>2</sup>, Saifuddin Akhtar<sup>5</sup>, Andreas Hasman<sup>6</sup>, Stephanie Doan<sup>7</sup>, Laura Conklin<sup>1</sup>, Daniel Ehlman<sup>1</sup>, A. Alamgir<sup>2</sup>, Meerjady Sabrina Flora<sup>2</sup>

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**LB-5291**

**Management of Common Intestinal Parasites in Pregnancy: A Systematic Review**

Robert Chris<sup>1</sup>, Melissa Sen Phuong<sup>2</sup>, Aisha Khatib<sup>3</sup>, Leila Makhani<sup>3</sup>, Hira Raheel<sup>3</sup>, Swana Kopalakrishnan<sup>4</sup>, Celine Lecce<sup>5</sup>, Rachel Lau<sup>6</sup>, Sharmistha Mishra<sup>3</sup>, **Andrea K. Boggild**<sup>3</sup>  
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**LB-5292**

**Reconstructing nosocomial outbreaks using whole genome sequences and patient ward data**

**Finlay Campbell**<sup>1</sup>, To Nguyen Thi Nguyen<sup>2</sup>, Anne Cori<sup>1</sup>, Neil Ferguson<sup>1</sup>, Stephen Baker<sup>2</sup>, Thibaut Jombart<sup>1</sup>  
*<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>Oxford University Clinical Research Unit, Ho Chi Minh City, Vietnam*

**LB-5293**

**Projection of the end of the Zika virus epidemic in Latin America and the Caribbean: a modelling analysis**

**Kathleen M. O'Reilly**  
*London School Hygiene and Tropical Medicine, London, United Kingdom*



**Poster Session B**  
**Late Breakers in Clinical and Applied Sciences**  
*Tuesday, October 30, Noon - 1:45 p.m.*

**LB-5294**

**Epidemiological Update on Fever in Returning Travelers to Toronto from the 'Rapid Assessment of Febrile Travelers' (RAFT) Programme**

**Aisha Khatib**<sup>1</sup>, Michael Klowak<sup>2</sup>, David Harris<sup>1</sup>, Emma Hagopian<sup>1</sup>, Farah Jazuli<sup>2</sup>, Ruwandi Kariyawasam<sup>1</sup>, Rachel Lau<sup>3</sup>, Stefanie Klowak<sup>4</sup>, Andrea K. Boggild<sup>1</sup>  
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**LB-5295**

**Birth Outcomes and Defects in a Prospective Cohort Study of Zika during Pregnancy in Cotepeque, Guatemala**

**John P. McCracken**<sup>1</sup>, Andres Espinosa-Bode<sup>2</sup>, Terrence Lo<sup>3</sup>, Nevis Nunez<sup>4</sup>, Laura Grajeda<sup>1</sup>, Sayury Pineda<sup>1</sup>, Victoria J. Hicks<sup>1</sup>, Maria Renee Lopez<sup>1</sup>, Mariangeli Freitas<sup>2</sup>, Georgina Peacock<sup>5</sup>, Flavio Melo<sup>6</sup>, Ana Gomez<sup>4</sup>, Abraham Perez<sup>4</sup>, Celia Cordon-Rosales<sup>1</sup>, Olga Henao<sup>3</sup>  
<sup>1</sup>Universidad del Valle de Guatemala, Guatemala, <sup>2</sup>Division of Global Health Protection, Central American Regional Office, Centers for Disease Control and Prevention, Guatemala, <sup>3</sup>Division of Global Health Protection, Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>4</sup>Ministerio de Salud Publica y Asistencia Social, Guatemala, Guatemala, <sup>5</sup>Division of Human Development and Disability, Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>6</sup>Regional Hospital of Guarabira, Paraiba, Brazil

**LB-5296**

**The Surgical Burden of Helminthiasis: Indications for Organ Transplantation**

**Gabrielle Rieth**  
Case Western Reserve University, Cleveland, OH, United States

**LB-5297**

**Mapping oral rehydration therapy for children with diarrhea in Peru, 2000 - 2016**

**Kirsten Wiens**  
University of Washington, Seattle, WA, United States

**LB-5298**

**Impact of Food Security, Dietary Guidelines, Diabetes, and Hypertension on Ischemic Heart Disease in the Dominican Republic**

**Austin J. Marett**, Misha Fotoohi, Rachel Rauber, Molly Svendsen, Stephanie Wright  
University of Nevada, Reno School of Medicine, Reno, NV, United States

**LB-5299**

**Health facility cold chain capacity for administering vaccines in the Democratic Republic of Congo**

**Angie Ghanem**<sup>1</sup>, Nicole Hoff<sup>1</sup>, Cyrus Sinai<sup>1</sup>, Kamy Musene<sup>2</sup>, Patrick Mukadi<sup>3</sup>, Guillaume Ngoie Mwamba<sup>4</sup>, Benoit Kebella-Illunga<sup>5</sup>, Emile Okitolonda<sup>2</sup>, Anne Rimoin<sup>1</sup>  
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**LB-5300**

**Six-year impact evaluation of the national school-based deworming programme in Kenya**

**Charles Mwandawiro**<sup>1</sup>, Collins Okoyo<sup>1</sup>, Elses Simiyu<sup>1</sup>, Sammy M. Njenga<sup>1</sup>, Katherine Williams<sup>2</sup>, Grace Hollister<sup>3</sup>, Suzy J. Campbell<sup>3</sup>  
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**LB-5301**

**Solar Oxygen is a Cost-Effective Solution for Treatment of Hypoxemia in Low Resource Settings**

**Yiming Huang**<sup>1</sup>, Qaasim Mian<sup>2</sup>, Andrea Conroy<sup>3</sup>, Robert O. Opoka<sup>4</sup>, Sophie Namasopo<sup>5</sup>, Michael T. Hawkes<sup>6</sup>

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**LB-5302**

**Risk factors for *Escherichia coli* bacteremia among adolescents and adults in northern Tanzania**

**Deng B. Madut**<sup>1</sup>, Mathew P. Rubach<sup>1</sup>, Nathaniel H. Kalengo<sup>2</sup>, Manuela Carugati<sup>1</sup>, Michael J. Maze<sup>3</sup>, Anne B. Morrissey<sup>1</sup>, Blandina T. Mmbaga<sup>2</sup>, Bingileki F. Lwezau<sup>4</sup>, Kajiru G. Kilonzo<sup>2</sup>, John A. Crump<sup>3</sup>  
<sup>1</sup>Division of Infectious Diseases and International Health, Duke University Medical Center, Durham, NC, United States, <sup>2</sup>Kilimanjaro Christian Medical Centre, Moshi, United Republic of Tanzania, <sup>3</sup>Centre for International Health, University of Otago, Dunedin, New Zealand, <sup>4</sup>Mawenzi Regional Referral Hospital, Moshi, United Republic of Tanzania

**LB-5303**

**Mapping the global distribution of Buruli ulcer through an evidence consensus approach**

**Hope N. Simpson**<sup>1</sup>, Kebede Deribe<sup>2</sup>, Earnest N. Tabah<sup>3</sup>, Adebayo Peters<sup>4</sup>, Edwin O. Ampadu<sup>5</sup>, Michael Frimpong<sup>6</sup>, Richard K. Phillips<sup>5</sup>, Paul Saunderson<sup>7</sup>, Rachel Pullan<sup>1</sup>, Jorge Cano<sup>1</sup>  
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University of Science and Technology, Kumasi, Ghana, <sup>7</sup>American Leprosy Mission, North Carolina, NC, United States

**LB-5304**

**Improving the quality of services for sick children at patent and proprietary medicine vendors in two states in Nigeria**

**Kate E. Gilroy**<sup>1</sup>, Abimbola Olayemi<sup>2</sup>, Adedeji Onayade<sup>3</sup>, Olujide Arije<sup>3</sup>, Miranda Gyangyang<sup>2</sup>, Felix Oderoha<sup>2</sup>, Chinwe Nweze<sup>2</sup>, Olusegun Afolabi<sup>3</sup>, Abimbola Phillips<sup>3</sup>, Michel Pacque<sup>1</sup>  
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**LB-5305**

**Addressing urban slum health challenges in the 21st century: Can a comprehensive health and environmental intervention package make an impact?**

**Allen Guy Ross**, Firdausi Qadri, Khalequzzaman Zaman, John David Clemens  
icddr,b, Dhaka, Bangladesh

**LB-5306**

**Structural weaknesses and unofficial partnerships: A network analysis of global health financing 1990-2017**

**Cristin A. Fergus**  
London School of Economics, London, United Kingdom

**LB-5307**

**Infectious aetiologies of non-malaria fever causes in areas with reduced malaria transmission in Senegal**

**Roger C. TINE**<sup>1</sup>, Leon A. Ndiaye<sup>1</sup>, H el ene Broutin<sup>2</sup>, Khadime Sylla<sup>1</sup>, Doudou Sow<sup>1</sup>, Oumar Gaye<sup>1</sup>, Babacar Faye<sup>1</sup>  
<sup>1</sup>Departement of Medical Parasitology, University Cheikh Anta Diop, Senegal, Dakar, Senegal, <sup>2</sup>MIVEGEC, UMR CNRS -IRD -University of Montpellier - 911, Avenue Agropolis BP 64501, 34394 Montpellier C edex 5, FRANCE., Montpellier, France

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**LB-5308**

**Factors associated with in-hospital mortality among children <5 years admitted with acute febrile illness in Kenya**

**Eric D. Ng'eno**<sup>1</sup>, Doris Marwanga<sup>2</sup>, Peninah Munyua<sup>3</sup>, Eric Osoro<sup>1</sup>, Godfrey Bigogo<sup>2</sup>, Victor Bandika<sup>4</sup>, Paul Etou<sup>5</sup>, John Wagacha Burton<sup>6</sup>, John Kiogora<sup>7</sup>, Lyndah Makayotto<sup>8</sup>, Amwayi S. Anyangu<sup>8</sup>, Joel M. Montgomery<sup>9</sup>, Marc-Alain Widdowson<sup>3</sup>, Jennifer R. Verani<sup>3</sup>

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<sup>2</sup>Kenya Medical Research Institute, Nairobi, Kenya,

<sup>3</sup>Centers for Diseases Control and Prevention,

Nairobi, Kenya, <sup>4</sup>Coast Provincial General Referral

Hospital, Mombasa, Kenya, <sup>5</sup>Kenyatta National

Referral Hospital, Nairobi, Kenya, <sup>6</sup>United Nations

High Commissioner for Refugees, Nairobi, Kenya,

<sup>7</sup>International Rescue Committee, Nairobi, Kenya,

<sup>8</sup>Ministry of Health, Nairobi, Kenya, <sup>9</sup>Centers for Diseases Control and Prevention, Atlanta, GA, United States

**LB-5309**

**Yaws - Results of the global WHO survey 2014-2016**

**Till F. Omansen**<sup>1</sup>, Lise Grout<sup>1</sup>, Kingsley Asiedu<sup>2</sup>

<sup>1</sup>University Medical Center Groningen, Groningen, Netherlands, <sup>2</sup>WHO Department of Neglected Tropical Diseases, Geneva, Switzerland

**LB-5310**

**Genomic Characterization of the Ebolavirus strains causing the outbreaks in Bikoro and Beni, Democratic Republic of Congo, 2018**

**Placide Mbala**<sup>1</sup>, Catherine Pratt<sup>2</sup>, Michael R. Wiley<sup>2</sup>, Sheila Makiala-Mandanda<sup>1</sup>, Amuri Aziza<sup>1</sup>, Nicholas Di Paola<sup>2</sup>, Moussa M. Diagne<sup>3</sup>, Joseph A. Chitty<sup>2</sup>, Mamadou Diop<sup>3</sup>, Ahidjo Ayoub<sup>4</sup>, Nicole Vidal<sup>4</sup>, Ousmane Faye<sup>3</sup>, Stomy Karhemere<sup>1</sup>, Aaron Aruna<sup>5</sup>, Justus Nsio<sup>5</sup>, Felix Mulangu<sup>5</sup>, Daniel Mukadi<sup>6</sup>, Patrick Mukadi<sup>1</sup>, John Kombe<sup>5</sup>, Anastasie Mulumba<sup>7</sup>, Sophie Duraffour<sup>7</sup>, Jacques Likofata<sup>8</sup>, Elisabeth Pukuta<sup>1</sup>, Steve Gross<sup>9</sup>, Gary Schroth<sup>9</sup>, Eric Delaporte<sup>4</sup>, Mariano Sanchez-Lockhart<sup>2</sup>, Martine Peeters<sup>4</sup>, Jean-Jacques Muyembe<sup>1</sup>, Amadou A. Sall<sup>3</sup>, Gustavo Palacios<sup>2</sup>, Steve Ahuka-Mundeke<sup>1</sup>

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Kinshasa, Democratic Republic of the Congo, <sup>7</sup>Bureau OMS Représentation de la DRC, Kinshasa, Democratic Republic of the Congo, <sup>8</sup>Laboratoire Provincial de Mbandaka, Mbandaka, Democratic Republic of the Congo, <sup>9</sup>Illumina, San Diego, CA, United States

**LB-5311**

**Computational Modeling of Emerging Vector-borne Diseases in the Americas**

**JP Glutting**, Thananya Saksuriyongse, Narges Dorratoltaj

AIR Worldwide, Boston, MA, United States

**LB-5312**

**Unresolved Splenomegaly among Congolese Refugees after Resettlement in the United States – Multiple States, 2018**

**Laura D. Zambrano**<sup>1</sup>, Olivia Samson<sup>1</sup>, Christina Phares<sup>1</sup>, Emily Jentes<sup>1</sup>, Michelle Weinberg<sup>1</sup>, Matthew Goers<sup>1</sup>, S. Patrick Kachur<sup>1</sup>, Robert McDonald<sup>1</sup>, Bozena Morawski<sup>1</sup>, Henry Njuguna<sup>1</sup>, Yasser Bakhsh<sup>1</sup>, Rebecca Laws<sup>1</sup>, Corey Peak<sup>1</sup>, Sally Ann Iverson<sup>1</sup>, Carla Bezold<sup>1</sup>, Roberta Horth<sup>1</sup>, Hayder Alkhenfr<sup>2</sup>, Susan Miller<sup>3</sup>, Michael Kacka<sup>4</sup>, Jun Yang<sup>3</sup>, Nomana Khan<sup>1</sup>, Margaret Mortimer<sup>5</sup>, Abby Davids<sup>5</sup>, William Stauffer<sup>6</sup>, Nina Marano<sup>1</sup>

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**LB-5313**

**A qualitative study of knowledge regarding Zika virus knowledge and attitudes and acceptability towards future vaccine among primary care physicians in Costa Rica**

**Sabrina Acosta Egea**<sup>1</sup>, Morgan Stafford<sup>2</sup>, María del Carmen García González<sup>1</sup>, Avinash K. Shetty<sup>2</sup>

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**LB-5314**

**Single-, multiple-pathogen, and no pathogen detected reports in cases of acquired diarrhea among U.S. Military and Western travelers (Global Travelers' Diarrhea Study)**

**Hayley Ashbaugh**<sup>1</sup>, June M. Early<sup>2</sup>, Mark P. Simons<sup>3</sup>, Paul C. Graf<sup>4</sup>, Mark S. Riddle<sup>5</sup>, Brett E. Swierczewski<sup>6</sup>

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**LB-5315**

**IgG4 antibodies from filarial asymptomatic individuals inhibit IgG1/IgG2- mediated complement activation in a Fc-Fc dependent mechanism**

**Tomabu Adjobimey**<sup>1</sup>, Ulrich F. Prodjinotho<sup>2</sup>, Achim Hoerauf<sup>1</sup>

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**LB-5316**

**Model-predicted impact of sampling strategies on soil-transmitted helminths morbidity outcomes**

**Federica Giardina**<sup>1</sup>, Luc Coffeng<sup>1</sup>, Sam Farrell<sup>2</sup>, Carolin Vegvari<sup>2</sup>, Marleen Werkman<sup>2</sup>, James Truscott<sup>2</sup>, Roy Anderson<sup>2</sup>, Sake de Vlas<sup>1</sup>

<sup>1</sup>Erasmus Medical Center, Rotterdam, Netherlands, <sup>2</sup>Imperial College London, London, United Kingdom

**LB-5317**

**Have soil-transmitted helminths been eliminated in Japan?-Targeted prevalence survey using highly sensitive and specific multi-parallel real-time PCR**

**Mitsuko Hasegawa**<sup>1</sup>, Nils Pilotte<sup>2</sup>, Mihoko Kikuchi<sup>1</sup>, Arianna Means<sup>3</sup>, Judd Walson<sup>3</sup>, Steven Williams<sup>2</sup>, Shinjiro Hamano<sup>1</sup>

<sup>1</sup>Nagasaki University, Nagasaki, Japan, <sup>2</sup>Smith

College, Northampton, MA, United States, <sup>3</sup>University of Washington, Seattle, WA, United States

**LB-5318**

**Comparison of multi-parallel quantitative PCR and Kato-Katz for detection of soil-transmitted helminths in rural Bangladesh**

**Jade Benjamin-Chung**<sup>1</sup>, Nils Pilotte<sup>2</sup>, Ayse Ercumen<sup>1</sup>, Benjamin F. Arnold<sup>1</sup>, Sarker Masud Parvez<sup>3</sup>, Mahbubur Rahman<sup>3</sup>, Alan E. Hubbard<sup>1</sup>, Rashidul Haque<sup>3</sup>, Stephen P. Luby<sup>4</sup>, Steven Williams<sup>2</sup>, John M. Colford<sup>1</sup>

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**LB-5319**

**Developing deep amplicon sequencing assays to screen for Single Nucleotide Polymorphisms in beta-tubulin genes potentially associated with benzimidazole resistance in human soil transmitted helminths**

**Abhinaya Venkatesan**<sup>1</sup>, Russell Avramenko<sup>1</sup>, James Wasmuth<sup>1</sup>, Piet Cools<sup>2</sup>, Bruno Levecke<sup>2</sup>, John Gilleard<sup>1</sup>

<sup>1</sup>University of Calgary, Calgary, AB, Canada, <sup>2</sup>University of Ghent, Ghent, Belgium

**LB-5320**

**Live-Attenuated Hookworm Vaccination in Humans: Interim Results of the EVRA-Hookworm Trial**

**Paul R. Chapman**<sup>1</sup>, Paul Giacomini<sup>2</sup>, Stacey Llewellyn<sup>1</sup>, Christian Engwerda<sup>1</sup>, Alex Loukas<sup>2</sup>, James McCarthy<sup>1</sup>

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**LB-5321**

**Heterogeneity in transmission intensity ( $R_0$ ) of hookworm infection within and between clusters in the Tumikia study - can socioeconomic and environmental factors account for  $R_0$  variability?**

**Alison K. Ower**<sup>1</sup>, James Truscott<sup>1</sup>, Katherine Halliday<sup>2</sup>, William Oswald<sup>2</sup>, Paul Gichuki<sup>3</sup>, Carlos Mcharo<sup>3</sup>, Simon Brooker<sup>4</sup>, Sammy Njenga<sup>3</sup>, Charles Mwandariwo<sup>3</sup>, Rachel Pullan<sup>2</sup>, Roy M. Anderson<sup>1</sup>  
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**LB-5322**

**Variability in Daily Limb Volume among Patients with Filarial Lymphedema in Sri Lanka**

Celia Zhou<sup>1</sup>, Upeksha Rathnapala<sup>2</sup>, Lalindi De Silva<sup>2</sup>, Channa Yahathugoda<sup>2</sup>, Mirani Weerasooriya<sup>2</sup>, Michael Weiler<sup>3</sup>, Ramakrishna Rao<sup>4</sup>, **Philip Budge**<sup>4</sup>  
<sup>1</sup>Wake Forest University, Winston-Salem, NC, United States, <sup>2</sup>University of Ruhuna, Galle, Sri Lanka, <sup>3</sup>LymphaTech, Atlanta, GA, United States, <sup>4</sup>Washington University in St. Louis, St. Louis, MO, United States

**LB-5323**

**Using an inactivated soil bacterium to kill parasitic nematodes**

**Hanchen Li**<sup>1</sup>, Yan Hu<sup>1</sup>, David Gazzola<sup>1</sup>, Tasia Kellogg<sup>1</sup>, Kelly Flanagan<sup>1</sup>, Ambily Abraham<sup>1</sup>, Ernesto Soto-Villatoro<sup>1</sup>, Martin K. Nielsen<sup>2</sup>, Anne Zajac<sup>3</sup>, Joseph F. Urban<sup>4</sup>, Katherine Petersson<sup>5</sup>, Gary ostroff<sup>1</sup>, Raffi Aroian<sup>1</sup>  
<sup>1</sup>University of Massachusetts Medical school, worcester, MA, United States, <sup>2</sup>University of Kentucky, Lexington, KY, United States, <sup>3</sup>VA-MD College of Veterinary Medicine, virginia Tech, blacksburg, VA, United States, <sup>4</sup>USDA, Agricultural Research Service, Beltsville Human Nutrition Research Center, Diet, Genomics, and Immunology Laboratory, Beltsville, MD, United States, <sup>5</sup>University of Rhode Island, Kingston, RI, United States

**LB-5324**

**Skin Snip Sensitivity in Monitoring Drug Efficacy for *Onchocerca volvulus***

**Jannet A. Tobon Ramos**<sup>1</sup>, Nicholas Opoku<sup>2</sup>, George Oliph<sup>3</sup>, Peter U. Fischer<sup>4</sup>, Gary J. Weil<sup>4</sup>, Christopher

L. King<sup>1</sup>

<sup>1</sup>Case Western Reserve University, Cleveland, OH, United States, <sup>2</sup>School of Public Health, University of Health and Allied Sciences, Ho, Ghana, <sup>3</sup>Onchocerciasis Chemotherapy Research Centre, Hohoe, Ghana, <sup>4</sup>Molecular Helminthology Laboratory, Washington University in St Louis, St Louis, MO, United States

**LB-5325**

**Immigrant Screening in a Tropical Medicine Clinic in the Bronx, New York**

**Hayley Myles**<sup>1</sup>, Brenden Clark<sup>1</sup>, Jilliane Abella<sup>1</sup>, Selena Yee<sup>1</sup>, Christina Coyle<sup>2</sup>  
<sup>1</sup>Jacobi Medical Center, Bronx, NY, United States, <sup>2</sup>Albert Einstein College of Medicine, Bronx, NY, United States

**LB-5326**

***Strongyloides Stercoralis* acquired in the Appalachian region of the United States**

**David Chodos**, John Sanders, Elizabeth Palavecino  
Wake Forest Baptist Medical Center, Winston-Salem, NC, United States

**LB-5327**

**Noguchi Institute Initiative for Neglected Tropical Diseases Elimination: Aid to Neglected Tropical Diseases Control in Ghana**

Dennis Adu-Gyasi, **NIINE Group**  
Kintampo Health Research Centre, Kintampo North, Ghana

**LB-5328**

**The potential of a vaccine to protect against *Schistosoma mansoni* infection in humans when used alone, or in combination with mass drug administration, to both control morbidity and move towards transmission elimination**

**Klodeta Kura**, Jaspreet Toor, James Truscott, Roy M. Anderson  
Imperial College London, London, United Kingdom

**Poster Session B**  
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**LB-5329**

**Trends in prevalence and intensity of loiasis over 20 years in the Yabassi health district (Littoral Region, Cameroon): collateral impact of mass treatments against onchocerciasis**

Hugues Nana Djeunga<sup>1</sup>, André Domche<sup>1</sup>, Cédric Lenou-Nanga<sup>1</sup>, Arsel Litchou-Tchuinang<sup>1</sup>, Floribert Fossuo-Thotchum<sup>1</sup>, Yannick Niamsi-Emalio<sup>1</sup>, Thérèse Nkoa<sup>2</sup>, Joseph Kamgno<sup>1</sup>

<sup>1</sup>Centre for Research on Filariasis and other Tropical Diseases (CRFiMT), Yaoundé, Cameroon, <sup>2</sup>Faculty of Medicine and Biomedical Sciences, University of Yaounde I, Yaoundé, Cameroon

**LB-5330**

**An integrated approach to assess Knowledge, Attitude and Practices (KAP) regarding major Neglected Tropical Diseases endemic in the Mbengwi health district (North West Region, Cameroon)**

Laurentine Sumo<sup>1</sup>, Cédric Lenou-Nanga<sup>2</sup>, Ngum H. Ntonifor<sup>1</sup>, Nicanor Chenkumo-Kengmoni<sup>1</sup>, Vanessa Amana-Bokagne<sup>1</sup>, Chembo G. Awah<sup>1</sup>, Yannick Niamsi-Emalio<sup>2</sup>, Hugues Nana Djeunga<sup>2</sup>

<sup>1</sup>Department of Biological Sciences, Faculty of Science, University of Bamenda, Bamili, Cameroon, <sup>2</sup>Centre for Research on Filariasis and other Tropical Diseases (CRFiMT), Yaoundé, Cameroon

**LB-5331**

**Individual coverage and compliance between rounds of community-wide mass drug administration for control of soil-transmitted helminths in the TUMIKIA project, Kwale County, Kenya**

William E. Oswald<sup>1</sup>, Katherine E. Halliday<sup>1</sup>, Carlos Mcharo<sup>2</sup>, Stefan Witek-McManus<sup>1</sup>, Stella Kepha<sup>1</sup>, Th'uva Safari<sup>2</sup>, Roy M. Anderson<sup>3</sup>, Sammy Njenga<sup>2</sup>, Charles S. Mwandawiro<sup>2</sup>, Simon J. Brooker<sup>1</sup>, Rachel L. Pullan<sup>1</sup>

<sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Kenya Medical Research Institute, Nairobi, Kenya, <sup>3</sup>Imperial College, London, United Kingdom

**LB-5332**

**Incidence of Skin Reactions among Asymptomatic *Trypanosoma cruzi* Seropositive Patients Treated with Benznidazole or Nifurtimox: A safety analysis of a Placebo-controlled Randomized Trial**

**Juan Carlos Villar**

*Universidad Autónoma de Bucaramanga and Fundación Cardioinfantil - Instituto de Cardiología, Bucaramanga - Bogotá, Colombia*

**LB-5333**

**Evaluation of hand and face washing school hygiene program for trachoma elimination in Northern Kenya**

Cristin Fergus<sup>1</sup>, **Geordie G. Woods**<sup>2</sup>, Esha Sheth<sup>3</sup>  
<sup>1</sup>London School of Economics, London, United Kingdom, <sup>2</sup>Sightsavers, New Orleans, LA, United States, <sup>3</sup>Unilever, Mumbai, India

**LB-5334**

**Introduction of an informational website for the rickettsial disease scrub typhus**

Allen L. Richards<sup>1</sup>, Paul A. Fuerst<sup>2</sup>, Daryl J. Kelly<sup>1</sup>  
<sup>1</sup>Naval Medical Research Center, Silver Spring, MD, United States, <sup>2</sup>The Ohio State University, Columbus, OH, United States

**LB-5335**

**Simultaneous administration of praziquantel, ivermectin and albendazole during mass drug administration in three health districts in Guinea: Coverage, safety and costs**

André Géopogui<sup>1</sup>, Mamadou S. Baldé<sup>1</sup>, Cece Nieba<sup>1</sup>, Lamah Lamine<sup>2</sup>, Christelly B. Flore<sup>2</sup>, Steven D. Reid<sup>3</sup>, Jean Jacques Ngamaleu<sup>4</sup>, Bamba F. Ibrahim<sup>2</sup>  
<sup>1</sup>Ministry of Health, Conakry, Guinea, <sup>2</sup>Helen Keller International, Conakry, Guinea, <sup>3</sup>Helen Keller International, New York, NY, United States, <sup>4</sup>RTI International, Washington, DC, United States

**LB-5336**

**Biodiversity of gastropods in two river basins of the Southern of Puerto Rico and risk of bilharzia**

Juan C. Orengo<sup>1</sup>, Fabian Ramirez<sup>1</sup>, Kayra Rosado<sup>1</sup>, Karla Lopez de Victoria<sup>1</sup>, Krystal Figueroa<sup>1</sup>, Miguel Rivera<sup>2</sup>, Monica Pagan<sup>2</sup>, Luisel Gonzalez<sup>2</sup>, Cindy Cosme<sup>3</sup>, Robert Rodriguez<sup>1</sup>, Vivian Green<sup>1</sup>  
<sup>1</sup>Public Health Program, Ponce Health Sciences University, Ponce, PR, United States, <sup>2</sup>School of Nursing, Ponce Health Sciences University, Ponce, PR, United States, <sup>3</sup>University of Puerto Rico, Ponce, PR, United States

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**LB-5337**

**A novel NTD-WASH toolkit facilitates cross-sectoral coordination that is essential for sustainable Neglected Tropical Disease elimination**

**Zvi Bentwich**<sup>1</sup>, Michal Bruck<sup>2</sup>

<sup>1</sup>NALA/Ben Gurion University of the Negev, Beer Sheba, Israel, <sup>2</sup>NALA, Beer Sheba, Israel

**LB-5338**

**Distribution of intermediate hosts of *Schistosoma* at Kisenso, Kinshasa; DR Congo (preliminary study)**

Billy S. Kunyu<sup>1</sup>, Harry Kayembe<sup>2</sup>, Papy ANSONI<sup>2</sup>, Naomi Awaca<sup>3</sup>, **Thierry L. Bobanga**<sup>2</sup>  
<sup>1</sup>INRB, KINSHASA, Democratic Republic of the Congo, <sup>2</sup>université de Kinshasa, KINSHASA, Democratic Republic of the Congo, <sup>3</sup>NTD National control program, KINSHASA, Democratic Republic of the Congo

**LB-5339**

**Spatial analysis of ring strategy for the control of *Taenia solium* cysticercosis: implications for control and elimination**

**Ian Pray**<sup>1</sup>, Claudio Muro<sup>2</sup>, Percy Vilchez<sup>2</sup>, Ricardo Gamboa<sup>2</sup>, Seth E. O'Neal<sup>1</sup>  
<sup>1</sup>Oregon Health and Science University, Portland, OR, United States, <sup>2</sup>Center for Global Health Tumbes, Tumbes, Peru

**LB-5340**

**First report of imported *Plasmodium ovale* cases in Latin America**

**Mariana Ramos**<sup>1</sup>, Marianela Oré<sup>2</sup>, Rosio Guerra<sup>3</sup>, Hugo Valdivia<sup>1</sup>, Danett Bishop<sup>1</sup>, Wesley Campbell<sup>1</sup>  
<sup>1</sup>U.S. Naval Medical Research Unit-6, Lima, Peru, <sup>2</sup>Peruvian Army, Lima, Peru, <sup>3</sup>Peruvian Navy, Lima, Peru

**LB-5341**

**Coverage of malaria intermittent preventive treatment in pregnancy in four sub-Saharan African countries: baseline data for an evaluation of a community delivery strategy**

**Clara Pons-Duran**<sup>1</sup>, Mireia Llach<sup>1</sup>, Raquel González<sup>1</sup>, Sergi Sanz<sup>1</sup>, Rodolfo Soares<sup>1</sup>, Máximo Ramírez<sup>1</sup>, Susana Méndez<sup>1</sup>, Elaine Roman<sup>2</sup>, Linda Fogarty<sup>2</sup>, Franco Pagnoni<sup>1</sup>, Clara Menéndez<sup>1</sup>

<sup>1</sup>Barcelona Institute for Global Health, Barcelona, Spain, <sup>2</sup>Jhpiego, Baltimore, MD, United States

**LB-5342**

**Therapeutic response to artemether lumefantrin among individuals with pure versus mixed *Plasmodium* species infections in Kisumu county, Western Kenya**

**Gladys Chemwor**<sup>1</sup>, Benjamin Opot<sup>1</sup>, Raphael Okoth<sup>1</sup>, Redemptah Yedah<sup>1</sup>, Agnes Cheruiyot<sup>1</sup>, Irene Onyango<sup>1</sup>, Dennis Juma<sup>1</sup>, Hoseah Akala<sup>1</sup>, Ben Andagalu<sup>1</sup>, JR Managbanag<sup>2</sup>

<sup>1</sup>Department of Emerging Infectious Diseases (DEID), United States Army Medical Research Directorate-Kenya (USAMRD-K), Kenya Medical Research Institute (KEMRI), Kisumu, Kenya, <sup>2</sup>United States Army Medical Research Directorate-Kenya, Kisumu, Kenya

**LB-5343**

***Plasmodium* sporozoite infection rates among primary and secondary malaria vectors in Rwanda**

**Elias Niyituma**<sup>1</sup>, Dunia Munyakanage<sup>2</sup>, Beatus Cyubahiro<sup>2</sup>, Xavier Misago<sup>1</sup>, Phocas Mazimpaka<sup>2</sup>, Emily Piercefield<sup>3</sup>, Peter J. Obenauer<sup>4</sup>, Christen Fornadel<sup>5</sup>, Kaendi Munguti<sup>6</sup>, Dereje Dengela<sup>7</sup>, Aimable Mbituyumuremyi<sup>2</sup>, Emmanuel Hakizimana<sup>2</sup>  
<sup>1</sup>Rwanda Biomedical Center, Malaria & Other Parasitic Diseases Division and Abt Associates, Inc., US President's Malaria Initiative, VectorLink Project, Kigali, Rwanda, <sup>2</sup>Rwanda Biomedical Center, Malaria & Other Parasitic Diseases Division, Kigali, Rwanda, <sup>3</sup>US President's Malaria Initiative, Malaria Branch, Division of Parasitic Diseases and Malaria, US Centers for Disease Control and Prevention, Kigali, Rwanda, <sup>4</sup>Navy and Marine Corps Public Health Center Detachment-CDC, Centers for Disease Control and Prevention, Entomology Section, Atlanta, GA, United States, <sup>5</sup>US President's Malaria Initiative, United States Agency for International Development, Washington, DC, United States, <sup>6</sup>US President's Malaria Initiative, United States Agency for International Development, Kigali, Rwanda, <sup>7</sup>Abt Associates, Inc., US President's Malaria Initiative, VectorLink Project, Bethesda, MD, United States

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**LB-5344**

**A case control study to define demographic, behavioral and environmental risks of malaria in the elimination setting of Grand'Anse, Haiti**

**Ruth Ashton**<sup>1</sup>, Vena Joseph<sup>1</sup>, Thomas Druetz<sup>1</sup>, Gillian Stresman<sup>2</sup>, Chris Drakeley<sup>2</sup>, Alexandre Existe<sup>3</sup>, Jean Frantz Lemoine<sup>4</sup>, Thomas Eisele<sup>1</sup>  
<sup>1</sup>Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States, <sup>2</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>3</sup>Laboratoire National de Santé Publique, Port-au-Prince, Haiti, <sup>4</sup>Ministère de la Santé Publique et de la Population, Port-au-Prince, Haiti

**LB-5345**

**Intercurrent Flaviviral Viremia and *Plasmodium ovale* Infection in Ill Returned Travelers to Ontario**

**Ruwandi Kariyawasam**<sup>1</sup>, Rachel Lau<sup>2</sup>, Avinash Mukkala<sup>1</sup>, Filip Ralevski<sup>2</sup>, Andrea K. Boggild<sup>1</sup>  
<sup>1</sup>University of Toronto, Toronto, ON, Canada, <sup>2</sup>Public Health Ontario, Toronto, ON, Canada

**LB-5346**

**Efficacy of Olyset Duo, a bednet containing pyriproxyfen and permethrin, versus a permethrin-only net against clinical malaria in an area with highly pyrethroid-resistant vectors in rural Burkina Faso: a cluster-randomised controlled trial**

**Alfred Tiono**<sup>1</sup>, Alphonse Ouedraogo<sup>1</sup>, Daouda Ouattara<sup>1</sup>, Edith Bougouma<sup>1</sup>, Sam Coulibaly<sup>1</sup>, Amidou Diarra<sup>1</sup>, Brian Faragher<sup>2</sup>, Moussa Guelbeogo<sup>1</sup>, Issa Ouedraogo<sup>1</sup>, Zininwinde Ouedraogo<sup>1</sup>, Margaret Pinder<sup>3</sup>, Souleymane Sanon<sup>1</sup>, Thomas Smith<sup>4</sup>, Fiona Vanobberghen<sup>4</sup>, Nelson Grisales<sup>2</sup>, Hilary Ranson<sup>2</sup>, N'Fale Sagnon<sup>1</sup>, Steve W. Lindsay<sup>3</sup>  
<sup>1</sup>Centre National de Recherche et de Formation sur le Paludisme, Ougadougou, Burkina Faso, <sup>2</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>3</sup>Durham University, Durham City, United Kingdom, <sup>4</sup>Swiss Tropical and Public Health Institute, Basel, Switzerland

**LB-5347**

**Development of An Automated Outbreak Detection and Early Warning System for Malaria in Thailand**

**Ricardo Andrade-Pacheco**<sup>1</sup>, Prayuth Sudathip<sup>2</sup>, Surasak Sawang<sup>3</sup>, Darin Kongkasuriyachai<sup>3</sup>, Chris

Cotter<sup>1</sup>, Adam Bennett<sup>1</sup>, Hugh H. Sturrock<sup>1</sup>  
<sup>1</sup>MEI, Institute of Global Health Sciences, UCSF, San Francisco, CA, United States, <sup>2</sup>Bureau of Vector Borne Diseases, Department of Disease Control, Ministry of Public Health, Nonthaburi, Thailand, <sup>3</sup>Inform Asia: USAID's Health Research Program, RTI International, Research Park Triangle, NC, United States

**LB-5348**

**A field-based assay to detect antimalarial drugs from patient samples**

**Erin Coonahan**<sup>1</sup>, Kyung-Ae Yang<sup>2</sup>, Stevan Pecic<sup>3</sup>, Maarten De Vos<sup>4</sup>, Joel Tarning<sup>5</sup>, Thomas Wellems<sup>1</sup>, Carole Long<sup>1</sup>  
<sup>1</sup>Laboratory of Malaria and Vector Research, National Institutes of Health, Rockville, MD, United States, <sup>2</sup>Center for Innovative Diagnostic and Therapeutic Approaches, Department of Medicine, Columbia University, New York, NY, United States, <sup>3</sup>Department of Chemistry and Biochemistry, California State University, Fullerton, Fullerton, CA, United States, <sup>4</sup>Institute of Biomedical Engineering, University of Oxford, Oxford, United Kingdom, <sup>5</sup>Clinical Pharmacology, Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand

**LB-5349**

**Tackling the QAACT market in Kinshasa, DRC through routine surveys**

**Cristina Lussiana**<sup>1</sup>, Katie McDonald<sup>1</sup>, Anthony M'vemba<sup>2</sup>, Riddy Ndoma<sup>3</sup>, Martin Dale<sup>1</sup>, Bram Piot<sup>1</sup>, Stephen Poyer<sup>1</sup>, Joseph Lewinski<sup>1</sup>  
<sup>1</sup>Population Services International, Washington, DC, United States, <sup>2</sup>Association de Santé Familiale, Kinshasa, Democratic Republic of the Congo, <sup>3</sup>Association de Santé Familiale, Kinshasa, Democratic Republic of the Congo

**LB-5350**

**Malaria surveillance of imported cases in Chile**

**Naomi Lucchi**<sup>1</sup>, Daniel F. Escobar<sup>2</sup>, Rispah Abdallah<sup>1</sup>, María Teresa Valenzuela<sup>3</sup>, Venkatachalam Udhayakumar<sup>1</sup>, María Isabel Jercic<sup>2</sup>, Stella M. Chenet<sup>4</sup>  
<sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>Instituto de Salud Pública de Chile, Santiago, Chile, <sup>3</sup>Universidad de los Andes, Santiago, Chile, <sup>4</sup>Universidad de los Andes/Instituto de Salud Pública de Chile, Santiago, Chile



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**LB-5351**

**Unexpectedly poor performance of a pLDH rapid diagnostic test for malaria in rural Niger**

**Matthew E. Coldiron**  
*Epicentre, Paris, France*

**LB-5352**

**Cellular immune responses in malaria naïve volunteers after vaccination with Sanaria PfSPZ-CVac, with either chloroquine or pyrimethamine**

**Irfan Zaidi**<sup>1</sup>, Charles Wyatt<sup>1</sup>, Jake Raiten<sup>1</sup>, Kendrick Highsmith<sup>1</sup>, Jillian Neal<sup>1</sup>, Junhui Duan<sup>1</sup>, Agnes Mwakingwe<sup>1</sup>, David Cook<sup>1</sup>, Jacquelyn Lane<sup>1</sup>, Susan Pfeiffer<sup>1</sup>, Thomas L. Ritchie<sup>2</sup>, B Kim Lee Sim<sup>3</sup>, Stephen L. Hoffman<sup>2</sup>, Patrick E. Duffy<sup>1</sup>  
<sup>1</sup>National Institute of Health, Rockville, MD, United States, <sup>2</sup>Sanaria Inc, Rockville, MD, United States, <sup>3</sup>Sanaria Inc., Rockville, MD, United States

**LB-5353**

**Burden and Risk of Malaria Among Newly Pregnant Women at First Antenatal Clinic Visit in the Middle Belt of Ghana**

**David K. Dosoo**, Kintampo Birth Cohort Team, Kintampo Health Research Centre, Kintampo, Ghana

**LB-5354**

**Malaria in Venezuela: a regional disaster - time for effective actions**

**Leopoldo Villegas**<sup>1</sup>, Maria E. Guevara<sup>2</sup>, Luis Fernando Chaves<sup>3</sup>, Maria M. Villegas<sup>2</sup>, Ananias Escalante<sup>4</sup>  
<sup>1</sup>Global Development One, Silver Spring, MD, United States, <sup>2</sup>ASOCIS, Tumeremo, Bolivar, Bolivarian Republic of Venezuela, <sup>3</sup>Instituto Costarricense de Investigación y Enseñanza en Nutrición y Salud (INCIENSA), Cartago, Costa Rica, <sup>4</sup>Department of Biology, Institute for Genomics and Evolutionary Medicine, Temple University, Philadelphia, PA, United States

**LB-5355**

**Evaluation of malaria case reporting pilots in Nghe An and Binh Phuoc provinces, Vietnam**

**Jillian Dunning**<sup>1</sup>, Ha Le Phan<sup>1</sup>, Charlene Barina<sup>1</sup>, Thu Thuy Tran<sup>1</sup>, Christopher Lourenco<sup>1</sup>, Nguyen Quy Anh<sup>2</sup>  
<sup>1</sup>Clinton Health Access Initiative, Boston, MA, United States, <sup>2</sup>National Institute of Malaria, Parasitology, and Entomology, Hanoi, Vietnam

<sup>2</sup>National Institute of Malaria, Parasitology, and Entomology, Hanoi, Vietnam

**LB-5356**

**Molecular and genetic epidemiology of malaria in drug-resistant areas of Vietnam: a case-control study of risk factors**

**Kimberly Edgel**<sup>1</sup>, Sara E. Canavati<sup>2</sup>, Long T. Tran<sup>2</sup>, Thu M. Nguyen<sup>2</sup>, Dang V. Dung<sup>3</sup>, Hieu Minh<sup>3</sup>, Thang D. Ngoc<sup>3</sup>, Duong T. Tran<sup>3</sup>, Richard J. Maude<sup>4</sup>, Nicholas J. Martin<sup>1</sup>  
<sup>1</sup>Naval Medical Research Unit TWO, Singapore, Singapore, <sup>2</sup>Vysnova Partners, Inc., Bethesda, MD, United States, <sup>3</sup>The National Institute of Malariology, Parasitology and Entomology, Hanoi, Vietnam, <sup>4</sup>Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

**LB-5357**

**The assessment of submicroscopic parasitemia following treatment with Atovaquone-Proguanil and Artesunate-Atovaquone-Proguanil as prognostic indicator of treatment outcome**

**Kirakarn Kirativanich**<sup>1</sup>, Panita Gosi<sup>1</sup>, Sok Somethy<sup>2</sup>, Lon Chanthap<sup>1</sup>, Piyaporn Sai-Ngam<sup>1</sup>, Chaiyaporn Chaisatit<sup>1</sup>, Michele Spring<sup>1</sup>, Worachet Kuntawunginn<sup>1</sup>, Saowaluk Wongarunkochakorn<sup>1</sup>, Montri Arsanok<sup>1</sup>, Mali Ittiverakul<sup>1</sup>, Nillawan Buathong<sup>1</sup>, Soklyda Chann<sup>1</sup>, Hom Sohei<sup>1</sup>, Agus Ratchmat<sup>3</sup>, Dustin Harrison<sup>3</sup>, Bolin Chum<sup>3</sup>, Kong Nareth<sup>4</sup>, Mok My<sup>5</sup>, Mao Sodaly<sup>6</sup>, Vireak Heang<sup>3</sup>, Nicholas Martin<sup>1</sup>, Mark Fukuda<sup>1</sup>, Philip Smith<sup>1</sup>, Dysoley Lek<sup>4</sup>, David Saunders<sup>7</sup>, Mariusz Wojnarski<sup>1</sup>  
<sup>1</sup>Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, <sup>2</sup>Ministry of National Defense, Department of Health, Phnom Penh, Cambodia, <sup>3</sup>Naval Medical Research Unit 2, Phnom Penh, Cambodia, <sup>4</sup>National Center for Parasitology, Entomology and Malaria Control, Phnom Penh, Cambodia, <sup>5</sup>The Royal Cambodian Armed Forces, Phnom Penh, Cambodia, <sup>6</sup>Kratie Referral Hospital, Kratie, Cambodia, <sup>7</sup>U.S. Army Medical Materiel Development Activity, Fort Detrick, MD, United States

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**LB-5358**

**Time to negativity of standard and ultra-sensitive *Plasmodium falciparum* histidine-rich protein 2 rapid diagnostic tests in Zambezi region, Namibia**

**Henry M. Ntuku**<sup>1</sup>, Brooke Whittemore<sup>2</sup>, Cara Smith Gueye<sup>1</sup>, Lucille Dausab<sup>3</sup>, Petrina Uusiku<sup>4</sup>, Stark Katokele<sup>4</sup>, Lisa Prach<sup>1</sup>, Allison Golden<sup>5</sup>, Ihn Kyung Jang<sup>5</sup>, Gonzalo J. Domingo<sup>5</sup>, Teun Bousema<sup>6</sup>, Mi-Suk Kang Dufour<sup>7</sup>, Bryan Greenhouse<sup>8</sup>, Davis R. Mumbengegwi<sup>3</sup>, Roly Gosling<sup>1</sup>, Michelle S. Hsiang<sup>2</sup>  
<sup>1</sup>Malaria Elimination Initiative, Global Health Group, University of California, San Francisco, San Francisco, CA, United States, <sup>2</sup>Department of Pediatrics, University of Texas Southwestern Medical Center, Dallas, TX, United States, <sup>3</sup>Multidisciplinary Research Centre, University of Namibia, Windhoek, Namibia, <sup>4</sup>Namibia Ministry of Health and Social Services, Windhoek, Namibia, <sup>5</sup>Diagnostics Global Program, PATH, Seattle, WA, United States, <sup>6</sup>Radboud University Medical Centre, Nijmegen, Netherlands, <sup>7</sup>Division of Prevention Science, Department of Medicine, University of California San Francisco, San Francisco, CA, United States, <sup>8</sup>Division of HIV, Infectious Diseases, and Global Medicine, Department of Medicine, University of California, San Francisco, San Francisco, CA, United States

**LB-5359**

**Evaluation of health facility based surveys to monitor malaria transmission in a pre elimination setting, Indonesia**

**Henry Surendra**<sup>1</sup>, Supargiyono Supargiyono<sup>2</sup>, Jackie Cook<sup>3</sup>, Chris Drakeley<sup>1</sup>  
<sup>1</sup>Department of Immunology & Infection, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Centre for Tropical Medicine, Faculty of Medicine Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, <sup>3</sup>MRC Tropical Epidemiology Group, Department of Infectious Disease Epidemiology, London School of Hygiene & Tropical Medicine, London, United Kingdom

**LB-5360**

**Efficacy and safety of dihydroartemisinin-piperaquine for the treatment of uncomplicated *Plasmodium falciparum* and *Plasmodium vivax* malaria in Northern Papua and Jambi Province, Indonesia**

**Puji B. Asih**<sup>1</sup>, Ismail E. Rozi<sup>1</sup>, Marti Kusumaningsih<sup>2</sup>, Pranti S. Mulyani<sup>2</sup>, Elvieda Sariwati<sup>2</sup>, Sylvia S. Marantina<sup>1</sup>, Suradi Wangsamuda<sup>1</sup>, Nanda R.

Pratama<sup>1</sup>, Herdiana H. Basri<sup>3</sup>, Ahmad N. Azhari<sup>3</sup>, Maria Dorina Bustos<sup>4</sup>, Pascal Ringwald<sup>5</sup>, Din Syafruddin<sup>1</sup>  
<sup>1</sup>Eijkman Institute for Molecular Biology, Jakarta, Indonesia, <sup>2</sup>Malaria Sub Directorate, Ministry of Health, Republic of Indonesia, Jakarta, Indonesia, <sup>3</sup>World Health Organization, Jakarta, Indonesia, <sup>4</sup>World Health Organization, Bangkok, Thailand, <sup>5</sup>World Health Organization, Geneva, Switzerland

**LB-5361**

**Enhanced entomological surveillance for malaria elimination in Namibia**

**Iitula Iitula**<sup>1</sup>, Stark T. Katokele<sup>1</sup>, Tebeth Mwema<sup>2</sup>, Rose Joseph<sup>2</sup>, Dennis Walusimbi<sup>3</sup>, Sheila Ogoma<sup>3</sup>, Elodie Vajda<sup>4</sup>, Neil Lobo<sup>5</sup>, George Shirreff<sup>3</sup>, Allison Tatarsky<sup>6</sup>, Alia Yasmin Williams<sup>6</sup>, Cara Smith Gueye<sup>6</sup>, Petrina Uusiku<sup>1</sup>  
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**LB-5362**

**A new tool for geographically targeted malaria intervention impacts**

**Amelia Bertozzi-Villa**<sup>1</sup>, Samir Bhatt<sup>2</sup>, Jaline Gerardin<sup>1</sup>, Peter W. Gething<sup>3</sup>  
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**Poster Session B**  
**Late Breakers in Clinical and Applied Sciences**  
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**LB-5363**

**SURVEILLANCE OF EFFICACY AND SAFETY OF ARTEMETHER-LUMEFANTRINE FOR THE TREATMENT OF UNCOMPLICATED FALCIPARUM MALARIA IN MAINLAND TANZANIA**

**Billy Ngasala**<sup>1</sup>, Mercy G. Chiduo<sup>2</sup>, Samwel N. Bushukatale<sup>1</sup>, Basiliana Emidi<sup>3</sup>, Celine I. Mandara<sup>1,4</sup>, Erasmus Kamugisha<sup>5</sup>, Omary Juma Juma<sup>6</sup>, Florida Muro<sup>7</sup>, Ally Mohamed<sup>8</sup>, Renata Mandike<sup>8</sup>, Deus S. Ishengoma<sup>9</sup>, Frank Chaky<sup>8</sup>  
<sup>1</sup>MUHAS, Dar es Salaam, United Republic of Tanzania, <sup>2</sup>National Institute for Medical Research, Tanzania, Tanga Research Centre, P.O Box 5004, Tanga, United Republic of Tanzania, <sup>3</sup>National Institute for Medical Research, Tanzania, Dar es Salaam, United Republic of Tanzania, <sup>4</sup>National Institute for Medical Research, Tanzania, Tanga, United Republic of Tanzania, <sup>5</sup>Catholic University of Health and Allied Sciences/Bugando Medical Centre, Mwanza, United Republic of Tanzania, <sup>6</sup>Ifakara Health Institute, Dar es Salaam, United Republic of Tanzania, <sup>7</sup>Kilimanjaro Christian Medical Centre, Kilimanjaro, United Republic of Tanzania, <sup>8</sup>National Malaria Control Program, Dar es Salaam, United Republic of Tanzania, <sup>9</sup>National Institute for Medical Research, Tanzania, Tanga Research Centre, P.O Box 5004, Tanga, United Republic of Tanzania

**LB-5364**

**Exploring non-falciparum malaria infection among symptomatic patients presenting to the Emergency Department in an urban hospital in Douala, Cameroon**

**Daniel Z. Hodson**<sup>1</sup>, Yannick M. Etoundi<sup>2</sup>, Narcisse M. Nghokeng<sup>3</sup>, Raïhana Mohamadou<sup>4</sup>, Sonia M. Djoko<sup>4</sup>, Sunil Parikh<sup>5</sup>, Yap Boum II<sup>6</sup>, Carole Eboumbou<sup>2</sup>  
<sup>1</sup>Yale University School of Medicine, New Haven, CT, United States, <sup>2</sup>Douala University Faculty of Medicine and Pharmaceutical Sciences, Douala, Cameroon, <sup>3</sup>Douala Military Hospital, Douala, Cameroon, <sup>4</sup>Douala Military Hospital School of Nursing, Douala, Cameroon, <sup>5</sup>Yale School of Public Health, New Haven, CT, United States, <sup>6</sup>Médecins Sans Frontières/Epicentre, Yaoundé, Cameroon

**LB-5365**

**Active Detection and Early Treatment of Malaria Cases in Children Under Five Years of Age Paired with Seasonal Malaria Chemoprevention (SMC) in Mali**

**Rose Monteil**<sup>1</sup>, Diahara Kone<sup>2</sup>, Vincent Sanogo<sup>2</sup>, Boureima Sacko<sup>1</sup>, Momar Mbodji<sup>1</sup>, Chrestien

Yameni<sup>1</sup>, Suzanne Van Hulle<sup>3</sup>

<sup>1</sup>Catholic Relief Services, Bamako, Mali, <sup>2</sup>National Malaria Control Program, Mali, Bamako, Mali, <sup>3</sup>Catholic Relief Services, Baltimore, MD, United States

**LB-5366**

**Longitudinal dynamics of malaria-induced immune exhaustion among children & adults during seasonal malaria transmission in Ouelessebouyou, Mali**

**Attaher Oumar**<sup>1</sup>, Zaidi Irfan<sup>2</sup>, Kwan Jennifer<sup>3</sup>, Mamoudou B Samassekou<sup>1</sup>, Djibrilla Issiaka<sup>1</sup>, Barou Coulibaly<sup>1</sup>, Sekouba Keita<sup>1</sup>, Sibiri Sissoko<sup>1</sup>, Tiengoua Traore<sup>1</sup>, Kalifa Diarra<sup>1</sup>, Bacary S Diarra<sup>1</sup>, Adama Dembele<sup>1</sup>, Gaoussou Santara<sup>1</sup>, Moussa Traore<sup>1</sup>, Almahamoudou Mahamar<sup>1</sup>, Amadou Barry<sup>1</sup>, Alassane Dicko<sup>1</sup>, Patrick Duffy<sup>2</sup>, Michal Fried<sup>2</sup>  
<sup>1</sup>Malaria Research and Training Center, Faculty of Medicine, Pharmacy and Dentistry, University of Sciences Techniques and Technologies of Bamako., Bamako, Mali, <sup>2</sup>Laboratory of Malaria Immunology and Vaccinology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States, <sup>3</sup>Laboratory of Clinical Immunology and Microbiology, National Institute of Allergy and Infectious Diseases, National Institutes of Health., Bethesda, MD, United States

**LB-5367**

**Evaluation of the malaria transmission blocking vaccine antigen Pfs230D1M in an influenza virosome platform containing TLR agonists**

**Kelly M. Rausch**<sup>1</sup>, Mario Amacker<sup>2</sup>, Emma K. Barnafo<sup>1</sup>, David L. Narum<sup>1</sup>, Charles Anderson<sup>1</sup>, Sylvain Fleury<sup>2</sup>, Patrick E. Duffy<sup>1</sup>  
<sup>1</sup>National Institutes of Health/National Institute of Allergy and Infectious Diseases/Laboratory of Malaria Immunology and Vaccinology, Rockville, MD, United States, <sup>2</sup>Mymetics Corporation, Epalinges, Switzerland

**LB-5368**

**MR imaging of treatment-induced reversal of cerebral malaria pathology in mice**

**Brittany A. Riggle**<sup>1</sup>, Sanhita Sinharay<sup>2</sup>, William Schreiber-Stainthorp<sup>2</sup>, Jeeva P. Munasinghe<sup>3</sup>, Dragan Maric<sup>3</sup>, Louis H. Miller<sup>1</sup>, Dima A. Hammoud<sup>2</sup>, Susan K. Pierce<sup>1</sup>  
<sup>1</sup>NIH NIAID, Rockville, MD, United States, <sup>2</sup>NIH CIDI, Bethesda, MD, United States, <sup>3</sup>NIH NINDS, Bethesda, MD, United States

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**LB-5369**

**Reorienting districts towards malaria elimination programming in areas of heterogeneous malaria transmission: Zimbabwe Malaria elimination capacity assessment survey 2018**

Busisani Dube<sup>1</sup>, Joseph MBERIKUNASHE<sup>1</sup>, Brighton Gambia<sup>2</sup>, Anderson Chimusoro<sup>3</sup>, Patience Dhliwayo<sup>1</sup>, Munashe Madinga<sup>2</sup>, Andrew Tangwena<sup>1</sup>, Wilson Chauke<sup>1</sup>, Vengai Mafirakureva<sup>4</sup>, Zvoinzwawani Matiza<sup>1</sup>

<sup>1</sup>National Malaria Control Programme, Harare, Zimbabwe, <sup>2</sup>Clinton Health Access Initiative, Harare, Zimbabwe, <sup>3</sup>World Health Organization, Geneva, Switzerland, <sup>4</sup>National Institute of Health Research Zimbabwe, Harare, Zimbabwe

**LB-5370**

**Gaps in Universal Insecticide-Treated Net Coverage in Western Kenya**

Ashley C. Little<sup>1</sup>, Jenna E. Coalson<sup>1</sup>, Ellen M. Santos<sup>1</sup>, Maurice Agawo<sup>1</sup>, Stephen Munga<sup>2</sup>, Kacey C. Ernst<sup>1</sup>

<sup>1</sup>Mel and Enid Zuckerman College of Public Health, University of Arizona, Tucson, AZ, United States, <sup>2</sup>Kenya Medical Research Institute, Nairobi, Kenya

**LB-5371**

**Evidence of *Plasmodium vivax* in Africa: complicating the path to elimination**

Katherine A. Twohig<sup>1</sup>, Daniel A. Pfeffer<sup>1</sup>, J. Kevin Baird<sup>2</sup>, Ric N. Price<sup>3</sup>, Peter A. Zimmerman<sup>4</sup>, Peter W. Gething<sup>1</sup>, Katherine E. Battle<sup>1</sup>, Rosalind E. Howes<sup>1</sup>  
<sup>1</sup>Malaria Atlas Project- Big Data Institute, Oxford, United Kingdom, <sup>2</sup>Eijkman-Oxford Clinical Research Unit, Eijkman Institute of Molecular Biology, Jakarta, Indonesia, <sup>3</sup>Global and Tropical Health Division, Menzies School of Health Research and Charles Darwin University, Darwin, Australia, <sup>4</sup>The Center for Global Health & Diseases, Case Western Reserve University, Cleveland, OH, United States

**LB-5372**

**Employing Electronic Malaria Surveillance for Private Sector Outlets: Is it financially sustainable in Cambodia, Laos and Myanmar**

Ann Levin<sup>1</sup>, James Eliades<sup>2</sup>, Rebecca Potter<sup>3</sup>, Kemi Tesfazghi<sup>4</sup>, Saysana Phanalasy<sup>3</sup>, Phally Keo<sup>4</sup>, Elijah Filip<sup>4</sup>, Si Hein Phone<sup>2</sup>

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Myanmar, <sup>3</sup>Population Services International, Vientiane, Lao People's Democratic Republic, <sup>4</sup>Population Services International, Phnom Penh, Cambodia

**LB-5373**

**Clinical safety and protective efficacy after immunization with genetically modified *Plasmodium berghei* sporozoites expressing *P.falciparum* -circumsporozoite protein in a first-in-human Phase1/2a trial**

Isaie J. Reuling on behalf of the PbVac consortium

Radboud University Medical Center, Nijmegen, Netherlands

**LB-5374**

**Targeting asymptomatic malaria: assessment of community-based active case detection in the Peruvian Amazon**

Diamantina Moreno-Gutierrez<sup>1</sup>, Jose Barbosa-Chichipe<sup>2</sup>, Juan Contreras-Mancilla<sup>2</sup>, Dionicia Gamboa<sup>3</sup>, Hugo Rodriguez<sup>4</sup>, Gabriel Carrasco<sup>2</sup>, Marie-Pierre Hayette<sup>5</sup>, Philippe Beutels<sup>6</sup>, Alejandro Llanos-Cuentas<sup>2</sup>, Niko Speybroeck<sup>7</sup>, Angel Rosas-Aguirre<sup>8</sup>

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**LB-5375**

**Performance evaluation of an ultra-sensitive rapid diagnostic test for malaria active case detection in the low transmission setting of Zambezi Region, Namibia**

**Brooke Whittemore**<sup>1</sup>, Lisa M. Prach<sup>2</sup>, Munyaradzi Tambo<sup>3</sup>, Leah Schrubbe<sup>2</sup>, Sofonias Tessema<sup>4</sup>, Smita Das<sup>5</sup>, Lindsey Wu<sup>6</sup>, Mi-Suk Kang Dufour<sup>7</sup>, Henry Ntuku<sup>2</sup>, Cara Smith-Gueye<sup>2</sup>, Allison Golden<sup>5</sup>, Ihn Kyung Jang<sup>5</sup>, Petrina Uusiku<sup>8</sup>, Stark Katokele<sup>8</sup>, Gonzalo J. Domingo<sup>5</sup>, Roly Gosling<sup>2</sup>, Bryan Greenhouse<sup>4</sup>, Davis Mumbengegwi<sup>3</sup>, Michelle S. Hsiang<sup>1</sup>

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**LB-5376**

**Evaluation of a point of care LAMP assay for the detection of *Plasmodium* from dried blood spots**

**Silvia M. Di Santi**<sup>1</sup>, Juliana Inoue<sup>1</sup>, Maria Lourdes Farinas<sup>1</sup>, Maria Jesus Costa-Nascimento<sup>2</sup>, Giselle Fernandes Lima<sup>1</sup>, Maria Carmen Sanchez<sup>1</sup>  
<sup>1</sup>São Paulo University, São Paulo, Brazil, <sup>2</sup>SUCEN, São Paulo, Brazil

**LB-5377**

**Using machine learning methods to identify correlates of protection in B and T cell responses in the RTS,S/AS01B malaria vaccine candidate**

Suresh Pallikkuth<sup>1</sup>, Pinyi Lu<sup>2</sup>, Savita Pahwa<sup>1</sup>, Erik Jongert<sup>3</sup>, Ulrike Wille-Reece<sup>4</sup>, **Sidhartha Chaudhury**<sup>2</sup>  
<sup>1</sup>University of Miami, Miami, FL, United States, <sup>2</sup>BHSAI, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD, United States, <sup>3</sup>GSK Vaccine, Rixensart, Belgium, <sup>4</sup>PATH Malaria Vaccine Initiative, Washington, DC, United States

**LB-5378**

**Concurrent infection with dengue and *Leptospira interrogans* after massive flooding in Bangkok**

**Thundon Ngamprasertchai**<sup>1</sup>, Krit Madsalae<sup>1</sup>, Pornsawan Leungwutiwong<sup>2</sup>, Janjira Thaipadungpanit<sup>3</sup>, Watcharapong Piyaphanee<sup>1</sup>  
<sup>1</sup>Department of Clinical Tropical Medicine, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand, <sup>2</sup>Department of Microbiology and Immunology, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand, <sup>3</sup>Mahidol-Oxford Tropical Medicine Research Unit, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand

**LB-5379**

**A Mathematical Model of the Transmission of Middle East Respiratory Syndrome Coronavirus in Dromedary Camels (*Camelus dromedarius*)**

**Amy Dighe**<sup>1</sup>, Thibaut Jombart<sup>1</sup>, Maria van Kerkhove<sup>2</sup>, Neil Ferguson<sup>1</sup>  
<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>WHO Health Emergencies Programme, Geneva, Switzerland

**LB-5380**

**Brazilian hyperendemic zoonosis successfully monitored by ELISA: an additional tool on breaking sporotrichosis transmission chain**

Vivian S. Baptista<sup>1</sup>, Thayana O. Santos<sup>2</sup>, Giulia M. Santos<sup>1</sup>, Emylli D. Virginio<sup>2</sup>, Larissa S. Mendonça<sup>1</sup>, Pâmella A. Macêdo-Sales<sup>1</sup>, Márcia R. Pinto<sup>1</sup>, Ricardo Luiz D. Machado<sup>1</sup>, Elisabeth M. Rocha<sup>1</sup>, Leila Maria Lopes-Bezerra<sup>2</sup>, **Andréa Regina S. Baptista**<sup>1</sup>  
<sup>1</sup>Federal Fluminense University, Niteroi, Brazil, <sup>2</sup>Rio de Janeiro State University, Rio de Janeiro, Brazil

**LB-5381**

**EEG and intracranial pressure deviations are biomarkers of acute viral encephalitis following Venezuelan Equine Encephalitis virus infection in cynomolgus macaques**

**Henry Ma**, Katherine J. O'Malley, Jeneveve D. Lundy, Jen Symmonds, William B. Klimstra, Amy L. Hartman, Douglas S. Reed  
University of Pittsburgh, Pittsburgh, PA, United States

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**LB-5382**

**Epidemiology of Rift valley and &gt; for Dengue fever viruses in Sub-Saharan Africa; Systematic Review**

**Yimam G. Misganie**

*Ethiopian Public Health Institute, Addis Ababa, Ethiopia*

**LB-5383**

**Development of a Pregnant Ovine ZIKV Infection Model**

**Erika R. Schwarz<sup>1</sup>**, Malgorzata A. Pozor<sup>1</sup>, Ruiyu Pu<sup>1</sup>, Kelli L. Barr<sup>2</sup>, Sarah Beachboard<sup>1</sup>, Dhani Prakoso<sup>1</sup>, Maureen T. Long<sup>1</sup>

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<sup>2</sup>*Baylor University, Waco, TX, United States*

**LB-5384**

**High burden of rotavirus gastroenteritis in early infancy in a Nicaraguan birth cohort, 2017-2018**

**Nadja A. Vielot<sup>1</sup>**, Filemon Bucardo<sup>2</sup>, Yahoska Reyes<sup>2</sup>, Fredman Gonzalez<sup>2</sup>, Margarita Paniagua<sup>2</sup>, Christian Toval<sup>2</sup>, Lester Gutierrez<sup>2</sup>, Natalie Bowman<sup>1</sup>, Samuel Vilchez<sup>2</sup>, Jan Vinje<sup>3</sup>, Sylvia Becker-Dreps<sup>1</sup>

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<sup>2</sup>*National Autonomous University of Nicaragua, Leon, Nicaragua,* <sup>3</sup>*Centers for Disease Control and Prevention, Atlanta, GA, United States*

**LB-5385**

**Dengue and Chikungunya Infection in Indonesia**

**Harapan Harapan<sup>1</sup>**, Suzi McCarthy<sup>1</sup>, Alice Michie<sup>1</sup>, Timo Ernst<sup>1</sup>, Muhsin Muhsin<sup>2</sup>, Safarianti Safarianti<sup>2</sup>, Tjuz M. Zanaria<sup>2</sup>, Sotianingsih Haryanto<sup>3</sup>, Mudatsir Mudatsir<sup>2</sup>, Roy Nusa<sup>4</sup>, Benediktus Yohan<sup>5</sup>, Pei-Yun Shu<sup>6</sup>, R. Tedjo Sasmono<sup>5</sup>, David Smith<sup>1</sup>, Allison Imrie<sup>1</sup>

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**LB-5386**

**Dengue Sero-prevalence in the Colombo District, Sri Lanka**

**M. B. Azhar Ghouse**, Hasitha A. Tissera  
*Epidemiology Unit, Ministry of Health, Sri Lanka*

**LB-5387**

**Zika infection among pregnant women in Mombasa, Coastal Kenya, 2017-2018; Preliminary results of a cohort study**

Irene Inwani<sup>1</sup>, Eric Osoro<sup>2</sup>, Cyrus Mugo<sup>1</sup>, Elizabeth Hunsperger<sup>3</sup>, Victor Omballa<sup>4</sup>, Dalton Wamalwa<sup>1</sup>, Jennifer Verani<sup>3</sup>, Ruth Nduati<sup>1</sup>, John Kinuthia<sup>5</sup>, Hafsa Jin<sup>6</sup>, Lydia Okutoyi<sup>7</sup>, Dufton Mwaengo<sup>8</sup>, Brian Maugo<sup>1</sup>, James Machoki<sup>8</sup>, Nancy Otieno<sup>9</sup>, Daniel Rhee<sup>10</sup>, Harriet Mirieri<sup>2</sup>, Mufida Shabibi<sup>11</sup>, Kariuki Njenga<sup>2</sup>, **Marc-Alain Widdowson<sup>3</sup>**

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### **LB-5388**

#### **Six-Year Safety of the Recombinant Live-Attenuated Chimeric-Yellow Fever-Dengue Virus Tetravalent Dengue Vaccine (CYD-TDV) in Phase III Efficacy Trials in Asia and Latin America**

Gabriel Carrasquilla<sup>1</sup>, Tran Ngoc Huu<sup>2</sup>, Jose Luis Arredondo<sup>3</sup>, Maria Rosario Capeding<sup>4</sup>, Doris Maribel Rivera<sup>5</sup>, Sri Rezeki Hadinegoro<sup>6</sup>, **Margarita Cortés**<sup>7</sup>, Carina Frago<sup>8</sup>, Diana Coronel<sup>9</sup>, Ana Paula Perroud<sup>10</sup>, Thelma Laot<sup>11</sup>, Leilani Sanchez<sup>11</sup>, Danaya Chansinghakul<sup>12</sup>, Betzana Zambrano<sup>13</sup>, Gustavo Dayan<sup>14</sup>, Sophie Pallardy<sup>15</sup>, Matthew Bonaparte<sup>14</sup>, Owen Haney<sup>14</sup>, Alain Bouckennooghe<sup>8</sup>, Fernando Noriega<sup>14</sup>, Carlos A. DiazGranados<sup>14</sup>  
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### **LB-5389**

#### **Developing and deploying CRISPR-based diagnostics for Lassa fever response in Nigeria and further application of this technology**

**Kayla G. Barnes**  
*Broad Institute of MIT and Harvard, Cambridge, MA, United States*

### **LB-5390**

#### **Evaluating the spatio-temporal heterogeneity of dengue in Colombo city, Sri Lanka**

**Nayantara Wijayanandana**<sup>1</sup>, Jorge Cano<sup>1</sup>, Ruwan Wijayamuni<sup>2</sup>, Hasitha Tissera<sup>3</sup>, Neal Alexander<sup>1</sup>  
<sup>1</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>2</sup>Colombo Municipal Council, Colombo, Sri Lanka, <sup>3</sup>Ministry of Health, Colombo, Sri Lanka

### **LB-5391**

#### **Histo-blood group antigens are innate factors associated with resistance to rotavirus and norovirus infections**

**Filemon Bucardo**<sup>1</sup>, Fredman González<sup>1</sup>, Yaoska Reyes<sup>1</sup>, Omar Zepeda<sup>1</sup>, Christian Toval<sup>1</sup>, Nadja Vielot<sup>2</sup>, Jan Vinje<sup>3</sup>, Lennart Svensson<sup>4</sup>, Johan Nordgren<sup>4</sup>, Sylvia Becker-Dreps<sup>2</sup>  
<sup>1</sup>National Autonomous University of Leon, Nicaragua., Leon, Nicaragua, <sup>2</sup>Family Medicine, University of North Carolina, Chapel Hill, NC, United States, <sup>3</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>4</sup>Department of Clinical and Experimental Medicine, Linköping University, Linköping, Sweden

### **LB-5392**

#### **Clinical Manifestations of Nipah virus infected patients presenting to the Emergency Department**

**CHANDNI RADHAKRISHNAN**<sup>1</sup>, Renjith T P<sup>1</sup>, Arshad Fazal<sup>1</sup>, Rajendran V R<sup>1</sup>, Thulaseedharan N K<sup>1</sup>, Sugunan A P<sup>2</sup>, Arunkumar G<sup>3</sup>, Mourya D T<sup>4</sup>  
<sup>1</sup>Government Medical College, Kozhikode, Kerala, India, <sup>2</sup>National Institute of Epidemiology, Chennai, India, <sup>3</sup>Manipal Centre for Virus Research, Manipal, India, <sup>4</sup>National Institute of Virology, Pune, India

### **LB-5393**

#### **Severity Index for Suspected Arbovirus (SISA): Machine Learning for Accurate Prediction of Hospitalization in Patients Suspected of Arboviral Infection from a Prospective Surveillance Study in Machala, Ecuador**

**Daniel F. Farrell**<sup>1</sup>, Rachel Sippy<sup>1</sup>, Ryan Nightingale<sup>1</sup>, Daniel Lichtenstein<sup>1</sup>, Megan Harris<sup>1</sup>, Joseph Toth<sup>1</sup>, Paris Hantzidiamantis<sup>1</sup>, Cinthya K. Cueva Aponte<sup>2</sup>, Nicholas T. Usher<sup>3</sup>, Anthony Puthumana<sup>4</sup>, Julio H. Barzallo Aguilera<sup>5</sup>, Anna M. Stewart-Ibarra<sup>1</sup>  
<sup>1</sup>SUNY Upstate Medical University, Syracuse, NY, United States, <sup>2</sup>Upstate Institute for Global Health and Translational Science, Machala, Ecuador, <sup>3</sup>Cornell University, Ithaca, NY, United States, <sup>4</sup>Baylor College of Medicine, Houston, TX, United States, <sup>5</sup>Hospital Teofilo Davila, Machala, Ecuador

**Poster Session B**  
**Late Breakers in Clinical and Applied Sciences**  
*Tuesday, October 30, Noon - 1:45 p.m.*

**LB-5394**

**Development of a point-of-care diagnostic test for Heartland virus using Isothermal Recombinase Polymerase Amplification-Lateral Flow**

**Thomas R. Shelite**, Nathen E. Bopp, Erin S. Reynolds, Saravanan Thangamani, Patricia V. Aguilari, Peter C. Melby, Bruno L. Travi  
*University of Texas Medical Branch, Galveston, TX, Galveston, TX, United States*

**LB-5395**

**Rapid deployment of an Illumina iSeq100 for accurate whole viral genome sequencing during an Ebola virus disease outbreak**

**Catherine B. Pratt**<sup>1</sup>, Placide Mbala<sup>2</sup>, Michael Wiley<sup>1</sup>, Amuri Aziza<sup>2</sup>, Stomy Karhemere<sup>2</sup>, Steve Gross<sup>3</sup>, Gary Schroth<sup>3</sup>, Jean-Jacques Muyembe<sup>2</sup>, Gustavo Palacios<sup>1</sup>, Steve Ahuka-Mundeke<sup>2</sup>  
*<sup>1</sup>US Amry Medical Research Institute of Infectious Diseases, Frederick, MD, United States, <sup>2</sup>Institut National de Recherche Biomédicale, Kinshasa, Democratic Republic of the Congo, <sup>3</sup>Illumina, San Diego, CA, United States*



**Poster Session 133**

**Poster Session C**

**Late Breakers in Basic Sciences**

Wednesday, October 31, Noon - 1:45 p.m.

Marriott - Grand Ballroom (3rd Floor)

Arthropods/Entomology .....	#LB-5403 through LB-5416
Bacteriology and Diarrhea .....	#LB-5417 through LB-5425
Kinetoplastida .....	#LB-5426 through LB-5430
Malaria .....	#LB-5431 through LB-5461
Viruses .....	#LB-5462 through LB-5470
Water, Sanitation, Hygiene and Environmental Health .....	#LB-5471 through LB-5474

**LB-5403**

**New Prototype Screened Doors and Windows for Excluding Mosquitoes from Houses: a Pilot Study in Rural Gambia**

**Steven Lindsay**<sup>1</sup>, Musa Jawara<sup>2</sup>, Ebrima Jatta<sup>1</sup>, David Bell<sup>3</sup>, Thomas Burkot<sup>4</sup>, John Bradley<sup>5</sup>, Victoria Hunt<sup>3</sup>, Balla Kandeh<sup>6</sup>, Caroline Jones<sup>7</sup>, Aji M. Manjang<sup>2</sup>, Margaret Pinder<sup>1</sup>, Shannon Stone<sup>3</sup>, Umberto D'Alessandro<sup>2</sup>, Jakob Knudsen<sup>8</sup>

<sup>1</sup>Durham University, Durham City, United Kingdom, <sup>2</sup>MRC Unit The Gambia at LSHTM, Fajara, Gambia, <sup>3</sup>Intellectual Ventures, Global Good Fund, Bellevue, WA, United States, <sup>4</sup>Australian Institute of Tropical Health & Medicine, Cairns, Australia, <sup>5</sup>LSHTM, London, United Kingdom, <sup>6</sup>NMCP, Banjul, Gambia, <sup>7</sup>KEMRI-Wellcome Trust Research Programme, Kilifi, Kenya, <sup>8</sup>KADK, Copenhagen, Denmark

**LB-5404**

**Chemosensory Receptors in the Asian Tiger Mosquito, *Aedes albopictus* (Skuse)**

**Jason Pitts**, Garrett Ray, Anjali Ravee, Shan Ju Shih, Elizabeth M. Dewey  
Baylor University, Waco, TX, United States

**LB-5405**

**Effects of Colonization on the *Aedes aegypti* Microbiome and Vector Competence**

**Christopher M. Roundy**<sup>1</sup>, Kamil Khanipov<sup>1</sup>, Yuiry Fofanov<sup>1</sup>, Grant Hughes<sup>2</sup>, Scott C. Weaver<sup>1</sup>  
<sup>1</sup>University of Texas Medical Branch, Galveston, TX, United States, <sup>2</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom

**LB-5406**

**The steroid hormone 20-hydroxyecdysone (20E) transcriptionally regulates the midgut of *Anopheles gambiae* to promote bacterial expansion**

**Sarah Sneed**, Michael Povelones  
University of Pennsylvania, Philadelphia, PA, United States

**LB-5407**

**Impact of *Wolbachia* on the Composition and Diversity of Bacterial Microbiota in *Aedes albopictus***

**Xiaoming Wang**<sup>1</sup>, Daibin Zhong<sup>1</sup>, Tong Liu<sup>2</sup>, Guofa Zhou<sup>1</sup>, Dongjing Zhang<sup>3</sup>, Zhiyong Xi<sup>4</sup>, Xiao-Guang Chen<sup>2</sup>, Guiyun Yan<sup>1</sup>

<sup>1</sup>University of California, Irvine, Irvine, CA, United States, <sup>2</sup>Southern Medical University, Guangzhou, China, <sup>3</sup>Sun Yat-Sen University, Guangzhou, China, <sup>4</sup>Michigan State University, East Lansing, MI, United States

**LB-5408**

**Generating mosquitocidal antibodies in rabbits immunized with neuronal antigens from *Anopheles gambiae***

**Taylor C. Clarkson**, Jasmine Donkoh, Jacob I. Meyers, John Fosters, Tereza Magalhaes, Lyndsey Gray, Brian D. Foy  
Colorado State University, Fort Collins, CO, United States

**Poster Session C**

**Late Breakers in Basic Sciences**

*Wednesday, October 31, Noon - 1:45 p.m.*

**LB-5409**

**Chemical depletion of phagocytic immune cells in *Aedes aegypti* to functionally characterize the contributions of mosquito hemocytes in arbovirus infection**

**Jyothsna Ramesh Kumar**, Ryan C. Smith  
*Iowa State University, Ames, IA, United States*

**LB-5410**

**Enhanced *Aedes* mosquito surveillance using ovitraps in rural and urban communities, Coatepeque, Guatemala 2017-2018**

Silvia M. Sosa<sup>1</sup>, Carolina Romero<sup>1</sup>, Lucía Ortiz<sup>1</sup>, Audrey Lenhart<sup>2</sup>, **Celia M. Cordón-Rosaes**<sup>1</sup>  
<sup>1</sup>*Universidad del Valle de Guatemala, Guatemala, Guatemala*, <sup>2</sup>*Centers for Disease Control and Prevention, Atlanta, GA, United States*

**LB-5411**

**Characterization of the interaction between *Plasmodium falciparum* Pfs47 with its receptor in Anopheline vectors**

**Alvaro Molina-Cruz**, Gaspar Canepa, Adeline Williams, Simardeep Nagyal, Thiago Alves, Eric Calvo, Carolina Barillas-Mury  
*NIH, Rockville, MD, United States*

**LB-5412**

**Free flight acoustic behavior of *Anopheles gambiae* swarms**

**Kevin Pritts**<sup>1</sup>, Laura C. HARRINGTON<sup>2</sup>, Garrett League<sup>1</sup>  
<sup>1</sup>*Cornell University, Ithaca, NY, United States*, <sup>2</sup>*Cornell University, ITHACA, NY, United States*

**LB-5413**

**Assessing mosquito vertebrate interaction networks from host availability and blood source analysis in a fragmented forest in Colombia**

**Maully J. Hoyos**<sup>1</sup>, Cielo León<sup>1</sup>, Nick Kormar<sup>2</sup>, Stephanie Slayer<sup>3</sup>, Joel Montgomery<sup>3</sup>, Camila González<sup>1</sup>  
<sup>1</sup>*Universidad de los Andes, BOGOTA, Colombia*, <sup>2</sup>*Division of Vector-Borne Diseases, National Center for Emerging and Zoonotic Infectious Diseases, CDC, Fort Collins, CO, United States*, <sup>3</sup>*Division of Global Health Protection, Center for Global Health, CDC, Atlanta, GA, United States*

**LB-5414**

**Mosquito Sampling and Arbovirus Surveillance in Oklahoma**

**Randall Welles**, Helen Arango, Nicholas Back, Caio Martinelle Franca  
*Southern Nazarene University, Bethany, OK, United States*

**LB-5415**

**Citizen Science Reveals Novel Areas of Lonestar Tick Exposure in the United States Indicating Potentially New Sources of Tick-borne Infections**

**Julie Wachara**<sup>1</sup>, W. Tanner Porter<sup>1</sup>, Peter J. Motyka<sup>1</sup>, Thomas J. Lowrey<sup>1</sup>, Daniel J. Salkeld<sup>2</sup>, Nathan C. Nieto<sup>1</sup>  
<sup>1</sup>*Northern Arizona University, Flagstaff, AZ, United States*, <sup>2</sup>*Colorado State University, Fort Collins, CO, United States*

**LB-5416**

**Testing Real-Time Arboviral-Surveillance Using a Portable Lab and in-field sequencing in Darien, Panama**

**Caio Martinelle B. Franca**<sup>1</sup>, Jose Loiza<sup>2</sup>, Jose Rovira<sup>3</sup>, Matthew Miller<sup>4</sup>  
<sup>1</sup>*Southern Nazarene University, Bethany, OK, United States*, <sup>2</sup>*Instituto de Investigaciones Científicas y Servicios de Alta Tecnología, Ciudad de Panamá, Panama*, <sup>3</sup>*Instituto de Investigaciones Científicas y Servicios de Alta Tecnología, Ciudad de Panamá, Panama*, <sup>4</sup>*Sam Noble Oklahoma Museum of Natural History and Department of Biology, University of Oklahoma, Norman, OK, United States*

**LB-5417**

**Diarrhoea caused by enterotoxigenic *Escherichia coli* induces T-cell responses in the circulation**

**Md Taufiqur R. Bhuiyan**  
*International Centre for Diarrhoeal Disease, Bangladesh, Dhaka, Bangladesh*

**LB-5418**

**Locally produced oral cholera vaccines produced by technology transfer in Bangladesh: Phase I/II trials**

**Fahima Chowdhury**, Afroza Akhter, Taufiqur Rahman Bhuiyan, Firdausi Qadri  
*icddr,b, Dhaka, Bangladesh*

**Poster Session C**  
**Late Breakers in Basic Sciences**  
Wednesday, October 31, Noon - 1:45 p.m.

### LB-5419

**The loss of vector competency and transmission of the relapsing fever spirochete, *Borrelia turicatae*, in association with in vitro cultivation: implications for mutagenesis studies**

**APARNA KRISHNAVAJHALA**

*Baylor College of Medicine, Houston, TX, United States*

### LB-5420

**Vaccination strategies for control of endemic cholera in Bangladesh and lessons learnt to facilitate the largest preemptive use of oral cholera vaccine in a humanitarian crisis in Cox's Bazar between 2017-18**

**Firdausi Qadri**

*International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh*

### LB-5421

**Serum antibody profiling among travelers' with shigella-associated acute watery diarrhea and dysentery**

**Mark S. Riddle<sup>1</sup>**, Krista Trappi-Kimmons<sup>2</sup>, Jamie Frasier<sup>3</sup>, Arlo Randall<sup>2</sup>, Patrick Connor<sup>4</sup>, David R. Tribble<sup>1</sup>

<sup>1</sup>*Uniformed Services University, Bethesda, MD, United States*, <sup>2</sup>*Antigen Discovery, Inc. (ADi), Irvine, CA, United States*, <sup>3</sup>*Henry M. Jackson Foundation, Rockville, MD, United States*, <sup>4</sup>*Academic Department of Military Medicine, Royal Centre for Defence Medicine, Birmingham, United Kingdom*

### LB-5422

**Reversible paratransgenesis**

**Wei Huang**, Marcelo Jacobs-Lorena

*Johns Hopkins University, Baltimore, MD, United States*

### LB-5423

**Culture-Independent Detection and Identification of Pathogenic *Leptospira* Serovars**

**Aristea A. Lubar<sup>1</sup>**, Kira L. Chaiboonma<sup>1</sup>, Nicholas N. Pilau<sup>2</sup>, Alan S. Marroquin<sup>1</sup>, Joseph M. Vinetz<sup>3</sup>, Michael A. Matthias<sup>1</sup>

<sup>1</sup>*University of California San Diego, La Jolla, CA, United States*, <sup>2</sup>*Usman Danfodiyo University, Sokoto,*

*Nigeria*, <sup>3</sup>*Yale University, New Haven, CT, United States*

### LB-5424

**Incidence of Enteric Fever in Bangladesh, Nepal, and Pakistan: Results of the Surveillance for Enteric Fever in Asia Project**

**Caitlin Barkume<sup>1</sup>**, Jason R. Andrews<sup>2</sup>, Denise Garrett<sup>1</sup>, Samir Saha<sup>3</sup>, Farah Qamar<sup>4</sup>, Ashley Tate<sup>5</sup>, Kashmira Date<sup>5</sup>, Stephen P. Luby<sup>2</sup>

<sup>1</sup>*Sabin Vaccine Institute, Washington, DC, United States*, <sup>2</sup>*Division of Infectious Diseases and Geographic Medicine, Stanford University, Stanford, CA, United States*, <sup>3</sup>*Department of Microbiology, Dhaka Shishu Hospital, Dhaka, Bangladesh*, <sup>4</sup>*Department of Pediatrics and Child Health, Aga Khan University, Karachi, Pakistan*, <sup>5</sup>*Global Immunization Division, Centers for Disease Control and Prevention, Atlanta, GA, United States*

### LB-5425

**Comparison of cost of illness of extensively drug-resistant (XDR) vs. non-XDR typhoid fever in Pakistan: policy implications for typhoid vaccine**

**Tahir Yousafzai<sup>1</sup>**, Ashar Malik<sup>2</sup>, Hina Mirza<sup>2</sup>, Caitlin Barkume<sup>3</sup>, Denise Garrett<sup>3</sup>, Ashley Tate<sup>4</sup>, Sarah Pallas<sup>4</sup>, Nelly Mejia<sup>4</sup>, Taiwo Abimbola<sup>4</sup>, Kashmira Date<sup>4</sup>, Farah Qamar<sup>1</sup>

<sup>1</sup>*Department of Paediatrics and Child Health, Aga Khan University, Karachi, Pakistan*, <sup>2</sup>*Aga Khan University, Karachi, Pakistan*, <sup>3</sup>*Sabin Vaccine Institute, Washington, DC, United States*, <sup>4</sup>*Centers for Disease Control and Prevention, Atlanta, GA, United States*

### LB-5426

**VALIDATION OF IMMUNOENZYMATIC ASSAY (ELISA) USING RECOMBINANT ANTIGENS FOR SEROLOGICAL DIAGNOSIS OF CANINE VISCERAL LEISHMANIASIS (CVL)**

**Mahyumi Fujimori<sup>1</sup>**, Maria Carmen Arroyo Sanchez<sup>1</sup>, José Eduardo Tolezano<sup>2</sup>, Roberto Mitsuyoshi Hiramoto<sup>2</sup>, Bruna Cristine Rodrigues<sup>2</sup>, Valéria Régia Franco Sousa<sup>3</sup>, Arleana do Bom Parto Ferreira de Almeida<sup>3</sup>, Nazaré Fonseca Souza<sup>4</sup>, Flaviane Alves de Pinho<sup>5</sup>, Steven G. Reed<sup>6</sup>, Malcolm Scott Duthie<sup>6</sup>, Hiro Goto<sup>1</sup>

<sup>1</sup>*Institute of Tropical Medicine, University of São Paulo, São Paulo, Brazil*, <sup>2</sup>*Adolfo Lutz Institute, São Paulo, Brazil*, <sup>3</sup>*Federal University of Mato Grosso, Cuiabá, Brazil*, <sup>4</sup>*Federal Rural University of Amazônia, Belém, Brazil*, <sup>5</sup>*Federal University of Bahia, Bahia, Brazil*, <sup>6</sup>*Infectious Disease Research Institute, Seattle, WA, United States*

**Poster Session C**

**Late Breakers in Basic Sciences**

*Wednesday, October 31, Noon - 1:45 p.m.*

**LB-5427**

**A Systematic Review of Virulence Factors in the *Leishmania* Genus**

**Avinash Mukkala**<sup>1</sup>, Ruwandi Kariyawasam<sup>1</sup>, Eric Shao<sup>2</sup>, Priyanka Challa<sup>1</sup>, Michael Klowak<sup>3</sup>, Tianna Chong-Kit<sup>4</sup>, Osaru Omoruna<sup>5</sup>, Malia Omale<sup>1</sup>, Olamide Egbewumi<sup>3</sup>, Shareese Clarke<sup>6</sup>, Dylan Kain<sup>1</sup>, Andrea K. Bogild<sup>1</sup>

<sup>1</sup>University of Toronto, Toronto, ON, Canada,

<sup>2</sup>Western University, London, ON, Canada, <sup>3</sup>McMaster University, Hamilton, ON, Canada, <sup>4</sup>University of Waterloo, Waterloo, ON, Canada, <sup>5</sup>Queen's University, Kingston, ON, Canada, <sup>6</sup>University of Ontario Institute of Technology, Oshawa, ON, Canada

**LB-5428**

**Benznidazole treatment has no effect on levels of pro-fibrotic TGF- $\beta$  or cardiac fibrosis in a mouse model of chronic Chagas cardiomyopathy**

**Kristyn A. Hoffman**, Maria E. Bottazzi, Peter J. Hotez, Kathryn M. Jones  
Baylor College of Medicine, Houston, TX, United States

**LB-5429**

**High prevalence and genotype diversity of *Trypanosoma cruzi* from small mammals in Central Mississippi**

**Sam Jameson**<sup>1</sup>, Claudia P. Herrera<sup>2</sup>, Michael Nowicki<sup>1</sup>, Leandro Mena<sup>1</sup>  
<sup>1</sup>University of Mississippi Medical Center, Jackson, MS, United States, <sup>2</sup>Tulane University, New Orleans, LA, United States

**LB-5430**

**IgG subclasses and Heart Failure stages in *Trypanosoma cruzi* infection**

**Paula P. Carballo Jimenez**<sup>1</sup>, Cristian Roca<sup>1</sup>, Freddy Tinajeros<sup>1</sup>, Edith Málaga<sup>2</sup>, Manuela Verastegui<sup>2</sup>, Margoth Ramírez<sup>1</sup>, Eliana Saenza<sup>1</sup>, Gustavo Duran Saucedo<sup>1</sup>, Robert H. Gilman<sup>3</sup>  
<sup>1</sup>Asociación Benéfica PRISMA, Santa Cruz de la Sierra, Plurinational State of Bolivia, <sup>2</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>3</sup>Johns Hopkins School of Public Health, Baltimore, MD, United States

**LB-5431**

**Determining the transmission threshold of *Plasmodium vivax* at low parasite density**

**Thitiporn Surit**

Department of Clinical Tropical Medicine, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand

**LB-5432**

**Assessing malaria data quality in Mali using WHO routine data quality review tool**

**Diadier Diallo**, Ramine Bahrambegi  
MEASURE Evaluation, Chapel Hill, VA, United States

**LB-5433**

**School-based Continuous Distribution of ITNs Pilot in Guinea Show Immediate Increase in Use and Access**

**Bolanle Olapeju**<sup>1</sup>, Sara Berthe<sup>1</sup>, Sean Blaufuss<sup>1</sup>, Ibrahima Sanoa<sup>2</sup>, Alphonse Sakouvogui<sup>3</sup>, Hannah Koenker<sup>1</sup>

<sup>1</sup>Johns Hopkins Center for Communication Programs, Baltimore, MD, United States, <sup>2</sup>Programme National de Lutte contre le Paludisme, Conakry, Guinea, <sup>3</sup>Cabinet d'Etudes, de Recherches et de Conseils, Conakry, Guinea

**LB-5434**

***Plasmodium falciparum* 6-cysteine domain structure derived from a transmission blocking vaccine candidate Pfs230 in complex with a transmission blocking antibody**

Kavita Singh<sup>1</sup>, Martin Burkhardt<sup>1</sup>, Nicholas J. MacDonald<sup>1</sup>, Raul Herrera<sup>1</sup>, Apostolos Gittis<sup>1</sup>, Olga Muratova<sup>1</sup>, Emily Kelnhofer<sup>1</sup>, Karine Reiter<sup>1</sup>, Sofia Nakuchima<sup>1</sup>, Goashan Zhang<sup>2</sup>, Patrick E. Duffy<sup>1</sup>, David N. Garboczi<sup>1</sup>, **David L. Narum**<sup>1</sup>  
<sup>1</sup>National Institutes of Health, Rockville, MD, United States, <sup>2</sup>National Institutes of Health, Bethesda, MD, United States

**LB-5435**

**Immune responses detected in peripheral blood do not reflect those in the liver following vaccination with *Plasmodium falciparum* circumsporozoite protein nanoparticle**

**Stasya Zarling**<sup>1</sup>, Abby London<sup>1</sup>, Stephen Kaba<sup>1</sup>, Sidartha Chaudhury<sup>2</sup>, David Lanar<sup>1</sup>, Urszula Krzych<sup>1</sup>  
<sup>1</sup>Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>2</sup>Biotechnology High Performance Computing Software Applications Institute, Fort Detrick, MD, United States

**Poster Session C**  
**Late Breakers in Basic Sciences**

Wednesday, October 31, Noon - 1:45 p.m.

**LB-5436**

**Design and epitope optimization of a novel Circumsporozoite protein based malaria vaccine using the Tobacco Mosaic Virus (TMV) Virus-like particle**

Mark D. Langowski, Farhat Khan, Alexis Bitzer, Kimberly Soto, Adrian Batchelor, **Sheetij Dutta**  
*Walter Reed Army Institute of Research, Silver Spring, MD, United States*

**LB-5437**

**A Preclinical Mouse Model of Human Plasmodium Infection for Interrogation of Antimalarial Drugs**

**Kristina S. Wickham**<sup>1</sup>, Siobhan Flaherty<sup>2</sup>, Sara Viera-Morilla<sup>3</sup>, Maria José Lafuente-Monasterio<sup>3</sup>, Gregory A. Reichard<sup>1</sup>, Rosemary Rochford<sup>2</sup>  
<sup>1</sup>Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>2</sup>University of Colorado Denver, Denver, CO, United States, <sup>3</sup>GlaxoSmithKline, Tres Cantos, Madrid, Spain

**LB-5438**

**Mode of action of Primaquine -Quinoxaline 1,4-di-N-oxide hybrids against Plasmodium: evidence for role of stress oxidative**

**Leonardo Bonilla Ramirez**<sup>1</sup>, Silvia Galiano<sup>2</sup>, Miguel Quiliano<sup>2</sup>, Ignacio Aldana<sup>2</sup>, Adriana Pabón<sup>1</sup>  
<sup>1</sup>Grupo Malaria, Universidad de Antioquia (UdeA), Sede de Investigación Universitaria (SIU), Medellín, Colombia, <sup>2</sup>Universidad de Navarra, Institute of Tropical Health (ISTUN), Facultad de Farmacia y Nutrición, Department of Organic and Pharmaceutical Chemistry, Campus Universitario., Pamplona, Spain

**LB-5439**

**Sub-lethal effect of transfluthrin repellent sandals to indoor feeding and indoor resting mosquitoes**

**Emmanuel E. Hape**, Doreen J. Siria, Tegemeo Gavana, Khamis S. Kifungo, Merceline F. Finda, Winfrida P. Mponzi, Halfan S. Ngowo, Fredros O. Okumu  
*Ifakara Health Institute, Morogoro, United Republic of Tanzania*

**LB-5440**

**Where and when do mosquito vectors of malaria meet agricultural insecticides**

**Chantal M.J. Hendriks**<sup>1</sup>, Anna Trett<sup>2</sup>, Penny Hancock<sup>1</sup>, Peter Gething<sup>1</sup>, Catherine Moyes<sup>1</sup>  
<sup>1</sup>University of Oxford, Oxford, United Kingdom, <sup>2</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom

**LB-5441**

**From gametocytes to sporozoites to liver stage schizonts to gametocytes without mosquitoes: Fully infectious in vitro-produced Plasmodium falciparum sporozoites**

**Abraham G. Eappen**<sup>1</sup>, Ryan Shepherd<sup>1</sup>, Tao Li<sup>1</sup>, Hashani Hettiarachchi<sup>1</sup>, Christiane Urgena<sup>1</sup>, Benjamin U. Hoffman<sup>2</sup>, Sumana Chakravarty<sup>1</sup>, Eileen F. Villasante<sup>3</sup>, Peter F. Billingsley<sup>1</sup>, B. Kim Lee Sim<sup>1</sup>, Stephen L. Hoffman<sup>1</sup>  
<sup>1</sup>Sanaria Inc., Rockville, MD, United States, <sup>2</sup>Columbia University Irving Medical Center, 630 West 168th Street, New York, NY, United States, <sup>3</sup>Infectious Diseases Directorate, Malaria Department, Naval Medical Research Center, 503 Robert Grant Ave, Silver Spring, MD, United States

**LB-5442**

**Assessing the role of Plasmodium falciparum chondroitin sulfate A ligand, PfCSAL, in placental malaria pathogenesis**

**Bethany Jenkins**, Patricia Gonzales Hurtado, Robert Morrison, Jillian Neal, Sachy Orr-Gonzalez, Tarik Ouahes, Lynn Lambert, Michal Fried, Patrick Duffy  
*NIAID/NIH, Rockville, MD, United States*

**LB-5443**

**A game changer in malaria vector control training: The serious game as an innovative tool for training vector control staff**

**Claire Dormann**<sup>1</sup>, Kirsten A. Duda<sup>1</sup>, Edward K. Thomsen<sup>1</sup>, Marlize Coleman<sup>2</sup>, Charlotte Hemingway<sup>1</sup>, Alison Reynolds<sup>1</sup>, Julie-Anne Tangena<sup>1</sup>, Andy South<sup>1</sup>, Busiku Hamainza<sup>3</sup>, Delenasaw Yewhalaw<sup>4</sup>, Michael Coleman<sup>1</sup>  
<sup>1</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>2</sup>IVCC, Liverpool, United Kingdom, <sup>3</sup>National Malaria Elimination Centre, Zambia MoH, Lusaka, Zambia, <sup>4</sup>Jimma University, Jimma, Ethiopia

**LB-5444**

**Optimal estimation of complex networks of multigene repertoire overlaps from sequence data**

**Daniel B. Larremore**  
*University of Colorado Boulder, Boulder, CO, United States*

**Poster Session C**

**Late Breakers in Basic Sciences**

Wednesday, October 31, Noon - 1:45 p.m.

**LB-5445**

**Cytolytic CD8 T cells with a single peptide specificity of *Plasmodium berghei* liver stage antigen mediate protective immunity**

**Alexander Pichugin**<sup>1</sup>, Stasya Zarlign<sup>1</sup>, Leah Perazzo<sup>1</sup>, Patrick E. Duffy<sup>2</sup>, Urszula Krzych<sup>1</sup>  
<sup>1</sup>WRAIR, Silver Spring, MD, United States, <sup>2</sup>NIAID, Rockville, MD, United States

**LB-5446**

**Progress in the Control of Malaria in Guinea: Analysis of Health Facility Data from the USAID Guinea StopPalu project, 2014-2017**

**Donal Bisanzio**<sup>1</sup>, Aissata Fofana<sup>2</sup>, Timothée Guilavogui<sup>3</sup>, Mamadou Aliou Baldé<sup>2</sup>, Jean-Luc Taton<sup>2</sup>, Patrick Condo<sup>4</sup>, Richard Reithinger<sup>1</sup>  
<sup>1</sup>RTI International, Washington, DC, United States, <sup>2</sup>RTI International, Conakry, Guinea, <sup>3</sup>National Malaria Control Program, Ministry of Health, Conakry, Guinea, <sup>4</sup>President's Malaria Initiative, US Agency for International Development, Conakry, Guinea

**LB-5447**

**C-terminus fragments of PfVAR2CSA induce functional antibodies that block the binding of Malian field isolates to CSA**

**Holly M. Torano**<sup>1</sup>, M. Gordon Joyce<sup>1</sup>, Shaji Daniel<sup>1</sup>, Almahamoudou Mahamar<sup>2</sup>, Oumar Attaher<sup>2</sup>, Bacary S. Diarra<sup>2</sup>, Moussa Traore<sup>2</sup>, Alassane Dicko<sup>2</sup>, Jonathan Renn<sup>1</sup>, Justin Doritchamou<sup>1</sup>, Bruce Swihart<sup>1</sup>, Matthew Cowles<sup>1</sup>, Maryonne Snow-Smith<sup>1</sup>, Lynn Lambert<sup>1</sup>, Robert Morrison<sup>1</sup>, Michal Fried<sup>1</sup>, Patrick E. Duffy<sup>1</sup>  
<sup>1</sup>National Institutes of Health, Rockville, MD, United States, <sup>2</sup>Mali Research Training Center, Bamako, Mali

**LB-5448**

**Immunogenicity and antigenicity of the full-length *P. vivax* rPvs4845 protein produced in both *E. coli* and mammalian CHO cell lines and cross-reactivity of sera from African malaria individuals**

**Nora Cespedes**<sup>1</sup>, Imen Ayadi<sup>2</sup>, Carlos A. Echeverry<sup>1</sup>, Angela Valencia<sup>1</sup>, Issa Nebie<sup>3</sup>, Saidou Balam<sup>2</sup>, Socrates Herrera<sup>4</sup>, Giampietro Corradin<sup>2</sup>, Myriam Arévalo-Herrera<sup>1</sup>  
<sup>1</sup>Malaria Vaccine and Drug Development Center (MVDC), Cali, Colombia, <sup>2</sup>Department of Biochemistry, University of Lausanne, Lausanne, Switzerland, <sup>3</sup>Centre National de Recherche et de

Formation sur le Paludisme, Ouagadougou, Burkina Faso, <sup>4</sup>Caucaseco Scientific Research Center, Cali, Colombia

**LB-5449**

**Vd2 cell effector responses are altered in neonates born to women with placental malaria**

**Haoting Hsu**<sup>1</sup>, Sarah Boudova<sup>2</sup>, Godfrey Mvula<sup>3</sup>, Titus Divala<sup>3</sup>, Randy Mungwira<sup>3</sup>, Christopher Harman<sup>4</sup>, Miriam Laufer<sup>2</sup>, Cristiana Cairo<sup>1</sup>  
<sup>1</sup>Institute of Human Virology, University of Maryland School of Medicine, Baltimore, MD, United States, <sup>2</sup>Center for Vaccine Development and Global Health, University of Maryland School of Medicine, Baltimore, MD, United States, <sup>3</sup>Blantyre Malaria Project, University of Malawi College of Medicine, Blantyre, Malawi, <sup>4</sup>Obstetrics, Gynecology and Reproductive Health, University of Maryland School of Medicine, Baltimore, MD, United States

**LB-5450**

**In vivo *P. falciparum* sexual differentiation is associated with *ap2-g*-dependent and -independent gene expression and inversely correlated with parasitemia and host temperature**

**Surendra K. Prajapati**<sup>1</sup>, Ruth Ayanful-Torgby<sup>2</sup>, Fetsus K. Acquah<sup>2</sup>, Elizabeth Cudjoe<sup>2</sup>, Courage Kakaney<sup>2</sup>, Jones A. Amponsah<sup>2</sup>, Evans Obboh<sup>2</sup>, Benjamin K. Abuaku<sup>2</sup>, Linda Amoah<sup>2</sup>, Kim C. Williamson<sup>1</sup>  
<sup>1</sup>Uniformed Services University of the Health Sciences, Bethesda, MD, United States, <sup>2</sup>Noguchi Memorial Institute for Medical Research (NMIMR), University of Ghana, Accra, Ghana

**LB-5451**

**Malaria National Program of Cambodia's experiences on mHealth for Malaria Elimination**

**Pengby Ngor**  
CNM and MoRU, Phnom Penh, Cambodia

**LB-5452**

**Gibberellins and *Plasmodium falciparum*: targeting dormancy mechanisms with phytohormones**

**Alona Botnar**<sup>1</sup>, Chungsik Kim<sup>2</sup>, Roman Manetsch<sup>2</sup>, Dennis E. Kyle<sup>1</sup>  
<sup>1</sup>University of Georgia, Athens, GA, United States, <sup>2</sup>Northeastern University, Boston, MA, United States

**Poster Session C**

**Late Breakers in Basic Sciences**

*Wednesday, October 31, Noon - 1:45 p.m.*

**LB-5453**

**Individualized transcriptional resolution of complicated malaria in a Colombian study**

**Myriam Arevalo-Herrera**<sup>1</sup>, Mónica Mónica Rojas-Peña<sup>2</sup>, Meixue Duan<sup>3</sup>, Dalia Arafat<sup>2</sup>, Lina Rengifo<sup>1</sup>, Sócrates Herrera<sup>4</sup>, Greg Gibson<sup>2</sup>

<sup>1</sup>*Malaria Vaccine and Drug Development Center, Cali, Colombia*, <sup>2</sup>*Center for Integrative Genomics, Georgia Institute of Technology, Atlanta, GA, United States*, <sup>3</sup>*1 Center for Integrative Genomics, Georgia Institute of Technology, Atlanta, GA, United States*, <sup>4</sup>*Caucaseco Scientific Research Center, Cali, Colombia*

**LB-5454**

**RH5- and AMA1-specific monoclonal antibodies isolated from malaria-exposed individuals and immunized mice with human germline repertoires show diverse functional and polyreactive profiles**

**Marine Malbec**<sup>1</sup>, Kendall Whitt<sup>1</sup>, Silvia Portugal<sup>2</sup>, Richard Welsh<sup>1</sup>, Robert Babb<sup>1</sup>, Peter D. Crompton<sup>3</sup>, Lisa Purcell<sup>1</sup>

<sup>1</sup>*Regeneron Pharmaceuticals, Tarrytown, NY, United States*, <sup>2</sup>*Heidelberg University, Heidelberg, Germany*, <sup>3</sup>*National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States*

**LB-5455**

**Modification of genetic markers of piperazine resistance in *Plasmodium falciparum* isolates from Cambodia**

**Megan R. Ansbro**

*National Institutes of Health, Rockville, MD, United States*

**LB-5456**

**Insecticide Residual Spray project to target residual transmission and the devolution of the strategy to the national health care system**

**Libasse Gadiaga**, Fatou BA Fall, Doudou Sene  
*National Malaria control Programm, Dakar, Senegal*

**LB-5457**

**Kinetics features of the interaction of antibodies against *Plasmodium falciparum* circumsporozoite protein with the minimal NANP repeat epitope: A biophysical approach to search for correlates of protection in vaccinees**

**S. Moses Dennison**<sup>1</sup>, Milite Abraha<sup>1</sup>, Richard H. Huntwork<sup>1</sup>, Kelly E. Seaton<sup>1</sup>, Katie J. Ewer<sup>2</sup>, Adrian V. Hill<sup>2</sup>, S. Munir Alam<sup>1</sup>, Georgia D. Tomaras<sup>1</sup>  
<sup>1</sup>*Duke Human Vaccine Institute, Durham, NC, United States*, <sup>2</sup>*Jenner Institute, Oxford, United Kingdom*

**LB-5458**

**Engineering a self-targeting entry inhibitor for vectored malaria prophylaxis**

Shuhao Xiao, RAJEEV PANDEY, Cameron Bell, Garima Verma, Gary Ketner, **PRAKASH SRINIVASAN**  
*JOHNS HOPKINS SCHOOL OF PUBLIC HEALTH, BALTIMORE, MD, United States*

**LB-5459**

**Flow cytometry Evaluation of Dormant Young Trophozoites of *Plasmodium falciparum* after *In Vitro* Pressure with Artemisinin-based Combination Therapy**

**Rosa Del Carmen Vargas Rodriguez**<sup>1</sup>, Andrés Jimenez Galisteo Jr<sup>2</sup>, Maria de Jesus Costa do Nascimento<sup>3</sup>, Silvia Maria Di Santi<sup>4</sup>  
<sup>1</sup>*National University of the Peruvian Amazon, Iquitos, Peru*, <sup>2</sup>*Instituto de Medicina Tropical de São Paulo, São Paulo, Brazil*, <sup>3</sup>*Núcleo de Estudos em Malária, Superintendência de Controle de Endemias, São Paulo, Brazil*, <sup>4</sup>*Faculdade de Medicina, Universidade de São Paulo, São Paulo, Brazil*

**LB-5460**

**CYTOKINE AND CORTICOSTEROID PROFILE OF PATIENTS WITH *PLASMODIUM FALCIPARUM* MALARIA IN LAGOS, NIGERIA**

**Abel O. Idowu**<sup>1</sup>, Anthony Azenabor<sup>2</sup>, Sanjib Bhattacharyya<sup>3</sup>, Wellington A. Oyibo<sup>4</sup>, Udoma Mendie<sup>1</sup>

<sup>1</sup>*University of Lagos, Lagos, Nigeria*, <sup>2</sup>*Department of Biomedical Sciences, College of Health Sciences, University of Wisconsin, Milwaukee, WI, United States*, <sup>3</sup>*Milwaukee City Health Department Laboratory, Milwaukee, WI, United States*, <sup>4</sup>*ANDI Centre of excellence for Malaria Diagnosis, College of Medicine, University of Lagos, Lagos, Nigeria*

**LB-5461**

**A Potent Malaria Vaccine Adjuvant Based on Spontaneous Nanoliposome-Antigen Particleization (SNAP)**

**Jonathan F. Lovell**<sup>1</sup>, Kazutoyo Miura<sup>2</sup>, Wei-Chiao Huang<sup>1</sup>, Rick King<sup>3</sup>, Shwu-Maan Lee<sup>3</sup>  
<sup>1</sup>*SUNY Buffalo, Buffalo, NY, United States*, <sup>2</sup>*NIAID, Bethesda, MD, United States*, <sup>3</sup>*PATH-MVI, Washington, DC, United States*

**Poster Session C**  
**Late Breakers in Basic Sciences**

*Wednesday, October 31, Noon - 1:45 p.m.*

**LB-5462**

**Structural characterization and functional analysis of the attachment and fusion glycoproteins of Mojiang virus, a newly identified henipavirus**

**Sofia Cheliout Da Silva**, Christopher C. Broder  
*Uniformed Services University of Health Sciences, Bethesda, MD, United States*

**LB-5463**

**Molecular simulations of antibody-dependent enhancement of infection in severe dengue disease**

Daniel R. Ripoll, Anders S. Wallqvist, **Sidhartha Chaudhury**  
*BHSAI, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD, United States*

**LB-5464**

**Teaching an old drug new tricks: fluoroquinolones suppress replication of Zika virus in cultured cells and mice**

**Stacey L. Scroggs**<sup>1</sup>, Ramesh Chinnasamy<sup>1</sup>, Sasha R. Azar<sup>2</sup>, Jeffrey B. Arterburn<sup>1</sup>, Kathryn A. Hanley<sup>1</sup>, Shannan L. Rossi<sup>2</sup>  
<sup>1</sup>*New Mexico State University, Las Cruces, NM, United States*, <sup>2</sup>*University of Texas Medical Branch, Galveston, TX, United States*

**LB-5465**

**Characterization of lifecycle and growth kinetics of Mayaro virus in vertebrate and invertebrate cells**

**Sujit K. Pujhari**, Marco Brustolin, Jason L. Rasgon  
*Pennsylvania State University, State College, PA, United States*

**LB-5466**

**CD4<sup>+</sup>T cells protect from Zika disease in a mouse model of infection**

Mariah Hassert, Kyle J. Wolf, Katherine E. Schwetye, Richard J. DiPaolo, James D. Brien, **Amelia K. Pinto**  
*Saint Louis University, Saint Louis, MO, United States*

**LB-5467**

**FcyRIIIa-mediated dengue infection enhances viral load and predicts symptomatic infections**

**Natalie K. Thulin**<sup>1</sup>, R. Camille Brewer<sup>1</sup>, Daniel Libraty<sup>2</sup>, Taia T. Wang<sup>1</sup>

<sup>1</sup>*Department of Medicine, Division of Infectious Diseases, Stanford University School of Medicine, Stanford, CA, United States*, <sup>2</sup>*Department of Medicine, Division of Infectious Disease and Immunology, University of Massachusetts Medical School, Worcester, MA, United States*

**LB-5468**

**Minimal pathology and mosquito infectivity of Zika virus (ZIKV) in viremic cynomolgus macaques**

**Sasha R. Azar**<sup>1</sup>, Shannan L. Rossi<sup>1</sup>, Sherry L. Haller<sup>1</sup>, Jessica A. Plante<sup>1</sup>, Juan P. Olano<sup>1</sup>, Kathryn A. Hanley<sup>2</sup>, Scott C. Weaver<sup>1</sup>, Nikos Vasilakis<sup>1</sup>  
<sup>1</sup>*University of Texas Medical Branch, Galveston, TX, United States*, <sup>2</sup>*New Mexico State University, Las Cruces, NM, United States*

**LB-5469**

**Detecting Filovirus exposure in canines from Ebola virus affected communities in Liberia - a preliminary report**

**Brien K. Haun**<sup>1</sup>, Varney Kamara<sup>2</sup>, Abigail S. Dweh<sup>3</sup>, Kianalei Garalde-Machida<sup>4</sup>, Saymajunkon S. Forkay<sup>3</sup>, Melissa Takaaze<sup>4</sup>, Madhuri Namekar<sup>4</sup>, Teri Wong<sup>4</sup>, Ayesha B. Woto<sup>3</sup>, Peter Humphreys<sup>3</sup>, Ophelia I. Weeks<sup>3</sup>, Mosoka P. Fallah<sup>5</sup>, John Berestecky<sup>4</sup>, Vivek R. Nerurkar<sup>4</sup>, Axel T. Lehrer<sup>4</sup>  
<sup>1</sup>*Department of Cell and Molecular Biology, University of Hawaii, Honolulu, HI, United States*, <sup>2</sup>*Leo Q Ludlum Central Veterinary Laboratory, Ministry of Agriculture, Republic of Liberia, Fendall, Liberia*, <sup>3</sup>*Department of Biological Sciences, Medical Science, TJR Faulkner College of Science and Technology, University of Liberia, Fendall, Liberia*, <sup>4</sup>*Department of Tropical Medicine, Medical Microbiology and Pharmacology, University of Hawaii, Honolulu, HI, United States*, <sup>5</sup>*National Public Health Institute of Liberia, Republic of Liberia, Margibi, Liberia*

**LB-5470**

**Polyfunctional T lymphocytes as an additional mechanism for HTLV-1 inflammatory status**

**Marcos González**, Daniel Hoces, Karen Luhmann, Elsa González, Martin Montes  
*Universidad Peruana Cayetano Heredia, Lima, Peru*



**Poster Session C**  
**Late Breakers in Basic Sciences**  
*Wednesday, October 31, Noon - 1:45 p.m.*

### **LB-5471**

#### **Antibiotic-resistant coliforms in hospital and community sewage in Peru**

**Guillermo Salvatierra**<sup>1</sup>, E. Espinoza<sup>1</sup>, B. Ayzanoa<sup>1</sup>, M. Calderón<sup>2</sup>, L. Cabrera<sup>2</sup>, C. Santillán<sup>3</sup>, R. Gilman<sup>4</sup>, P. Tsukayama<sup>1</sup>

<sup>1</sup>Laboratorio de Genomica Microbiana, Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>Laboratorio de Investigación en Enfermedades Infecciosas, Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>3</sup>Hospital Nacional de Salud del Niño, Lima, Peru, <sup>4</sup>Department of International Health, Johns Hopkins School of Public Health, Baltimore, MD, United States

### **LB-5472**

#### **Impact of Household Characteristics and Built Environment on Mosquito Capture Rates in Rural Ecuador**

**Rachel J. Sippy**<sup>1</sup>, Froilan Heras Heras<sup>2</sup>, Erin Mordecai<sup>3</sup>, Sadie Ryan<sup>4</sup>, Anna Stewart Ibarra<sup>1</sup>  
<sup>1</sup>State University of New York - Upstate Medical University, Syracuse, NY, United States, <sup>2</sup>Salud

Comunitaria, Machala, Ecuador, <sup>3</sup>Stanford University, Stanford, CA, United States, <sup>4</sup>University of Florida, Gainesville, FL, United States

### **LB-5473**

#### **Detection of enteropathogens in household supply waters throughout Dhaka, Bangladesh using a customized TaqMan Array Card**

**Tahmina Ahmed**<sup>1</sup>, Tania Ferdousi<sup>1</sup>, Md Abdul Karim<sup>1</sup>, Fahmida Sarkar<sup>1</sup>, Rashidul Haque<sup>1</sup>, Jie Liu<sup>2</sup>, James Platts-Mills<sup>2</sup>, Eric Houpt<sup>2</sup>, Mami Taniuchi<sup>2</sup>  
<sup>1</sup>icddr, Dhaka, Bangladesh, <sup>2</sup>University of Virginia, Charlottesville, VA, United States

### **LB-5474**

#### **Spatial proximity to wastewater used for irrigation and diarrheal disease among children in the Mezquital Valley, Mexico**

**Jesse D. Contreras**<sup>1</sup>, Joseph NS Eisenberg<sup>1</sup>, Horacio Riojas-Rodríguez<sup>2</sup>, Joshua L. Warren<sup>3</sup>, Jonathan L. Zelner<sup>1</sup>  
<sup>1</sup>University of Michigan, Ann Arbor, MI, United States, <sup>2</sup>Instituto Nacional de Salud Pública, Cuernavaca, Mexico, <sup>3</sup>Yale University, New Haven, CT, United States

**Poster Session 133**  
**Poster Session C**  
**Late Breakers in Clinical and Applied Sciences**  
*Wednesday, October 31, Noon - 1:45 p.m.*  
*Marriott - Grand Ballroom (3rd Floor)*

Bacteriology and Diarrhea .....	#LB-5475 through LB-5485
Global Health.....	#LB-5486 through LB-5513
HIV and Tropical Co-Infections.....	#LB-5514 through LB-5518
Kinetoplastida.....	#LB-5519 through LB-5529
Malaria .....	#LB-5530 through LB-5566
Pneumonia, Respiratory Infections and Tuberculosis .....	#LB-5567 through LB-5572
Protozoa .....	#LB-5573 through LB-5576
Trematodes .....	#LB-5577 through LB-5581
Viruses .....	#LB-5582 through LB-5595

**LB-5475**

**A randomized observer blinded controlled non inferiority trial to evaluate the immunogenicity of locally manufactured Meningococcal ACWY vaccine in Bangladeshi healthy adults**

**Mohiul I. Chowdhury**<sup>1</sup>, Tasnuva Ahmed<sup>1</sup>, Taufiqur R. Bhuiyan<sup>1</sup>, Md. K. Mannoor<sup>2</sup>, Golam S. Bhuyan<sup>2</sup>, Firdausi Qadri<sup>1</sup>  
<sup>1</sup>*icddr,b, Dhaka, Bangladesh, <sup>2</sup>ideSHi, Dhaka, Bangladesh*

**LB-5476**

**Oral Cholera Vaccination - Self Administration Strategy of OCV in Urban Dhaka, Bangladesh**

**Ashraf I. Khan**, Muhammad S. Islam, Mohiul I. Chowdhury, Fahima Chowdhury, Md. Taufiqul Islam, Azimuddin Ahmed, Md. Ashraf Uddin Siddik, John D. Clemens, Firdausi Qadri  
*icddr,b, Dhaka, Bangladesh*

**LB-5477**

**Antimicrobial Drugs Resistance Pattern and Clinical Outcome of Culture-Positive Enteric Fever Patients in an Urban Slum Area of Bangladesh**

**Farhana Khanam**, Firdausi Qadri  
*International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh*

**LB-5478**

**South American scrub typhus: first case series from continental Chile**

**Thomas Weitzel**<sup>1</sup>, Constanza Martínez-Valdebenito<sup>2</sup>, Gerardo Acosta-Jamett<sup>3</sup>, Ju Jiang<sup>4</sup>, María Pilar Gamba<sup>5</sup>, Teresa Bidart<sup>5</sup>, Miguel Lagos<sup>6</sup>, Allen L. Richards<sup>4</sup>, Katia Abarca<sup>2</sup>  
<sup>1</sup>*Clínica Alemana, Facultad de Medicina Clínica Alemana, Universidad del Desarrollo, Santiago, Chile,* <sup>2</sup>*Departamento de Enfermedades Infecciosas e Inmunología Pediátricas, Facultad de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile,* <sup>3</sup>*Instituto de Medicina Preventiva Veterinaria y Programa de Investigación Aplicada en Fauna Silvestre, Facultad de Ciencias Veterinarias, Universidad Austral, Valdivia, Chile,* <sup>4</sup>*Viral and Rickettsial Diseases Department, Naval Medical Research Center, Silver Spring, MD, United States,* <sup>5</sup>*Clínica Santa María, Santiago, Chile,* <sup>6</sup>*Hospital Los Angeles, Los Angeles, Chile*

**LB-5479**

**Disease burden of enteric fever: a descriptive analysis from a nationwide surveillance in Bangladesh, 2014-2015**

**Md. Taufiqul Islam**<sup>1</sup>, Ashraf I. Khan<sup>1</sup>, Farhana Khanam<sup>1</sup>, Golam S. Bhuyan<sup>2</sup>, Asifuzaman Rahat<sup>2</sup>, M. Salim uzzaman<sup>3</sup>, Dilruba Ahmed<sup>1</sup>, Meerjady S. Flora<sup>3</sup>, Mahmudur Rahman<sup>3</sup>, Firdausi Qadri<sup>1</sup>  
<sup>1</sup>*International Centre for Diarrheal Disease Research Bangladesh (icddr,b), Dhaka, Bangladesh, Dhaka, Bangladesh,* <sup>2</sup>*Institute for developing science and health initiatives (ideSHi), Dhaka, Bangladesh,* <sup>3</sup>*Institute of Epidemiology, Disease Control and Research (IEDCR), Dhaka, Bangladesh, Dhaka, Bangladesh*

**Poster Session C**  
**Late Breakers in Clinical and Applied Sciences**  
*Wednesday, October 31, Noon - 1:45 p.m.*

**LB-5480**

**The rotavirus vaccine impact on under five childhood morbidity and mortality related to a diarrheal episode after introduction of rotavirus vaccine in The Gambia**

**M. Jahangir Hossain Hossain**<sup>1</sup>, Dilruba Nasrin<sup>2</sup>, Joquina Chiquita M. Jones<sup>1</sup>, Syed M.A. Zaman<sup>1</sup>, Henry Badji<sup>1</sup>, Sharon M. Tennant<sup>2</sup>, Irene Kasumba<sup>2</sup>, Helen Powell<sup>2</sup>, Kathleen M. Neuzil<sup>2</sup>, Anna Roose<sup>2</sup>, Martin Antonio<sup>1</sup>, Milagritos Tapia<sup>2</sup>, Karen L. Kotloff<sup>2</sup>  
<sup>1</sup>Medical Research Council Unit The Gambia at the London School of Hygiene & Tropical Medicine, Banjul, Gambia, <sup>2</sup>Center for Vaccine Development, University of Maryland School of Medicine, Baltimore, MD, United States

**LB-5481**

**Relationship between timing and severity of diarrhea and linear growth in the first year among HIV exposed, uninfected infants in Kenya**

**EMILY L. DEICHSEL**<sup>1</sup>, Grace C. John-Stewart<sup>1</sup>, Judd L. Walson<sup>1</sup>, Dorothy Mbori-Ngacha<sup>2</sup>, Barbra A. Richarson<sup>1</sup>, Brandon L. Guthrie<sup>1</sup>, Carey Farquhar<sup>1</sup>, Rose Bosire<sup>3</sup>, Patricia B. Pavlinac<sup>1</sup>  
<sup>1</sup>University of Washington, Seattle, WA, United States, <sup>2</sup>United Nations Children's Fund (UNICEF), New York, NY, United States, <sup>3</sup>Center for Public Health Research, Kenya Medical Research Institute (KEMRI), Nairobi, Kenya

**LB-5482**

**Prevalence of trachoma knowledge and awareness following 3 to 5 years of the SAFE Strategy in Amhara, Ethiopia**

**Christina E. Roberts**<sup>1</sup>, Tigist Astale<sup>2</sup>, Eshetu Sata<sup>2</sup>, Mulat Zerihun<sup>2</sup>, Aisha E.P. Stewart<sup>1</sup>, Andrew W. Nute<sup>1</sup>, Demelash Gessese<sup>2</sup>, Gedefaw Ayenaw<sup>2</sup>, Zebene Ayele<sup>2</sup>, Berhanu Melak<sup>2</sup>, Melsew Chanyalew<sup>3</sup>, Zerihun Tadesse<sup>2</sup>, E. Kelly Callahan<sup>1</sup>, Scott D. Nash<sup>1</sup>  
<sup>1</sup>The Carter Center, Atlanta, GA, United States, <sup>2</sup>The Carter Center, Addis Ababa, Ethiopia, <sup>3</sup>Amhara Regional Health Bureau, Bahir Dar, Ethiopia

**LB-5483**

**Recombinant probiotic bacterial therapy for intestinal nematodes**

**Kelly A. Flanagan**, Hanchen Li, David Gazzola, Tasia Kellogg, Raffi Aroian  
*UMass Medical School, Worcester, MA, United States*

**LB-5484**

**Performance of diagnostics and case classification during an outbreak of pneumonic and bubonic plague in Madagascar, 2017**

**Quirine Astrid ten Bosch**<sup>1</sup>, Voahangy Andrianaivoarimanana<sup>2</sup>, Beza Ramasindrazana<sup>2</sup>, Guillaïn Mikaty<sup>1</sup>, Rado J. Rakotonanahary<sup>2</sup>, Marie Melocco<sup>2</sup>, Birgit Nikolay<sup>1</sup>, Soloandry Rahajandraibe<sup>2</sup>, Maxence Feher<sup>1</sup>, Juliette Paireau<sup>1</sup>, Rindra Randremanana<sup>2</sup>, Feno Rakotoarimanana<sup>2</sup>, Anne-Sophie Le Guern<sup>1</sup>, Voahangy Rasolofo<sup>2</sup>, André Spiegel<sup>2</sup>, Laurence Baril<sup>2</sup>, Minoarisoa Rajerison<sup>2</sup>, Simon Cauchemez<sup>1</sup>  
<sup>1</sup>Institut Pasteur - Paris, Paris, France, <sup>2</sup>Institut Pasteur de Madagascar, Antananarivo, Madagascar

**LB-5485**

**Molecular diversity of carbapenem-resistant *Acinetobacter baumannii* recovered from Jordanian hospitals**

**Qutaiba Ababneh**, Ziad Jaradat, Neda'a Aldaken, Duaa Al-Awneh  
*Jordan University of Science & Technology, Irbid, Jordan*

**LB-5486**

**Ethnic Disparities and Potential Mediators of Chikungunya Disease in Fortaleza, Brazil**

**Mabel Carabali**<sup>1</sup>, Antonio Lima Neto<sup>2</sup>, Geziel dos Santos de Sousa<sup>2</sup>, Andrea Caprara<sup>3</sup>, Jay S. Kaufman<sup>1</sup>  
<sup>1</sup>McGill University, Montreal, QC, Canada, <sup>2</sup>Secretary of Health, Surveillance Unit, Fortaleza, CE, Brazil, <sup>3</sup>Universidade Estadual de Ceara, Fortaleza, CE, Brazil

**LB-5487**

**Seroconversion in patients with Chagas disease treated at a U.S. clinic**

**Salvador Hernandez**, Colin Forsyth, Jose Amadeo Flores Castro, Sheba K. Meymandi  
*Center of Excellence for Chagas Disease at Olive View-UCLA Medical Center, Sylmar, CA, United States*

**Poster Session C**  
**Late Breakers in Clinical and Applied Sciences**  
*Wednesday, October 31, Noon - 1:45 p.m.*

**LB-5488**

**Diagnostic challenges in childhood pneumonia: lessons learned in selecting a reference standard for validating new respiratory rate counting aids**

**Kevin Nicholas Baker**<sup>1</sup>, Charlotte Ward<sup>1</sup>, Sarah Marks<sup>1</sup>, Dawit Getachew<sup>2</sup>, Tedila Habte<sup>3</sup>, Cindy McWhorter<sup>4</sup>, Paul LaBarre<sup>4</sup>, Max Petzold<sup>5</sup>, Karin Källander<sup>1</sup>

<sup>1</sup>Malaria Consortium, London, United Kingdom, <sup>2</sup>Malaria Consortium, Addis Ababa, Ethiopia, <sup>3</sup>Malaria Consortium, Hawassa, Ethiopia, <sup>4</sup>UNICEF Supply Division, Copenhagen, Denmark, <sup>5</sup>University of Gothenburg, Gothenburg, Sweden

**LB-5489**

**Patterns of spread and impact of climate on dengue in Bangkok, Thailand, from 2010 to 2016**

**Nattwut Ekapirat**<sup>1</sup>, Darin Areechokchai<sup>2</sup>, Richard Maude<sup>1</sup>

<sup>1</sup>Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand, <sup>2</sup>Bureau of Vector Borne Disease, Nonthaburi, Thailand

**LB-5490**

**Impact of cluster location and displacement on coverage estimates generated by linking household and healthcare provider surveys**

**Emily D. Carter**<sup>1</sup>, Micky Ndhlovu<sup>2</sup>, Melinda K. Munos<sup>1</sup>

<sup>1</sup>Johns Hopkins School of Public Health, Baltimore, MD, United States, <sup>2</sup>Chainama College of Health Sciences, Lusaka, Zambia

**LB-5491**

**Community based surveillance of unusual public health events in Burkina Faso: implementation process and preliminary results in 3 pilot sites**

**Brice Bicaba**

Directorate of Health Population Prevention, Ouagadougou, Burkina Faso

**LB-5492**

**Civil Conflict and Urban Agriculture in the Sub-Saharan Tropics: The Democratic Republic of the Congo as a Case Study**

Benjamin Redmond, **Miguel Reina Ortiz**  
University of South Florida, Tampa, FL, United States

**LB-5493**

**A call for practical and country-specific entomological guidance**

**Elodie Vajda**<sup>1</sup>, Allison Tatarsky<sup>1</sup>, Sheila Ogoma<sup>2</sup>, Eileen Jeffrey Gutiérrez<sup>3</sup>, Neil F. Lobo<sup>4</sup>

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**LB-5494**

**Impact of Anthelmintic Treatment on Attractiveness of *Anopheles* to Subjects presenting Malaria and Schistosomiasis Co-infection**

**Oumou Maiga-Ascofaré**<sup>1</sup>, Sandra Baffour-Awuah<sup>1</sup>, Eva Lorenz<sup>2</sup>, Anthony Sarfo Acquah<sup>1</sup>, Patrick Obuam<sup>1</sup>, Richard Larbi<sup>1</sup>, Henry Hanson Hanson<sup>1</sup>, Jürgen May<sup>2</sup>, Ellis Owusu-Dabo<sup>3</sup>

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**LB-5495**

**Spatial Analysis of Health Facility Access in Guinea**

**Kory J. Blose**<sup>1</sup>, Robert D. Fraleigh<sup>2</sup>, Stephen Fast<sup>2</sup>, Maciej F. Boni<sup>3</sup>, Mamadou S. Bah<sup>4</sup>, Siaka Ouattara<sup>5</sup>, Moussa Condé<sup>5</sup>, Marcel Yaradouno<sup>5</sup>, Isabelle Amblard<sup>5</sup>

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**LB-5496**

**Achieving an innovative and sustainable Performance-Based Financing program with the introduction of Risk Based Verification and Skills Based Quality Assessments in Lesotho**

Ntoetse Mofoka<sup>1</sup>, Palesa Henson<sup>1</sup>, **Ismael Amri Sued**<sup>2</sup>, Clarisse Uzamukunda<sup>3</sup>, Marion Dols<sup>4</sup>, Carole Abourached<sup>5</sup>

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**LB-5497**

**Increasing workforce capacity and adherence to Integrated Management of Childhood Illness (IMCI) protocol using an integrated clinical assessment platform with embedded training**

**Barry Finette**<sup>1</sup>, Aisha Giwa<sup>2</sup>, Nirmal Ravi<sup>2</sup>, Ezra Mount-Finette<sup>1</sup>, Megan McLaughlin<sup>1</sup>

<sup>1</sup>THINKMD, Charlotte, VT, United States, <sup>2</sup>eHealth Africa, Kano, Nigeria

**LB-5498**

**IMPACT AND OUT-OF-POCKET COSTS OF DENGUE ILLNESS IN INTERNATIONAL TRAVELERS: AN EXPLORATORY PROSPECTIVE STUDY**

**Yesim Tozan**<sup>1</sup>, Tyler Y. Headley<sup>2</sup>, Maquines Odhiambo Sewe<sup>3</sup>, Eli Schwartz<sup>4</sup>, Tamar Shemesh<sup>5</sup>, Jakob P. Cramer<sup>6</sup>, Kirsten A. Eberhardt<sup>7</sup>, Michael Ramharter<sup>8</sup>, Nicole Harrison<sup>9</sup>, Karin Leder<sup>10</sup>, Andrea Angheben<sup>11</sup>, Christopher Hatz<sup>12</sup>, Andreas Neumayr<sup>12</sup>, Lin Hwei Chen<sup>13</sup>, Martin P. Grobusch<sup>14</sup>, Cornelis de Pijper<sup>14</sup>, Annelies Wilder-Smith<sup>15</sup>

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Vienna, Vienna, Austria, <sup>10</sup>Monash University, Infectious Disease Epidemiology Unit, Melbourne, Australia, <sup>11</sup>Centro per le Malattie Tropicali Ospedale Classificato Equiparato Sacro Cuore - Don Calabria, Verona, Italy, <sup>12</sup>Swiss Tropical and Public Health Institute, Basel, Switzerland, <sup>13</sup>Mount Auburn Hospital, Travel Medicine Center, Cambridge, MA, United States, <sup>14</sup>Department of Infectious Diseases, Division of Internal Medicine, Amsterdam University Medical Centers, University of Amsterdam, Amsterdam, Netherlands, <sup>15</sup>Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore, Singapore

**LB-5499**

**Toll-like receptor agonist chemistries and protein microarray tools for development of a *Coxiella burnetii* subunit vaccine that protects against an aerosol challenge**

**Medalyn Supnet**<sup>1</sup>, Adrienne Gilkes<sup>1</sup>, Tyler Albin<sup>2</sup>, Saikat Manna<sup>3</sup>, Sara Ruiz<sup>4</sup>, Janine Tom<sup>2</sup>, Aarti Jain<sup>1</sup>, Rie Nakajima<sup>1</sup>, Jiin Felgner<sup>1</sup>, Huw Davies<sup>1</sup>, Aysegul Nalca<sup>4</sup>, Philip Felgner<sup>1</sup>, Aaron Esser-Kahn<sup>3</sup>, Amanda Burkhardt<sup>1</sup>

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**LB-5500**

**Transbiotics™, a novel paratransgenesis method to control vector-borne pathogens**

**Konstantinos Lymeropoulos**<sup>1</sup>, Andrew E. Thran<sup>1</sup>, Corey L. Campbell<sup>2</sup>, Brad R. Borlee<sup>2</sup>, Rebekah C. Kading<sup>2</sup>, Gabriel L. Hamer<sup>3</sup>, Kenneth E. Olson<sup>2</sup>, William Black<sup>2</sup>, Richard Sayre<sup>1</sup>

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**LB-5501**

**West African village characterization using satellite imagery and object image recognition technologies**

**JEFFREY G. SHAFFER**, Christian J. Geneus, Frances J. Mather  
Tulane University, New Orleans, LA, United States

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**LB-5502**

**A novel host-transcript based diagnostic signature for discriminating bacterial and viral infections**

**Stephen J. Popper**<sup>1</sup>, Aditya Rao<sup>1</sup>, Anisone Chanthongthip<sup>2</sup>, Matthew Robinson<sup>2</sup>, Paul N. Newton<sup>2</sup>, Jason Andrews<sup>1</sup>, David A. Relman<sup>1</sup>, Purvesh Khatri<sup>1</sup>

<sup>1</sup>Stanford University School of Medicine, Stanford, CA, United States, <sup>2</sup>Lao-Oxford\_Mahosot Hospital-Wellcome Trust Research Unit, Vientiane, Lao People's Democratic Republic

**LB-5503**

**Specificity and cross-reactivity of influenza virus hemagglutinin-specific antibodies: a protein microarray as a tool for influenza serosurveillance**

**Rie Nakajima**

University of California, Irvine, Irvine, CA, United States

**LB-5504**

**Association of an episode of diarrhea with linear growth faltering: The VIDA study**

**Dilruba Nasrin**<sup>1</sup>, Helen Powell<sup>1</sup>, Samba Sow<sup>2</sup>, Richard Omoro<sup>3</sup>, Jahangir Hossain<sup>4</sup>, Anna Roose<sup>1</sup>, Sharon Tennant<sup>1</sup>, Irene Kasumba<sup>1</sup>, Yuanyuan Liang<sup>1</sup>, Usha Ramakrishnan<sup>5</sup>, Boubou Tamboura<sup>2</sup>, Martin Antonio<sup>4</sup>, John B. Ochieng<sup>3</sup>, Karen Kotloff<sup>1</sup>

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**LB-5505**

**Assessing the impact of rotavirus vaccine introduction on the overall diarrheal disease: A comparison of the GEMS and VIDA studies**

**Helen Powell**<sup>1</sup>, Samba Sow<sup>2</sup>, Richard Omoro<sup>3</sup>, Jahangir Hossain<sup>4</sup>, Dilruba Nasrin<sup>1</sup>, Anna Roose<sup>1</sup>, Sharon Tennant<sup>1</sup>, Irene Kasumba<sup>1</sup>, Yuanyuan Liang<sup>1</sup>, Boubou Tamboura<sup>2</sup>, Martin Antonio<sup>4</sup>, John B. Ochieng<sup>3</sup>, Karen Kotloff<sup>1</sup>

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**LB-5506**

**Community based Assessment of Antibiotic Resistant *Escherichia coli* in Quetzaltenango, Guatemala**

**Brooke M. Ramay**<sup>1</sup>, Claudia Jarquin<sup>1</sup>, Diego Archila<sup>1</sup>, M. Purificacion Moreno<sup>1</sup>, John McCracken<sup>1</sup>, Celia Cordon<sup>1</sup>, Guy Palmer<sup>2</sup>, Doug Call<sup>2</sup>

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**LB-5507**

**Building urban climate resilience through public health: Identifying strategies for integrated public health governance in Duran, Ecuador**

**Mercy J. Borbor-Cordova**<sup>1</sup>, Anna M. Stewart-Ibarra<sup>2</sup>, Indira Nolivos<sup>1</sup>, Gladys Rincon<sup>1</sup>, Ashley Casierra<sup>1</sup>, Craig A. Johnson<sup>3</sup>, Alessandro Pezzoli<sup>4</sup>  
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**LB-5508**

**Maternal vaginal colonization with selected potential pathogens of neonatal sepsis in the era of antimicrobial resistance at a tertiary hospital in Addis Ababa, Ethiopia**

**Oludare Odumade**<sup>1</sup>, Semaria Solomon<sup>2</sup>, Delayehu Bekele<sup>3</sup>, Grace Chan<sup>4</sup>

<sup>1</sup>Division of Medicine Critical Care, Boston Children's Hospital, Harvard Medical School, Boston, MA, United States, <sup>2</sup>Department of Microbiology, Saint Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, <sup>3</sup>Department of Obstetrics and Gynecology, Saint Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, <sup>4</sup>Department of Global Health and Population, Harvard Chan School of Public Health, Boston, MA, United States

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**LB-5509**

**Severity assessment of acquired diarrhea among U.S. Military and Western travelers (Global Travelers' Diarrhea Study)**

**Hayley Ashbaugh**<sup>1</sup>, June M. Early<sup>2</sup>, Mark P. Simons<sup>3</sup>, Paul C. Graf<sup>4</sup>, Mark S. Riddle<sup>5</sup>, Brett E. Swierczewski<sup>6</sup>

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**LB-5510**

**Effectiveness & Feasibility of Zika Prevention Behaviors Through the Eyes of Key Audiences in Guatemala and El Salvador**

Elli Leontsini<sup>1</sup>, **Gabrielle C. Hunter**<sup>2</sup>, Sean Maloney<sup>2</sup>  
<sup>1</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>2</sup>Johns Hopkins Center for Communication Programs, Baltimore, MD, United States

**LB-5511**

**Task shifting in emergency medicine improves malaria care for febrile children in Uganda**

**Joseph Leanza**<sup>1</sup>, Brian Rice<sup>2</sup>  
<sup>1</sup>Hospital of the University of Pennsylvania, Philadelphia, PA, United States, <sup>2</sup>Stanford University Medical Center, Palo Alto, CA, United States

**LB-5512**

**Rohingya crisis in Bangladesh: summary of findings from pooled mortality surveys**

**Ruby Siddiqui**  
Medecins Sans Frontieres, London, United Kingdom

**LB-5513**

**Developing Infection Prevention and Control (IPC) Capabilities in a Clinical Research team for Filovirus Outbreaks in Uganda**

**Rodgers Ayebare**<sup>1</sup>, Peter Waitt<sup>1</sup>, Saima Zaman<sup>2</sup>, Willy Kayondo<sup>3</sup>, Mohammed Lamorde<sup>1</sup>, Hannah Kibuuka<sup>3</sup>, Stephen Okello<sup>3</sup>, Karen Martins<sup>4</sup>, Nahid

Bhadelia<sup>5</sup>, Danielle Clark<sup>2</sup>  
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**LB-5514**

**Effect of HAART Combinations on Lipid Metabolism and Cd4+ Count of HIV Patients: A Case Control Study of the Asikuma Odoben Breman Asikuma**

**Bright B. Nkofahene**  
Our Lady of Grace Hospital, Breman Asikuma, Ghana

**LB-5515**

**HIV-1 treatment failure & for associated risk factors among adult HIV patients taking first line antiretroviral therapy in Ethiopia; A cohort study**

**Yimam G. Misganie**  
Ethiopian Public Health Institute, Addis Ababa, Ethiopia

**LB-5516**

**Cardiovascular Disease Risk in HIV-infected patients: awareness is not enough**

**Roumen Jordanov**, Fahim Pyarali, Alexander Toirac, Gerardo Zablah, Tahir Haque, Fahad Al Halban, Rajiv Parmar, Catherine Boulanger, Alexis Powell, Maria Alcaide, Barry Hurwitz, Michael Kolber, Neil Schneiderman, Claudia Martinez  
Jackson Memorial Hospital - University of Miami Health System, Miami, FL, United States

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**LB-5517**

**Diagnosis of Toxoplasmic Encephalitis in Persons Living with HIV in Urine**

**Hannah E. Steinberg**<sup>1</sup>, Paul Russo<sup>2</sup>, Andrea Diestra<sup>3</sup>, Cusi Ferradas<sup>3</sup>, Maritza Calderon<sup>3</sup>, Jeroen Bok<sup>4</sup>, Linda Chanamé Pinedo<sup>4</sup>, Deanna Zhu<sup>5</sup>, Gaston Valencia<sup>4</sup>, Cesar Ramal<sup>6</sup>, Javier Bustos<sup>3</sup>, Natalie M. Bowman<sup>5</sup>, Lance Liotta<sup>2</sup>, Alessandra Luchini<sup>2</sup>, Robert H. Gilman<sup>4</sup>

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**LB-5518**

**Evolution of CADM1 and CD7 expression in CD4+ T-lymphocytes of HTLV-1 patients receiving antihelminth therapy for active *Strongyloides stercoralis* co-infection**

**Sebastian Echeandia**<sup>1</sup>, John Bocanegra<sup>1</sup>, Martin Montes<sup>1</sup>, Jessica Stauber<sup>2</sup>, Elsa Gonzalez<sup>1</sup>, Eduardo Gotuzzo<sup>1</sup>

<sup>1</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>UTMB, Houston, TX, United States

**LB-5519**

**Measurement of *Trypanozoma cruzi*-specific antibody producing cells as a marker of treatment efficacy in chronic Chagas Disease**

**Gonzalo Cesar**<sup>1</sup>, María Cecilia Albareda<sup>1</sup>, HuiFeng Shen<sup>2</sup>, María G. Alvarez<sup>3</sup>, Bruno Lococo<sup>3</sup>, Graciela Bertocchi<sup>3</sup>, Melisa D. Castro Eiro<sup>1</sup>, Rick L. Tarleton<sup>2</sup>, Susana A. Laucella<sup>1</sup>

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**LB-5520**

**Topical 15% paromomycin-aquaphilic for Bolivian *L. braziliensis* cutaneous leishmaniasis: a randomized, placebo controlled trial**

Jaime Soto<sup>1</sup>, Paula Soto<sup>1</sup>, Andrea Ajata<sup>2</sup>, Carmelo Luque<sup>2</sup>, Carlos Tintaya<sup>2</sup>, David Paz<sup>3</sup>, Daniela Rivero<sup>3</sup>, **Jonathan (Josh) Berman**<sup>4</sup>

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**LB-5521**

**Evaluation of possible non- human reservoirs for VL transmission in Bihar, India**

**Anurag K. Kushwaha**<sup>1</sup>, Puja Tiwary<sup>1</sup>, Shakti K. Singh<sup>2</sup>, Dhiraj Singh<sup>2</sup>, Rahul Chaubey<sup>2</sup>, Edgar Rowton<sup>3</sup>, Philip Lawyer<sup>4</sup>, David Sacks<sup>5</sup>, Christine A. Petersen<sup>6</sup>, Shyam Sundar<sup>1</sup>

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**LB-5522**

**Ethnopharmaceuticals for the Treatment of Cutaneous Leishmaniasis**

**Ruwandi Kariyawasam**<sup>1</sup>, Priyanka Challa<sup>1</sup>, Emma Hagopian<sup>1</sup>, Eric Shao<sup>2</sup>, Jason Kwan<sup>3</sup>, Hira Raheel<sup>1</sup>, Tianna Chong-Kit<sup>4</sup>, Swana Kopalakrishnan<sup>5</sup>, Anjola Ogunsina<sup>5</sup>, Olamide Egbewumi<sup>3</sup>, Sonia Igboanugo<sup>3</sup>, Avinash Mukkala<sup>1</sup>, Andrea K. Boggild<sup>1</sup>

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**LB-5523**

**Interrogating the Spectrum of Bacterial Pathogens in Ulcers of Cutaneous Leishmaniasis**

**Ruwandi Kariyawasam**<sup>1</sup>, Priyanka Challa<sup>1</sup>, Bryan Gascon<sup>1</sup>, Jordan Mah<sup>2</sup>, Rachel Lau<sup>3</sup>, Braulio Valencia<sup>4</sup>, Alejandro Llanos-Cuentas<sup>4</sup>, Andrea K. Boggild<sup>1</sup>

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### **LB-5524**

#### **Accuracy of Diagnostics in Tegumentary Leishmaniasis: A Systematic Review**

Melissa Sen Phuong<sup>1</sup>, Rachel Lau<sup>2</sup>, Robert Chris<sup>3</sup>, Eric Shao<sup>4</sup>, Sonia Igboanugo<sup>5</sup>, Ruwandi Kariyawasam<sup>6</sup>, Hira Raheel<sup>6</sup>, Sharmistha Mishra<sup>6</sup>, **Andrea K. Boggild**<sup>6</sup>

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### **LB-5525**

#### **A Systematic Review of Wound Care in the Management of Cutaneous Leishmaniasis**

David Harris<sup>1</sup>, Ruwandi Kariyawasam<sup>1</sup>, Christian Lecce<sup>2</sup>, Avinash Mukkala<sup>1</sup>, **Andrea K. Boggild**<sup>1</sup>

<sup>1</sup>University of Toronto, Toronto, ON, Canada, <sup>2</sup>Ryerson University, Toronto, ON, Canada

### **LB-5526**

#### **Determination of fexinidazole effect on QTc in healthy volunteers and human African Trypanosomia brucei gambiense trypanosomiasis (g-HAT) patients using concentration-response modelling**

**Antoine Tarral**<sup>1</sup>, Mathieu Felices<sup>2</sup>, Pacal Voirot<sup>3</sup>

<sup>1</sup>Drugs for Neglected Diseases initiative, Geneva, Switzerland, <sup>2</sup>PhinC, Massy, France, <sup>3</sup>Banook Group, Nancy, France

### **LB-5527**

#### **Sequential versus Classical Designs for Early Phase Drug Trials Against Visceral Leishmaniasis**

**Neal D. Alexander**<sup>1</sup>, Fabiana Alves<sup>2</sup>, Manica Balasegaram<sup>2</sup>, Séverine Blesson<sup>2</sup>, Sakib Burza<sup>3</sup>, Tansy Edwards<sup>1</sup>, Raymond Omollo<sup>4</sup>, Monique Wasunna<sup>4</sup>

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### **LB-5528**

#### **Comparative Evaluation of Conventional, Quantitative and Droplet Digital PCR on Whole**

#### **Human Blood for the Molecular Diagnosis of Chagas Disease**

**Milli B. Nath-Chowdhury**<sup>1</sup>, Colton Strong<sup>2</sup>, Momar Ndao<sup>1</sup>

<sup>1</sup>National Reference Center for Parasitology, Research Institute of the McGill University Health Center, Montreal, QC, Canada, <sup>2</sup>McGill University, Montreal, QC, Canada

### **LB-5529**

#### **Treatment of congenital Chagas in Percy Boland Maternity Hospital, Santa Cruz, Bolivia**

**Freddy Tinajeros**<sup>1</sup>, María del Carmen Mendiña<sup>2</sup>, Page Keating<sup>3</sup>, Edwad Valencia<sup>4</sup>, Jean Karla Velarde<sup>1</sup>, Clariza Chavez<sup>1</sup>, Edith Malaga<sup>4</sup>, Federico Urquizu<sup>2</sup>, Manuela Verástegui<sup>4</sup>, Robert Gilman<sup>3</sup>

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### **LB-5530**

#### **Diversity of the kelch propeller domain gene (k13) polymorphisms in Plasmodium falciparum isolates from Ghana**

**Sena A. Matrevi**<sup>1</sup>, Neils B. Quashie<sup>1</sup>, Philip Opoku-Agyeman<sup>1</sup>, Benjamin Abuaku<sup>1</sup>, Kwadwo A. Koram<sup>1</sup>, Andrew G. Letizia<sup>2</sup>, Nancy O. Duah<sup>1</sup>

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### **LB-5531**

#### **Analysis of PfHRP2 and PfHRP3 Deletions in the Western Kenyan Plasmodium falciparum Population**

**Nathaniel Dizon**<sup>1</sup>, Samuel Elberts<sup>1</sup>, Karina Rivas<sup>1</sup>, Janet Oyeko<sup>2</sup>, Carolyn M. Kifude<sup>2</sup>, Shirley Luckhart<sup>3</sup>, V. Ann Stewart<sup>1</sup>

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**LB-5532**

**A cluster randomized trial to measure the impact of indoor residual spraying with a third-generation indoor residual spray (3GIRS) product in combination with long-lasting insecticide-treated nets in Zambezia, Mozambique**

Carlos Chaccour<sup>1</sup>, Christelle Gogue<sup>2</sup>, Joseph Wagman<sup>2</sup>, Kenzie Tynuv<sup>2</sup>, Sergi Alonso<sup>1</sup>, Rose Zulliger<sup>3</sup>, Amilcar Nacima<sup>4</sup>, Eldo Elobolobo<sup>4</sup>, Binete Savaio<sup>5</sup>, Abuchahama Saifodine<sup>6</sup>, Baltazar Candrinho<sup>7</sup>, Kenysson Verela<sup>8</sup>, Jason Richardson<sup>9</sup>, Molly Robertson<sup>2</sup>, **Francisco Saute**<sup>4</sup>  
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**LB-5533**

**Targeted indoor spraying: a cost effective strategy for malaria control in low transmission settings? Results from a non-inferiority cluster randomised trial in South Africa**

**Jackie Cook**<sup>1</sup>, David Bath<sup>1</sup>, Natasha Morris<sup>2</sup>, Rajendra Maharaj<sup>2</sup>, John Govere<sup>3</sup>, Phillemon Matebula<sup>3</sup>, Khumbulani Hlongwana<sup>4</sup>, Jaishree Raman<sup>5</sup>, Eunice Agubuzo<sup>5</sup>, Ishen Seocharan<sup>2</sup>, Joseph Biggs<sup>1</sup>, Alpheus Zitha<sup>6</sup>, Elliot Machaba<sup>6</sup>, Matimba Zita<sup>3</sup>, Eric Mabunda<sup>7</sup>, Aaron Mabuza<sup>6</sup>, Philip Kruger<sup>6</sup>, Chris Drakeley<sup>1</sup>, Maureen Coetzee<sup>3</sup>, Immo Kleinschmidt<sup>1</sup>  
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**LB-5534**

**Pregnancy outcomes in women exposed to dihydroartemisinin-piperaquine during first trimester of pregnancy in Indonesia- a retrospective record linkage study**

**Rukhsana Ahmed**<sup>1</sup>, Kerryn A. Moore<sup>2</sup>, Theda Lukito<sup>3</sup>, Andre'-Marie Touchatieu<sup>4</sup>, Stephanie Dellicour<sup>1</sup>, Feiko terKuile<sup>1</sup>, Ric N. Price<sup>5</sup>, Julie A. Simpson<sup>6</sup>, Jeanne R. Poespoprodjo<sup>7</sup>  
<sup>1</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>2</sup>Murdoch Children's Research Institute, Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, University of Melbourne, Melbourne, Australia, <sup>3</sup>Timika Research Facility, Timika, Indonesia, <sup>4</sup>Medicines for Malaria Venture, Geneva, Switzerland, <sup>5</sup>Global and Tropical Health Division, Menzies School of Health Research & Charles Darwin University, Darwin, Australia, <sup>6</sup>Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, Melbourne, Australia, <sup>7</sup>Timika Research Facility, Department of Child Health, Faculty of Medicine, Universitas Gadjah Mada, Timika, Indonesia

**LB-5535**

**Using human sera to profile antibody isotype responses to a panel of P. knowlesi-specific recombinant antigens**

**Lou S. Herman**<sup>1</sup>, Tate Oulton<sup>1</sup>, Katherine A. Glass<sup>1</sup>, Kimberly Fornace<sup>1</sup>, Matthew J. Grigg<sup>2</sup>, Nicholas M. Anstey<sup>2</sup>, Timothy William<sup>3</sup>, Michael J. Blackman<sup>4</sup>, Chris J. Drakeley<sup>1</sup>, Kevin K. Tetteh<sup>1</sup>  
<sup>1</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>2</sup>Menzies School of Health Research and Charles Darwin University, Darwin, Australia, <sup>3</sup>Infectious Diseases Society Sabah-Menzies School of Health Research Clinical Research Unit, Kota Kinabalu, Malaysia, <sup>4</sup>Malaria Biochemistry Laboratory, The Francis Crick Institute, London, United Kingdom

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**LB-5536**

**Rapid assessment to select sites for targeted malaria elimination interventions in Grand'Anse, Haiti**

**Karen E. Hamre**<sup>1</sup>, Amber M. Dismar<sup>1</sup>, Eric Rogier<sup>1</sup>, Lotus L. van den Hoogen<sup>2</sup>, Emilie Pothin<sup>3</sup>, Alyssa Young<sup>4</sup>, Katherine E. Battle<sup>5</sup>, Ewan Cameron<sup>5</sup>, Milen Nikolov<sup>6</sup>, Nick W. Ruktanonchai<sup>7</sup>, Mériilien Jean-Baptiste<sup>8</sup>, Bernadette Fouché<sup>9</sup>, Jacques Boncy<sup>8</sup>, Thomas P. Eisele<sup>10</sup>, Chris Drakeley<sup>11</sup>, Jean-Frantz Lemoine<sup>8</sup>, Michelle A. Chang<sup>1</sup>

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**LB-5537**

**Bayesian modeling to assess the effects of malaria interventions on the geographical distribution of malaria parasite infection risk in Liberia**

Jean-Marie Ngbichi<sup>1</sup>, **Eric Diboulo**<sup>2</sup>, Jessica Kafuko<sup>3</sup>, Victor S. Koko<sup>4</sup>, Yazoume Ye<sup>5</sup>  
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**LB-5538**

**Characterizing *Plasmodium falciparum* genetic diversity in two villages of Mali**

**Aoua Coulibaly**<sup>1</sup>, Aminatou Kone<sup>1</sup>, Antoine Dara<sup>1</sup>, Abdoulaye Djimde<sup>1</sup>, Nicola Mulder<sup>2</sup>, Olivo Miotto<sup>3</sup>  
<sup>1</sup>University of Science, Techniques and Technologies of Bamako, Bamako, Mali, <sup>2</sup>University of Cape Town, Cape Town, South Africa, <sup>3</sup>Mahidol University, Bangkok, Thailand

**LB-5539**

**Effectiveness of artemisinin-based combination therapies under operational conditions in Senegal.**

**Roger C. TINE**, Khadime Sylla, Doudou Sow, Ibou Gueye, Jean L. Ndiaye, Magatte Ndiaye, Kouakou Folly, Oumar Gaye, Babacar Faye  
*Department of Medical Parasitology, University Cheikh Anta Diop, Senegal, Dakar, Senegal*

**LB-5540**

**Improving Health Facility Based Continuous ITN Distribution in Ghana**

**Richard Kpabitey**<sup>1</sup>, Sylvester Segbaya<sup>1</sup>, Hannah Koenker<sup>2</sup>, Matthew Lynch<sup>2</sup>, Keziah Malm<sup>3</sup>, Francis Ocloo<sup>3</sup>, Danielle Piccinini<sup>2</sup>, Robert Opoku<sup>1</sup>, Mavis Osafo<sup>1</sup>, Victor Laryea<sup>1</sup>, Vivian Abiwu<sup>1</sup>, Miriam Gyasi<sup>1</sup>, Prince Owusu<sup>1</sup>, Ato Selby<sup>4</sup>

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**LB-5541**

**Comparison of Malaria Risk Prediction Using Routine Surveillance Data and Serological Prevalence in the Pre-Elimination Setting of Zambezi, Namibia**

**Adrienne Epstein**<sup>1</sup>, Davis Mumbengegwi<sup>2</sup>, Munyaradzi Tambo<sup>2</sup>, Lucille Dausab<sup>2</sup>, Lindsey Wu<sup>3</sup>, Oliver Medzihradsky<sup>1</sup>, Patrick McCreesh<sup>1</sup>, Sofonias Tessema<sup>1</sup>, Kathryn Roberts<sup>1</sup>, Griffith Siloka<sup>4</sup>, Jennifer Smith<sup>1</sup>, Hugh Sturrock<sup>1</sup>, Petrina Uusiku<sup>4</sup>, Stark Katokele<sup>4</sup>, Immo Kleinschmidt<sup>3</sup>, Michelle Roh<sup>1</sup>, Kevin Tetteh<sup>3</sup>, Chris Drakeley<sup>3</sup>, Bryan Greenhouse<sup>1</sup>, Roland Gosling<sup>1</sup>, Michelle Hsiang<sup>5</sup>, Adam Bennett<sup>1</sup>  
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**LB-5542**

**Serological markers for evaluation of *Plasmodium* exposure applied to samples from areas of low malaria transmission**

**Maria Carmen A. Sanchez**, José E. Levi, Giselle F. Lima, Silvia M. Di Santi  
*São Paulo University, São Paulo, Brazil*

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**LB-5543**

**The effects of eliminating malaria funding in the Loreto region of Peru: An observational, time series analysis**

**Mark Janko**<sup>1</sup>, Andres G. Lescano<sup>2</sup>, Cristina Recalde<sup>3</sup>, Carlos Mena<sup>4</sup>, Gabriela Salmon-Mulanovich<sup>2</sup>, Benjamin Zaitchik<sup>3</sup>, William Pan<sup>1</sup>

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<sup>4</sup>Universidad San Francisco de Quito, Quito, Ecuador

**LB-5544**

**Towards malaria elimination: Community-level administration of single low dose primaquine by trained Village Health Workers in Zimbabwe's Beitbridge district**

**Patience Dhlwayo**<sup>1</sup>, Busisani Dube<sup>1</sup>, Munashe Madinga<sup>2</sup>, Joseph Mberikunashe<sup>1</sup>, Lenos Samhere<sup>3</sup>, Rudo Chikodzore<sup>3</sup>, Brighton Gambia<sup>2</sup>

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**LB-5545**

**Optimal population-level introduction of novel antimalarial compounds in the 2020s**

Tran Dang Nguyen<sup>1</sup>, Thu N-A Tran<sup>1</sup>, Nicholas J. White<sup>2</sup>, Arjen M. Dondorp<sup>2</sup>, Timothy Wells<sup>3</sup>, **Maciej F. Boni**<sup>1</sup>

<sup>1</sup>Pennsylvania State University, University Park, PA, United States, <sup>2</sup>University of Oxford, Bangkok, Thailand, <sup>3</sup>Medicines for Malaria Venture, Geneva, Switzerland

**LB-5546**

**A semi-quantitative paper-based assay for predicting progression to cerebral malaria**

**Sai Paul**<sup>1</sup>, Chelsey Smith<sup>1</sup>, Karl Seydel<sup>2</sup>, Terrie Taylor<sup>2</sup>, Rebecca Richards-Kortum<sup>1</sup>

<sup>1</sup>Rice University, Houston, TX, United States,

<sup>2</sup>Michigan State University, East Lansing, MI, United States

**LB-5547**

**A prospective cohort study of the dynamic nature of spleen size in children with sickle cell anemia in malarious regions of western Kenya**

**Casey Silver**<sup>1</sup>, Steve Taylor<sup>2</sup>, Festus Njuguna<sup>3</sup>, Wendy O'Meara<sup>4</sup>

<sup>1</sup>Doris Duke International Clinical Research Fellowship, New York, NY, United States, <sup>2</sup>Duke Clinical Research Institute, Durham, NC, United States, <sup>3</sup>Moi University, Eldoret, Kenya, <sup>4</sup>Duke Global Health Institute, Durham, NC, United States

**LB-5548**

**ProActive Community Treatment of malaria in rural Togo**

**Matthew McLaughlin**, Margaret Clougherty, David Horner-Ibler, Kyree Rollins  
*Peace Corps, Washington, DC, United States*

**LB-5549**

**Use of novel immunological markers of malaria infection to assess the effectiveness of reactive focal mass drug administration and reactive vector control in Zambezi Region, Namibia**

**Lindsey Wu**<sup>1</sup>, Davis Mumbengegwi<sup>2</sup>, Munyaradzi Tambo<sup>2</sup>, Leah Schrubbe<sup>3</sup>, Henry Ntuku<sup>3</sup>, Adam Bennett<sup>3</sup>, Sofonias Tessema<sup>4</sup>, Kathryn Roberts<sup>3</sup>, Jennifer Smith<sup>3</sup>, Petrina Uusiku<sup>5</sup>, Stark Katokele<sup>5</sup>, Kevin Tetteh<sup>1</sup>, Bryan Greenhouse<sup>4</sup>, Roland Gosling<sup>3</sup>, Lisa Prach<sup>3</sup>, Michelle Hsiang<sup>6</sup>, Immo Kleinschmidt<sup>1</sup>, Chris Drakeley<sup>1</sup>

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**LB-5550**

**Genetic Evidence of focal *Plasmodium falciparum* transmission in a pre-elimination setting in Southern Province, Zambia**

**Julia Pringle**<sup>1</sup>, Sofonias Tessema<sup>2</sup>, Amy Wesolowski<sup>3</sup>, Anna Chen<sup>2</sup>, Maxwell Murphy<sup>4</sup>, Giovanna Carpi<sup>5</sup>, Timothy M. Shields<sup>3</sup>, Harry Hamapumbu<sup>6</sup>, Kelly M. Searle<sup>3</sup>, Tamaki Kobayashi<sup>3</sup>, Ben Katowa<sup>6</sup>, Michael Musonda<sup>6</sup>, Jennifer C. Stevenson<sup>7</sup>, Philip E. Thuma<sup>6</sup>, Bryan Greenhouse<sup>8</sup>, William J. Moss<sup>3</sup>, Douglas E. Norris<sup>5</sup>  
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**LB-5551**

**Evaluating the impact of programmatic mass drug administration in Zambia using routine incidence data**

**Maya Fraser**<sup>1</sup>, John M. Miller<sup>2</sup>, Kafula Silumbe<sup>2</sup>, Michael Hainsworth<sup>1</sup>, Mutinta Mudenda<sup>3</sup>, Busiku Hamainza<sup>3</sup>, Hawela Moonga<sup>3</sup>, Elizabeth Chizema<sup>3</sup>, Thom Eisele<sup>4</sup>, Caterina Guinovart<sup>5</sup>  
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**LB-5552**

**Gaps along the malaria case management pathway in Mozambique: A cross-sectional health facility survey**

**Baltazar Candrinho**<sup>1</sup>, Mathew Plucinski<sup>2</sup>, James Colborn<sup>3</sup>, Mariana Da Silva<sup>1</sup>, Guidion Mathe<sup>1</sup>, Mercy Dimene<sup>1</sup>, Ana Rita Chico<sup>3</sup>, Ana Cristina Castel-Branco<sup>3</sup>, Frederico Brito<sup>4</sup>, Marcel Andela<sup>3</sup>, Gabriel Ponce de Leon<sup>2</sup>, Abuchahama Saifodine<sup>5</sup>, Rose

Zulliger<sup>5</sup>

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**LB-5553**

**Characteristics of long-lasting insecticide treated nets associated with malaria infection among children under 15 years of age**

**Gabriel F. Ponce de León**<sup>1</sup>, John Williamson<sup>1</sup>, Robert Perry<sup>2</sup>, Waqo Ejersa<sup>3</sup>, Rebecca Kiptui<sup>3</sup>, Ahmeddin H. Omar<sup>3</sup>, John Gimnig<sup>1</sup>  
<sup>1</sup>*CDC, Atlanta, GA, United States*, <sup>2</sup>*CDC, Nairobi, Kenya*, <sup>3</sup>*Ministry of Health, Nairobi, Kenya*

**LB-5554**

**Clinical relevance of highly sensitive diagnostic tools for the diagnosis of malaria in febrile children in Tanzania**

**Mary-Anne Hartley**<sup>1</sup>, Natalie Hofman<sup>2</sup>, Kristina Keitel<sup>2</sup>, Frank Kagoro<sup>3</sup>, Clara Antunes Moniz<sup>2</sup>, Tarsis Mlaganile<sup>3</sup>, Josephine Samaka<sup>4</sup>, John Masimba<sup>3</sup>, Zamzam Said<sup>3</sup>, Hosiana Temba<sup>3</sup>, Iveth Gonzalez<sup>5</sup>, Ingrid Felger<sup>2</sup>, Blaise Genton<sup>2</sup>, Valérie D'Acremont<sup>2</sup>  
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**LB-5555**

**Effect of Seasonal Malaria Chemoprevention on malaria incidence and prevalence among children less than 5 years old in Dangassa, Mali**

**Mahamoudou Toure**<sup>1</sup>, Oumar Thiero<sup>1</sup>, Daouda Sanogo<sup>1</sup>, Salim Kante<sup>1</sup>, Abdoul Salam Keita<sup>1</sup>, Idriss Chontene Coulibaly<sup>1</sup>, Sekou F. Traore<sup>1</sup>, Seydou Doumbia<sup>1</sup>, Donald J. Krogstad<sup>2</sup>  
<sup>1</sup>*International Center for Excellence in Research, Bamako, Mali*, <sup>2</sup>*Tulane University, Tulane, LA, United States*

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**LB-5556**

**Advocacy for Sub-National Capacity Building, Ownership, and Domestic Resource Mobilization for Malaria Elimination: Securing Commitments in the Philippines and Thailand**

**Sara E. Rossi**, Erika M. Larson  
*UCSF, San Francisco, CA, United States*

**LB-5557**

**Prevalence of malaria parasitaemia, low birthweight and maternal anaemia among Ghanaian women at delivery**

**David K. Dosoo**, Ghana Sulphadoxine-Pyrimethamine Impact Study Team,  
*Kintampo Health Research Centre, Kintampo, Ghana*

**LB-5558**

**Levels of HRP2 Antigens and False Negative Histidine-Rich Protein 2 (HRP2)-based Rapid Diagnostic Tests (RDTs) for Malaria in Dioro, Mali**

**Trevor A. Thompson**<sup>1</sup>, Lansana Sangaré<sup>2</sup>, Youssouf Diarra<sup>2</sup>, Eric Rogier<sup>3</sup>, Venkatachalam Udhayakumar<sup>3</sup>, Ousmane A. Koita<sup>2</sup>, Donald J. Krogstad<sup>1</sup>  
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**LB-5559**

**Geographic assignment of *P. falciparum* and *P. vivax* infections using genetic data**

**Maxwell Murphy**<sup>1</sup>, Sofonias Tessema<sup>1</sup>, Anna-Rossa Mupiri<sup>2</sup>, Munyaradzi Tambo<sup>2</sup>, Jennifer L. Smith<sup>3</sup>, Adam Bennett<sup>3</sup>, Hugh J. Sturrock<sup>3</sup>, Roland Gosling<sup>3</sup>, Davis Mumbengegwi<sup>2</sup>, Michelle S. Hsiang<sup>3</sup>, Rintis Noviyanti<sup>4</sup>, Hidayat Trimarsanto<sup>4</sup>, Ric Price<sup>5</sup>, Isabel Rodriguez-Barraquer<sup>1</sup>, Sarah Auburn<sup>5</sup>, Bryan Greenhouse<sup>1</sup>

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*Darwin University, Darwin, Northern Territory, Australia*

**LB-5560**

**Spatial distribution of genetic markers of artemisinin resistance in *Plasmodium falciparum* malaria in Asia**

**Frank M. Kagoro**<sup>1</sup>, Kevin Marsh<sup>1</sup>, Nattwut Ekapirat<sup>2</sup>, Chris Mercado<sup>2</sup>, Ipsita Sinha<sup>2</sup>, Georgina Humphrey<sup>1</sup>, Mehul Dhorda<sup>2</sup>, Olivo Miotto<sup>2</sup>, Arjen Dondorp<sup>2</sup>, Philippe Guerin<sup>1</sup>, Richard Maude<sup>2</sup>  
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**LB-5561**

**Epidemiology of malaria in Northeast Thailand a case-control study**

**Rapeephan R. Maude**<sup>1</sup>, Tanong Kamsri<sup>2</sup>, Akarapuchit Palanan<sup>3</sup>, Wanchai Lausatianragit<sup>4</sup>, Chaiwat Darasit<sup>5</sup>, Sasithon Pukrittayakamee<sup>6</sup>, Kesinee Chotivanich<sup>6</sup>, Mallika Imwong<sup>1</sup>, Borimas Hanboonkunupakarn<sup>6</sup>, Jeeraphat Sirichaisinthop<sup>7</sup>, Jaranit Kaewkungwal<sup>8</sup>, Joel Tarning<sup>1</sup>, Caroline Buckee<sup>9</sup>, Mehul Dhorda<sup>10</sup>, Olivo Miotto<sup>11</sup>, Arjen M. Dondorp<sup>1</sup>, Nicholas P. Day<sup>1</sup>, Richard J. Maude<sup>1</sup>  
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**LB-5562**

**Health Facilities Infrastructure for Malaria Microscopy in supporting Malaria case Management in Nigeria**

**Wellington A. Oyibo**<sup>1</sup>, Sonachi N. Ezeiru<sup>2</sup>, Genevieve N. Eke<sup>2</sup>, Diwe Ekweremadu<sup>2</sup>, Chukwudi Uche<sup>2</sup>, Victoria Erinle<sup>2</sup>, Victor Adebayo<sup>2</sup>, Bala Mohammed Audu<sup>3</sup>  
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**Poster Session C**  
**Late Breakers in Clinical and Applied Sciences**  
*Wednesday, October 31, Noon - 1:45 p.m.*

**LB-5563**

**Post Market Surveillance of Malaria Rapid Diagnosis Tests in Nigeria**

**Ashley Holt**<sup>1</sup>, Ashley Grey<sup>1</sup>, Broadrick Eribo<sup>2</sup>, Wellington A. Oyibo<sup>3</sup>

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**LB-5564**

**Health Care Providers' Use of Malaria Rapid Diagnostic Tests in Public Health Facilities in Nigeria**

**Genevieve N. Eke**<sup>1</sup>, Sonachi Ezeiru<sup>1</sup>, Diwe Ekweremadu<sup>1</sup>, Chukwudi Uche<sup>1</sup>, Victoria Erinle<sup>1</sup>, Victor Adebayo<sup>1</sup>, Bala Mohammed Audu<sup>1</sup>, Wellington A. Oyibo<sup>2</sup>

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**LB-5565**

**Capacity of Malaria Microscopists in Private Health Facilities in twelve States of Nigeria**

**Earnest Nwokolo**<sup>1</sup>, Chinazo Ujuju<sup>1</sup>, Ifeanyi Udoye<sup>1</sup>, Wellington A. Oyibo<sup>2</sup>

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**LB-5566**

**Cobalt porphyrin-phospholipid for spontaneous nanoliposome-antigen particleization of his-tagged Pfs230**

**Wei-Chiao Huang**<sup>1</sup>, Kazutoyo Miura<sup>2</sup>, Yimin Wu<sup>3</sup>, Shwu-Maan Lee<sup>4</sup>, Jonathan F. Lovell<sup>1</sup>

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**LB-5567**

**Pulmonary tuberculosis among health-care workers, A silent threat**

**Thundon Ngamprasertchai**<sup>1</sup>, Narongpon Dumavibhat<sup>2</sup>, Suntaree Jeejaila<sup>2</sup>, Yong Rongrungruang<sup>3</sup>

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**LB-5568**

**Can community health workers in Ethiopia correctly assess and classify under-five children for symptoms of pneumonia using a new respiratory rate diagnostic aid?**

**Charlotte Alice Ward**<sup>1</sup>, Kevin Baker<sup>1</sup>, Alice Maurel<sup>1</sup>, Tedila Habte<sup>2</sup>, Dawit Getachew<sup>3</sup>, Cindy McWhorter<sup>4</sup>, Paul LaBarre<sup>4</sup>, Hayalnesh Tarekegn<sup>5</sup>, Max Petzold<sup>6</sup>, Karin Kallander<sup>1</sup>

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**LB-5569**

**Community Case Management of Chest Indrawing Pneumonia with oral amoxicillin in children, Nigeria**

**Helen Counihan**<sup>1</sup>, Olusola Oresanya<sup>2</sup>, Charlotte Ward<sup>1</sup>, Olatunde Adesoro<sup>2</sup>, Yahya A. Hamzat<sup>2</sup>, Patrick Gimba<sup>3</sup>, Sarah Marks<sup>1</sup>, James K. Tibenderana<sup>1</sup>, Karin Kallander<sup>1</sup>

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**LB-5570**

**Evaluation of microbiological variants to optimize the microscopic and imaging diagnosis of tuberculosis**

**Jorge Coronel**, Mirko Zimic, Patricia Sheen  
*Universidad Peruana Cayetano Heredia, Lima, Peru*

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**LB-5571**

**Use of Ribosome Profiling and RNA-seq in a Systems Biology-Based Assessment of Immune Responses to Whole Cell and Acellular Pertussis Vaccines in Healthy Infants in Peru**

Mariana Leguia<sup>1</sup>, Diana Juarez<sup>1</sup>, Steev Loyola<sup>2</sup>, Anton Vila-Sanjurjo<sup>3</sup>, Claudio F. Lanata<sup>4</sup>, Ana I. Gil<sup>4</sup>, Mayita Alvarez<sup>4</sup>, Rubelio Cornejo<sup>4</sup>, Johannes B. Goll<sup>5</sup>, Will F. Hopper<sup>5</sup>, Casey E. Gelber<sup>5</sup>, Leigh M. Howard<sup>6</sup>, Natalia Jimenez<sup>6</sup>, Kathryn M. Edwards<sup>6</sup>, C. Buddy Creech<sup>6</sup>

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<sup>5</sup>Emmes Corporation, Rockville, MD, United States,

<sup>6</sup>Vanderbilt University, Nashville, TN, United States

**LB-5572**

**Thin-layer-agar for isolation of *Mycobacterium tuberculosis* in cerebrospinal fluid**

Renee E. Newby<sup>1</sup>, Lizzet I. Martínez<sup>2</sup>, Paola L. Rondan<sup>2</sup>, Eric S. Ramos<sup>3</sup>, Sumona Datta<sup>3</sup>, Carlton A. Evans<sup>3</sup>, Jaime Soria<sup>2</sup>, Joseph Zunt<sup>1</sup>

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**LB-5573**

**Comparison of Three Methods for Detecting *Cyclospora cayentanensis* during the 2018 United States Outbreaks**

Aimee Boerger, Heather Arguello, Bobbi Pritt  
Mayo Clinic, Rochester, MN, United States

**LB-5574**

**Epidemiology, Risk Factors, and Spatial Distribution of *Giardia* Infection in Children in Urban and Rural Bangladesh**

Vikram Madan

The Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

**LB-5575**

**New World Cutaneous Leishmaniasis- A new dread: Description of 6 cases**

Ekta Bansal, Thomas Kerkering, Dorothy Garner, Douglas Grider

Virginia Tech Carilion School of Medicine, Carilion Clinic, Roanoke, VA, United States

**LB-5576**

**Retrospective Review of Chagas Disease Testing Practices and Patient Characteristics from an Academic Hospital in California**

Jeffrey Whitman, Caryn Bern  
University of California, San Francisco, SAN FRANCISCO, CA, United States

**LB-5577**

**Point-of-Care Sample Preparation and Quantitative Diagnosis of *Schistosoma haematobium* using Mobile Phone Microscopy**

Maxim Armstrong, Michael D'Ambrosio, Isaac Bogoch, Daniel Fletcher  
UC Berkeley, Berkeley, CA, United States

**LB-5578**

**Schistosomiasis in Norwegian medical students**

Tore Lier<sup>1</sup>, Gottfrid Greve<sup>2</sup>, Frank O. Pettersen<sup>3</sup>, Sven G. Hinderaker<sup>2</sup>, Kristine Mørch<sup>4</sup>

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University Hospital, Bergen, Norway

**LB-5579**

**Maternal schistosomiasis japonica and the microbial content of breast milk**

Ayush Joshi<sup>1</sup>, Palmera I. Baltzar<sup>2</sup>, Remigio M. Olveda<sup>2</sup>, Luz P. Acosta<sup>2</sup>, Veronica L. Tallo<sup>2</sup>, Jonathan D. Kurtis<sup>1</sup>, Jennifer F. Friedman<sup>1</sup>, Emily A. McDonald<sup>1</sup>

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**LB-5580**

**Functional study of *Schistosoma japonicum* fructose-1,6-bisphosphate aldolase**

Hannah Wu<sup>1</sup>, Sha Zhou<sup>2</sup>, Fang Tian<sup>3</sup>, Sunthorn Pond-tor<sup>1</sup>, Yang Hong<sup>4</sup>, RC Stuart<sup>1</sup>, Mario Jiz<sup>5</sup>, Blanca Jarilla<sup>5</sup>, Marianne Sagliba<sup>5</sup>, Amabelle Moreno<sup>5</sup>, Maripaz Urbina<sup>5</sup>, Archie Pablo<sup>5</sup>, Remigio Olveda<sup>5</sup>, SangShin Park<sup>1</sup>, Jennifer Friedman<sup>1</sup>, Jonathan Kurtis<sup>1</sup>

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**LB-5581**

**Impacts of prenatal *S. haematobium* infection on pregnancy outcomes in Kisantu Health Zone, Democratic Republic of the Congo**

**Adva Gadoth**<sup>1</sup>, Gisele Mvumbi<sup>2</sup>, Nicole A. Hoff<sup>1</sup>, Kamy Musene<sup>3</sup>, Patrick Mukadi<sup>4</sup>, Jean-Jacques Muyembe<sup>4</sup>, Emile Okitolonda-Wemakoy<sup>2</sup>, Anne Rimoin<sup>1</sup>

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**LB-5582**

**Acceptance and Willingness to Pay for a Hypothetical Zika Vaccine: A Cross-Sectional Study in Indonesia**

**Harapan Harapan**<sup>1</sup>, Amanda Yufika<sup>2</sup>, Yusuf Nawawi<sup>2</sup>, Nur Wahyuniati<sup>3</sup>, Samsul Anwar<sup>4</sup>, Fitriya Yusril<sup>5</sup>, Novi Haryanti<sup>6</sup>, Nanda P. Wijayanti<sup>7</sup>, Rizal Rizal<sup>8</sup>, Devi Fitriani<sup>9</sup>, Nurul F. Maulida<sup>10</sup>, Muhammad Syahriza<sup>11</sup>, Ikram Ikram<sup>3</sup>, Try P. Fandoko<sup>12</sup>, Muniati Syahadah<sup>13</sup>, Febrivan W. Asrizal<sup>14</sup>, Mudatsir Mudatsir<sup>3</sup>, David A. Groneberg<sup>15</sup>, Ruth Müller<sup>15</sup>, Allison Imrie<sup>1</sup>

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**LB-5583**

**Evaluation of an intensive care unit-like supportive care bundle in Ebola-virus-exposed Rhesus macaques**

**Anthony P. Cardile**<sup>1</sup>, Mark G. Kortepeter<sup>2</sup>  
<sup>1</sup>USAMRIID, Fort Detrick, MD, United States, <sup>2</sup>University of Nebraska College of Public Health, Omaha, NE, United States

**LB-5584**

**Case-control nested in a cohort study of dengue fever in Brazilian municipality**

**Gerusa M. Figueiredo**<sup>1</sup>, Expedito Luna<sup>1</sup>, Alessandra C. Pellini<sup>2</sup>, Sergio R. Campos<sup>1</sup>, Maria R. Cardoso<sup>2</sup>, Jose E. Levi<sup>1</sup>, Alvina C. Felix<sup>1</sup>, Nathalia C. Souza<sup>1</sup>, Claudio C. Pannuti<sup>1</sup>, Walter M. Figueiredo<sup>3</sup>, Angela A. Costa<sup>3</sup>, Francisco Chiaravalloti-Neto<sup>2</sup>

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**LB-5585**

**The 2017/2018 Mombasa Chikungunya outbreak may have been driven by a recent virus strain adapted to *Aedes aegypti***

**Fredrick L. Eyase**<sup>1</sup>, Wallace Bulimo<sup>1</sup>, Irina M. Berry<sup>2</sup>, Albert Nyunja<sup>1</sup>, samson Limbaso<sup>1</sup>, Solomon Langat<sup>1</sup>, Hellen Koka<sup>1</sup>, Edith Koskei<sup>1</sup>, Victor Ofula<sup>1</sup>, James Mancuso<sup>3</sup>, John Distelhorst<sup>1</sup>, Richard Jarman<sup>2</sup>, Rosemary Sang<sup>1</sup>

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**LB-5586**

**Hepatitis E Virus Seroprevalence in Ecuador and How it Relates to Age, Gender, and Diet**

**Taylor Spillane**<sup>1</sup>, Mark Abbott<sup>2</sup>, Christina Lupone<sup>2</sup>, Naveed Heydari<sup>2</sup>, Cinthya Cueva<sup>2</sup>, Efrain Beltran<sup>3</sup>, Mark Polhemus<sup>2</sup>, Tim Endy<sup>2</sup>, Anna M. Stewart-Ibarra<sup>2</sup>, Brittany L. Kmush<sup>1</sup>

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**LB-5587**

**Does prior dengue virus exposure worsen clinical outcomes of Zika virus infection? A systematic review, pooled analysis and lessons learned**

**Jennifer Masel**<sup>1</sup>, Michael McCracken<sup>2</sup>, Todd Gleeson<sup>1</sup>, Brian Morrison<sup>3</sup>, George Rutherford<sup>4</sup>, Richard Jarman<sup>2</sup>, Michael Koren<sup>2</sup>, Simon Pollett<sup>2</sup>  
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**LB-5588**

**Knowledge and misconceptions about Zika virus infection in adult Peruvian women of reproductive age during the 2017 epidemic**

**Armando Pezo**, Elisa Juarez, Mahony Reátegui-Rivera, Corina Rusu, Richard Wallace, Andrés G. Lescano  
*Unidad de Investigación en Enfermedades Emergentes y Cambio Climático EMERGE- UPCH, Lima, Peru*

**LB-5589**

**Dengue hotspot identification in Puerto Rico utilizing historic surveillance data**

Grete Wilt<sup>1</sup>, **Matthew Lozier**<sup>2</sup>, Laura Wright<sup>1</sup>, Kyle Ryff<sup>3</sup>, Laura Adams<sup>3</sup>, Gabriela Paz-Bailey<sup>3</sup>  
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**LB-5590**

**A preclinical candidate against dengue virus**

**Feng Gu**  
*Novartis Institute for Tropical Diseases, Emeryville, CA, United States*

**LB-5591**

**Characteristics of a subgroup of persons vaccinated during the 2018 Democratic Republic of the Congo Ebola outbreak**

**Nicole A. Hoff**<sup>1</sup>, Patrick Mukadi<sup>2</sup>, Steve Ahuka<sup>2</sup>, Michel Kabamba<sup>3</sup>, Kamy Musene<sup>2</sup>, D'Andre Spencer<sup>1</sup>, Megan Halbrook<sup>1</sup>, Camile Dzogong<sup>4</sup>, David McIlwain<sup>5</sup>,

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**LB-5592**

**Hierarchical Bayesian spatiotemporal models characterizing the invasion of a novel dengue serotype into Iquitos, Peru**

**Daniel P. Weikel**<sup>1</sup>, Alex Perkins<sup>2</sup>, Amy C. Morrison<sup>3</sup>, Thomas W. Scott<sup>3</sup>, Robert C. Reiner<sup>1</sup>  
<sup>1</sup>Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA, United States, <sup>2</sup>University of Notre Dame, Notre Dame, IN, United States, <sup>3</sup>University of California, Davis, Davis, CA, United States

**LB-5593**

**Modeling mosquito-borne and sexual transmission of Zika virus in an enzootic host, the African green monkey**

**Andrew D. Haddow**, Unai Perez-Sautu, Michael R. Wiley, Lynn J. Miller, Adrienne E. Kimmel, Lucia M. Principe, Suzanne E. Wollen-Roberts, Joshua D. Shamblin, Stephanie M. Valdez, Lisa H. Cazares, William D. Pratt, Franco D. Rossi, Luis Lugo-Roman, Aysegul Nalca, Farooq Nasar, M. Louise M. Pitt  
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**LB-5594**

**Detection of IgA and IgM antibodies in Zika virus infection using multiplex serodiagnostic test**

**Neeraja Venkateswaran**<sup>1</sup>, Jawad Sarwar<sup>2</sup>, William M. Nelson<sup>1</sup>, Kodumudi S. Venkateswaran<sup>2</sup>  
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**LB-5595**

**CELL ADHESION MOLECULE 1 expression by T cell subsets in Human T leukemia virus 1 associated diseases**

**Jhon Bocanegra**<sup>1</sup>, Sebastian Echeandia<sup>1</sup>, Jessica Stauber<sup>2</sup>, Martin Montes<sup>1</sup>, Elsa Gonzalez<sup>1</sup>, Eduardo Gotuzzo<sup>1</sup>

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