

career scientists will have an opportunity to briefly meet experts who represent each of the subgroup fields, including scientists in global health, clinicians, epidemiologists, entomologists and basic research scientists. Experts will have a broad range of career experiences working in international posts, policy, federal government, and the military, among others. Experts will share information with students about their career choices, trajectories, challenges along the way, and how they see their work fitting into the larger tropical medicine arena. Students in this session will be designated to a subgroup to match their interests and current educational paths.

#### **CHAIR**

Rachel Lange

*SUNY at Albany School of Public Health, Albany, NY, United States*

Teresia Njoroge

*Indiana University, Indianapolis, IN, United States*

Winter Okoth

*Rutgers, State University of New Jersey, New Brunswick, NJ, United States*

Claudia Rohr

*Medical College of Wisconsin, Milwaukee, WI, United States*

Daniel Sprague

*Medical University of South Carolina, Charleston, SC, United States*

Hannah Steinberg

*University of Illinois Chicago, Chicago, IL, United States*

Akilah Stewart

*Indiana University School of Medicine, South Bend, IN, United States*

Hendrik Sy

*Montefiore Medical Center/Albert Einstein College of Medicine, Bronx, NY, United States*

Camila C. Tompkins

*Arizona State University, Tempe, AZ, United States*

## **Sponsored Symposium**

### **Professor Dominic Kwiatkowski - Science and Legacy**

#### **Sponsored by the Bill & Melinda Gates Foundation**

*Convention Center - Room 388/389 (3rd Floor)*

**Friday, November 15, 6:15 p.m. - 8 p.m.**

See page 55 for information.

## **Saturday, November 16**

### **Registration**

*Convention Center - Lobby J (1st Floor)*

**Saturday, November 16, 7 a.m. - 5 p.m.**

### **Speaker Ready Room (Closed 1 p.m. - 2 p.m.)**

*Convention Center - Room 387 (3rd Floor)*

**Saturday, November 16, 7 a.m. - 5 p.m.**

### **TropStop -Student/Trainee Lounge**

*Convention Center - Room 346/347 (3rd Floor)*

**Saturday, November 16, 7 a.m. - 5 p.m.**

This casual setting, designed with students, trainees and residents in mind (coffee, internet), is your place for a break from the fast pace of the meeting and relax with colleagues and friends. Check out the Career Chats, held in the TropStop. This will be your opportunity to meet professionals in the fields of tropical medicine and global health who will share their personal career paths and answer your questions about the various bumps and forks in the road.

### **Meeting Sign-Up Room**

*Hilton - Norwich Room and Windsor Room (3rd Floor)*

**Saturday, November 16, 7 a.m. - 7 p.m.**

### **Nursing Mothers Room**

*Convention Center - Office I120 and Office J121 (1st Floor)*

**Saturday, November 16, 7 a.m. - 7 p.m.**

### **Prayer Room**

*Convention Center - Room 342 (3rd Floor)*

**Saturday, November 16, 7 a.m. - 7 p.m.**

### **ASTMH Presidents Meeting**

*Convention Center - Room 399 (3rd Floor)*

**Saturday, November 16, 7 a.m. - 8 a.m.**

### **Diploma Course Certification Committee Meeting**

*Hilton - Marlborough B (2nd Floor)*

**Saturday, November 16, 7 a.m. - 8 a.m.**

### **Scientific Program Committee Meeting**

*Convention Center - Room 397/398/399 (3rd Floor)*

**Saturday, November 16, 7 a.m. - 8 a.m.**

### **Press Room**

*Convention Center - Room 340 (3rd Floor)*

**Saturday, November 16, 7:45 a.m. - 5 p.m.**

## New Orleans Tour. A Walk through the History of New Orleans and Intersections with Tropical Medicine and Public Health

Limited to attendees who signed up at Tulane Exhibit Booth  
Saturday, November 16, 8 a.m. - 10 a.m.

The city of New Orleans is a landscape imprinted with the waves of epidemics that in response produced the first school of public health and first school of tropical medicine in the United States. New Orleans' culture and its geography shaped these epidemics and the epidemics in turn shaped the city's culture and economy. Stop by the Tulane booth in the Exhibit Hall to sign up for a walk to see some key sites of the city, the yellow fever mortuary chapel, the birth places of American music, the slave market, the front door of the French Quarter and the Mississippi River's edge which evokes the physical and social contexts that brought yellow fever, cholera, and malaria to the city.



## Symposium 106

### Unprecedented Dengue Outbreaks in the Americas and Exemplary Responses to the Growing Challenge

Convention Center - Hall I-2 (1st Floor)  
Saturday, November 16, 8 a.m. - 9:45 a.m.

Dengue is the most common arboviral disease globally, with reported case numbers increasing ten-fold from 2000-2019 and burden predicted to continue growing. Dengue epidemics pose a serious challenge in endemic countries, where case numbers can rapidly escalate and overwhelm health systems. Early disease detection through epidemiological surveillance and laboratory testing, as well as appropriate clinical management capacity, can improve response and reduce the risk of death but efforts are often limited. In the Americas region, >4.5 million cases and >2,200 preventable deaths were reported in 2023, the highest number on record. Enhancing countries' epidemiologic and laboratory workforce and using data modernization to facilitate information dissemination at the national and subnational level is key to strengthening surveillance and promoting more timely and effective responses to dengue transmission. This symposium will call attention to the growing dengue trends and unprecedented outbreaks in the Americas, the efforts to strengthen arbovirus surveillance and innovative approaches implemented by countries to face the growing threat. The symposium will include five presentations. The first talk will describe a health information platform for the Americas (PLISA) developed by the Pan-American Health Organization (PAHO) with the objective of strengthening regional arbovirus surveillance through improvements in data quality and analytics. The second talk will be on dengue in Brazil and the country's success in preventing dengue deaths. Brazil has long been a focal point in the battle against dengue fever, accounting for more than 75% of dengue cases in the region. This talk will highlight Brazil's remarkable success in preventing dengue-related deaths, despite facing challenges such as the 2023 epidemic. The third talk will be on seeing dengue in unusual places

at unusual times in Peru and will explore the evolving landscape of dengue transmission. The next talk will describe how climate is influencing dengue trends, from a modeling approach. Using sophisticated modeling approaches, experts will elucidate how changes in temperature and other environmental variables have influenced dengue trends over the past decade. We will close the symposium by describing the emergence of new genotypes and dengue lineages in the Americas. By unraveling the genetic diversity of dengue viruses, attendees will gain valuable insights into the dynamics of dengue transmission and the potential implications for vaccine development and control strategies. #ClimateChange #EmergingDiseaseThreats #Epidemiology #InfectiousDisease #Modeling #Prevention

#### CHAIR

Gabriela Paz Bailey  
Centers for Disease Control and Prevention (CDC), San Juan, PR, United States

Thais dos Santos  
Pan American Health Organization (PAHO), Washington, DC, United States

#### 8 a.m. INTRODUCTION

#### 8:10 a.m. DENGUE TRENDS IN THE AMERICAS, PLISA AND THE BENEFITS OF A TAILORED SURVEILLANCE APPROACH

Thai Dos Santos  
Pan American Health Organization (PAHO), Washinton, DC, United States

#### 8:30 a.m. DENGUE IN BRAZIL AND THE COUNTRY'S IN SUCCESS PREVENTING DENGUE DEATHS

Livia Carla Vinhal Frutuoso  
Ministerio de Salud de Brasil, Brasilia, Brazil

#### 8:50 a.m. SEEING DENGUE IN UNUSUAL PLACES AT UNUSUAL TIMES IN PERU

César V. Munayco  
General Direction of Epidemiology, Lima, Peru

#### 9:10 a.m. HOW IS CLIMATE INFLUENCING DENGUE TRENDS, A MODELING APPROACH

Rachel Lowe  
Barcelona Supercomputing Center (BSC), Barcelona, Spain



## Symposium 107

### CDC Yellow Book Travel Medicine Update

Convention Center - Room 343/344 (3rd Floor)  
Saturday, November 16, 8 a.m. - 9:45 a.m.

The CDC Yellow Book Health Information for International Travel is published every two years as a resource for health professionals providing care to international travelers. The CDC Yellow Book compiles the US government's most current travel health guidelines, including pre-travel vaccine recommendations, destination-specific health advice, and easy-to-reference maps, tables, and charts. The first presentation will feature the Yellow

Book editor-in-chief, who will discuss recent changes and updates to the field of travel medicine. Next, three CDC-based subject matter experts will each review and provide updates about an important topic in travel medicine: leishmaniasis, vaccines for Japanese encephalitis and other travel-related arboviral diseases, and typhoid and paratyphoid fever. #Prevention #EmergingDiseaseThreats #InfectiousDisease

#### CHAIR

Eric S. Halsey  
CDC, Atlanta, GA, United States

Rebecca J. Chancey  
CDC, Atlanta, GA, United States

#### 8 a.m.

##### INTRODUCTION

#### 8:10 a.m.

##### CDC TRAVEL MEDICINE UPDATE

Eric S. Halsey  
Centers for Disease Control and Prevention, Atlanta, GA, United States

#### 8:35 a.m.

##### LEISHMANIASIS: REVIEW AND UPDATE

Rebecca J. Chancey  
Centers for Disease Control and Prevention, Atlanta, GA, United States

#### 9 a.m.

##### JAPANESE ENCEPHALITIS VACCINE AND OTHER ARBOVIRAL VACCINES: REVIEW AND UPDATE

Susan Hills  
Centers for Disease Control and Prevention, Fort Collins, CO, United States

#### 9:25 a.m.

##### TYPHOID AND PARATYPHOID FEVER: REVIEW AND UPDATE

Louise C. Francois Watkins  
Centers for Disease Control and Prevention, Atlanta, GA, United States

## Scientific Session 108

### Global Health: Improved Health Care Service Delivery and Health Systems Strengthening

Convention Center - Room 345 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

#ChildHealth #PopulationSurveillance #Elimination

#### CHAIR

Sajid Bashir Soofi  
Aga Khan University, Karachi, Pakistan

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

#### 8 a.m.

7639

##### INNOVATING MALARIA PROGRAM COMPLIANCE FOR SCALABILITY USING AUTOMATION AND AI

Elizabeth Kathure  
Maisha Meds, Kisumu, Kenya

#### 8:15 a.m.

7640

##### STRENGTHENING THE FRONTLINE DURING PUBLIC HEALTH EMERGENCIES: THE ROLE OF INSTITUTIONAL AND SOCIAL SUPPORT FOR HEALTHCARE WORKERS IN LOW-INCOME SETTINGS

Ifeolu John David  
University of Michigan, Ann Arbor, MI, United States

#### 8:30 a.m.

7641

##### COMPARING IMPLEMENTATION OUTCOMES AFTER AZITHROMYCIN MASS DRUG ADMINISTRATION TO CHILDREN 1-11 VS 1-59 MONTHS OLD FOR CHILD SURVIVAL IN A CLUSTER-RANDOMIZED TRIAL IN NIGER

Ahmed M. Arzinka<sup>1</sup>, Ramatou Maliki<sup>1</sup>, Abdou Amza<sup>2</sup>, Karamba Alio<sup>1</sup>, Nasser Galo<sup>1</sup>, Bawa Aichatou<sup>1</sup>, Diallo Beidi<sup>1</sup>, Laminou Maliki Haroun<sup>1</sup>, Farissatou Oumarou<sup>1</sup>, Elodie Lebas<sup>3</sup>, Brittany Peterson<sup>3</sup>, Carolyn Brandt<sup>3</sup>, Emily Colby<sup>3</sup>, William Nguyen<sup>3</sup>, Zijun Liu<sup>3</sup>, Benjamin F. Arnold<sup>3</sup>, Thomas L. Lietman<sup>3</sup>, Meagan C. Fitzpatrick<sup>4</sup>, Kieran O'Brien<sup>3</sup>  
<sup>1</sup>Centre de Recherche et Interventions en Santé Publique, Birni N'Gaoure, Niger; <sup>2</sup>Programme Nationale de Santé Oculaire, Niamey, Niger; <sup>3</sup>Francis I. Proctor Foundation, University of California, San Francisco, San Francisco, CA, United States; <sup>4</sup>Center for Vaccine Development and Global Health, University of Maryland School of Medicine, Baltimore, MD, United States

#### 8:45 a.m.

7642

##### IMPROVED ACCESS TO COMMUNITY-LEVEL DATA IN MADAGASCAR'S NATIONAL HEALTH INFORMATION SYSTEM FOLLOWING SUPPORT TO DISTRICT HEALTH TEAMS, 2019 - 2023

Elgiraud Ramarosaiaky<sup>1</sup>, Elmard Rabotovaosolo<sup>1</sup>, Cedric Yambabariye<sup>1</sup>, Aishling Thurow<sup>2</sup>, Maya Gershtenson<sup>2</sup>, Serge Raharison<sup>1</sup>, Laurent Kapesa<sup>3</sup>, Solofo Razakamiadana<sup>3</sup>, Anna Bowen<sup>4</sup>, Lova Avotra Ralijaona<sup>3</sup>, Azzah Al-rashid<sup>5</sup>, Solange Razakandretsa<sup>6</sup>  
<sup>1</sup>ACCESS Program, Management Sciences for Health, Antananarivo, Madagascar; <sup>2</sup>Management Sciences for Health, United States, Arlington, VA, United States; <sup>3</sup>U.S. President's Malaria Initiative, United States Agency for International Development, Antananarivo, Madagascar; <sup>4</sup>U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Antananarivo, Madagascar; <sup>5</sup>United States Agency for International Development, Antananarivo, Madagascar; <sup>6</sup>Ministry of Public Health, Antananarivo, Madagascar

#### 9 a.m.

7643

##### ROUTINE CHILDHOOD IMMUNIZATION COVERAGE AMONGST HOSPITALIZED CHILDREN: A QUALITY IMPROVEMENT INITIATIVE

Pierre-Philippe Piché-Renaud, Caitlyn Hui, Adria Rose, Louise Ing, Jessica Florio, Aalia Jahurali, Elahe Karimi-Shahrbabak, Shaun K. Morris  
The Hospital for Sick Children, Toronto, ON, Canada

#### 9:15 a.m.

7644

##### REPRODUCIBILITY OF A SMARTPHONE-BASED VISUAL ACUITY TEST (PEEK ACUITY) IN PERUVIAN SCHOOLCHILDREN

Evelyn del Rosario Munayco Pantoja<sup>1</sup>, Jeremy Keenan<sup>2</sup>, Andres Lescano<sup>1</sup>  
<sup>1</sup>Emerge, Emerging Diseases and Climate Change Research Unit, School of Public Health and Administration, Universidad Peruana Cayetano Heredia, Lima, Peru; <sup>2</sup>University of California, San Francisco, CA, United States

9:30 a.m.

7645

### CRITICAL REFLECTIONS ON COSTING PUBLIC HEALTH INTERVENTIONS IN RESOURCE-CONSTRAINED IMPLEMENTATION SETTINGS: CONSIDERATIONS AND RECOMMENDATIONS

Yesim Tozan<sup>1</sup>, Tyler Y. Headley<sup>2</sup>, Sooyoung Kim<sup>3</sup>, Ariadna Capasso<sup>4</sup>, Joshua Kiyingi<sup>5</sup>, Vincent Ssentumbwe<sup>6</sup>, Josephine Nabayinda<sup>5</sup>, Flavia Namuwonge<sup>5</sup>, Edward Nsubuga<sup>5</sup>, Rashida Namirembe<sup>6</sup>, Proscovia Nabunya<sup>5</sup>, Ozge Sensoy Bahar<sup>5</sup>, Larissa Jennings Mayo-Wilson<sup>7</sup>, Susan S. Witte<sup>8</sup>, Fred M. Ssewamala<sup>5</sup>

<sup>1</sup>New York University School of Global Public Health, Department of Global and Environmental Health, New York, NY, United States, <sup>2</sup>New York University Abu Dhabi, Abu Dhabi, United Arab Emirates, <sup>3</sup>New York University School of Global Public Health, Department of Public Health Policy and Management, New York, NY, United States, <sup>4</sup>New York University School of Global Public Health, Department of Social and Behavioral Sciences, New York, NY, United States, <sup>5</sup>Brown School, Washington University in St. Louis, Saint Louis, MN, United States, <sup>6</sup>International Center for Child Health and Development, Brown School, Washington University in Saint Louis, Saint Louis, MN, United States, <sup>7</sup>School of Global Public Health, University of North Carolina, Chapel Hill, NC, United States, <sup>8</sup>Columbia University School of Social Work, New York, NY, United States

## Symposium 109

### Socio-Ecological Approaches to Mitigating Risk for Tick-Borne Diseases

Convention Center - Room 352 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

Zoonotic diseases are inherently eco-social processes where risk is maximized by a convergence of high hazard (abundance of the pathogen/vector), human behavior driving exposure, and compound vulnerabilities. While this framework is often used to address zoonotic emergence of directly-transmitted viruses, application to tick-borne zoonoses has lagged. Tick-borne disease 'risk' is often measured simply as the density of infected ticks in the environment or the distribution of (underreported) case counts. It is imperative that research shifts toward One Health surveillance and intervention strategies to curb the continuous increase in incidence of tick-borne diseases, with more than 400K cases a year of Lyme disease alone in North America. We present research on novel surveillance and intervention frameworks and methods to understand and model tick-borne disease dynamics in a One Health perspective. Because tick-borne diseases occur at the intersection of human health, wildlife, land use and natural resource management, there are particular challenges to risk mitigation, adaptation, prevention and control. Research presented here tackle these challenges using integrated approaches to risk modeling/mapping including multi-criteria decision analysis and participatory mapping; spatially explicit modeling of human movement and exposure behavior including the uptake and impact of preventative behaviors; collaborative modeling and policy games; and choice experiments to understand willingness to pay for different tick control approaches on private and publicly owned land. All researchers highlight the importance to identify operational tick control strategies and health promotion adapted to diverse eco-social contexts and under conditions of high uncertainty, to maximize the impact of limited resources at the nexus of human and environmental health. #EcologicalStudies #EmergingDiseaseThreats #InfectiousDisease #Modeling #SocialScience

### CHAIR

Maria A. Diuk-Wasser  
Columbia University, New York, NY, United States

Jean Tsao  
Michigan State University, East Lansing, MI, United States

### 8 a.m. INTRODUCTION

#### 8:10 a.m. BRINGING BACK THE HUMAN DIMENSION IN TICK-BORNE DISEASES RISK ASSESSMENT AND MANAGEMENT

Catherine Bouchard  
Public Health Agency of Canada, National Microbiology Laboratory and University of Montreal, Montreal, QC, Canada

#### 8:30 a.m. PREFERENCE HETEROGENEITY FOR TICK CONTROL STRATEGIES UNDER CONDITIONS OF SCIENTIFIC UNCERTAINTY

Allie Gardner  
University of Maine, Orono, ME, United States

#### 8:50 a.m. STAKEHOLDER INVOLVEMENT IN FOREST MANAGEMENT PRACTICES TARGETING LYME DISEASE PREVENTION

Andres M. Urcuqui Bustamante  
University of Illinois, Chicago, IL, United States

#### 9:10 a.m. REVEALING RISKY ENVIRONMENTS: MODELING HUMAN-TICK ENCOUNTERS USING A SMARTPHONE APPLICATION AND AGENT-BASED MODELS IN URBAN LANDSCAPES

Pilar Fernandez  
Washington State University, Pullman, WA, United States

#### 9:30 a.m. EVER-SHIFTING RISK: EXPLORING WHERE, HOW, AND WHY PEOPLE ARE EXPOSED TO TICK-BORNE PATHOGENS ACROSS URBAN GRADIENTS

Maria A. Diuk-Wasser  
Columbia University, New York, NY, United States

## Symposium 110

### Public Health Under Threat - A Protracted Sociopolitical Crisis in Haiti

Convention Center - Room 353 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

Haiti had achieved many important advancements in global public health over the past two decades - excellent HIV program, important work on filariasis elimination, reduction in malaria, and control of cholera for a two-year period after a long and impactful cholera outbreak. Many of these programs offered to serve as models for public health progress in a challenging environment, even despite a major earthquake in 2010 and other external shocks. However, since 2019 a protracted socio-political crisis in the country has crippled many health care and preventive health services. The culmination of this in many ways is expressed in the re-emergence of cholera in 2022 after 2 years of quiescence

with almost 80,000 cases reported since Oct 2022. The impact of the multi-faceted sociopolitical crisis - which predated Covid19 pandemic - has been devastating to health. This symposium seeks to i) share data, ii) discuss progress (despite the challenges) and setbacks (because of the challenges) to both infectious and non-communicable disease control and prevention in Haiti and to iii) foster exchange with panelists, ASTMH members/annual meeting attendees on generalizable approaches and solutions. We will bring experts on healthcare and public health from Haiti, complemented by speakers from CDC Atlanta and Pan American Health Organization (both CDC and PAHO reps have lived experience in Haiti) to present, with co-moderators. Presentations will focus on the epidemiology of disease in Haiti (infectious diseases - cholera, diphtheria, covid19, and non-infectious diseases - cardiovascular disease, diabetes) and program interventions and outcomes during the conflict/crisis. Participants will hear from Haitians working to support healthcare delivery, public health programs and research and from public health officials from PAHO and CDC. #EmergingDiseaseThreats #Epidemiology #FieldStudies #InfectiousDisease #PopulationSurveillance

#### CHAIR

Louise Ivers  
*Harvard Global Health Institute, Cambridge, MA, United States*

Ralph Ternier  
*Zanmi Lasante, Port-au-Prince, Haiti*

#### 8 a.m.

##### INTRODUCTION

#### 8:10 a.m.

##### HIV PROGRAMS IN HAITI - SUCCESS THREATENED BY SOCIOPOLITICAL CRISIS

Vanessa Rouzier  
*GHEKIO, Port-au-Prince, Haiti*

#### 8:35 a.m.

##### INFECTIOUS DISEASES OUTBREAKS AND RESPONSE 2020-2024 - CHOLERA, DIPHTHERIA, COVID19

Katilla Pierre  
*Haiti Ministry of Health, Port-au-Prince, Haiti*

#### 8:50 a.m.

##### PRIORITY INFECTIOUS DISEASES OUTBREAKS IN HAITI 2010-2024

Michael Melchior  
*Centers for Disease Control and Prevention, Atlanta, GA, United States*

#### 9:05 a.m.

##### PUBLIC HEALTH IN HAITI - CHOLERA AND THE IMPORTANCE OF HAITI FOR REGIONAL HEALTH OF THE AMERICAS

Mauricio Cerpa  
*Pan American Health Organization, Cartagena, Colombia*

## Scientific Session 111

### Bacteriology: Other Bacterial Infections

Convention Center - Room 354/355 (3rd Floor)  
Saturday, November 16, 8 a.m. - 9:45 a.m.

**This session does not carry CME credit.**

**#Diagnostics #PopulationSurveillance #Pathogenesis  
#Epidemiology #InfectiousDisease**

#### CHAIR

Joseph M. Vinetz  
*Yale School of Medicine, New Haven, CT, United States*

Liya Sesay Getachew  
*Emory University, Atlanta, GA, United States*

#### 8 a.m.

### 7646

##### FROM MAPPING TO NEAR TRACHOMA ELIMINATION IN UNDER A DECADE: RESULTS FROM TRACHOMA PREVALENCE SURVEYS IN COTE D'IVOIRE FROM 2015-2023

N'goran N. Dje<sup>1</sup>, Adam D. Mama<sup>1</sup>, Bovari H. Anoma<sup>1</sup>, Ange E. Aba<sup>2</sup>, Virginie Ettiegne-Traore<sup>3</sup>, Boubacar M. Dicko<sup>4</sup>, Konan Nguessan<sup>5</sup>, Regina H. N'goran<sup>1</sup>, Laurence AM Dje<sup>1</sup>, Landry T. N'guessan<sup>1</sup>, Victor B. Yepri<sup>1</sup>, Emma Harding-Esch<sup>6</sup>, Clara R. Burgert-Brucker<sup>7</sup>, Sarah Boyd<sup>8</sup>, Ana Bakhtiari<sup>8</sup>, Cristina Jimenez<sup>9</sup>, Michaela Kelly<sup>9</sup>, Paul Courtright<sup>10</sup>, Anthony W. Solomon<sup>11</sup>, Stephanie L. Palmer<sup>2</sup>  
<sup>1</sup>Programme National de Lutte contre les Maladies Tropicales Négligées à Chimiothérapie Préventive, Abidjan, Côte D'Ivoire, <sup>2</sup>FHI 360, Washington, DC, United States, <sup>3</sup>FHI 360 Cote d'Ivoire, Abidjan, Côte D'Ivoire, <sup>4</sup>Sightsavers, Abidjan, Côte D'Ivoire, <sup>5</sup>FHI 360, Sightsavers, Abidjan, Côte D'Ivoire, <sup>6</sup>Clinical Research Department, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>7</sup>RTI International, Washington, DC, United States, <sup>8</sup>International Trachoma Initiative, Decatur, GA, United States, <sup>9</sup>Sightsavers, Hayward Health, United Kingdom, <sup>10</sup>University of Cape Town, Cape Town, South Africa, <sup>11</sup>Department of Control of Neglected Tropical Diseases, World Health Organization, Geneva, Switzerland

#### 8:15 a.m.

### 7647

##### CHARACTERIZING THE BURDEN OF SCRUB TYPHUS IN NEPALESE CHILDREN: A NOVEL SCHOOL-BASED SEROSURVEILLANCE APPROACH

Shiva R. Naga<sup>1</sup>, Sabin Bikram Shahi<sup>1</sup>, Sarira Goshain<sup>1</sup>, Mamata Maharjan<sup>1</sup>, Nishan Katuwal<sup>1</sup>, Rajeev Shrestha<sup>1</sup>, Jason R. Andrews<sup>2</sup>, Dipesh Tamrakar<sup>1</sup>, Kristen Aiemyjoy<sup>3</sup>  
<sup>1</sup>Dhulikhel Hospital, Kathmandu University Hospital, Kavrepalanchowk, Nepal, <sup>2</sup>Stanford University School of Medicine, California, CA, United States, <sup>3</sup>University of California Davis School of Medicine, California, CA, United States

#### 8:30 a.m.

### 7648

##### THE LEPTOSPIRA-SECRETED EXOTOXIN THAT MEDIATES LEPTOSPIROSIS PATHOGENESIS

Joseph M. Vinetz, Reetika Chaurasia, Jordan Pober, Richard Pierce  
*Yale School of Medicine, New Haven, CT, United States*

#### 8:45 a.m.

### 7649

##### MENINGITIS SCREENING IN YOUNG INFANTS BASED ON A NOVEL NON-INVASIVE TRANSFONTANELLAR DEVICE: INITIAL PERFORMANCE RESULTS

Sara Ajanovic Andelic<sup>1</sup>, Beatrice Jobst<sup>2</sup>, Javier Jiménez<sup>2</sup>, Rita Quesada<sup>2</sup>, Fabiao Santos<sup>2</sup>, Francesc Carandell<sup>2</sup>, Manuela Lopez-Azorin<sup>3</sup>, Eva Valverde<sup>4</sup>, Marta Ybarra<sup>4</sup>, M. Carmen Bravo<sup>4</sup>, Paula Petrone<sup>1</sup>, Hassan Sial<sup>1</sup>, David Muñoz<sup>5</sup>, Thais Agut<sup>5</sup>, Barbara Salas<sup>5</sup>, Nuria Carreras<sup>5</sup>, Ana Alarcón<sup>5</sup>, Martín Iriondo<sup>5</sup>, Carles Luaces<sup>5</sup>, Muhammad Sidat<sup>7</sup>, Mastalina Zandamela<sup>8</sup>, Paula Rodrigues<sup>9</sup>, Dulce Graça<sup>9</sup>, Sebastiao Ngovene<sup>9</sup>, Justina Bramugy<sup>8</sup>, Anelsio Cossa<sup>8</sup>, Campos Mucasse<sup>8</sup>, W. Chris Buck<sup>10</sup>, Alberto Ibáñez<sup>11</sup>, Montserrat Parrilla<sup>11</sup>, Luis Elvira<sup>12</sup>, Cristina Calvo<sup>13</sup>, Adelina Pellicer<sup>4</sup>, Fernando Cabañas<sup>3</sup>, Quique Bassat<sup>1</sup>

<sup>1</sup>Barcelona Institute for Global Health (ISGlobal), Barcelona, Spain, <sup>2</sup>Kriba, Barcelona, Spain, <sup>3</sup>Quiron Salud Madrid, Madrid, Spain, <sup>4</sup>Hospital La Paz Institute for Health Research, Madrid, Spain, <sup>5</sup>Hospital Universitari Sant Joan de Déu, Barcelona, Spain, <sup>6</sup>Hospital La Paz Institute for Health Research, Barcelona, Spain, <sup>7</sup>Universidade Eduardo Mondlane, Maputo, Mozambique, <sup>8</sup>Centro de Investigação em Saúde de Manhiça (CISM), Manhiça, Mozambique, <sup>9</sup>Hospital Central de Maputo, Maputo, Mozambique, <sup>10</sup>University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA, United States, <sup>11</sup>Instituto de Tecnologías Físicas y de la Información (CSIC), Madrid, Spain, <sup>12</sup>Instituto de Tecnologías Físicas y de la Información (CSIC), Madrid, Spain, <sup>13</sup>La Paz University Hospital, Madrid, Spain

9 a.m.

7650

### GAPS BETWEEN INFECTIOUS AGENTS DETECTED VS ATTRIBUTED IN THE CAUSAL CHAIN OF MORTALITY AMONG STILLBIRTHS AND NEONATAL DEATHS IN BANGLADESH

**Arpita Shyama Deb<sup>1</sup>**, Zahidul Islam<sup>1</sup>, Afruna Rahman<sup>1</sup>, Afsana Afrin<sup>1</sup>, Mohammad Zahid Hossain<sup>1</sup>, Shammi Akter<sup>1</sup>, Kazi Munisul Islam<sup>1</sup>, Shams El Arifeen<sup>1</sup>, Mustafizur Rahman<sup>1</sup>, Emily S. Gurley<sup>2</sup>, Muntasir Alam<sup>1</sup>

<sup>1</sup>icddr, Dhaka, Bangladesh, <sup>2</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

9:15 a.m.

7651

### IMASOY: A MULTI-CENTRE, RANDOMIZED, CONTROLLED, NON-INFERIORITY TRIAL OF 10-DAY CIPROFLOXACIN ALONE VS. 3-DAY AMINOGLYCOSIDE FOLLOWED BY 7-DAY CIPROFLOXACIN IN MADAGASCAR

Rindra Vatosoa Randremanana<sup>1</sup>, Mihaja Raberahona<sup>2</sup>, Josephine Bourner<sup>3</sup>, Minoarisoa Vatosoa Rajerison<sup>1</sup>, Ravaka Vatosoa Randriamparany<sup>1</sup>, Tsinjo Vatosoa Rasoanaivo<sup>1</sup>, Lisy Hanitra Razananaivo<sup>1</sup>, Gabriella Zadoririna<sup>1</sup>, Theodora Mayouya-Gamana<sup>1</sup>, Reziky Tiandraza Mangahasimbola<sup>1</sup>, Tansy Edwards<sup>4</sup>, Elise Pesonel<sup>3</sup>, Rivonitina Andry Rakotoarivelo<sup>5</sup>, Mamy Jean de Dieu Randria<sup>2</sup>, Peter W. Horby<sup>3</sup>, **Piero L. Olliaro<sup>3</sup>**

<sup>1</sup>Institut Pasteur de Madagascar, Antananarivo, Madagascar, <sup>2</sup>CHU Joseph Raseta Befelatanana, Antananarivo, Madagascar, <sup>3</sup>University of Oxford, Oxford, United Kingdom, <sup>4</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>5</sup>CHU Tambohobe, Fianarantsoa, Madagascar

9:30 a.m.

7652

### ASSOCIATION OF PARASITIC COINFECTION AND WATER, SANITATION, AND HYGIENE (WASH) WITH CLINICAL CASES OF LEPROSY IN ADDIS ABABA ETHIOPIA

**Liya Sisay Getachew<sup>1</sup>**, Elleni Zeleke<sup>2</sup>, Lawrence Dela Cruz<sup>1</sup>, Aemon Fissaha<sup>3</sup>, Hatem Mohamed<sup>1</sup>, Yosef Wubshet<sup>4</sup>, Ytbarek Gebremedhin<sup>3</sup>, Biruk Debebe<sup>3</sup>, Shimelis Nigusse<sup>3</sup>, Kidist Bobosha<sup>2</sup>, Jessica K. Fairley<sup>1</sup>

<sup>1</sup>Emory University, Atlanta, GA, United States, <sup>2</sup>Armaur Hansen Research Institute, Addis Ababa, Ethiopia, <sup>3</sup>All Africa Leprosy Rehabilitation and Training Center (ALERT), Addis Ababa, Ethiopia, <sup>4</sup>Addis Ababa University, Addis Ababa, Ethiopia

## Scientific Session 112

### American Committee of Molecular Cellular and Immunoparasitology (ACMCIP): Parasite Cellular Immunology

Convention Center - Room 356 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

Supported with funding from the Burroughs Wellcome Fund

#InfectiousDisease #CellBiology #Immunology  
#HostResponse #Pathogenesis

### CHAIR

Pedro Gazzinelli-Guimaraes

George Washington University, Washington DC, United States

Sarah Ewald

University of Virginia, Charlottesville, VA, United States

8 a.m.

8437

### GENE-EDITING IN STRONGYLOIDES RATTI REVEALS THE NATURE OF HELMINTH SPECIFIC T CELLS

**Fungai Musaigwa<sup>1</sup>**, Olufemi Akinkuotu<sup>1</sup>, Hannah Dobson<sup>2</sup>, Annabel Ferguson<sup>1</sup>, Adriana Stephenson<sup>1</sup>, Ulrich Femoe<sup>1</sup>, Li-Yin Hung<sup>1</sup>, Parvathi Annamalai<sup>1</sup>, Juan Inclan Rico<sup>1</sup>, Heather Rossi<sup>1</sup>, De'Broski R. Herbert<sup>1</sup>

<sup>1</sup>Department of Pathobiology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, United States, <sup>2</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, United States

8:15 a.m.

8438

### MRGPRA3 NEURONS DRIVE CUTANEOUS IMMUNITY AGAINST HELMINTHS THROUGH SELECTIVE CONTROL OF MYELOID CYTOKINES

**Juan Inclan Rico<sup>1</sup>**, Camila M. Napuri, Li-Yin Hung, De'Broski R. Herbert

University of Pennsylvania, Philadelphia, PA, United States

8:30 a.m.

7653

### THE BALANCE BETWEEN GASDERMIN D AND STING SIGNALING SHAPES THE SEVERITY OF SCHISTOSOME IMMUNOPATHOLOGY

**Parisa Kalantari<sup>1</sup>**, Ilana Shecter<sup>2</sup>, Jacob Hopkins<sup>2</sup>, Yoelkys Morales<sup>2</sup>, Bijan Harandi<sup>2</sup>, shruti Sharma<sup>2</sup>, Miguel J. Stadecker<sup>2</sup>

<sup>1</sup>Pennsylvania State University, University Park, PA, United States, <sup>2</sup>Tufts University School of Medicine, Boston, MA, United States

(ACMCIP Abstract)

8:45 a.m.

7654

### INOS IS NECESSARY FOR GBP-MEDIATED T. GONDII CLEARANCE IN MURINE MACROPHAGES VIA VACUOLE NITRATION AND INTRAVACUOLAR NETWORK COLLAPSE

Sarah Ewald

University of Virginia, Charlottesville, VA, United States

(ACMCIP Abstract)

9 a.m.

7655

### ACTIVITY OF A FILARIAL ASNRS ON INTERLEUKIN 8 G PROTEIN COUPLED RECEPTORS

**Michael A. Kron<sup>1</sup>**, Hailey A. Bock, John McCorvy

Medical College of Wisconsin, Milwaukee, WI, United States

9:15 a.m.

7656

### MONOCYTE-ASTROCYTE NETWORKS REGULATE CYTOKINE AND MATRIX METALLOPROTEINASE SECRETION INDUCED BY NEUROCYSTICERCOSIS ANTIGENS

**Luz M. Toribio Salazar<sup>1</sup>**, Deborah Chong<sup>2</sup>, Javier A. Bustos<sup>1</sup>, Hector Garcia<sup>1</sup>, Jon S. Friedland<sup>2</sup>

<sup>1</sup>UNIVERSIDAD PERUANA CAYETANO HEREDIA, Lima, Peru, <sup>2</sup>St George's University of London, London, United Kingdom

(ACMCIP Abstract)

9:30 a.m.

7657

## EOSINOPHIL ACTIVATION AND RECRUITMENT IN THE CSF INFLAMMATORY CASCADE IN UNTREATED SUBARACHNOID NEUROCYSTICERCOSIS

Emily E. Miltenberger, Janitzio Guzmán, Thomas B. Nutman, Elise M. O'Connell  
National Institute of Allergy and Infectious Diseases, Laboratory of Parasitic Diseases,  
Bethesda, MD, United States

(ACMCIP Abstract)

## Symposium 113

### Innovative Tools for the Control of NTDs. How to Achieve Impact Through Access Beyond Drug Donations

Convention Center - Room 357 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

**This session does not carry CME credit.**

The efforts for the control and elimination of Neglected Tropical Diseases (NTDs) have evolved with an overall success towards control and elimination goals with the available and often imperfect tools in terms of the diagnostic and therapeutic performance. Uneven progress has prompted the identification of areas in need of improvements through investments in new candidates to further advance the achievements of Mass Drug Administration (MDA) campaigns in endemic countries. Innovations that have completed pivotal trials and have completed or are going through the final stages of regulatory approval will be discussed in this Symposium; they include a pediatric formulation of praziquantel, an oro-dispersible tablet that co-formulates albendazole and ivermectin and the FDA approved moxidectin. The opportunities created by these drugs for facilitating treatment of pediatric populations, overcoming the poor response of *Trichuris trichiura* to benzimidazole regimens, incorporating *Strongyloides stercoralis* to Soil transmitted helminth (STH) control activities and redefining goals for onchocerciasis elimination, also highlight the need for a renewed discussion and agreements to generate access to target populations with these innovations that will be outside the current donation paradigm on which the WHO strategy has been built. The new WHO Roadmap for NTDs emphasizes country ownership as part of the goals established by WHO for the control of NTDs which includes country investment in NTD programs however this support is limited and may not include the use of new drugs that will need to be procured. Further discussion and preparation with the donor community and endemic countries is required so that new products can be quickly scaled up to achieve program goals and achieve the 2030 targets. Data on safety and efficacy of pediatric praziquantel, albendazole/ivermectin co-formulation and moxidectin will be shown with focus on the trials that supported the submission to regulatory agencies for the particular indications, complemented with pharmacokinetic data, implementations scenarios, potential new indications and remaining challenges for the control of schistosomiasis, STH and onchocerciasis. Special attention to these innovations in pediatric populations and in the opportunities for changes in the expectations for disease control and elimination will also be

discussed. The session will include a donor panel to discuss the potential, opportunities and barriers to the introduction and scale up of these and other new tools. #Therapeutics; #ClinicalResearch; #Elimination; #FieldStudies; #InfectiousDisease

#### CHAIR

Alejandro J. Krolewiecki  
Mundo Sano, Buenos Aires, Argentina

Stella Kepha  
KEMRI, Nairobi, Kenya

8 a.m.

#### INTRODUCTION

8:10 a.m.

#### WHEN MORE IS NEEDED: MOXIDECTIN A NEW TOOL TO COMPLEMENT IVERMECTIN'S ACHIEVEMENTS TO ELIMINATE ONCHOCERCIASIS

Sally Kinrade  
Medicines Development for Global Health, Melbourne, Australia

8:30 a.m.

#### PEDIATRIC PRAZIQUANTEL. INSIGHTS FROM A PIVOTAL TRIAL FOR THE TREATMENT OF SCHISTOSOMIASIS.

Maurice R. Odier  
KEMRI, Kisumu, Kenya

8:45 a.m.

#### AN ALBENDAZOLE-IVERMECTIN TABLET CO-FORMULATION. SAFETY, EFFICACY AND THE REGULATORY PATH AGAINST STH BEYOND THE PIVOTAL TRIAL

Alejandro J. Krolewiecki  
Mundo Sano, Ciudad Autónoma de Buenos Aires, Argentina

9 a.m.

#### PANEL DISCUSSION WITH DONORS AND STAKEHOLDERS ON THE ACCESS OF NEW TOOLS FOR THE CONTROL OF NTDs

Julie Jacobson  
Bridges to Development, Seattle, WA, United States

#### PANELISTS

Christy L. Hanson  
Bill & Melinda Gates Foundation, Seattle, WA, United States

Hayato Urabe  
GHIT Fund, Tokyo, Japan

Carol Karutu  
The END Fund, Nairobi, Kenya

Emily Wainwright  
U.S. Agency for International Development, Washington, DC, United States

## Scientific Session 114

### Nematodes

Convention Center - Room 383/384/385 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

#Prevention #Epidemiology #InfectiousDisease  
#ClinicalResearch

Saturday  
November 16

## CHAIR

Ayman A. El-Badry  
Cairo University, Cairo, Egypt

Makedonka Mitreva  
Washington University School of Medicine, St. Louis, MO, United States

8 a.m.

7658

### SPECTRAL FLOW CYTOMETRY ANALYSIS OF FECAL MICROBIOTA FROM *TRICHURIS TRICHIURA* INFECTED HUMANS AND NON-HUMAN PRIMATES

Harris R. Droghini<sup>1</sup>, Octavio Mondragon Palomino<sup>1</sup>, Phil J. Cooper<sup>2</sup>, Jason M. Brenchley<sup>1</sup>, Thomas B. Nutman<sup>1</sup>, P'ng Loke<sup>1</sup>

<sup>1</sup>National Institutes of Health, Bethesda, MD, United States, <sup>2</sup>Universidad Internacional del Ecuador, Quito, Ecuador

(ACMCIP Abstract)

8:15 a.m.

7659

### ASCARIASIS, TRICHURIASIS AND INTESTINAL HOOKWORM INFECTIONS - CLINICAL PRESENTATION AND ASSOCIATION WITH INTERNATIONAL TRAVEL

Elena Marie Crecelius<sup>1</sup>, Patrick Hickey<sup>2</sup>, Alison Helfrich<sup>2</sup>

<sup>1</sup>Walter Reed National Military Medical Center, Bethesda, MD, United States, <sup>2</sup>Uniformed Services University of the Health Sciences, Bethesda, MD, United States

(ACMCIP Abstract)

8:30 a.m.

7660

### NOVEL RECOMBINANT ANTIGEN-BASED LATERAL FLOW TESTS FOR THE DETECTION OF *STRONGYLOIDES STERCORALIS* INFECTION AND CONCORDANCE WITH *STRONGY DETECT™* ELISAS

Robertine Lontuo Fogang, Thomas Nutman

National Institutes of Health, Rockville, MD, United States

(ACMCIP Abstract)

8:45 a.m.

7661

### PREVALENCE AND INTENSITY OF SOIL-TRANSMITTED HELMINTH INFECTIONS ACROSS RIVERS STATE NIGERIA FOLLOWING SEVEN YEARS OF DEWORMING-EVIDENCE FROM PROGRAM EVALUATION

Temitope Michael Ogunbi<sup>1</sup>, Ifeanyiwa Chime<sup>1</sup>, Jerry Mbaka<sup>1</sup>, Kate McCracken<sup>2</sup>, Mark Minnery<sup>2</sup>, Ayoola Adegbile<sup>1</sup>, Anam Abdulla<sup>2</sup>, Rodgers Curtis<sup>2</sup>, Ima Umah<sup>3</sup>, Fatai Oyediran<sup>3</sup>, Tooichi Ohajii<sup>1</sup>, Ima Chima<sup>1</sup>

<sup>1</sup>Evidence Action, Abuja, Nigeria, <sup>2</sup>Evidence Action, Washington DC, WA, United States, <sup>3</sup>Nigeria Federal Ministry of Health, Abuja, Nigeria

(ACMCIP Abstract)

9 a.m.

7662

### TH1, TH2, AND TH17 CYTOKINE RESPONSE IN IMMUNOSUPPRESSED PATIENTS INFECTED WITH *STRONGYLOIDES STERCORALIS* IN NORTH INDIA

Abhishek Mewara<sup>1</sup>, Nikita Sharma<sup>1</sup>, Vignesh Pandiarajan<sup>1</sup>, Gaurav Prakash<sup>1</sup>, Varun Dhir<sup>1</sup>, Sahajal Dhoooria<sup>1</sup>, Simran Kaur<sup>1</sup>, Surjit Singh<sup>1</sup>, Ritesh Agarwal<sup>1</sup>, Richard Bradbury<sup>2</sup>

<sup>1</sup>Postgraduate Institute of Medical Education and Research, Chandigarh, India, <sup>2</sup>School of Public Health and Tropical Medicine, James Cook University, Townsville, Australia

(ACMCIP Abstract)

9:15 a.m.

7663

### THE IMPACT OF INTEGRATING DEWORMING WITH EYE HEALTH IN SCHOOL TO IMPROVE THE LIVES OF SCHOOL AGE CHILDREN AND TEACHERS: A PILOT PROJECT FOR THE CONTROL OF SOIL TRANSMITTED (STH) HELMINTHIASIS AND VISION IMPROVEMENT IN IN HIGHLY ENDEMIC COUNTIES FOR STH IN LIBERIA 2018-2022

Anthony Kerkula K. Bettee<sup>1</sup>, Mulbah Howard<sup>2</sup>, Precious Z. Cooper ZC Bettee<sup>1</sup>

<sup>1</sup>Ministry of Health, Monrovia, Liberia, <sup>2</sup>Sightsavers, Monrovia, Liberia

(ACMCIP Abstract)

9:30 a.m.

7664

### HELMINTHS, MALARIA CO- INFECTION AND ASSOCIATED INDUCEMENT OF ANAEMIA, IRON AND FOLATE DEFICIENCIES IN CHILDREN

Opoku Bempah<sup>1</sup>, Kwasi Baako Antwi<sup>2</sup>, Kingsley Badu<sup>2</sup>

<sup>1</sup>Kumasi Technical University, Kumasi, Ghana, <sup>2</sup>Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

(ACMCIP Abstract)

## Symposium 115

### Evaluating the Case for Loiasis as a Neglected Tropical Disease

Convention Center - Room 388/389 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

Loiasis, or infection with the "African eye worm," *Loa loa*, has long been recognized as a significant clinical problem among infected individuals, but has been underappreciated in the global health community. Increased international attention came to loiasis following serious adverse reactions (including encephalopathy and death) among heavily infected individuals following ivermectin treatment administered as preventive chemotherapy in onchocerciasis (river blindness) and lymphatic filariasis (LF) control programs. Interest in solving the "loiasis problem" as an obstacle to onchocerciasis elimination has led to new clinical and diagnostic tools for loiasis, but to date these have had little effect on the individuals suffering from loiasis in endemic areas. WHO classification as a neglected tropical disease (NTD) may increase awareness of loiasis by the international donors and research communities. There is mounting evidence for previously unappreciated, chronic negative health consequences of loiasis, with neurologic, renal, and cardiovascular detriments, and it is becoming increasingly clear that loiasis meets WHO criteria for classification as a neglected tropical disease. Speakers for this symposium will be loiasis experts that live or have extensively worked in endemic areas. They will review the clinical and public health challenges caused by loiasis, advances in loiasis mapping and diagnostic strategies, and will make recommendations for or against recognition of loiasis as a NTD by WHO. #Elimination #Epidemiology #PopulationSurveillance #Prevention

## CHAIR

Philip J. Budge  
Washington University in St. Louis, St. Louis, MO, United States

Joseph Kamgno  
University of Yaounde, Yaoundé, Cameroon



**8 a.m.**  
**INTRODUCTION**

**8:10 a.m.**  
**BRIEF REVIEW OF EPIDEMIOLOGY, MAPPING, AND EFFECT OF LOIASIS ON NTD ELIMINATION**

Hugues Nana-Djuenga  
*University of Yaoundé 1, Yaoundé, Cameroon*

**8:30 a.m.**  
**CURRENT AND DEVELOPING DIAGNOSTIC STRATEGIES FOR LOIASIS**

Linda Djune-Yemeli  
*University of Yaoundé 1, Yaoundé, Cameroon*

**8:45 a.m.**  
**CLINICAL IMPACT OF LOIASIS IN ENDEMIC AREAS**

Cédric Chesnais  
*Institut de Recherche pour le Développement, Montpellier, France*

**9 a.m.**  
**IMPACT OF LOA LOA INFECTION ON IMMUNOLOGY AND COINFECTION WITH OTHER PATHOGENS**

Jean Paul Akue  
*International Center of Medical Research, Franceville, Gabon*

**9:15 a.m.**  
**IMPACT OF LOA LOA INFECTION ON IMMUNOLOGY AND COINFECTION WITH OTHER PATHOGENS**

Roland Dieki  
*Parasitologie, Centre International de Recherches Médicales de Franceville (CIRMF), Franceville, Gabon*

**9:30 a.m.**  
**WHO CRITERIA AND PROCESS FOR NTD DESIGNATION**

Didier K. Bakajika  
*WHO/AFRO, Brazzaville, Republic of the Congo*

## Symposium 116

### Implementing Perennial Malaria Chemoprevention across Africa: Converging to Consensus?

*Convention Center - Room 391/392 (3rd Floor)*  
**Saturday, November 16, 8 a.m. - 9:45 a.m.**

Perennial malaria chemoprevention (PMC) is the administration of a full treatment course of an antimalarial medicine at predefined intervals, regardless of whether the child is infected with malaria, to prevent illness in moderate to high perennial malaria transmission settings. The goal of PMC is to protect young children by establishing preventive antimalarial drug concentrations in the blood that clear existing infections and prevent new ones during the age of greatest risk of severe malaria. In 2022 the World Health Organization (WHO) expanded its recommendation for Intermittent Preventive Treatment in infants (IPTi) to Perennial Malaria Chemoprevention for “infants and young children at high risk of severe malaria living in areas with moderate-to-high malaria transmission in sub-Saharan Africa”.

The updated recommendation no longer limits the intervention specifically to infants and reflects the malaria transmission settings in which the intervention should be considered. The recommendation further states that the Expanded Program on Immunization (EPI) platform remains important for delivering PMC, though other methods of delivery can be explored to optimize access to PMC and integration with other health interventions. These changes encouraged National Malaria Programs to consider adding PMC to their national malaria control strategies and provided flexibility in PMC delivery regarding dosing, contact points, and age. Speakers will present findings from 7 countries from across Africa highlighting recent operational research studies and lessons learned from implementation focusing on acceptability, uptake, data management and reporting, and the concomitant roll-out of PMC and the malaria vaccine. The co-chairs will lead a moderated discussion on the key lessons and best practices coming from countries, offering considerations to other countries contemplating implementing PMC. #ChildHealth #FieldStudies #Prevention #InfectiousDisease #Pediatrics

#### CHAIR

Charlotte E. Eddis  
*PSI, Abidjan, Côte D'Ivoire*

Dorothy Achu  
*WHO AFRO, Brazzaville, Republic of the Congo*

**8 a.m.**  
**INTRODUCTION**

**8:10 a.m.**  
**PIONEERING PMC IN SIERRA LEONE**

Augustin Fombah  
*Ministry of Health, Freetown, Sierra Leone*

**8:35 a.m.**  
**INTERIM FINDINGS FROM THE PLUS PROJECT EVALUATIONS IN BENIN, CAMEROON, COTE D'IVOIRE AND MOZAMBIQUE**

Charlotte E. Eddis  
*PSI, Abidjan, Côte D'Ivoire*

**8:50 a.m.**  
**ACCEPTABILITY OF PMC BY CAREGIVERS AND HEALTH WORKERS: EVIDENCE FROM THE DRC**

Eric S. Mukomena  
*National Malaria Control Program, Ministry of Health, Kinshasa, Democratic Republic of the Congo*

**9:05 a.m.**  
**PMC DATA MANAGEMENT AND REPORTING: THE NIGERIAN EXAMPLE**

Godwin Ntadom  
*National Malaria Elimination Program, Abuja, Nigeria*

**9:20 a.m.**  
**ROLLING OUT PMC AND THE MALARIA VACCINE CONCOMITANTLY: EXPERIENCE FROM SOA IN CAMEROON**

Junior Voundi  
*National Malaria Control Program, Yaounde, Cameroon*

## Symposium 117

### Improving the Diagnosis and Management of Severe Malaria

Convention Center - Room 393/394 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

Malaria still kills over half a million children each year. Although vector control, chemoprevention, artemisinin-combination therapies, and better access to treatment have reduced malaria morbidity and mortality, there still are millions of children hospitalized each year because of severe malaria. Severe malarial anemia is a major indication for pediatric blood transfusion in sub-Saharan Africa, representing a substantial drain on the limited transfusion resources. Improving the diagnosis, treatment, and management of patients with suspected severe malaria will have considerable impact in terms of saving lives and optimizing resource allocation in resource-poor settings. In November 2023, the Global Malaria Program at the World Health Organization (WHO) organized a 2-day workshop aiming to update their guidance on severe malaria. In preparation for this workshop, WHO commissioned a systematic review of the published literature since 2014 (the date of the last meeting on severe malaria guidelines), which was carried out by the World Wide Antimalarial Resistance Network coordinated by James Watson. This literature review identified key areas where updates to the current guidance is needed, and also areas where there are important knowledge gaps. During the 2-day workshop, key aspects which needed updating of the WHO Practical Handbook on severe malaria were identified. This led to consensus around pooled analyses of available data which would help inform guideline updates. This symposium will provide an overview of the key findings from the systematic review, changes to the WHO Practical Handbook, as well as presenting important new research findings concerning pre-referral treatment, evidence-based management (notably around transfusion), diagnosis, pathophysiology and adjuvant therapies, and post-discharge management. The symposium will review current consensus on appropriate treatment and management as well as presenting new findings. This will include (i) preliminary results and ongoing studies from a large platform trial of severe malaria in African children; (ii) the utility of a point-of-care diagnostic test for plasma PfHRP2 (more accurate diagnosis of severe malaria); (iii) results from an individual patient data meta-analysis of over 35,000 patients enrolled in large clinical trials to determine optimal prognostic triage algorithms; (iv) updates on the deployment of rectal artesunate suppositories and post-discharge malaria chemoprevention in Africa. The selected talks will summarize key updates and research gaps regarding the diagnosis, treatment and post-discharge management of severe malaria, leaving sufficient time for a moderated discussion on the significance and public health relevance of the findings. #ClinicalResearch #Therapeutics #InfectiousDisease #Pathogenesis

#### CHAIR

James A. Watson

Oxford University Clinical Research Unit, Ho Chi Minh, Vietnam

Elizabeth George

University College London, London, United Kingdom

8 a.m.

#### INTRODUCTION

8:10 a.m.

#### MANAGEMENT OF PATIENTS WITH SEVERE MALARIA AND THE NEED FOR RANDOMIZED TRIALS IN AFRICA

Elizabeth George

University College London, London, United Kingdom

8:35 a.m.

#### IMPROVING THE DIAGNOSIS AND TRIAGE OF PATIENTS WITH SUSPECTED SEVERE MALARIA

James A. Watson

Oxford University Clinical Research Unit, Ho Chi Minh City, Vietnam

8:50 a.m.

#### POST-DISCHARGE MALARIA CHEMOPREVENTION: FROM POLICY TO PRACTICE

Kamija Phiri

University of Malawi, Blantyre, Malawi

9:05 a.m.

#### PRE-REFERRAL TREATMENT FOR SEVERE MALARIA

Nick White

Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand

9:20 a.m.

#### PATHOPHYSIOLOGY OF SEVERE MALARIA: UPDATES

Arjen Dondorp

Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand



## Symposium 118

### Subarachnoid and Intraventricular Neurocysticercosis: What our Patients have Taught Us

Convention Center - Room 395/396 (3rd Floor)

Saturday, November 16, 8 a.m. - 9:45 a.m.

Neurocysticercosis (NCC) is the most common helminthic infection of the central nervous system caused by the larval stage of the pork tapeworm, *Taenia solium*. The clinical manifestations are pleomorphic and dependent on location, stage of parasite and burden of disease. Extraparenchymal disease is associated with a high mortality, mainly due to intracranial hypertension, if not managed appropriately. During this symposium experts in the field will share their clinical experience and approach to this complex disease. #HostResponse #InfectiousDisease #Pathogenesis

#### CHAIR

Christina M. Coyle

Albert Einstein College of Medicine, Bronx, NY, United States

Hector H. Garcia

Universidad Peruana Cayetano Heredia, Lima, Peru

8 a.m.

#### INTRODUCTION

**8:10 a.m.**  
**THE NATURAL HISTORY OF SUBARACHNOID DISEASE: A THIRTY YEAR EXPERIENCE**

Theodore E. Nash  
*National Institutes of Health, Bethesda, MD, United States*

**8:30 a.m.**  
**ANTIPARASITIC TREATMENT OF SUBARACHNOID DISEASE: WHAT'S THE DATA?**

Hector H. Garcia  
*Universidad Peruana Cayetano Heredia, Lima, Peru*

**8:50 a.m.**  
**INTRAVENTRICULAR DISEASE: A TRICKY TOPIC**

Clinton White  
*The University of Texas Medical Branch Galveston, Galveston, TX, United States*

**9:10 a.m.**  
**LESSONS FROM THE BEDSIDE: A PANEL DISCUSSION**

Christina M. Coyle  
*Albert Einstein College of Medicine, Bronx, NY, United States*

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**Exhibit Hall Open**

*Convention Center - Hall J (1st Floor)*  
**Saturday, November 16, 9:30 a.m. - 10:30 a.m.**

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**Coffee Break**

*Convention Center - Hall J (1st Floor)*  
**Saturday, November 16, 9:45 a.m. - 10:15 a.m.**

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**Poster Session C Set-Up**

*Convention Center - Hall I-1 (1st Floor)*  
**Saturday, November 16, 9:45 a.m. - 10:15 a.m.**

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**Poster Session C Viewing**

*Convention Center - Hall I-1 (1st Floor)*  
**Saturday, November 16, 10:15 a.m. - 11 a.m.**



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**Plenary Session 119**

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**Plenary Session IV: President's Address**

*Convention Center - Hall I-2 (1st Floor)*  
**Saturday, November 16, 10:15 a.m. - 11 a.m.**

**10:15 a.m.**  
**INTRODUCTION**

Johanna Daily  
*Albert Einstein College of Medicine, Bronx, NY, United States*

**10:30 a.m.**  
**PRESIDENT'S ADDRESS: RENDERING THE FUTURE OF GLOBAL HEALTH AMIDST REVERBERATIONS FROM THE PAST: A CALL TO COMMUNITY**



**Linnie Golightly, MD**

Associate Professor in Medicine, Microbiology and Immunology and Associate Dean of Diversity and Inclusion  
Weill Cornell Medicine, New York, NY, United States

Linnie Golightly, MD, is President of the American Society of Tropical Medicine and Hygiene (ASTMH) and an Associate Professor in Medicine, Microbiology and Immunology and Associate Dean of Diversity and Inclusion at Weill Cornell Medicine (WCM). As Associate Dean of Diversity and Inclusion at WCM, she directs programs to enhance community and career pathways and to foster a diverse environment. She previously served as Director of Minority Recruitment for the Harvard Combined Infectious Disease Training Program. Dr. Golightly's research focuses on infectious diseases endemic to low- and middle-income countries (LMIC), with an emphasis on malaria, as well as factors effecting the retention of women and underrepresented minorities, and citizens of LMIC in academic careers. She obtained her infectious disease training at the Harvard Combined Infectious Disease Training Program (Beth Israel Hospital, Brigham & Women's Hospital, and Dana-Farber Cancer Institute) and post-doctoral research training in molecular parasitology at the Harvard School of Public Health. She is active in teaching and training, having served as Infectious Disease Fellowship Program Director, Director of the infectious disease medical school module and the Ben Kean Course in Tropical Medicine at WCM, for which she received a teaching award. She has lectured and trained undergraduates, medical students, and fellows both from the U.S. and abroad, including those from Haiti, Ghana, Brazil, Israel, Qatar, and Europe. She is a member of the National Medical Association's (NMA) Council on International Affairs and has served on several ASTMH committees including the Ben H. Kean Travel Fellowship, the Committee on Global Health, and the Nominating Committee. Raised in the Midwest, she received her Bachelor's degree in Biology from Wayne State University and medical degree from WCM in New York City.

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**Exhibit Hall Open**

*Convention Center - Hall J (1st Floor)*  
**Saturday, November 16, 11 a.m. - 12:15 p.m.**

## Poster Session 120

### Poster Session C

Convention Center - Hall I-1 (1st Floor)

Saturday, November 16, 11 a.m. - 12:45 p.m.

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 Global Health – Other: 7679- 7708  
 Global Health - Planetary Health including Climate Change: 7709- 7718  
 Global Health - Security/Emerging Infection Preparedness, Surveillance and Response(s): 7719- 7738  
 Mosquitoes - Biology and Genetics of Insecticide Resistance: 7739- 7752  
 Mosquitoes - Biology, Physiology and Immunity: 7753- 7762  
 Mosquitoes - Bionomics, Behavior and Surveillance: 7763- 7775  
 Mosquitoes - Epidemiology and Vector Control: 7776- 7806  
 Mosquitoes - Molecular Biology, Population Genetics and Genomics: 7807- 7817  
 Viruses - Emerging Viral Diseases: 7818- 7833  
 Viruses – Epidemiology: 7834- 7853  
 Viruses - Field and ecological studies of viruses, including surveillance and spillover risk and emergence: 7854- 7865  
 Viruses – Immunology: 7866- 7880  
 Viruses - Vaccine Clinical Trials: 7881- 7896  
 Malaria - Antimalarial Resistance and Chemotherapy: 7897- 7918  
 Malaria - Diagnosis - Challenges and Innovations: 7919- 7931  
 Malaria – Elimination: 7932- 7946  
 Malaria – Epidemiology: 7947- 7977  
 Malaria - Genetics, Genomics and Evolution: 7978- 7991  
 Malaria – Immunology: 7992- 8004  
 Malaria – Pathogenesis: 8005- 8017  
 Malaria – Prevention: 8018- 8044  
 Malaria – Surveillance and Data Utilization: 8045- 8069  
 Malaria - Vaccines and Immunotherapeutics: 8070- 8089  
 Bacteriology - Enteric Infections: 8090- 8104  
 Bacteriology - Other Bacterial Infections: 8105- 8118  
 Bacteriology - Systemic Infections: 8119- 8127  
 Bacteriology – Trachoma: 8128- 8134  
 Clinical Tropical Medicine: 8135- 8160  
 Helminths – Nematodes – Filariasis (Molecular Biology and Immunology): 8161- 8165  
 Helminths – Nematodes – Filariasis (Other): 8166- 8170  
 Helminths – Nematodes – Filariasis (Treatment and Morbidity Management): 8171- 8177  
 Kinetoplastida and Other Protozoa - Invasion, Cellular and Molecular Biology (Including Leishmania and Trypanosomes): 8178- 8179  
 Kinetoplastida and Other Protozoa - Treatment, Drug Delivery, Drug Repurposing and Drug Discovery (Including Leishmania and Trypanosomes): 8180- 8193  
 Kinetoplastida and Other Protozoa - Vaccines (Including Leishmania and Trypanosomes): 8194- 8197  
 Measures for Control and Elimination of Neglected Tropical Diseases (NTDs): 8198- 8220  
 One Health: The Interconnection between People, Animals, Plants and Their Shared Environment: 8221- 8234  
 Pneumonia, Respiratory Infections and Tuberculosis: 8235- 8251

Schistosomiasis and Other Trematodes – Epidemiology and Control: 8252- 8262

Schistosomiasis and Other Trematodes – Immunology, Pathology, Cellular and Molecular Biology: 8263- 8272

Water, Sanitation, Hygiene and Environmental Health: 8273- 8287

## Global Health - Information/ Communication/Technologies Solutions in Global Health including Modeling

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### EVALUATION OF ACCESSIBILITY TO ELECTRONIC MEDICAL RECORDS FOR CLINICAL RESEARCH IN KAMPHAENG PHET PROVINCE, THAILAND

Soontorn Pinpaiboon<sup>1</sup>, Chinanat Puangsaijai<sup>1</sup>, Surachai Kaewhiran<sup>1</sup>, Rattiya Wannawong<sup>2</sup>, Kathryn Anderson<sup>3</sup>, Aaron Farmer<sup>2</sup>, Darunee Buddhari<sup>2</sup>  
<sup>1</sup>Kampaheng Phet hospital, Muang Kamphaeng Phet, Thailand, <sup>2</sup>Department of Virology, WRAIR-AFRIMS, Bangkok, Thailand, <sup>3</sup>SUNY Upstate Medical University, Syracuse, NY, United States

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### UNDERSTANDING THE SHORTCOMINGS AND GOOD PRACTICES FROM THE ROUTINE DATA QUALITY ASSESSMENT FOR INFORMED PUBLIC HEALTH DECISION-MAKING IN GUINEA IN 2023

Mohamed Saran Conde<sup>1</sup>, Fatoumata Battouly Diallo<sup>1</sup>, Mamadou Dian Sow<sup>2</sup>, Abdoul Karim Nabé<sup>2</sup>, Datolo Koné<sup>3</sup>, Soua Goumou<sup>1</sup>, Elizabeth Fitch<sup>4</sup>, Jean Yves Mukamba<sup>5</sup>, Agossa Charles Lebon LAWSON<sup>1</sup>, Suzanne Van Hulle<sup>6</sup>, Abdourahmane Diallo<sup>7</sup>, Aissatou Bobo Bah<sup>1</sup>, Souleymane Diakité<sup>2</sup>, Chrestien Yameni<sup>8</sup>, Alioune Camara<sup>7</sup>  
<sup>1</sup>Catholic Relief Services, Conakry, Guinea, <sup>2</sup>Office of Strategy and Development of the Ministry of Health, Conakry, Guinea, <sup>3</sup>Research Triangle Institute, Conakry, Guinea, <sup>4</sup>Research Triangle Institute, Baltimore, MD, United States, <sup>5</sup>Catholic Relief Services, Kinshasa, Democratic Republic of the Congo, <sup>6</sup>Catholic Relief Services, Baltimore, MD, United States, <sup>7</sup>National Malaria Control Program, Guinea, Conakry, Guinea, <sup>8</sup>Catholic Relief Services, Dakar, Senegal

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### MONITORING THE IMPLEMENTATION OF COMMUNITY HEALTH STRATEGY ACTIVITIES IN FOUR HEALTH REGIONS OF GUINEA THROUGH THE COMMUNITY HEALTH WORKERS TRACKER

Soua Gomou<sup>1</sup>, Fatoumata Battouly Diallo<sup>1</sup>, Mohamed Saran Conde<sup>1</sup>, Aly Iouiss Kamano<sup>1</sup>, Saa Bobo Leno<sup>1</sup>, Moriba Haba<sup>1</sup>, Lawson Agossa Charles Lebon<sup>1</sup>, Abdourahmane Diallo<sup>2</sup>, Alioune Camara<sup>2</sup>, Jean yves Mukamba<sup>3</sup>, Chrestien Yameni<sup>4</sup>, felicien Randriamanantenasoa<sup>1</sup>, Suzanne Vanhulle<sup>5</sup>  
<sup>1</sup>Catholic Relief Services, Conakry, Guinea, <sup>2</sup>National Malaria Control Program, Conakry, Guinea, <sup>3</sup>Catholic Relief Services, Kinshasa, Democratic Republic of the Congo, <sup>4</sup>Catholic Relief Services, Dakar, Senegal, <sup>5</sup>Catholic Relief Services, Baltimore, MD, United States

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### UNLOCKING SUPPLY CHAIN EFFICIENCY: DEMONSTRATION OF AN OPEN-SOURCE DYNAMIC ROUTE OPTIMIZATION TOOL

Eileen Patten  
 GHSC-PSM (IBM), Washington, DC, United States

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### USING THE SUPPLY CHAIN INFORMATION SYSTEM MATURITY MODEL TO IMPROVE SYSTEM CAPABILITY FOR OPERATION

Jean Miller  
 Chemonics International, Washington DC, DC, United States

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## ENHANCING THE QUALITY OF MALARIA SURVEILLANCE THROUGH INTERACTIVE DASHBOARD ACROSS BENUE STATE HEALTH FACILITIES, 2023

**Iorwuese Hycienth Sesugh<sup>1</sup>**, Gloria Oyemi Sillo<sup>1</sup>, Olayemi Abimbola<sup>2</sup>, Justice Adaji<sup>2</sup>, Uchenna Nwokenna<sup>2</sup>, Uwem Udoh<sup>1</sup>, Sule Agatha<sup>1</sup>, Abutu Abraham<sup>1</sup>, Akawa Terkura<sup>3</sup>, Abanyi J. Liambbee<sup>4</sup>, Rudi Thetard<sup>5</sup>, Arja Huestis<sup>5</sup>, Thomas Hall<sup>5</sup>, Grace Nwankwo<sup>6</sup>, Erkwagh Dagba<sup>6</sup>, Veronica Momoh<sup>6</sup>, Jules Mihigo<sup>6</sup>, Chukwu Okoronkwo<sup>7</sup>, Nnenna Ogbulafor<sup>7</sup>, Godwin Ntadom<sup>7</sup>

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## ESTABLISHING A VIRUS ECOLOGY DATA HUB FOR MODELING VIRUS DISEASE DYNAMICS

**Irene K. Akunda<sup>1</sup>**, David Simons<sup>2</sup>, James M. Hassell<sup>3</sup>, Joseph Kamau<sup>4</sup>, Stephanie N. Seifert<sup>1</sup>

<sup>1</sup>Washington State University, Pullman, WA, United States, <sup>2</sup>The Pennsylvania State University, State College, PA, United States, <sup>3</sup>Smithsonian's National Zoo & Conservation Biology Institute, Washington, DC, DC, United States, <sup>4</sup>Kenya Institute of Primate Research, Nairobi, Kenya

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## PARENTS' MOTIVATIONS AND EXPECTATIONS SEEKING PEDIATRIC CARE FROM AN INFORMAL PROVIDER ("VILLAGE DOCTOR") IN BANGLADESH

**Jane Putnam<sup>1</sup>**, Jyoti Bhushan Das<sup>2</sup>, Zahid Hasan Khan<sup>2</sup>, Olivia Hanson<sup>1</sup>, Sarah Dallas<sup>1</sup>, Mohammad Ashrafal Amin<sup>2</sup>, Ishtiakul Islam Khan<sup>2</sup>, Md. Taufiqul Islam<sup>2</sup>, Mohammad Saeed Munim<sup>2</sup>, Ridwan Mostafa Shihab<sup>2</sup>, Debashish Biswas<sup>2</sup>, Firdausi Qadri<sup>2</sup>, Melissa H. Watt<sup>1</sup>, Eric Nelson<sup>3</sup>, Ashrafal Islam Khan<sup>2</sup>, Daniel Leung<sup>1</sup>

<sup>1</sup>University of Utah, Salt Lake City, UT, United States, <sup>2</sup>International Center for Diarrhoeal Disease Research, Dhaka, Bangladesh, <sup>3</sup>University of Florida, Gainesville, FL, United States

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## FEASIBILITY AND ACCEPTABILITY OF AN ELECTRONIC DATA CAPTURE SYSTEM FOR A PHASE 2 CLINICAL TRIAL IN RURAL LIBERIA

**Alexandre Dyer<sup>1</sup>**, Nicole Fetcho<sup>1</sup>, Cooper W. Sannah<sup>2</sup>, Dormu S. Kolli<sup>2</sup>, Gary J. Weil<sup>1</sup>, Peter U. Fischer<sup>1</sup>, Patrick Kpanyen<sup>2</sup>

<sup>1</sup>Washington University, St. Louis, MO, United States, <sup>2</sup>National Public Health Institute of Liberia, Monrovia, Liberia

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## ESTABLISHING AN EVIDENCE STANDARD FOR DETERMINING CAUSE OF DEATHS IN ADULTS USING MINIMALLY INVASIVE TISSUE SAMPLING: EFFORTS OF THE GLOBAL MITS SURVEILLANCE ALLIANCE

**Ryan G. Wagner<sup>1</sup>**, Manoj Das<sup>2</sup>, Zokwane L. Mondlane<sup>1</sup>, Edwin Walong<sup>3</sup>, Jones Opoku-Mensah<sup>4</sup>, Samuel Harrison<sup>4</sup>, Grace Manu<sup>4</sup>, Norman Goco<sup>5</sup>, Dianna Blau<sup>6</sup>, Tia Paganelli<sup>6</sup>, Luiz Fernando Ferraz da Silva<sup>7</sup>

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## COVID-19 AWARENESS AND BEHAVIOR CHANGE AMONG RECENTLY PREGNANT WOMEN: FINDINGS FROM A HOUSEHOLD SURVEY IN BENIN

**Liyu Teklemicheal<sup>1</sup>**, Julie Buekens<sup>1</sup>, Julie Niemczura<sup>1</sup>, Aurore Ogouyemi-Hounto<sup>2</sup>, Manzidatou Alao<sup>3</sup>, Catherine Dentinger<sup>4</sup>, Ahmed Saadani Hassani<sup>5</sup>, Alexandre Binazon<sup>3</sup>, Faustin Onikpo<sup>3</sup>, Katherine Wolf<sup>6</sup>, Houetohossou Camille<sup>7</sup>, Julie R. Gutman<sup>8</sup>

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## SYSTEM THINKING IN THE CONTROL AND ELIMINATION OF NEGLECTED TROPICAL DISEASES IN MADAGASCAR

**Louise Kathini Makau-Barasa**, Elisabeth Leaning, Moses Aderogba, Eugene Ruberanziza, Kelly Zongo

The END Fund, New York, NY, United States

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## MODELLING THE EFFECT OF SEASONAL MALARIA CHEMOPREVENTION ON THE TRANSMISSION DYNAMICS OF MALARIA IN ZAMFARA STATE, NORTHWEST NIGERIA

**Debra U. Okeh<sup>1</sup>**, Afee Abidemi<sup>2</sup>, Emmanuel A. Bakare<sup>2</sup>, Samson O. Olagbami<sup>2</sup>, Godswill U. Ogbonnaya<sup>1</sup>, Godwin O. Okafor<sup>1</sup>, Kingsley Metu<sup>1</sup>, Ugochukwu U. Onyeonoro<sup>1</sup>, Azubuike K. Onyebuchi<sup>1</sup>, Victor O. Ameh<sup>3</sup>, Emmanuel Shekarau<sup>3</sup>, Augustine U. Akubue<sup>4</sup>, Amos K. Langat<sup>5</sup>, Perpetua O. Nnemelu<sup>6</sup>, Idowu Olasupo<sup>2</sup>

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## INNOVATIONS IN MALARIA CAMPAIGNS IN MOZAMBIQUE: FROM DIGITALIZATION TO EVALUATION

**Mariana Da Silva<sup>1</sup>**, Gerito Augusto<sup>2</sup>, Julia Montaña López<sup>2</sup>, Bernardo García Espinosa<sup>3</sup>, Bradley Didier<sup>3</sup>, Baltazar Candrinho<sup>1</sup>

<sup>1</sup>National Malaria Control Program, Maputo, Mozambique, <sup>2</sup>World Vision, Maputo, Mozambique, <sup>3</sup>Clinton Health Access Initiative, Boston, MA, United States

## Global Health - Other

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## FREQUENCY OF HOUSEHOLD VISITS IN DEMOGRAPHIC SURVEILLANCE SYSTEM IN BANGLADESH AFFECTS ESTIMATES OF PERINATAL MORTALITY

**Qazi Sadeq-ur Rahman<sup>1</sup>**, Mohammad Zahid Hossain<sup>1</sup>, Abu Md. Saleheen<sup>1</sup>, A.K.M. Tanvir Hossain<sup>1</sup>, Md. Atique Iqbal Chowdhury<sup>1</sup>, Sanwarul Bari<sup>1</sup>, Emily Gurley<sup>2</sup>, Shams El Arifeen<sup>1</sup>

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## HPV SCREENING IN LOW-RESOURCE SETTINGS: A COMPARISON OF SELF-COLLECTED VAGINAL SWABS TRANSPORTED WITH AND WITHOUT VIRAL TRANSPORT MEDIUM

Rita Székely, **Debashish Das**, Jessica Markby, Xiao Hui Sem, Berra Erkosar, Sonjelle Shilton, Mikashmi Kohli, Angela Muriuki

FIND, Geneva, Switzerland

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### UNDERSTANDING CARE SEEKING PATTERNS FOR ANTENATAL CARE IN WESTERN KENYA

Julie R. Gutman<sup>1</sup>, Wycliffe Odongo<sup>1</sup>, Oliver Towett<sup>2</sup>, Daniel McDermott<sup>3</sup>, Kizito Obiet<sup>2</sup>, Brian Seda<sup>2</sup>, Fredrick Omiti<sup>2</sup>, Victoria Seffren<sup>1</sup>, Sarah G. Staedke<sup>4</sup>, Simon Kariuki<sup>2</sup>  
<sup>1</sup>CDC, Atlanta, GA, United States, <sup>2</sup>KEMRI, Kisumu, Kenya, <sup>3</sup>LSTM, Liverpool, United Kingdom, <sup>4</sup>LSTM, Kisumu, Kenya

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### DESIGNING BETTER DENGUE TRIALS: UNDERSTANDING ATTITUDES, EXPERIENCES, AND EXPECTATIONS OF PATIENTS IN THREE ASIAN COUNTRIES

Ruobing Li<sup>1</sup>, Amanda Nguyen<sup>2</sup>, Matt Eaton<sup>2</sup>, Patricia GM Wagner<sup>2</sup>, Andrea de Soyres<sup>3</sup>, Megan Barton<sup>2</sup>, Andreas Tietz<sup>4</sup>, Carrie Sacks<sup>2</sup>  
<sup>1</sup>Novartis Biomedical Research, Beijing, China, <sup>2</sup>Novartis Biomedical Research, Cambridge, MA, United States, <sup>3</sup>Novartis Biomedical Research, Basel, Switzerland, <sup>4</sup>Novartis Pharma AG, Basel, Switzerland

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### COMPREHENSIVE REVIEW ON THE USE OF ORAL CHOLERA VACCINE (OCV) IN ETHIOPIA: 2019 TO 2023

Moti Edosa<sup>1</sup>, Yeonji Jeon<sup>2</sup>, Abel Gedefaw<sup>2</sup>, Dejene Hailu<sup>2</sup>, Edlawit Mesfin Getachew<sup>3</sup>, Ondari D. Mogeni<sup>2</sup>, Geun Hyeog Jang<sup>2</sup>, David Mukasa<sup>2</sup>, Biruk Yeshitela<sup>3</sup>, Tomas Getahun<sup>3</sup>, Julia Lynch<sup>2</sup>, Malika Bouhenia<sup>4</sup>, Yeshambel Worku Demlie<sup>1</sup>, Mukemil Hussien<sup>1</sup>, Mesfin Wossen<sup>1</sup>, Mekonnen Teferi<sup>3</sup>, Se Eun Park<sup>2</sup>  
<sup>1</sup>Ethiopia Public Health Institute, Addis Ababa, Ethiopia, <sup>2</sup>International Vaccine Institute, Seoul, Republic of Korea, <sup>3</sup>Armauer Hansen Research Institute, Addis Ababa, Ethiopia, <sup>4</sup>World Health Organization, Geneva, Switzerland

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### COVERAGE OF TWO-DOSES OF PRE-EMPTIVE ORAL CHOLERA VACCINE (OCV) MASS VACCINATION CAMPAIGN IN CHOLERA HIGH PRIORITY HOTSPOTS IN SHASHEMENE TOWN AND WOREDA, WEST ARSI ZONE, OROMIA REGION, ETHIOPIA

Se Eun Park<sup>1</sup>, Abel Gedefaw<sup>1</sup>, Dejene Hailu<sup>1</sup>, Yeonji Jeon<sup>1</sup>, Ondari D. Mogeni<sup>1</sup>, Geun Hyeog Jang<sup>1</sup>, David Mukasa<sup>1</sup>, Ramzi Mraid<sup>1</sup>, Deok Ryun Kim<sup>1</sup>, Tomas Getahun<sup>2</sup>, Edlawit Mesfin Getachew<sup>2</sup>, Biruk Yeshitela<sup>2</sup>, Samuyel Ayele Abebe<sup>2</sup>, Mukemil Hussien<sup>3</sup>, Yeshambel Worku Demlie<sup>3</sup>, Mekonnen Teferi<sup>2</sup>  
<sup>1</sup>International Vaccine Institute, Seoul, Republic of Korea, <sup>2</sup>Armauer Hansen Research Institute, Addis Ababa, Ethiopia, <sup>3</sup>Ethiopia Public Health Institute, Addis Ababa, Ethiopia

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### HEALTHCARE SEEKING BEHAVIOR AND KNOWLEDGE ASSOCIATED WITH CHOLERA AND DIARRHEAL ILLNESSES AMONG POPULATIONS LIVING IN CHOLERA ENDEMIC AND HOTSPOTS IN SHASHEMENE TOWN AND SHASHEMENE WOREDA, ETHIOPIA

Tomas Getahun<sup>1</sup>, Dejene Hailu<sup>2</sup>, Ondari D. Mogeni<sup>2</sup>, Edlawit Mesfin Getachew<sup>1</sup>, Biruk Yeshitela<sup>1</sup>, Yeonji Jeon<sup>2</sup>, Abel Gedefaw<sup>2</sup>, Samuyel Ayele Abebe<sup>1</sup>, Ermiyas Hundito<sup>1</sup>, David Mukasa<sup>2</sup>, Geun Hyeog Jang<sup>2</sup>, Gi Deok Pak<sup>2</sup>, Deok Ryun Kim<sup>2</sup>, Yeshambel Worku Demlie<sup>3</sup>, Mukemil Hussien<sup>3</sup>, Mekonnen Teferi<sup>1</sup>, Se Eun Park<sup>2</sup>  
<sup>1</sup>Armauer Hansen Research Institute, Addis Ababa, Ethiopia, <sup>2</sup>International Vaccine Institute, Seoul, Republic of Korea, <sup>3</sup>Ethiopia Public Health Institute, Addis Ababa, Ethiopia

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### DISSECTING WATER, SANITATION, AND HYGIENE (WASH) RISK FACTORS FOR CHOLERA AND GEOSPATIAL MAPPING OF WASH STATUS AND ITS ASSOCIATION WITH CHOLERA ATTACK RATE IN SHASHEMENE TOWN AND WOREDA, OROMIA REGION, ETHIOPIA

Dejene Hailu<sup>1</sup>, Yeonji Jeon<sup>1</sup>, Abel Gedefaw<sup>1</sup>, Jong-Hoon Kim<sup>1</sup>, Ramzi Mraid<sup>1</sup>, Tomas Getahun<sup>2</sup>, Ondari D. Mogeni<sup>1</sup>, Edlawit Mesfin Getachew<sup>2</sup>, Geun Hyeog Jang<sup>1</sup>, David Mukasa<sup>1</sup>, Gi Deok Pak<sup>1</sup>, Deok Ryun Kim<sup>1</sup>, Samuyel Ayele Abebe<sup>2</sup>, Biruk Yeshitela<sup>2</sup>, Moti Edosa<sup>3</sup>, Yeshambel Worku Demlie<sup>3</sup>, Se Eun Park<sup>1</sup>, Mekonnen Teferi<sup>2</sup>  
<sup>1</sup>International Vaccine Institute, Seoul, Republic of Korea, <sup>2</sup>Armauer Hansen Research Institute, Addis Ababa, Ethiopia, <sup>3</sup>Ethiopia Public Health Institute, Addis Ababa, Ethiopia

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### FACTORS ASSOCIATED TO GESTATIONAL WEIGHT GAIN TRAJECTORIES OF PREGNANT WOMEN LIVING IN A LIMITED RESOURCES SETTINGS IN SOUTHERN BENIN, WEST AFRICA

Koffi E. YOVO<sup>1</sup>, Manfred ACCROMBESSI<sup>2</sup>, Valérie BRIAND<sup>3</sup>, Pierre TRAISSAC<sup>4</sup>, Yves MARTIN-PREVEL<sup>4</sup>  
<sup>1</sup>IRD (Institut de Recherche pour le Développement), UMR MoISA Univ Montpellier, CIRAD, CIHEAM-IAMM, INRAE, Institut Agro, IRD, Montpellier France, Cotonou, Benin, <sup>2</sup>Population Services International (PSI), Malaria International Department, Cotonou, Benin, Cotonou, Benin, <sup>3</sup>Institut de Recherche pour le Développement, Inserm, University of Bordeaux, Bordeaux, France, Bordeaux, France, <sup>4</sup>IRD (Institut de Recherche pour le Développement), UMR MoISA Univ Montpellier, CIRAD, CIHEAM-IAMM, INRAE, Institut Agro, IRD, Montpellier, France

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### CAUSES OF MATERNAL MORTALITY IN RURAL BANGLADESH: ANALYSIS OF VERBAL AUTOPSY DATA OF CHILD HEALTH AND MORTALITY PREVENTION SURVEILLANCE (CHAMPS) BANGLADESH

Afsana Afrin<sup>1</sup>, Afruna Rahman<sup>1</sup>, Mohammad Zahid Hossain<sup>1</sup>, Md. Abu Bakkar Siddique<sup>1</sup>, Tazrin Rahman Lopa<sup>1</sup>, Md. Alinoor Islam Khan<sup>1</sup>, Md. Atique Iqbal Chowdhury<sup>1</sup>, Qazi Sadeq-ur Rahman<sup>1</sup>, Md. Mamunur Rashid<sup>1</sup>, Shams El Arifeen<sup>1</sup>, Emily S. Gurley<sup>2</sup>  
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### COMPARISON OF KNOWLEDGE, ATTITUDES AND PERCEPTIONS ON COVID-19 VACCINES HESITANCY BETWEEN RURAL AND URBAN COMMUNITIES IN DEMOCRATIC REPUBLIC OF CONGO

Mireille Ngale Amba, Samuel Mampunza Ma Miezi, Aline Engo-Biongo, Thérèse Mpiempie Ngamasata, Tarcisse Kilara Kapene, Joel Kiniati Fumwankau, Nsengi Ntamabyaliro, Gauthier Mesia Kahunu, Gaston Tona Lutete  
 University of Kinshasa, Kinshasa, Democratic Republic of the Congo

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### ASSESSMENT OF AGE-RELATED DISEASE INCIDENCE IN A MISSION CLINIC IN RURAL HAITI, AS A BASIS FOR PLANNING PUBLIC HEALTH PREVENTION PROGRAMS

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## FACTORS ASSOCIATED WITH THE PERFORMANCE OF MALARIA CASE MANAGEMENT BY COMMUNITY HEALTH WORKERS IN THE DISTRICT OF FRIA, GUINEA

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## GRIEVING AND ITS IMPLICATIONS IN A RURAL SOUTH AFRICAN COMMUNITY: A QUALITATIVE EXPLORATIVE STUDY

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## FACTORS ASSOCIATED WITH UTILIZATION OF ANTENATAL SERVICES IN AN URBAN HEALTH CLINIC

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## USE OF LOGISTICIAN TRAINEES IN LAST MILE DISTRIBUTION OF EMERGENCY RESTOCKING RESPONSE IN BENIN APRIL TO MAY 2023

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Donald Grant<sup>1</sup>, Matt A. Price<sup>2</sup>, Nell Bond<sup>3</sup>, Robert Garry<sup>4</sup>, Crystal Zheng<sup>3</sup>, Robert Samuels<sup>1</sup>, Mambu Momoh<sup>1</sup>, Lansana Kanneh<sup>1</sup>, John S. Schieffelin<sup>3</sup>, Jeffrey G. Shaffer<sup>3</sup>, Suzanna C. Francis<sup>2</sup>, Thomas M. Crea<sup>5</sup>, Patricia E. Fast<sup>2</sup>, Swati Gupta<sup>2</sup>

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Jordan M. Smith<sup>1</sup>, Norberto Bosepa Cubacuba<sup>2</sup>, Miriam Riobi Patatobe<sup>2</sup>, Matilde Riloha Rivas<sup>3</sup>, David S. Galick<sup>2</sup>, Jeremias Nzamio Mba Eyono<sup>2</sup>, Wonder P. Phiri<sup>2</sup>, Carlos A. Guerra<sup>1</sup>, Guillermo A. García<sup>1</sup>

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### ASSOCIATIONS BETWEEN ENVIRONMENTAL TEMPERATURE, RAINFALL, STILLBIRTH, AND NEONATAL MORTALITY IN THE DEMOCRATIC REPUBLIC OF THE CONGO

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### NOVEL DNA EXTRACTION METHODS FOR CMV PEDIATRIC SAMPLES

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### STRENGTHENING ROUTINE SURVEILLANCE SYSTEMS FOR VACCINE SAFETY IN THE DISTRICTS IN MALAWI: CHALLENGES, MITIGATION MEASURES, AND LESSONS LEARNED FROM ACTIVE HOSPITAL-BASED SENTINEL SITE SURVEILLANCE PROGRAM

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### COMMUNITY-LED MONITORING: A CATALYST FOR STRENGTHENING AAAQ OF PRIMARY HEALTHCARE AND MALARIA SERVICES

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### ADDRESSING DUAL EMERGENCIES: MASS DRUG ADMINISTRATION FOR EBOLA VIRUS DISEASE OUTBREAK CONTROL AND MALARIA REDUCTION IN UGANDA

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### EVALUATION OF LATERAL FLOW DEVICES FOR THE DETECTION OF AVIAN INFLUENZA

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### LESSONS LEARNED FROM COMMUNITY-CENTERED EARLY WARNING: EVALUATING THE ACCEPTABILITY OF A COMMUNITY-BASED SURVEILLANCE (CBS) PROGRAM IMPLEMENTED AMONG DISPLACED POPULATIONS IN IRAQ

**Caitlin M. Wolfe**, Lara Abou Ammar, Mohammed Slebei, Nashwan Saor, Karwan Khuder, Farah Ali, Sezan Shawkat, Catharina Chipman, Nellie Ghusayni  
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### COMPARATIVE ASSESSMENT OF THE OCCURRENCE AND DISTRIBUTION OF ACUTE FEBRILE ILLNESS-CAUSING PATHOGENS IN NORTHERN AND SOUTHERN NIGERIA

**Vivian Kwaghe**<sup>1</sup>, Cyril Erameh<sup>2</sup>, Jay Samuels<sup>3</sup>, Lauren Courtney<sup>4</sup>, Jean Kim<sup>4</sup>, Claire Quiner<sup>4</sup>, Ephraim Ogbaini<sup>2</sup>, Osas Edeawe<sup>2</sup>, Nankpah Vongdip<sup>1</sup>, Philippe Chebu<sup>3</sup>, Adamu Ephraim<sup>4</sup>, Kat Asman<sup>4</sup>, Victoria Orok<sup>1</sup>, Oladimeji Matthew<sup>1</sup>, Onyia J. Ejike<sup>1</sup>, Ikponmwoosa Odia<sup>2</sup>, Femi Owolagba<sup>3</sup>, Eke Ofuche<sup>3</sup>, Emmanuel Oga<sup>4</sup>  
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### LONG-TERM HUMANITARIAN CRISIS EFFECTS ON HEALTH: A PUBLIC HEALTH SITUATION ANALYSIS, EASTERN SIDE OF THE DEMOCRATIC REPUBLIC OF THE CONGO

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### SPECIMENS WITH UNKNOWN INFECTIOUS ETIOLOGIES: PATHWAYS TO PATHOGEN DISCOVERY AND IMPROVED DETECTION USING UNBIASED METAGENOMIC SEQUENCING

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### COMMUNITY HEALTH WORKERS' ROLE IN COMBATING AEDES-BORNE DISEASES: INSIGHTS FROM A SCOPING REVIEW AND QUALITATIVE SYNTHESIS

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### BAYESIAN METHODS FOR ATTRIBUTING ETIOLOGY OF ACUTE FEBRILE ILLNESS (AFI) USING AN RT-PCR ARRAY CARD FOR SURVEILLANCE OF 32 PATHOGENS IN THE PERUVIAN AMAZON

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### STRENGTHENING SUB-NATIONAL SUPPORT TO HEALTHCARE PROFESSIONALS IN PAPUA NEW GUINEA TO PROMOTE EQUITY IN THE USE OF DATA TO INFORM LOCAL RESPONSE TO VECTOR-BORNE DISEASES

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### MANAGEMENT AND MONITORING OF POTENTIAL EBOLA (SUDAN) VIRUS DISEASE CASES IN JINJA DISTRICT DURING THE 2022 OUTBREAK IN UGANDA

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### CHOLERA AND ACUTE DIARRHEAL DISEASES IN HIGH PRIORITY CHOLERA HOTSPOTS IN ETHIOPIA: PRELIMINARY INTERIM FINDINGS ON AGE-GROUP STRATIFIED CRUDE INCIDENCE, HOSPITALIZATION, AND LEADING CAUSES OF NON-CHOLERA DIARRHEAL DISEASES

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### ACUTE FEBRILE ILLNESS RESEARCH TO SUPPORT EPIDEMIC PREPAREDNESS AND RESPONSE IN WEST AFRICA

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## Mosquitoes - Biology and Genetics of Insecticide Resistance

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### TRANSCRIPTIONAL AND GENOMIC SIGNATURES ASSOCIATED WITH CHLORFENAPYR RESISTANCE IN THE PRIMARY AFRICAN MALARIA VECTOR ANOPHELES GAMBIAE

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### EFFICACY OF NEXT-GENERATION LONG-LASTING INSECTICIDAL NETS & LTLINSGT AGAINST INSECTICIDE RESISTANT ANOPHELES GAMBIAE S.L. IN M'BÉ, CENTRAL CÔTE D'IVOIRE: AN EXPERIMENTAL HUT TRIAL AND ANALYSIS OF BASELINE MOLECULAR RESISTANCE MECHANISMS

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### UNRAVELLING METABOLIC RESISTANCE IN ANOPHELES FUNESTUS S.S. POPULATION FROM BENGUELA AND CUANZA-SUL PROVINCES, ANGOLA

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### WHOLE TRANSCRIPTOME SEQUENCING EXPOSES DISTINCT INSECTICIDE RESISTANCE MECHANISMS IN ANOPHELES ARABIENSIS OF VARYING AGES FROM MWAGAGALA, TANZANIA

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### INSECTICIDE RESISTANCE STATUS OF Aedes Aegypti IN THE URBAN AREA OF BAMAKO IN THE CONTEXT OF A DENGUE EPIDEMIC

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### REDUCED EFFICACY OF PBO-LLINS AGAINST MALARIA VECTORS IN WEBUYE, BUNGOMA COUNTY, WESTERN KENYA

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### ESCALATING PYRETHROID RESISTANCE IN TWO MAJOR MALARIA VECTORS ANOPHELES FUNESTUS AND ANOPHELES GAMBIAE (S.L.) IN ATATAM, SOUTHERN GHANA

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### WHOLE GENOME SEQUENCE ANALYSIS OF POPULATION DYNAMICS AND INSECTICIDE RESISTANCE MARKERS IN ANOPHELES MELAS FROM THE BIJAGÓS ARCHIPELAGO, GUINEA-BISSAU

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### INSECTICIDE RESISTANCE IN *ANOPHELES GAMBIAE* COMPLEX IN ONDO AND ANAMBRA STATES OF NIGERIA

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### METABOLIC BASIS OF PYRETHROID RESISTANCE IN *AEDES AEGYPTI*

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### INSECTICIDE CONTACT EFFECTIVENESS OF ULV FOGGING ACROSS A HETEROGENEOUS PHYSICAL AND FITNESS LANDSCAPE

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## Mosquitoes - Biology, Physiology and Immunity

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### EXAMINING THE PROLIFERATION OF *SERRATIA MARCESCENS* IN *ANOPHELES GAMBIAE* MOSQUITOES TOWARDS UNDERSTANDING THEIR ROLE AND MECHANISM IN *PLASMODIUM FALCIPARUM* TRANSMISSION-BLOCKING

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### RETENTION OF ADULT MOSQUITO PHENOTYPE FROM CRYOPRESERVED *ANOPHELES STEPHENSI* EGGS FOR SUCCESSFUL GMP PRODUCTION OF SANARIA® PFSPZ CHALLENGE (NF54)

**Tales V. Pascini**, Peter F. Billingsley, Grace Jennings, Ehud Inbar, Dimitri Koutzoumis, Eric James, Urvashi Ray, Sumana Chakravarty, Lixin Gao, MingLin Li, Jeremy Guth, B. Kim Lee Sim, Stephen L. Hoffman  
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### IMMUNOMETABOLIC CROSSTALK IN *AEDES FLUVIATILIS* *WOLBACHIA PIPIENTIS* SYMBIOSIS

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### TRANSGENIC OVEREXPRESSING VAGO1 RESTRICTS ARBOVIRUS INFECTION IN *AEDES AEGYPTI*

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### UNDERSTANDING THE IMPACT OF HOST SPECIES AND SEASONALITY ON THE MOSQUITO MYCOBIOTA AND THE POTENTIAL OF FUNGI AS PARATRANSGENETIC TOOL

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### IMPACT OF INGESTED ANTIMALARIALS IN THE MOSQUITO VECTOR

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### EFFECT OF HYDROGEN PEROXIDE ON *AEDES AEGYPTI*: EGG HATCHABILITY AND OVIPOSITION SUBSTRATE PREFERENCE

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### HIGH-THROUGHPUT RNA SEQUENCING REVEALS DIVERSE CLADES OF MOSQUITO-SPECIFIC VIRUSES AND SHEDS LIGHT ON THEIR ECOLOGY

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## REGIONAL VARIABILITY IN THE RELATIONSHIP BETWEEN PRECIPITATION AND DENGUE INCIDENCE IN BRAZIL: INSIGHTS FROM BIWEEKLY TIME SERIES ANALYSIS

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## HIGH-THROUGHPUT SCREENING OF BIO-INSECTICIDES AGAINST MOSQUITO VECTORS

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## ASSESSING THE RESIDUAL EFFICACY OF PYRIPROXYFEN-BASED LARVICIDES FOR THE CONTROL OF THE INVASIVE MALARIA VECTOR ANOPHELES STEPHENSI IN ETHIOPIA

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## TREND MALARIA PREVALENCE AND ASSOCIATED RISK FACTORS AMONG SCHOOL CHILDREN IN MAINLAND TANZANIA, BETWEEN 2015 AND 2023; A MULTILEVEL ANALYSIS OF SCHOOL MALARIA AND PARASITE SURVEYS

Frank Chacky<sup>1</sup>, Joseph T. Hicks<sup>2</sup>, Mbaraka John Remiji<sup>3</sup>, Susan F. Rumisha<sup>3</sup>, Patrick GT Walker<sup>2</sup>, Prosper Chaki<sup>3</sup>, Sijenuu Aaron<sup>4</sup>, Samwel L. Nhiga<sup>4</sup>, Erik Reaves<sup>5</sup>, Naomi Serbantez<sup>6</sup>, Fabrizio Molteni<sup>7</sup>, Billy Ngasala<sup>8</sup>, Achyut KC<sup>9</sup>, Bruno P. Mbandio<sup>10</sup>, Robert W. Snow<sup>11</sup>, Jean-Pierre Van Geertruyden<sup>12</sup>

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## THE IMPACT OF INSECTICIDE TREATED NET USE ON MALARIA PREVALENCE AMONG SCHOOL AGED CHILDREN IN MAINLAND TANZANIA

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## Mosquitoes - Molecular Biology, Population Genetics and Genomics

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## POPULATION GENOMICS OF AN INVASIVE MOSQUITO VECTOR, Aedes Aegypti, IN SOUTHERN NEVADA

Karen L. Figueroa Chililo<sup>1</sup>, Vivek Raman<sup>2</sup>, Will Bendik<sup>2</sup>, Chad L. Cross<sup>1</sup>, Louisa A. Messenger<sup>1</sup>

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## CHARACTERIZING EPITOPE SEQUENCE-INDEPENDENT DISRUPTION OF IMMUNOGENICITY IN NOVEL PLASMODIUM FALCIPARUM ANTIGENS IDENTIFIED THROUGH WHOLE GENOME SIEVE ANALYSIS

Ryan Scalsky<sup>1</sup>, Ankit Dwivedi<sup>1</sup>, Matthew Laurens<sup>2</sup>, Joana C. Silva<sup>1</sup>

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## PREDICTING THE AGE OF FIELD ANOPHELES MOSQUITOES USING MASS SPECTROMETRY AND DEEP LEARNING

Abdoulaye Kane DIA<sup>1</sup>, Pauline Naudion<sup>2</sup>, Noshine Mohammad<sup>2</sup>, Pierre Yves Boëlle<sup>3</sup>, Abdoulaye Konaté<sup>4</sup>, Lassana Konaté<sup>4</sup>, El Hadji Amadou Niang<sup>4</sup>, Renaud Piarroux<sup>2</sup>, Xavier Tannier<sup>2</sup>, Cécile Nabet<sup>2</sup>

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## CRYOPRESERVATION OF ANOPHELES STEPHENSI EGGS: GENOTYPIC CONSERVATION AFTER LONG TERM CRYOSTORAGE AND GENERATION OF A STRAIN-SPECIFIC MARKERS

Ehud Inbar<sup>1</sup>, Tales Vicari Pascini Pascini<sup>1</sup>, Ashton T. Belew<sup>2</sup>, Najib M. el-Sayed<sup>2</sup>, Igor Sharakhov<sup>3</sup>, B. Kim Lee Sim<sup>1</sup>, Jeremy Guth<sup>1</sup>, Stephen L. Hoffman<sup>1</sup>, Eric R. James<sup>1</sup>, Peter F. Billingsley<sup>1</sup>

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**GENE DRIVE PERFORMANCE IN SMALL CAGE POPULATIONS OF THE YELLOW FEVER MOSQUITO, *Aedes aegypti***

Alexander W.E. Franz, Zachary J. Speth, David G. Rehard, Patricia J. Norton  
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**EFFECT OF ANTICOAGULANT TREATED BLOOD ON GENE EXPRESSION OF *Aedes aegypti* MOSQUITOES**

Alyssa Schwinn, Arley Calle-Tobon, Eric Dumonteil, Samuel Jameson, Berlin Londono-Renteria  
*Tulane University, New Orleans, LA, United States*

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**EXPLORING THE VIROME OF THE WEST NILE VIRUS VECTOR *Culex tarsalis***

Jaime Manzano Alvarez, Sultan Asad, Eunho Suh, Jason L. Rasgon  
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**TOTAL RNA SEQUENCING TO IDENTIFY MOLECULAR MARKERS OF BACTERIA AND FUNGI IN *Anopheles darlingi***

Paola Muñoz-Laiton, Juan C. Hernández-Valencia, Stefani Piedrahita, Juan C. Gómez-Herrera, Margarita M. Correa  
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**HI-C PROXIMITY LIGATION APPROACH IDENTIFIED CHROMOSOMAL REARRANGEMENTS IN *Culex pipiens* MOSQUITOES**

Yifan Feng<sup>1</sup>, Varvara Lukyanchikova<sup>1</sup>, Jiangtao Liang<sup>1</sup>, Dimitriy A. Karagodin<sup>2</sup>, Ilya I. Brusentsov<sup>2</sup>, Megan L. Fritz<sup>3</sup>, Maria V. Sharakhova<sup>1</sup>  
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**THE MICROBIOTA OF *Anopheles* AND *Aedes* MOSQUITOES IN FRENCH GUIANA: INVESTIGATING MICROBIAL COMMUNITIES AND THEIR RELATIONSHIP WITH ENVIRONMENTAL FACTORS**

Estelle Chabanol  
*Institut Pasteur de la Guyane, Cayenne, French Guiana*

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Ankita Sindhanía<sup>1</sup>, Miroslav Nurridinov<sup>2</sup>, Varvara Lukyanchikova<sup>1</sup>, Jiangtao Liang<sup>1</sup>, Chujia Chen<sup>1</sup>, Zhijian Tu<sup>1</sup>, Igor Sharakhov<sup>1</sup>, Maria Sharakhova<sup>1</sup>  
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**EXPANDING TOOLBOX FOR ODOR-BASED TSETSE FLY CONTROL IN EAST AFRICA**

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**Viruses - Emerging Viral Diseases**

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**EPIDEMIOLOGICAL, ENTOMOLOGICAL, AND CLIMATOLOGICAL INVESTIGATION OF THE 2019 DENGUE FEVER OUTBREAK IN GEWANE, AFAR REGION, NORTHEAST ETHIOPIA**

Wondemeneh M. Tebeje<sup>1</sup>, Solomon K. Getahun<sup>1</sup>, Bezabih K. Tilahun<sup>1</sup>, Yibeyin M. Melis<sup>1</sup>, Araya G. Hagos<sup>2</sup>, Chalachw S. Gebeyehu<sup>1</sup>, Fitsum B. Endeshaw<sup>3</sup>, Hiwot A. Hailu<sup>1</sup>, Mesfin W. Getaneh<sup>1</sup>, Aduugna W. Woyessa<sup>1</sup>, Chad L. Cross<sup>4</sup>, Louisa A. Messenger<sup>5</sup>  
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**SEROPREVALENCE OF DENGUE IN SENEGAL**

Aboubacry Gaye  
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**PRECLINICAL EVALUATION OF LIVE-ATTENUATED, REARRANGED V4020 VACCINE FOR VENEZUELAN EQUINE ENCEPHALITIS**

Peter Pushko<sup>1</sup>, Joseph Mattapallil<sup>2</sup>, Igor Lukashevich<sup>3</sup>, Dylan M. Johnson<sup>4</sup>, David Saunders<sup>2</sup>, Irina Tretyakova<sup>1</sup>, Donghoon Chung<sup>3</sup>  
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**EVALUATING THE EFFICACY AND CORRELATES OF PROTECTION OF AN INSECT-SPECIFIC FLAVIVIRUS VECTORED ZIKA VACCINE**

Albert Jonathan Auguste<sup>1</sup>, Danielle Porier<sup>1</sup>, Manette Tanelus<sup>1</sup>, Dawn I. Auguste<sup>1</sup>, Awadalkareem Adam<sup>2</sup>, Irving C. Allen<sup>3</sup>, Tian Wang<sup>2</sup>  
<sup>1</sup>*Virginia Polytechnic Institute and State University, Blacksburg, VA, United States*, <sup>2</sup>*University of Texas Medical Branch, Galveston, TX, United States*, <sup>3</sup>*Virginia-Maryland College of Veterinary Medicine, Blacksburg, VA, United States*

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**BIOLOGICAL AND MOLECULAR PROPERTIES OF A SYLVATIC YELLOW FEVER PLAQUE SIZES VARIANTS ISOLATED FROM A HUMAN PATIENT IN BRAZIL DURING THE 2017-18 OUTBREAK**

Leticia Trindade Almeida<sup>1</sup>, Andreza Parreiras Gonçalves<sup>1</sup>, Maria Fernanda Alves Souza e Silva<sup>1</sup>, Thais Bárbara de Souza Silva<sup>1</sup>, Thais Alkifeles Costa<sup>2</sup>, Betânia Paiva Drumond<sup>2</sup>, Andréa Teixeira de Carvalho<sup>1</sup>, Pedro Augusto Alves<sup>1</sup>  
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**A COMMERCIAL SEROLOGIC ASSAY (ELISA) FOR DETECTION OF ZIKA VIRUS IGG ANTIBODIES WITH MINIMAL CROSS-REACTIVITY**

Santosh George<sup>1</sup>, Vashti Irani<sup>1</sup>, Gabrielle Farulla-Bastian<sup>1</sup>, Hetali Shah<sup>1</sup>, Jeremy Schonhorn<sup>1</sup>, Alexandra Rockstroh<sup>2</sup>, Sebastian Ulbert<sup>2</sup>, Rachel Martinelli<sup>3</sup>, Graham Simmons<sup>4</sup>, Mars Stone<sup>4</sup>, Michael Busch<sup>3</sup>, Andrew Levin<sup>1</sup>  
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Saturday  
November 16

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**DEVELOPMENT OF A LATERAL FLOW DEVICE FOR DETECTING ANTI-MPXV SPECIFIC ANTIBODIES AS A MECHANISM TO CONDUCT SEROSURVEILLANCE AND TARGET AT-RISK INDIVIDUALS FOR VACCINATION**

**Ashley Otter**<sup>1</sup>, Scott Jones<sup>1</sup>, Sian Faustini<sup>2</sup>, Toby Jones<sup>1</sup>, Jennifer Heaney<sup>2</sup>, Alex Richter<sup>2</sup>  
<sup>1</sup>UK Health Security Agency, Salisbury, United Kingdom, <sup>2</sup>Clinical Immunology Service, University of Birmingham, Birmingham, United Kingdom

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**CLINICAL AND EPIDEMIOLOGICAL CHARACTERISTICS OF AIRCREW INFECTIOUS WITH MPOX DURING TRAVEL, UNITED STATES, MAY 10 - SEPTEMBER 30, 2022**

**Sheila C. Roy**, Kristin C. Delea, Alida M. Gertz, Sundari R. Mase, Francisco Alvarado-Ramy, Clive Brown, Shannon Gearhart  
 US Centers for Disease Control and Prevention, Atlanta, GA, United States

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**COMPARISON OF EBOV GP IGG ANTIBODY REACTIVITY; RESULTS FROM TWO ASSAYS: FANG AND A MAGPIX-BASED MULTIPLEX ASSAY IN THE DEMOCRATIC REPUBLIC OF THE CONGO**

**Sydney Merritt**<sup>1</sup>, Megan Halbrook<sup>1</sup>, Olivia A. Smith<sup>2</sup>, Nicole A. Hoff<sup>1</sup>, Jean Paul Kompany<sup>3</sup>, Merly Tambu<sup>3</sup>, Skylar A. Martin<sup>1</sup>, Teri Ann Wong<sup>2</sup>, Amie Jarra<sup>4</sup>, Angelica L. Barrall<sup>1</sup>, Kamy Musene<sup>1</sup>, Michael Beia<sup>3</sup>, Prabha Chandrasekaran<sup>4</sup>, Irina Maljkovic Berry<sup>4</sup>, Jean Jacques Muyembe-Tamfum<sup>3</sup>, Didine Kaba<sup>3</sup>, Placide Mbala-Kingebeni<sup>3</sup>, Axel T. Lehrer<sup>2</sup>, Anne W. Rimoin<sup>1</sup>  
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**EXPLORING THE IMPACT OF RANDOMIZED CONTROLLED TRIALS EVALUATING COVID-19 THERAPEUTICS ON CLINICAL PRACTICE GUIDELINES**

**Shermarke Hassan**, Prabin Dahal, James Watson, Fiona Caldwell, Farhad Shokraneh, Philippe Guérin  
 Infectious Diseases Data Observatory, University of Oxford, Oxford, United Kingdom

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**BEYOND EBOLA VIRUS AND LASSA VIRUS IN GUINEA: MNGS UNMASKS A SPECTRUM OF VIRAL PATHOGENS IN SAMPLES OF PATIENTS WITH HEMORRHAGIC FEVER COLLECTED DURING EPIDEMICS AND SURVEILLANCE ACTIVITIES**

**Karifa Kourouma**<sup>1</sup>, Daan Jansen<sup>2</sup>, Alimou Camara<sup>3</sup>, Juliana Gill<sup>4</sup>, Jacob Camara<sup>3</sup>, Bakary Sylla<sup>3</sup>, Isabel Brosius<sup>2</sup>, Laurens Liesenborghs<sup>2</sup>, Michel Koropogui<sup>1</sup>, Daouda Camara<sup>1</sup>, Fodé Amara Traoré<sup>5</sup>, Emmanuel Bottieau<sup>2</sup>, Cristiana Tato<sup>4</sup>, Sanaba Boumbaly<sup>3</sup>, Abdoul Habib Beavogui<sup>1</sup>, Alexandre Delamou<sup>1</sup>, Koen Vercauteren<sup>2</sup>  
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**VARIABILITY OF REPORTABLE DATA BASED ON CALCULATION OF CHIKUNGUNYA VIRUS NEUTRALIZING ANTIBODY TITERS**

**Jason Mendy**<sup>1</sup>, Deborah Anderson<sup>2</sup>, Lo Vang<sup>1</sup>, Chris Morello<sup>1</sup>, Rohini Sandesara<sup>1</sup>, Sally Baylis<sup>3</sup>, Victoria Jenkins<sup>4</sup>, Bernard Hoet<sup>4</sup>  
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**FOUR YEARS LATER: STABILITY OF THE COVID-19 SEROLOGY CONTROL PANEL DRIED TUBE SPECIMENS**

**Mattie Cassaday**<sup>1</sup>, Jonathan Mandolo<sup>2</sup>, Ross Kedl<sup>1</sup>, Rosemary Rochford<sup>1</sup>, W. Jon Windsor<sup>3</sup>, May C. Chu<sup>4</sup>  
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**IMPACT OF VACCINATION STRATEGIES FOR HEALTH-CARE WORKERS AGAINST MERS-COV: REACTIVE STRATEGIES OUTPERFORM PROACTIVE STRATEGIES**

**Daniel J. Laydon**<sup>1</sup>, Simon Cauchemez<sup>2</sup>, Wes R. Hinsley<sup>1</sup>, Samir Bhatt<sup>3</sup>, Neil M. Ferguson<sup>1</sup>  
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**TYPE OF VACCINE RECEIVED AND CLINICAL SEVERITY IN PATIENTS WITH TWO DOSES OF COVID-19 IMMUNIZATION**

**Anthony Bautista Pariona**<sup>1</sup>, Deysy Vásquez Santiago<sup>2</sup>, José Cabrejo Paredes<sup>2</sup>  
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## 7833

**ZIKA VIRUS IN PERU: EPIDEMIOLOGY, CLINICAL PRESENTATION AND GEOGRAPHIC DISTRIBUTION**

**Juana del Valle Mendoza**<sup>1</sup>, Hugh Watson<sup>2</sup>, Yordi Tarazona-Castro<sup>1</sup>, SeungHwan Lee<sup>3</sup>, Sang Chun Ji<sup>3</sup>, Wilmer Silva-Caso<sup>1</sup>, Miguel A. Aguilar-Luis<sup>1</sup>  
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**Viruses - Epidemiology**

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**CHARACTERIZING THE IMPACT OF COVID-19 ON OTHER RESPIRATORY INFECTIONS IN CHILE**

**Junya Li**<sup>1</sup>, Gonzalo Mena<sup>2</sup>, Pamela Martinez<sup>1</sup>  
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**QUANTIFYING THE POTENTIAL OF CHIKUNGUNYA VACCINES USING THE 2022-2023 OUTBREAK IN PARAGUAY**

**Pastor E. Pérez Estigarribia**<sup>1</sup>, Gabriel Ribeiro dos Santos<sup>2</sup>, Simon Cauchemez<sup>3</sup>, Cynthia Vazquez<sup>4</sup>, Ana Karina Ibarrola-Vannucci<sup>5</sup>, Guillermo Sequera<sup>6</sup>, Shirley Villalba<sup>4</sup>, María José Ortega<sup>4</sup>, Danny Scarponi<sup>7</sup>, Christinah Mukandavire<sup>7</sup>, Arminder Deol<sup>7</sup>, Henrik Salje<sup>8</sup>  
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## THE EPIDEMIOLOGY OF CHIKUNGUNYA VIRUS IN BRAZIL AND POTENTIAL VACCINE IMPACT

Oscar Cortes-Azuerio<sup>1</sup>, Megan O'Driscoll<sup>1</sup>, Gabriel Ribeiro dos Santos<sup>2</sup>, Ronaldo de Jesus<sup>3</sup>, Shirlene T. S. de Lima<sup>4</sup>, Danny Scarponi<sup>5</sup>, Christinah Mukandavire<sup>5</sup>, Arminder Deol<sup>5</sup>, Moritz U.G. Kraemer<sup>6</sup>, William M. de Souza<sup>4</sup>, Henrik Salje<sup>1</sup>

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## OCCURRENCE OF VIRAL HEMORRHAGIC FEVERS IN GHANA DURING COVID-19 PANDEMIC, 2019-2022

Dennis Kwaku Kushitor, Kofi J.H. Bonney, Deborah Pratt, Stephen Nyarko, Magdalene Ofori, Prince Ketorwoley

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## THE GLOBAL BURDEN OF CHIKUNGUNYA VIRUS AND THE POTENTIAL BENEFIT OF VACCINES

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## CIRCULATING NOROVIRUS STRAINS IN CHILDREN UNDER FIVE YEARS OLD MEDICALLY TREATED FOR ACUTE GASTROENTERITIS IN THREE HOSPITALS IN LIMA, PERU, 2022-2023

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## A SYSTEMATIC REVIEW OF FINE SCALE ESTIMATES FOR CHIKUNGUNYA MODELING IN THE CARIBBEAN: THE MISSING IMPACT OF HUMAN MOVEMENT ON TRANSMISSION RISK

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## EPIDEMIOLOGY OF SARS-COV-2 NEUTRALIZING ANTIBODIES IN A RURAL COMMUNITY IN WESTERN KENYA DURING THE FIRST 24 MONTHS OF THE COVID19 PANDEMIC

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## EVIDENCE FOR THE DRIVERS OF INFANT DENGUE RISK FROM SURVEILLANCE DATA IN BRAZIL

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## MODELING THE ECOLOGICAL AND PUBLIC HEALTH IMPACT OF DENGUE VACCINATION IN AN ENDEMIC SETTING

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## RELATIONSHIP BETWEEN ROTAVIRUS IGA SEROCONVERSION FOLLOWING FULL VACCINATION AGAINST G1P[8] ROTAVIRUS AND ROTAVIRUS GASTROENTERITIS IN A NICARAGUAN POPULATION

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## DEVELOPMENT OF A MULTIPLEX MICROSPHERE IMMUNOASSAY TO DETECT PATHOGENIC ARBOVIRUSES IN BRAZIL

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## A NOVEL MODELLING FRAMEWORK TO SIMULATE THE EFFECTS OF HIV STIGMA ON HIV TRANSMISSION DYNAMICS

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## IMPACT OF CHRONIC CHIKUNGUNYA ARTHRALGIA ON QUALITY OF LIFE AND MENTAL HEALTH: A PROSPECTIVE COMMUNITY-BASED COHORT STUDY

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### MOLECULAR TYPING OF NON POLIO ENTEROVIRUS ISOLATED FROM STOOL SAMPLES AS PART OF THE EPIDEMIOLOGICAL SURVEILLANCE OF ACUTE FLACCID PARALYSIS IN RD CONGO

TRESOR MAMPUELA KABEYA<sup>1</sup>, catherine Pratt<sup>2</sup>, Emmanuel lokilo<sup>1</sup>, BIBICHE NSUNDA<sup>1</sup>, Marceline Akonga<sup>1</sup>, Aziza Amuri<sup>1</sup>, yvonne Lay<sup>1</sup>, Elie Pukuta<sup>1</sup>, RIZIKI YOGOLELO<sup>1</sup>, pius kabututu<sup>3</sup>, Alexander Shaw<sup>4</sup>, Nicholas Grassly<sup>1</sup>, steve ahuka<sup>1</sup>, Erika Bujaki<sup>5</sup>, Placide Mballa<sup>1</sup>, JAVIER MARTIN<sup>5</sup>

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### IMPROVING DIAGNOSIS AND MANAGEMENT OF VIRAL INFECTIONS AMONG UGANDAN CHILDREN UNDERGOING CANCER CHEMOTHERAPY THROUGH USE OF NEXT-GENERATION METAGENOMIC SEQUENCING

Kristen Bastug<sup>1</sup>, Benigna Namara<sup>2</sup>, Olivia Toles<sup>1</sup>, Svatava Merkle<sup>3</sup>, Alison Woods<sup>1</sup>, Wilber Bwambale<sup>1</sup>, Joyce Kambugu<sup>4</sup>, Beth Thielen<sup>1</sup>

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### SEROPREVALENCE OF SARS-COV-2 AMONG YOUNG ADULTS: A CROSS-SECTIONAL ANALYSIS OF INFECTION AND VACCINATION

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### SARS-COV-2 ANTIBODIES SEROPREVALENCE AFTER CORONAVAC IMMUNIZATION IN GUARAMIRANGA, NORTHEAST BRAZIL, 2021-2022

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### IMPACTS OF PAVING THE INTEROCEANIC HIGHWAY ON DENGUE IN PERU'S AMAZON BASIN

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### SURVEILLANCE OF SARS-COV-2 BASED ON SANGER SEQUENCING OF THE SPIKE GENE ALLOWED THE DETECTION AND TRACKING OF VARIANTS IN BOLIVIA FROM 2020 TO 2023

Belén C. Choque-Pardo<sup>1</sup>, Sonia Jimenez-Pacohuanca<sup>1</sup>, Leonarda Acha Alarcón<sup>2</sup>, Alejandra Torrez<sup>1</sup>, Julia Barreta<sup>1</sup>, Volga Iñiguez<sup>1</sup>

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## Viruses - Field and Ecological Studies of Viruses, Including Surveillance and Spillover Risk and Emergence

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### DETECTION OF DENGUE AND METAGENOMIC ANALYSIS OF Aedes Aegypti VIROME IN KISUMU, KENYA

Tabitha Wanjiru Ng'ang'a<sup>1</sup>, Solomon Langat<sup>2</sup>, Wallace Bulimo<sup>2</sup>, Johnson Kinyua<sup>3</sup>, Nicholas Odemba<sup>4</sup>, Santos Yalwala<sup>1</sup>, Jaree Johnson<sup>5</sup>, Elly Ojwang<sup>1</sup>, Timothy Egbo<sup>1</sup>, Eric Garges<sup>1</sup>, Fredrick Eyase<sup>1</sup>

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### UNDERSTANDING HUMAN-ANIMAL-TICK INTERACTION AND RISK FACTORS WHICH LEAD TO THE EXPOSURE TO CRIMEAN CONGO HAEMORRHAGIC FEVER VIRUS (CCHFV) IN UGANDA: A MULTIDISCIPLINARY STUDY

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### DEVELOPMENT OF A RT-LAMP ASSAY FOR LA CROSSE VIRUS

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### ISOLATION OF LA CROSSE VIRUS FROM Aedes triseriatus (DIPTERA: CULICIDAE) IN WESTERN NORTH CAROLINA

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### CMV INFECTION AND SHEDDING IN PREGNANT WOMEN, CHILDREN, AND INFANTS IN SIERRA LEONE

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### SPATIOTEMPORAL FORECASTING OF NIPAH VIRUS SPILLOVER RISK IN BANGLADESH, 2007-2023

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### VIRAL SURVEILLANCE IN CAVE-DWELLING BATS FROM KAPCHORWA DISTRICT IN EASTERN UGANDA REVEALS DETECTION OF MULTIPLE CORONAVIRUSES, PARAMYXOVIRUSES, AND RHABDOVIRUSES

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### ROLE OF MULTIPLEXED IMMUNOASSAYS TO DETERMINE IMPACT OF NON-SPECIFIC BINDING ON IMMUNOASSAYS: IMPLICATIONS OF "STICKY SERA" IN DISEASE SEROSURVEILLANCE IN THE DEMOCRATIC REPUBLIC OF THE CONGO

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### SEROPOSITIVITY TO BOVINE CORONAVIRUS IN DAIRY WORKERS AND COMMUNITY DWELLERS: RESULTS OF A PILOT STUDY

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### EVALUATION OF AMINO ACID DETERMINANTS OF DIFFERENTIAL SERUM NEUTRALIZATION BETWEEN DIVERGENT AND EPIDEMIC DENGUE TYPE 1

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### SEROLOGICAL EVIDENCE OF EMERGING HENIPAVIRUSES AND PARAMYXOVIRUSES IN PTEROPODID BATS IN THE PHILIPPINES

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### INTERROGATING THE ECOLOGY OF NO-KNOWN VECTOR FLAVIVIRUSES THROUGH *IN VITRO* VALIDATION OF MODEL-BASED HOST-VECTOR-VIRUS PREDICTIONS

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## Viruses - Immunology

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### PLASMA IGM ANTIBODIES CONTRIBUTE TO VIRUS NEUTRALIZATION IN EARLY IMMUNE RESPONSES TO SECONDARY DENGUE VIRUS INFECTIONS

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### INCREASED FREQUENCY OF ANTIGEN-SPECIFIC CD4+ T CELL RESPONSES FOLLOWING VACCINATION WITH ORAL LIVE ATTENUATED POLIO VACCINES

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### DISTINCT CELLULAR IMMUNE RESPONSES ARE ASSOCIATED WITH PATHOGENESIS, DISEASE PROGRESSION, AND LATE-RELAPSING HEPATITIS IN YELLOW FEVER PATIENTS

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### FLAVIVIRUS ANTIGENIC CARTOGRAPHY OF PREEXISTING NEUTRALIZING ANTIBODIES IN A PEDIATRIC COHORT IN MERIDA, MEXICO, A HYPERENDEMIC AREA FOR ARBOVIRUSES

**Henry Nelson Puerta Guardo**<sup>1</sup>, Manuel Alejandro Parra Cardena<sup>1</sup>, Gloria Barrera Fuentes<sup>1</sup>, Oscar D. Kirstein<sup>2</sup>, Azael David Che Mendoza<sup>1</sup>, K. Jacqueline Ciaui<sup>1</sup>, J. Kevin Yam<sup>1</sup>, Mathew Collins<sup>3</sup>, Daniel Espinoza<sup>3</sup>, Pablo Manrique Saide<sup>1</sup>, Norma Pavia Ruz<sup>1</sup>, Guadalupe Ayora Talavera<sup>1</sup>, Gonzalo Vazquez Prokopec<sup>4</sup>, James Earnest<sup>4</sup>  
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**CHARACTERIZATION OF NLRP3 INFLAMMASOME ACTIVATION IN HUMAN MONOCYTES AND MACROPHAGES INFECTED WITH OROPOUCHE VIRUS**Eduardo T. Jurado-Cobena, Cigdem Alkan, Tetsuro Ikegami  
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**VIRUS SPECIFIC T CELL RESPONSES IN A CONTROLLED HUMAN ZIKA CHALLENGE MODEL**Amparo Martínez-Pérez<sup>1</sup>, Calvin Ha<sup>2</sup>, Stephen Whitehead<sup>3</sup>, Anna Durbin<sup>4</sup>, Daniela Weiskopf<sup>5</sup>  
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**IMPACT OF DENGUE VIRUS INFECTION ON COMPLEMENT ACTIVATION AND REGULATION**Maris S. Wilkins, Priscila M. S. Castanha, Ernesto T. A. Marques  
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**PREMATURE HIGH LEVELS OF ANTIBODY-DEPENDENT COMPLEMENT ACTIVATION IS ASSOCIATED WITH SEVERE DISEASE IN SECONDARY DENV3 INFECTIONS**Amro Nasser, Priscila M Da Silva Castanha, Ernesto T. Marques  
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**ASSESSING THE ANTIBODY RESPONSE AND SOLUBLE MEDIATOR PROFILES INDUCED BY WILD-TYPE AND VACCINE STRAINS OF THE YELLOW FEVER VIRUS: LESSONS FROM THE 2016-2018 OUTBREAK IN BRAZIL**Andreza Parreiras Goncalves<sup>1</sup>, Leticia Trindade Almeida<sup>2</sup>, Izabela Mauricio de Rezende<sup>1</sup>, Jordana Rodrigues Barbosa Fradico<sup>2</sup>, Leonardo Soares Pereira<sup>3</sup>, Dario Brock Ramalho<sup>3</sup>, Marcelo Antônio Pascoal Xavier<sup>2</sup>, Carlos Eduardo Calzavara Silva<sup>2</sup>, Thomas P. Monath<sup>4</sup>, Desiree A. LaBeaud<sup>1</sup>, Betania Paiva Drumond<sup>5</sup>, Ana Carolina Campi-Azevedo<sup>2</sup>, Olindo A. Martins-Filho<sup>2</sup>, Andréa Teixeira-Carvalho<sup>2</sup>, Pedro Augusto Alves<sup>2</sup>  
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**BREAKTHROUGH INFECTION ENHANCES SARS-COV-2 SPECIFIC T CELL RESPONSES AND GENERATES NOVEL EPITOPE SPECIFICITIES**Alison Tarke, Alessandro Sette, Alba Grifoni  
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**DENGUE ADAPTIVE IMMUNE RESPONSES AND HLA DIVERSITY IN A PUERTO RICAN COHORT**Paola Nicole Flores, Raphael Sánchez, Andra Arias, Vanessa Rivera  
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**PROTEOMIC DECONVOLUTION OF CIRCULATING ANTIBODY REPERTOIRES ELICITED BY SECONDARY DENV INFECTION**Douglas Townsend<sup>1</sup>, Tulika Singh<sup>2</sup>, Long Ping Victor Tse<sup>3</sup>, Ralph Baric<sup>4</sup>, Eva Harris<sup>2</sup>, Jason Lavinder<sup>1</sup>  
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**ANALYZING THE IMMUNOGENICITY PROFILE OF ARIPO-ZIKA**Manette Tanelus, Krisangel López, Danielle L. Porier, Dawn I. Auguste, John Muller, Albert Jonathan Auguste  
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**DESIGNING DENGUE VIRUS 2 (DV2) SUBUNIT VACCINE USING A STRUCTURE-GUIDED APPROACH TO REFOCUS NEUTRALIZING ANTIBODIES (NAB) TO POTENT, QUATERNARY NAB EPITOPES OF DV2**Devina J. Thiono, Thanh T.N. Phan, Demetrios Samaras, Shaomin Tian, Lawrence J. Forsberg, Ruby P. Shah, Lucas Laszacs, Brian Kuhlman, Aravinda de Silva  
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**TOOLS FOR ANALYZING THE IMMUNE RESPONSE TO VIRUS INFECTION AND VACCINES**Edgar Davidson, Lewis J. Stafford, Nathan A. Krump, Chida Sulli, Allison Sheetz, Christina Go, Parul Ganjoo, Vlada Kuprienko, Jennifer Pfaff-Kilgore, Benjamin J. Doranz  
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**IMMUNOGENICITY OF COVID-19 MRNA, VIRAL VECTOR, AND INACTIVATED VIRUS VACCINES REGIMENS**Perrine Lallemand<sup>1</sup>, Djeneba Dabita<sup>2</sup>, Jean-Luc Biampata<sup>3</sup>, Daouda Camara<sup>4</sup>, Dehkontee Dennis<sup>5</sup>, Robin Dewar<sup>1</sup>, Mory Haidara<sup>4</sup>, Donatien Kazadi<sup>3</sup>, Seydou Samake<sup>2</sup>, Aissata Diarra<sup>2</sup>, Emmanuel Reeves<sup>5</sup>, Adama Sangare<sup>4</sup>, Louvina Sumbo<sup>5</sup>, Iriini Sereti<sup>6</sup>, Renee Ridzon<sup>6</sup>, Katy Shaw-Saliba<sup>6</sup>, Sally Hunsberger<sup>6</sup>  
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**ASSESSING THE INFLUENCE OF ASSUMPTIONS ON VACCINE EFFICACY AGAINST ASYMPTOMATIC DENGUE CASES ON IMPACT OF DENGUE VACCINATION STRATEGIES: A MODELING STUDY**Dawei Wang<sup>1</sup>, Salisu Garba<sup>2</sup>, Ibrahim Diakite<sup>2</sup>, John Cameron Lang<sup>2</sup>, Maina L'Azou Jackson<sup>3</sup>, Cody Palmer<sup>2</sup>, Rosybel Drury<sup>4</sup>, Louis Macareo<sup>2</sup>, Yao-Hsuan Chen<sup>3</sup>, Elamin Elbasha<sup>2</sup>  
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### PHASE 1 TRIAL TO MODEL PRIMARY, SECONDARY, AND TERTIARY DENGUE INFECTION USING A MONOVALENT VACCINE

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### EVALUATION OF T-CELL RESPONSES TO TETRAVALENT DENGUE VACCINE TAK-003 BY AGE GROUP

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### A NON-INFERIORITY TRIAL COMPARING TWO VACCINES (RABIX-VC VS. RABIPUR) FOR RABIES AMONG ADULTS IN DHAKA, BANGLADESH

Md Taufiqur Rahman Rahman Bhuiyan

International Centre for Diarrhoeal Disease Research (icddr), Dhaka, Bangladesh

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### BARRIERS AND FACILITATORS OF YELLOW FEVER VACCINE UPTAKE AMONG CHILDREN AGED 12-23 MONTHS IN WEST POKOT SUB-COUNTY, WEST POKOT COUNTY, KENYA

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### SAFETY AND TOLERABILITY OF A VSV-BASED LASSA FEVER VACCINE (RVSVΔG-LASV-GPC) IN HEALTHY ADULTS: UPDATES OF A FIRST-IN HUMAN, PLACEBO-CONTROLLED DOSE ESCALATION AND DOSE EXPANSION TRIAL (IAVI C102)

Gaudensia Nzambi Mutua<sup>1</sup>, Mark Kieh<sup>2</sup>, Elissa Malkin<sup>3</sup>, Lindsey Baden<sup>4</sup>, David Fitz-Patrick<sup>5</sup>, Mariette Malherbe<sup>6</sup>, Kathleen Walker<sup>7</sup>, Marija Zarić<sup>8</sup>, Devin Hunt<sup>7</sup>, Jennifer Lehrman<sup>7</sup>, Dagna Laufer<sup>7</sup>, Eddy Sayeed<sup>7</sup>, Patricia Fast<sup>7</sup>, Christopher Parks<sup>7</sup>, Swati Gupta<sup>7</sup>

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### INFORMING LASSA FEVER VACCINE TRIAL IMPLEMENTATION THROUGH COMMUNITY ENGAGEMENT

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### ASSESSING IMMUNOGENICITY OF VACCINES AGAINST FILOVIRUSES: CHALLENGES AND PROSPECTS

Arianna Marini<sup>1</sup>, Marija Zarić<sup>1</sup>, Faith Sigei<sup>1</sup>, Heejin Yun<sup>1</sup>, Rachel V. Bromell<sup>1</sup>, Natalia Fernandez<sup>1</sup>, Peter J. Hayes<sup>1</sup>, Shayna Sewell<sup>1</sup>, Ruhani Varma<sup>1</sup>, Hema Pindolia<sup>1</sup>, Matthew Ward<sup>1</sup>, Fuxian Hou<sup>2</sup>, Gavin Morrow<sup>2</sup>, Christopher L. Cooper<sup>2</sup>, Jane Halpern<sup>2</sup>, Marion Gruber<sup>2</sup>, Patricia E. Fast<sup>2</sup>, Nina Malkevič<sup>2</sup>, Swati Gupta<sup>2</sup>

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### DENGUE VIRUS GENETIC DIVERSITY IN SAMPLES FROM PARTICIPANTS ENROLLED IN THE BUTANTAN-DENGUE VACCINE PHASE 3 TRIAL IN BRAZIL

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### CHIKUNGUNYA: ONGOING DOSE-RESPONSE, SAFETY, AND IMMUNOGENICITY PHASE 2 TRIAL OF SINGLE-DOSE LIVE-ATTENUATED VACCINE (VLA1553) IN CHILDREN AGED 1 TO 11 YEARS

Vera Bürger<sup>1</sup>, Petronela Weisova, Peter Benedek, Martina Schneider, Ulrike Fuchs, Romana Hochreiter, Annegret Bitzer, Karin Kosulin, Oliver Zoihs, Katrin Dubischar, Susanne Eder-Lingelbach, Juan Carlos Jaramillo Valneva Austria GmbH, Vienna, Austria

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### PRECLINICAL IMMUNOGENICITY AND EFFICACY OF A VESICULAR STOMATITIS VIRUS-BASED SUDAN VIRUS VACCINE AND AN UPDATE ON ITS PERFORMANCE IN A PHASE 1 CLINICAL TRIAL

Nina Malkevič<sup>1</sup>, Christopher Cooper<sup>1</sup>, Gavin Morrow<sup>1</sup>, Arianna Marini<sup>2</sup>, Marija Zarić<sup>2</sup>, Gretchen Meller<sup>1</sup>, Y. Choi<sup>1</sup>, K. Peregrina<sup>1</sup>, A. Wilson<sup>1</sup>, L. Zhou<sup>1</sup>, Thomas Postler<sup>1</sup>, F. Hou<sup>1</sup>, S. Li<sup>1</sup>, K. Dai<sup>1</sup>, Alexey Karpov<sup>1</sup>, Eddy Sayeed<sup>1</sup>, Vince Philipponis<sup>1</sup>, Pat Fast<sup>1</sup>, Dhurata Dono<sup>1</sup>, Jane Halpern<sup>1</sup>, Allison Kennedy<sup>1</sup>, Harriet Park<sup>1</sup>, Andrew Kiliansky<sup>1</sup>, Krystle Agans<sup>3</sup>, Victoria Borisevich<sup>3</sup>, Courtney Woolsey<sup>3</sup>, Robert Cross<sup>3</sup>, Thomas Giesbert<sup>3</sup>, Daniel Deer<sup>3</sup>, Mark Feinberg<sup>1</sup>, Christopher Parks<sup>1</sup>, Swati Gupta<sup>1</sup>

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### SAFETY AND IMMUNOGENICITY OF MRNA ZIKA VIRUS VACCINE: RESULT FROM PHASE 2 TRIAL OF MRNA-1893

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### CHIKUNGUNYA VIRUS-LIKE PARTICLE VACCINE INDUCES CROSS-NEUTRALIZING ANTIBODIES AGAINST ALL THREE CHIKUNGUNYA GENOTYPES AND OTHER ALPHAVIRUSES

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### CHARACTERIZATION OF IMMUNE RESPONSES TO THE RVSΔG-LASV-GPC VACCINE CANDIDATE IN HEALTHY ADULTS

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### CONSISTENCY OF IMMUNOGENICITY AND SAFETY IN THREE CONSECUTIVE LOTS OF A TETRAVALENT DENGUE VACCINE CANDIDATE (BUTANTAN DV): A RANDOMIZED PLACEBO CONTROLLED TRIAL IN DENGUE NAIVE BRAZILIAN ADULTS

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## Malaria - Antimalarial Resistance and Chemotherapy

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### ANTIMALARIAL ACTIVITY OF COMMONLY USED HERBAL PRODUCTS IN GHANA: DECIPHERING THE UNACCOUNTED DRUG PRESSURE ON *PLASMODIUM* PARASITES

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### ASSESSMENT OF ANTIMALARIAL RESISTANCE AND ASSOCIATED MARKERS IN GAMBIAN *P. FALCIPARUM* CLINICAL ISOLATES

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### FORECASTING VOLUMES OF ARTEMISININ COMBINATION THERAPIES UNDER VARIOUS ANTIMALARIAL RESISTANCE SCENARIOS AND MULTIPLE FIRST-LINE THERAPY STRATEGIES IN SUB-SAHARAN AFRICA

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### LESSONS LEARNED FROM MALARIA DRUG EFFICACY STUDIES IN EQUATORIAL GUINEA

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### EX VIVO ANTIMALARIAL DRUG SUSCEPTIBILITIES AND MOLECULAR MARKERS OF DRUG RESISTANCE IN UGANDA

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### TRNA REPROGRAMMING AS A FEATURE OF ARTEMISININ RESISTANCE IN *PLASMODIUM FALCIPARUM*

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### EMERGENCE OF QUADRUPLE MUTATIONS IN *PLASMODIUM FALCIPARUM* DIHYDROFOLATE REDUCTASE ENZYME IN NORTHWESTERN TANZANIA

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### PFCRT MUTATIONS CAN MEDIATE PIPERAQUINE RESISTANCE ON SELECT AFRICAN HAPLOTYPES IN *P. FALCIPARUM* PARASITES WITH A MINOR FITNESS COST

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## EXPANDING ANTIMALARIAL RESISTANCE SURVEILLANCE: AN INTEGRATED GENOMIC AND PHENOTYPIC APPROACH

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## REDUCED PEROXIDATION OF *PLASMODIUM FALCIPARUM*-INFECTED RED BLOOD CELLS AS A MAJOR MECHANISM BY WHICH ARTEMISININ-RESISTANT PARASITES ESCAPE SPLENIC RETENTION

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## EX VIVO SUSCEPTIBILITIES TO NEW ANTIMALARIALS UNDER DEVELOPMENT AND ASSOCIATIONS WITH GENOTYPES IN *P. FALCIPARUM* ISOLATES FROM BURKINA FASO

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## ARTEMISININ-BASED COMBINATION TREATMENT FAILURE IN TRAVELERS RETURNING FROM SUB-SAHARAN AFRICA WITH *P. FALCIPARUM* MALARIA- A SYSTEMATIC REVIEW

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## LUMEFANTRINE PERFORMANCE IN AFRICA - A REVIEW OF LITERATURE

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## THERAPEUTIC EFFICACY OF ARTEMETHER-LUMEFANTRINE, DIHYDROARTEMISININ-PIPERAQUINE, AND ARTESUNATE-AMODIAQUINE FOR THE TREATMENT OF UNCOMPLICATED *FALCIPARUM* MALARIA IN MAINLAND TANZANIA, 2023

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## PPPRELI: A NOVEL MOLECULAR MEDIATOR OF RESISTANCE TO *PLASMODIUM FALCIPARUM* SERINE HYDROLASE INHIBITORS

Sunil K. Narwal<sup>1</sup>, John M. Bennett<sup>2</sup>, Krittikorn Kumpornsin<sup>3</sup>, John Okombo<sup>1</sup>, Tomas Yeo<sup>1</sup>, Case McNamara<sup>3</sup>, Matthew Bogoy<sup>2</sup>, David A. Fidock<sup>4</sup>  
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## MAPPING THE RESISTANCE DETERMINANTS OF SMALL PEPTIDE-LIKE MOLECULES AGAINST *PLASMODIUM FALCIPARUM* PARASITES

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## POST ARTESUNATE DELAYED HEMOLYSIS IN PEDIATRIC PATIENTS IN THE UNITED STATES

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Justin Gibbons<sup>1</sup>, Camilla Valente Pires<sup>1</sup>, Murrel Saldanha<sup>1</sup>, Thomas D. Otto<sup>2</sup>, Julian C. Rayner<sup>3</sup>, John H. Adams<sup>1</sup>

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Bridget Adikah, Silas Yeboah, Jersley Chirawurah, Elizabeth Akrong, Gordon Awandare, Lucas Amenga-Etego, Yaw Aniweh

West Africa Centre for Cell Biology of Infectious Pathogens, Legon, Ghana

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Kisakye Diana Kabbale<sup>1</sup>, Bienvenue Nsengimaana<sup>1</sup>, Francis D. Semakuba<sup>1</sup>, Brian Assimwe<sup>1</sup>, Kylie Hilton<sup>2</sup>, Caroline Mwubaha<sup>1</sup>, Innocent Wiringilimaana<sup>1</sup>, Thomas Katairo<sup>1</sup>, Shahiid Kiyaga<sup>1</sup>, Monica Mbabazi<sup>1</sup>, Stephen Tukwasibwe<sup>1</sup>, Sam L. Nsobya<sup>1</sup>, Victor Asua<sup>1</sup>, Moses Kanya<sup>1</sup>, Grant Dorsey<sup>3</sup>, Melissa Conrad<sup>3</sup>, Bryan Greenhouse<sup>3</sup>, Isaac Ssewanyana<sup>1</sup>, Jessica Briggs<sup>3</sup>

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Jeremiah D. Miller<sup>1</sup>, Imonikhe Kennedy Kio<sup>2</sup>, Christian T. Happi<sup>2</sup>, Timothy J. Garrett<sup>1</sup>, Rhoel R. Dinglasan<sup>1</sup>

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Arthur Mpimbaza<sup>1</sup>, Edward Mugwanyana<sup>2</sup>, Angela Kateemu<sup>2</sup>, Anne Katahoire<sup>1</sup>, Amy Casella<sup>3</sup>, Nancy Brady<sup>3</sup>, Benjamin Binagwa<sup>2</sup>

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Vera Appiah-Kubi<sup>1</sup>, Godwin Woode<sup>1</sup>, Reinhard Kobbie Danku<sup>1</sup>, Fred Gbadago<sup>2</sup>, Gordon A. Awandare<sup>1</sup>, Lucas N. Amenga-Etego<sup>1</sup>, Yaw Aniweh<sup>1</sup>

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### THE ADDITIVE VALUE OF PARAMAX-3™ PAN/PV/PF MALARIA RAPID DIAGNOSTIC TEST USE FOR IMPROVING *P. VIVAX* MALARIA DETECTION IN MAEVATANANA, MADAGASCAR

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Serge Brice Assi<sup>1</sup>, Melly Aissatou Traore<sup>2</sup>, Jean Louis Assa<sup>2</sup>, Mamadou Silue<sup>2</sup>, Eric Akkatia<sup>2</sup>, Mamadou Toure<sup>2</sup>, Mea Antoine Tanoh<sup>1</sup>, Collette Yah Epe Kokrasset<sup>1</sup>, Patricia L. Yepassis-Zembrou<sup>3</sup>, Pascal Zinzindohoue<sup>4</sup>, Blaise Kouadio<sup>4</sup>

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Hang Yu<sup>1</sup>, Sean Yanik<sup>2</sup>, Nattawat Chaiyawong<sup>2</sup>, Opeoluwa Adewale-Fasoro<sup>2</sup>, Luciana Dinis<sup>2</sup>, Ravi Narayanasamy<sup>2</sup>, Elizabeth Lee<sup>2</sup>, Ariel Lubonja<sup>3</sup>, Bowen Li<sup>3</sup>, Stefan Jaeger<sup>1</sup>, Prakash Srinivasan<sup>2</sup>

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### PERFORMANCE OF RAPID DIAGNOSTIC TESTS, MICROSCOPY, AND REAL-TIME PCR FOR THE DETECTION OF MALARIA INFECTIONS AMONG ASYMPTOMATIC INDIVIDUALS FROM VILLAGES WITH CONFIRMED ARTEMISININ PARTIAL RESISTANCE IN NORTH-WESTERN TANZANIA

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### MOLECULAR EXAMINATION OF FALSE NEGATIVE HISTIDINE-RICH PROTEIN 2 (HRP2)-BASED RAPID DIAGNOSTIC TESTS (RDTs) FOR MALARIA IN DIORO, MALI

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### HISTIDINE-RICH PROTEIN (HRP) 2-BASED RDT FALSE-NEGATIVES AND PLASMODIUM FALCIPARUM HRP 2 AND 3 GENE DELETIONS IN LOW, SEASONAL AND INTENSE PERENNIAL TRANSMISSION ZONES IN CAMEROON

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### EVIDENCE-BASED CLINICAL TRIAL DESIGN: A MODELLING STUDY OF THE PLASMODIUM VIVAX SEROLOGICAL TESTING AND TREATMENT IN ETHIOPIA AND MADAGASCAR (PVSTATEM) CLUSTER-RANDOMIZED TRIAL

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### UNTARGETED RNA SEQUENCING ANALYSIS OF BLOOD SAMPLES REVEALS NO PFHRP2/3 DELETION IN FALSE NEGATIVE RDTs IN SENEGAL

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### MALARIA MASS DRUG ADMINISTRATION WITH DIHYDROARTEMISININE PIPERAQUINE (DHAPQ) IN TWO DIFFERENT SETTINGS OF MALARIA TRANSMISSION IN MALI

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### PROGRESS IN THE FIGHT AGAINST MALARIA USING COMMUNITY-BASED CASE MANAGEMENT IN THE DISTRICT OF VANGAINDRANO, MADAGASCAR, 2023

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### INCREASING ACCESS TO QUALITY MALARIA SERVICES THROUGH ON-THE-JOB CAPACITY BUILDING OF FRONT-LINE HEALTH WORKERS: LESSONS FROM HEALTH FACILITY MONITORING VISITS IN THREE SOUTHERN NIGERIAN STATES

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### ESTABLISHMENT OF MALARIA ELIMINATION CONSORTIUM (MEC) STRATEGIC PLANNING AND EXECUTION TO ELIMINATE MALARIA FROM PAKISTAN BY 2035

Javeria Samad, Najia Ghanchi, Momin Kazi, Farah Qamar, M Asim Beg  
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### ACHIEVING ZERO INDIGENOUS MALARIA CASES, SUB-NATIONAL MALARIA ELIMINATION VERIFICATION IN KING CETSHWAYO DISTRICT, SOUTH AFRICA. A FIRST IN SUB-SAHARAN AFRICA

**Ednah Ramokone Baloyi**<sup>1</sup>, Sadiq K. Wanjala<sup>2</sup>, Bongani E. Simelane<sup>3</sup>, Nompumelelo Z. Mdletshe<sup>3</sup>, Tshikae B. Power<sup>3</sup>, Ziyanda Fekema<sup>4</sup>, Mabatho Mogadime<sup>1</sup>, Bridget M. Shandukani<sup>1</sup>, Babongile Mhlongo<sup>3</sup>

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### ASSESSING THE POTENTIAL OF USING DIHYDROARTEMISININ PIPERAQUINE FOR MALARIA MASS DRUG ADMINISTRATION IN AN ENDEMIC AREA OF GHANA

**Ignatius Cheng Ndong**<sup>1</sup>, Chuo Ennestine Chu<sup>1</sup>, Collins Stephen AHORLU<sup>1</sup>, Alfred Amambua-Ngwa<sup>2</sup>

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### EVALUATION OF EXTERNAL QUALITY ASSURANCE EFFORTS ON MALARIA DIAGNOSIS IN FOUR NIGERIAN STATES (2021-2023)

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### SILENT CIRCULATION OF PLASMODIUM VIVAX: FIRST ASYMPTOMATIC MALARIA CASE POST MALARIA ELIMINATION IN ARGENTINA

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### IMPROVING MALARIA CASE MANAGEMENT QUALITY BY REDUCING IRRATIONAL USE OF ANTIMALARIALS: A SYSTEMS THINKING APPROACH IN FOUR SOUTHERN STATES (AKWA IBOM, CROSS RIVER, EBONYI, AND OYO) IN NIGERIA

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### MEASURING ZERO INDIGENOUS MALARIA CASES THROUGH A SUB-CLASSIFICATION ALGORITHM, LESSONS FROM DEVELOPMENT, TRIALLING AND IMPLEMENTATION

**Babongile Mhlongo**<sup>1</sup>, Sadiq Kuto Wanjala<sup>2</sup>, Bongani E. Simelane<sup>1</sup>, Nompumelelo Z. Mdletshe<sup>1</sup>, Lindelewe Mabika<sup>1</sup>, Bridget M. Shandukani<sup>3</sup>, Jaishree Raman<sup>4</sup>, Ednah R. Baloyi<sup>5</sup>

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### EPIDEMIOLOGICAL, VECTOR BIONOMICS AND PARASITOLOGICAL DYNAMICS IMPENDING MALARIA ELIMINATION IN A HOLOENDEMIC REGION OF ZAMBIA

**Modest Mulenga**<sup>1</sup>, Mike Chaponda<sup>2</sup>, Mbanga Muleba<sup>2</sup>, Jean-Bertin Kabuya<sup>2</sup>, William Moss<sup>3</sup>, ICEMR Southern Africa --<sup>4</sup>

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### CONTRIBUTOR OF COMMUNITY HEALTH WORKERS TO MALARIA HEALTH SERVICE DELIVERY IN RWANDA

**Jean M. Harerimana**<sup>1</sup>, Michee Kabera<sup>2</sup>, Jean Mangala<sup>2</sup>, Marcel Manariyo<sup>1</sup>, Lolade Oseni<sup>3</sup>, Katherine Wolf<sup>3</sup>, Noella Umulisa<sup>1</sup>, Marie Rose Kayirangwa<sup>1</sup>, Aimable Mbituyumuremyi<sup>2</sup>, Jean Niyonzima<sup>2</sup>

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### ELIMINATING MALARIA FROM INDIA THROUGH STRATEGIC PLANNING & PRAGMATIC APPROACHES

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#### GROUND ZERO EPICENTER OF MALARIA IN PAKISTAN: THATTA, SINDH

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#### DISTINCT HISTOPATHOLOGIC PROFILES OF PLACENTAL MALARIA HAVE DIFFERENT ASSOCIATIONS WITH BIRTH OUTCOMES

Michelle E. Roh<sup>1</sup>, Johnnie Ategeka<sup>2</sup>, Anju Ranjit<sup>3</sup>, Abel Kakuru<sup>2</sup>, Jimmy Kizza<sup>2</sup>, Harriet Adrama<sup>2</sup>, Miriam Nakalembe<sup>4</sup>, Stephanie L. Gaw<sup>3</sup>, Philip J. Rosenthal<sup>3</sup>, Moses R. Kanya<sup>4</sup>, Grant Dorsey<sup>3</sup>

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#### CROSS SECTIONAL SURVEY ASSESSING PREVALENCE AND PREDICTORS OF MALARIA PARASITAEMIA AMONG CHILDREN UNDER 13 YEARS IN KARAMOJA REGION, UGANDA

ANTHONY NUWA<sup>1</sup>, Chukwudi A. Nnaji<sup>2</sup>, Musa Odongo<sup>1</sup>, Geoffrey Beinomugisha<sup>1</sup>, Kevin N. Baker<sup>2</sup>, Tonny Kyagulanyi<sup>1</sup>, Godfrey Magumba<sup>1</sup>, Jane I. Nabakooza<sup>3</sup>, Christian Rassi<sup>4</sup>, David S. Odong<sup>1</sup>, Katherine Theiss-Nyland<sup>2</sup>, JohnBaptist Bwanika<sup>1</sup>, Richard Kajubi<sup>1</sup>, Damian Rutazaana<sup>1</sup>, James K. Tibenderana<sup>2</sup>, Jimmy Opigo<sup>5</sup>

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#### EPIDEMIOLOGY AND STATISTICAL MODELLING OF VIVAX AND FALCIPARUM MALARIA CASES IN MANDOTO, MADAGASCAR

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### 7951

#### ASSOCIATION BETWEEN MALARIA INFECTION AND UNDER-NUTRITION IN CHILDREN AGED 6-59 MONTHS IN KISUMU COUNTY, KENYA

Redemptah Yeda<sup>1</sup>, Charles Okello<sup>1</sup>, Edwin Mwakio<sup>1</sup>, Agnes Cheruiyot<sup>1</sup>, Jackline Juma<sup>1</sup>, Risper Maisiba<sup>1</sup>, Raphael Okoth<sup>1</sup>, Maureen Mwaloo<sup>1</sup>, Farid Abdi<sup>1</sup>, Benjamin Opot<sup>1</sup>, Dennis Juma<sup>1</sup>, Timothy Egbo<sup>2</sup>, Hosea Akala<sup>1</sup>

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#### QUANTIFYING THE LAGGED EFFECTS OF CLIMATE VARIABLES ON MALARIA RISK: A CASE STUDY IN IGANGA-MAYUGE HEALTH AND DEMOGRAPHIC SURVEILLANCE SYSTEM SITE IN UGANDA

Sooyoung Kim<sup>1</sup>, Prasad Liyanage<sup>2</sup>, Betty Nabukeera<sup>3</sup>, Maureen Ng'etich<sup>4</sup>, Falvian Othieno<sup>5</sup>, Steve Cygu<sup>6</sup>, Dan Kajungu<sup>3</sup>, Agnes Kiragga<sup>4</sup>, Yesim Tozan<sup>2</sup>

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#### SEASONAL MALARIA AMONG SCHOOL-AGED CHILDREN IN SIX WESTERN CONFLICT-AFFECTED BORDER PROVINCES IN THAILAND

Rungrawee Tipmontree<sup>1</sup>, Thannikar Thongard<sup>1</sup>, Jerdsuda Kanjanasuwana<sup>1</sup>, Suravadee Kitchakarn<sup>1</sup>, Teerapat Sungkhakul<sup>1</sup>, Deyer Gopinath<sup>2</sup>, Prayuth Sudathip<sup>1</sup>, Chantana Padungtod<sup>1</sup>, Niparueradee Pinyajeerapat<sup>3</sup>, David Sintasath<sup>3</sup>, Jessica Craig<sup>4</sup>, Adam Preston<sup>4</sup>, Sathapana Naowarat<sup>4</sup>

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#### EXPLORATORY MODELLING OF THE INFLUENCE OF CLIMATE ON MALARIA TRANSMISSION

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#### CHARACTERIZING THE TRANSMISSION RESERVOIR OF PLASMODIUM FALCIPARUM

Andrea G. Buchwald<sup>1</sup>, Jimmy Vareta<sup>1</sup>, Otutochukwu Nwagbata<sup>1</sup>, Alick Sixpence<sup>2</sup>, Alfred Matengeni<sup>3</sup>, Charles Mangani<sup>3</sup>, Moses Kamzati<sup>3</sup>, Karl B. Seydel<sup>4</sup>, Terrie E. Taylor<sup>4</sup>, Don P. Mathanga<sup>3</sup>, Clarissa Valim<sup>2</sup>, Robert S. McCann<sup>1</sup>, Miriam K. Laufer<sup>1</sup>, Lauren M. Cohee<sup>5</sup>

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#### PATIENT REPORT VERSUS PROVIDER REPORT, A POST-MODERN ANALYSIS OF MRDT TESTING AND DRUG DISPENSING DATA FROM A TRIAL IN THE PRIVATE RETAIL MEDICINE SECTOR IN WESTERN KENYA

Tabitha Chepkwony<sup>1</sup>, Mark Amunga<sup>1</sup>, Emmah Kimachas<sup>1</sup>, Joseph Kipkoech<sup>1</sup>, Emily Robie<sup>2</sup>, Aggrey Wekesa<sup>3</sup>, David Arthur<sup>2</sup>, Elizabeth L. Turner<sup>2</sup>, John A. Gallis<sup>2</sup>, Lucy Abel<sup>1</sup>, George Ambani<sup>1</sup>, Theodoor Visser<sup>4</sup>, Aaron Woolsey<sup>4</sup>, Diana Menya<sup>5</sup>, Jeremiah Laktabai<sup>6</sup>, Wendy Prudhomme-O'Meara<sup>2</sup>

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### HIDDEN RESERVOIRS OF *P. VIVAX* INFECTIONS IN DUFFY-NEGATIVE POPULATIONS FROM CENTRAL AFRICA

CHEIKH Cambel Dieng<sup>1</sup>, Regan Schroeder<sup>1</sup>, Canelle Kipayko<sup>1</sup>, Zidedine Woyou Nematchoua<sup>2</sup>, Doris Bennen Tabi<sup>2</sup>, Ayukenchengamma Bate<sup>2</sup>, Teh Rene Ning<sup>2</sup>, Calvin Bisong Ebai<sup>3</sup>, Irene N. Sumbele<sup>2</sup>, Helen Klmbi<sup>3</sup>, Eugenia Lo<sup>1</sup>  
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### COMPARISON OF BAYESIAN OPTIMIZATION FRAMEWORKS FOR PARAMETER CALIBRATION IN AN AGENT-BASED MODEL OF MALARIA TRANSMISSION

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### DESIGNING CLUSTER RANDOMIZED TRIALS FOR MALARIA: INSIGHTS FROM MATHEMATICAL MODELLING

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### PREDICTING MALARIA PARASITEMIA IN MALI USING *PLASMODIUM* DEGREE-DAY

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### RELATIONSHIPS OF INTERMITTENT PREVENTIVE THERAPY AND INSECTICIDE-TREATED BED NETS TO RISK OF MALARIA DURING PREGNANCY IN MAFERINYAH, GUINEA

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### EXPLORING THE IMPACT OF *SCHISTOSOMA HAEMATOBIIUM* INFECTION ON THE EXPANSION OF THE HUMAN RESERVOIR FOR *PLASMODIUM FALCIPARUM* IN GHANA

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### BURDEN OF MALARIA IN THE KINSHASA PROVINCE, DEMOCRATIC REPUBLIC OF CONGO

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### UNDERSTANDING MALARIA TREATMENT PATRONAGE: INSIGHTS FROM URBAN INFORMAL HEALTHCARE PROVIDERS IN NIGERIA

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### MALARIA TEST POSITIVITY RATES AND ASSOCIATED FACTORS IN KINSHASA PROVINCE, DRC

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### TEMPORAL TRENDS IN THE PREVALENCE OF *PLASMODIUM* SPECIES ACROSS REGIONS OF VARYING MALARIA BURDEN IN MAINLAND TANZANIA FROM 2021 TO 2023

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### A PRELIMINARY ANALYSIS OF DELAYED TREATMENT FOR SEVERE MALARIA DISEASE AT SUSSUNDENGA-SEDE HEALTH CENTER

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### IMPACT OF DIFFERENT TIMINGS OF THE FOURTH DOSE OF RTS,S MALARIA VACCINE IN PERENNIAL SETTINGS: A MODELLING STUDY

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### MANAGEMENT OF UNCOMPLICATED MALARIA IN RURAL AND URBAN AREAS IN THE DEMOCRATIC REPUBLIC OF CONGO

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### MANAGEMENT AND OUTCOMES SEVERE MALARIA IN HEALTH FACILITIES IN THE DEMOCRATIC REPUBLIC OF CONGO

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### FACTORS ASSOCIATED WITH MALARIA TRANSMISSION IN BENIN - A RETROSPECTIVE STUDY OF DATA COLLECTED BETWEEN 2017 AND 2021

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### UNDERSTANDING THE IMPACT OF HOUSEHOLD WEALTH INDEX ON MALARIA RISK BY SETTLEMENT TYPE USING THE WET SEASON DATA FROM IBADAN

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### FACTORS ASSOCIATED WITH THE PREVALENCE OF SUBMICROSCOPIC *PLASMODIUM* SPP. INFECTIONS IN NATIVE COMMUNITIES OF THE RIO SANTIAGO DISTRICT, AMAZONAS-PERU

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### COMPARING CHANGES IN MALARIA TRANSMISSION USING THE MOLECULAR FORCE OF INFECTION VERSUS INCIDENCE DURING A MALARIA RESURGENCE IN TORORO, UGANDA

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### PREVALENCE AND EPIDEMIOLOGICAL CHARACTERISTICS OF ASYMPTOMATIC MALARIA IN SUCRE, VENEZUELA: A CROSS-SECTIONAL STUDY

**Jessica Leyva<sup>1</sup>**, Paola Pereira<sup>2</sup>, Gabriel García<sup>2</sup>, Rodrigo Celis<sup>2</sup>, Samuel De Amicis<sup>2</sup>, Mariana Hidalgo<sup>3</sup>, Antonio Hernández<sup>3</sup>, Fhabían S. Carrión-Nessi<sup>1</sup>, David A. Forero-Peña<sup>1</sup>

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### EVOLUTION OF PREVENTIVE AND CURATIVE BEHAVIORS, VITAL AND PARASITOLOGICAL PARAMETERS OVER THE COURSE OF EPISODES OF MALARIA IN CHILDREN LIVING IN LIBREVILLE, GABON

**Luice AJ James<sup>1</sup>**, Lucien D. Dahourou<sup>2</sup>, Noé P. M'bondoukwé<sup>1</sup>, Caroline Yonaba<sup>3</sup>, Bertrand MEDA<sup>2</sup>, Sodiomon B. SIRIMA<sup>4</sup>, Denise P. MAWILI MBOUMBA<sup>1</sup>, Marielle K. Bouyou Akotet<sup>1</sup>

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### IMPACT OF COVID-19 ON MALARIA: CLINICAL CHANGES BEFORE AND DURING THE COVID-19 PANDEMIC, A RETROSPECTIVE STUDY IN A REFERENCE CENTER

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## Malaria - Genetics, Genomics and Evolution

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### SIMPLEGEN: A MODELING APPROACH (DE)COUPLING EPIDEMIOLOGY AND GENOMICS TO INFORM MALARIA SURVEILLANCE

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(ACMCIP Abstract)

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### DISENTANGLING PLASMODIUM FALCIPARUM GENETIC RELATEDNESS NETWORKS TO STUDY MALARIA TRANSMISSION PATTERNS ACROSS SENEGAL

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(ACMCIP Abstract)

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### A PLASMODIUM VIVAX STRAIN THAT EXPRESSES FLUORESCENT PROTEINS THROUGHOUT THE LIFE-CYCLE

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(ACMCIP Abstract)

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### SIMPLSEQ + CI: A HIGHLY-SENSITIVE MALARIA MULTIPLEXED AMPLICON SEQUENCING PROTOCOL AND CLOUD-BASED BIOINFORMATIC WORKFLOW WITH CONTAMINATION DETECTION FOR INTERVENTION STUDIES

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(ACMCIP Abstract)

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### EVOLUTION OF MOLECULAR MARKERS OF ANTIMALARIAL DRUG RESISTANCE IN UGANDA, 1999-2022

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(ACMCIP Abstract)

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### ASSESSMENT OF GENETIC DIVERSITY OF PLASMODIUM FALCIPARUM PF230 GENE AS A POTENTIAL CANDIDATE FOR MALARIA VACCINE DEVELOPMENT

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### EVIDENCE FOR SUSTAINED LOCAL TRANSMISSION IN A LOW TRANSMISSION SETTING IN SOUTHERN ZAMBIA: EXAMINING PARASITE GENOTYPE RELATEDNESS USING AN AMPLICON PANEL

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### HLA G 01:05N NULL ALLELE FREQUENCY IN NEWBORN IN BENIN POPULATIONS AND HLA-G EXPRESSION

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(ACMCIP Abstract)

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### UNRAVELING THE GENETIC DIVERSITY AND TRANSMISSION NETWORKS OF P.FALCIPARUM IN SOUTHWESTERN UGANDA: A LOW TRANSMISSION SETTING

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**FIKK GENE EXPRESSION SPECIFIC TO SEVERE MALARIAL SYNDROMES IN MALIAN CHILDREN**

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**SNP-SLICE RESOLVES MIXED INFECTIONS: SIMULTANEOUSLY UNVEILING STRAIN HAPLOTYPES AND LINKING THEM TO HOSTS**

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(ACMCIP Abstract)

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**RELATIONSHIP BETWEEN SEASONAL MALARIA CHEMOPREVENTION AND GUT MICROBIOME DIVERSITY IN BURKINA FASO**

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**BENCHMARKING THE PERFORMANCE OF POPULATION-LEVEL SEQUENCE FREQUENCY ESTIMATION TOOLS IN MALARIA RESEARCH AND PUBLIC HEALTH**

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7991

**LEVERAGING DENSELY SAMPLED MALARIA CASES AND PARASITE GENETICS TO INFER TRANSMISSION NETWORK STRUCTURE**

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(ACMCIP Abstract)

**Malaria - Immunology**

7992

**DIFFERENCES IN INNATE CELLULAR IMMUNE RESPONSES DISTINGUISH PROTECTED FROM NOT PROTECTED INDIVIDUALS IN A PFPSPZ VACCINE TRIAL**

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(ACMCIP Abstract)

7993

**TRANSMIGRATION OF MATERNAL MONOCYTES AND FETAL MACROPHAGES IN RESPONSE TO ACTIVE VERSUS PAST PLACENTAL MALARIA AND ASSOCIATIONS WITH BIRTH WEIGHT**

**Nida Ozarslan**<sup>1</sup>, Johnnie Ategeka<sup>2</sup>, Corina Mong<sup>1</sup>, Christine Blauvelt<sup>1</sup>, Jimmy Kizza<sup>2</sup>, Abel Kakuru<sup>2</sup>, Moses R. Kamya<sup>2</sup>, Philip J. Rosenthal<sup>1</sup>, Prasanna Jagannathan<sup>3</sup>, Grant Dorsey<sup>1</sup>, Stephanie L. Gaw<sup>1</sup>

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(ACMCIP Abstract)

7994

**PROTECTIVE EFFICACY OF P. VIVAX PRE-ERYTHROCYTIC ANTIGENS PVSSP3 AND PVSPECT1**

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(ACMCIP Abstract)

7995

**COMPREHENSIVE CHARACTERIZATION OF PLASMODIUM VIVAX ANTIGENS USING HIGH-DENSITY PEPTIDE ARRAY**

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(ACMCIP Abstract)

7996

**SPATIAL HOSPITAL BASED SEROPREVALENCE AND RISK OF INFECTION FROM PLASMODIUM VIVAX AND OTHER PLASMODIUM SPECIES USING MULTIPLEX QUANTITATIVE SUSPENSION ARRAY ASSAY IN CAMEROON**

**Innocent M. Ali**<sup>1</sup>, Eva Keming Mai<sup>2</sup>, Darlin Bean N. Kaunda<sup>1</sup>, Pacome Valery Kom Tchuenkam<sup>1</sup>, Giresse Nino Lemogo<sup>1</sup>, Mariama Mbouh<sup>1</sup>, Arsene Z. Dombou<sup>1</sup>, Ruth Aguilar<sup>3</sup>, Gustave Simo<sup>1</sup>, Chris Drakeley<sup>4</sup>, Carlota DOBANO<sup>5</sup>

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(ACMCIP Abstract)

7997

### ASSESSING HUMAN ANTIBODY RESPONSES TO THE *PLASMODIUM FALCIPARUM* RH5-CYRPA-RIPR INVASION COMPLEX; QUANTIFICATION OF RESPONSES TO THREE BLOOD-STAGE TARGET ANTIGENS

**Dimitra Pipini**<sup>1</sup>, Jordan R. Barrett<sup>1</sup>, Barnabas G. Williams<sup>1</sup>, Lloyd D. W. King<sup>1</sup>, Ababacar Diouf<sup>2</sup>, Jo Salkeld<sup>1</sup>, Lorraine A. Soisson<sup>3</sup>, Randall S. MacGill<sup>4</sup>, Cecilia Carnrot<sup>5</sup>, Katherine Skinner<sup>1</sup>, Rachel E. Cowan<sup>1</sup>, Jee-Sun Cho<sup>1</sup>, Carole A. Long<sup>2</sup>, Carolyn M. Nielsen<sup>1</sup>, Angela M. Minassian<sup>1</sup>, Kazutoyo Miura<sup>2</sup>, Simon J. Draper<sup>1</sup>, Sarah E. Silk<sup>1</sup>  
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(ACMCIP Abstract)

7998

### IL-15 COMPLEX ENHANCES T RESIDENT MEMORY FORMATION AND FUNCTION FOLLOWING GENETICALLY ATTENUATED *PLASMODIUM* VACCINATION IN MICE

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(ACMCIP Abstract)

7999

### UNDERSTANDING THE IMPACT OF LOW, MEDIUM AND HIGH MALARIA PRE-EXPOSURE STATUS ON SARS COV-2 -SPECIFIC ANTIBODY PROFILES AND FUNCTIONALITY IN TANZANIAN INDIVIDUALS

**Anneth Tumbo**<sup>1</sup>, Sarah Mswata<sup>1</sup>, Gumi A. Mrisho<sup>1</sup>, Abdallah B. Mkopi<sup>1</sup>, Mwifadhi S. Mrisho<sup>1</sup>, Omar N. Lweno<sup>1</sup>, Ali M. Ali<sup>1</sup>, Ali H. Said<sup>1</sup>, Michael G. Mihayo<sup>1</sup>, Kamaka R. Kassim<sup>1</sup>, Gloria D. Nyaulingo<sup>1</sup>, Silas G. Temu<sup>1</sup>, Grace Mhalu<sup>1</sup>, Said . A. Jongo<sup>1</sup>, Paul E. Kaziyoba<sup>2</sup>, Hussein Haruna<sup>3</sup>, Rogath Kishimba<sup>4</sup>, Grace W. Mwangoka<sup>1</sup>, Maximilian Mpina<sup>1</sup>, Salim Abdulla<sup>1</sup>  
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(ACMCIP Abstract)

8000

### ELUCIDATING THE KINETICS AND DYNAMICS OF GROWTH-INHIBITORY IMMUNE RESPONSES TO *PLASMODIUM FALCIPARUM* STRAINS

**Kelly A. Hagadorn**<sup>1</sup>, Mouhamad Sy<sup>2</sup>, Awa B. Deme<sup>2</sup>, Ibrahima Mbaye Ndiaye<sup>2</sup>, Younous Diedhiou<sup>2</sup>, Amadou Moctar Mbaye<sup>2</sup>, Sarah K. Volkman<sup>3</sup>, Carole A. Long<sup>4</sup>, Kazutoyo Miura<sup>4</sup>, Ababacar Diouf<sup>4</sup>, Daouda Ndiaye<sup>2</sup>, Amy K. Bei<sup>1</sup>  
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(ACMCIP Abstract)

8001

### LONGITUDINAL RESPONSES IN THE TISSUES AND BLOOD OF NON-HUMAN PRIMATES DURING IMMUNIZATION WITH WHOLE *PLASMODIUM* SPOROZOITES

Gregory Boggy<sup>1</sup>, Rowland Osii<sup>1</sup>, Melanie Shears<sup>2</sup>, David Morrow<sup>1</sup>, Maya Aleshnick<sup>1</sup>, Payton Kirtley<sup>1</sup>, Derek Haumpy<sup>1</sup>, Julie Mitchell<sup>1</sup>, Jack Schell<sup>1</sup>, Roxanne Beebe<sup>1</sup>, Miranda Fischer<sup>1</sup>, Sean Murphy<sup>2</sup>, Jeremy Smedley<sup>1</sup>, Scott Hansen<sup>1</sup>, Benjamin Bimber<sup>1</sup>, **Brandon Wilder**<sup>1</sup>  
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(ACMCIP Abstract)

8002

### TREATING CEREBRAL MALARIA IN AFRICAN CHILDREN, TRANSLATING MECHANISTIC INSIGHTS TO BEDSIDE RESULTS

**Brittany A. Riggle**<sup>1</sup>, Dorian B. McGavern<sup>2</sup>, Douglas G. Postels<sup>3</sup>, Louis H. Miller<sup>1</sup>, Susan K. Pierce<sup>1</sup>  
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(ACMCIP Abstract)

8003

### THE PUTATIVE RECEPTOR BINDING REGION IS THE IMMUNODOMINANT REGION OF *PLASMODIUM MALARIAE* RETICULOCYTE BINDING PROTEIN 1A

**Harry Danwonno**<sup>1</sup>, Daniel Dosoo<sup>1</sup>, Richmond Boateng<sup>1</sup>, Peter Okutu<sup>1</sup>, Nelson Edu<sup>1</sup>, Kwadwo Kusi<sup>2</sup>, Gordon Awandare<sup>1</sup>, Yaw Aniwah<sup>1</sup>  
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(ACMCIP Abstract)

8004

### CHARACTERIZATION OF COINFECTION WITH SOIL TRANSMITTED HELMINTHS CAUSED BY *PLASMODIUM VIVAX* BASED ON CITOKINE BALANCE IN A CHILD POPULATION FROM AN ENDEMIC AREA OF COLOMBIA

**Mayra Raciny**<sup>1</sup>, Maria Fernanda Yasnot Acosta<sup>1</sup>, Ana Rodriguez Fernandez<sup>2</sup>  
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(ACMCIP Abstract)

## Malaria - Pathogenesis

8005

### *PLASMODIUM* INFECTION AND ANTIBIOTIC USE DURING SEVERE MALARIA INDUCE GUT BACTERIA DYSBIOSIS THAT INCREASES THE RISK OF MORTALITY IN CHILDREN

**Olivia J. Bednarski**<sup>1</sup>, Ruth Namazzi<sup>2</sup>, Robert O. Opoka<sup>3</sup>, Chandy C. John<sup>1</sup>, Andrea L. Conroy<sup>1</sup>, Nathan W. Schmidt<sup>1</sup>  
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(ACMCIP Abstract)

8006

### VAR2CSA EXPRESSION IN CEREBRAL MALARIA IN MALIAN AND MALAWIAN CHILDREN

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(ACMCIP Abstract)

8007

### CIRCULATING PLATELET-LEUKOCYTE AGGREGATES CORRELATE WITH THROMBOCYTOPENIA AND DEATH IN PEDIATRIC CEREBRAL MALARIA

Sushanti Rupesh<sup>1</sup>, Visopo Harawa<sup>2</sup>, Monica Soko<sup>2</sup>, Priscilla Suleman<sup>2</sup>, Patricia Mawindo<sup>2</sup>, Terrie Taylor<sup>3</sup>, Karl B. Seydel<sup>3</sup>, Iset M. Vera<sup>1</sup>, Kami Kim<sup>1</sup>  
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(ACMCIP Abstract)

8008

### INVESTIGATING THE ROLE OF HOST C1QBP IN *PLASMODIUM FALCIPARUM* INFECTED ERYTHROCYTE BINDING TO HUMAN BRAIN MICROVASCULAR ENDOTHELIAL CELLS

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(ACMCIP Abstract)

8009

### CHILDREN WITH CEREBRAL MALARIA LACK IMMUNITY TO SPECIFIC RIFIN AND STEVOR ANTIGENS

Jonathan G. Lawton<sup>1</sup>, Albert E. Zhou<sup>1</sup>, Drissa Coulibaly<sup>2</sup>, Aarti Jain<sup>3</sup>, Rie Nakajima<sup>3</sup>, Algis Jasinskas<sup>3</sup>, Emily K. Silzel<sup>3</sup>, Biraj Shrestha<sup>1</sup>, Emily M. Stucke<sup>1</sup>, Abdoulaye K. Kone<sup>2</sup>, Amadou Niangaly<sup>2</sup>, J. Alexandra Rowe<sup>4</sup>, Matthew B. Laurens<sup>1</sup>, Amed Ouattara<sup>1</sup>, Bourema Kouriba<sup>2</sup>, Shannon Takala-Harrison<sup>1</sup>, Kirsten E. Lyke<sup>1</sup>, Christopher V. Plowe<sup>1</sup>, Ogobara K. Doumbo<sup>2</sup>, Philip L. Felgner<sup>3</sup>, Mahamadou Thera<sup>2</sup>, Mark A. Travassos<sup>1</sup>  
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(ACMCIP Abstract)

8010

### DECIPHERING THE HOST RESPONSE TO *P. FALCIPARUM* BY PLASMA PROTEOMICS

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(ACMCIP Abstract)

8011

### HYPERPARASITAEMIA: A CONSISTENT PRESENTATION IN *P. FALCIPARUM* MALARIA IN THE UK SINCE COVID

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(ACMCIP Abstract)

8012

### *PLASMODIUM FALCIPARUM* ESTABLISHES CHRONIC INFECTIONS THROUGH HIGH *VAR* GENE EXPRESSION SWITCHING RATE

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(ACMCIP Abstract)

8013

### TRANSCRIPTIONAL ANALYSIS OF DIFFERENTIALLY EXPRESSED GENES AND PATHWAYS IN THE DEVELOPMENT OF SEVERE MALARIA

LINDA ONYEKA ANAGU<sup>1</sup>, Samuel Wassmer<sup>2</sup>, Ikenna Anagboso<sup>3</sup>, Jacinta Elo-ilo<sup>4</sup>, Dorothy Ezeagwuna<sup>4</sup>, Alfred Amambua-Ngwa<sup>5</sup>  
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(ACMCIP Abstract)

8014

### UNDERSTANDING HOW VARIABILITY IN CULTURE TECHNIQUE IMPACTS THE LEVEL OF OXYGEN TENSION IN *PLASMODIUM FALCIPARUM* IN VITRO STUDIES

Dinah Nahid<sup>1</sup>, Cameron Sherlock<sup>1</sup>, Amy K. Bei<sup>2</sup>, Regina Joice Cordy<sup>3</sup>  
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(ACMCIP Abstract)

8015

### IMPACTS OF CONCURRENT SEVERE MALARIA AND ENTERIC INFECTION ON CHILD HEALTH OUTCOMES

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(ACMCIP Abstract)

8016

### THE IMPACT OF *FALCIPARUM* MALARIA INFECTION ON THE BRAIN: NEW FINDINGS FROM AN INDIAN COHORT

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(ACMCIP Abstract)

8017

### ROLE OF *PLASMODIUM FALCIPARUM* HEMOZOIN-ASSOCIATED PROTEINS IN THE PATHOGENESIS OF CEREBRAL MALARIA

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(ACMCIP Abstract)

## Malaria - Prevention

8018

### PHARMACOKINETIC AND PHARMACODYNAMIC MODELING OF MONTHLY TAFENOQUINE IN HEALTHY VIETNAMESE VOLUNTEERS FOR MALARIA PROPHYLAXIS AND ELIMINATION

Song H. Le<sup>1</sup>, The T. Nguyen<sup>1</sup>, Thu M. Nguyen<sup>2</sup>, Long K. Tran<sup>2</sup>, Huy C. Nguyen<sup>3</sup>, Andrew G. Letizia<sup>3</sup>, John S. Brooks<sup>3</sup>, Michael J. Gregory<sup>3</sup>, Geoffrey W. Birrell<sup>4</sup>, Karin Van Breda<sup>4</sup>, Dennis Shanks<sup>4</sup>, Michael D. Edstein<sup>4</sup>, Joel Tarning<sup>5</sup>  
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8019

### THE EFFECT OF ADDITIONAL DOSES OF SULFADOXINE-PYRIMETHAMINE ADMINISTERED AS PMC ON HEMOGLOBIN LEVELS AMONG CHILDREN IN A MALARIA ENDEMIC AREA OF CAMEROON

**Michaela Gross**<sup>1</sup>, Jonna M. Mosoff<sup>2</sup>, Albertine Lele<sup>3</sup>, Mercy Tah-Monunde<sup>3</sup>, James Sinsai<sup>3</sup>, Alba McGirr<sup>2</sup>, Carine Nfor<sup>3</sup>, Sham La<sup>2</sup>, Roland Gosling<sup>2</sup>, Wilfred F. Mbacham<sup>4</sup>, Akindeh M. Nji<sup>3</sup>, R Matthew Chico<sup>2</sup>, Gillian Stresman<sup>1</sup>  
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8020

### COMMUNITY ACCEPTANCE OF A NOVEL MALARIA INTERVENTION, ATSB STATIONS, IN THE CONTEXT OF THE ATSB ZAMBIA PHASE III TRIAL

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8021

### SEASONAL MALARIA CHEMOPREVENTION (SMC) ELIGIBILITY ANALYSIS AND IMPACT EVALUATION USING MATHEMATICAL MODELING TO GUIDE DECISIONS ON THE IMPLEMENTATION OF SMC IN GUINEA

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### ASSESSMENT OF THE MALARIA SCORECARD'S IMPACT ON HEALTH OUTCOME THROUGH HOME-BASED MANAGEMENT IN RWANDA

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### IMPACT OF THE DISCONTINUATION OF UNIVERSAL IRS IN MAPUTO PROVINCE DURING THE 2020-2021 SEASON

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### EVALUATION OF A PILOT IMPLEMENTATION OF INTERMITTENT PREVENTIVE TREATMENT WITH DIHYDROARTEMISININ-PIPERAQUINE TO PREVENT ADVERSE BIRTH OUTCOMES IN PAPUA, INDONESIA

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### FACTORS ASSOCIATED WITH LOW INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY (IPTP) COVERAGES IN LOW PERFORMING HEALTH FACILITIES IN GHANA 2023

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### HEALTH PROVIDERS ON-SITE TRAINING APPROACH IN IMPROVING THE QUALITY OF MALARIA SERVICES DELIVERY IN COTE D'IVOIRE, 2023

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### EQUITY AND COVERAGE ANALYSIS OF POPULATION-BASED HEALTH PROGRAMS: A COMPARATIVE STUDY OF SEASONAL MALARIA CHEMOPREVENTION, INSECTICIDE-TREATED NET DISTRIBUTION STRATEGIES, AND THE ESSENTIAL PROGRAM ON IMMUNIZATION IN AFRICAN COUNTRIES

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### PREVENTING MALARIA AMONGST CONFLICT-AFFECTED COMMUNITIES IN CAMEROON SOUTH-WEST AND LITTORAL REGIONS

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### ZAMBIA 2023 ITN DISTRIBUTION CAMPAIGN DIGITALIZATION EXPERIENCES: LESSONS LEARNED AND BEST PRACTICES

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### COST AND COST-EFFECTIVENESS OF ATTRACTIVE TARGETED SUGAR BAITS (ATSB): CLUSTER RANDOMIZED CONTROL TRIALS (CRCT) IN ZAMBIA, KENYA, AND MALI

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### MALARIA, ANEMIA, MALNUTRITION IN PREGNANCY: PREVALENCE AND ASSOCIATED FACTORS, HIGH MALARIA TRANSMISSION AREA MALI

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### AN OBSERVATIONAL STUDY EVALUATING THE EPIDEMIOLOGICAL AND ENTOMOLOGICAL IMPACTS OF PIPERONYL BUTOXIDE INSECTICIDE-TREATED NETS COMPARED TO A COMBINATION OF INDOOR RESIDUAL SPRAYING PLUS STANDARD PYRETHROID-ONLY ITNS IN AMHARA REGION, ETHIOPIA, 2019-2022

Kelly M. Davis<sup>1</sup>, Amha Worku<sup>2</sup>, Meshesha Balkew<sup>2</sup>, Peter Mumba<sup>3</sup>, Sheleme Chibsa<sup>4</sup>, Jon Eric Tongren<sup>4</sup>, Gudissa Assefa<sup>5</sup>, Achamyesh Sisay<sup>5</sup>, Dawit Teshome<sup>5</sup>, Banchamlak Tegegne<sup>6</sup>, Mastewal Worku<sup>7</sup>, Mulat Yimer<sup>8</sup>, Delenasaw Yewhalaw<sup>9</sup>, Isabel Swamidoss<sup>10</sup>, Carla Mapp<sup>10</sup>, Melissa Yoshimizu<sup>11</sup>, Sarah Zohdy<sup>12</sup>, Jimee Hwang<sup>13</sup>, Wendy Inouye<sup>14</sup>, Aklilu Seyoum<sup>15</sup>, Cecilia Flatley<sup>15</sup>, Emily R. Hilton<sup>14</sup>, Dereje Dengela<sup>2</sup>, Sarah M. Burnett<sup>16</sup>  
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### INTRODUCING HAMMOCK NETS AND BEDNETS IN INDIGENOUS AND VULNERABLE COMMUNITIES OF PANAMÁ

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### THE IMPACT OF ROUTINE DISTRIBUTION AND USE OF ITN TO REDUCE MALARIA IN PREGNANCY AND FOR CHILDREN UNDER 5 YEARS

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### USING NATIONAL SURVEY DATA TO LEARN IMPACT OF INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY ON BIRTH WEIGHT IN NIGERIA

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### DECENTRALIZING MALARIA CASE MANAGEMENT SERVICES IN EQUATORIAL GUINEA: A CAPACITY BUILDING APPROACH AT THE DISTRICT LEVEL

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### EFFECT OF INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN SCHOOLCHILDREN ON ANEMIA THROUGH REDUCTION OF MALARIA INFECTIONS AND CLINICAL MALARIA EPISODES: MEDIATION ANALYSIS

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### CHANGES IN IPTP UTILIZATION MEASURED AN ANNUAL CROSS-SECTIONAL HOUSEHOLD SURVEY WITHIN PROGRAM AREAS OF THE ISDELL: FLOWERS CROSS BORDER MALARIA INITIATIVE IN ZAMBIA

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### LEVERAGING HOUSEHOLD VISITS DURING INDOOR RESIDUAL SPRAYING TO IDENTIFY PREGNANT WOMEN AND INCREASE AWARENESS OF ANTENATAL CARE AND IPTP ADHERENCE ON BIKO ISLAND, EQUATORIAL GUINEA

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### POTENTIAL POPULATION IMPACT OF SCALING UP SEASONAL MALARIA CHEMOPREVENTION IN EAST AND SOUTHERN AFRICA: A MODELLING STUDY

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### WHAT HAPPENS WHEN CHEMOPREVENTION OF SEASONAL MALARIA IS STOPPED: EXPERIENCE IN THE SOUTHERN SENEGALESE REGION OF SÉDHIU

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### CONTRIBUTION TO THE IMPROVEMENT OF SMC SUPERVISION BASED ON REAL-TIME ANALYSIS OF DISAGGREGATED DATA FOR DECISION MAKING

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### USE OF ALTERNATIVE LLIN DISTRIBUTION CHANNELS TO IMPROVE HOUSEHOLD OWNERSHIP AND USE OF LLINS

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### MALARIA IN PREGNANCY

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## Malaria – Surveillance and Data Utilization

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### THE SOCIO-DEMOGRAPHIC PREDICTORS OF INSECTICIDE-TREATED BED NET UTILIZATION FOR PROTECTION AGAINST MALARIA BY ASYMPTOMATIC INDIVIDUALS FROM RURAL COMMUNITIES ACROSS FIVE REGIONS IN MAINLAND TANZANIA

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### BENEFITS OF INCLUSIVE INNOVATION IN THE DEVELOPMENT OF A DECENTRALIZED ROUTINE DATA QUALITY AUDIT (RDQA) IMPLEMENTATION MODEL IN THE DEMOCRATIC REPUBLIC OF CONGO (DRC)

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### ASSESSING THE FEASIBILITY OF USING A MULTIPLEX SEROLOGICAL ASSAY TO CONDUCT SEROSURVEILLANCE FOR MALARIA EXPOSURE

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### EVIDENCE OF P. VIVAX IN NORTHERN KENYA, AN EMERGING MALARIA CONTROL THREAT; AN INCIDENCE REPORT FROM THE OUTCOME OF THE MID-2023 EPIDEMIC RESPONSE AND FOLLOW UP SURVEY

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### SOUTH-SOUTH EXCHANGE - USE OF A COLLABORATIVE CAPACITY STRENGTHENING MODEL FOR COUNTRIES APPROACHING MALARIA ELIMINATION

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## BENIN'S MALARIA SURVEILLANCE SYSTEM: INNOVATIONS TO PURSUE AND WEAKNESSES TO IMPROVE

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## BED NET USE, MISUSE, AND MISCONCEPTION: A COMMUNITY-BASED CROSS-SECTIONAL STUDY IN FIVE REGIONS OF MAINLAND TANZANIA

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## QUANTIFY THE TREND IN MALARIA INCIDENCE AT HEALTH DISTRICT LEVEL AND IDENTIFY THE FACTORS ASSOCIATED WITH THIS INCIDENCE IN BURKINA FASO FROM 2016-2022 USING ROUTINE CASES DATA

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## FEASIBILITY OF USING GEOGRAPHIC INFORMATION SYSTEMS (GIS) TO FACILITATE POPULATION-PROPORTIONATE HOUSEHOLD SAMPLING OF ADMINISTRATIVE UNITS IN NORTHERN UGANDA, A CASE STUDY

Elizabeth R. Zhang<sup>1</sup>, Frida Aryemo<sup>2</sup>, Natasha Turyasingura<sup>1</sup>, Melody Deblasio<sup>3</sup>, Christopher Nyeko<sup>2</sup>, Sandra Ajolorwo<sup>2</sup>, Vivian Nakiwu<sup>2</sup>, Amy Bei<sup>1</sup>, Sunil Parikh<sup>1</sup>, Richard Echodu<sup>4</sup>

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## DEVELOPING A ROADMAP FOR THE IMPLEMENTATION OF MALARIA GENOMIC SURVEILLANCE IN AFRICA

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## DRUG PHENOTYPE ASSESSMENT TO VALIDATE DRUG RESISTANCE MARKERS CHANGING AMONG NATURAL SENEGALESE *PLASMODIUM FALCIPARUM* ISOLATES

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## DEVELOPING AN OPEN SOURCE, FREE, AND GENERALIZABLE SAMPLE AND DATA MANAGEMENT SYSTEM TO ENABLE SCALABLE AND SUSTAINABLE GENOMIC SURVEILLANCE IN SENEGAL

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## IMPACT OF A REWARD SYSTEM AND CONSISTENT FEEDBACK ON REPORTING RATE AND TIMELINESS IN OGUN STATE, SOUTHWEST NIGERIA

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## ENHANCING WEEKLY EPIDEMIOLOGICAL SURVEILLANCE DATA COMPLETENESS ACROSS KARAMOJA REGION OF UGANDA: A QUALITY IMPROVEMENT APPROACH

Derrick Nabongho<sup>1</sup>, Badru Gidudu<sup>1</sup>, Christine Lodungokol<sup>1</sup>, Stephen Kigongo<sup>2</sup>, Richard Ongom Opio<sup>1</sup>, Angela Kateemu<sup>1</sup>, Edward Mugwanya<sup>1</sup>, Ronald Kimuli<sup>3</sup>, Amy Casella<sup>4</sup>, Aliza Hasham<sup>4</sup>, Benjamin Binagwa<sup>1</sup>, Nancy Brady<sup>4</sup>

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## SOCIODEMOGRAPHIC STUDIES AND THE SPATIAL DISTRIBUTION OF MALARIA EPISODES IN DANGASSA, KATI DISTRICT FROM 2014 TO 2016

Oumar Thiero<sup>1</sup>, Aissata Massambou Sacko<sup>2</sup>, Kola Cisse<sup>2</sup>, Soumba Keita<sup>3</sup>, Seydou Doumbia<sup>3</sup>

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### IMPROVING MALARIA EPIDEMIC SURVEILLANCE IN UGANDA'S WEST NILE REGION THROUGH HEALTH WORKER CAPACITY STRENGTHENING AND REUSABLE MALARIA SURVEILLANCE CHARTS

**Felix Manano**<sup>1</sup>, Robert Abiriga<sup>1</sup>, Angela Kateemu<sup>1</sup>, Richard Ongom Opio<sup>1</sup>, Felix Omania<sup>1</sup>, Immaculate Mujawimana<sup>2</sup>, Edward Mugwanya<sup>1</sup>, Ronald Kimuli<sup>3</sup>, Amy Casella<sup>4</sup>, Aliza Hasham<sup>4</sup>, Benjamin Binagwa<sup>1</sup>, Nancy Brady<sup>4</sup>  
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### INTEGRATION OF COMMUNITY DATA WITH ROUTINE HEALTH FACILITY DATA TO GENERATE INSIGHTS INTO MALARIA EPIDEMIOLOGY AND SERVICE DELIVERY IN BUIKWE DISTRICT IN UGANDA

**Ruth N. Kigozi**<sup>1</sup>, John Baptist Bawnika<sup>1</sup>, Stella Bakeera<sup>1</sup>, Rutayisire Medi<sup>2</sup>, Solomon Muhumuza<sup>2</sup>, Anthony Nuwa<sup>1</sup>, Emily Goodwin<sup>1</sup>, Godfrey Magumba<sup>1</sup>, Hanna Edwards<sup>3</sup>  
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### DIGITALIZATION THROUGH DHIS2 TRACKER PROGRAMS AT HOUSEHOLD AND INDIVIDUAL LEVELS FOR 2023 SEASONAL MALARIA CHEMOPREVENTION CAMPAIGNS IN CÔTE D'IVOIRE

**Alexis Serge Aimain**<sup>1</sup>, Luigi Nuñez<sup>2</sup>, Amadou Donapoho Soro<sup>3</sup>, Eric Akkati<sup>3</sup>, Melly Aissatou Traore<sup>3</sup>, Yao Koffi<sup>3</sup>, Mea Antoine Tanoh<sup>1</sup>, Collette Yah Epse Kokrasset<sup>1</sup>, Patricia L. Yepassis-Zembrou<sup>4</sup>, Pascal Zinzindohoue<sup>5</sup>, Blaise Kouadio<sup>5</sup>, Melaine Tape<sup>5</sup>  
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### STREAMLINING THE MEDICINE REGISTRATION SYSTEM TO IMPROVE ACCESS TO QUALITY MALARIA COMMODITIES IN MADAGASCAR, 2018 - 2024

**Jean René Randriasamimanana**<sup>1</sup>, Fanja Rakotomanana<sup>2</sup>, Hoby Sitraka Ravelomampianina<sup>2</sup>, Soafara Andrianome<sup>3</sup>, Antonia Stéphanie Rakotoniaina<sup>1</sup>, Aline Mukerabirori<sup>1</sup>, Aishling Thurow<sup>4</sup>, Jane Briggs<sup>4</sup>, Thomas Hall<sup>4</sup>, Luz Razafimbelo<sup>1</sup>, Laurent Kapesa<sup>5</sup>  
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### ESTABLISHING ROBUST, OPEN, ACCESSIBLE BIOINFORMATICS TOOLS FOR MALARIA GENOMIC DATA ANALYSIS AND REPORTING, IMPLEMENTED IN THE TERRA CLOUD-BASED ANALYSIS PLATFORM

Jonathan T. Smith<sup>1</sup>, Stephen Schaffner<sup>1</sup>, Bassirou Ngom<sup>2</sup>, Wesley Wong<sup>3</sup>, Christine Loreth<sup>1</sup>, Katherine DeRuff<sup>1</sup>, Elizabeth Curtis<sup>1</sup>, Shadi Zaheri<sup>1</sup>, Jorge-Eduardo Amaya-Romero<sup>3</sup>, Angela Early<sup>1</sup>, Daniel Park<sup>1</sup>, Dyann Wirth<sup>3</sup>, Daouda Ndiaye<sup>2</sup>, Kiran Garimella<sup>1</sup>, Bronwyn MacInnis<sup>1</sup>  
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### COMPARATIVE ANALYSIS OF INDIVIDUAL-BASED MALARIA MODELS: CHARACTERIZING MODEL BEHAVIOR FOR ENHANCED CONFIDENCE IN MODEL-INFORMED DECISION MAKING

**Manuela Runge**<sup>1</sup>, Ricky Richter<sup>1</sup>, Narimane Nekkab<sup>2</sup>, Aurélien Cavelan<sup>2</sup>, Tom Brewer<sup>3</sup>, Peter Winskill<sup>3</sup>, Melissa Penny<sup>4</sup>, Jaline Gerardin<sup>1</sup>  
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### EVALUATING SUB-NATIONAL TAILORING OF MALARIA INTERVENTIONS

**Adam Bennett**<sup>1</sup>, Peder Digre<sup>1</sup>, Hana Bilak<sup>2</sup>, Hannah Slater<sup>1</sup>, John Miller<sup>3</sup>  
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### RAPID MOLECULAR MONITORING OF KELCH13 OF PLASMODIUM FALCIPARUM SHOWS LOW DIVERSITY AND LACK OF ARTEMISININ RESISTANCE-ASSOCIATED MUTATIONS ON BIKO ISLAND, EQUATORIAL GUINEA

**Thomas C. Stabler**<sup>1</sup>, Salome Hosch<sup>1</sup>, Elizabeth Nyakarungu<sup>2</sup>, Johanna Giger<sup>1</sup>, David S. Galick<sup>2</sup>, Carlos A. Guerra<sup>3</sup>, Guillermo A. Garcia<sup>3</sup>, Tobias Schindler<sup>4</sup>, Joana C. Silva<sup>5</sup>, Claudia Daubenberger<sup>1</sup>  
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### ASSESSMENT OF QUALITÉ OF MALARIA CASE MANAGEMENT AND PREVENTION USING MICROSTRATIFICATION METHOD

**Roseline Maimouna Y. Maimouna Bamouni**  
 Clinton health access initiative, Ouagadougou, Burkina Faso

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### ADVANCING EARLY WARNING SYSTEMS FOR MALARIA, PROGRESS, CHALLENGES, AND FUTURE DIRECTIONS

**Donnie Mategula**<sup>1</sup>, Judy Gichuki<sup>2</sup>, Karen Barnes<sup>3</sup>, Emanuele Giorgi<sup>4</sup>, Dianne Jannette Terlouw<sup>1</sup>  
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## Malaria - Vaccines and Immunotherapeutics

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### STRAIN-TRANSCENDING ANTI-AMA1 HUMAN MONOCLONAL ANTIBODIES NEUTRALIZE MALARIA PARASITES INDEPENDENT OF DIRECT RON2L RECEPTOR BLOCKADE

**Palak N. Patel**<sup>1</sup>, Ababacar Diouf<sup>1</sup>, Thayne H. Dickey<sup>1</sup>, Wai Kwan Tang<sup>1</sup>, Christine S. Hopp<sup>2</sup>, Boubacar Traore<sup>3</sup>, Carole A. Long<sup>1</sup>, Kazutoyo Miura<sup>1</sup>, Peter D. Crompton<sup>1</sup>, Niraj H. Tolia<sup>1</sup>  
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### PRE-CLINICAL STUDY ON VIRAL-VECTORED *P. FALCIPARUM* MULTISTAGE VACCINE EFFECTIVE BOTH FOR PROTECTION AND TRANSMISSION-BLOCKADE IN RHESUS PRIMATES

**Yutaro Yamamoto**<sup>1</sup>, Naho Shinmura<sup>1</sup>, Wakaba Kanamura<sup>1</sup>, Yuna Sato<sup>1</sup>, Ammar Abdurrahman Hasyim<sup>1</sup>, Kartika Hardianti Zainal<sup>1</sup>, Takuto Katayama<sup>1</sup>, Sora Niwa<sup>1</sup>, Manaka Ono<sup>1</sup>, Hibiki Naruse<sup>1</sup>, Yuma Asaki<sup>1</sup>, Iyori Mitsuhiro<sup>2</sup>, Hiroaki Mizukami<sup>3</sup>, Hisatoshi Shida<sup>4</sup>, Tomoyuki Miura<sup>4</sup>, Shigeto Yoshida<sup>1</sup>

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### R21/MATRIX-M™ PHASE III TRIAL: FURTHER FOLLOW-UP AND ASSESSMENT OF AN ADDITIONAL BOOSTER DOSE

Alassane Dicko<sup>1</sup>, Mainga Hamaluba<sup>2</sup>, Ally Olotu<sup>3</sup>, Halidou Tinto<sup>4</sup>, Jean-Bosco Ouédraogo<sup>5</sup>, **Mehreen S. Dattoo**<sup>6</sup>, Emma Beaumont<sup>7</sup>, John Bradley<sup>7</sup>, Sandesh Bharati<sup>8</sup>, Prasad S. Kulkarni<sup>9</sup>, Umesh Shaligram<sup>8</sup>, Adrian V S Hill<sup>6</sup>, R21/Matrix-M Phase III Trial Group<sup>9</sup>

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### STRUCTURE GUIDED DESIGN OF A MRNA VACCINE TARGETING APICAL MEMBRANE ANTIGEN 1 IN *P. FALCIPARUM*

**Sean Yanik**<sup>1</sup>, Varsha Venkatesh<sup>1</sup>, Deepti Sarkar<sup>1</sup>, Kazutoyo Miura<sup>2</sup>, Carole Long<sup>2</sup>, Martin Boulanger<sup>3</sup>, Prakash Srinivasan<sup>1</sup>

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### SAFETY OF THE RTS,S/AS01<sub>E</sub> MALARIA VACCINE ONE YEAR AFTER THE PRIMARY VACCINATION IN REAL-LIFE SETTINGS IN THREE SUB-SAHARAN AFRICAN COUNTRIES: INTERIM RESULTS

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### OFF-TARGET ANTIBODY RESPONSES TO BLOOD STAGE ANTIGENS ARE ASSOCIATED WITH CROSS-REACTIVE ANTIBODIES TO THE MAJOR AND MINOR REPEATS OF THE *PLASMODIUM FALCIPARUM* CIRCUMSPOROZOITE PROTEIN IN AFRICAN CHILDREN PARTICIPATING IN THE RTS,S VACCINE TRIALS

Luis M. Molinos-Albert<sup>1</sup>, Didac Macia<sup>2</sup>, Elisa Fuentes<sup>1</sup>, Chenjerai Jairoce<sup>3</sup>, Maximilian Mpiná<sup>4</sup>, David Dosoo<sup>5</sup>, Alfons Jimenez<sup>1</sup>, Marta Vidal<sup>1</sup>, Ruth Aguilar<sup>1</sup>, Ross L. Coppel<sup>6</sup>, Ben Gyan<sup>5</sup>, Claudia Daubenberger<sup>7</sup>, Joe J. Campo<sup>8</sup>, Gemma Moncunill<sup>1</sup>, **Carlota Dobaño**<sup>1</sup>

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### GENOTYPIC INFECTION ENDPOINT ANALYSIS TO UNDERSTAND EFFICACY AND ESCAPE POTENTIAL OF THE MALARIA MONOCLONAL ANTIBODY CIS43LS

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### COMPARATIVE IMMUNOGENICITY OF THE R21/MATRIX-M MALARIA VACCINE ACROSS AGE GROUPS AND GEOGRAPHIES

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### R21/MATRIX-M MALARIA VACCINE PHASE 3 CLINICAL TRIAL IMMUNOGENICITY

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### A CONJUGATED PFS230D1 VACCINE INDUCES ANTIBODIES THAT DIRECTLY PREVENT FERTILIZATION AND COMPLEMENT ENHANCES NEUTRALIZATION

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### FORCED DEGRADATION STUDIES WITH CONJUGATED PFS230D1-EPA DRUG PRODUCT PROVIDE A BASIS FOR EVALUATING ACCELERATED STABILITY

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### DESIGN, CHARACTERIZATION, AND EFFICACY OF TWO UNIQUE MRNA-BASED BLOOD-STAGE MALARIA VACCINES

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### INTRODUCTION OF MALARIA VACCINE IN BURKINA FASO: LESSONS LEARNED

Mwinmalo Ines Evelynne Da<sup>1</sup>, Rene Didace Bakouan<sup>2</sup>, Anissa Sidibe<sup>3</sup>, Christelle Neya<sup>2</sup>, Soumeiya Ouangraoua<sup>1</sup>, Francine Ouedraogo<sup>1</sup>, Erward Kenyi<sup>3</sup>, Gladys Tetteh<sup>3</sup>, Meg Sreevatsava<sup>4</sup>, Ousmane Badolo<sup>1</sup>, Christopher Morgan<sup>3</sup>

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### FUNCTIONAL EFFICACY OF NANOPARTICLE CONJUGATED P. VIVAX CIRCUMSPOROZOITE PROTEIN SUBDOMAIN VACCINE

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### DIRECT SKIN FEEDING ASSAY IN MALARIA TRANSMISSION BLOCKING VACCINE STUDIES - STANDARDIZATION, SAFETY, TOLERANCE, AND SCALABILITY FOR USE IN PHASE 2 AND PHASE 3 CLINICAL TRIALS

Heather Goodman<sup>1</sup>, Daman Sylla<sup>2</sup>, Adama Sacko<sup>2</sup>, Issaka Sagara<sup>2</sup>, Sara A. Healy<sup>1</sup>, Patrick E. Duffy<sup>1</sup>, Jen C. Hume<sup>1</sup>

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### COMPARABILITY OF THE STANDARD MEMBRANE FEEDING ASSAY (SMFA) ACROSS DIFFERENT VACCINE STUDIES, STUDY SITES, AND TIME

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### IMMUNOGENICITY OF A PLASMODIUM VIVAX BLOOD STAGE NANOPARTICLE VACCINE

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### NOVEL ASSAY PREDICTS STANDARD MEMBRANE FEEDING RESULTS FOR MALARIA TRANSMISSION BLOCKING VACCINE PFS230D1-EPA/AS01

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### ABUNDANT NON-NEUTRALIZING, SYNERGIZING IGG LINEAGES PLAY A CRUCIAL PROTECTIVE ROLE IN MALARIA-NAÏVE UNITED KINGDOM ADULTS VACCINATED WITH BLOOD-STAGE VACCINE CANDIDATE RH5.1/AS01<sub>B</sub>

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### ELICITATION OF POTENT LIVER-STAGE IMMUNITY BY NANOPARTICLE IMMUNOGENS DISPLAYING P. FALCIPARUM CSP-DERIVED ANTIGENS

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### EFFECTIVENESS OF PYRETHROID-PIPERONYL BUTOXIDE NETS VERSUS STANDARD PYRETHROID-ONLY NETS IN PREVENTING MALARIA IN CHILDREN UNDER 10 YEARS LIVING IN KISANTU HEALTH ZONE, DEMOCRATIC REPUBLIC OF THE CONGO: A QUASI-EXPERIMENTAL STUDY

## Bacteriology - Enteric Infections

8090

### ASSESSMENT OF THE BURDEN AND RISK OF TYPHOID FEVER USING AVAILABLE DATA TO INFORM VACCINE INTRODUCTION IN RWANDA

Zimy Wansaula<sup>1</sup>, Yesser Sebeh<sup>2</sup>, Rosette Nahimana<sup>3</sup>, Helene Balisanga<sup>4</sup>, Axel P. Karamage<sup>4</sup>, Alain Zimulinda<sup>5</sup>, Edson Rwagasore<sup>4</sup>, Katrin Sadigh<sup>1</sup>, Matthew Mikoleit<sup>1</sup>, Musa Y. Hindiyeh<sup>6</sup>, Carol Tevi-Benissan<sup>6</sup>, Jenny Walldorf<sup>6</sup>, Anna A. Minta<sup>6</sup>, Adwoa Bentsi-Enchill<sup>6</sup>, Lucy B. Nagle<sup>1</sup>

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**AEROMONAS HYDROPHILA AS A CAUSE OF ACUTE DIARRHEA FROM WESTERN AND COASTAL REGIONS IN KENYA**

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**PHENOTYPIC RESISTANCE OF CIPROFLOXACIN AND AZITHROMYCIN RESISTANT CAMPYLOBACTER SP. ISOLATES FROM PERU TO AN EXTENDED PANEL OF ANTIBIOTICS**

Katia Manzanares Villanueva<sup>1</sup>, Francesa Schiaffino<sup>2</sup>, Lucero Romaina Cachique<sup>1</sup>, Maribel Paredes Olortegui<sup>1</sup>, Pablo Penataro Yori<sup>3</sup>, Evangelos Mourkas<sup>4</sup>, Ben Pascoe<sup>4</sup>, Kerry K. Cooper<sup>5</sup>, Craig T. Parker<sup>6</sup>, Margaret Kosek<sup>3</sup>  
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**APPLICATION OF THE RAPID DIAGNOSTIC TEST BASED ON LOOP-MEDIATED ISOTHERMAL AMPLIFICATION (RLDT) FOR SHIGELLA AND ENTEROTOXIGENIC ESCHERICHIA COLI (ETEC) DETECTION IN CHILDHOOD DIARRHEA IN BURKINA FASO**

Alimatou Héma<sup>1</sup>, Samuel S. Sermé<sup>1</sup>, Jean W. Sawadogo<sup>1</sup>, Amidou Diarra<sup>1</sup>, Amidou Z. Ouédraogo<sup>1</sup>, Issa Nébié<sup>1</sup>, Alfred B. Tiono<sup>1</sup>, Sophie Houard<sup>2</sup>, Subhra Chakraborty<sup>3</sup>, Alphonse Ouédraogo<sup>1</sup>, Sodiomon B. Sirima<sup>1</sup>  
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**ASSOCIATION OF THE HUNGER SEASON AND MALNUTRITION WITH DIARRHEA ETIOLOGY AND POOR OUTCOMES AMONG CHILDREN HOSPITALIZED WITH DIARRHEA IN HAYDOM, TANZANIA**

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**RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY ON THE EFFICACY AND SAFETY OF CAMPETEC HYPERIMMUNE BOVINE COLOSTRUM (HBC) FOR THE PREVENTION OF CAMPYLOBACTER-MEDIATED DIARRHEAL DISEASES**

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**GENOMIC SURVEILLANCE OF ANTIMICROBIAL RESISTANCE IN CHILDREN WITH DIARRHEA AT A COMMUNITY-LEVEL HEALTH FACILITY IN MALI**

Antoine Dara, Hinda Doucoure, Boi Kone, Bintou Diarra, Lassina Timbine, Mamadou Tekete, Abdoulaye Djimde  
 Pathogens genomics Diversity Network Africa, Bamako, Mali

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**INTESTINAL MICROBIOME AND IMPLICATIONS ON MATERNAL HEALTH AND BIRTH OUTCOMES**

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**ISOLATION AND GENOMIC CHARACTERIZATION OF CAMPYLOBACTER SPECIES AND IDENTIFICATION OF ANTIBIOTIC RESISTANT ESCHERICHIA COLI AND KLEBSIELLA PNEUMONIA FROM ZIMBABWE**

Marya Carmolli<sup>1</sup>, Elizabeth Ross Colgate<sup>1</sup>, Korin Eckstrom<sup>1</sup>, Beth D. Kirkpatrick<sup>1</sup>, Lisa Langhaug<sup>2</sup>, Benjamin Lee<sup>1</sup>, Kuda Mutasa<sup>2</sup>, Robert Ntozini<sup>2</sup>, Andrew Prendergast<sup>2</sup>, Naume Tavengwa<sup>2</sup>, Matthew J. Wargo<sup>1</sup>  
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**PATHOGENS CAUSING DIARRHEA IN CHILDREN UNDER FIVE AMONG A VACCINATED POPULATION IN COASTAL GHANA**

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**USING A VACCINATION REGISTER TO MINIMIZE THE RISK OF MISCLASSIFICATION OF CHOLERA VACCINATION STATUS IN THE DEMOCRATIC REPUBLIC OF THE CONGO**

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**USING CLINICAL PREDICTION TO IDENTIFY CHOLERA IN SEVERELY DEHYDRATED CHILDREN WITH DIARRHEA**

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### SHIGELLA SPECIFIC DIARRHEAL BURDEN OVER A DECADE IN THE GAMBIA

**Bakary Conteh**<sup>1</sup>, Hannah Atlas<sup>2</sup>, Helen Powell<sup>3</sup>, Erika Feutz<sup>2</sup>, Sean R. Galagan<sup>2</sup>, Henry Badji<sup>1</sup>, Mehrab Karim<sup>1</sup>, Alhagie Manneh<sup>1</sup>, Musa Jallow<sup>1</sup>, Ramatoulie Jawara<sup>1</sup>, Belali Keita<sup>1</sup>, Bubacarr E. Ceesay<sup>1</sup>, Sheikh Jarju<sup>1</sup>, Abdoulie M.J. Jabang<sup>1</sup>, Samba Juma Jallow<sup>1</sup>, Ousman Secka<sup>1</sup>, Martin Antonio<sup>1</sup>, Sharon M. Tennant<sup>3</sup>, Milagritos D. Tapia<sup>4</sup>, Umberto D'Alessandro<sup>1</sup>, Patricia B. Pavlinac<sup>2</sup>, Karen L. Kotloff<sup>3</sup>, M. Jahangir Hossain<sup>1</sup>

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### ENTERIC PATHOGEN PREVALENCE, INCIDENCE AND CLEARANCE RATES, AND SHEDDING INTENSITY IN URBAN KENYAN INFANTS FROM MOLECULAR TESTING OF SEQUENTIAL FECAL SAMPLES

**Daniel K. Sewell**<sup>1</sup>, Fanta Gutema<sup>1</sup>, Sheillah Simiyu<sup>2</sup>, Phyllis Busienei<sup>2</sup>, Collins Ouma<sup>3</sup>, Christine Amond<sup>2</sup>, John Agira<sup>2</sup>, Bonplace Okoth<sup>2</sup>, Marsha Marsha<sup>3</sup>, Jairus Abuom<sup>3</sup>, Alexis Kapanka<sup>1</sup>, Blessing Mberu<sup>2</sup>, Daniel Kakou<sup>1</sup>, Kelly Baker<sup>1</sup>

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### ASSEMBLY AND PERFORMANCE OF A CHOLERA RAPID DIAGNOSTIC TEST PROTOTYPE THAT DETECTS BOTH VIBRIO CHOLERA AND BACTERIOPHAGE

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## Bacteriology - Other Bacterial Infections

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### INTEGRATION OF ANTIMICROBIAL RESISTANCE DIAGNOSTICS IN BOKÉ REGIONAL HOSPITAL LABORATORY: GUINEA, JULY-DECEMBER 2023.

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### INITIAL ISOLATION AND WHOLE GENOME SEQUENCING OF CORYNEBACTERIUM HINDLERAE IN ISIOLO, KENYA

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### DIAGNOSTIC PERFORMANCE OF ANTIGEN F1-BASED RAPID DIAGNOSTIC TEST AT THE BEDSIDE ON-SITE AND AT REFERENCE LABORATORY FOR BUBONIC PLAGUE IN HIGH ENDEMIC SETTINGS IN MADAGASCAR

**Mihaja Raberahona**<sup>1</sup>, Minoarisoa Rajerison<sup>2</sup>, Rindra Vatosoa Randremanana<sup>2</sup>, Josephine Bourner<sup>3</sup>, Ravaka Randriamparany<sup>2</sup>, Tsinjo Rasoanaivo<sup>2</sup>, Lisy Hanitra Razanaivo<sup>2</sup>, Gabriella Zadonirina<sup>2</sup>, Theodora Mayouya-Gamana<sup>2</sup>, Reziky Tiandraza Mangahasimbola<sup>2</sup>, Tansy Edwards<sup>4</sup>, Elise Pesonel<sup>3</sup>, Rivonitina Andry Rakotoarivelo<sup>5</sup>, Mamy Jean de Dieu Randria<sup>1</sup>, Peter W. Horby<sup>3</sup>, Piero L. Olliaro<sup>3</sup>

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### VARIATIONS IN NASOPHARYNGEAL MICROBIOTA ACCORDING TO COVID-19 SEVERITY STATES

Hugo Carrillo-Ng<sup>1</sup>, Juana del Valle-Mendoza<sup>2</sup>, Ronald Aquino-Ortega<sup>2</sup>, Wilmer Silva-Caso<sup>2</sup>, Carmen Tinco-Valdez<sup>2</sup>, Yordi Tarazona-Castro<sup>1</sup>, **Miguel A. Aguilar-Luis**<sup>2</sup>

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### MOLECULAR DIAGNOSIS OF SHIGELLA SPP. IN CHILDREN WITHOUT CLINICAL SYMPTOMS IN A RURAL AND URBAN AREA OF NORTHERN PERU

**Miguel A. Aguilar-Luis**<sup>1</sup>, Ronald Rodriguez-Alfaro<sup>1</sup>, Yimi Arnaldo Rosa-Mori<sup>1</sup>, Juana del Valle-Mendoza<sup>1</sup>, Ronald Aquino-Ortega<sup>1</sup>, Wilmer Silva-Caso<sup>1</sup>, Jorge Bazan-Mayra<sup>2</sup>, Carmen Tinco-Valdez<sup>3</sup>, Yordi Tarazona-Castro<sup>3</sup>

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### A MULTIPLEX REAL-TIME PCR ASSAY FOR DETECTION OF THE FOUR MAIN CAUSES OF BACTERIAL MENINGITIS

**Simon Tiemélé Laurent Amoikon**<sup>1</sup>, Kanny Diallo<sup>1</sup>, Firmin Kouassi Missa<sup>1</sup>, Jérémie Kolotioloman Tuo<sup>1</sup>, Odile B. Harrison<sup>2</sup>, Martin CJ Maiden<sup>3</sup>

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### EFFICACY OF MACOZINONE AND SUTEZOLID AGAINST MYCOBACTERIUM LEPRAE

**Vino T. Cheriyan**, Nashone Ray, Vilma Marks, Patrick Kyle Andrews, Linda B. Adams, Ramanuj Lahiri

DHHS, HRSA, HSB, National Hansen's Disease Program, Baton Rouge, LA, United States

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### DETECTING NOVEL MECHANISMS OF CARBAPENEM RESISTANCE: AN INNOVATIVE SCREENING SYSTEM IN LIMA, PERU

**Grace Tan**<sup>1</sup>, George Lawson<sup>1</sup>, Omar Romero Rodriguez<sup>2</sup>, Diego Taquiri Diaz<sup>2</sup>, Lucero Mascaro Rivera<sup>2</sup>, Lucero Merino Castaneda<sup>2</sup>, Candy Leon Palomino<sup>2</sup>, Alice Osmaston<sup>1</sup>, Luis Alvarado Ruis<sup>3</sup>, Patricia Sheen Cortavarria<sup>2</sup>, Mirko Zimic Peralta<sup>2</sup>, James Hatcher<sup>1</sup>, Ioannis Baltas<sup>1</sup>, Robert H. Gilman<sup>4</sup>, Monica Pajuelo Travezaño<sup>2</sup>, Louis Grandjean<sup>1</sup>

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### EXPLORING POTENTIAL ASSOCIATION BETWEEN LOW BODY MASS INDEX AND MID-UPPER ARM CIRCUMFERENCE WITH LEPROSY: A CASE-CONTROL STUDY IN ADDIS ABABA, ETHIOPIA

Lawrence Dela Cruz<sup>1</sup>, Elleni Zeleki<sup>2</sup>, Hatem Mohamed<sup>1</sup>, Yosef Wubshet<sup>3</sup>, Liya Sesay Getachew<sup>1</sup>, Aemon Fissaha<sup>4</sup>, Biruk Debebe<sup>4</sup>, Ytbarek Gebremedhin<sup>4</sup>, Jessica K. Fairley<sup>1</sup>, Kidist Bobosha<sup>2</sup>, Shimelis Nigusse<sup>4</sup>

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### SEROPOSITIVITY TO IGG ANTIBODY OF RICKETTSIA SPP. IN A ENDEMIC AREA OF SOUTHEAST MEXICO

Edgar Villarreal-Jimenez<sup>1</sup>, Nina Mendez-Dominguez<sup>1</sup>, Audey Arnal<sup>2</sup>, Fernando Puerto-Manzano<sup>3</sup>, Henry Noh-Pech<sup>3</sup>, Karla Dzul-Rosado<sup>3</sup>

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### EVALUATION OF AN ELECTRICITY-INDEPENDENT METHOD FOR IS2404 LOOP-MEDIATED ISOTHERMAL AMPLIFICATION (LAMP) DIAGNOSIS OF BURULI ULCER IN RESOURCE LIMITED SETTING

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3D BioFibR Inc., Halifax, NS, Canada

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### POOR WASH, UNDERNUTRITION, AND FOOD INSECURITY IS ASSOCIATED WITH ANTI-PGL1 POSITIVITY, MARKER OF LEPROSY INFECTION, IN ADDIS ABABA, ETHIOPIA

Hatem Mohamed<sup>1</sup>, Liya Sisay Getachew<sup>1</sup>, Elleni Zeleke<sup>2</sup>, Lawrence Dela Cruz<sup>1</sup>, Ytbarek Gebremedhin<sup>3</sup>, Biruk Debebe<sup>3</sup>, Yosef Wubshet<sup>4</sup>, Aemon Fissaha<sup>3</sup>, Shimelis Nigusse<sup>3</sup>, Jessica K. Fairley<sup>1</sup>, Kidist Bobosha<sup>2</sup>

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### EPIDEMIOLOGICAL FACTORS ASSOCIATED WITH MYCOBACTERIUM LEPRAE SEROPOSITIVITY AND HISTORY OF HANSEN'S DISEASE IN A HIGHLY ENDEMIC AREA OF MINAS GERAIS, BRAZIL

Audra Bass<sup>1</sup>, Heloíne M. Leite<sup>2</sup>, Pedro HF Marçal<sup>3</sup>, Lorena B.P. Oliveira<sup>4</sup>, Marcos D.S. Pinheiro<sup>2</sup>, José A. Ferreira<sup>5</sup>, Julie Clennon<sup>1</sup>, Thomas R. Ziegler<sup>1</sup>, Jeffrey M. Collins<sup>1</sup>, Lance A. Waller<sup>1</sup>, Lucia A. O. Fraga<sup>2</sup>, Jessica K. Fairley<sup>1</sup>

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### SEASONALITY AND ENVIRONMENTAL ASSOCIATION OF MELIOIDOSIS IN NORTHERN VIETNAM

Morgan C. Metrailler<sup>1</sup>, Quyen Tran Thi Li<sup>2</sup>, Treenate Jiranantasak<sup>1</sup>, Andrew Bluhm<sup>1</sup>, Tan Luong<sup>1</sup>, Khang Pham<sup>3</sup>, Ha Thi Thu Hoang<sup>3</sup>, Hoa Minh Luong<sup>3</sup>, Ngoc Bich Do<sup>3</sup>, Hai Thanh Pham<sup>3</sup>, Michael H. Norris<sup>4</sup>, Trung Thanh Trinh<sup>2</sup>, Jason K. Blackburn<sup>1</sup>

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## Bacteriology - Systemic Infections

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### ECOLOGY AND EPIDEMIOLOGY OF SARCINA TROGLODYTAE, A NOVEL BACTERIUM ASSOCIATED WITH A LETHAL DISEASE IN CHIMPANZEES (PAN TROGLODYTES) IN SIERRA LEONE

Emily Dunay<sup>1</sup>, Ismail Hirji<sup>2</sup>, Leah A. Owens<sup>1</sup>, Gregory A. Barrett-Wilt<sup>1</sup>, Konkofa Marah<sup>2</sup>, Naomi Anderson<sup>2</sup>, Maria Ruiz<sup>3</sup>, Rebeca Atencia<sup>3</sup>, Johanna R. Elfenbein<sup>1</sup>, Tony L. Goldberg<sup>1</sup>

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### OUTCOME AND PREDICTORS OF MORTALITY AMONG NEWBORNS WITH SEPSIS IN FOUR HEALTH FACILITIES IN MALI A COHORT STUDY

Fatoumata Bintou TRAORE<sup>1</sup>, Cheick Sidya SIDIBE<sup>2</sup>, Alhassane DIALLO<sup>3</sup>, Sidikiba SIDIBE<sup>4</sup>, Biennu Salim CAMARA<sup>4</sup>, El Hadj Marouf DIALLO<sup>5</sup>, Alexandre DELAMOU<sup>5</sup>, Hamadoun SANGHO<sup>6</sup>

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### INFLUENCE OF HIV INFECTION ON COMMON BACTERIA CAUSING SEPSIS AND ASSOCIATED SUSCEPTIBILITY PATTERNS IN CHILDREN AT A PEDIATRIC HOSPITAL IN ZAMBIA

Jonathan Gwasupika

Tropical Diseases Research Centre, Ndola, Zambia

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### AUSTRIAN SYNDROM : A RARE CASE REPORT

KAMENA MWANA-YILE HASSAN<sup>1</sup>, Samia EJJEBLI<sup>2</sup>, Hanane BADI<sup>1</sup>, Jean Claude BUCUMI<sup>1</sup>, Kamal EL Filali MARHOUM<sup>1</sup>

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### WHOLE GENOME SEQUENCING OF EXTENSIVELY DRUG-RESISTANT ENTEROBACTER HORMAECHEI CLINICAL ISOLATES FROM A SECONDARY HOSPITAL IN MOROCCO WITH HSV AND NDM CARBAPENEMASE GENES

Ahmed BELMOUDEN<sup>1</sup>, Fatima MOUSTAOU<sup>1</sup>, Mohamed AGHROUCH<sup>2</sup>, Youssef IDAGHDOUR<sup>3</sup>, Zohra LEMKHENTE<sup>1</sup>, Maryama BARHOINE<sup>1</sup>, Fatima BOUBRIK<sup>1</sup>

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### SUCCESSFUL APPLICATIONS OF PHAGE THERAPY TO OVERCOME MULTIDRUG RESISTANT BACTERIAL INFECTIONS

Biswajit Biswas

Naval Medical Research Command / BDRD, Fredrick, MD, United States

Saturday  
November 16

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### BURKHOLDERIA PSEUDOMALLEI: A NEGLECTED 'NEGLECTED TROPICAL DISEASE'?

Ashleigh Hale

University Hospitals Coventry and Warwickshire, Coventry, United Kingdom

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### GENOTYPIC AND PHENOTYPIC PROFILES OF ANTIMICROBIAL RESISTANCE IN PATHOGENIC BACTERIA ISOLATED FROM SEPTICEMIC PATIENTS IN WESTERN KENYA

Joseph Khamisi Kaingu<sup>1</sup>, James Nonoh<sup>2</sup>, Carolyne Kifude<sup>3</sup>, Kimita Gathii<sup>3</sup>, Amos Onditi<sup>3</sup>, Kirti Tiwari<sup>3</sup>, John Waitumbi<sup>3</sup><sup>1</sup>WRAIR-AFRICA/Maseno University, Kisumu, Kenya, <sup>2</sup>Maseno University, Kisumu, Kenya, <sup>3</sup>WRAIR-AFRICA, Kisumu, Kenya

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### INFORMING ECOLOGICAL NICHE MODELS OF *BACILLUS ANTHRACIS* WITH CONSTRAINED DIVERSITY INDICES AND PHYLOGENIES FOR TEXAS AND VIETNAM

Jason K. Blackburn<sup>1</sup>, Morgan A. Walker<sup>1</sup>, Morgan C. Metrailler<sup>1</sup>, Tan Luong<sup>1</sup>, Treenate Jiranantasak<sup>1</sup>, Andrew P. Bluhm<sup>1</sup>, Thi Thu H. Ha Hoang<sup>2</sup>, Van Khang Pham<sup>2</sup>, Ted L. Hadfield<sup>1</sup>, Diansy Zincke<sup>3</sup>, Martin E. Hugh-Jones<sup>4</sup>, Michael H. Norris<sup>5</sup>, Jose Miguel Ponciano<sup>1</sup><sup>1</sup>Emerging Pathogens Institute, Gainesville, FL, United States, <sup>2</sup>National Institute of Hygiene and Epidemiology, Hanoi, Vietnam, <sup>3</sup>UF ICBR, Gainesville, FL, United States, <sup>4</sup>Louisiana State University, Baton Rouge, LA, United States, <sup>5</sup>University of Hawaii at Manoa, Honolulu, HI, United States

## Bacteriology - Trachoma

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### SEROEPIDEMIOLOGY OF TRACHOMA IN A LOW PREVALENCE REGION RECEIVING ANNUAL MASS AZITHROMYCIN DISTRIBUTION IN MARADI, NIGER

Abdou Amza<sup>1</sup>, Boubacar Kadri<sup>2</sup>, Beido Nassirou<sup>2</sup>, Ahmed Arzika<sup>3</sup>, Elisabeth Gebreegiabher<sup>4</sup>, Huiyu Hu<sup>4</sup>, Lina Zhong<sup>4</sup>, Cindi Chen<sup>4</sup>, Danny Yu<sup>4</sup>, Thomas Abraham<sup>4</sup>, YuHeng Liu<sup>4</sup>, Thuy Doan<sup>4</sup>, Benjamin F. Arnold<sup>4</sup>, Thomas M. Lietman<sup>4</sup>, Catherine Oldenburg<sup>4</sup><sup>1</sup>Programme National de Sante Oculaire, Niamey, Niger, <sup>2</sup>Programme National de Santé Oculaire, Niamey, Niger, <sup>3</sup>Centre de Recherche et d'Intervention en Santé Publique, Niamey, Niger, <sup>4</sup>University of California, San Francisco, San Francisco, CA, United States

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### THE RE-EMERGENCE OF TRACHOMA INFECTION AMONG CHILDREN IN KONGWA DISTRICT, TANZANIA, POSES A THREAT TO YEARS OF PROGRESS

Hamisi Rashid Msagama, Ritah Mutagonda, Aboubakari Mlinga, Getrude Dahaye Muhimbili University of Health and Allied Sciences, Dar es Salaam, United Republic of Tanzania

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### THE ROLE OF ANTIBODY DATA FOR IMPROVED UNDERSTANDING OF RECRUDESCENT ACTIVE TRACHOMA IN NEBBI DISTRICT OF UGANDA

Raphael Opon<sup>1</sup>, Prudence Beinamaryo<sup>1</sup>, David Oguttu<sup>1</sup>, Alfred Mubangizi<sup>1</sup>, Charles Kennedy Kissa<sup>1</sup>, Paul Akampurira<sup>1</sup>, Joyce Achan<sup>2</sup>, Stephen Begumisa<sup>2</sup>, Sharone Backers<sup>2</sup>, Stella Agunyo<sup>2</sup>, Katherine Gass<sup>3</sup>, Mohamed Bah<sup>3</sup>, Katrina Farber<sup>3</sup>, Sarah Gwyn<sup>4</sup>, Diana L. Martin<sup>4</sup>, Mabula Kasubi<sup>5</sup>, Sarah Boyd<sup>6</sup>, Ana Bakhtiar<sup>6</sup>, Cristina Jimenez<sup>7</sup>, Michelle Taylor<sup>7</sup>, Anthony W. Solomon<sup>8</sup>, Emma M. Harding-Esch<sup>9</sup>, Upendo Mwingira<sup>10</sup>, William E. Oswald<sup>10</sup>, Jeremiah M. Ngondi<sup>10</sup><sup>1</sup>Ministry of Health Headquarters, Kampala, Uganda, <sup>2</sup>Research Triangle Institute International, Kampala, Uganda, <sup>3</sup>NTD Support Center, Task Force for Global Health, Atlanta, GA, United States, <sup>4</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>5</sup>Muhimbili University of Health and Allied Sciences, Dar es Salaam, United Republic of Tanzania, <sup>6</sup>International Trachoma Initiative, Task Force for Global Health, Atlanta, GA, United States, <sup>7</sup>Sightsavers, Haywards Heath, United Kingdom, <sup>8</sup>Global Neglected Tropical Diseases Program, World Health Organization, Geneva, Switzerland, <sup>9</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>10</sup>Research Triangle Institute International, Research Triangle Park, NC, United States

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### SOCIAL-ECONOMIC AND CULTURAL PRACTICES INFLUENCING TRACHOMA TRANSMISSION AMONG RESIDENTS IN NORTHERN KENYA

Caroline Wangui Njoroge<sup>1</sup>, Samson Nzou<sup>1</sup>, John Gachohi<sup>2</sup>, Joseph Mutai<sup>1</sup>, Mathew Mutinda<sup>1</sup>, Robinson Irekwa<sup>1</sup>, Tonny Teya<sup>1</sup>, Anne Mwangi<sup>1</sup>, Peter Rotich<sup>1</sup>, Joanne Jekemei<sup>1</sup><sup>1</sup>KEMRI, Nairobi, Kenya, <sup>2</sup>Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

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### RESULTS FROM TRACHOMA PREVALENCE SURVEYS IN SENEGAL AS IT NEARS ELIMINATION

Mouctar D. Badiane<sup>1</sup>, Rose Monteil<sup>2</sup>, Babacar B. Diallo<sup>2</sup>, Serigne Niang<sup>2</sup>, Emma Harding-Esch<sup>3</sup>, Mawo Fall<sup>4</sup>, Jeremiah Ngondi<sup>5</sup>, Anthony W. Solomon<sup>6</sup>, Stephanie L. Palmer<sup>7</sup><sup>1</sup>Programme National de Sante Oculaire, Dakar, Senegal, <sup>2</sup>FHI 360 Senegal, Dakar, Senegal, <sup>3</sup>Clinical Research Department, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>4</sup>RTI International, Maputo, Mozambique, <sup>5</sup>RTI International, Cambridge, United Kingdom, <sup>6</sup>Department of Control of Neglected Tropical Diseases, World Health Organization, Geneva, Switzerland, <sup>7</sup>FHI 360, Washington, DC, United States

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### INTER-LABORATORY VALIDATION OF A MULTIPLEX BEAD ASSAY USING A CHIMERIC MONOCLONAL ANTIBODY AGAINST PGP3

Sarah Gwyn<sup>1</sup>, Karana Wickens<sup>1</sup>, Helena Brazal Monzo<sup>2</sup>, Chris Drakeley<sup>2</sup>, Stephane Pelleau<sup>3</sup>, Michael White<sup>3</sup>, Henry Kanyi<sup>4</sup>, Sammy M. Njenga<sup>4</sup>, Diana L. Martin<sup>1</sup><sup>1</sup>Division of Parasitic Diseases and Malaria, Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>Department of Infection Biology, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>3</sup>Pasteur Institute, Paris, France, <sup>4</sup>Kenya Medical Research Institute, Nairobi, Kenya

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### A NOVEL BEHAVIOR APPROACH TO SUPPORT ELIMINATION OF TRACHOMA IN NOMADIC POPULATIONS

Joyce Christian Lyamuya<sup>1</sup>, Agnes Lucumay Agnes Lucumay<sup>1</sup>, George Kabona<sup>2</sup>, Anyitike Mwakitilima<sup>2</sup>, Mpoki Daudi<sup>3</sup><sup>1</sup>Helen Keller Intl, Dar es Salaam, United Republic of Tanzania, <sup>2</sup>Ministry of Health, Dodoma, United Republic of Tanzania, <sup>3</sup>Ngorongoro Council, Arusha, United Republic of Tanzania

## Clinical Tropical Medicine

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### PATHWAYS TO PROGRESS: ENHANCING INFECTIOUS DISEASE DETECTION IN THE PERUVIAN AMAZON

**Karin Francesca Perez Garcia**<sup>1</sup>, Paul Garcia Bardales<sup>1</sup>, Wagner V. Shapiama Lopez<sup>1</sup>, Tackeshy Pinedo<sup>1</sup>, Mario Güimack Fajardo<sup>1</sup>, Cesar Ramal Asayag<sup>2</sup>, Francesa Schiaffino<sup>3</sup>, Josh M. Colston<sup>4</sup>, Pablo Peñataro Yori<sup>4</sup>, Maribel Paredes Olortegui<sup>1</sup>, Margaret N. Kosek<sup>4</sup>  
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### DEVELOPMENT, IMPLEMENTATION, AND CLINICAL VALIDATION OF AN ISOTHERMAL CAS12A BASED QUANTITATIVE ASSAY FOR CONGENITAL CYTOMEGALOVIRUS VIRAL LOAD DETERMINATION

**Karissa Chao**<sup>1</sup>, Monika L. Dietrich<sup>1</sup>, Jon Arizti Sanz<sup>2</sup>, Sameed Siddiqui<sup>2</sup>, Pardis Sabeti<sup>2</sup>, Robert F. Garry<sup>1</sup>  
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### SCARCE FOLLOW UP AFTER A LATE DIAGNOSIS: A SURVEY OF KEY STEPS IN CLINICAL CARE AMONG PATIENTS WITH CHRONIC TRYPANOSOMA CRUZI INFECTION IN BOGOTÁ, COLOMBIA

**Juan Carlos Villar**, Antonia Camacho, Luis David Sáenz, Helena Arango  
Fundación Cardioinfantil-Instituto de Cardiología, Bogotá, Colombia

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### COMPLICATED SPINAL CYSTIC ECHINOCOCCOSIS SUCCESSFULLY TREATED WITH SURGERY: 10-YEAR FOLLOW-UP

**Gian Luca D'Alessandro**<sup>1</sup>, Tommaso Manciuili<sup>2</sup>, Sofia Frattola<sup>1</sup>, Ambra Vola<sup>3</sup>, Raffaella Lissandrin<sup>4</sup>, Enrico Brunetti<sup>4</sup>, Fabrizio Cuzzocrea<sup>5</sup>  
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### HIGH PREVALENCE OF UNDIAGNOSED ACUTE FEBRILE ILLNESS IN THE PERUVIAN AMAZON

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### MALARIA RETINOPATHY IS ASSOCIATED WITH WORSE LONG-TERM COGNITION IN UGANDAN CHILDREN WITH SEVERE MALARIAL ANEMIA

**Kagan A. Mellencamp**<sup>1</sup>, Ruth Namazzi<sup>2</sup>, Caitlin Bond<sup>1</sup>, Robert O. Opoka<sup>2</sup>, Andrea L. Conroy<sup>1</sup>, Paul Bangirana<sup>2</sup>, Chandy C. John<sup>1</sup>  
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### SAFETY, IMMUNOGENICITY AND EFFICACY OF THE SHIGELLA VACCINE - A SYSTEMATIC REVIEW

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### CLINICO-EPIDEMIOLOGICAL STUDY OF SNAKEBITE: AN AUDIT OF THIRTEEN YEARS DATA FROM A COMMUNITY-BASED TREATMENT CENTRE OF EASTERN NEPAL

**Srista Manandhar**<sup>1</sup>, Sunit Chhetri<sup>1</sup>, **Arun Gautam**<sup>1</sup>, Rohan Basnet<sup>1</sup>, Urza Bhattarai<sup>1</sup>, Madhav Bhusal<sup>2</sup>, Sanjib Kumar Sharma<sup>1</sup>  
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### IDENTIFYING ADDITIONAL RISK FACTORS FOR DEVELOPING CHRONIC KIDNEY DISEASE

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### DISCORDANCE BETWEEN IMMUNIZATION HISTORY AND SEROLOGIC IMMUNITY TO VACCINE-PREVENTABLE INFECTIONS AMONG ASYLUM SEEKERS IN THE US

**Christian Olivo-Freites**<sup>1</sup>, Patricia Miguez-Arosemena<sup>2</sup>, Cristina Olivo-Freites<sup>3</sup>, Deborah Edelman<sup>2</sup>, Kayla Leschly<sup>1</sup>, Jayme Leschly<sup>1</sup>, Amir M. Mohareb<sup>4</sup>  
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### STRENGTHENING INTEGRATED COMMUNITY CASE MANAGEMENT COMMODITY AVAILABILITY IN UGANDA

**PETER PA ANYUMIZA**<sup>1</sup>, Phellister PN Nakamya<sup>1</sup>, Rebecca Babirye<sup>1</sup>, Geoffrey Nuwamanya<sup>1</sup>, Samantha Herrera<sup>2</sup>, Catherine Maiteki Sebuguzi<sup>3</sup>, Maureen Amutuhaire<sup>3</sup>, Jimmy Opigo<sup>3</sup>  
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### THE PREDICTIVE VALUE OF SIRS AND Q-SOFA SCORES AS MEASURES OF SEPSIS SEVERITY AMONG PATIENTS IN A PRIVATE HOSPITAL IN LAGOS, NIGERIA: RESULTS FROM THE R JOLAD SEPSIS STUDY

**Abiola Fasina-Ayoola**<sup>1</sup>, Adebisi Adeyeye<sup>2</sup>, Abigail Obi<sup>2</sup>, Francis Olajide<sup>2</sup>, Joao Vissoci<sup>3</sup>, Oludoyinmola Ojifinni<sup>4</sup>, Catherine Staton<sup>3</sup>  
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### CLINICAL PRESENTATION OF ACUTE ARBOVIRAL INFECTIONS DURING THE 2023 OUTBREAK IN THE TIRS PROJECT COHORT

Gloria Abigail Barrera-Fuentes<sup>1</sup>, Henry Puerta-Guardo<sup>1</sup>, James Earnest<sup>2</sup>, Oscar Kirstein<sup>3</sup>, Azael Che-Mendoza<sup>1</sup>, Guadalupe Ayora-Talavera<sup>1</sup>, Pilar Granja-Perez<sup>4</sup>, Salha Villanueva<sup>4</sup>, Matthew H. Collins<sup>2</sup>, Hector Gomez-Dantes<sup>5</sup>, Pablo Manrique-Saide<sup>1</sup>, Gonzalo Vazquez-Prokopec<sup>2</sup>, Norma Pavia-Ruz<sup>1</sup>

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### ASSESSMENT OF HOME BASED RAPID DIAGNOSTIC TESTING UPTAKE TOWARDS INCREASING COMMUNITY-BASED ACCESS TO CARE IN KENYA, SOUTH AFRICA, AND ZAMBIA

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<sup>1</sup>Akros, Lusaka, Zambia

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### HIGH-RISK APOL1 VARIANTS ARE ASSOCIATED WITH REDUCED LONG-TERM SURVIVAL FOLLOWING SEVERE MALARIA

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### POSTMORTEM CHARACTERIZATION OF GASTROSCHISIS ASSOCIATED UNDER-5 DEATHS IN MOZAMBIQUE: INSIGHTS FROM CHILD HEALTH AND MORTALITY PREVENTION SURVEILLANCE (CHAMPS)

Elisio Xerinda<sup>1</sup>, Rosauero Varo<sup>2</sup>, Milton Kincardett<sup>1</sup>, Arlindo Malheia<sup>1</sup>, Portia Mutevedzi<sup>3</sup>, Dianna Blau<sup>3</sup>, Cynthia Whitney<sup>3</sup>, Marcelino Garrine<sup>1</sup>, Quique Bassat<sup>4</sup>, Inacio Mandomando<sup>1</sup>

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### IMPORTANCE OF CLINICAL EXPERTISE IN DIAGNOSIS OF LEPROSY AND AMERICAN CUTANEOUS LEISHMANIASIS: INSIGHTS FROM CLINICAL PROFILES IN EASTERN MINAS GERAIS, BRAZIL

Anabella Almeida<sup>1</sup>, Lorena Bruna Pereira de Oliveira<sup>2</sup>, André Otaviano<sup>3</sup>, Daisy Santos<sup>1</sup>, Weverton Ferreira<sup>1</sup>, Giselle Ramos<sup>1</sup>, José Geraldo Neto<sup>1</sup>, Karolina Campos<sup>1</sup>, Isabel Moreira<sup>1</sup>, Cristina Oakis<sup>1</sup>, Clara Rodrigues<sup>1</sup>, Mathias Garcia<sup>1</sup>, Pedro Henrique Ferreira Marçal<sup>2</sup>, Jessica Fairley<sup>4</sup>, Lucia Fraga<sup>1</sup>

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### RENIN RELEASE IS ASSOCIATED WITH ACUTE KIDNEY INJURY AND PREDICTS MORTALITY IN CHILDREN WITH SEVERE MALARIA

Daniel Adan Jr<sup>1</sup>, Ruth Namazzi<sup>2</sup>, Caroline Kazinga<sup>3</sup>, Anthony Batte<sup>2</sup>, Kagan A. Mellencamp<sup>1</sup>, Natalja N. Stanski<sup>4</sup>, Caitlin Bond<sup>1</sup>, Robert O. Opoka<sup>5</sup>, Chandry C. John<sup>1</sup>, Andrea L. Conroy<sup>1</sup>

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### SEVERE AND FATAL LASSA FEVER - OBSERVATIONS IN 19 ICU PATIENTS TREATED IN NIGERIA

Cyril Erameh<sup>1</sup>, Sylvanus Okogbenin<sup>1</sup>, Ephraim Ogbaini<sup>2</sup>, Osahogie Edeawe<sup>3</sup>, Jerome Christian<sup>2</sup>, Joseph Okegualo<sup>2</sup>, Christian Erohobie<sup>2</sup>, Matin Kohsar<sup>4</sup>, Hannah Müller<sup>4</sup>, Benevolence Ohomoime<sup>2</sup>, Rita Esumeh<sup>2</sup>, Sule Pius<sup>3</sup>, Ludmila Unrau<sup>4</sup>, Ester Orban<sup>4</sup>, Reuben Efeidiyi<sup>2</sup>, Stephan Günther<sup>4</sup>, Michael Ramharter<sup>4</sup>, Lisa Oestereich<sup>4</sup>, Till F. Omansen<sup>4</sup>

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### ASSOCIATION OF DENGUE VIRUS SEROTYPES AND THE CLINICAL SEVERITY OR MORTALITY IN TAIWAN'S LARGEST DENGUE OUTBREAK

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### SEPSIS ENDOTYPES IDENTIFIED BY HOST GENE EXPRESSION ACROSS GLOBAL COHORTS

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### INTEGRATED SEROLOGICAL SURVEILLANCE FOR MULTIPLE INFECTIOUS DISEASES IN VANUATU

Mohamad Assoum<sup>1</sup>, Elizabeth Nguyen<sup>1</sup>, Arunasingam Abayasingam<sup>1</sup>, Prudence Rymill<sup>2</sup>, Fasihah Taleo<sup>3</sup>, Mackline Katenga<sup>2</sup>, Stephanie Tabe<sup>2</sup>, Eithandee Aung<sup>1</sup>, Fernando Santiago<sup>4</sup>, Gladymar P. Chacon<sup>1</sup>, Claire Dyer<sup>1</sup>, David Kennedy<sup>1</sup>, Md S. Islam<sup>5</sup>, Dorothy Machalek<sup>1</sup>, Nicodemus Tedla<sup>4</sup>, Julie Jacobson<sup>6</sup>, John Kaldor<sup>7</sup>, Susana Vaz Nery<sup>1</sup>

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### OVERCOMING DIAGNOSTIC CHALLENGES WITH ACUTE FEBRILE ILLNESS IN NIGERIA: WHAT CAN WE LEARN FROM THE SAFIAN STUDY?

Lauren Courtney<sup>1</sup>, Jean Kim<sup>1</sup>, Jay Samuels<sup>2</sup>, Philippe Chebu<sup>2</sup>, Onyia Ejike<sup>3</sup>, Ikponmwosa Odia<sup>4</sup>, Claire Quiner<sup>1</sup>, Ephraim Ogbaini<sup>4</sup>, Vivian Kwaghe<sup>3</sup>, Cyril Erameh<sup>4</sup>, Eke Ofuche<sup>2</sup>, Femi Owolagba<sup>2</sup>, Blessed Okira<sup>4</sup>, Ikponmwosa Odia<sup>4</sup>, Jacqueline Agbukor<sup>4</sup>, Julius Imoyera<sup>4</sup>, Kat Asman<sup>1</sup>, Adamu Ephraim<sup>1</sup>, Osas Edeawe<sup>4</sup>, Nankpah Vongdip<sup>3</sup>, Emmanuel Oga<sup>1</sup>

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**A CASE OF PRE-EXTENSIVELY DRUG-RESISTANT TUBERCULOSIS IN KWAZULU-NATAL, SOUTH AFRICA**

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**IMPLEMENTING NEUROCOGNITIVE ASSESSMENT TOOLS - A PILOT STUDY COMPARING NEUROCOGNITIVE FUNCTION OF EBOLA SURVIVORS WITH NON-INFECTED CONTROLS IN SIERRA LEONE**

Emily J. Engel<sup>1</sup>, Nell G. Bond<sup>1</sup>, Tucker Challay<sup>2</sup>, Doris A. Fofanah<sup>2</sup>, Ibrahim Sumah<sup>2</sup>, Robert J. Samuels<sup>2</sup>, Alex C. Birdsill<sup>1</sup>, John S. Schieffelin<sup>1</sup>  
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**DISCREPANCY ANALYSIS BY USING DATA QUALITY ASSESSMENT AT COMMUNITY LEVEL IN RWANDA**

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**Helminths – Nematodes – Filariasis (Molecular Biology and Immunology)**

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**MOLECULAR DETECTION AND SEQUENCING OF GENES ENCODING THE PREDICTED AMIDASE, NADH UBIQUINONE OXIDOREDUCTASE AND SODIUM NEUROTRANSMITTER SYMPORTER ENZYMES IN ONCHOCERCA VOLVULUS PARASITE**

Anabel Acheampong<sup>1</sup>, Kenneth Bentum Otabil<sup>1</sup>, John Asiedu Larbi<sup>2</sup>, Prince Nyarko<sup>2</sup>, Prince-Charles Kudzordzi<sup>2</sup>, Godbless Owusu Adjei<sup>1</sup>, Paulina Pokua Oduro<sup>1</sup>  
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**INFECTION STAGE L3 OF LOA LOA AS POTENTIAL TARGET FOR PROTECTIVE IMMUNITY**

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**INFLAMMATION AND FIBRINOLYSIS IN LOIASIS PATIENTS BEFORE AND AFTER IVERMECTIN TREATMENT: POTENTIAL MECHANISM UNDER POST-IVERMECTIN SEVERE ADVERSE EVENTS**

Tristan Lepage<sup>1</sup>, Narcisse N. Toche<sup>2</sup>, Lucie Nkwengoua<sup>3</sup>, Hugues C. Nana-Djeunga<sup>2</sup>, Sebastien D S Pion<sup>4</sup>, Joseph Kamgno<sup>2</sup>, Charlotte Boullé<sup>4</sup>, Jérémy T. Campillo<sup>5</sup>, Michel Boussinesq<sup>4</sup>, Claude Tayou<sup>3</sup>, **Cédric B. Chesnais<sup>4</sup>**  
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**IMPACT OF THE FILARIAL INFECTIONS O. VOLVULUS, L. LOA AND M. PERSTANS ON THE METABOLIC PROFILE OF LEAN, OVERWEIGHT AND OBESE INDIVIDUALS IN CAMEROON (FIMMIP)**

Benjamin Lenz<sup>1</sup>, Anita Obi Bate Ebob<sup>2</sup>, Fanny Fri Fombad<sup>2</sup>, Amuam Andrew Beng<sup>2</sup>, Manuel Ritter<sup>1</sup>, Indulekha Karunakaran<sup>1</sup>, Narcisse Victor Tchamatchoua Gandj<sup>2</sup>, Lucy Cho Nchang<sup>2</sup>, Jayagopi Surendar<sup>1</sup>, Chang Wang<sup>1</sup>, Ute Klarmann-Schulz<sup>1</sup>, Arcangelo Ricchiuto<sup>1</sup>, Janina M. Kuehlwein<sup>1</sup>, Ambe Marius Ngwa<sup>2</sup>, Tatiana Djikeussi Katcho<sup>2</sup>, Achim Hoerauf<sup>1</sup>, Samuel Wanji<sup>2</sup>, Marc P. Hübner<sup>1</sup>  
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**DOXYCYCLINE TREATMENT REDUCES IMMUNE ACTIVATION OF CD4+ T CELLS AS WELL AS CLINICAL SIGNS OF INFLAMMATION IN PATIENTS WITH FILARIAL LYMPHEDEMA IN TANZANIA**

Anja Feichtner<sup>1</sup>, Sacha Horn<sup>1</sup>, Abdallah Ngenya<sup>2</sup>, Max Demetrius<sup>2</sup>, Winifrida John<sup>2</sup>, Ndekya Urio<sup>2</sup>, Jubin Osei-Mensa<sup>3</sup>, Ute Klarmann-Schulz<sup>4</sup>, Janina Kuehlwein<sup>4</sup>, Manuel Ritter<sup>4</sup>, Achim Hoerauf<sup>4</sup>, Michael Hoelscher<sup>1</sup>, Linda Batsa Debrah<sup>3</sup>, Alexander Debrah<sup>3</sup>, Upendo Mwingira<sup>2</sup>, Akili Kalinga<sup>5</sup>, **Inge Kroidl<sup>1</sup>**  
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**Helminths – Nematodes – Filariasis (Other)**

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**EVALUATION OF THE BIOLOGICAL ACTIVITY OF CHEMICAL CONSTITUENTS FROM THE STEMBARK OF KIGELIA AFRICANA, A CAMEROONIAN MEDICINAL PLANT, AGAINST ONCHOCERCA OCHENGI PARASITES**

Ghansenyuy Salome Yuwong<sup>1</sup>, Yemback Piere<sup>1</sup>, Eyong Kenneth Oben<sup>1</sup>, Gabriel Ngosong Folefoc<sup>1</sup>, Fidelis Cho Ngwa<sup>2</sup>  
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**EVALUATION OF SLASH AND CLEAR COMMUNITY-DIRECTED ONCHOCERCIASIS VECTOR CONTROL INTERVENTION IN THE TROPICAL RAINFOREST OF LIBERIA**

Dawn Blackburn<sup>1</sup>, Elizabeth M. Wendt<sup>1</sup>, Sonnie Z. Gbewo<sup>2</sup>, Larry Gee<sup>2</sup>, Ben Masiira<sup>3</sup>, Andrew Abbott<sup>1</sup>, Paul Cantey<sup>1</sup>, Thomson L. Lakwo<sup>3</sup>, Karsor K. Kollie<sup>2</sup>  
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**PARASITOLOGICAL INDICATORS SUGGESTS THAT ONCHOCERCIASIS MIGHT LIKELY NEVER BEEN ELIMINATED IN THE YABASSI HEALTH DISTRICT (LITTORAL REGION, CAMEROON) USING IVERMECTIN SOLELY: URGENT NEED OF COMPLEMENTARY INTERVENTIONS**

Laurentine Sumo<sup>1</sup>, Gabriella S. Ondoua Nganjou<sup>2</sup>, Narcisse Nzune Toche<sup>2</sup>, Louis-Rolph Bamou Heumou<sup>2</sup>, Arnaud Efon Ekangouo<sup>2</sup>, Linda Djune Yemeli<sup>2</sup>, Yannick Emalio<sup>2</sup>, Jean Bopda<sup>2</sup>, Jeanne C. Sondi Dissake<sup>2</sup>, André Domche<sup>2</sup>, Shannon M. Hedtke<sup>3</sup>, Warwick N. Grant<sup>3</sup>, Flobert Njiokou<sup>4</sup>, Joseph Kamgno<sup>2</sup>, Hugues C. Nana Djeunga<sup>2</sup>  
<sup>1</sup>University of Ebolowa, Ebolowa, Cameroon, <sup>2</sup>Higher Institute for Scientific and Medical Research (ISM), Yaoundé, Cameroon, <sup>3</sup>La Trobe University, Melbourne, Australia, <sup>4</sup>University of Yaoundé I, Yaoundé, Cameroon

Saturday  
November 16

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### REBOUND IN PREVALENCE AND INTENSITY OF ONCHOCERCA VOLVULUS INFECTION FIVE YEARS AFTER CESSATION OF ALTERNATIVE TREATMENT STRATEGIES IN THE MASSANGAM HEALTH DISTRICT, WEST REGION, CAMEROON: NEED FOR COORDINATED AND SUSTAINED EFFORTS

Gabriella Sandrine Ondoua Nganjou<sup>1</sup>, Laurentine Sumo<sup>2</sup>, Narcisse Nzune Toche<sup>3</sup>, Arnauld Efon Ekangouo<sup>3</sup>, Linda Djune Yemeli<sup>3</sup>, Yannick Emalio<sup>4</sup>, Jean Bopda<sup>4</sup>, Jeanne Crescence Sondi Dissake<sup>1</sup>, André Domche<sup>1</sup>, Ivana Youmbi Kammogne<sup>1</sup>, Shannon Hedtke<sup>5</sup>, Warwick Grant<sup>5</sup>, Flobert Njiokou<sup>1</sup>, Joseph Kamgno<sup>6</sup>, Hugues Clotaire Nana Djeunga<sup>4</sup>

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### ADMINISTRATION OF THE SUPERVISOR'S COVERAGE TOOL TO ASSESS THERAPEUTIC COVERAGES OF MASS DRUG ADMINISTRATION FOR ELIMINATION OF NEGLECTED TROPICAL DISEASES IN 3 LGAS OF AKWA IBOM STATE, NIGERIA

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## Helminths – Nematodes – Filariasis (Treatment and Morbidity Management)

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### MANAGEMENT PRACTICES AND THEIR ASSOCIATED FACTORS AMONG LYMPHOEDEMA PATIENTS ATTENDING LYMPHOEDEMA CLINICS IN SELECTED ENDEMIC DISTRICTS FOR LYMPHATIC FILARIASIS IN SRI LANKA

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(ACMCIP Abstract)

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### ADAPTIVE BASKET TRIAL TO ASSESS THE EFFICACY AND SAFETY OF OXFENDAZOLE AS PAN-NEMATODE CANDIDATE IN ONCHOCERCIASIS, LOIASIS, MANSONELLOSIS AND TRICHURIASIS PATIENTS

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(ACMCIP Abstract)

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### RESULTS OF STOP TREATMENT ASSESSMENTS FOR ONCHOCERCIASIS IN SEVEN DISTRICTS OF LOWER MADI MID NORTH FOCUS, UGANDA

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(ACMCIP Abstract)

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### BARRIERS TO MORBIDITY MANAGEMENT AND DISABILITY PREVENTION (MMDP) CARE IN BENISHANGUL GUMUZ REGION, ETHIOPIA

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### PROGRAMMATIC IMPLEMENTATION OF THE TRIPLE DRUG MASS DRUG ADMINISTRATION FOR LYMPHATIC FILARIASIS ELIMINATION IN HAITI

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(ACMCIP Abstract)

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### THE HEALTH AND WELLNESS IMPACT OF HOPE GROUPS FOR PEOPLE WITH LYMPHATIC FILARIASIS IN EBONYI STATE, NIGERIA: PATIENT DATA AT BASELINE

Abel Eigege<sup>1</sup>, Jenna E. Coalson<sup>2</sup>, Christopher Nwuzor<sup>1</sup>, Samuel Ifeanyi-chukwu<sup>1</sup>, Bulus Mancha<sup>1</sup>, Lindsay Rakers<sup>2</sup>, Emily Griswold<sup>2</sup>, Emmanuel Miri<sup>1</sup>, Gregory S. Noland<sup>2</sup>, Hyacinth Ebenyi<sup>3</sup>, Ifeanyi Nwofoke<sup>3</sup>, Ngaji Ogaji<sup>3</sup>, Edwin Okpani<sup>3</sup>, David Nweke<sup>4</sup>, Martha Nwiboko<sup>5</sup>

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### MASS SURGERY WEEKS FOR TREATMENT OF HYDROCELE DUE TO LYMPHATIC FILARIASIS IN PLATEAU AND NASARAWA STATES, CENTRAL NIGERIA, 2020 - 2021

Abel Eigege<sup>1</sup>, Nuhu K. Dakum<sup>2</sup>, Christian Agbo<sup>2</sup>, Henry Embu<sup>2</sup>, Sumi Benjamin Garkuwa<sup>3</sup>, Bulus S. Mancha<sup>1</sup>, Samuel Audu Kwarsen<sup>3</sup>, Mafwalal Bunah Masok<sup>3</sup>, Philemon Dagwa<sup>3</sup>, Ibrahim Adamu<sup>4</sup>, Jacob Danboyi<sup>4</sup>, Emmanuel Davies<sup>5</sup>, Nseobong Akpan<sup>5</sup>, John Umaru<sup>1</sup>, Lindsay Rakers<sup>5</sup>, Emily Griswold<sup>6</sup>, Frank O. Richards<sup>5</sup>, Gregory S. Noland<sup>6</sup>, Emmanuel S. Miri<sup>1</sup>

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(ACMCIP Abstract)

## Kinetoplastida and Other Protozoa - Invasion, Cellular and Molecular Biology (Including *Leishmania* and Trypanosomes)

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### DETERMINING THE FUNCTION OF AN APICOPLAST-LOCALIZED GTPASE IN *TOXOPLASMA GONDII*

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(ACMCIP Abstract)

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### COMPARISON OF CARDIAC FIBROSIS CAUSED BY *TRYPANOSOMA CRUZI* IN THE CHRONIC PHASE IN *IN VIVO* MODELS OF MICE (BALB/C, SWISS), AND *CAVIA PORCELLUS*

JOSSELYN K. VACA<sup>1</sup>, Carlos Javier Neyra Palacios<sup>1</sup>, Edith M. Málaga Machaca<sup>1</sup>, MANUELA R. Verástegui<sup>2</sup>, Solange B. Custodio<sup>1</sup>, Robert B. Gilman<sup>1</sup>  
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(ACMCIP Abstract)

## Kinetoplastida and Other Protozoa - Treatment, Drug Delivery, Drug Repurposing and Drug Discovery (Including *Leishmania* and Trypanosomes)

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### SUCCESSFUL REPURPOSING OF FDA-APPROVED DRUGS AGAINST *LEISHMANIA* PARASITES PREVIOUSLY PREDICTED THROUGH A MACHINE LEARNING APPROACH

Rafah Oualha, Yosser Zina Abdelkrim, Ikram Guizani, Emna Harigua-Souiaï\*  
Institut Pasteur of Tunis, Tunis, Tunisia

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### CONSIDERATION OF FEXINIDAZOLE AS A NOVEL TREATMENT OPTION FOR RHODESIENSE-HUMAN AFRICAN TRYPANOSOMIASIS

Rebecca J. Chancey  
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### CLINICAL PRESENTATION AND MANAGEMENT OF CUTANEOUS LEISHMANIASIS AMONG NEWLY ARRIVED AFGHAN EVACUEE CHILDREN

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<sup>1</sup>Beth Israel Deaconess Medical Center/Boston Children's Hospital, Boston, MA, United States, <sup>2</sup>Children's Hospital of Philadelphia, Philadelphia, PA, United States, <sup>3</sup>Nationwide Children's Hospital, Columbus, OH, United States

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### TARGET-BASED 6-5 FUSED RING HETEROCYCLIC SCAFFOLDS DISPLAY BROAD ANTIPARASITIC POTENCY *IN VITRO*

Boniface Pone Kamdem<sup>1</sup>, Darline Dize<sup>1</sup>, Mariscal Brice Tchatat Tali<sup>1</sup>, Cyrille Armel Njanpa Ngansop<sup>1</sup>, Rodrigue Keumoe<sup>1</sup>, Eugénie Aimée Madiesse Kemgne<sup>1</sup>, Lauve Rachel Tchokouaha Yamthe<sup>2</sup>, Patrick Valere Tsouh Fokou<sup>3</sup>, Katsura Hata<sup>4</sup>, Fabrice Fekam Boyom<sup>1</sup>

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### IMMUNOMODULATION EFFECT OF HOOKWORM PROTEINS ON CHRONIC CHAGASIC LIVER MODELS

Maria Jose Villar, Cristina Poveda, Bin Zhan, Kathryn M. Jones  
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### IMPROVED TREATMENT OUTCOME FOLLOWING THE USE OF A WOUND DRESSINGS IN CUTANEOUS LEISHMANIASIS LESIONS

Camila I. De Oliveira<sup>1</sup>, Pedro Borba<sup>1</sup>, Jamile Lago<sup>1</sup>, Thainã Lago<sup>1</sup>, Mariana Araújo-Pereira<sup>1</sup>, Artur Queiroz<sup>1</sup>, Hermene Barud<sup>2</sup>, Lucas Carvalho<sup>1</sup>, Paulo Machado<sup>3</sup>, Edgar Carvalho<sup>1</sup>

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### IMPROVING THE LEISHMANICIDAL ACTIVITY OF MILTEFOSINE USING SPRAYABLE DRESSINGS BASED ON NANOFIBERS OF PVP/TETRONIC®/CYCLODEXTRINS

Zeinab Dirany<sup>1</sup>, Paolo Ginatta<sup>2</sup>, Javier González-Benito<sup>3</sup>, Gustavo González-Gaitano<sup>1</sup>, Paul Nguewa<sup>2</sup>

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### A VALID 96-WELL-PLATE-ENZYMATIC ASSAY FOR *LEISHMANIA* METHYLTHIOADENOSINE PHOSPHORYLASE MTAP PROTEIN, A CANDIDATE DRUG TARGET

Yosser Zina Abdelkrim<sup>1</sup>, Isleme Khalfaoui<sup>2</sup>, Mourad Barhoumi<sup>2</sup>, Sonia Abbess<sup>2</sup>, Thouraya Mejri<sup>2</sup>, Abid Hela<sup>2</sup>, Emna Harigua-Souiaï<sup>2</sup>, Ikram Guizani<sup>2</sup>

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### OPTIMIZING THE MULTI-FACETED PIPELINE OF AI-BASED DRUG DISCOVERY AGAINST INFECTIOUS DISEASES

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### FEXINIDAZOLE IN PATIENTS WITH HUMAN AFRICAN TRYPANOSOMIASIS DUE TO *TRYPANOSOMA BRUCEI RHODESIENSE*, TOWARDS AN ARSENIC FREE FIRST LINE THERAPY

Olaf Valverde Mordt<sup>1</sup>, Westain Tizgo Nyirenda<sup>2</sup>, Anthony Eriatu<sup>3</sup>, Marshal Lemerani<sup>4</sup>, Charles Wamboga<sup>5</sup>, Elisabeth Baudin<sup>6</sup>, Deolinda Alves<sup>1</sup>, Enoch Matovu<sup>7</sup>

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### IN VITRO EVALUATION OF THE ANTI AMOEBIC ACTIVITY OF BENZOTHAZOLE BT3 AGAINST *ENTAMOEBIA HISTOLYTICA*

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### FACTORS ASSOCIATED WITH RELAPSE IN VISCERAL LEISHMANIASIS: AN INDIVIDUAL PATIENT DATA META-ANALYSIS USING THE INFECTIOUS DISEASES DATA OBSERVATORY DATA PLATFORM

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### LEVERAGING ML AND DL MODELS FOR DRUG REPURPOSING: A SUCCESSFUL CASE STUDY ON *LEISHMANIA* PARASITES

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### EVALUATION OF TCNMT OF NOVEL IN-SILICO INHIBITORS AGAINST *TRYPANOSOMA CRUZI* N-MYRISTOYLTRANSFERASE

Diana C. Gonzalez Garcia<sup>1</sup>, Priscila S.G. Farani<sup>1</sup>, Angel Torres<sup>1</sup>, Juan Carlos E. Silva<sup>1</sup>, Miguel Beltran<sup>1</sup>, Frida Lara<sup>1</sup>, Sayonara De Melo Viana<sup>1</sup>, Alan Talevi<sup>2</sup>, Rosa A. Maldonado<sup>1</sup>

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## Kinetoplastida and Other Protozoa - Vaccines (Including *Leishmania* and Trypanosomes)

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### HEAT SHOCK PROTEIN TCJ2: A NOVEL MRNA VACCINE CANDIDATE FOR CHAGAS DISEASE IDENTIFIED THROUGH IMMUNOPEPTIDOMICS

Leroy Versteeg, Rakesh Adhikari, Jungsoon Lee, Brian Keegan, Cristina Poveda, Maria Jose Villar, Kathryn Jones, Maria Elena Bottazzi, Peter Hotez, Edwin Tijhaar, Jeroen Pollet

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### IMMUNOTHERAPY WITH TSA-1 C4 COMBINED WITH BZN INDUCES DIVERGENT IMMUNE RESPONSE BUT CONFERS PROTECTION AGAINST *TRYPANOSOMA CRUZI* INFECTION

Julio V. Cruz-Chan<sup>1</sup>, Landy M. Pech-Piste<sup>1</sup>, Victor M. Dzul-Huchim<sup>1</sup>, Jaime Ortega-López<sup>2</sup>, Peter J. Hotez<sup>3</sup>, Maria E. Bottazzi<sup>3</sup>, Liliana E. Villanueva-Lizama<sup>1</sup>

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### VALIDATION OF *TRYPANOSOMA CRUZI* MULTI-EPI TOPE RECOMBINANT PROTEIN IN INDIVIDUALS WITH HLA-A\*02 ALLELE AS A HUMAN CHAGAS DISEASE VACCINE CANDIDATE

Christian Teh-Poot<sup>1</sup>, Andrea Alfaro-Chacón<sup>1</sup>, Landy Pech-Pisté<sup>1</sup>, Miguel Rosado-Vallado<sup>1</sup>, Asojo Oluwatoyin Ajibola<sup>2</sup>, Liliana Villanueva-Lizama<sup>1</sup>, Eric Dumonteil<sup>3</sup>, Julio Cruz-Chan<sup>1</sup>

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### IMPACT OF MALNUTRITION ON THE EFFICACY OF LMCEN-/- VACCINE

Lais Da SilvaPereira, Laura Klenow, Hannah Markle, Nazli Azodi, Thalia Pacheco-Fernand, Sreenivas Gannavaram, Hira Nakhasi

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## Measures for Control and Elimination of Neglected Tropical Diseases (NTDs)

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### FACTORS AFFECTING COMMUNITY DIRECTED INTERVENTION VOLUNTEERS' PERFORMANCE IN ONCHOCERCIASIS AND LYMPHATIC FILARIASIS ELIMINATION PROGRAMS, ETHIOPIA

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**IMPACT OF MASS DRUG ADMINISTRATION FOR LYMPHATIC FILARIASIS AND YAWS ELIMINATION ON ATTENDANCES FOR SKIN DISEASE IN RURAL HEALTH CENTERS IN WEST NEW BRITAIN PROVINCE, PAPUA NEW GUINEA**

**Simon Westby<sup>1</sup>**, Joycelyn Salo<sup>1</sup>, Wendy Houine<sup>2</sup>, Joseph Nale<sup>2</sup>, Jastina Kakul<sup>2</sup>, Grace Michael<sup>1</sup>, Julie Jacobson<sup>3</sup>, Moses Laman<sup>1</sup>, Christopher L. King<sup>4</sup>

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**EMPOWERING YOUTH AGAINST LYMPHATIC FILARIASIS: A GAME-CHANGING APPROACH TO URBAN DRUG COMPLIANCE**

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**PARTICIPATORY ACTION RESEARCH TO ENHANCE EQUITABLE HEALTH SEEKING FOR PERSONS AFFECTED BY SKIN NTDS IN LIBERIA**

**Hannah Berrian<sup>1</sup>**, Rosalind McCollum<sup>2</sup>, Emerson Rogers<sup>3</sup>, Shahreen Chowdhury<sup>2</sup>, India Hotopf<sup>2</sup>, Wede Tate<sup>1</sup>, Jerry Kollie<sup>1</sup>, Colleen Parker<sup>3</sup>, John Solunta Smith Jr.<sup>1</sup>, Karsor Kollie<sup>3</sup>, Zeela Zaizay<sup>4</sup>, Lucas Sempe<sup>5</sup>, Maaikie Seekles<sup>2</sup>, Tia Akpan<sup>6</sup>, Anna Wickenden<sup>7</sup>, Maneesh Phillip<sup>7</sup>, Sally Theobald<sup>2</sup>, Laura Dean<sup>2</sup>

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**THREE GEOSPATIAL APPROACHES OFFER INSIGHTS INTO PLANNING EFFECTIVE MDAS FOR NTDS IN WEST AFRICA**

**Maureen K. Headland<sup>1</sup>**, Kaustubh Wagh<sup>1</sup>, Andres Martinez<sup>2</sup>, Vance Harris<sup>2</sup>, Caleb Parker<sup>2</sup>, Elisabeth Chop<sup>3</sup>, Brian Fuller<sup>3</sup>, Diana Stukel<sup>1</sup>

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**ROLES OF COMMUNITY DRUG DISTRIBUTORS FOLLOWING THE HALT OF MASS DRUG ADMINISTRATION FOR ONCHOCERCIASIS IN UGANDA**

**Stella Neema<sup>1</sup>**, John Bosco Asiiimwe<sup>1</sup>, Edridah Muheki Tukahebwa<sup>2</sup>, Harriet Sengendo<sup>3</sup>, Annet T. Khainza<sup>2</sup>, Lauri Bernard<sup>3</sup>, Gregory S. Noland<sup>3</sup>, **Jenna E. Coalson<sup>3</sup>**

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**EFFECT OF MOBILE POPULATIONS ON STOPPING MDA FOR LYMPHATIC FILARIASIS/ONCHOCERCIASIS IN CROSS RIVER STATE**

**Kemisola R. Fagbohun<sup>1</sup>**, Chukwuemeka Makata<sup>2</sup>, Chinwe Okoye<sup>2</sup>, Fatai Oyediran<sup>2</sup>, Omeji Godwin Okeagu<sup>3</sup>, Veronica Mark Onem<sup>3</sup>, Wangeci Thuo<sup>1</sup>, Nnanke Etimita<sup>1</sup>, Chukwuma Okonkwo<sup>1</sup>, Scott McPherson<sup>1</sup>, Danielle Epps<sup>1</sup>

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**ELIMINATING ONCHOCERCIASIS IN NIGERIA: SUCCESSES, FAILURES, AND LEARNINGS FROM CROSS RIVER STATE**

**Chukwuma Okonkwo<sup>1</sup>**, Wangeci Thuo<sup>1</sup>, Joseph Mfon<sup>1</sup>, Nnanke Etimita<sup>1</sup>, Kemisola R. Fagbohun<sup>1</sup>, Fatai Oyediran<sup>2</sup>, Chukwuma Makata<sup>2</sup>, Veronica Mark Onem<sup>3</sup>, Omeji Godwin Okeagu<sup>3</sup>, Scott McPherson<sup>1</sup>, Danielle Epps<sup>1</sup>

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**LEAVING NO ONE BEHIND: STRENGTHENING MASS DRUG ADMINISTRATION CAMPAIGNS AGAINST NEGLECTED TROPICAL DISEASES THROUGH THE IMPLEMENTATION OF SUPERVISOR COVERAGE TOOL IN ANGOLA**

**Cecilia de Almeida<sup>1</sup>**, Elsa P. Mendes<sup>1</sup>, José Franco Martins<sup>2</sup>, Luis Lufunda<sup>3</sup>, Xavier Badia Rius<sup>4</sup>, Ana Direito<sup>3</sup>, Teresa Nobrega<sup>3</sup>, **Ercilio Jive<sup>3</sup>**

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**HYPERENDEMICITY OF SOIL-TRANSMITTED INFECTIONS IN CHILDREN OF THE HONDURAS TROPICAL RAINFOREST**

**Gabriela Matamoros<sup>1</sup>**, Maria Esther Araujo<sup>1</sup>, Ana Sanchez<sup>2</sup>

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**COMMUNITY LEADERS ACTION GROUP: A SOCIAL CATALYST TO INCREASE MASS DRUG ADMINISTRATION COVERAGE AND COMMUNITY SUPPORT FOR COMMUNITY-DIRECTED DISTRIBUTORS**

**Emmanuel Emukah<sup>1</sup>**, Adamu Sallau<sup>2</sup>, Lazarus Nweke<sup>2</sup>, Raymond Ogieva<sup>1</sup>, Ross Hegtvedt<sup>3</sup>, Marquita McMichael<sup>3</sup>, Ileana Resendez<sup>3</sup>, Lindsay Rakers<sup>3</sup>, Emily Griswold<sup>3</sup>, Jenna E. Coalson<sup>3</sup>, Emmanuel Miri<sup>4</sup>, Ifeoma Otiji<sup>5</sup>, Owen Eguasa<sup>6</sup>, Efeomon Eseigbe<sup>6</sup>, Happy Poko<sup>6</sup>, Solomon Adlamo<sup>4</sup>, Izebhuwa Blessing Ikponmwosa<sup>1</sup>, Samuel Ifeanyichukwu<sup>2</sup>, Egeonu Attamah-Isiani<sup>2</sup>, Emalee Martin<sup>3</sup>, Chukwuemeka Makata<sup>7</sup>, Fatai Oyediran<sup>7</sup>, Frank O. Richards, Jr.<sup>3</sup>, Gregory S. Noland<sup>3</sup>

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**A PROGRAMMATIC OVERVIEW OF THE GULF SOUTH VECTOR EDUCATIONAL CENTERS FOR TRAINING, OUTREACH, AND RESOURCES (VECTOR) COLLABORATIVE**

**Claudia Riegel<sup>1</sup>**, Janet Hurley<sup>2</sup>

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**OSELTAMIVIR, A NON-METRONIDAZOLE CLASS OF COMPOUND, AFFECTS RAFT ASSEMBLY, VESICLE BIOGENESIS, AND HOST-PARASITE INTERACTIONS BY GIARDIA**

**Breanna Pence<sup>1</sup>**, Julio Rangel<sup>1</sup>, Harrison VanKoten<sup>2</sup>, James Klinkenberg<sup>2</sup>, Steven Patterson<sup>2</sup>, Siddhartha Das<sup>1</sup>

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Saturday  
November 16

## 8211

### TRUST IN THE HEALTHCARE SYSTEM AND NATIONAL CONTROL PROGRAMMES IN A RURAL SETTING IN CAMEROON: AN ECONOMIC EXPERIMENT

Sergi Alonso<sup>1</sup>, Poppy HL Lambertson<sup>1</sup>, Louis-Albert Tchuem Tchuenta<sup>2</sup>, Justin Komgouep Nono<sup>3</sup>

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## 8212

### ENHANCING COMMUNITY LEADER ENGAGEMENT IN THE FIGHT AGAINST NTDs IN CAMEROON: UNDERSTANDING KEY DETERMINANTS

EMILIE EPEE<sup>1</sup>, DIAWARA AISSATOU<sup>2</sup>, SHONA WYND<sup>3</sup>, EBENE CLARISSE<sup>4</sup>, NANA HUGHES<sup>5</sup>, NKO AYISSI GEORGES<sup>4</sup>, NGO LIKENG JULIENNE LOUISE<sup>6</sup>, NDZANA BERTRAND<sup>7</sup>

<sup>1</sup>UNIVERSITY OF YAOUNDE 1, YAOUNDE, Cameroon, <sup>2</sup>GLIDE, ABU DHABI, United Arab Emirates, <sup>3</sup>GLIDE, ABUDHABI, United Arab Emirates, <sup>4</sup>MOH CAMEROON, YAOUNDE, Cameroon, <sup>5</sup>ISM, YAOUNDE, Cameroon, <sup>6</sup>UCAC, YAOUNDE, Cameroon, <sup>7</sup>UNIVERSITY OF EBOLOWA, EBOLOWA, Cameroon

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### INTEGRATION OF HYGIENE MEASURES FOR LYMPHEDEMA MANAGEMENT INTO COMMUNITY HEALTH CENTERS' MINIMAL PACKAGE OF ACTIVITIES IN TWO RURAL SETTINGS, MALI

Moussa Sangare<sup>1</sup>, Yaya Ibrahim Coulibaly<sup>2</sup>, Abdoul Fatao Diabate<sup>3</sup>, Diadje Tanapo<sup>3</sup>, Sekou Oumarou Thera<sup>3</sup>, Oumar Coulibaly<sup>3</sup>, Housseini Dolo<sup>3</sup>, Siaka Yamoussa Coulibaly<sup>3</sup>, Salif Seriba Doumbia<sup>3</sup>, Fatoumata Traore<sup>4</sup>, Binta Sall<sup>3</sup>, Mahamoud Mahamadou Koureichi<sup>3</sup>, Michel Emmanuel Coulibaly<sup>3</sup>, Lamine Soumaoro<sup>3</sup>, Abdallah Amadou Diallo<sup>3</sup>, Seydou Doumbia<sup>3</sup>, Alison Krentel<sup>5</sup>, Thomas B Nutman<sup>6</sup>

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## 8214

### LEVERAGING FULL GEOGRAPHICAL COVERAGE APPROACH TO TRACHOMATOUS TRICHIASIS CASE FINDING AND MANAGEMENT WITH CATARACT TO SUSTAIN SERVICES IN TANZANIA

Athuman Tawakal<sup>1</sup>, Joyce Lyamuya<sup>1</sup>, Bernadeta Shilio<sup>2</sup>, Regina Noh<sup>3</sup>, Nick Kourgialis<sup>4</sup>, Barnabas Mshangila<sup>5</sup>

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### THE INFLUENCE OF RUMORS AND MISINFORMATION ON ONCHOCERCIASIS ELIMINATION - EVIDENCE FROM CROSS BORDER REGION OF MALI

Dukharmel Nazaire<sup>1</sup>, Abdoul Fatao Diabate<sup>2</sup>, Diadje Tanapo<sup>2</sup>, Mahamoud Mahamadou Koureichi<sup>3</sup>, Sekou Oumarou Thera<sup>2</sup>, Siaka Yamoussa Coulibaly<sup>2</sup>, Salif Seriba Doumbia<sup>2</sup>, Moussa Sangare<sup>2</sup>, Yaya Ibrahim Coulibaly<sup>2</sup>, Alison Krentel<sup>1</sup>

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### THE THERAPEUTIC EFFICACY OF ALBENDAZOLE AND IVERMECTIN AGAINST SOIL-TRANSMITTED HELMINTH INFECTIONS IN RWANDA

Jean Bosco MBONIGABA

Rwanda Biomedical Centre/ Ministry of Health, City of Kigali, Rwanda

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### UNDERSTANDING PERCEPTIONS OF SCHISTOSOMIASIS AND ITS CONTROL AMONG HIGHLY ENDEMIC LAKESHORE COMMUNITIES IN MAYUGE; UGANDA

Lazaaro Mujumbusi<sup>1</sup>, Lucy Pickering<sup>2</sup>, Edith Nalwadda<sup>1</sup>, Sande Slivesteri<sup>1</sup>, Agnes Ssali<sup>1</sup>, Mary Nanzala<sup>3</sup>, Keila Meginnis<sup>2</sup>, Janet Seeley<sup>4</sup>, Poppy H. L Lambertson<sup>2</sup>

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### OUTBREAK OF *PLASMODIUM VIVAX* INFECTION IN A NATIVE COMMUNITY OF CONDORCANQUI PROVINCE, AMAZONAS, PERU IN 2023

Miguel Bernal<sup>1</sup>, Deybi J. Huamán Maicelo<sup>2</sup>, Milagros L. García Cordova<sup>2</sup>, Milagros Saavedra-Samillán<sup>2</sup>, Stella M. Chenet<sup>2</sup>

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## 8219

### GEOSPATIAL MODELLING TO PREDICT SOIL-TRANSMITTED HELMINTH RISK IN SCHOOLCHILDREN IN DAK LAK PROVINCE, VIETNAM

Tin Pham<sup>1</sup>, Adam W. Bartlett<sup>1</sup>, Dinh Ng\_Nguyen<sup>2</sup>, Katrina Blazek<sup>1</sup>, Susana Vaz Nery<sup>1</sup>

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### ACCEPTABILITY OF INTEGRATED NEGLECTED TROPICAL DISEASES SURVEYS AND MASS DRUG ADMINISTRATION IN VANUATU

Md S. Islam<sup>1</sup>, Elizabeth Nguyen<sup>2</sup>, Fasihah Taleo<sup>3</sup>, Gladymar P. Chacon<sup>2</sup>, Prudence Rymill<sup>4</sup>, Mackline Katenga<sup>4</sup>, Stephanie Tabe<sup>4</sup>, Denny Manvoi<sup>5</sup>, Clare Dyer<sup>2</sup>, David Kennedy<sup>2</sup>, Linda Peter<sup>5</sup>, Julie Jacobson<sup>6</sup>, John Kaldor<sup>2</sup>, Susana Vaz Nery<sup>2</sup>

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# One Health: The Interconnection between People, Animals, Plants and Their Shared Environment

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## PILOTING INTEGRATION OF HUMAN, ANIMAL AND ENVIRONMENTAL ANTIMICROBIAL RESISTANCE (AMR) SURVEILLANCE TO MONITOR ESBL-PRODUCING *E. COLI* USING A ONE HEALTH APPROACH IN BANGLADESH

**Mahbubur Rahman**<sup>1</sup>, Rezaul Hasan<sup>1</sup>, Farjana Jahan<sup>1</sup>, Tahmidul Haque<sup>1</sup>, Afroza Jannat Suchana<sup>1</sup>, Kazi Saiful Islam<sup>1</sup>, Mohammad Mehedi Hasan<sup>2</sup>, Rizwana Khan<sup>3</sup>, Aninda Rahman<sup>4</sup>, Zahid Hayat Mahmud<sup>5</sup>, Mohammed Badrul Amin<sup>6</sup>, S.M. Shahriar Rizvi<sup>4</sup>, Fahmida Chowdhury<sup>3</sup>, Abdullah Al Mamun<sup>7</sup>, Emily Kate Rousham<sup>8</sup>, Mohammad Aminul Islam<sup>9</sup>, Leanne Unicomb<sup>1</sup>, Mahbubur Rahman<sup>10</sup>, Zakir Hossain Habib<sup>10</sup>  
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## MOLECULAR CHARACTERIZATION OF EXTENDED SPECTRUM BETA LACTAMASE PRODUCING ESCHERICHIA COLI AMONG CHILDREN AND FARM ANIMALS IN AGOGO, ASANTE AKIM MUNICIPAL, GHANA

**Md Neyaz Ahmed Khan**  
Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany

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## DETECTION OF POTENTIAL ZOOONOTIC PATHOGENS FROM BAT BLOOD SAMPLES COLLECTED IN BELIZE, CENTRAL AMERICA

**Michele M. Adams**<sup>1</sup>, Benedicte Fustec<sup>1</sup>, Brooke Rodriguez<sup>1</sup>, Kara Linder<sup>1</sup>, Lauren Lock<sup>2</sup>, M. Brock Fenton<sup>3</sup>, Nancy B. Simmons<sup>4</sup>, Nicole L. Achee<sup>1</sup>, John P. Grieco<sup>1</sup>, Daniel Becker<sup>2</sup>  
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## DYNAMIC SURVEILLANCE OF MULTIDRUG-RESISTANT LARGE SPECTRUM B-LACTAMASE PRODUCING ENTEROBACTERIACEAE IN SEMI-URBAN POULTRY FARMS FOR PROSPECTIVE ZOOONOTIC RISKS ASSESSMENT, ABIDJAN, CÔTE D'IVOIRE

**Bertin Kipre Guede**, Valerie Carole Gbonon, Anatole Abale Toty, Fernique Konan Kouadio, Félicité Beudjé, Safiatou Teninba Mariko, Bertin Konan Tiekoura, Nathalie Aya Guessennd-Kouadio, Mireille Carmen Dosso-Bretin  
Institut Pasteur Cote D'Ivoire, Abidjan, Côte D'Ivoire

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## SPILLOVER OF HIGH PATHOGENICITY AVIAN INFLUENZA A (H5N1) VIRUS IN INDIAN FLYING FOX (*PTEROPUS MEDIUS*) BATS IN BANGLADESH

**Ariful Islam**<sup>1</sup>, Mohammad Enayet Hossain<sup>2</sup>, Emama Amin<sup>1</sup>, Shariful Islam<sup>1</sup>, Md Arif Khan<sup>1</sup>, Abdullah Al-Mamun<sup>1</sup>, Sarah Munro<sup>3</sup>, Tahmina Shirin<sup>4</sup>, Mohammed Ziaur Rahman<sup>2</sup>, Marcel Klaassen<sup>5</sup>, Jonathan H Epstein<sup>3</sup>  
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## SEROPREVALENCE OF BACTERIAL ZOOONOSSES IN A BIODIVERSITY HOTSPOT: A CROSS-SECTIONAL STUDY FROM MEGHALAYA, INDIA

**Rajiv Sarkar**<sup>1</sup>, Melari S. Nongrum<sup>1</sup>, Barilin Dkhar<sup>1</sup>, Worthing Yanglem<sup>1</sup>, Mercylin Lyngdoh<sup>1</sup>, Kirti Chauhan<sup>1</sup>, Peter J. Marbaniang<sup>1</sup>, Mahesh Moorthy<sup>2</sup>, Sitara S. R. Ajjampur<sup>2</sup>, John A. J. Prakash<sup>2</sup>, Mark L. Wilson<sup>3</sup>, Sandra Albert<sup>1</sup>  
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## DETECTION OF *TRYPANOSOMA LEWISI* FROM *RATTUS RATTUS* AND *RATTUS NORVEGICUS* IN TOLIARA, ON THE SOUTHWESTERN COAST OF MADAGASCAR

**Dina Ny Aina Liantsoa Randriamiarinjatovo**<sup>1</sup>, Marius Paul Hubert Rakotondratsima<sup>2</sup>, Tovoson Randriamiadana<sup>3</sup>, Mercia Rasoanoro<sup>1</sup>, Ibrahim Antho Youssouf Jacky<sup>3</sup>, Milijaona Randrianarivojosia<sup>1</sup>  
<sup>1</sup>Institut Pasteur de Madagascar, Antananarivo, Madagascar, <sup>2</sup>The Peregrine Fund Madagascar Program, Antananarivo, Madagascar, <sup>3</sup>Université de Toliara, Toliara, Madagascar

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## TICKS AND TICK-BORNE PATHOGENS IN GHANA: A SIGNIFICANT RISK OF ZOOONOTIC PATHOGEN INFECTIONS

**Seth Offei Addo**<sup>1</sup>, Michael E. DeWitt<sup>2</sup>, Ronald Essah Bentil<sup>1</sup>, Christopher Nii Laryea Tawiah-Mensah<sup>1</sup>, Jane Ansaah-Owusu<sup>1</sup>, Stacy Amoah<sup>1</sup>, Richard Odoi-Teye Malm<sup>1</sup>, John W. Sanders<sup>3</sup>, Joseph W. Diclaro II<sup>4</sup>, Samuel K. Dadzie<sup>1</sup>  
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## DESCRIPTIVE ANALYSIS OF ZOOONOSSES ACQUIRED BY TRAVELERS RETURNING TO CANADA FROM 2013-2023

**Jill Blackmore**<sup>1</sup>, Andrea Boggild<sup>2</sup>, Erin Schillberg<sup>3</sup>  
<sup>1</sup>Public Health Agency of Canada, Toronto, ON, Canada, <sup>2</sup>University of Toronto, Toronto, ON, Canada, <sup>3</sup>Public Health Agency of Canada, Winnipeg, MB, Canada

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## BABOON-HUMAN CONFLICT, COEXISTENCE AND COMMON BABOON MICROBIOME IN AL-BAHA REGION, SAUDI ARABIA

**Ghanem M. AlGhamdi**  
Al-Baha University, AlAqiq, Saudi Arabia

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### PLASMODIUM SPP. AND FILARIAL INFECTIONS IN MACAQUES IN BELITUNG DISTRICT, INDONESIA

Irina Diekmann<sup>1</sup>, Taniawati Supali<sup>2</sup>, Balbir Singh<sup>3</sup>, Paul CS Divis<sup>3</sup>, Peter U. Fischer<sup>1</sup>  
<sup>1</sup>Infectious Diseases Division, Department of Medicine, Washington University School of Medicine, St. Louis, MO, United States, <sup>2</sup>Department of Parasitology, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia, <sup>3</sup>Universiti Malaysia Sarawak (UNIMAS) Malaria Research Centre, Kota Samarahan, Sarawak, Malaysia

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### COMMUNITY PRACTICES CONTRIBUTING TO MAGNITUDE AND RECURRENCE OF ANTHRAX OUTBREAK IN MURANG'A COUNTY IN KENYA, FEBRUARY 2024

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### AN ANALYSIS OF RICKETTSIAL INFECTIONS AMONG FEBRILE PATIENTS IN NIGERIA

Cyril Eramah<sup>1</sup>, Vivian Kwaghe<sup>2</sup>, Jean Kim<sup>3</sup>, Jay Samuels<sup>4</sup>, Lauren Courtney<sup>5</sup>, Claire Quiner<sup>6</sup>, Kat Asman<sup>7</sup>, Adamu Ephraim<sup>8</sup>, Osas Edeawe<sup>1</sup>, Ephraim Ogbaini<sup>1</sup>, Philippe Chebu<sup>4</sup>, Nankpah Vongdip<sup>2</sup>, Victoria Orok<sup>2</sup>, Oladimeji Matthew<sup>2</sup>, Emmanuel Oga<sup>3</sup>  
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### A ONE HEALTH APPROACH TO ASSESSMENT OF PATHOGEN EXPOSURE ACROSS INFORMAL SETTLEMENTS: APPLICATION OF BOOT SOCK SAMPLING AND SOURCE TRACKING METHODS

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## Pneumonia, Respiratory Infections and Tuberculosis

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### RAPID CLADE REPLACEMENT AND IMPACT OF VACCINE DEPLOYMENT IN THE SPATIOTEMPORAL CIRCULATION OF SARS-COV-2 VARIANTS IN SAO PAULO, BRAZIL

Cecilia A. Banho<sup>1</sup>, Beatriz C. Marques<sup>1</sup>, Lívia Sacchetto<sup>1</sup>, Maisa C. P. Parra<sup>1</sup>, Maria C. Elias<sup>2</sup>, Sandra C. Sampaio<sup>2</sup>, Marta Giovanetti<sup>3</sup>, Fernando R. Spilki<sup>4</sup>, Benjamin M. Althouse<sup>5</sup>, Nikos Vasilakis<sup>6</sup>, Maurício L. Nogueira<sup>1</sup>  
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### ASSESSING PYRAZINOIC ACID EFFLUX VELOCITY, UNVEILING THE IMPACT OF RV1258C AND RV0191 ON PYRAZINAMIDE RESISTANCE IN MYCOBACTERIUM TUBERCULOSIS

Carlos Alonso Flores Bancayan, Kiara Beatriz Aricoche del Campo, Mirko Zimic Peralta, Patricia Sheen Cortavarría  
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### THE DECEPTIVE LUNG: PULMONARY TUBERCULOSIS MIMICKING INTERSTITIAL LUNG DISEASE

Santhosh S C, Rajat Ranka, Prasan Kumar Panda, Venkatesh Srinivasa Pai  
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### SALIVA SAMPLE FOR WEEKLY SURVEILLANCE OF SARS-COV-2 IN A PERI-URBAN COMMUNITY STUDY IN LIMA-PERÚ

Mayra R. Ochoa<sup>1</sup>, Bia Peña<sup>1</sup>, Omar Flores<sup>1</sup>, Ana I. Gil<sup>1</sup>, Rubelio Cornejo<sup>1</sup>, Lucie Ecker<sup>1</sup>, Leigh M. Howard<sup>2</sup>, Carlos G. Grijalva<sup>3</sup>, Claudio F. Lanata<sup>4</sup>  
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### PENICILLIN NON-SUSCEPTIBILITY IN PNEUMOCOCCAL CARRIAGE ISOLATES FROM PATIENTS WITH ACUTE RESPIRATORY ILLNESS IN KENYA, 2017 - 2020

Godfrey Momanyi Bigogo, Terry Komo, Arthur Odoyo, Joshua Auko  
 Kenya Medical Research Institute (KEMRI), Kisumu, Kenya

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### EXPLORING THE ASSOCIATION OF COMMUTING PATTERNS AND TUBERCULOSIS INCIDENCE IN LIMA, PERU: INSIGHTS FROM NETWORK ANALYSIS AND GENERALIZED ADDITIVE MODELS

Diego Villa, Kasandra Ascuña-Durand, Martina Guillermo-Roman, Gabriel Carrasco-Escobar  
 Health Innovation Laboratory, Institute of Tropical Medicine "Alexander von Humboldt", Universidad Peruana Cayetano Heredia, Lima, Peru

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### EQUITABLE AND REAL-WORLD ASSESMENT OF TUBERCULOSIS CATASTROPHIC COSTS

Paula P. Carballo-Jimenez<sup>1</sup>, Sumona Datta<sup>1</sup>, Rosario Montoya<sup>2</sup>, Eric S. Ramos<sup>3</sup>, Luz Quevedo Cruz<sup>1</sup>, Matthew J. Saunders<sup>1</sup>, Carlton A. Evans<sup>1</sup>  
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### HOST IMMUNOTHROMBOSIS BIOMARKER ANALYSIS TO PREDICT COVID-19 CLINICAL OUTCOMES

Freyda Mannering<sup>1</sup>, Dylan Allen<sup>1</sup>, Bochra Tourki<sup>2</sup>, Thomas Keller<sup>1</sup>, Jose Herazo-Maya<sup>2</sup>, Iset Vera<sup>1</sup>, Kami Kim<sup>1</sup>  
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### RIFAMPIN HETERORESISTANCE, AN IMPORTANT KEY FACTOR TO CONSIDER IN THE TUBERCULOSIS DETECTION

Katherine J. Vallejos, Jorge Coronel, Diego Taquiri, Omar Romero, Patricia Sheen, Mirko Zimic  
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### REDUCTIONS IN THE DETECTION OF POTENTIAL RESPIRATORY PATHOGENS DURING SARS-COV-2 PANDEMIC LOCKDOWN: EVIDENCE FROM TWO COHORT STUDIES IN LIMA, PERÚ

Bia Peña<sup>1</sup>, Mayra Ochoa<sup>1</sup>, Ana I. Gil<sup>1</sup>, Omar Flores<sup>1</sup>, Rubelio Cornejo<sup>1</sup>, Lucie Ecker<sup>1</sup>, Leigh M. Howard<sup>2</sup>, Carlos G. Grijalva<sup>3</sup>, Claudio F. Lanata<sup>4</sup>

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### RISK FACTORS FOR ILLNESS SEVERITY AMONG HOSPITALIZED CHILDREN <5 YEARS IN PERU, 2017-2018

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### OUT-OF-SEASON RESPIRATORY VIRUS INFECTIONS DURING THE PANDEMIC PERIOD OF SARS-COV-2 TRANSMISSION IN BRAZIL

Juan Pablo A. Ticona<sup>1</sup>, Luciane Santos Amorim Santos<sup>2</sup>, Meng Xiao<sup>3</sup>, Nivison Nery Jr<sup>2</sup>, Emilia M. M. Andrade Belitardo<sup>2</sup>, Mariam O. Fofana<sup>4</sup>, Renato Victoriano<sup>2</sup>, Jaqueline Cruz<sup>2</sup>, Laise Eduarda Paixão de Moraes<sup>2</sup>, Mitermayer G. Reis<sup>2</sup>, Federico Costa<sup>1</sup>, Ricardo Khouri<sup>2</sup>, Derek A. Cummings<sup>5</sup>, Albert I. Ko<sup>1</sup>

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### VIRAL ETIOLOGY AND EPIDEMIOLOGIC INVESTIGATION OF PATIENTS WITH SEVERE ACUTE RESPIRATORY ILLNESS IN GHANA, JANUARY 2021-MAY 2022

Bernard Nkrumah<sup>1</sup>, Ivy Asantewaa Asante<sup>2</sup>, Yaw Awuku-Larbi<sup>2</sup>, Selassie Kumordzie<sup>3</sup>, Bright Agbodzi<sup>3</sup>, Stephen Nyarko<sup>2</sup>, Lorreta Kwah<sup>2</sup>, Linda Boatemaa<sup>2</sup>, Emmanuella Awedana Apuri<sup>4</sup>, Danielle E. Gill<sup>5</sup>, Danielle T. Barradas<sup>6</sup>, Ernest Kenu<sup>7</sup>

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### INCIDENCE OF ACUTE RESPIRATORY ILLNESSES IN CHILDREN IN A PERIURBAN COMMUNITY OF LIMA, PERU

Lucie Ecker<sup>1</sup>, Carlos G. Grijalva<sup>2</sup>, Leigh M. Howard<sup>2</sup>, Bia Peña<sup>1</sup>, Mayra Ochoa<sup>1</sup>, Ana I. Gil<sup>1</sup>, Omar Flores<sup>1</sup>, Rubelio Cornejo<sup>1</sup>, Stefano Rios<sup>1</sup>, Claudio F. Lanata<sup>1</sup>

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### TUBERCULOSIS: MEN DIE MORE

Luz Quevedo Cruz<sup>1</sup>, Matthew Saunders<sup>2</sup>, Paula P. Carballo-Jimenez<sup>2</sup>, Rosario Montoya<sup>2</sup>, Maribel Rivero<sup>2</sup>, Jonathan Gomez<sup>2</sup>, Pilar Tapia<sup>2</sup>, Maria Haro<sup>2</sup>, Jessica Franco<sup>2</sup>, Rosario Sosa<sup>2</sup>, Carlton A. Evans<sup>3</sup>, Sumona Datta<sup>2</sup>

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### INCIDENCE OF SARS-COV-2 INFECTION IN A COMMUNITY COHORT IN PONCE, PUERTO RICO

Chelsea G. Major<sup>1</sup>, Dania M. Rodríguez<sup>1</sup>, Neal Alexander<sup>2</sup>, Liliana Sánchez-González<sup>1</sup>, Tatiana Morales-Ortiz<sup>3</sup>, Carolina Torres<sup>4</sup>, Kamalich Muniz Rodriguez<sup>1</sup>, Nicole A. Medina-López<sup>1</sup>, Rafael Tosado-Acevedo<sup>1</sup>, Jorge Muñoz-Jordán<sup>1</sup>, David Mabey<sup>2</sup>, Laura E. Adams<sup>1</sup>, Vanessa Rivera-Amill<sup>3</sup>, Gabriela Paz-Bailey<sup>1</sup>

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### ASSOCIATION OF PRE-EXISTING ANTIBODY RESPONSES AND THE RISK OF SARS-COV-2 INFECTION IN A HIGHLY EXPOSED BRAZILIAN COHORT DURING THE OMICRON BQ.1 EPIDEMIC WAVE

Mariam O. Fofana<sup>1</sup>, Juan Pablo Aguilar Ticona<sup>2</sup>, Nivison Nery Jr<sup>1</sup>, M. Catherine Muenker<sup>1</sup>, Joseph Q. Lu<sup>3</sup>, Homegnon Antonin Ferreol Bah<sup>2</sup>, Emilia Andrade Belitardo<sup>2</sup>, Jaqueline Silva<sup>2</sup>, Gabriel Ribeiro dos Santos<sup>1</sup>, Renato Victoriano<sup>2</sup>, Ricardo Khouri<sup>2</sup>, Stephen Thomas<sup>3</sup>, Adam Waickman<sup>3</sup>, Federico Costa<sup>4</sup>, Mitermayer G. Reis<sup>2</sup>, Derek A.T. Cummings<sup>5</sup>, Albert I. Ko<sup>1</sup>

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## Schistosomiasis and Other Trematodes – Epidemiology and Control

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### BIOMARKER DISCOVERY AND ASSAY DEVELOPMENT TO DETECT ANTIBODIES TO SCHISTOSOMA HAEMATOBIMUM

Yong Wang, Maurice Royal, Sylvia Ossai, Maria Ulke, Kimberly M. Won, Sukwan Handali, William E. Secor  
CDC, Atlanta, GA, United States

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### UNDERSTANDING THE IMPACT OF SCHISTOSOMA HAEMATOBIMUM INFECTION AMONG GAMBIAN SCHOOL-AGED CHILDREN: EPIDEMIOLOGICAL AND IMMUNOLOGICAL INSIGHTS

Aradhana Singh<sup>1</sup>, Haddy Bittaye<sup>2</sup>, John Archer<sup>3</sup>, Bonnie L. Webster<sup>3</sup>, Jason P. Mooney<sup>1</sup>

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Saturday  
November 16

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**PREVALENCE AND CHARACTERIZATION OF HEPATIC FIBROSIS AND PORTAL HYPERTENSION AMONG INDIVIDUALS LIVING IN AN S. JAPONICUM ENDEMIC REGION OF THE PHILIPPINES**

Mario A. Jiz<sup>1</sup>, Ralph Aniceto<sup>1</sup>, Hannah Wu<sup>2</sup>, Jonathan D. Kurtis<sup>2</sup>, Veronica Tallo<sup>1</sup>, Andreas Neumayr<sup>3</sup>, Christoph Hatz<sup>3</sup>, Jennifer Friedman<sup>2</sup>, Joachim Richter<sup>4</sup>

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**FEMALE GENITAL SCHISTOSOMIASIS (FGS) KNOWLEDGE GAPS AND NEEDS IN SUB-SAHARAN AFRICA: ANALYSIS AND REVIEW OF ACTION PLANS GENERATED FROM A PEER-TO-PEER EDUCATION METHOD**

Maria Victoria Dreher Wentz<sup>1</sup>, Anastasia Pantelias<sup>2</sup>, Amaya L. Bustinduy<sup>3</sup>, Julie Jacobson<sup>2</sup>

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**PREVALENCE AND INFECTION INTENSITIES OF SCHISTOSOMA MANSONI IN VILLAGES DESIGNATED PERSISTENT HOTSPOTS AND NON-PERSISTENT HOTSPOTS IN WESTERN KENYA**

PETER RARIEYA OLILAH<sup>1</sup>, Susan Musembi<sup>2</sup>, Winka Le Clec'h<sup>3</sup>, Timothy J. Anderson<sup>3</sup>, Frédéric D. Chevalier<sup>3</sup>, Eric Ndombi<sup>1</sup>

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**A FRAMEWORK FOR UNDERSTANDING AND ADDRESSING BIOLOGICAL AND OPERATIONAL HOTSPOTS IN SCHISTOSOMIASIS CONTROL**

Rivka M. Lim<sup>1</sup>, Thomas M. Arme<sup>2</sup>, Amy B. Pedersen<sup>1</sup>, Joanne P. Webster<sup>3</sup>, Poppy HL Lamberton<sup>2</sup>

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**THE IMPACT OF EXTREME RAINFALL EVENTS ON SCHISTOSOMIASIS TRANSMISSION IN COMMUNITIES LIVING AROUND MANOMBO SPECIAL RESERVE, MADAGASCAR**

Laura Braun<sup>1</sup>, Herizo Randrianandrasana<sup>2</sup>, Nina Finley<sup>3</sup>, Andry Tsirimanana<sup>4</sup>, Mandranto Rasamoelina<sup>5</sup>, Sakib Burza<sup>6</sup>

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**A PUBLIC DATABASE CATALOGING GEOGRAPHICAL, SEQUENCE AND FUNCTIONAL VARIATION IN TRPM<sub>p20</sub>, A CANDIDATE LOCUS FOR PRAZIQUANTEL RESISTANCE.**

Claudia Rohr, Sang-Kyu Park, Jonathan Marchant  
Medical College of Wisconsin, Milwaukee, WI, United States

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**DETECTION OF NEORICKETTSIA SPP. IN SUSCEPTIBLE OR RESISTANT FASCIOLA HEPATICA OBTAINED FROM NATURALLY INFECTED CATTLE IN CUSCO, PERU**

CAROL ALEXANDRA CASTRO<sup>1</sup>, Martha Vanessa Fernandez- Baca<sup>1</sup>, Rodrigo Alejandro Ore<sup>1</sup>, Maria Luisa Morales<sup>1</sup>, Miguel M. Cabada<sup>2</sup>

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**COMMUNITY PREFERENCES FOR INTERVENTIONS TO REDUCE HUMAN TO SNAIL TRANSMISSION OF SCHISTOSOMIASIS IN MAYUGE DISTRICT UGANDA**

Moses Arinaitwe<sup>1</sup>, Sande Silvesteri<sup>2</sup>, Lazaaro Mujumbusi<sup>2</sup>, Lucy Pickering<sup>3</sup>, Edith Nalwadda<sup>2</sup>, Agnes Ssali<sup>2</sup>, Keila Meginnis<sup>4</sup>, Poppy H L Lamberton<sup>5</sup>, Janet Seeley Seeley<sup>2</sup>

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**UNRAVELLING THE TRUE IMPACT OF SCHISTOSOMIASIS: REDEFINING THE WHO ELIMINATION AS A PUBLIC HEALTH PROBLEM TARGET**

Derick Osakunor<sup>1</sup>, Sergi Alonso<sup>1</sup>, Sandra Jumbe<sup>2</sup>, Poppy Lamberton<sup>1</sup>

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**Schistosomiasis and Other Trematodes – Immunology, Pathology, Cellular and Molecular Biology**

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**MAPPING AND VALIDATION OF MICROSATELLITE MARKERS FOR SCHISTOSOMA HAEMATOBIIUM: INSIGHTS FROM POOLED SAMPLES IN SENEGAL AND GABON**

Kathleen Maria Kuesters<sup>1</sup>, Souleymane Doucouré<sup>2</sup>, Lady Charlene Kouna<sup>3</sup>, Sandrine Lydie Oyegue-Liabagui<sup>3</sup>, Jean-Bernard Lekana-Douki<sup>3</sup>, Bruno Senghor<sup>2</sup>, Cheikh Sokhna<sup>2</sup>, Doudou Sow<sup>4</sup>, Ronald E. Blanton<sup>1</sup>

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(ACMCIP Abstract)

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**EFFECT OF SCHISTOSOMA MANSONI INFECTION ON GUT MICROBIOTA IN PRE-SCHOOL AGED CHILDREN IN ALBERTINE REGION, UGANDA**

Andrew Edieli<sup>1</sup>, John Kelvin Mugerwa<sup>1</sup>, Gloria Oduru<sup>1</sup>, Jacent Nassuuna<sup>1</sup>, Hannah W. Wu<sup>2</sup>, Susannah Colt<sup>2</sup>, Emily L. Webb<sup>3</sup>, Jennifer F. Friedman<sup>2</sup>, Patrice Akusa Mawa<sup>1</sup>, Amaya L. Bustinduy<sup>3</sup>, Martin Holland<sup>3</sup>

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(ACMCIP Abstract)

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### CHARACTERIZATION AND FUNCTIONAL ANALYSIS OF THE MICROBIOTA OF THE INTERMEDIATE HOSTS OF SCHISTOSOMES

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(ACMCIP Abstract)

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### DNA METHYLATION PROFILES IN UROTHELIAL BLADDER CANCER TISSUES AND CHILDREN WITH SCHISTOSOMIASIS FROM EGGUA, OGUN STATE NIGERIA

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(ACMCIP Abstract)

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### DEEP HUMORAL PROFILING COUPLED WITH MACHINE LEARNING REVEALS NOVEL DIAGNOSTIC AND MORBIDITY BIOMARKERS FOR SCHISTOSOMIASIS PATHOPHYSIOLOGY

Pedro Marcal<sup>1</sup>, Maurice R. Odier<sup>2</sup>, E. A. Kavere<sup>3</sup>, R. Kiplimo<sup>3</sup>, A. Eleveld<sup>3</sup>, A. Mwaki<sup>3</sup>, Sukwan Handali<sup>4</sup>, William E. Secor<sup>4</sup>, Aniruddh Sarkar<sup>1</sup>  
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(ACMCIP Abstract)

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### THE ROLE OF INTESTINAL MORBIDITY IN THE PATHOGENESIS OF ANEMIA AMONG YOUNG CHILDREN FROM LAKE ALBERT, UGANDA WITH S. MANSONI INFECTION

Susannah Colt<sup>1</sup>, Andrew Edielu<sup>2</sup>, Gloria Kakoba Ayebazibwe<sup>3</sup>, Rachael Nakyesege<sup>3</sup>, Hannah Wu<sup>1</sup>, Kanika Men<sup>1</sup>, Elise Kurtis<sup>1</sup>, Patrice Mawa<sup>3</sup>, Emily Webb<sup>2</sup>, Amaya Bustinduy<sup>2</sup>, Jennifer Friedman<sup>1</sup>  
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(ACMCIP Abstract)

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### SCHISTOSOMIASIS JAPONICUM INFECTION IN THE PHILIPPINES: LOW PREVALENCE AMONG CHILDREN AGED 1-4 YEARS AND CORRELATION BETWEEN HELMINTH BURDEN AND INTESTINE INFLAMMATION

Ralph Aniceto<sup>1</sup>, Jennifer Friedman<sup>2</sup>, Hannah Wu<sup>3</sup>, Mario Antonio Jiz<sup>1</sup>, Veronica Tallo<sup>1</sup>, Marianne Joy Sagliba<sup>1</sup>, Marianne Joy Sagliba<sup>1</sup>, Amabelle Joy Moreno<sup>1</sup>  
<sup>1</sup>Research Institute for Tropical Medicine, Muntinlupa, Philippines, <sup>2</sup>Browne University, Providence, RI, United States, <sup>3</sup>Browne University, Providence, RI, United States

(ACMCIP Abstract)

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### SCHISTOSOMA MANSONI INFECTION IN THE SNAIL BIOMPHALARIA GLABRATA, IS ASSOCIATED WITH EXPRESSION PERTURBATION OF CARBONIC ANHYDRASE, THE HIV TRANS-ACTIVATOR OF TRANSCRIPTION, AND TELOMERASE

Gabriela Lewis, Simone Parn, Matty Knight  
 University of the District of Columbia, Washington, DC, United States

(ACMCIP Abstract)

8271

### TROGOCYTOSIS: A POTENT MECHANISM FOR HOST RESISTANCE TO SCHISTOSOMIASIS

Jia Shen  
 Sun Yat-Sen University, Guangzhou, China

(ACMCIP Abstract)

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### THE INTERACTION OF HOP, STRESS PROTEINS, AND PIWI IN THE MECHANISM OF CANALIZATION UNDERSCORES THE SUSCEPTIBILITY OF BIOMPHALARIA GLABRATA TO SCHISTOSOMA MANSONI INFECTION

Oumsalama Elhelu<sup>1</sup>, Matty Knight<sup>2</sup>, Clarence Lee<sup>1</sup>  
<sup>1</sup>Howard University, Washington, DC, United States, <sup>2</sup>University of the District of Columbia, Washington, DC, United States

(ACMCIP Abstract)

## Water, Sanitation, Hygiene and Environmental Health

8273

### COMMUNITY AND INDIVIDUAL PREFERENCES FOR A NEW WATER INFRASTRUCTURE FOR NON-DRINKING ACTIVITIES IN A SCHISTOSOMIASIS ENDEMIC AREA

Raheema Chunara<sup>1</sup>, Lazaaro Mujumbusi<sup>2</sup>, Edith Nalwadda<sup>3</sup>, Moses Arinaitwe<sup>4</sup>, Lucy Pickering<sup>1</sup>, Michael Templeton<sup>5</sup>, Poppy Lambertson<sup>1</sup>  
<sup>1</sup>University of Glasgow, Glasgow, United Kingdom, <sup>2</sup>Medical Research Council/Uganda Virus Research Institute & London School of Hygiene & Tropical Medicine Uganda Research Unit Uganda, Entebbe, Uganda, <sup>3</sup>Medical Research Council / Uganda Virus Research Institute | MRC/UVRI, Entebbe, Uganda, <sup>4</sup>Ministry of Health, Kampala, Uganda, <sup>5</sup>Faculty of Engineering, Department of Civil and Environmental Engineering, Imperial College London, London, United Kingdom

8274

### ASSOCIATIONS BETWEEN INDICATORS OF WATER, SANITATION AND HYGIENE (WASH) AND MALARIA RISK: A STUDY OF URBAN SETTLEMENTS IN NIGERIA

Gift Wilfred Enang<sup>1</sup>, Ifeoma D. Ozodiegwu<sup>1</sup>, Bamgboye Eniola<sup>1</sup>, Laurette Mhlanga<sup>1</sup>, Yusuf Jamiu<sup>1</sup>, Ikeoluwapo Ajayi<sup>2</sup>  
<sup>1</sup>Loyola University Chicago, Maywood, IL, United States, <sup>2</sup>University of Ibadan, Ibadan, Nigeria

8275

### ASSOCIATIONS BETWEEN MICRONUTRIENT STATUS, HORMONES, AND IMMUNE STATUS DURING PREGNANCY AND CHILD GROWTH IN RURAL BANGLADESH

Belinda Chen<sup>1</sup>, Chih-Hsien Lin<sup>1</sup>, Andrew Mertens<sup>1</sup>, Sophia T. Tan<sup>2</sup>, Farheen Jamshed<sup>1</sup>, Diego Figueroa<sup>1</sup>, Caitlin Hemlock<sup>3</sup>, Zachary Butzin-Dozier<sup>1</sup>, Lia C. H. Fernald<sup>1</sup>, Christine P. Stewart<sup>4</sup>, Alan E. Hubbard<sup>1</sup>, Md. Ziaur Rahman<sup>5</sup>, Shahjahan Ali<sup>6</sup>, Benjamin F. Arnold<sup>7</sup>, Firdaus S. Dhabha<sup>8</sup>, Douglas Granger<sup>9</sup>, Mahbubur Rahman<sup>10</sup>, Stephen P. Luby<sup>2</sup>, Jack Colford<sup>1</sup>, Audrie Lin<sup>1</sup>  
<sup>1</sup>UC Berkeley School of Public Health, Berkeley, CA, United States, <sup>2</sup>Division of Infectious Diseases and Geographic Medicine, Stanford University, Stanford, CA, United States, <sup>3</sup>Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, WA, United States, <sup>4</sup>University of California Davis, Institute for Global Nutrition, Davis, CA, United States, <sup>5</sup>University of California, Santa Cruz, Department of Microbiology and Environmental Toxicology, Santa Cruz, CA, United States, <sup>6</sup>Department of Epidemiology, Colorado School of Public Health, University of Colorado, Denver, CO, United States, <sup>7</sup>Francis I. Proctor Foundation, University of California San Francisco, San Francisco, CA, United States, <sup>8</sup>Department of Psychiatry & Behavioral Sciences, Department of Microbiology and Immunology, Sylvester Comprehensive Cancer Center, Miller School of Medicine, University of Miami, Miami, FL, United States, <sup>9</sup>Institute for Interdisciplinary Salivary Bioscience Research, University of California, Irvine, Irvine, CA, United States, <sup>10</sup>Environmental Health and WASH, Health System and Population Studies Division, International Centre for Diarrhoeal Disease Research, Dhaka, Bangladesh, <sup>11</sup>Department of Environmental and Occupational Health Sciences, University of Washington, Santa Cruz, CA, United States

8276

### WEATHER AND SEASON PREDICTORS OF INFANT DIARRHEAL ILLNESS AND HOUSEHOLD STORED WATER CONTAMINATION IN CLIMATE-VULNERABLE, URBAN, COASTAL MOZAMBIQUE

Rebecca Kann

University of Washington, Seattle, WA, United States

8277

### PROCESS EVALUATION FOR THE DELIVERY OF A WATER, SANITATION AND HYGIENE MOBILE HEALTH PROGRAM IN THE DEMOCRATIC REPUBLIC OF THE CONGO: RANDOMIZED CONTROLLED TRIAL OF THE PREVENTIVE INTERVENTION FOR CHOLERA FOR 7 DAYS (PICHAT7) PROGRAM

Presence Sanvura<sup>1</sup>, Kelly Endres<sup>2</sup>, Jean-Claude Rusanga<sup>1</sup>, Lucien Bisimwa<sup>1</sup>, Jamie Perin<sup>2</sup>, Camille Williams<sup>2</sup>, Cirhuza Cikomola<sup>1</sup>, Justin Bengehya<sup>3</sup>, Ghislain Maheshe<sup>1</sup>, Alain Mwishingo<sup>1</sup>, Christine Marie George<sup>2</sup>

<sup>1</sup>Catholic University of Bukavu, Bukavu, Democratic Republic of the Congo, <sup>2</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>3</sup>Bureau de l'Information Sanitaire, Surveillance Epidémiologique et Recherche Scientifique, Division Provinciale de la Santé Sud Kivu, Bukavu, Democratic Republic of the Congo

8278

### SYSTEMATIC REVIEW OF THE ASSOCIATION BETWEEN COLIFORM BACTERIA IN DRINKING WATER AND DIARRHEA

Amber Jacobsen<sup>1</sup>, Sara dos Santos Almeida<sup>2</sup>, Peter Jensen<sup>2</sup>

<sup>1</sup>University of South Carolina School of Medicine Greenville, Greenville, SC, United States, <sup>2</sup>University of Copenhagen, Copenhagen, Denmark

8279

### UNIVERSITY STUDENT AWARENESS OF INTESTINAL PARASITES AND PREVENTIVE BEHAVIOR IN EASTERN SAUDI ARABIA

Sarah A. Alshuhaib<sup>1</sup>, Maryam M. Alnasser<sup>1</sup>, Mehwish Hussain<sup>1</sup>, Ayman A. El-Badry<sup>2</sup>

<sup>1</sup>College of Public Health, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia, <sup>2</sup>Cairo University Kasr Al-Ainy Faculty of Medicine, Egypt & Imam Abdulrahman Bin Faisal University, Saudi Arabia, Cairo, Egypt - Dammam, Saudi Arabia - Egypt

8280

### INFLUENCE OF MATERNAL AND CHILD FUT2 SECRETOR STATUS ON GROWTH AND ON THE EFFICACY OF WATER, SANITATION, HANDWASHING, AND NUTRITION INTERVENTIONS ON ENVIRONMENTAL ENTERIC DYSFUNCTION IN RURAL BANGLADESH

Ronit Gupta<sup>1</sup>, Andrew N. Mertens<sup>2</sup>, Akram Ullah<sup>3</sup>, Tahmeed Ahmed<sup>4</sup>, Rashidul Haque<sup>3</sup>, Mamun Kabir<sup>3</sup>, Mondar M. M. Ahmed<sup>3</sup>, Mustafa Mahfuz<sup>4</sup>, Shahjahan Ali<sup>5</sup>, Mohammad Alauddin<sup>6</sup>, Md. Ziaur Rahman<sup>7</sup>, Jessica Grembi<sup>8</sup>, Abul K. Shoab<sup>9</sup>, Mahbubur Rahman<sup>9</sup>, Leanne Unicomb<sup>9</sup>, Benjamin F. Arnold<sup>10</sup>, Syeda L. Famida<sup>3</sup>, Salma Akther<sup>3</sup>, Md. Saheen Hossen<sup>3</sup>, Palash Mutsuddi<sup>3</sup>, Alan E. Hubbard<sup>11</sup>, Christine P. Stewart<sup>12</sup>, John M. Colford Jr.<sup>11</sup>, Stephen P. Luby<sup>8</sup>, Audrie Lin<sup>7</sup>

<sup>1</sup>Department of Biostatistics, T.H. Chan School of Public Health, Harvard University, Boston, MA, United States, <sup>2</sup>Division of Epidemiology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>3</sup>Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>4</sup>Nutrition Research Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>5</sup>Department of Epidemiology, Colorado School of Public Health, University of Colorado, Denver, CO, United States, <sup>6</sup>Department of Chemistry, Wagner College, Staten Island, NY, United States, <sup>7</sup>Department of Microbiology and Environmental Toxicology, University of California, Santa Cruz, Santa Cruz, CA, United States, <sup>8</sup>Division of Infectious Diseases and Geographic Medicine, Stanford University, Stanford, CA, United States, <sup>9</sup>Health System and Population Studies Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>10</sup>Francis I. Proctor Foundation, University of California, San Francisco, San Francisco, CA, United States, <sup>11</sup>Division of Epidemiology and Biostatistics, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>12</sup>Department of Nutrition, University of California, Davis, Davis, CA, United States

8281

### USE OF SOLAR DISINFECTION WITH ALUMINUM TO IMPROVE WATER QUALITY IN RURAL AREAS OF THE NORTHERN ANDES OF PERU

Jesús Rascón<sup>1</sup>, Fátima Burgos<sup>1</sup>, Lily del Pilar Juárez-Contreras<sup>2</sup>, Oscar Gamarra-Torres<sup>2</sup>

<sup>1</sup>Instituto de Investigación de Enfermedades Tropicales, Universidad Nacional Toribio Rodríguez de Mendoza de Amazonas (UNTRM), Chachapoyas, Peru, <sup>2</sup>Instituto de Investigación para el Desarrollo Sustentable de Ceja de Selva (INDES-CES), Universidad Nacional Toribio Rodríguez de Mendoza de Amazonas (UNTRM), Chachapoyas, Peru

8282

### SEVEN YEARS OF EXPOSURE TO A HIGHLY FECAL CONTAMINATED ENVIRONMENT: A STUDY IN 24 INFORMAL SETTLEMENTS IN THE ASIA-PACIFIC REGION

Yussi Marlene Palacios Delgado<sup>1</sup>, Maghfira Saidfuddaolah<sup>2</sup>, Vina Waqa<sup>3</sup>, S. Fiona Barker<sup>1</sup>, Rebekah Henry<sup>1</sup>, Brandon Winfrey<sup>1</sup>, Karin Leder<sup>1</sup>

<sup>1</sup>Monash University, Melbourne, Australia, <sup>2</sup>Hasanuddin University, Makassar, Indonesia, <sup>3</sup>Fiji National University, Suva, Fiji

8283

### MATERNAL ESTRADIOL DURING EARLY GESTATION IS ASSOCIATED WITH CHILD DEVELOPMENT IN RURAL BANGLADESH

Nicol Hernandez, Arlene Tan

WASH Benefit Trials, Santa Cruz, CA, United States

8284

### MONITORING ANTIBIOTIC RESISTANCE GENES ACROSS NEW ORLEANS RIVER AND LAKE WATERS

Claire E. Schwarze, Jessica M. Blanton, Ronald E. Blanton

Tulane University, New Orleans, LA, United States

8285

### DETECTION OF SALMONELLA TYPHI AND *BLA*<sub>CTX-M</sub> GENES IN DRINKING WATER, WASTEWATER, AND ENVIRONMENTAL BIOFILMS IN SINDH PROVINCE, PAKISTAN

Ayesha Tajammul<sup>1</sup>, Scott Benson<sup>2</sup>, Jamil Ahmed<sup>3</sup>, Jim VanDerslice<sup>2</sup>, Windy Tanner<sup>4</sup>

<sup>1</sup>U.S. Pakistan Center for Advanced Studies in Water, Mehran University of Engineering and Technology, Jamshoro, Pakistan, <sup>2</sup>University of Utah, Salt Lake City, UT, United States, <sup>3</sup>Rashid Latif Khan University Medical College, Lahore, Pakistan, <sup>4</sup>Yale University, New Haven, CT, United States

8286

### THE INTERPLAY AMONG GLUCOSYL CERAMIDE TRANSFERASE AND ENCYSTATION-SPECIFIC PROTEINS IS IMPORTANT FOR DRIVING THE PROCESS OF CYST FORMATION BY AN ANCIENT PROTOZOAN, GIARDIA LAMBLIA

Julio H. Rangel, Breanna C. Pence, Siddhartha Das

The University of Texas at El Paso, El Paso, TX, United States

8287

### HIGH BURDEN OF ENTERIC PATHOGEN INFECTION IN MOTHER-CHILD PAIRS AND WASH INDICATORS IN RURAL AND PERI-URBAN COMMUNITIES OF BOLIVIA

Cynthia Copeticóna-Callejas, Alejandra Gabriela Torrez Mamani, Belen Claudia Choque Pardo, Sonia Guadalupe Jiménez Pacoahuanca, Volga Ana Iñiguez Rojas Instituto de Biología Molecular y Biotecnología, La Paz, Plurinational State of Bolivia

## Late-Breaker Abstract Session 122

### Late-Breakers in Malaria

Convention Center - Room 391/392 (3rd Floor)  
Saturday, November 16, 11:15 a.m. - 12:30 p.m.

**This session does not carry CME credit.**

This session is specifically designed for brief presentations of new data obtained after the closing date for abstract submission. See the Meeting App or Late-Breaker Abstract Presentation Schedule booklet (available online) for the presentation schedule.

#### CHAIR

Angela M. Early  
Broad Institute of MIT and Harvard, Cambridge, MA, United States

Maisha Khair Nima  
University of Notre Dame, Notre Dame, IN, United States

## Meet the Professors Session 123

### Meet the Professors: Dilemmas in Clinical Tropical Medicine, Cases from Peru

Convention Center - Room 388/389 (3rd Floor)  
Saturday, November 16, 11:15 a.m. - 12:30 p.m.

Meet the Professors sessions are valuable learning experiences for trainees and practicing clinicians to hear about clinical reasoning from leaders in the field. In this session, Drs. Seas and Montes will present challenging and instructive clinical tropical medicine cases from Peru.

#### SESSION ORGANIZER

Daniel Leung  
University of Utah, Salt Lake City, UT, United States

#### SESSION CHAIR

Carolina de la Flor  
Universidad Peruana Cayetano Heredia, Lima, Peru

#### PRESENTATION #1

Carlos Seas  
Universidad Peruana Cayetano Heredia, Lima, Peru

#### PRESENTATION #2

Martin Montes  
Universidad Peruana Cayetano Heredia, Lima, Peru

## Late-Breaker Abstract Session 124

### Late-Breakers in Virology

Convention Center - Room 383/384/385 (3rd Floor)  
Saturday, November 16, 11:15 a.m. - 12:30 p.m.

**This session does not carry CME credit.**

This session is specifically designed for brief presentations of new data obtained after the closing date for abstract submission. See the Meeting App or Late-Breaker Abstract Presentation Schedule booklet (available online) for the presentation schedule.

#### CHAIR

Sandra Laurence Lopez-Verges  
Gorgas Memorial Institute for Health Studies, Panama, Panama

Jaime A. Cardona-Ospina  
School of Public Health, University of California, Berkeley, Berkeley, CA, United States

### Clinical Group (ACCTMTH) Past Presidents Meeting

Hilton - Marlborough A (2nd Floor)  
Saturday, November 16, 11:15 a.m. - 12:30 p.m.

### Poster Session C Viewing

Convention Center - Hall I-1 (1st Floor)  
Saturday, November 16, 12:45 p.m. - 3 p.m.

## Symposium 125

### Smallpox to a Global Mpox Outbreak: How Did We Get Here and How Do We Regain Control?

Convention Center - Hall I-2 (1st Floor)  
Saturday, November 16, 12:45 p.m. - 2:30 p.m.

Mpox is a zoonotic viral disease endemic in parts of Africa caused by monkeypox virus, a member of the Orthopox genus, which includes variola virus, the cause of smallpox. Two clades of monkeypox virus are recognized, found in Central and East (Clade I) and West (Clade II) Africa. Following first discovery in 1958 from infected monkeys being used for laboratory research (and hence the misnomer, since small mammals, rather than monkeys, are now thought to be the natural reservoir), sporadic human cases were reported across Central and West Africa throughout the 1970s, a pattern thought to reflect the increase in immunological susceptibility among persons born after the eradication of smallpox and the 1980 global cessation of smallpox vaccination, which also protects against mpox. Cases steadily increased in Central Africa over recent decades, with relatively little global attention until 2022, when circulation of a newly recognized sub-clade and mode of spread, primarily involving men who have sex with men (MSM) in high-income countries, resulted in a global epidemic, prompting the World Health Organization (WHO) to declare a Public Health Emergency of International Concern (PHEIC). Transmission was subsequently curbed in many areas of the world, but in the last year significant increases of cases and emergence of another new sub-clade in various countries in Central and East Africa have prompted a second WHO PHEIC

declaration, as well as declaration of a Public Health Emergency of Continental Security by the Africa Centers for Disease Control and Prevention. In this symposium, a panel of experts will discuss the transition from smallpox eradication to sporadic cases of mpox in Africa and then to a global outbreak, and strategies and challenges to combat this new situation.

#### **CHAIR**

Daniel G. Bausch  
London School of Hygiene & Tropical Medicine, London, United Kingdom

Anne W. Rimoin  
UCLA, Los Angeles, CA, United States

#### **12:45 p.m.**

##### **PANELISTS**

Emmanuel Agogo  
*FIND, Geneva, Switzerland*

Christina Hutson  
*Centers for Disease Control and Prevention, Atlanta, GA, United States*

Rosamund Lewis  
*World Health Organization, Geneva, Switzerland*

Jean-Jacques Muyembe Tamfum  
*National Institute for Biomedical Research, Kinshasa, Democratic Republic of the Congo*

## **Symposium 126**

### **Mosquito Larval Biology and Control**

*Convention Center - Room 343/344 (3rd Floor)*

**Saturday, November 16, 12:45 p.m. - 2:30 p.m.**

Mosquito larvae are surprisingly complex organisms that have adapted to colonizing a variety of different aquatic environments, from temporary to permanent, clean to highly polluted, rural and urban, large and small water bodies, including even puddles or small water-filled containers. Larval source management (LSM) is routinely used for control of *Aedes* and *Culex* mosquitoes in control programs worldwide. As insecticide resistance to many commonly used insecticides develops, the discovery of new larvicides, ideally those with no impact on non-target organisms, will be critical to the future success of larval control programs and the prevention of arboviral diseases. Furthermore, although many malaria programs in Africa include larval source management (LSM) in their national strategic plans, the implementation of this vector control strategy for control of *Anopheles* mosquitoes has been limited. However, LSM is recognized as a key control tool for the invasive urban malaria vector, *Anopheles stephensi*, which has been identified in an increasing number of African countries, prompting interest in the pursuit of new LSM initiatives for malaria vector control in Africa. Here, we will discuss the biology and control of mosquito larvae, reviewing both opportunities for and barriers to LSM for *Aedes*, *Culex*, and *Anopheles* mosquitoes. #Prevention, #Molecular Biology, #Translational Science, #Field Studies, #Climate Change

#### **CHAIR**

Molly Duman Scheel  
*Indiana University School of Medicine, South Bend, IN, United States*

Kristin Michel  
*Kansas State University, Manhattan, KS, United States*

#### **12:45 p.m.** **INTRODUCTION**

#### **12:55 p.m.** **YEAST RNAI LARVICIDES FOR MOSQUITO CONTROL**

Molly Duman Scheel  
*Indiana University School of Medicine, South Bend, IN, United States*

#### **1:05 p.m.** **LARVAL SOURCE MANAGEMENT OPPORTUNITIES AND CHALLENGES**

David Malone  
*Gates Foundation, Seattle, WA, United States*

#### **1:15 p.m.** **LARVAL SOURCE MANAGEMENT FOR MALARIA: PAST, PRESENT, AND FUTURE DIRECTIONS**

Sarah Zohdy  
*U.S. President's Malaria Initiative, Centers for Disease Control, Atlanta, GA, United States*

#### **1:25 p.m.** **EXECUTING EFFECTIVE LARVAL SOURCE MANAGEMENT IN GHANA**

Otubea Ansah  
*National Malaria Control Programme, Ghana Health Service, Accra, Ghana*

#### **1:35 p.m.** **ALARMING AND UNEXPECTED LARVICIDE RESISTANCE IN CULEX PIPIENS IN A WNV HOTSPOT**

Lyric Bartholomay  
*Midwest Center of Excellence for Vector-Borne Disease, Madison, WI, United States*

#### **1:45 p.m.** **BURNING QUESTIONS: WOOD BIOCHAR'S ROLE IN AEADES AEGYPTI OVIPOSITION AND DEVELOPMENT**

Geoff Attardo  
*University of California, Davis, Davis, CA, United States*

#### **1:55 p.m.** **MANIPULATING THE LARVAL MICROBIOME FOR MOSQUITO AND MOSQUITO-BORNE DISEASE CONTROL**

Kerri Coon  
*University of Wisconsin, Madison, Madison, WI, United States*

#### **2:05 p.m.** **MOSQUITO-FUNGAL INTERACTIONS AND THEIR POTENTIAL FOR LARVAL CONTROL**

Molly Duman Scheel  
*Indiana University School of Medicine, South Bend, IN, United States*

## Session 127

### ASTMH Annual Business Meeting

Convention Center - Room 345 (3rd Floor)

Saturday, November 16, 12:45 p.m. - 1:45 p.m.

Open to all attendees! Come learn about the work ASTMH is doing on your behalf.

#### CHAIR

Kent E. Kester

CEPI, Washington, DC, United States

Jamie Bay Nishi

American Society of Tropical Medicine and Hygiene, Arlington, VA, United States

## Scientific Session 128

### Clinical Tropical Medicine: Neglected Tropical Diseases

Convention Center - Room 352 (3rd Floor)

Saturday, November 16, 12:45 p.m. - 2:30 p.m.

This session does not carry CME credit.

#InfectiousDisease #Epidemiology  
#PopulationSurveillance #Modeling

#### CHAIR

Samuel Akech

KEMRI/Wellcome Trust Research Programme, Nairobi, Kenya

Owain Donnelly

Hospital for Tropical Diseases, University College London Hospitals (UCLH) NHS Foundation Trust, London, United Kingdom

12:45 p.m.

8288

### FLORENCE- A SMARTPHONE COPILOT BASED ON LARGE AI MULTIMODAL MODELS- : TEST IN CÔTE D'IVOIRE IN PATIENTS WITH SUSPECTED SKIN NEGLECTED TROPICAL DISEASES

Elena Dacal<sup>1</sup>, Iago Veiras<sup>1</sup>, Oscar Darias<sup>1</sup>, Jaime García-Villena<sup>1</sup>, Alvaro López-Caro<sup>1</sup>, Alejandro Angulo<sup>1</sup>, Labiya Toure<sup>2</sup>, Ange Théodore Yao Kouakou<sup>2</sup>, Aboa Paul Koffi<sup>2</sup>, Christian R. Johnson<sup>3</sup>, Emma Saéz-López<sup>4</sup>, Israel Cruz<sup>5</sup>, Miguel Luengo-Oroz<sup>1</sup>

<sup>1</sup>Spotlab, Madrid, Spain, <sup>2</sup>Programme National de Lutte contre l'Ulcère de Buruli, Divô, Côte D'Ivoire, <sup>3</sup>Fondation Raoul Follereau, Paris, France. University of Abomey-Calavi, Abomey-Calavi, Benin, <sup>4</sup>Department of Microbiology, Paediatrics, Radiology and Public Health, Faculty of Medicine, University of Zaragoza, Zaragoza, Spain. Spanish Network for Research on Respiratory Diseases (CIBERES), Carlos III Health Institute, Madrid, Spain, Zaragoza, Spain, <sup>5</sup>National School of Public Health, CIBERINFEC, Instituto de Salud Carlos III, Spain, Madrid, Spain

1 p.m.

8289

### DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF PATIENTS WITH CHROMOBLASTOMYCOSIS AND EUMYCETOMA IN EIGHT MEDICAL CENTERS, UNITED STATES

Dallas J. Smith<sup>1</sup>, Vaisak Nair<sup>2</sup>, Drashti Shah<sup>3</sup>, George R. Thompson<sup>4</sup>, Ilan S. Schwartz<sup>5</sup>, Harrison White<sup>6</sup>, Kaya L. Curtis<sup>6</sup>, Poonam Sharma<sup>7</sup>, William P. Daley<sup>7</sup>, Robert T. Brodell<sup>7</sup>, Rachel McMullen<sup>8</sup>, Kaitlin Benedict<sup>1</sup>, Jeremy A. W. Gold<sup>1</sup>, Samantha Williams<sup>1</sup>, Shari R. Lipner<sup>6</sup>, Avrom S. Caplan<sup>8</sup>, Eva Rawlings Parker<sup>9</sup>, Peter G. Pappas<sup>3</sup>, Paschalis Vergidis<sup>2</sup>  
<sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>Mayo Clinic, Rochester, MN, United States, <sup>3</sup>University of Alabama at Birmingham School of Medicine, Birmingham, AL, United States, <sup>4</sup>University of California Davis Medical Center, Sacramento,

CA, United States, <sup>5</sup>Duke University School of Medicine, Durham, NC, United States, <sup>6</sup>Weill Cornell Medicine, New York, NY, United States, <sup>7</sup>University of Mississippi Medical Center, Jackson, MS, United States, <sup>8</sup>NYU Grossman School of Medicine, New York, NY, United States, <sup>9</sup>Vanderbilt University Medical Center, Nashville, TN, United States

1:15 p.m.

8290

### TALAROMYCOSIS IN THE UNITED STATES: AN ANALYSIS OF COMMERCIAL HEALTH INSURANCE CLAIMS AND MEDICAID DATABASES, 2016 TO 2022

Kaitlin Benedict<sup>1</sup>, Dallas J. Smith<sup>1</sup>, Jeremy A. W. Gold<sup>1</sup>, Thuy Le<sup>2</sup>

<sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>Duke University School of Medicine, Durham, NC, United States

1:30 p.m.

8291

### IMPORTED LEISHMANIASIS IN THE UNITED KINGDOM: CASE DATA AND OUTCOMES FROM A NATIONAL MULTIDISCIPLINARY TEAM MEETING

Owain Donnelly<sup>1</sup>, Ciara Mahon<sup>1</sup>, Rachel Southern-Thomas<sup>1</sup>, Simran Goyal<sup>1</sup>, Adam T. Gray<sup>1</sup>, Mark S. Bailey<sup>2</sup>, Jonathan Joseph<sup>3</sup>, Peter L. Chiodini<sup>4</sup>, June Minton<sup>1</sup>, Naomi F. Walker<sup>5</sup>, Sarah Eisen<sup>6</sup>, Laura Nabarro<sup>1</sup>, Stephen L. Walker<sup>1</sup>, Anna Checkley<sup>1</sup>

<sup>1</sup>Hospital for Tropical Diseases, University College London Hospitals (UCLH) NHS Foundation Trust, London, United Kingdom, <sup>2</sup>Academic Department of Military Medicine, Royal Centre for Defence Medicine, Birmingham, United Kingdom, <sup>3</sup>Department of Rhinology, Royal National ENT and Eastman Dental Hospital, UCLH, London, United Kingdom, <sup>4</sup>Department of Clinical Parasitology, UCLH, London, United Kingdom, <sup>5</sup>Tropical and Infectious Diseases Unit, Liverpool University Hospitals NHS Foundation Trust, London, United Kingdom, <sup>6</sup>Department of Paediatrics, UCLH, London, United Kingdom

1:45 p.m.

8292

### CUTANEOUS LEISHMANIASIS IN NORTHERN SYRIA: A ONE YEAR DESCRIPTIVE ANALYSIS OF EPIDEMIOLOGICAL AND CLINICAL DATA

Ayla Alkharat<sup>1</sup>, Owen Bicknell<sup>2</sup>, Basel Abdelal<sup>2</sup>, Mouhannad Abdulkader<sup>2</sup>, Sergio Lopes<sup>1</sup>, Sara Estechea-Querol<sup>1</sup>

<sup>1</sup>The MENTOR Initiative, Haywards Heath, United Kingdom, <sup>2</sup>The MENTOR Initiative, Gazientep, Syrian Arab Republic

2 p.m.

8293

### PEERING INTO THE CRYSTAL BALL - PREDICTING OUTCOMES IN VISCERAL LEISHMANIASIS

James P. Wilson<sup>1</sup>, Forhad Chowdhury<sup>1</sup>, Shermarke Hassan<sup>1</sup>, Eli Harriss<sup>1</sup>, Fabiana Alves<sup>2</sup>, Ahmed Musa<sup>3</sup>, Prabin Dahal<sup>1</sup>, Kasia Stepniewska<sup>1</sup>, Philippe J. Guérin<sup>1</sup>

<sup>1</sup>University of Oxford, Oxford, United Kingdom, <sup>2</sup>Drugs for Neglected Diseases initiative, Geneva, Switzerland, <sup>3</sup>University of Khartoum, Khartoum, Sudan

2:15 p.m.

8294

### EPIDEMIOLOGY, HEALTH-SEEKING BEHAVIORS AND TRADITIONAL PRACTICES RELATED TO SNAKEBITES IN RURAL AND TRIBAL COMMUNITIES IN SOUTHERN INDIA

Rohan Michael Ramesh<sup>1</sup>, Ravikar Ralph<sup>1</sup>, Mohan Jambugulam<sup>1</sup>, Arpitha Anbu Deborah<sup>1</sup>, Kumudha Aruldas<sup>1</sup>, Sushil Mathew John<sup>1</sup>, Judd L. Watson<sup>2</sup>, Anand Zachariah<sup>1</sup>, Sitara S.R Ajjampur<sup>1</sup>

<sup>1</sup>Christian Medical College Vellore, Vellore, India, <sup>2</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

## Scientific Session 129

### Mosquitoes- Bionomics, Behavior and Surveillance

Convention Center - Room 353 (3rd Floor)

Saturday, November 16, 12:45 p.m. - 2:30 p.m.

#EcologicalStudies #Genomics #FieldStudies

#### CHAIR

Shirley C. Nimo-Paintsil

United States Naval Medical Research Unit-EURAFCENT, Accra, Ghana

Beatrice Helena Schildknecht

SwissTPH, Allschwil, Switzerland

12:45 p.m.

8295

#### SEASONAL TRANSITION OF ANOPHELES STEPHENSII AND AEDES AEGYPTI LARVAL HABITAT SUPERPRODUCTIVITY IN KEBRIDEHAR, ETHIOPIA

Solomon Yared<sup>1</sup>, Dereje Dengela<sup>2</sup>, Peter Mumba<sup>3</sup>, Sheleme Chibsa<sup>3</sup>, Seth Irish<sup>4</sup>, Melissa Yoshimizu<sup>5</sup>, Sarah Zohdy<sup>6</sup>, Meshesha Balkew<sup>2</sup>, Gonzalo M. Vazquez-Prokopec<sup>7</sup>

<sup>1</sup>Jigjiga University, Jigjiga, Ethiopia, <sup>2</sup>PMI Evolve Project, Abt Global, Addis Ababa, Ethiopia, <sup>3</sup>U.S. President's Malaria Initiative, USAID, Addis Ababa, Ethiopia, <sup>4</sup>(at time of work) U.S. President's Malaria Initiative, Entomology Branch, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>5</sup>U.S. President's Malaria Initiative, USAID, Washington, DC, United States, <sup>6</sup>U.S. President's Malaria Initiative, Entomology Branch, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>7</sup>Emory University, Atlanta, GA, United States

1 p.m.

8296

#### A FOCUSED CASE-RESPONSE APPROACH TO MALARIA VECTOR SURVEILLANCE IN AREAS OF UNSTABLE TRANSMISSION

Sungano Mharakurwa<sup>1</sup>, Tanatswa X. Gara-Mundere<sup>1</sup>, Trust Nyakunu<sup>1</sup>, Brenda Makonyere<sup>1</sup>, Tariro Chikava<sup>1</sup>, Natasha Mbwana<sup>1</sup>, Charmaine Matimba<sup>1</sup>, Nobert Mudare<sup>1</sup>, Shungu Munyati<sup>2</sup>, Lovemore Gwanzura<sup>3</sup>

<sup>1</sup>Africa University, Mutare, Zimbabwe, <sup>2</sup>Biomedical Research and Training Institute, Mutare, Zimbabwe, <sup>3</sup>Biomedical Research and Training Institute, Harare, Zimbabwe

1:15 p.m.

8297

#### DOES IVERMECTIN IMPAIR ANOPHELES ATTRACTIVENESS TOWARD TREATED HOSTS UNDER FIELDS AND LABORATORY CONDITIONS?

Lamidi Zela<sup>1</sup>, Sié Hermann Pooda<sup>2</sup>, Angélique Porciani<sup>3</sup>, André Barembaye Sagna<sup>4</sup>, Malik Bandaogo<sup>1</sup>, A. N. Ramzy Kambou<sup>1</sup>, Anyirekun Fabrice Somé<sup>5</sup>, Christophe Roberge<sup>6</sup>, Adrien M.G. Belem<sup>7</sup>, Roch K. Dabiré<sup>5</sup>, Karine Mouline<sup>3</sup>

<sup>1</sup>Centre International de Recherche-Développement sur L'Élevage en zone Subhumide, Bobo Dioulasso, Burkina Faso, <sup>2</sup>Université Ouezzin COULIBALY, Dédougou, Burkina Faso, <sup>3</sup>Institut de Recherche pour le Développement, Montpellier, France, <sup>4</sup>Institut de Recherche pour le Développement, Bobo Dioulasso, Burkina Faso, <sup>5</sup>Institut de Recherche en Sciences de la Santé, Bobo Dioulasso, Burkina Faso, <sup>6</sup>MEDINCELL, Jacou, France, <sup>7</sup>Université Nazi Boni, Bobo Dioulasso, Burkina Faso

1:30 p.m.

8298

#### COMPARING ANOPHELES BEHAVIOR WITH INTERCEPTOR® G2'S DUAL VS SINGLE ACTIVE INGREDIENTS: 3D VIDEO TRACKING ANALYSIS

Beatrice Helena Schildknecht, Pie Mueller

SwissTPH, Allschwil, Switzerland

1:45 p.m.

8299

#### VECTORCAM - A NOVEL AI-POWERED DIGITAL TOOL FOR AUTOMATED MORPHOLOGICAL IDENTIFICATION OF MOSQUITO SPECIES, SEX, AND ABDOMINAL STATUS BY VILLAGE HEALTH TEAMS IN UGANDA: A RANDOMIZED CONTROLLED TRIAL

Sunny Patel<sup>1</sup>, Marina Rincon Torroella<sup>1</sup>, Deming (Remus) Li<sup>1</sup>, Atul Antony Zacharias<sup>1</sup>, Parthvi Mehta<sup>1</sup>, Shreya Raman<sup>1</sup>, Kyle Cooper<sup>1</sup>, David Onanyang<sup>2</sup>, James Kaweesa<sup>2</sup>, Kigongo Siriman<sup>2</sup>, Jovan Batte<sup>2</sup>, Neil Lobo<sup>3</sup>, Douglas Norris<sup>4</sup>, Catherine Maiteki<sup>5</sup>, Jimmy Opigo<sup>5</sup>, Peter Waiswa<sup>6</sup>, Soumyadipta Acharya<sup>1</sup>

<sup>1</sup>Johns Hopkins University, Baltimore, MD, United States, <sup>2</sup>Vector Borne and Neglected Tropical Diseases Control Division, Ministry of Health, Kampala, Uganda, <sup>3</sup>University of Notre Dame, South Bend, IN, United States, <sup>4</sup>Johns Hopkins University, School of Public Health, Baltimore, MD, United States, <sup>5</sup>National Malaria Control Division, Ministry of Health, Kampala, Uganda, <sup>6</sup>Makerere University School of Public Health, Kampala, Uganda

2 p.m.

8300

#### GENOMIC EVALUATION REVEALS A STRONG POPULATION STRUCTURE OF ANOPHELES FUNESTUS COLLECTED IN COAST AND LAKE MALARIA ENDEMIC REGION IN KENYA

Brian Polo<sup>1</sup>, Sylvia Milanoi<sup>1</sup>, Diana Omoke<sup>1</sup>, Cynthia Awuor<sup>1</sup>, Duncan Onguru<sup>2</sup>, Sanjay Nagi<sup>3</sup>, Alistair Miles<sup>4</sup>, Mara Lawniczak<sup>5</sup>, Eric Ochomo<sup>1</sup>

<sup>1</sup>Kenya Medical Research Institute, Kisumu, Kenya, <sup>2</sup>Jaramogi Odinga Oginga University Science and Technology, Kisumu, Kenya, <sup>3</sup>Department of Vector Biology, Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>4</sup>Wellcome Sanger Genomic Surveillance Unit, Wellcome Sanger Institute, Hinxton, Cambridge, United Kingdom, <sup>5</sup>Wellcome Sanger Institute, Cambridge, United Kingdom

2:15 p.m.

8301

#### EFFECT OF ECOLOGICAL ZONES AND CLIMATIC CONDITIONS ON MOSQUITO DIVERSITY IN GHANA: A LONGITUDINAL STUDY FROM 2017 - 2022

Eric Behene<sup>1</sup>, Seth O. Addo<sup>1</sup>, Ronald E. Bentil<sup>1</sup>, Mba-Tihssommah Mosore<sup>1</sup>, Reham A. Tageldin<sup>2</sup>, Patrick Obuam<sup>3</sup>, Sandra A. Kwarteng<sup>3</sup>, Dorcas Atibilla<sup>4</sup>, Bernice Baako<sup>5</sup>, Victor Asoala<sup>5</sup>, Ellis Owusu-Dabo<sup>3</sup>, Naiki Attram<sup>6</sup>, Shirley C. Nimo-Paintsil<sup>6</sup>, Terrel Sanders<sup>6</sup>, Andrew G. Letizia<sup>6</sup>, Samuel K. Dadzie<sup>1</sup>, James F. Harwood<sup>7</sup>

<sup>1</sup>Noguchi Memorial Institute for Medical Research, Accra, Ghana, <sup>2</sup>United States Naval Medical Research Unit EURAFCENT Cairo Detachment, Cairo, Egypt, <sup>3</sup>Kwame Nkrumah University of Science and Technology, School of Public Health, Kumasi, Ghana, <sup>4</sup>Kintampo Health Research Center, Bono East Region, Kintampo, Ghana, <sup>5</sup>Navrongo Health Research Center, Upper East Region, Navrongo, Ghana, <sup>6</sup>United States Naval Medical Research Unit EURAFCENT Ghana Detachment, Accra, Ghana, <sup>7</sup>United States Naval Medical Research Unit EURAFCENT, Sigonella, Italy



## Symposium 130

### Cooperation in Caring for Patients with Cystic Echinococcosis: International Experience from Referral Centers

Convention Center - Room 354/355 (3rd Floor)  
Saturday, November 16, 12:45 p.m. - 2:30 p.m.

This symposium will present an overview of the interdisciplinary approach to difficult and unusual cases of cystic echinococcosis, a neglected tropical disease. Clinicians from referral centers from different countries will discuss treatment of CE patients seen in their practice, particularly those with puzzling and confusing presentations, in an attempt to clarify the basic tenets of clinical management of CE. #ClinicalResearch #InfectiousDiseases #Therapeutics

#### CHAIR

Enrico Brunetti  
University of Pavia, San Matteo Hospital Foundation, Pavia, Italy

Christina Coyle  
Albert Einstein College of Medicine, Jacobi Medical Center, New York, NY, United States

#### 12:45 p.m. INTRODUCTION

#### 12:55 p.m. CYSTIC ECHINOCOCCOSIS AND DIFFERENTIAL DIAGNOSIS WITH ALVEOLAR ECHINOCOCCOSIS - EXPERIENCE FROM A REFERRAL CENTER IN GERMANY

Marija Stojkovic  
Department of Infectious Diseases and Tropical Medicine, Heidelberg University Hospital, Heidelberg, Germany

#### 1:10 p.m. PERCUTANEOUS TREATMENTS AND SURGERY FOR CE. WHERE DO WE DRAW THE LINE?

Okan Akhan  
Hacettepe University - Bayindir Söğütözü Hospital, Ankara, Turkey

#### 1:30 p.m. CYSTIC ECHINOCOCCOSIS IN THE PERUVIAN HIGHLAND - HURDLES AND PERSPECTIVES

Miguel M. Cabada  
UTMB, Houston, TX, United States

#### 1:55 p.m. CYSTIC ECHINOCOCCOSIS IN NEW YORK CITY

Christina Coyle  
Albert Einstein College of Medicine - Jacobi Medical Center, New York, NY, United States

## Symposium 131

### Post-Viral Sequelae in Ebolavirus Infections: The Complicated Road to Recovery

Convention Center - Room 356 (3rd Floor)  
Saturday, November 16, 12:45 p.m. - 2:30 p.m.

Long-term post-viral sequelae are a serious consequence following recovery from acute disease. This is particularly evident in the context of filovirus infections—such as Ebolavirus disease (EVD)—with post-Ebola syndrome (PES) being well documented in a growing cohort of survivors. Filoviral infections continue to emerge in sub-Saharan Africa as evidenced by recent outbreaks of Zaire Ebolavirus (EBOV) in the Democratic Republic of Congo, and the Sudan Ebolavirus (SUDV) in Uganda. With the continued emergence of EVD and improvement in specific treatments, a large cohort of nearly 20,000 EVD survivors now exists globally. PES has been well recognized and is described variably as a constellation of symptoms and physical exam findings. Among these varied signs and symptoms, specific presentations of PES exist with yet undescribed driving mechanisms. Major long-term signs and symptoms include musculoskeletal manifestations and recent studies show significant presentation of cardiopulmonary and neurocognitive deficits in EVD survivors. Despite active ongoing studies, long-term clinical sequelae in EVD survivors of SUDV infection have not been well described to date. While PES has been well noted, many questions surrounding the pathophysiology remain. What drives EVD survivors to present with particular PES phenotypes? As filoviruses continue to emerge, and EVD survivor numbers grow, it is imperative that we understand the long-term complications associated with survival from severe acute filoviral infections. Here we bring together a diverse group of speakers to discuss breakthroughs and key remaining questions in sequelae following recovery from EVD. #ClinicalResearch #Immunology #InfectiousDisease #Pathogenesis #TranslationalScience

#### CHAIR

Nell G. Bond  
Tulane University School of Medicine, New Orleans, LA, United States

Robert J. Samuels  
Kenema Government Hospital, Kenema, Sierra Leone

#### 12:45 p.m. INTRODUCTION

#### 12:55 p.m. LONG EBOLAVIRUS SUDV SYNDROME: TWO YEARS LATER

Haruna Muwonge  
Makerere University, Kampala, Uganda

#### 1:10 p.m. EBOV LONG-TERM SEQUELAE AMONG A COHORT OF LIBERIAN EVD SURVIVORS

David Wohl  
University of North Carolina, Chapel Hill, NC, United States

**1:25 p.m.**  
**REDUCED NEUROCOGNITIVE FUNCTION IN EVD SURVIVORS  
EITHER YEARS AFTER ACUTE INFECTION**Nell G. Bond  
*Tulane University SOM, New Orleans, LA, United States***1:40 p.m.**  
**CHRONIC CARDIOPULMONARY DYSFUNCTION ASSOCIATED  
WITH POST-EBOLA SYNDROME**Samuel Ficencic  
*Tulane School of Medicine, New Orleans, LA, United States***Symposium 132****Mass Drug Administration of Ivermectin for  
Onchocerciasis Elimination: Can We Stop Sooner?***Convention Center - Room 357 (3rd Floor)*  
**Saturday, November 16, 12:45 p.m. - 2:30 p.m.**

Onchocerciasis is caused by *Onchocerca volvulus*, a filarial nematode that is transmitted by *Simulium* species (black flies) that breed in fast flowing rivers and streams. Infection can cause skin and eye disease, including blindness. The 2017 Global Burden of Disease Study estimated that 20.9 million people are infected with *O. volvulus*, 14.6 million have skin disease, and 1.15 million have vision loss, with most of the burden in Africa. The World Health Organization (WHO) has targeted onchocerciasis for elimination. The key strategy for onchocerciasis elimination is mass drug administration (MDA) with ivermectin, which suppresses the production of microfilariae in the skin. With repeated MDA, microfilariae levels are kept low and over time typically reduces the parasite load in the community. Great progress has been made towards elimination and in 2019 more than 150 million people were treated with ivermectin. Many areas in Africa have been under MDA for more than a decade and may have interrupted transmission of the parasite. In areas where interruption of transmission is demonstrated, MDA can be stopped. WHO guidelines recommend that MDA should be stopped if the Ov16 seroprevalence in children below 10 years of age is < 0.1% at the upper bound of the 95% confidence interval and the prevalence of O150 PCR (Poolscreen) positivity is <1/1000 (<0.1%) in parous black flies or <1/2000 (0.05%) in all black flies. However, modeling suggests that the seroprevalence threshold may be too low and that a threshold of 2% may also indicate interruption of transmission. Additionally, the current Ov16 tests have limitations that make it very difficult to accurately measure a <0.1% seroprevalence. To evaluate the 2% serological threshold, national onchocerciasis programs from the Ministries of Health of Benin, Ghana, Malawi, and Tanzania with the support of the US Centers for Disease Control and Prevention, The Task Force for Global Health, and African Field Epidemiology Network are conducting operational research in areas that have been under MDA for many years and are thought to have interrupted transmission. These studies will determine the baseline O150 prevalence in black flies and the OV16 seroprevalence in children 5-9 years of age, and if they meet the current WHO entomological criteria for stopping and the seroprevalence in children is less than 2%, then MDA will be stopped, and the areas monitored for recrudescence.

In this symposium we will present the initial results from the countries involved and the diagnostic challenges encountered during the studies. The presentations will address sampling and laboratory methodologies, serology and entomology results, diagnostic challenges and solutions, and next steps. #Elimination #Epidemiology #InfectiousDisease

**CHAIR**Andrew Abbott  
*US Centers for Disease Control and Prevention, Atlanta, GA, United States*Joseph Kwadwo Opare  
*Neglected Tropical Diseases Program, Ghana Health Service, Accra, Ghana***12:45 p.m.**  
**INTRODUCTION****12:55 p.m.**  
**EVALUATING THE SERO-PREVALENCE THRESHOLD FOR  
STOPPING ONCHOCERCIASIS MASS DRUG ADMINISTRATION:  
EXPERIENCES IN MALAWI**Laston Sitima  
*Ministry of Health, Lilongwe, Malawi***1:15 p.m.**  
**EVALUATION OF THE SEROPREVALENCE THRESHOLD  
FOR STOPPING THE MASS DRUG ADMINISTRATION FOR  
ONCHOCERCIASIS: EXPERIENCES IN BENIN**N'Deye Marie Adama Bassabi  
*Programme National de Lutte contre les Maladies Transmissibles du Bénin, Cotonou, Benin***1:35 p.m.**  
**ESTABLISHING SERO-PREVALENCE THRESHOLD FOR  
STOPPING ONCHOCERCIASIS MASS DRUG ADMINISTRATION:  
EXPERIENCES AND PROGRESSES MADE SO FAR IN TANZANIA.**Akili Kalinga  
*National Institute for Medical Research, Dar Es Salaam, United Republic of Tanzania***1:50 p.m.**  
**MASS DRUG ADMINISTRATION OF IVERMECTIN FOR  
ONCHOCERCIASIS ELIMINATION: CAN WE STOP SOONER IN  
GHANA?**Joseph Kwadwo Opare  
*Neglected Tropical Diseases Program, Ghana Health Service, Accra, Ghana***2:10 p.m.**  
**FIELD EVALUATION OF NEW DIAGNOSTIC TOOLS FOR  
ONCHOCERCIASIS TO STOP MASS DRUG ADMINISTRATION**Jessica Prince-Guerra  
*US Centers for Disease Control and Prevention, Atlanta, GA, United States*

## Scientific Session 133

### Viruses - Epidemiology

Convention Center - Room 383/384/385 (3rd Floor)

Saturday, November 16, 12:45 p.m. - 2:30 p.m.

#Epidemiology #InfectiousDisease

#### CHAIR

Mariam Fofana

Yale School of Public Health, New Haven, CT, United States

Matthew Aliota

University of Minnesota, Minneapolis, MN, United States

12:45 p.m.

#### PRESENTATION BY BURROUGHS WELLCOME FUND-ASTMH FELLOWSHIP RECIPIENT

12:45 p.m.

8302

#### USING A VARIANT-SPECIFIC, ELECTROCHEMILUMINESCENCE MULTIPLEX SERONEUTRALIZATION ASSAY TO DELINEATE TRANSMISSION DYNAMICS OF SARS-COV-2 AS THE PANDEMIC TRANSITIONED TO ENDEMICITY

**Mariam O. Fofana**<sup>1</sup>, Juan Pablo Aguilar Ticona<sup>2</sup>, M. Catherine Muenker<sup>1</sup>, Joseph Lu<sup>3</sup>, Nivison Nery Jr<sup>1</sup>, Homegnon Antonin Ferreol Bah<sup>2</sup>, Emilia Andrade Belitardo<sup>2</sup>, Jaqueline Silva<sup>2</sup>, Gabriel Ribeiro dos Santos<sup>1</sup>, Renato Victoriano<sup>2</sup>, Ricardo Khouri<sup>2</sup>, Federico Costa<sup>4</sup>, Stephen Thomas<sup>3</sup>, Adam Waickman<sup>3</sup>, Mitermayer G. Reis<sup>2</sup>, Albert I. Ko<sup>1</sup>, Derek A.T. Cummings<sup>5</sup>

<sup>1</sup>Yale School of Public Health, New Haven, CT, United States, <sup>2</sup>Instituto Goncalo Moniz (Fiocruz Bahia), Salvador, Brazil, <sup>3</sup>SUNY Upstate Medical University, Syracuse, NY, United States, <sup>4</sup>Universidade Federal da Bahia, Salvador, Brazil, <sup>5</sup>University of Florida, Gainesville, FL, United States

1 p.m.

8303

#### RETHINKING DENGUE PROTECTIVE IMMUNITY: MULTIPLE REPEAT SYMPTOMATIC INFECTIONS IN A SINGLE TRANSMISSION SEASON

**Lisbeth Cantarero**<sup>1</sup>, Miguel Plazaola<sup>1</sup>, Jose G. Juarez<sup>1</sup>, Karla Gonzalez<sup>1</sup>, Reinaldo Mercado-Hernandez<sup>2</sup>, Sandra Bos<sup>2</sup>, Eva Harris<sup>2</sup>, Angel Balmaseda<sup>1</sup>

<sup>1</sup>Sustainable Science Institute, Managua, Nicaragua, <sup>2</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States

1:15 p.m.

8304

#### INAPPARENT PRIMARY DENGUE VIRUS INFECTIONS REVEAL HIDDEN SEROTYPE-SPECIFIC EPIDEMIOLOGICAL PATTERNS AND SPECTRUM OF INFECTION OUTCOME: A COHORT STUDY IN NICARAGUA

**Jose V. Zambrana**<sup>1</sup>, Sandra Bos<sup>2</sup>, Elias Duarte<sup>2</sup>, Aaron L. Graber<sup>2</sup>, Julia Huffaker<sup>2</sup>, Carlos Montenegro<sup>3</sup>, Lakshmanane Premkumar<sup>4</sup>, Aubree Gordon<sup>1</sup>, Angel Balmaseda<sup>5</sup>, Eva Harris<sup>2</sup>

<sup>1</sup>Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI, United States, <sup>2</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>3</sup>Sustainable Sciences Institute, Managua, Nicaragua, <sup>4</sup>Department of Microbiology and Immunology, University of North Carolina School of Medicine, Chapel Hill, NC, United States, <sup>5</sup>Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua

1:30 p.m.

8305

#### UNVEILING THE DYNAMICS OF DENGUE VIRUS TRANSMISSION ACROSS A GRADIENT OF URBANICITY IN THREE COUNTRIES: INSIGHTS FROM PARALLEL LONGITUDINAL COHORT STUDIES IN ECUADOR, NICARAGUA, AND SRI LANKA

**Paulina E. Andrade Proano**<sup>1</sup>, Lisbeth Cantarero<sup>2</sup>, Chandima Jeewandara<sup>3</sup>, Sandra Vivero<sup>4</sup>, Victoria Nipaz<sup>4</sup>, William Cevallos<sup>4</sup>, Miguel Plazaola<sup>2</sup>, Juan Carlos Mercado<sup>2</sup>, Luis Cisneros<sup>2</sup>, Gabriel Trueba<sup>5</sup>, Shyrar Tanussiya Ramu<sup>3</sup>, Saubhagya Danasekara<sup>3</sup>, Madushika Dissanayake<sup>3</sup>, Lahiru Perera<sup>3</sup>, Maneshka Karunananda<sup>3</sup>, José G. Juárez<sup>2</sup>, Joseph N.S. Eisenberg<sup>6</sup>, Neelika Malavige<sup>3</sup>, Angel Balmaseda<sup>2</sup>, Josefina Coloma<sup>7</sup>, Eva Harris<sup>7</sup>

<sup>1</sup>Universidad San Francisco de Quito, Quito, Ecuador, <sup>2</sup>Sustainable Sciences Institute, Managua, Nicaragua, <sup>3</sup>Department of Immunology and Molecular Medicine, University of Sri Jayawardenepura, Colombo, Sri Lanka, <sup>4</sup>Centro de Biomedicina, Universidad Central, Quito, Ecuador, <sup>5</sup>Instituto de Microbiología, Universidad San Francisco de Quito, Quito, Ecuador, <sup>6</sup>Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI, United States, <sup>7</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States

1:45 p.m.

8306

#### RESPIRATORY SYNCYTIAL VIRUS (RSV) EPIDEMIOLOGY AND CLINICAL CHARACTERISTICS OF HOSPITALIZED CHILDREN < 2 YEARS OF AGE DURING THE SARS-COV-2 PANDEMIC (OCTOBER 2020-JANUARY 2023) AT KENEMA GOVERNMENT HOSPITAL, SIERRA LEONE

**FODAY UMARO TURAY**<sup>1</sup>, Troy Moon<sup>1</sup>, Gustavo Amorim<sup>2</sup>, Robert J. Samuels<sup>3</sup>, John S. Schieffelin<sup>1</sup>

<sup>1</sup>Tulane University, New Orleans, LA, United States, <sup>2</sup>Vanderbilt Institute for Global Health, Vanderbilt University, Nashville, TN, United States, <sup>3</sup>College of Medicine and Allied Health Sciences, University of Sierra Leone, Free Town, Sierra Leone

2 p.m.

8307

#### EPIDEMIOLOGICAL CHARACTERISTICS AND HOSPITAL OUTCOMES OF HOSPITALIZED LASSA FEVER CASES DURING THE 2022-2023 OUTBREAK IN LIBERIA

**Emmanuel Dwalu**<sup>1</sup>, Hannock Tweya<sup>2</sup>, Mher Beglaryan<sup>3</sup>, Chukwuma D. Umeokonkwo<sup>4</sup>, Ralph W. Jetoh<sup>1</sup>, Bode I. Shobayo<sup>1</sup>, Fahn M. Tarweh<sup>1</sup>, Philip Owiti<sup>5</sup>, Pryanka Relan<sup>6</sup>, Shermarke Hassan<sup>7</sup>, George W. Goteh<sup>8</sup>, Darius B. Lehyen<sup>8</sup>, Louis Ako-Egbe<sup>9</sup>, Ibrahim F. Kamara<sup>10</sup>, Godwin E. Akpan<sup>11</sup>, Peter Adewuyi<sup>11</sup>, Patrick N. Kpanyen<sup>1</sup>, Benjamin T. Vonhm<sup>1</sup>, Julius S M Gilayeneh<sup>1</sup>

<sup>1</sup>National Public Health Institute of Liberia, Monrovia, Liberia, <sup>2</sup>International Training and Education Center for Health (I-TECH), Lilongwe, Malawi, <sup>3</sup>Tuberculosis Research and Prevention Centre, Yerevan 0014, Armenia, <sup>4</sup>African Field Epidemiology Network, Lugogo House, Lugogo By-Pass, Kampala, Uganda, <sup>5</sup>Ministry of Health Republic of Kenya, Nairobi, Kenya, <sup>6</sup>WHO Health Emergencies Programme, World Health Organization, Geneva, Switzerland, <sup>7</sup>Infectious Diseases Data Observatory, University of Oxford, Oxford, United Kingdom, <sup>8</sup>Ministry of Health, Monrovia, Liberia, <sup>9</sup>World Health Organization Liberia Country Office, Monrovia, Liberia, <sup>10</sup>World Health Organization Country Office, Freetown, Sierra Leone, <sup>11</sup>African Field Epidemiology Network, Monrovia, Liberia

2:15 p.m.

8308

#### INCIDENCE OF LASSA FEVER DISEASE AND LASSA VIRUS INFECTION IN FIVE WEST AFRICAN COUNTRIES: A PROSPECTIVE, MULTI-SITE, COHORT STUDY (THE ENABLE LASSA RESEARCH PROGRAM)

**Anton Camacho**<sup>1</sup>, The ENABLE Consortium<sup>2</sup>

<sup>1</sup>Epicentre, Paris, France, <sup>2</sup>Coalition for Epidemic Preparedness Innovations (CEPI), Oslo, Norway

## Scientific Session 134

### Global Health: Use of Modeling, AI and Other Advanced Methods to Study Disease Epidemiology and Impact of Climate Change on Global Health

Convention Center - Room 388/389 (3rd Floor)

Saturday, November 16, 12:45 p.m. - 2:30 p.m.

#ClimateChange #Modeling #InfectiousDisease  
#Epidemiology

#### CHAIR

Caterina A. Fanello  
University of Oxford, Oxford, United Kingdom

Chloe Fletcher  
Barcelona Supercomputing Center, Barcelona, Spain

12:45 p.m.

8309

#### THE COMPOUND EFFECTS OF CLIMATIC EXTREMES ON DENGUE RISK IN THE CARIBBEAN: A PREDICTION MODEL FRAMEWORK USING LONG- AND SHORT-LAG INTERACTIONS

Chloe Fletcher<sup>1</sup>, Tilly Alcanya<sup>2</sup>, Leslie Rollock<sup>3</sup>, Cédric J. Van Meerbeeck<sup>4</sup>, Laura-Lee Boodram<sup>5</sup>, Tia Browne<sup>6</sup>, Sabu Best<sup>6</sup>, Roché Mahon<sup>4</sup>, Adrian Trotman<sup>4</sup>, Avriel R. Diaz<sup>7</sup>, Willy Dunbar<sup>8</sup>, Catherine A. Lippi<sup>9</sup>, Sadie J. Ryan<sup>9</sup>, Felipe J. Colón-González<sup>10</sup>, Anna M. Stewart-Ibarra<sup>11</sup>, Rachel Lowe<sup>12</sup>

<sup>1</sup>Barcelona Supercomputing Center, Barcelona, Spain, <sup>2</sup>Centre on Climate Change & Planetary Health and Centre for Mathematical Modelling of Infectious Diseases, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>3</sup>Ministry of Health & Wellness, Saint Michael, Barbados, <sup>4</sup>Caribbean Institute for Meteorology and Hydrology, Saint James, Barbados, <sup>5</sup>The Caribbean Public Health Agency, Port of Spain, Trinidad and Tobago, <sup>6</sup>Barbados Meteorological Services, Christ Church, Barbados, <sup>7</sup>International Research Institute for Climate & Society, Palisades, NY, United States, <sup>8</sup>National Collaborating Centre for Healthy Public Policy, Montreal, QC, Canada, <sup>9</sup>Department of Geography, University of Florida, Gainesville, FL, United States, <sup>10</sup>Wellcome Trust, Data for Science and Health, London, United Kingdom, <sup>11</sup>Inter-American Institute For Global Change Research, Montevideo, Uruguay, <sup>12</sup>Catalan Institution for Research & Advanced Studies, Barcelona, Spain

1 p.m.

8310

#### MASSIVE GLOBAL IMPACTS OF CLIMATE CHANGE ON DENGUE TRANSMISSION

Erin Mordecai<sup>1</sup>, Marissa Childs<sup>2</sup>, Kelsey Lyberger<sup>1</sup>, Mallory Harris<sup>1</sup>

<sup>1</sup>Stanford University, Stanford, CA, United States, <sup>2</sup>Harvard University, Cambridge, MA, United States

1:15 p.m.

8311

#### MAPPING THE GLOBAL ENVIRONMENTAL SUITABILITY FOR SCRUB TYPHUS

Qian Wang<sup>1</sup>, Tian Ma<sup>2</sup>, Fangyu Ding<sup>2</sup>, Nicholas Day<sup>1</sup>, Benn Sartorius<sup>3</sup>, Richard Maude<sup>1</sup>

<sup>1</sup>MORU, Bangkok, Thailand, <sup>2</sup>Chinese Academy of Sciences, Beijing, China, <sup>3</sup>University of Oxford, Oxford, United Kingdom

1:30 p.m.

8312

#### HETEROGENOUS SPATIO-TEMPORAL DISTRIBUTION OF COVID 19 PANDEMIC PROGRESSION IN PERU

Kassandra Lizzeth Ascuña-Durand<sup>1</sup>, Diego Villa<sup>1</sup>, Coralith García<sup>2</sup>, Gabriel Carrasco-Escobar<sup>1</sup>

<sup>1</sup>Health Innovation Laboratory, Universidad Peruana Cayetano Heredia, Peru, Lima, Peru, <sup>2</sup>Instituto de Medicina Tropical Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Peru, Lima, Peru

1:45 p.m.

8313

#### ASSESSING THE IMPACT OF CLIMATE CHANGE ON VECTOR BEHAVIOR AND VECTOR CONTROL STRATEGIES

Emma L. Fairbanks<sup>1</sup>, Janet M. Daly<sup>2</sup>, Michael J. Tildesley<sup>1</sup>

<sup>1</sup>University of Warwick, Coventry, United Kingdom, <sup>2</sup>University of Nottingham, Nottingham, United Kingdom

2 p.m.

8314

#### PRESSURE-TESTING AND PROTOTYPING AI TOOLS FOR ENHANCED QUALITATIVE DATA ANALYSIS IN GLOBAL HEALTH: A CASE STUDY ON DRC VACCINATION SURVEYS

Roy Burstein, Joshua L. Proctor

Bill & Melinda Gates Foundation, Seattle, WA, United States

2:15 p.m.

8315

#### AN AI ASSISTANT TO SUPPORT DISEASE MODEL BUILDING, SIMULATION, AND ANALYSIS: ACCELERATING MODELING RESEARCH AND DEVELOPMENT IN RESOURCE-CONSTRAINED SETTINGS

Joshua L. Proctor, Guillaume Chabot-Couture

Bill & Melinda Gates Foundation, Seattle, WA, United States

## Symposium 135

### Reaching for Elimination: Critical Challenges in Targeting Transmission in Malaria-Endemic Settings

Convention Center - Room 391/392 (3rd Floor)

Saturday, November 16, 12:45 p.m. - 2:30 p.m.

Decades of malaria control measures have yielded significant declines in clinical disease globally. However, a substantial burden persists. In regions where malaria control has been successful, the focus must shift from control to elimination. Consequently, interventions targeting transmission become crucial, especially in areas where this is a new priority. Key questions remain about how to best design and allocate interventions that efficiently decrease transmission. Quantifying the transmission reservoir and identifying and assessing new approaches to decrease transmission carry distinct challenges in both low and high-burden settings. Notably, transmission-focused interventions in areas of historically high, but now decreasing, burden have received limited attention. Diverse approaches are needed to address heterogeneity in transmission reservoirs and the key drivers of ongoing transmission. The interdisciplinary symposium features expert speakers covering epidemiology, vaccine trials, entomology, and public policy. The speakers will draw on their own experiences to demonstrate novel approaches to overcoming these challenges and share their visions for the implementation and evaluation of new interventions. The areas of focus include epidemiology, vaccine trials, entomology, and public policy. The first two speakers, Drs. Buchwald and Ochomo, will focus on the complexities of characterizing ongoing transmission and the key factors defining the distribution and burden of transmission from epidemiologic and entomologic perspectives. Our third speaker, Dr. Sagara, an expert designing transmission-blocking vaccines, will talk about the challenges of designing and evaluating interventions

to decrease transmission. The last panelist, Dr. Cohee, will take a broad view on how we can use ongoing research to inform large-scale interventions and malaria control policy. At the conclusion of the panelist presentations, the symposium chairs will lead a discussion about the next steps in tackling residual malaria transmission in malaria-endemic countries. #Epidemiology #FieldStudies #InfectiousDiseases #Modelling #Vaccinology

#### **CHAIR**

Miriam K. Laufer  
*Center for Vaccine Development and Global Health, University of Maryland School of Medicine, Baltimore, MD, United States*

Issaka Sagara  
*Malaria Research and Training Center (MRTC), University of Sciences, Techniques and Technologies of Bamako (USTTB), Bamako, Mali*

#### **12:45 p.m.** **INTRODUCTION**

#### **12:55 p.m.** **CHARACTERIZING AND QUANTIFYING THE PLASMODIUM FALCIPARUM TRANSMISSION RESERVOIR**

Andrea G. Buchwald  
*Center for Vaccine Development and Global Health, University of Maryland School of Medicine, Baltimore, MD, United States*

#### **1:20 p.m.** **VECTOR BEHAVIORS THAT IMPACT TRANSMISSION**

Eric Ochomo  
*KEMRI Center for Global Health Research, Kisumu, Kenya*

#### **1:45 p.m.** **DESIGNING INTERVENTIONS TO TARGET TRANSMISSION**

Issaka Sagara  
*Malaria Research and Training Center (MRTC), University of Sciences, Techniques and Technologies of Bamako (USTTB), Bamako, Mali*

#### **2:10 p.m.** **MOVING FROM RESEARCH TO POLICY TO PROGRAM**

Lauren M. Cohee  
*Liverpool School of Tropical Medicine, Liverpool, United Kingdom*

## **Symposium 136**

### **Vaccines for Malaria Elimination in Asia and Africa**

*Convention Center - Room 393/394 (3rd Floor)*  
**Saturday, November 16, 12:45 p.m. - 2:30 p.m.**

The development of malaria vaccines has targeted mainly infants as children under 5 are those at higher risk of severe malaria and death. The World Health Organization recently approved 2 new malaria vaccines, RTS,S and R21 to be used in children from 5 month of age. Both RTS,S and R21 are pre-erythrocytic vaccines as they target the stage of the malaria parasite that is injected by infected mosquitoes into humans. Therefore, if administered to the whole population, they could decrease transmission by reducing the proportion of successful infections by the vector. Mathematical models suggest that mass vaccination with a pre-erythrocytic vaccine may substantially reduce population-level malaria transmission. However, mass vaccination for malaria control has never been evaluated. In our symposium groups, from Africa and

Asia we will present planned and ongoing studies to vaccinate the entire population of villages to assess the impact on transmission. #ClinicalResearch #Elimination #FieldStudies #InfectiousDisease #Vaccinology

#### **CHAIR**

Lorenz von Seidlein  
*Mahidol-Oxford Tropical Medicine Research Unit (MORU), Bangkok, Thailand*

Umberto D'Alessandro  
*MRC, Fajara, Gambia*

#### **12:45 p.m.** **INTRODUCTION**

#### **12:55 p.m.** **EVALUATING THE BROADER USE OF R21/MATRIX-M TO AID MALARIA ELIMINATION: WHAT IS THE EXPECTED BENEFIT OF EXTENDING VACCINATION BEYOND YOUNG CHILDREN?**

Hillary Topazian  
*Imperial College London, London, United Kingdom*

#### **1:10 p.m.** **SEASONAL R21/MM MASS VACCINATION FOR MALARIA ELIMINATION IN BURKINA FASO AND THE GAMBIA**

Maglore Hamtandi Natama  
*Clinical Research Unit Nanoro, IRSS, CNRST, Burkina Faso, Ouagadougou, Burkina Faso*

#### **1:25 p.m.** **SEASONAL R21/MM MASS VACCINATION FOR MALARIA ELIMINATION IN BURKINA FASO AND THE GAMBIA – PART 2**

Edgar Diniba Dabira  
*MRC Unit The Gambia at LSHTM, Fajara, Georgia*

#### **1:40 p.m.** **A COMBINED MASS VACCINATION AND DRUG ADMINISTRATION IN BANGLADESH**

Abul Faiz  
*Devcare Foundation, Dhaka, Bangladesh*

#### **1:55 p.m.** **COMMUNITY ENGAGEMENT FOR MASS VACCINATIONS WITH THE MALARIA VACCINE R21/MATRIX M**

Fatou Jaiteh  
*MRC Unit The Gambia at LSHTM, Fajara, Gambia*

## **Symposium 137**

### **Advances in Chagas Disease Diagnostic Assays and Testing Strategies**

*Convention Center - Room 395/396 (3rd Floor)*  
**Saturday, November 16, 12:45 p.m. - 2:30 p.m.**

Globally, more than 6 million people are living with Chagas disease, a neglected tropical disease caused by the protozoan parasite *Trypanosoma cruzi*. Most people with Chagas disease are initially infected while living in rural Latin America via exposure to contaminated fecal material of the Triatomine vector, though migration and population shifts have led to a growing recognition of affected individuals outside of highly endemic regions. While most people with Chagas disease will remain asymptomatic lifelong, approximately 20-30% will develop Chagas

cardiomyopathy and 10% will develop gastrointestinal disease. It is critical to screen at-risk individuals as early in life as possible to diagnose Chagas disease while treatment is most effective and before the onset of end-organ disease. However, modeling studies indicate that only a small percentage of people with Chagas disease have been identified through diagnostic testing, leaving most undiagnosed. Chagas disease screening and diagnostic strategies currently available to clinicians have significant limitations, including the lack of a gold standard test and the need for multiple assays to confirm the diagnosis. Another major gap in the management of people with Chagas disease is the lack of a “test of cure,” limiting our ability to assess the patient’s response to anti-trypanosomal therapy in a timely manner. This symposium will focus on recent advances in *T. cruzi* detection assays and testing strategies and how these tools can be applied to enhance our approach to the diagnosis of people with Chagas disease and assessment of anti-trypanosomal treatment efficacy. #Diagnostics #ClinicalResearch #InfectiousDisease

**CHAIR**

Daniel L. Bourque  
Boston University Chobanian and Avedisian School of Medicine, Boston, MA, United States

Eva Clark  
Baylor College of Medicine, Houston, TX, United States

**12:45 p.m.**  
**INTRODUCTION**

**12:55 p.m.**  
**APPLICATION OF MULTICRUZI AND OTHER *T. CRUZI* ASSAYS TO CLINICAL PRACTICE SETTINGS AND DIAGNOSTIC ADVANCES SUPPORTED BY DNDI.**

Maria Jesus Pinazo  
Drugs for Neglected Diseases initiative (DNDI), Rio de Janeiro, Brazil

**1:15 p.m.**  
**NOVEL ANTIGEN DISCOVERY FOR IMPROVING SEROLOGICAL DIAGNOSIS OF CHAGAS DISEASE**

Jeffrey Whitman  
University of California, San Francisco, San Francisco, CA, United States

**1:35 p.m.**  
**BRIDGING LAB DISCOVERIES TO POINT-OF-CARE SOLUTIONS: VALIDATING LAMP FOR EARLY DIAGNOSIS OF CONGENITAL CHAGAS DISEASE IN PUBLIC HEALTH MATERNITIES**

Alejandro Schijman  
Ingebi - Conicet, Buenos Aires, Argentina

**1:55 p.m.**  
**APTAMER-BASED BIOMARKER DETECTION ASSAYS FOR *T. CRUZI* ANTIGENS AND MONITORING POST-ANTITRYPANOSOMAL TREATMENT**

Andrea Teixeira-Carvalho  
René Rachou Institute – Oswaldo Cruz Foundation – FIOCRUZ, Belo Horizonte, Brazil

**Career Chats: Navigating Career Paths in Global Health – Session 2**

*Convention Center - Room 346/347 (3rd Floor)*  
**Saturday, November 16, 2 p.m. – 3 p.m.**

This session aims to introduce trainees to the diverse and breadth of opportunities from pursuing careers in global health through a panel discussion. The remarkable panelists are ASTMH members who have made accomplishments in scientific and clinical research globally, represent diverse fields within the global health sphere as well as championing tropical medicine both nationally and internationally. Panelists will share insights from their remarkable journeys in global health, discuss opportunities and challenges that come with working in global health (i.e., navigating career pathways, funding sources, overcoming obstacles, navigating academic, cultural, socio-economic factors etc), how they transitioned career pathways and discuss their institutional global health portfolio. This session will help in furthering trainees’ progress and help increase the visibility of various pathways in global health, and how to navigate future career paths advancement at the global stage. Furthermore, trainees will gain advice from internationally renowned global health champions on their perspectives working on tropical medicine in various capacities around the world. Overall, it is a remarkable session that will provide trainees with opportunities to network and learn directly from international researchers and experts in various disciplines within global health.

**CHAIR**

Winter Okoth  
Rutgers, State University of New Jersey, New Brunswick, NJ, United States

Hannah Steinberg  
University of Illinois Chicago, Chicago, IL, United States

**PANELISTS**

Pauline N. Mwinzi  
World Health Organization Regional Office for Africa, Brazzaville, Republic of the Congo

Daniel Perlman  
Rotary International, Carbondale, CO, United States

Johanna Daily  
Albert Einstein College of Medicine, Bronx, NY, United States

Simon Agolory  
National Center for Emerging and Zoonotic Infectious Diseases, Atlanta, GA, United States

**Break**

**Saturday, November 16, 2:30 p.m. - 3 p.m.**

**Poster Session C Dismantle**

*Convention Center - Hall I-1 (1st Floor)*  
**Saturday, November 16, 3 p.m. - 5:15 p.m.**



## Symposium 138

### Systems Immunology of Tropical Diseases: Harnessing Omics and AI for Global Health

Convention Center - Hall I-2 (1st Floor)

Saturday, November 16, 3 p.m. - 4:45 p.m.

This symposium is dedicated to bringing together researchers from diverse backgrounds, and with a specific focus on early career researchers, to explore and discuss the cutting-edge intersection of systems immunology, omics technologies, and artificial intelligence (AI) and machine learning (ML) techniques, aiming to revolutionize our approach to understanding, preventing, and treating tropical diseases including Neglected Tropical Diseases (NTDs). Tropical diseases, often overlooked and underfunded, continue to burden millions worldwide, exacerbating global health disparities. Systems immunology offers a promising pathway to unravel the complex immunological interactions and mechanisms underlying these diseases. By leveraging high-throughput omics technologies—including genomics, proteomics, transcriptomics, glycomics and metabolomics—researchers can now generate vast amounts of data, offering unprecedented insights into the immune system’s dynamics. The symposium will showcase research where AI and ML approaches play a pivotal role in deciphering these complex datasets, leading to novel mechanistic insights, biomarker identification, diagnostic development, vaccine development, and therapeutic interventions. Our sessions will cover a broad spectrum of topics, including the application of systems approaches in Malaria, Tuberculosis and Neglected Tropical Diseases (NTDs) including Leprosy, Schistosomiasis and Onchocerciasis. Our selected speakers, experts in their respective fields, will share their latest findings and insights, highlighting the potential of these technologies to transform global health. This is expected to be a first-of-its-kind systems immunology symposium at ASTMH, focused on innovations in both computational and experimental systems immunology. Ample interaction time will be kept aside to provide opportunity for discussion with attendees on how systems immunology approaches can push innovation in the tropical disease spaces including in NTDs. #Diagnostics #HostResponse #Immunology #Modeling #MNCH #Vaccinology

#### CHAIR

Aniruddh Sarkar  
*Georgia Institute of Technology and Emory University School of Medicine, Atlanta, GA, United States*

Jishnu Das  
*University of Pittsburgh, Pittsburgh, PA, United States*

#### 3 p.m. INTRODUCTION

#### 3:10 p.m. DEVELOPING A MULTIVARIATE PREDICTION MODEL OF ANTIBODY FEATURES ASSOCIATED WITH PROTECTION OF MALARIA-INFECTED PREGNANT WOMEN FROM PLACENTAL MALARIA

Amy Chung  
*The Peter Doherty Institute for Infection and Immunity, The University of Melbourne, Melbourne, Australia*

#### 3:40 p.m. ANTIBODY-OMICS FOR BIOMARKER DISCOVERY AND POINT-OF-CARE DIAGNOSTICS FOR NEGLECTED TROPICAL DISEASES

Aniruddh Sarkar  
*Georgia Institute of Technology, Atlanta, GA, United States*

#### 3:55 p.m. ANTIBODY-BASED SIGNATURE ASSOCIATED WITH LATENT AND ACTIVE PEDIATRIC TUBERCULOSIS

Nadege Nziza  
*Ragon Institute of MGH, MIT and Harvard University, Cambridge, MA, United States*

#### 4:10 p.m. USING INTERPRETABLE MACHINE LEARNING TO INFER IMMUNOMODULATORY PHENOTYPES IN INFECTIOUS DISEASE

Jishnu Das  
*University of Pittsburgh, Pittsburgh, PA, United States*

## Symposium 139

### Remembering Karl M. Johnson - A Leader in Tropical Virology

Convention Center - Room 343/344 (3rd Floor)

Saturday, November 16, 3 p.m. - 4:45 p.m.

**THIS SESSION DOES NOT CARRY CME CREDIT.**

Karl M. Johnson, MD, is an American virologist known for discovering Machupo virus and Hantaan virus. He is credited with seminal work on viral hemorrhagic fever and for naming the Ebola virus, and he served as ASTMH President in 1984. Access to the video at [https://www.youtube.com/watch?v=YJ\\_vJBLBoyl](https://www.youtube.com/watch?v=YJ_vJBLBoyl)

#### CHAIR

Thomas P. Monath  
*Quigley BioPharma LLC, Bolton, MA, United States*

Jessica Spengler  
*Centers for Disease Control, Atlanta, GA, United States*

#### 3 p.m. INTRODUCTION AND BRIEF SUMMARY OF KARL JOHNSON’S CAREER

Thomas P. Monath  
*Quigley BioPharma LLC, Bolton, MA, United States*

Saturday  
November 16

**3:20 p.m.****PRODUCTION OF THE WORKERS IN TROPICAL MEDICINE VIDEO: KARL JOHNSON**

Claire Panosian Dunavan  
David Geffen School of Medicine at UCLA, Los Angeles, CA, United States

**3:25 p.m.****KARL M. JOHNSON, MD: LIFE AND LEGEND OF A LEADER IN TROPICAL VIROLOGY - VIDEO**

Access the video at <https://www.youtube.com/watch?v=YJLvJBLBoyl>

**4:15 p.m.****IMPACT OF KARL JOHNSON'S WORK IN VIROLOGY**

Daniel G. Bausch  
London School of Hygiene & Tropical Medicine, London, United Kingdom

**4:30 p.m.****QUESTIONS AND ANSWERS**

Jessica Spengler  
Centers for Disease Control, Atlanta, GA, United States

Thomas P. Monath  
Quigley BioPharma LLC, Bolton, MA, United States

**Scientific Session 140****One Health I: The Interconnection between People, Animals, Plants and Their Shared Environment**

Convention Center - Room 345 (3rd Floor)  
Saturday, November 16, 3 p.m. - 4:45 p.m.

#Prevention #PopulationSurveillance  
#TranslationalScience #EmergingDiseaseThreats  
#Elimination

**CHAIR**

Koya Allen  
Booz Allen Hamilton, Baden-Wuerttemberg, Germany

Kelly K. Baker  
State University of New York at Buffalo, Buffalo, NY, United States

**3 p.m.****8316****THE MOST FORETOLD HUMAN RABIES CASE IN LATIN AMERICA VIEWED UNDER THE ONE HEALTH APPROACH**

Ricardo Castillo-Neyra<sup>1</sup>, Lizzie Ortiz-Cam<sup>2</sup>, Elvis W. Diaz<sup>2</sup>, Sherrie Xie<sup>1</sup>, Jorge Cañari<sup>2</sup>, Valerie Paz-Soldán<sup>3</sup>, Sergio E. Recuenco<sup>4</sup>  
<sup>1</sup>University of Pennsylvania, Philadelphia, PA, United States, <sup>2</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>3</sup>Tulane University, New Orleans, LA, United States, <sup>4</sup>Universidad Nacional Mayor de San Marcos, Lima, Peru

**3:15 p.m.****8317****ONE HEALTH SURVEILLANCE APPROACH ILLUMINATES SILENT SLEEPING SICKNESS TRANSMISSION HOTSPOTS IN HAMLETS OF OYO STATE, NIGERIA**

Rolayo Toyin Emmanuel<sup>1</sup>, Yahaya A. Umar<sup>2</sup>, Philip A. Vantsawa<sup>2</sup>, Deborah M. Dibal<sup>2</sup>, Kelly Zongo<sup>3</sup>, Olaleye O. Olusola<sup>4</sup>, Temitope O. Popoola<sup>4</sup>  
<sup>1</sup>Nigerian Institute for Trypanosomiasis and Onchocerciasis Research, Kaduna, Nigeria, <sup>2</sup>Department of Biological Sciences, Faculty of Science, Nigerian Defence Academy, Kaduna, Nigeria, <sup>3</sup>The END Fund, New York, NY, United States, <sup>4</sup>Nigerian Institute for Trypanosomiasis and Onchocerciasis Research, Ibadan, Nigeria

**3:30 p.m.****8318****MORPHOLOGICAL AND MOLECULAR IDENTIFICATION OF B. MALAYI AND OTHER FILARIAL SPECIES IN ANIMALS FROM BELITUNG, INDONESIA: IMPLICATIONS FOR LYMPHATIC FILARIASIS ELIMINATION**

Irina Diekmann<sup>1</sup>, Kerstin Fischer<sup>1</sup>, Taniawati Supali<sup>2</sup>, Peter Fischer<sup>1</sup>  
<sup>1</sup>Infectious Diseases Division, Department of Medicine, Washington University School of Medicine, St. Louis, MO, United States, <sup>2</sup>Department of Parasitology, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia

**3:45 p.m.****8319****PAN-CANADIAN RESPONSE TO HIGHLY PATHOGENIC AVIAN INFLUENZA (HPAI) A(H5N1): BENEFITS AND CHALLENGES OF A ONE HEALTH APPROACH**

Peter A. Buck<sup>1</sup>, Clarice Lulai-Angi<sup>2</sup>, Cynthia Pekarik<sup>3</sup>, Yohannes Berhane<sup>4</sup>, Jennifer Provencher<sup>5</sup>, Erin Leonard<sup>6</sup>, Jolene Giacinti<sup>5</sup>, Andrea Osborn<sup>7</sup>, Amole Khadilkar<sup>8</sup>, Nicole Atchessi<sup>1</sup>, Trevor Thompson<sup>3</sup>, Michael Brown<sup>3</sup>, Cathy Furness<sup>9</sup>, HPAI One Health Fed-Prov-Terr-Indigenous WorkGroup<sup>10</sup>  
<sup>1</sup>Public Health Agency of Canada, Ottawa, ON, Canada, <sup>2</sup>Canadian Food Inspection Agency, Ottawa, ON, Canada, <sup>3</sup>Environment and Climate Change Canada, Gatineau, QC, Canada, <sup>4</sup>Canadian Food Inspection Agency, Winnipeg, MB, Canada, <sup>5</sup>Environment and Climate Change Canada, Ottawa, ON, Canada, <sup>6</sup>Public Health Agency of Canada, Halifax, NS, Canada, <sup>7</sup>Canadian Food Inspection Agency, Parksville, BC, Canada, <sup>8</sup>Indigenous Services Canada, Ottawa, ON, Canada, <sup>9</sup>Canadian Food Inspection Agency, Guelph, ON, Canada

**4 p.m.****8320****A ONE HEALTH APPROACH IN DETECTION OF INFECTIOUS DISEASES IN NORTHERN GHANA**

Deborah Narworte<sup>1</sup>, Bernice Baako<sup>1</sup>, John Zing<sup>1</sup>, Felix Nenyewodey<sup>1</sup>, Seth Offei Addo<sup>2</sup>, Stephen Kantum Adageba<sup>1</sup>, Simon Bawa<sup>1</sup>, Michael Bandasua Kaburise<sup>1</sup>, Francis Broni<sup>1</sup>, Cornelius Debpuur<sup>1</sup>, Ali Moro<sup>1</sup>, Jane Ansa-Owusu<sup>2</sup>, Samuel Dadzie<sup>3</sup>, Victor Asoala<sup>1</sup>, Patrick Odum Ansa<sup>1</sup>, Zahra Parker<sup>4</sup>, Abdulwasii Bolaji Tiamiyu<sup>5</sup>, Edward Akinwale<sup>5</sup>, Kara Lombardi<sup>6</sup>, Leigh Anne Eller<sup>6</sup>, Erica Broach<sup>6</sup>, Anastasia Zuppe<sup>6</sup>, Tshedal Mebrahtu<sup>6</sup>, Qun Li<sup>6</sup>, Jillian Chambers<sup>6</sup>, Nicole Dear<sup>6</sup>, Ana Manzano-Wight<sup>6</sup>, Jenny Lay<sup>6</sup>, Terrel Sanders<sup>7</sup>, Robert Hontz<sup>7</sup>, David B. Pecor<sup>8</sup>, Cynthia L. Tucker<sup>8</sup>, Sherri Daye<sup>9</sup>, Hee Kim<sup>9</sup>, Yvonne-Marie Linton<sup>10</sup>, Thierry Lamare Assedi Njatou Fouapou<sup>11</sup>, Melanie D. McCauley<sup>6</sup>  
<sup>1</sup>Navrongo Health Research Centre, Navrongo, Ghana, <sup>2</sup>Noguchi Memorial Institute for Medical Research, Accra, Ghana, <sup>3</sup>Noguchi Memorial Institute for Medical, Accra, Ghana, <sup>4</sup>Henry Jackson Foundation, Lagos, Nigeria, <sup>5</sup>HJF Medical Research International (HJFMRI), Abuja, Nigeria, <sup>6</sup>Henry M. Jackson Foundation for the Advancement of Military Medicine, Bethesda, MD, United States, <sup>7</sup>U.S. Naval Medical Research Unit-EURAFCENT, Accra, Ghana, <sup>8</sup>Walter Reed Biosystematics Unit (WRBU), Smithsonian Museum Support Center, Suitland, MD, United States, <sup>9</sup>One Health Branch, CIDR, Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>10</sup>Walter Reed Biosystematics Unit (WRBU), Smithsonian Museum Support Center, Suitland, MD, United States, <sup>11</sup>One Health Branch, CIDR, Walter Reed Army Institute of Research, Silver Spring, MD, United States



4:15 p.m.

8321

**THE ONE HEALTH INITIATIVE FOR ZOOONOTIC DISEASE RESPONSE IN EASTERN UGANDA. OPPORTUNITIES AND AREAS FOR IMPROVEMENT**

Richard Ssekitooleko<sup>1</sup>, Herbert Isabirye<sup>2</sup>, Benjamin Fuller<sup>3</sup>, Margaret R Lawrence<sup>3</sup>, Solome Okware<sup>1</sup>, Annet Alenyo<sup>1</sup>, Immaculate Atuhaire<sup>1</sup>, Andrew Bakainaga<sup>1</sup>, Elizabeth Mgamb<sup>1</sup>, Yonas Tegegn Woldemariam<sup>1</sup>, Christopher C. Moore<sup>3</sup>

<sup>1</sup>World Health Organization, Kampala, Uganda, <sup>2</sup>Infectious Disease Institute and the National Public Health Emergency Operations Center, Kampala, Uganda, <sup>3</sup>University Of Virginia, Charlottesville, VA, United States

4:30 p.m.

8322

**A ONE HEALTH APPROACH TO PREVENTION, DETECTION, AND RESPONSE TO CRIMEAN-CONGO HEMORRHAGIC FEVER IN THE KURDISTAN REGION OF IRAQ**

Bejan A. Dizayee<sup>1</sup>, Aso H. Kareem<sup>2</sup>, Lauren N. Miller<sup>3</sup>, Erin Sorrell M. Sorrell<sup>4</sup>, Claire J. Standley<sup>3</sup>

<sup>1</sup>Central Veterinary Laboratory, Ministry of Agriculture, Kurdistan Region, Erbil, Iraq, <sup>2</sup>Ministry of Health, Kurdistan Region, Erbil, Iraq, <sup>3</sup>Georgetown University, Washington, DC, United States, <sup>4</sup>Johns Hopkins University, Baltimore, MD, United States

**Symposium 141**

**Malaria in Children and Adolescents with Sickle Cell Anemia; A Growing High Risk and Morbidity Group**

Convention Center - Room 352 (3rd Floor)

Saturday, November 16, 3 p.m. - 4:45 p.m.

There is an epidemiological overlap between malaria and sickle cell trait and disease. Sickle cell anemia (SCA) and malaria are both highly prevalent in Africa. The objective of this symposium is to draw attention to the growing burden and severe consequences of malaria in children and adolescents with sickle cell anaemia. It will highlight the burden, management, and ongoing studies of prevention of the disease in this high-risk, high morbidity and mortality group of vulnerable patients. Sickle Cell Anemia (SCA) is the most common haemoglobinopathy worldwide; over 400,000 babies are born with the disease annually, and today, over 7 million live with the disease; 80% of them in sub-Sahara Africa Affected children suffer from chronic ill health, poor growth, and are prone to repeated infections, including malaria and progressive organ damage, which together cause poor quality of life, missed school days, neurocognitive deficits, and premature death. Only 30-45% of these children reach their 5th birthday. Indeed, in highly affected countries, SCA is estimated to account for 5-16% of all under 5 years mortality. Malaria is leading precipitant of the acute SCA complications many times resulting in severe morbidity or even death. In countries such as Uganda, the incidence of malaria is up to 1.2 per child-year and close to 50% present with severe malaria. Malaria also causes over 20% of deaths in these children. #ClinicalResearch #Pediatrics #InfectiousDiseases #Prevention #Pathogenesis

**CHAIR**

Richard Idro  
Makerere University, Kampala, Uganda

Chandy John  
Indiana University, Indianapolis, IN, United States

3 p.m.

**INTRODUCTION**

3:10 p.m.

**MALARIA PREVENTION STRATEGIES IN CHILDREN AND ADOLESCENTS WITH SCA**

Jane Achan

Malaria Control Programme, Kampala, Uganda

3:30 p.m.

**SICKLE CELL ANEMIA AND MALARIA IN AFRICA: BURDEN, PATHOGENESIS AND OUTCOMES**

Ruth Namazzi

Makerere University, Kampala, Uganda

3:50 p.m.

**PREVENTION OF MALARIA IN SICKLE CELL ANAEMIA; RECENT AND ONGOING CLINICAL TRIALS**

Richard Idro

Makerere University, Kampala, Uganda

4:10 p.m.

**DISCUSSION : NEXT STEPS**

Chandy John

Indiana University, Indianapolis, IN, United States

**Scientific Session 142**

**Mosquitoes- Epidemiology and Vector Control I**

Convention Center - Room 353 (3rd Floor)

Saturday, November 16, 3 p.m. - 4:45 p.m.

#FieldStudies #Modeling #Prevention

**CHAIR**

Idriss Nasser Ngangue Siewe

University of Douala / OCEAC, Yaounde, Cameroon

Penelope A. Hancock

MRC Centre for Global Infectious Disease Analysis, Imperial College London, London, United Kingdom

3 p.m.

8323

**FIRST PILOT RELEASE OF X-RAY STERILIZED MALE Aedes Aegypti TO CONTROL INVASIVE MOSQUITOES IN SOUTHERN CALIFORNIA: STRATEGY, LESSONS LEARNT AND THE WAY FORWARD**

Solomon K. Birhanie, Michelle Q. Brown

West Valley Mosquito and Vector Control District, Ontario, CA, United States

3:15 p.m.

8324

**CHANGING PARASITE SPECIES DYNAMICS AND SPECIES-SPECIFIC ASSOCIATIONS OBSERVED BETWEEN ANOPHELES AND PLASMODIUM GENERA IN SOUTHWEST BURKINA FASO**

Paula Lado<sup>1</sup>, Lyndsey I. Gray<sup>1</sup>, Emmanuel Sougue<sup>2</sup>, Anna-Sophia Leon<sup>1</sup>, Molly Ring<sup>1</sup>, Greg Pugh<sup>1</sup>, Jenna Randall<sup>1</sup>, Elizabeth Hemming-Schroeder<sup>1</sup>, Hannah Sproch<sup>3</sup>, A. Fabrice Some<sup>2</sup>, Roch K. Dabire<sup>2</sup>, Sunil Parikh<sup>3</sup>, Brian D. Foy<sup>1</sup>

<sup>1</sup>Colorado State University, Fort Collins, CO, United States, <sup>2</sup>IRSS, Bobo Dioulasso, Burkina Faso, <sup>3</sup>Yale School of Public Health, New Haven, CT, United States

Saturday  
November 16

3:30 p.m.

8325

### EVALUATION OF HUMAN EXPOSURE TO MALARIA VECTORS USING AN IMMUNO-EPIDEMIOLOGICAL BIOMARKER (ANOPHELES-GSG6-P1 SALIVARY PEPTIDES) IN FOUR RURAL AREAS IN CAMEROON

Idriss Nasser NGANGUE SIEWE<sup>1</sup>, Paulette NDJEUNIA MBIKOP<sup>2</sup>, André SAGNA BAREMBAYE<sup>3</sup>, Jean Arthur MBIDA MBIDA<sup>4</sup>, Christophe ANTONIO-NKONDJIO<sup>5</sup>, Franck REMOUE<sup>6</sup>, Athanase BADOLO<sup>7</sup>

<sup>1</sup>University of Douala / OCEAC, Yaounde, Cameroon, <sup>2</sup>University of Yaounde I / OCEAC, Yaounde, Cameroon, <sup>3</sup>MIVEGEC, University of Montpellier, CNRS, IRD, BoBo Dioulasso, Burkina Faso, <sup>4</sup>University of Douala, Douala, Cameroon, <sup>5</sup>OCEAC, Yaounde, Cameroon, <sup>6</sup>MIVEGEC, University of Montpellier, CNRS, IRD, Montpellier, France, <sup>7</sup>JOSEPH KI-ZERBO University, Ouagadougou, Burkina Faso

3:45 p.m.

8326

### ASSESSING INSECTICIDE TREATED NETS PERFORMANCE WITH BIOMARKER OF ANOPHELES GAMBIAE S.L GSG6-P1 SALIVARY PEPTIDE ANTIGEN: A LONGITUDINAL STUDY IN MALI

Ibrahim Traore<sup>1</sup>, Moussa BM CISSE<sup>1</sup>, Alou Yacouba Sangare<sup>1</sup>, Mariam S. Sangare<sup>1</sup>, Aldiana K. Maiga<sup>1</sup>, Lazenii Konate<sup>1</sup>, Yacouba Dansoko<sup>1</sup>, Amadou Diakite<sup>1</sup>, Tidiani Sinayoko<sup>1</sup>, Alice Dembele<sup>1</sup>, Jean Marie Sanou<sup>1</sup>, Mamadou Sow<sup>1</sup>, Abdourhamane Dicko<sup>2</sup>, François D. Traore<sup>3</sup>, Franck Remoue<sup>3</sup>, Ousmane A. Koita<sup>1</sup>

<sup>1</sup>Laboratoire de Biologie Moléculaire Appliquée, Bamako, Mali, <sup>2</sup>National Malaria Control Program, Bamako, Mali, <sup>3</sup>Institut de Recherche pour le Développement, Montpellier, France

4 p.m.

8327

### CHARACTERIZATION OF LARVAL HABITATS TO ASSESS THE FEASIBILITY OF LARVAL SOURCE MANAGEMENT AS A SUPPLEMENTARY INTERVENTION IN A HIGH MALARIA TRANSMISSION AREA IN NIGERIA AND A LOW MALARIA TRANSMISSION AREA OF ZAMBIA - OPERATIONALIZING THE WORLD HEALTH ORGANIZATION'S THE FEW, THE FIXED. AND THE FINDABLE

Mohamed N. Bayoh<sup>1</sup>, Adedayo Oduola<sup>2</sup>, Petrus Inyama<sup>2</sup>, Kelvin Mwenya<sup>1</sup>, Matthias Sikaala<sup>1</sup>, Lazarus Samdi<sup>2</sup>, Brian Chirwa<sup>1</sup>, Alex Chilabi<sup>3</sup>, Reuben Zulu<sup>3</sup>, Ifeanyi Okeke<sup>2</sup>, Godwin Ntadom<sup>4</sup>, Mary Esema<sup>4</sup>, Muhamad A. Bunza<sup>5</sup>, Enerst Mulenga<sup>1</sup>, Grace Yina<sup>2</sup>, Christina Riley<sup>6</sup>, Lilia Gerberg<sup>7</sup>, Jules Mihigo<sup>8</sup>, Melissa Yoshimizu<sup>7</sup>, Allison Belemvire<sup>7</sup>, Paul Psychas<sup>9</sup>, Daniel Impoinvil<sup>10</sup>, Meghan Tammara<sup>11</sup>, Kelley Ambrose<sup>11</sup>, Kerri-Ann Guyah<sup>11</sup>, Bradley Longman<sup>11</sup>, Aklilu Seyoum<sup>11</sup>

<sup>1</sup>PMI Evolve Project - Abt Global, Lusaka, Zambia, <sup>2</sup>PMI Evolve Project - Abt Global, Abuja, Nigeria, <sup>3</sup>National Malaria Elimination Program, Lusaka, Zambia, <sup>4</sup>National Malaria Elimination Program, Abuja, Nigeria, <sup>5</sup>Federal University, Birnin-Kebbi, Nigeria, <sup>6</sup>Akros, Lusaka, Zambia, <sup>7</sup>U.S. President's Malaria Initiative, USAID, Washington, DC, United States, <sup>8</sup>U.S. President's Malaria Initiative, USAID, Abuja, Nigeria, <sup>9</sup>U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Lusaka, Zambia, <sup>10</sup>U.S. President's Malaria Initiative, Malaria Branch, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>11</sup>PMI Evolve Project - Abt Global, Rockville, MD, United States

4:15 p.m.

8328

### MODELS TO INFORM THE DESIGN OF FIELD TRIALS OF NOVEL GENE DRIVE INTERVENTIONS TO SUPPRESS MALARIA VECTOR POPULATIONS

Penelope A. Hancock<sup>1</sup>, Ace North<sup>2</sup>, Tin-Yu J. Hui<sup>1</sup>, Adrian W. Leach<sup>1</sup>, Andrew McKemey<sup>1</sup>, Azize Millogo<sup>3</sup>, John Connolly<sup>1</sup>, Patric Epopa<sup>3</sup>, Franck adama Yao<sup>3</sup>

<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>University of Oxford, Oxford, United Kingdom, <sup>3</sup>Institute de Recherche en Sciences de la Sante, Bobo Dialasso, Burkina Faso

4:30 p.m.

8329

### DEVELOPMENT OF SIT FOR Aedes ALBOPICTUS CONTROL IN CHINA: A PRELIMINARY FIELD STUDY

ZHANG DONGJING

Sun Yat-sen University, Guangzhou, China

## Scientific Session 143

### Schistosomiasis I: Immunology, Pathology, Molecular Biology, Diagnostics, and Treatment

Convention Center - Room 354/355 (3rd Floor)

Saturday, November 16, 3 p.m. - 4:45 p.m.

#Diagnostics #HostResponse #Pathogenesis

#### CHAIR

Tom Pennance

Western University of Health Sciences COMP-NW, Lebanon, OR, United States

Adebayo Molehin

Midwestern University, Glendale, AZ, United States

3 p.m.

8330

### A CLINICAL SCORE TO SCREEN CHILDREN IN NEED FOR CHRONIC FASCIOLIASIS TESTING IN CUSCO - PERU

Karen Mozo Velazco<sup>1</sup>, Maria L. Morales<sup>1</sup>, Martha Pilar Lopez<sup>1</sup>, Benicia Baca - Turpo<sup>1</sup>, Eulogia Arque<sup>1</sup>, Miguel M. Cabada<sup>2</sup>

<sup>1</sup>Instituto de Medicina Tropical Alexander von Humboldt - Universidad Peruana Cayetano Heredia, Peru, CUSCO, Peru, <sup>2</sup>University of Texas Medical Branch, Infectious Diseases Division, Galveston, TX, United States

3:15 p.m.

8331

### DIAGNOSTIC ACCURACY OF COLPOSCOPY FOR FEMALE GENITAL SCHISTOSOMIASIS SCREENING AT PRIMARY LEVEL OF CARE

Pia Rausche<sup>1</sup>, Jean-Marc Kutz<sup>1</sup>, Paule Donven<sup>1</sup>, Sonya Ratefarihoa<sup>2</sup>, Olivette Totofotsy<sup>2</sup>, Diavolana Andrianarimanana-Koecher<sup>2</sup>, Tahinamandranto Rasamoelina<sup>3</sup>, Rivo S. Rakotomalala<sup>2</sup>, Zoly Rakotomalala<sup>2</sup>, Bodo S. Randrianasolo<sup>4</sup>, Irina Kislaya<sup>1</sup>, Jürgen May<sup>1</sup>, Valentina Marchese<sup>1</sup>, Rivo A. Rakotoarivelo<sup>5</sup>, Daniela Fusco<sup>1</sup>

<sup>1</sup>Department of Infectious Diseases Epidemiology, Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, <sup>2</sup>Centre Hospitalier Universitaire Androva, Mahajanga, Madagascar, <sup>3</sup>Centre Infectiologie Charles Mérieux, Antananarivo, Madagascar, <sup>4</sup>Association K'OLO VANONA, Antananarivo, Madagascar, <sup>5</sup>Department of Infectious Diseases, University of Fianarantsoa Andrainjato, Fianarantsoa, Madagascar

3:30 p.m.

8332

### TRANSCRIPTOMICS OF THE AFRICAN FRESHWATER SNAIL VECTOR BIOMPHALARIA SUDANICA S.L. REVEALS CANDIDATE LOCI FOR SCHISTOSOME RESISTANCE

Tom Pennance<sup>1</sup>, Javier Calvelo<sup>2</sup>, Jacob A. Tennesen<sup>3</sup>, Eric S. Loker<sup>4</sup>, Lijun Lu<sup>4</sup>, Johannie M. Spaan<sup>1</sup>, Andrés Iriarte<sup>2</sup>, Maurice R. Odier<sup>5</sup>, Michelle L. Steinauer<sup>1</sup>

<sup>1</sup>Western University of Health Sciences COMP-NW, Lebanon, OR, United States, <sup>2</sup>Universidad de la República, Montevideo, Uruguay, <sup>3</sup>Harvard T.H. Chan School of Public Health, Boston, MA, United States, <sup>4</sup>University of New Mexico, Albuquerque, NM, United States, <sup>5</sup>Kenya Medical Research Institute (KEMRI), Kisumu, Kenya

(ACMCIP Abstract)

3:45 p.m.

8333

### AUTOMATED DIAGNOSIS OF SCHISTOSOMA HAEMATOBIIUM WITH ARTIFICIAL INTELLIGENCE ON HANDHELD DIGITAL MICROSCOPES IN RURAL CÔTE D'IVOIRE

María Díaz de León Derby<sup>\*1</sup>, Elena Dacal<sup>\*2</sup>, Daniel Cuadrado<sup>\*2</sup>, Jean Coulibaly<sup>\*3</sup>, Jaime Garcia-Villena<sup>2</sup>, Carla Caballero<sup>2</sup>, Lin Lin<sup>2</sup>, David Bermejo-Peláez<sup>2</sup>, Miguel Luengo-Oroz<sup>2</sup>, Daniel Fletcher<sup>1</sup>, Karla Fisher<sup>4</sup>, Jason Andrews<sup>5</sup>, Kigbafore Silue<sup>3</sup>, Isaac Bogoch<sup>4</sup>

<sup>1</sup>University of California, Berkeley, Berkeley, CA, United States, <sup>2</sup>SpotLab, Madrid, Spain, <sup>3</sup>Université Félix Houphouët-Boigny, Abidjan, Côte D'Ivoire, <sup>4</sup>Toronto General Hospital, Toronto, ON, Canada, <sup>5</sup>Stanford University, Palo Alto, CA, United States

4 p.m.

8334

**CHARACTERIZATION AND PROCESS DEVELOPMENT OF A SCHISTOSOMA HAEMATOBIIUM SERINE PROTEASE INHIBITOR (SHSERPIN-P46): A NEXT GENERATION VACCINE FOR UROGENITAL SCHISTOSOMIASIS**

Adebayo Molehin<sup>1</sup>, Brooke Hall<sup>1</sup>, Leah Sanford<sup>1</sup>, Christine Lee<sup>1</sup>, Sean Gray<sup>2</sup>, Darrick Carter<sup>2</sup>, Karleen King<sup>1</sup>

<sup>1</sup>Midwestern University, Glendale, AZ, United States, <sup>2</sup>PAI Lifesciences Inc, Seattle, WA, United States

(ACMCIP Abstract)

4:15 p.m.

8335

**MULTIPLE ROUNDS OF PRAZIQUANTEL TREATMENTS OF SCHISTOSOMA MANSONI HOSTS (MICE AND HUMANS) GRADUALLY RENDER THEM LESS SUSCEPTIBLE TO REINFECTION**

Etienne Soh Bayeck<sup>1</sup>, Bernard Zambo<sup>2</sup>, Leonel Meyo Kamguia<sup>2</sup>, Mireille Kameni<sup>2</sup>, Brice Owona Ayissi<sup>1</sup>, Justin Komgwep Nono<sup>2</sup>

<sup>1</sup>University of Yaounde 1, Yaounde, Cameroon, <sup>2</sup>Institute of Medical Research and Medicinal Plant Studies, Yaounde, Cameroon

(ACMCIP Abstract)

4:30 p.m.

8336

**EMPOWER: ENRICHMENT METAGENOMIC PROFILING FOR WOMEN'S REPRODUCTIVE HEALTH**

Jennifer Fitzpatrick<sup>1</sup>, Rebecca Rockett<sup>2</sup>, Juliana Gill<sup>3</sup>, Rhoda Ndubani<sup>1</sup>, Kwitaka Maluzi<sup>1</sup>, Barry Kosloff<sup>4</sup>, Kwame Shanaube<sup>1</sup>, Cristina Tato<sup>5</sup>, Amaya Bustinduy<sup>5</sup>, Helen Ayles<sup>1</sup>, Tanya Golubchik<sup>2</sup>

<sup>1</sup>Zambart, Lusaka, Zambia, <sup>2</sup>University of Sydney, Sydney, Australia, <sup>3</sup>Chan-Zuckerberg Biohub, San Francisco, CA, United States, <sup>4</sup>Longhorn Vaccines & Diagnostics, Bethesda, MD, United States, <sup>5</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom

**Symposium 144**

**Tackling Persistent and Recrudescence Transmission of NTDs: A Growing End-Game Challenge for Elimination of Trachoma, Lymphatic Filariasis and Eradication of Guinea Worm Disease**

Convention Center - Room 356 (3rd Floor)

Saturday, November 16, 3 p.m. - 4:45 p.m.

As per the NTD Roadmap, the World Health Organization (WHO) and partners aim to attain global elimination of at least one NTD in endemic countries by 2030. However, persistent and recrudescence transmission is an emerging endgame challenge and is likely to affect country-level and global-level elimination targets. For example, globally, 14 countries have persistent and recrudescence active trachoma affecting 16% and 9% of evaluation units, respectively. As a result, the WHO and partners convened an informal technical consultation in 2021 that provided guidance on technical definitions, gaps in evidence, and proposed programmatic enhancements to tackle persistent and recrudescence active trachoma. Based on the informal consultation, strategies around modified mass drug administration (MDA) and enhanced monitoring were proposed which have subsequently been taken on board by country programs. While there are no formal definitions for persistent

or recrudescence scenarios for other NTDs, similar phenomena have been documented. For example, foci of persistent lymphatic filariasis (LF) transmission have been documented in Ghana and Sri-Lanka, while recrudescence LF has been reported in Indonesia. Guinea worm eradication programs have now been in place for over three decades in Ethiopia and South Sudan, suggesting persistent disease transmission in prevailing, yet shrinking foci. Additionally, Chad and Mali previously reported interrupted transmission but have subsequently experienced recurrence of Guinea worm disease (GWD), suggesting potential recrudescence, amongst other possible scenarios. This symposium will start by reviewing the epidemiology, risk factors, and potential game-changing interventions of persistent and recrudescence active trachoma. The approach used to categorize trachoma as persistent or recrudescence evaluation units will then be expanded to characterize persistent and recrudescence characteristics of LF, describe risk factors contributing to on-going transmission of LF and propose novel and enhanced interventions. The symposium will apply a similar framework to describe transmission, risk factors, and game-changing interventions related to GWD. At the country level, the symposium will present programmatic examples on the epidemiology, challenges, and lessons learned from over two decades of monitoring persistent/recrudescence trachoma using ocular chlamydia testing in the Amhara Region of Ethiopia and enhanced interventions implemented as a result. In addition, the Uganda program will also exemplify persistent/recrudescence endgame challenges for trachoma and explore the risk of LF recrudescence and evidence-based approaches for prioritizing where to detect signals of LF recrudescence post-validation. #Elimination #Epidemiology #InfectiousDisease #Prevention

**CHAIR**

Jeremiah M. Ngondi  
RTI International, Kenya, Kenya

Scott D. Nash  
The Carter Center, Atlanta, GA, United States

3 p.m.

**INTRODUCTION**

3:10 p.m.

**PERSISTENT AND RECRUDESCENT ACTIVE TRACHOMA AS A THREAT TO GLOBAL ELIMINATION: EPIDEMIOLOGY, RISK FACTORS AND ENHANCED INTERVENTION STRATEGIES**

Kristen Renneker  
The Task Force for Global Health, Decatur, GA, United States

3:25 p.m.

**PERSISTENT AND RECRUDESCENT LF: OPERATIONAL DEFINITIONS, RISK FACTORS, GLOBAL PROGRAM IMPLICATIONS AND ENHANCED INTERVENTIONS**

Jonathan D. King  
WHO, Genève, Switzerland

Saturday  
November 16

**3:40 p.m.****ENHANCED STRATEGIES TO INVESTIGATE PERSISTENT AND RECRUDESCENT TRACHOMA TRANSMISSION: LESSONS LEARNED FROM A DECADE OF OCULAR CHLAMYDIA TESTING IN THE AMHARA REGION OF ETHIOPIA**

Scott D. Nash

*The Carter Center, Atlanta, GA, United States***3:55 p.m.****PROGRAMMATIC ENHANCEMENTS TO INVESTIGATE AND ADDRESS PERSISTENT AND RECRUDESCENT TRACHOMA AND LF IN UGANDA**

Rapheal Opon

*Ministry of Health, Kampala, Uganda***4:15 p.m.****ENHANCED SURVEILLANCE AND INTERVENTIONS TO ADDRESS PERSISTENT/ RECRUDESCENCE TRANSMISSION: LESSONS LEARNED FROM GLOBAL GUINEA WORM ERADICATION PROGRAM**

Samuel Makoy Yibi Logora

*Ministry of Health, Juba, South Sudan***Symposium 145****Engaging Scientists as Advocates Globally, Regionally, Nationally and Subnationally – Advocacy Session***Convention Center - Room 357 (3rd Floor)***Saturday, November 16, 3 p.m. - 4:45 p.m.**

Every day, research, program, funding, and policy decisions are being made at global, regional, national and subnational levels. Whether you realize it or not, you are directly or indirectly impacted by these decisions. How, when and where should scientists use their voices as advocates to speak up for continued investment in science for health? This session will bring together scientists and advocates to share experiences using our voices in policy settings from Washington to Nairobi to Geneva and best practices in advocacy communications.

**CHAIR**

Jamie Bay Nishi

*American Society of Tropical Medicine and Hygiene, Arlington, VA, United States***3 p.m.****INTRODUCTION****3:05 p.m.****ASTMH PRESIDENT TOUCHPOINTS TO POLICY AND ADVOCACY**

Linnie Golightly

*Weill Cornell Medical College, New York, NY, United States***3:25 p.m.****ENGAGING THE US CONGRESS IN SUPPORT OF GLOBAL HEALTH RESEARCH FUNDING**

Jodie Curtis

*Venable LLP, Washington, DC, United States***3:45 p.m.****ENGAGING THE US CONGRESS IN SUPPORT OF GLOBAL HEALTH RESEARCH FUNDING**

Margaret McDonnell

*United to Beat Malaria, UN Foundation, Washington, DC, United States***4:05 p.m.****ENGAGING GLOBALLY, REGIONALLY, NATIONALLY AND SUBNATIONALLY**

Jamie Bay Nishi

*American Society of Tropical Medicine and Hygiene, Arlington, VA, United States***4:25 p.m.****ENGAGING GLOBALLY, REGIONALLY, NATIONALLY AND SUBNATIONALLY**

Olivia Ngou

*Impact Sante Afrique, Yaoundé, Cameroon*

Sarthak Das

*Singapore, Singapore***4:35 p.m.****TIPS AND TOOLS FOR EFFECTIVE SCIENCE ADVOCACY COMMUNICATION**

Gideon Hertz

*Burness, Bethesda, MD, United States***Symposium 146****Minimally Invasive Tissue Sampling: A Tool for Public Health Preparedness***Convention Center - Room 383/384/385 (3rd Floor)***Saturday, November 16, 3 p.m. - 4:45 p.m.**

High-quality mortality data is a fundamental component of global health security and pandemic preparedness. Accurate mortality surveillance requires coherent and context-specific national strategies that are integrated into the public health infrastructure and are aligned with cultural priorities. Robust and effective mortality surveillance systems must include strategies and tools sensitive enough to safely and efficiently recognize cases not identified through routine diagnostics, including detection and identification of pathogens of unknown origin as part of outbreak investigations, while simultaneously aligning with available resources as part of routine mortality surveillance. Minimally invasive tissue sampling (MITS), a pathology-based postmortem examination method which improves accuracy of cause of death determination and identification of causal pathogens, is being increasingly used globally in mortality surveillance and research, particularly in resource-constrained settings. In contrast to complete diagnostic autopsy, MITS is more acceptable to communities, requires fewer resources and can be used in facilities with minimal infrastructure, such as rural mortuaries and lightly customized vehicles. MITS can be performed effectively by non-pathologist health care professionals, making it a promising component of mortality surveillance. Using targeted methods to rapidly identify infectious pathogens, MITS is a safe and efficient strategy for contributing to public health

preparedness. Due to the limited production of aerosols, using only enhanced personal-protective equipment (PPE) MITS has been used to investigate cause of death in cases of known infectious agents in settings without more sophisticated resources such as biosafety level (BSL)-3 laboratories and negative-pressure autopsy rooms. This symposium will consist of four case-studies that highlight examples and offer practical guidance for employing MITS as a strategy to contribute to robust and responsive public health preparedness by: 1) describing MITS' contribution in strengthening the maternal and perinatal death surveillance and response (MPDSR), underscoring context specific adaptations and stakeholder engagement in Nepal, 2) presenting organizational and community level strategies being used to integrate MITS as a complement to sample-based mortality systems in Zambia, 3) describing how MITS was instrumental in the rapid identification of infectious pathogens, emphasizing the role government and community collaboration and communication as part of an outbreak investigation in a rural boarding school in Kenya, and 4) outlining context-specific guidance and procedures for using MITS in outbreak investigations by CDC with a focus on ensuring biosafety #MNCH, #InfectiousDisease, #Pediatrics #PopulationSurveillance, #EmergingDiseaseThreats

#### **CHAIR**

Christina (Tia) Paganelli  
*RTI International, Durham, NC, United States*

Victor Akelo  
*CDC, Kisumu, Kenya*

#### **3 p.m.**

##### **INTRODUCTION**

#### **3:10 p.m.**

##### **MINIMALLY INVASIVE TISSUE SAMPLING TO SUPPORT MATERNAL AND PERINATAL DEATH SURVEILLANCE AND RESPONSE**

Nuwadatta Subedi  
*Gandaki Medical College and Research Center, Pokhara, Nepal*

#### **3:25 p.m.**

##### **ENHANCING PUBLIC HEALTH PREPAREDNESS THROUGH POPULATION-REPRESENTATIVE MORTALITY SURVEILLANCE**

Stephen Chanda  
*Zambia National Public Health Institute, Lusaka, Zambia*

#### **3:40 p.m.**

##### **PRACTICAL INVESTIGATION OF A DISEASE OUTBREAK IN A RURAL COMMUNITY USING MINIMALLY INVASIVE TISSUE SAMPLING**

Edwin Walong  
*Nairobi School of Medicine/Kenyatta National Hospital, Nairobi, Kenya*

#### **3:55 p.m.**

##### **DISEASE OUTBREAK INVESTIGATIONS USING MINIMALLY INVASIVE TISSUE SAMPLING: PAST EXPERIENCES AND FUTURE DIRECTIONS**

Jana Ritter  
*United States Centers for Disease Control and Prevention, Atlanta, GA, United States*

## **Symposium 147**

### **What it Truly Takes to Build Health System Resilience in an Era of Global Environmental Change: A Case Study of Madagascar**

*Convention Center - Room 388/389 (3rd Floor)*

**Saturday, November 16, 3 p.m. - 4:45 p.m.**

Madagascar, an island country in which 90% of plants and 85% of animals are endemic species, is also home to one of the first famines attributed to global warming. Madagascar has experienced increasingly frequent extreme weather events resulting in damaged infrastructure, population displacement, rising rates of malnutrition, and a shifting burden of infectious disease. Given the environmental, ecological, and human health vulnerabilities in Madagascar, the country is uniquely positioned to identify innovative solutions for persistent challenges and share transferable lessons on planetary health. We present a case study that outlines Madagascar's multi-sectoral approach to building resilience. We will describe how organizations from various sectors are using community leadership, data from diverse sources, research methods that draw from across scientific disciplines, and collaborative partnerships to respond to a changing climate. Leaders from across Madagascar will share their experience in adapting their activities to meet local needs. We will review the ways in which "resilience" is defined by different sectors, and advocate for eliminating ideological silos in favor of cross-sector collaboration for maximum impact and sustainability. The panel will feature representatives from organizations working across Madagascar: a) The Ministry of Public Health will present on a national strategy for resilient health systems and meeting the country's needs in response to ongoing climate challenges: drought-related malnutrition, infrastructure destruction by cyclones, and infectious disease outbreaks; b) A community health worker will provide insight into climate events and community priorities; c) Charles Merieux Center of Infectious Disease, Madagascar's leading public health laboratory and a research center, will present on the role of diagnostics and infectious disease research in system design for a changing climate; d) Pivot, an NGO with a decade of experience working with the government to establish a model system of healthcare based on the integration of science and service delivery, will present on the response to local climate events and community health analytics to identify changing disease burden; e) Blue Ventures, a marine conservation organization, will share how they have used fisheries as a point of entry for engaging in building health systems resilience. The facilitator will pose questions to panelists and audience members on the risks and opportunities of health systems strengthening in a time of climate crisis; the challenges of nimble, right-sized data collection; and integrating research with clinical care to generate useful evidence for local and national stakeholders. #FieldStudies #MNCH #InfectiousDisease

#### **CHAIR**

Matthew Bonds  
*Harvard Medical School, Boston, MA, United States*

Laura Cordier  
*Pivot, Ranomafana, Madagascar*

Saturday  
November 16

**3 p.m.**  
**INTRODUCTION****3:10 p.m.**  
**BUILDING A RESILIENT NATIONAL HEALTH SYSTEM**

Zely Arivelo Randriamanantany  
*Madagascar Ministry of Public Health, Antananarivo, Madagascar*

**3:25 p.m.**  
**INFECTIOUS DISEASE RESEARCH AND PLANETARY HEALTH IN MADAGASCAR**

Luc Samison  
*Centre d'Infectiologie Charles Mérieux, Antananarivo, Madagascar*

**3:40 p.m.**  
**ENGAGING COMMUNITIES IN RESPONDING TO CLIMATE EVENTS**

Fety Randrianarivelo  
*Madagascar Ministry of Public Health, Ranomafana, Madagascar*

**3:55 p.m.**  
**BUILDING HEALTH SYSTEM RESILIENCE THROUGH FISHERIES**

Edith Ngunjiri  
*Blue Ventures, Antananarivo, Madagascar*

**4:10 p.m.**  
**HEALTH SYSTEMS STRENGTHENING IN THE FACE OF A CHANGING CLIMATE**

Benedicte Razafinjato  
*Pivot, Ranomafana, Madagascar*

**Symposium 148****Spatial Repellents to Prevent Dengue and Malaria: Evidence and Policy Updates**

*Convention Center - Room 391/392 (3rd Floor)*  
**Saturday, November 16, 3 p.m. - 4:45 p.m.**

Long available for commercial use, spatial repellents are an underrecognized product class for malaria vector control currently under evaluation by the World Health Organization (WHO). These are products that can be hung up to diffuse active ingredients, commonly insecticides, to reduce contact between humans and mosquitoes. Evidence on safety, efficacy, and user acceptability continues to support the entry of spatial repellents into the malaria and dengue vector control arsenal in the near future, and it is time for this product class to enter the mainstream radar of important vector control tools that can offer protection from mosquito-borne disease. This is a symposium on spatial repellents to reduce mosquito-borne disease. Here we cover the history of spatial repellent research and where we are today, focusing on the active ingredients available and those in the pipeline, evidence from entomology semi-field and field studies, epidemiological evidence from two large scale trials in Mali and Kenya, implementation science findings on user acceptability and delivery, and current WHO policy status on this product class. Our first speaker, Nicole Achee, will provide an overview of spatial repellent history, active ingredients in use today, and research priorities required to support their potential and continued widescale rollout. How has

the evidence base been growing, where are we today? Which use case scenarios are under consideration and, looking ahead, what more do we need to know? Our second speaker, Daniel Msellemu, will present results from the meta-analysis 'Volatile pyrethroids against mosquitoes,' as well as interim findings from a Cochrane review on epidemiological studies of spatial repellents to prevent malaria. Our third speaker, Eric Ochomo, will present an evaluation of the protective efficacy of a spatial repellent to reduce malaria incidence in children in western Kenya compared to placebo: outcomes from a cluster-randomized double-blinded control trial. These findings are critical to the WHO prequalification pathway for spatial repellents. Our fourth speaker, Dr. Issaka Sagara, will present an evaluation of the protective efficacy of a spatial repellent to reduce malaria incidence in children in Mali compared to placebo: outcomes from a cluster-randomized double-blinded control trial. These findings are also critical to the WHO prequalification pathway for spatial repellents. Our final speaker, Dr. Dyna Doum will present on the delivery and uptake of spatial repellent devices to forest populations in Cambodia, describing the uptake, challenge, and lessons learned from delivering spatial repellent devices in Cambodia to over 2,000 individuals. #InfectiousDisease #Epidemiology #TranslationalScience #Prevention #Elimination

**CHAIR**

Ingrid Chen  
*University of California, San Francisco, San Francisco, CA, United States*

Nicole L. Achee  
*University of Notre Dame, Notre Dame, IN, United States*

**3 p.m.**  
**INTRODUCTION****3:10 p.m.**  
**SPATIAL REPELLENTS: FROM ACTIVE INGREDIENT DISCOVERY TO POLICY AND ROLLOUT EVALUATIONS**

Nicole L. Achee  
*University of Notre Dame, Notre Dame, IN, United States*

**3:25 p.m.**  
**META-ANALYSIS OF ENTOMOLOGICAL EVIDENCE BASE FOR SPATIAL REPELLENTS**

Daniel F. Msellemu  
*Ifakara Health Institute, Dar es Salaam, United Republic of Tanzania*

**3:40 p.m.**  
**EVALUATION OF THE PROTECTIVE EFFICACY OF A SPATIAL REPELLENT TO REDUCE MALARIA INCIDENCE IN CHILDREN IN WESTERN KENYA COMPARED TO PLACEBO: OUTCOMES FROM A CLUSTER-RANDOMIZED DOUBLE-BLIND CONTROL TRIAL**

Eric Ochomo  
*Kenya Medical Research Institute, Kisumu, Kenya*

**3:55 p.m.**  
**EVALUATION OF THE PROTECTIVE EFFICACY OF A SPATIAL REPELLENT TO REDUCE MALARIA INCIDENCE IN CHILDREN IN MALI COMPARED TO PLACEBO: OUTCOMES FROM A CLUSTER-RANDOMIZED DOUBLE-BLIND CONTROL TRIAL**

Issaka Sagara  
*Malaria Research and Training Center (MRTC), University of Sciences, Techniques and Technologies of Bamako (USTTB), Bamako, Mali*

**4:10 p.m.**

**DELIVERY AND UPTAKE OF SPATIAL REPELLENT DEVICES TO FOREST POPULATIONS IN CAMBODIA: AN IMPLEMENTATION RESEARCH STUDY**

Dyna Doum

*Health Forefront Organization, Phnom Penh, Cambodia*

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## Symposium 149

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### Reaching the Last Mile: Innovations and Implementation Approaches to Ensure Community-Based Malaria Care for All

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*Convention Center - Room 393/394 (3rd Floor)*

**Saturday, November 16, 3 p.m. - 4:45 p.m.**

Limited access to care and delayed care seeking remain significant barriers to controlling malaria. Despite renewed focus on community health worker (CHW) programs, access to and use of malaria services, especially for remote populations, remain low. This symposium will present results from recent community case management innovations designed to improve access to timely malaria services in several countries in sub-Saharan Africa. Presentations will include results from cluster-randomized trials, pilot projects, and scale-up of expanded CHW services through the routine health system, plus a modeling application to optimize CHW placement. First, we will hear new results from a recently completed trial in three districts in Malawi of the expansion of malaria community case management (mCCM) to community members of all ages. Our speaker from Madagascar will then discuss the implementation of age-expanded mCCM in southeast Madagascar through the routine health system, explaining how findings from a similar study in Madagascar informed the implementation approach, and how community intermittent preventive treatment of malaria in pregnancy (c-IPtP) services were successfully added without over burdening CHWs. The second community-based innovation will cover proactive approaches whereby CHWs visit households at periodic intervals to test for and treat malaria (ProCCM in Mali and Zambia). In Mali, proactive visits were part of a comprehensive pilot of malaria services that included a strengthened CHW network and reinforced primary care services, a package that helped reduce child mortality in a setting of conflict and displaced populations. The speaker will present the latest findings on the (limited) added benefits of proactive visits on top of a comprehensive package of strengthened malaria services, with an aim towards helping donors and policymakers understand the best use of limited resources when scaling-up community services. Similarly, implications of a recent ProCCM trial in Zambia, where the benefits of proactive malaria sweeps in a setting of high mCCM coverage were modest, will be discussed. Finally, we will hear from a modeler who will present work done in collaboration with the Cameroon Ministry of Health to understand optimal geographic expansion of CHW networks. The model targets areas with higher malaria burden, child mortality, and displaced populations, and the speaker will explain how to adapt it across different settings. All presenters will

discuss logistical challenges and lessons learned during trial and program implementation, as well as how their findings can inform policy and program decisions in malaria-endemic countries. We will close with a panel discussion and Q&A, allowing ample time for discussion and idea sharing. #ChildHealth #FieldStudies #MNCH

#### CHAIR

Laura C. Steinhardt

*CDC, Atlanta, GA, United States*

**3 p.m.**

#### INTRODUCTION

**3:05 p.m.**

#### EXPANDING MALARIA COMMUNITY CASE MANAGEMENT (MCCM) TO ALL AGES IN THREE DISTRICTS OF MALAWI: KEY RESULTS FROM A CLUSTER-RANDOMIZED TRIAL

Tinashé Tizifa

*TRUE, Blantyre, Malawi*

**3:20 p.m.**

#### FROM CONTROLLED TRIAL TO POLICY EXPANSION: KEY LEARNINGS FROM IMPLEMENTING AGE-EXPANDED MCCM AND COMMUNITY IPTP THROUGH THE ROUTINE HEALTH SYSTEM IN MADAGASCAR

Andritahina Razafiarjoana

*MCGL (Jpiego), Antananarivo, Madagascar*

**3:35 p.m.**

#### THE ADDED VALUE OF PROACTIVE CHW VISITS AS PART OF A COMPREHENSIVE PRIMARY CARE PACKAGE IN MALI

Kassoum Kayentao

*MUSO, Bamako, Mali*

**3:50 p.m.**

#### ARE PROACTIVE VISITS REALLY NEEDED IN ZAMBIA? UNDERSTANDING PROCCM RESULTS IN A SETTING OF HIGH COVERAGE OF ROUTINE MCCM

Bupe Kabamba

*PATH PAMO Project, Lusaka, Zambia*

**4:05 p.m.**

#### MODELING APPROACHES TO OPTIMIZE GEOGRAPHIC EXPANSION OF CHW ACTIVITIES IN CAMEROON

Justin Millar

*PATH Insights, Seattle, WA, United States*

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## Symposium 150

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### New Perspectives on Human Autochthonous Chagas Disease in the United States and Mexico

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*Convention Center - Room 395/396 (3rd Floor)*

**Saturday, November 16, 3 p.m. - 4:45 p.m.**

This session presents research and insights on autochthonous Chagas disease, including vector and host species, in different regions of the United States and Mexico. 1. Gabriel L. Hamer (Texas A&M University) will discuss mechanisms of *T. cruzi* spill-over from triatomines to humans, presenting study results

of where triatomines occur in the U.S. using a community science program, what triatomines feed on using bloodmeal metabarcoding, and experiments exploring triatomine feeding and defecation behavior related to risk of human exposure to *T. cruzi*.

2. Claudia Herrera (Tulane University) will explore questions about the current distribution of parasite DTUs. Our team detected a previously unreported *T. cruzi* DTU circulating among triatomine vectors and rodents from rural and urban areas in New Orleans. A high prevalence of *T. cruzi* in local mammals suggest active peri(domestic) transmission of *T. cruzi* in urban and rural areas in Louisiana.

3. Paula Stigler Granados (San Diego State University) will describe research on distribution of triatomines on U.S. military installations and risks posed to active duty service members and military working dogs. Triatomine surveillance conducted on U.S. military bases near the U.S. Mexico border highlights the need to use a One Health multi-disciplinary approach.

4. Norman L. Beatty (University of Florida) and a multidisciplinary research team have found a wide distribution of triatomines invading human dwellings in Florida, a potential new *Triatoma* species, and high rates of *T. cruzi* infection in triatomines and mammals. They have unearthed the first known autochthonous Florida canine Chagas in the state.

5. Melissa Nolan, (University of South Carolina) will discuss research on autochthonous human transmission dynamics across the Southern United States, including California, Arizona, Texas and South Carolina. Multi-year investigations have unearthed unique transmission dynamics resulting in locally acquired human infection.

6. Carlos Ibarra (Centro de Investigaciones de Estudios Avanzados del Instituto Politecnico Nacional, Merida, Mexico) will provide a perspective from Mexico, where all phylogenetic variants of *Trypanosoma cruzi* have been detected and which hosts diverse vector and host species. This diversity and ongoing environmental changes adds complexity to the dynamics of *T. cruzi* transmission. New research is providing insight on these complex processes. #InfectiousDisease, #EcologicalStudies, #FieldStudies, #MolecularBiology

**CHAIR**

Claudia P. Herrera  
Tulane University, New Orleans, Louisiana- USA, LA, United States

Davidson H. Hamer  
Boston University School of Medicine, Boston, MA, United States

**3 p.m.**  
**INTRODUCTION**

**3:10 p.m.**  
**THE MYTH ABOUT TRIATOMINES WITHOUT CHAGAS**

Gabriel L. Hamer  
Texas A&M University Department of Entomology, College Station, TX, United States

**3:25 p.m.**  
**GENETIC DIVERSITY OF *TRYPANOSOMA CRUZI* INFECTION IN SOUTHERN LOUISIANA AND IMPLICATIONS FOR PARASITE TRANSMISSION NETWORK**

Claudia P. Herrera  
Tulane University, School of Public Health and Tropical Medicine, New Orleans, LA, United States

**3:40 p.m.**  
**CHAGAS DISEASE IN THE U.S. MILITARY AND ITS IMPLICATIONS FOR NATIONAL SECURITY**

Paula Stigler-Granados  
San Diego State University, School of Public Health, San Diego, CA, United States

**3:55 p.m.**  
**ONE HEALTH TEAM SCIENCE APPROACH TO CONFRONTING AUTOCHTHONOUS CHAGAS IN THE STATE OF FLORIDA**

Norman L. Beatty  
University of Florida, Division of Infectious Diseases and Global Medicine, Gainesville, FL, United States

**4:10 p.m.**  
**AUTOCHTHONOUS HUMAN TRANSMISSION IN THE USA: EPIDEMIOLOGIC RISK FACTORS VARY BY GEOGRAPHIC ORIGIN**

Melissa S. Nolan  
University of South Carolina, Columbia, SC, United States

**4:25 p.m.**  
**THE BIO-ECO DIVERSITY OF THE MEXICAN LANDSCAPE: UNRAVELING THE DYNAMICS OF *T. CRUZI* TRANSMISSION**

Carlos Ibarra-Cerdeña  
Human Ecology Department, Center for Research and Advanced Studies of the National Polytechnic Institute, Merida, Mexico

**New Orleans Tour. A Walk through the History of New Orleans and Intersections with Tropical Medicine and Public Health**

*Limited to attendees who signed up at Tulane Exhibit Booth*  
**Saturday, November 16, 2:30 p.m. - 4:30 p.m.**

The city of New Orleans is a landscape imprinted with the waves of epidemics that in response produced the first school of public health and first school of tropical medicine in the United States. New Orleans' culture and its geography shaped these epidemics and the epidemics in turn shaped the city's culture and economy. Stop by the Tulane booth in the Exhibit Hall to sign up for a walk to see some key sites of the city, the yellow fever mortuary chapel, the birth places of American music, the slave market, the front door of the French Quarter and the Mississippi River's edge which evokes the physical and social contexts that brought yellow fever, cholera, and malaria to the city.

**Break**

**Saturday, November 16, 4:45 p.m. - 5:15 p.m.**

**Special Session 164**

**ASTMH Committee on Global Health (ACGH) Networking and Lightning Presentations**

Convention Center - Room 398 (3rd Floor)  
**Saturday, November 16, 5 p.m. - 6:30 p.m.**

Please join ACGH members for an early-evening social that brings together members of the subgroup, stimulates opportunities for networking, and gives trainees an opportunity to present their research in 3-minute presentations. Light snacks.



## CHAIR

Jennifer A. Downs  
Weill-Cornell Medical College, New York, NY, United States



### Global Collaboration on Determining Best Practices in the Evaluation and Management of Suspect Viral Hemorrhagic Fever (VHF) Cases

Convention Center - Hall I-2 (1st Floor)  
Saturday, November 16, 5:15 p.m. - 7 p.m.

Public health agencies and health care facilities confront unique challenges when faced with ill travelers returning from VHF-affected regions, whether they are healthcare workers responding to an outbreak or tourists. It is often difficult to convince administrators and/or funders that the expense and complexity of preparing for these low probability but high-risk events is worthy, until an event happens closer to home. Events during the 2014-2015 West African outbreak revealed these gaps in preparation. Definition of suspect case may be challenging. Emergency medical vehicles may not be found to transport suspect VHF cases. Health care facilities with the capacity to isolate, evaluate and manage a suspect VHF case may not be readily available. Transport of specimens and identification of a laboratory with testing capabilities may also be difficult. Public health agencies and health care facilities alike are focusing on strengthening preparedness and response processes and would benefit from learning from others' experiences and working collaboratively towards solutions to common challenges. This symposium will convene a panel of speakers representing governmental health agencies, academic centers, and health care institutions of eight countries. Country-specific information about healthcare infrastructure and processes related to VHF preparedness and response will be presented in brief to provide important context. A clinical scenario will be created as a platform for panelists to detail how a VHF suspect case would be evaluated and managed in their respective countries, and to highlight the unique challenges that such a scenario would pose. Specifically, the clinical scenario would describe a critically ill adult traveler with no known risk factors, returning from a country endemic for a VHF, who presents to a health care facility. Discussion will center on how evaluation and management would differ if the traveler were a child. Countries endemic for specific VHFs and not others (e.g., Nigeria in which Lassa fever is endemic but not Ebola virus disease) can offer unique perspectives. To engage the audience in the discussion and provide an avenue for additional input and perspectives from others, we will pose live polling questions to the audience, relevant to the key discussion points. In the final segment of the symposium, we will outline best practices related to the evaluation and management of suspect VHF cases. This discussion will be based on the lessons learned from each panelist and the perspectives shared by audience members. Audience members will be asked to submit their questions and comments on cards to be integrated into the discussion as appropriate. #Epidemiology #EmergingDiseaseThreats #InfectiousDisease #Prevention

## CHAIR

Mary J. Choi  
Centers for Disease Control and Prevention, Atlanta, GA, United States

Frédérique Jacquerioz Bausch  
Center for Viral Emerging Diseases, Hôpitaux Universitaires de Genève, Geneva, Switzerland

5:15 p.m.  
INTRODUCTION

5:25 p.m.  
GLOBAL COLLABORATION ON DETERMINING BEST PRACTICES IN THE EVALUATION AND MANAGEMENT OF SUSPECT VIRAL HEMORRHAGIC FEVER (VHF) CASES

Fatima Saleh  
Nigeria Centre for Disease Control and Prevention, Abuja, Nigeria

5:40 p.m.  
GLOBAL COLLABORATION ON DETERMINING BEST PRACTICES IN THE EVALUATION AND MANAGEMENT OF SUSPECT VIRAL HEMORRHAGIC FEVER (VHF) CASES

Emilio Hornsey  
UK Health Security Agency, London, United Kingdom

5:55 p.m.  
GLOBAL COLLABORATION ON DETERMINING BEST PRACTICES IN THE EVALUATION AND MANAGEMENT OF SUSPECT VIRAL HEMORRHAGIC FEVER (VHF) CASES

Erika Vlieghe  
Antwerp University Hospital, Institute of Tropical Medicine, Antwerp, Belgium

6:10 p.m.  
GLOBAL COLLABORATION ON DETERMINING BEST PRACTICES IN THE EVALUATION AND MANAGEMENT OF SUSPECT VIRAL HEMORRHAGIC FEVER (VHF) CASES

Jacqueline Weyer  
Centre for Emerging Zoonotic and Parasitic Diseases, National Institute for Communicable Diseases of the National Health Laboratory Service, Johannesburg, South Africa

6:25 p.m.  
GLOBAL COLLABORATION ON DETERMINING BEST PRACTICES IN THE EVALUATION AND MANAGEMENT OF SUSPECT VIRAL HEMORRHAGIC FEVER (VHF) CASES

James E. Strong  
Public Health Canada, Manitoba, Canada



### Film Screening and Discussion: "Accidental Host - The Story of Rat Lungworm Disease"

Convention Center - Room 343/344 (3rd Floor)  
Saturday, November 16, 5:15 p.m. - 6:30 p.m.

**THIS SESSION DOES NOT CARRY CME CREDIT.**

"Accidental Host - The Story of Rat Lungworm Disease" is a 53-minute medical documentary about *Angiostrongylus cantonensis*, a neuro-invasive foodborne parasite that now thrives in tropical areas of six continents. Shot in Hawaii, Florida, and California and currently airing and streaming on PBS, the film features multiple patient stories and interviews with experts

while depicting a disease that is often unknown to physicians as well as travelers and residents at risk. Additional themes include the fascinating history, life cycle, and ecology of the globalizing nematode and its unique impact on Hawaii. "Accidental Host" was produced by Claire Panosian Dunavan, a past president of the American Society of Tropical Medicine and Hygiene, along with a team of veteran, award-winning filmmakers. For more about the film, or to watch a 3-minute trailer, please visit [www.ratlungwormfilm.com](http://www.ratlungwormfilm.com)

**CHAIR**

Claire Panosian Dunavan  
UCLA David Geffen School of Medicine, Los Angeles, CA, United States

**5:15 p.m. INTRODUCTION**

Claire Panosian Dunavan  
UCLA David Geffen School of Medicine, Los Angeles, CA, United States

**5:20 p.m. "ACCIDENTAL HOST - THE STORY OF RAT LUNGWORM DISEASE"**

**6:15 p.m. DISCUSSION AND AUDIENCE Q&A**

**Scientific Session 153**

**One Health II: The Interconnection between People, Animals, Plants and Their Shared Environment**

Convention Center - Room 345 (3rd Floor)  
Saturday, November 16, 5:15 p.m. - 7 p.m.

#FieldStudies #EcologicalStudies #InfectiousDisease #Epidemiology #SocialStudies

**CHAIR**

Jade Benjamin-Chung  
Stanford University, Stanford, CA, United States

Daniel Olson  
University of Colorado, Denver, CO, United States

**5:15 p.m. 8337**

**SEROPREVALENCE AGAINST MULTIPLE VIRUSES AT HUMAN ANIMAL INTERFACE IN BUKAVU, DEMOCRATIC REPUBLIC OF CONGO**

Junior Bulabula-Penge<sup>1</sup>, Antoine Nkuba-Ndaye<sup>1</sup>, Chasinga Buharanyi<sup>2</sup>, Ayagirwe Basengere<sup>3</sup>, David Lupande-Muenebintu<sup>4</sup>, Daniel Mukadi-Bamuleka<sup>5</sup>, Esperance Tsiwedi Tsilabia<sup>5</sup>, Noella Mukanya Mulopo<sup>5</sup>, Louis Glénat<sup>6</sup>, Frédéric LeMarcis<sup>7</sup>, Eric Delaporte<sup>8</sup>, Almudena Mari Saez<sup>6</sup>, Martine Peeters<sup>6</sup>, Steve Ahuka-Mundeke<sup>1</sup>

<sup>1</sup>National Institute of Biomedical Research (INRB), Kinshasa, Democratic Republic of the Congo, <sup>2</sup>Hôpital Panzi, Bukavu, Democratic Republic of the Congo, <sup>3</sup>Université Evangélique d'Afrique, Bukavu, Democratic Republic of the Congo, <sup>4</sup>Hôpital Provincial Général de Bukavu, Bukavu, Democratic Republic of the Congo, <sup>5</sup>Rodolphe Mérieux INRB-Goma Laboratory, Goma, Democratic Republic of the Congo, <sup>6</sup>TransVIHMI, Université de Montpellier, Institut de Recherche pour le Développement, INSERM, Montpellier, France, <sup>7</sup>TransVIHMI, Université de Montpellier, Institut de Recherche pour le Développement, INSERM, Montpellier, France, <sup>8</sup>TransVIHMI, Université de Montpellier, Institut de Recherche pour le Développement, INSERM, M, France

**5:30 p.m. 8338**

**EXPOSURE TO MAYARO VIRUS IN THE IN THE PERUVIAN AMAZON**

Amy C. Morrison<sup>1</sup>, Adam J. Moore<sup>2</sup>, Daniel Strebow<sup>3</sup>, Whitney Weber<sup>3</sup>, Zachary Streblow<sup>3</sup>, Mariana Leguia<sup>4</sup>, Jhonny Cordova<sup>5</sup>, Jennifer E. Rios Lopez<sup>5</sup>, S. Alfonso Vizcarra<sup>4</sup>, Alejandra Garcia-Glaessner<sup>4</sup>, Breno Muñoz-Saavedra<sup>4</sup>, Diana Juarez<sup>4</sup>, Patricia Barrera<sup>4</sup>, Gabriela Salmon-Mulanovich<sup>4</sup>, Tatiana Quevedo<sup>6</sup>, Carlos Calvo-Mac<sup>6</sup>, Marcela M. Uhart<sup>7</sup>, Nicole R. Gardner<sup>7</sup>, Christine K. Johnson<sup>7</sup>, Christopher M. Barker<sup>1</sup>, Lark L. Coffey<sup>1</sup>

<sup>1</sup>Dept. of Pathology, Microbiology, and Immunology, School of Veterinary Medicine, University of California, Davis, Davis, CA, United States, <sup>2</sup>University of California, Davis, Davis, CA, United States, <sup>3</sup>Vaccine & Gene Therapy Institute, Oregon Health & Science University, Beaverton, OR, United States, <sup>4</sup>Laboratorio de Genómica, Pontificia Universidad Católica del Perú, Lima, Peru, <sup>5</sup>Asociación Benéfica Prisma, Lima, Peru, <sup>6</sup>Asociación Benéfica Prisma, Lima, Peru, <sup>7</sup>One Health Institute, School of Veterinary Medicine, University of California, Davis, Davis, CA, United States

**5:45 p.m. 8339**

**RISK FACTORS FOR ACUTE Q FEVER IN KILIMANJARO, TANZANIA: A PROSPECTIVE OBSERVATIONAL FEBRILE ILLNESS SURVEILLANCE STUDY**

Matthew Rubach<sup>1</sup>, Thomas Bowhay<sup>2</sup>, William Nicholson<sup>3</sup>, Jamie Perniciaro<sup>3</sup>, Deng Madut<sup>1</sup>, Ganga Moorthy<sup>1</sup>, Holly Biggs<sup>1</sup>, Michael Maze<sup>4</sup>, Jo Halliday<sup>5</sup>, Kathryn Allan<sup>5</sup>, Angelo Mendes<sup>5</sup>, Blandina Mmbaga<sup>6</sup>, Wilbrod Saganda<sup>7</sup>, Bingileki Lwezaula<sup>7</sup>, Sarah Cleaveland<sup>5</sup>, Venance Maro<sup>6</sup>, John A. Crump<sup>1</sup>

<sup>1</sup>Duke University, Durham, NC, United States, <sup>2</sup>University of Otago, Dunedin, New Zealand, <sup>3</sup>US Centers for Disease Control & Prevention, Atlanta, GA, United States, <sup>4</sup>University of Otago, Christchurch, New Zealand, <sup>5</sup>University of Glasgow, Glasgow, United Kingdom, <sup>6</sup>Kilimanjaro Christian Medical Centre, Moshi, United Republic of Tanzania, <sup>7</sup>Ministry of Health, Moshi, United Republic of Tanzania

**6 p.m. 8340**

**BAT HUNTING PRACTICES AND HEALTH RISKS: INSIGHTS FROM A BANGLADESHI BAT-HUNTING COMMUNITY**

Abdul Khaleque Md. Dawlat Khan<sup>1</sup>, Farhana Begum<sup>2</sup>  
<sup>1</sup>Institute of Epidemiology, Disease Control and Research (IEDCR), Dhaka, Bangladesh, <sup>2</sup>University of Dhaka, Dhaka, Bangladesh

**6:15 p.m. 8341**

**MICROBIOMES AND RESISTOMES IN HOUSEHOLD ENVIRONMENTS WITH DOMESTIC ANIMAL COHABITATION: A STUDY IN RURAL BANGLADESH**

Jade Benjamin-Chung<sup>1</sup>, Gabriella Barratt Heitmann<sup>1</sup>, Kalani Ratnasiri<sup>1</sup>, Sumaiya Tazin<sup>2</sup>, Claire Anderson<sup>1</sup>, Suhi Hanif<sup>1</sup>, Afsana Yeamin<sup>3</sup>, Abul Kasham Shoab<sup>3</sup>, Farjana Jahan<sup>3</sup>, Md. Sakib Hossain<sup>3</sup>, Zahid Hayat Mahmud<sup>3</sup>, Mohammad Jubair<sup>3</sup>, Mustafizur Rahman<sup>3</sup>, Mahbubur Rahman<sup>3</sup>, Ayse Ercumen<sup>2</sup>

<sup>1</sup>Stanford University, Stanford, CA, United States, <sup>2</sup>North Carolina State University, Raleigh, NC, United States, <sup>3</sup>icddr, Dhaka, Bangladesh

**6:30 p.m. 8342**

**ASSESSING ANIMAL FECAL CONTAMINATION IN FLOORS AND HAND SAMPLES FROM HOUSEHOLDS IN NORTHWESTERN COASTAL ECUADOR**

Viviana A. Alban<sup>1</sup>, Kelsey J. Jesser<sup>1</sup>, Caitlin Hemlock<sup>1</sup>, Aldo Lobos<sup>2</sup>, Joseph Eisenberg<sup>3</sup>, Gwenth Lee<sup>4</sup>, Gabriel Trueba<sup>5</sup>, Valerie J. Harwood<sup>2</sup>, Karen Levy<sup>1</sup>

<sup>1</sup>University of Washington, Seattle, WA, United States, <sup>2</sup>University of South Florida, Tampa, FL, United States, <sup>3</sup>University of Michigan, Ann Arbor, MI, United States, <sup>4</sup>Rutgers University, New Brunswick, NJ, United States, <sup>5</sup>Universidad San Francis, Quito, Ecuador

6:45 p.m.

8343

**DISCOVERY OF NEW SPECIES OF WILD MAMMALS AS POTENTIAL RESERVOIRS IN AMAZONIA OF COXIELLA BURNETII, THE AGENT OF Q FEVER**

Loïc Epelboin<sup>1</sup>, Damien Donato<sup>2</sup>, Edith Guilloton<sup>1</sup>, Salma Omar<sup>1</sup>, Mona Saout<sup>3</sup>, Olivier Duron<sup>4</sup>, Alizée Raptapopulo<sup>5</sup>, Aurelie Couesnon<sup>5</sup>, Elodie Rousset<sup>5</sup>, Benoit De Thoisy<sup>2</sup>, Anne Lavergne<sup>2</sup>

<sup>1</sup>Centre Hospitalier de Cayenne, Cayenne, French Guiana, <sup>2</sup>Institut Pasteur in French Guiana, Cayenne, French Guiana, <sup>3</sup>Université de Guyane, Cayenne, French Guiana, <sup>4</sup>University of Montpellier, CNRS, IRD, Montpellier, France, <sup>5</sup>ANSES (French Agency for Food, Environmental and Occupational Health and Safety), Sophia-Antipolis, France

**Scientific Session 154**

**American Committee of Molecular Cellular and Immunoparasitology (ACMCIP): Antiparasitic Drugs - From Target Identification to Clinical Trials**

Convention Center - Room 352 (3rd Floor)

Saturday, November 16, 5:15 p.m. - 7 p.m.

Supported with funding from the Burroughs Wellcome Fund

#Therapeutics #TranslationalScience #CellBiology #InfectiousDisease

**CHAIR**

Daniel Sprague  
Medical University of South Carolina, Charleston, SC, United States

Claudia Rohr  
Medical College of Wisconsin, Milwaukee, WI, United States

5:15 p.m.

8439

**IN VIVO SCREEN REVEALS PLASMODIUM FALCIPARUM TARGETS FOR MOSQUITO-BASED MALARIA INTERVENTION**

Alexandra Probst<sup>1</sup>, Douglas Paton<sup>2</sup>, Federico Appetecchia<sup>2</sup>, Selina Bopp<sup>2</sup>, Tasneem Rinvee<sup>2</sup>, Sovitj Pou<sup>3</sup>, Rolf Winter<sup>3</sup>, Esrah Du<sup>2</sup>, Sabrina Yahiya<sup>4</sup>, Charles Vidoudez<sup>5</sup>, Naresh Singh<sup>2</sup>, Janneth Rodrigues<sup>5</sup>, Pablo Castañeda-Casado<sup>6</sup>, Chiara Tammaro<sup>2</sup>, Daisy Chen<sup>7</sup>, Karla Godinez Macias<sup>7</sup>, Giovanna Poce<sup>8</sup>, Aaron Nilsen<sup>3</sup>, Elizabeth Winzeler<sup>7</sup>, Jake Baum<sup>9</sup>, Jeremy Burrows<sup>10</sup>, Michael Riscoe<sup>9</sup>, Dyann Wirth<sup>2</sup>, Flaminia Catteruccia<sup>2</sup>

<sup>1</sup>Immunology and Infectious Diseases, <sup>1</sup>Harvard. T. H. Chan School of Public Health, Boston, MA, United States, <sup>2</sup>Portland VA Medical Center, Portland, OR, United States, <sup>3</sup>Department of Life Sciences, Imperial College London, London, United Kingdom, <sup>4</sup>Harvard Center for Mass Spectrometry, Cambridge, MA, United States, <sup>5</sup>Tres Cantos Open Lab Foundation, GlaxoSmithKline, Tres Cantos, Spain, <sup>6</sup>Department of Pediatrics, School of Medicine, University of California, San Diego, San Diego, CA, United States, <sup>7</sup>Department of Chemistry and Pharmaceutical Technologies, Sapienza University of Rome, Rome, Italy, <sup>8</sup>School of Biomedical Sciences, University of New South Wales, Sydney, Australia, <sup>9</sup>Medicines for Malaria Ventures, Meyrin, Switzerland

5:30 p.m.

8344

**TRANSPOSON MUTAGENESIS OF PLASMODIUM KNOWLESII REVEALS DETERMINANTS OF ANTIMALARIAL SUSCEPTIBILITY**

Brendan Elsworth<sup>1</sup>, Sida Ye<sup>2</sup>, Sheena Dass<sup>3</sup>, Jacob T. Tennessen<sup>3</sup>, Basil T. Thommen<sup>3</sup>, Aditya S. Paul<sup>3</sup>, Marc-Jan Gubbels<sup>4</sup>, Kourosh Zarringhalam<sup>5</sup>, Manoj T. Duraisingh<sup>3</sup>

<sup>1</sup>Food and Drug Administration, Silver Spring, MD, United States, <sup>2</sup>University of Massachusetts, Boston, MA, United States, <sup>3</sup>Harvard T.H. Chan School of Public Health, Boston, MA, United States, <sup>4</sup>Boston College, Boston, MA, United States, <sup>5</sup>University of Massachusetts Boston, Boston, MA, United States

(ACMCIP Abstract)

5:45 p.m.

8345

**IMPROVING CESTOCIDES THROUGH TARGET-BASED DESIGN**

Daniel J. Sprague<sup>1</sup>, Sang-Kyu Park<sup>2</sup>, Jonathan S. Marchant<sup>2</sup>

<sup>1</sup>Medical University of South Carolina, Charleston, SC, United States, <sup>2</sup>Medical College of Wisconsin, Milwaukee, WI, United States

(ACMCIP Abstract)

6 p.m.

8346

**DISCOVERY AND OPTIMIZATION OF ANTHELMINTIC CANDIDATES FOR SOIL TRANSMITTED HELMINTHS**

Mostafa A. Elfawal<sup>1</sup>, Emily Goetz<sup>1</sup>, You-Mie Kim<sup>1</sup>, Paulina Chen<sup>1</sup>, Leonard Barasa<sup>2</sup>, Sergey Savinov<sup>3</sup>, Paul R. Thompson<sup>2</sup>, Raffi Aroian<sup>1</sup>

<sup>1</sup>Program in Molecular Medicine, UMass Chan Medical School, Worcester, MA, United States, <sup>2</sup>Department of Chemical Biology, UMass Chan Medical School, Worcester, MA, United States, <sup>3</sup>GALY Co, Boston, MA, United States

(ACMCIP Abstract)

6:15 p.m.

8347

**INVESTIGATING THE MECHANISM OF ACTION FOR THE AMOEBICIDAL AGENT NITROXOLINE AGAINST BALAMUTHIA MANDRILLARIS**

Kaitlin Marquis<sup>1</sup>, Natasha Spottiswoode<sup>2</sup>, Angela Detweiler<sup>1</sup>, Samuel Lord<sup>2</sup>, Norma Neff<sup>1</sup>, Dyche Mullins<sup>2</sup>, Julia Haston<sup>3</sup>, Heather Stone<sup>4</sup>, Joseph DeRisi<sup>5</sup>

<sup>1</sup>Chan Zuckerberg Biohub, San Francisco, CA, United States, <sup>2</sup>University of California San Francisco, San Francisco, CA, United States, <sup>3</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>4</sup>US Food and Drug Administration, Silver Spring, MD, United States, <sup>5</sup>Chan Zuckerberg Biohub and University of California San Francisco, San Francisco, CA, United States

(ACMCIP Abstract)

6:30 p.m.

8348

**GLUCOSE IN - LACTATE OUT: GLUCOSE AND LACTATE TRANSPORT IN SCHISTOSOMA MANSONI**

David L. Williams<sup>1</sup>, Sammy Y. Aboagye<sup>1</sup>, Pavel A. Petukhov<sup>2</sup>

<sup>1</sup>Rush University Medical Center, Chicago, IL, United States, <sup>2</sup>University of Illinois, Chicago, Chicago, IL, United States

(ACMCIP Abstract)

6:45 p.m.

8349

**INDIVIDUAL-LEVEL EFFICACY OF ALBENDAZOLE AND FIXED-DOSE FORMULATION OF IVERMECTIN/ALB (FDC) AGAINST T. TRICHIURA AND HOOKWORMS IN ETHIOPIA, KENYA AND MOZAMBIQUE. PER PROTOCOL ANALYSIS OF THE ALIVE CLINICAL TRIAL**

Pedro E. Fleitas<sup>1</sup>, Stella Kepha<sup>2</sup>, Woyneshet Gelaye<sup>3</sup>, Augusto Messa Jr.<sup>4</sup>, Javier Gandasegui<sup>1</sup>, Lisette van Lieshout<sup>5</sup>, Jaime Algorta<sup>6</sup>, Áuria de Jesus<sup>4</sup>, Valdemiro Novela<sup>4</sup>, Inácio Mandomando<sup>4</sup>, Charles Mwandawiro<sup>2</sup>, Wendemagegn Enbiale<sup>3</sup>, Paula Petrone<sup>1</sup>, Jose Muñoz<sup>1</sup>, Alejandro J. Krolewiecki<sup>7</sup>

<sup>1</sup>Barcelona Institute for Global Health (ISGlobal), Barcelona, Spain, <sup>2</sup>Eastern and Southern Africa Centre of International Parasite Control, Kenya Medical Research Institute, Nairobi, Kenya, Nairobi, Kenya, <sup>3</sup>Bahir Dar University, College of Medicine and Health Sciences, Bahir Dar, Ethiopia, <sup>4</sup>Centro de Investigação em Saúde de Manhiça (CISM), Maputo, Mozambique, <sup>5</sup>Leiden University Center for Infectious Diseases, Leiden, Netherlands, <sup>6</sup>Departamento Investigación clínica, Laboratorios Liconsa (InsudPharma group), Madrid, Spain, <sup>7</sup>Universidad Nacional de Salta, Instituto de Investigaciones de Enfermedades Tropicales/CONICET, Oran, Argentina

(ACMCIP Abstract)

Saturday  
November 16

## Scientific Session 155

### Mosquitoes- Epidemiology and Vector Control II

Convention Center - Room 353 (3rd Floor)

Saturday, November 16, 5:15 p.m. - 7 p.m.

*This session does not carry CME credit.*

#FieldStudies #Prevention #Epidemiology

#### CHAIR

Duncan Athinya

Vestergaard Frandsen (EA) Limited, Nairobi, Kenya

Nancy Stephen Matowo

London School of Hygiene & Tropical Medicine, London, United Kingdom

5:15 p.m.

8350

#### A MULTI-COUNTRY COMMUNITY EVALUATION OF THE LONG-TERM PERFORMANCE OF PERMANET 3.0, A LONG-LASTING PYRETHROID-PBO NET

Duncan K. Athinya<sup>1</sup>, Patrick K. Tungu<sup>2</sup>, Samuel K. Dadzie<sup>3</sup>, Raghavendra Kamaraju<sup>4</sup>, Maurice Ombok<sup>5</sup>, John E. Gimnig<sup>6</sup>, Melinda Hadi<sup>7</sup>

<sup>1</sup>Vestergaard Frandsen (EA) Limited, Nairobi, Kenya, <sup>2</sup>Muheza College of Health and Allied Sciences, Muheza, United Republic of Tanzania, <sup>3</sup>Noguchi Memorial Institute for Medical Research, University of Ghana, Accra, Ghana, <sup>4</sup>National Institute of Malaria Research (Indian Council of Medical Research), New Delhi, India, <sup>5</sup>Kenya Medical Research Institute, Kisumu, Kenya, <sup>6</sup>Centers for Disease Control and Prevention, Division of Parasitic Diseases and Malaria, Atlanta, GA, United States, <sup>7</sup>Vestergaard Sàrl, Lausanne, Switzerland

5:30 p.m.

8351

#### RANDOM CONTROLLED TRIALS AND BEYOND - RESULTS FROM THE FIRST MULTI-COUNTRY STUDY OF THE EFFECTIVENESS OF SPATIAL REPELLENTS TO CONTROL VECTOR BORNE DISEASES AMONGST FORCED DISPLACED POPULATIONS IN CONFLICT AFFECTED AREAS OF N. SYRIA, YEMEN AND N. NIGERIA, 2019 - 2024

Richard James Allan<sup>1</sup>, Ramona Scherrer<sup>1</sup>, Sara Estechea Querol<sup>1</sup>, Laura Paris<sup>1</sup>, Olivia Wetherill<sup>1</sup>, David Weetman<sup>2</sup>, Sergio Lopes<sup>1</sup>

<sup>1</sup>The MENTOR Initiative, Haywards Heath, United Kingdom, <sup>2</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom

5:45 p.m.

8352

#### HOUSE MODIFICATIONS USING INSECTICIDE TREATED SCREENING OF EAVE AND WINDOW AS VECTOR CONTROL TOOL: EVIDENCE FROM A SEMI-FIELD SYSTEM IN TANZANIA AND SIMULATED EPIDEMIOLOGICAL IMPACT

Olukayode Ganiu Odufuwa<sup>1</sup>, Richard Sheppard<sup>2</sup>, Safina Ngonyani<sup>1</sup>, Ahmadi Mpelepele<sup>1</sup>, Dickson Kobe<sup>1</sup>, Agathus Njohole<sup>1</sup>, Jason Moore<sup>1</sup>, Justin Lusoli<sup>1</sup>, Joseph Muganga<sup>1</sup>, Rune Bosselmann<sup>3</sup>, Ole Skovmand<sup>4</sup>, Zawadi Mageni Mboma<sup>1</sup>, Emmanuel Mbuba<sup>1</sup>, Rose Philipo<sup>1</sup>, Jennifer Stevenson<sup>1</sup>, Ellie Sherrard-Smith<sup>2</sup>, John Bradley<sup>5</sup>, Sarah Moore<sup>1</sup>

<sup>1</sup>Ifakara Health Institute, Bagamoyo, United Republic of Tanzania, <sup>2</sup>Imperial College, London, United Kingdom, <sup>3</sup>Vegro Aps, Copenhagen, Denmark, <sup>4</sup>MCC47, Montpellier, France, <sup>5</sup>London School of Hygiene & Tropical Medicine (LSHTM), London, United Kingdom

6 p.m.

8353

#### ENTOMOLOGICAL EFFECTS OF ATTRACTIVE TARGETED SUGAR BAIT STATION DEPLOYMENT IN WESTERN ZAMBIA: VECTOR SURVEILLANCE FINDINGS FROM A TWO-ARM CLUSTER RANDOMIZED PHASE III TRIAL

Javan Chanda<sup>1</sup>, Joseph Wagman<sup>2</sup>, Benjamin Chanda<sup>3</sup>, Kochelani Saili<sup>3</sup>, Erica Orange<sup>4</sup>, Patricia Mambo<sup>3</sup>, Rayford Muyabe<sup>3</sup>, Tresford Kaniki<sup>3</sup>, Mwansa Mwenya<sup>3</sup>, Mirabelle Ng'andu<sup>3</sup>, John Miller<sup>1</sup>, Annie Arnzen<sup>4</sup>, Kafula Silumbe<sup>1</sup>, Gift Mwaanga<sup>5</sup>, Limonty Simubali<sup>6</sup>, Edgar Simulundu<sup>5</sup>, Mulenga Mwenda<sup>1</sup>, Busiku Hamainza<sup>6</sup>, Ruth A. Ashton<sup>7</sup>, Thomas P. Eisele<sup>7</sup>, Angela Harris<sup>8</sup>, Joshua Yukich<sup>7</sup>, Laurence Slutsker<sup>9</sup>, Thomas Burkot<sup>10</sup>, Megan Littrell<sup>2</sup>

<sup>1</sup>PATH, Lusaka, Zambia, <sup>2</sup>PATH, Washington, DC, United States, <sup>3</sup>PATH, Kaoma, Zambia, <sup>4</sup>PATH, Seattle, WA, United States, <sup>5</sup>Macha Research Trust, Choma, Zambia, <sup>6</sup>National Malaria Elimination Centre, Lusaka, Zambia, <sup>7</sup>Centre for Applied Malaria Research and Evaluation, Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States, <sup>8</sup>Innovative Vector Control Consortium, Liverpool, United Kingdom, <sup>9</sup>Independent Consultant, Atlanta, GA, United States, <sup>10</sup>Australian Institute of Tropical Health and Medicine, Cairns, Australia

6:15 p.m.

8354

#### FIELD TRIAL RESULTS OF A VOLATILE PYRETHROID SPATIAL REPELLENT USING A TRANSFLUTHRIN ACTIVE INGREDIENT AS A CONTROL INTERVENTION FOR OUTDOOR-BITING ANOPHELES MOSQUITOES

Tim Burton<sup>1</sup>, Limonty Simubali<sup>2</sup>, Lewis Kabinga<sup>2</sup>, Lepa Syahrani<sup>3</sup>, Dendi H. Permana<sup>3</sup>, Ismail E. Rozi<sup>3</sup>, Jennifer Stevenson<sup>2</sup>, Monicah Mburu<sup>2</sup>, Edgar Simulundu<sup>2</sup>, Puji Asih<sup>3</sup>, Din Syafruddin<sup>3</sup>, Neil Lobo<sup>1</sup>

<sup>1</sup>University of Notre Dame, Notre Dame, IN, United States, <sup>2</sup>Macha Research Trust, Macha, Zambia, <sup>3</sup>Eijkman Research Center for Molecular Biology, National Research and Innovation Agency (BRIN), Cibinong, Indonesia

6:30 p.m.

8355

#### FINAL YEAR RESULTS FROM A FOUR-ARM CLUSTER-RANDOMIZED TRIAL IN TANZANIA COMPARING THE EFFECTIVENESS OF THREE TYPES OF LONG-LASTING INSECTICIDAL NETS (LLINS) - PYRIPROXYFEN-PYRETHROID, CHLORFENAPYR-PYRETHROID, AND PIPERONYL BUTOXIDE-PYRETHROID - VERSUS A PYRETHROID-ONLY LLIN, AGAINST MALARIA

Nancy Matowo<sup>1</sup>, Jacklin F. Moshia<sup>2</sup>, Manisha A. Kulkarni<sup>3</sup>, Eliud Lukole<sup>4</sup>, Jacklin Martin<sup>4</sup>, Alphaxard Manjurano<sup>4</sup>, Immo Kleinschmidt<sup>1</sup>, Naomi Serbantez<sup>5</sup>, Mark Rowland<sup>1</sup>, Franklin Moshia<sup>6</sup>, Natacha Protopopoff<sup>1</sup>

<sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>National Institute for Medical Research, Mwanza Medical Research Centre, Mwanza, United Republic of Tanzania, <sup>3</sup>School of Epidemiology and Public Health, University of Ottawa, Canada, United Kingdom, <sup>4</sup>National Institute for Medical Research, Mwanza, United Republic of Tanzania, <sup>5</sup>PMI-USAID, Dar es Salaam, United Republic of Tanzania, <sup>6</sup>Department of Parasitology, Kilimanjaro Christian Medical University College, Moshi, United Republic of Tanzania

6:45 p.m.

8356

#### A CLUSTER-RANDOMIZED CONTROLLED PHASE III EVALUATION OF 3D WINDOW DOUBLE SCREEN (3D-WDS) IN REDUCING MALARIA TRANSMISSION WHEN COMBINED WITH PYRETHROID-TREATED LONG-LASTING INSECTICIDAL NETS IN NORTHEASTERN TANZANIA

Subam Kathet<sup>1</sup>, Victor Mwingira<sup>2</sup>, Frank S. Magogo<sup>2</sup>, Veneranda M. Bwana<sup>2</sup>, Hanna Granroth-Wilding<sup>1</sup>, Patrick Tungu<sup>2</sup>, Tomi Hakala<sup>3</sup>, Markku Honkala<sup>3</sup>, Mikko Aalto<sup>4</sup>, William N. Kisinza<sup>2</sup>, Seppo Meri<sup>1</sup>, Ayman Khattab<sup>1</sup>

<sup>1</sup>University of Helsinki, Helsinki, Finland, <sup>2</sup>National Institute for Medical Research, Muheza, United Republic of Tanzania, <sup>3</sup>Tampere University of Technology, Tampere, Finland, <sup>4</sup>East Africa University, Bosaso, Somalia

## Scientific Session 156

### Clinical Tropical Medicine: Malaria and Fevers

Convention Center - Room 354/355 (3rd Floor)

Saturday, November 16, 5:15 p.m. - 7 p.m.

This session does not carry CME credit.

#InfectiousDisease #ClinicalResearch #Diagnostics  
#TranslationalScience

#### CHAIR

Johanna Daily

Albert Einstein College of Medicine, Bronx, NY, United States

Daniel Camprubí Ferrer

ISGlobal/Hospital Clínic Barcelona, Barcelona, Spain

5:15 p.m.

8357

#### ARTIFICIAL INTELLIGENCE LEVERAGING A VISION FOUNDATION MODEL FOR RECOGNITION OF MULTIPLE BLOOD PARASITES IN MICROSCOPY IMAGES

David Bermejo-Peláez<sup>1</sup>, Lin Lin<sup>2</sup>, Lucía Pastor<sup>1</sup>, Roberto Mancebo-Martin<sup>1</sup>, Ramon Vallés-López<sup>1</sup>, Elena Dacal<sup>1</sup>, Claudia Carmona<sup>3</sup>, Victor Anton Berenguer<sup>4</sup>, Alexandra Martín Ramírez<sup>5</sup>, Maria Flores-Chaves<sup>5</sup>, Ana Valeria Soriano<sup>6</sup>, Fabiola Gonzales<sup>6</sup>, Mary Cruz Torrico<sup>6</sup>, Daniel Illanes<sup>6</sup>, Jose Miguel Rubio<sup>7</sup>, Miguel Luengo-Oroz<sup>1</sup>

<sup>1</sup>Spotlab, Madrid, Spain, <sup>2</sup>Spotlab & Universidad Politécnica de Madrid & CIBERBBN, Madrid, Spain, <sup>3</sup>National Microbiology Centre (Instituto de Salud Carlos III), Madrid, Spain, <sup>4</sup>Microbiology Service (Hospital Universitario Severo Ochoa) & National Microbiology Centre (Instituto de Salud Carlos III), Madrid, Spain, <sup>5</sup>National Microbiology Centre (Instituto de Salud Carlos III) & Fundación Mundo Sano, Madrid, Spain, <sup>6</sup>Universidad Mayor de San Simón, Cochabamba, Plurinational State of Bolivia, <sup>7</sup>National Microbiology Centre (Instituto de Salud Carlos III) & CIBERINFEC, Madrid, Spain

5:30 p.m.

8358

#### EVALUATING THE ACCURACY OF CLINICAL MALARIA DIAGNOSES USING TAQMAN® ARRAY CARD MOLECULAR DETECTION IN NIGERIA

Emmanuel Oga<sup>1</sup>, Claire Quiner<sup>1</sup>, Jean Kim<sup>1</sup>, Cyril Erameh<sup>2</sup>, Vivian Kwaghe<sup>3</sup>, Philippe Chebu<sup>4</sup>, Lauren Courtney<sup>1</sup>, Kat Asman<sup>1</sup>, Osas Edeawe<sup>2</sup>, Ephraim Ogbaini<sup>2</sup>, Nankpah Vongdip<sup>3</sup>, Victoria Orok<sup>3</sup>, Oladimeji Matthew<sup>3</sup>, Onyia Ejike<sup>3</sup>, Ikponmwosa Odi<sup>2</sup>, Blessed Okira<sup>3</sup>, Jacqueline Agbukor<sup>2</sup>, Julius Imoyera<sup>2</sup>, Adamu Ephraim<sup>1</sup>, Jay Samuels<sup>4</sup>

<sup>1</sup>RTI International, Research Triangle Park, NC, United States, <sup>2</sup>Irrua Specialist Teaching Hospital, Irrua, Nigeria, <sup>3</sup>University of Abuja Teaching Hospital, Abuja, Nigeria, <sup>4</sup>APIN Public Health Initiatives, Abuja, Nigeria

5:45 p.m.

8359

#### SOLUBLE TRIGGERING RECEPTOR EXPRESSED ON MYELOID CELLS 1 (STREM-1) TO RISK-STRATIFY PEDIATRIC AND ADULT PATIENTS WITH FEBRILE ILLNESS IN SOUTHERN MOZAMBIQUE

Núria Balanza<sup>1</sup>, Bárbara Baro<sup>1</sup>, Sara Ajanovic<sup>1</sup>, Zumilda Boca<sup>2</sup>, Justina Bramugy<sup>2</sup>, Anelasio Cossa<sup>2</sup>, Elizabeth JA Fitchett<sup>3</sup>, Heidi Hopkins<sup>3</sup>, David Mabey<sup>3</sup>, Tegwen Marlais<sup>3</sup>, Hridesh Mishra<sup>4</sup>, Campos Mucasse<sup>2</sup>, Marta Valente<sup>1</sup>, Andrea M. Weckman<sup>4</sup>, Shunmay Yeung<sup>3</sup>, Kathleen Zhong<sup>4</sup>, Kevin C. Kain<sup>4</sup>, Quique Bassat<sup>1</sup>

<sup>1</sup>ISGlobal, Barcelona, Spain, <sup>2</sup>Centro de Investigação em Saúde de Manhiça, Maputo, Mozambique, <sup>3</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>4</sup>University Health Network, Toronto, ON, Canada

6 p.m.

8360

#### COULD WE USE CONVENTIONAL MALARIA RDT TO IDENTIFY SEVERE MALARIA IN TRAVELERS?

Daniel Camprubí Ferrer, Julia Pedreira, Leire Balerdi-Sarasola, Guillermo Villanueva, Qiuyue Yang, Paula Petrone, Jose Muñoz, Claudio Parolo  
ISGlobal / Hospital Clínic Barcelona, Barcelona, Spain

6:15 p.m.

8361

#### ADMISSION POINT-OF-CARE TESTING FOR THE CLINICAL CARE OF CHILDREN WITH CEREBRAL MALARIA

Geoffrey Guenther<sup>1</sup>, David Wichman<sup>2</sup>, Nthambose M. Simango<sup>3</sup>, Mengxin Yu<sup>4</sup>, Olivia D. Findorff<sup>5</sup>, Nathaniel O. Amoah<sup>2</sup>, Rohini Dasan<sup>2</sup>, Karl B. Seydel<sup>6</sup>, Douglas G. Postels<sup>7</sup>, Nicole F. O'Brien<sup>8</sup>

<sup>1</sup>Boston Children's Hospital, Boston, MA, United States, <sup>2</sup>The George Washington University School of Medicine and Health Sciences, Washington, DC, United States, <sup>3</sup>Kamuzu University of Health Sciences, Blantyre, Malawi, <sup>4</sup>The Wharton School of the University of Pennsylvania, Philadelphia, PA, United States, <sup>5</sup>University of Virginia College of Arts and Sciences, Charlottesville, VA, United States, <sup>6</sup>Michigan State University College of Osteopathic Medicine, East Lansing, MI, United States, <sup>7</sup>Children's National Hospital / The George Washington University School of Medicine and Health Sciences, Washington, DC, United States, <sup>8</sup>Nationwide Children's Hospital / The Ohio State University College of Medicine, Columbus, OH, United States

6:30 p.m.

8362

#### FLUID BOLUS RESUSCITATION INCREASES MORTALITY IN MALAWIAN CHILDREN WITH CEREBRAL MALARIA

Meredith G. Sherman<sup>1</sup>, Pallavi Dwivedi<sup>2</sup>, Ronke Olowojesiku<sup>3</sup>, Rami Imam<sup>4</sup>, Kennedy M. Chastang<sup>5</sup>, Eduardo A. Trujillo Rivera<sup>2</sup>, James E. Bost<sup>2</sup>, Amina M. Mukadam<sup>6</sup>, Alice Liomba<sup>7</sup>, Karl B. Seydel<sup>8</sup>, Douglas G. Postels<sup>9</sup>

<sup>1</sup>Global Health Initiative, Children's National Hospital, Washington, DC, United States, <sup>2</sup>Division of Biostatistics and Study Methodology, Children's National Hospital, Washington, DC, United States, <sup>3</sup>Department of General and Community Pediatrics, Children's National Hospital, Washington, DC, United States, <sup>4</sup>The George Washington University School of Medicine, Washington, DC, United States, <sup>5</sup>Howard University, Washington, DC, United States, <sup>6</sup>University of Washington, Seattle, WA, United States, <sup>7</sup>Blantyre Malaria Project, Blantyre, Malawi, <sup>8</sup>Department of Internal Medicine, College of Osteopathic Medicine, Michigan State University, East Lansing, MI, United States, <sup>9</sup>Division of Neurology, Children's National Hospital, Washington, DC, United States

6:45 p.m.

8363

#### DEREGULATED IL-10 EXPRESSING T CELLS IN CHILDREN WITH ACUTE PLASMODIUM FALCIPARUM MALARIA: IMPLICATIONS FOR ETIOLOGY OF BURKITT LYMPHOMA

Bonface Ariera<sup>1</sup>, sidney ogolla ogolla<sup>1</sup>, ROSEMARY RORCHFORD<sup>2</sup>

<sup>1</sup>Kenya Medical Research Institute-Kenya, Kisumu, Kenya, <sup>2</sup>University of Colorado, Anschutz medical campus, DENVER, CO, United States

## Scientific Session 157

### Viruses - Transmission Biology, Pathogenesis and Animal Models

Convention Center - Room 356 (3rd Floor)

Saturday, November 16, 5:15 p.m. - 7 p.m.

#Pathogenesis #InfectiousDisease

#### CHAIR

Katie Anders

World Mosquito Program, Monash University, Melbourne - Clayton, Australia

Declan Pigeaud

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

5:15 p.m.

8364

#### LONG-TERM DURABILITY AND PUBLIC HEALTH IMPACT OF WMEL *WOLBACHIA* DEPLOYMENTS FOR *Aedes*-BORNE DISEASE CONTROL IN NITERÓI, BRAZIL

Katie Anders<sup>1</sup>, Luciano Moreira<sup>2</sup>, Gabriel Sylvestre Ribeiro<sup>2</sup>, Thais Riback<sup>2</sup>, Diogo Chalegre<sup>2</sup>, Cameron P. Simmons<sup>1</sup>, Peter A. Ryan<sup>1</sup>, Scott L. O'Neill<sup>1</sup>

<sup>1</sup>World Mosquito Program, Monash University, Melbourne - Clayton, Australia, <sup>2</sup>World Mosquito Program, Fiocruz, Rio de Janeiro, Brazil

5:30 p.m.

8365

#### INTERACTIONS BETWEEN TEMPERATURE, VIRUS STRAIN, AND DOSE INFLUENCE EXTRINSIC INCUBATION PERIOD AND COMPETENCE OF *Culex pipiens* FOR WEST NILE VIRUS

Elyse M. Banker, Rachel L. Fay, Laura Munn, Anne F. Payne, Alexander T. Ciota  
New York State, Wadsworth Center, Slingerlands, NY, United States

5:45 p.m.

8366

#### PATHOGENESIS AND TRANSMISSION OF SEVERE FEVER WITH THROMBOCYTOPENIA SYNDROME VIRUS IN EXPERIMENTALLY INFECTED ANIMALS

Jeffrey M. Marano<sup>1</sup>, Angela Bosco-Lauth<sup>1</sup>, Airm E. Hartwig<sup>1</sup>, Stephanie M. Porter<sup>2</sup>, Nicole M. Nemeth<sup>3</sup>, Marissa Quilici<sup>1</sup>

<sup>1</sup>Colorado State, Fort Collins, CO, United States, <sup>2</sup>United States Department of Agriculture - Animal & Plant Health Inspection Service, Fort Collins, CO, United States, <sup>3</sup>University of Georgia, Athens, GA, United States

6 p.m.

8367

#### HIGH MOUSE PATHOGENESIS ASSOCIATED WITH A NEW YORK POWASSAN VIRUS LINEAGE II ISOLATE

Samantha J. Courtney<sup>1</sup>, Rebekah J. McMinn<sup>1</sup>, Chasity E. Trammell<sup>1</sup>, Anna C. Fagre<sup>1</sup>, Allison C. Vilander<sup>1</sup>, Sam R. Telford<sup>2</sup>, Gregory D. Ebel<sup>1</sup>

<sup>1</sup>Colorado State University, Fort Collins, CO, United States, <sup>2</sup>Tufts University, North Grafton, MA, United States

6:15 p.m.

8368

#### COLLABORATIVE CROSS MICE AS A NEW MODEL FOR IDENTIFYING IMMUNE CORRELATES OF PROTECTION FROM NEUROINVASIVE ST. LOUIS ENCEPHALITIS VIRUS DISEASE

Manuel Arturo Flores Rodriguez, Lark L. Coffey

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

6:30 p.m.

8369

#### FEASIBILITY OF TRACKING NIPAH VIRUS-INDUCED BRAIN CHANGES AND LESION DETECTION USING 0.05T MRI AND RADIOMICS

Sairam Geethanath<sup>1</sup>, Kunal Aggarwal<sup>2</sup>, Ivan E. Oiyee<sup>1</sup>, Yu Cong<sup>3</sup>, Naveen Anaswara<sup>4</sup>, Emily S. Gurley<sup>4</sup>, Venkatesh Mani<sup>3</sup>, Claudia Calcagno<sup>3</sup>, Michael R. Holbrook<sup>3</sup>

<sup>1</sup>Johns Hopkins University School of Medicine, Baltimore, MD, United States, <sup>2</sup>Technical University Munich, Munich, Germany, <sup>3</sup>National Institute of Allergy and Infectious Diseases, Ft. Detrick, MD, United States, <sup>4</sup>Johns Hopkins University School of Public Health, Baltimore, MD, United States

6:45 p.m.

8370

#### HENDRA VIRUS GENOTYPE 2 LACKS SEVERE PATHOGENIC HALLMARKS OF PROTOTYPE HENDRA VIRUS INFECTION IN AFRICAN GREEN MONKEYS

Declan Pigeaud<sup>1</sup>, Karla Fenton<sup>1</sup>, Courtney Woolsey<sup>1</sup>, Robert Cross<sup>1</sup>, Christopher Broder<sup>2</sup>, Thomas Geisbert<sup>1</sup>

<sup>1</sup>University of Texas Medical Branch, Galveston, TX, United States, <sup>2</sup>Uniformed Services University of the Health Sciences, Bethesda, MD, United States

## Symposium 158

### The Devil is in the Details: Strategies for the Integrated Delivery of Neglected Tropical Disease Services within Primary Health Care and National Systems

Convention Center - Room 357 (3rd Floor)

Saturday, November 16, 5:15 p.m. - 7 p.m.

The first WHO Roadmap on Neglected Tropical Diseases (NTDs) published in 2012, reflected the new approach at that time of coordinating programmatic efforts to control or eliminate ancient diseases, impacting the most marginalized of people. This drove the rapid scale up of mass drug administrations (MDA), reaching over a billion people a year by the year 2020, with disease elimination now validated in 19 countries for lymphatic filariasis and 15 for trachoma. As a result, many new cases of blindness, disability, and severe disfigurement, that have hampered growth and development in resource limited settings for centuries, have been prevented. But gaps remain: many NTDs cannot be targeted with limited rounds of MDA and new diagnostics and surveillance methods are required to strengthen elimination. The most recent WHO roadmap, endorsed by member states in 2020, has responded to this by promoting a fundamental shift in strategy - away from vertical programming and towards NTD services that are integrated into health systems, including primary and tertiary care, preventative services, and beyond the health sector. This has created momentum and is offering an opportunity for experimentation. Research is needed to improve our understanding of the biology, epidemiology and pathology of some of these long ignored diseases and to drive innovation in diagnostics and treatment. Ultimate success also hinges on context specific technical decisions on what to integrate where, when, and how, with due attention to the political process. Implementation science research is therefore also needed to test integration interventions, measure outcomes, and carefully document the context, barriers

and enablers. This symposium provides examples, from across four world regions, of early adopters. All talks analyze the shift from disease focused programming towards more comprehensive integrated service delivery. They present outcomes to date and highlight gaps in current scientific knowledge. The first two talks present on lessons learned from the integration of skin NTDs in Vanuatu and of NTDs targeted by preventive chemotherapy in Uganda and Tanzania. They will speak of strengthening the capacity of health workers, integrating into supply chains and information systems, and working at the finance and policy level. The third talk explores a new policy being implemented in the Philippines to manage several NTDs through a comprehensive primary health care package that includes the elimination of 13 diseases, including NTDs, malaria, and several vaccine preventable diseases. The final talk presents PAHO's initiative to eliminate 30+ communicable diseases and related conditions by 2030, including and going beyond NTDs. #Elimination #InfectiousDisease #SocialScience #TranslationalScience

#### **CHAIR**

Margaret Baker  
*Georgetown University, Washington, DC, United States*

Emily Wainwright  
*U.S. Agency for International Development Bureau for Global Health/Office of Infectious Diseases, Washington, DC, United States*

#### **5:15 p.m. INTRODUCTION**

#### **5:35 p.m. MOVING TOWARDS INTEGRATED DELIVERY OF SERVICES TO ADDRESS SKIN DISEASES IN THE REPUBLIC OF VANUATU**

Fasihah Taleo  
*World Health Organization, Port Vila, Vanuatu*

#### **5:55 p.m. INTEGRATING PREVENTATIVE CHEMOTHERAPY NTDs INTO NATIONAL HEALTH SYSTEMS: EXPERIENCES FROM UGANDA AND TANZANIA**

Andrew P. Kyambadde  
*RTI International, Washington, United States*

#### **6:15 p.m. INTEGRATING NTDs, MALARIA, AND OTHER DISEASES THROUGH A COMPREHENSIVE PRIMARY HEALTH CARE APPROACH IN THE PHILIPPINES**

Raffy A. Deray  
*Department of Health, Manila, Philippines*

#### **6:35 p.m. ELIMINATION OF 30+ COMMUNICABLE DISEASES AND RELATED CONDITIONS BY 2030 - A MULTI-COUNTRY AND MULTI-DISEASE PERSPECTIVE FROM THE AMERICAS REGION**

Martha I. Saboyá  
*Pan American Health Organization, Washington, DC, United States*

## **Symposium 159**

### **Revolutionizing Healthcare: The Impact of Artificial Intelligence on Neglected Tropical Diseases**

*Convention Center - Room 383/384/385 (3rd Floor)*  
**Saturday, November 16, 5:15 p.m. - 7 p.m.**

Although artificial intelligence (AI) has been available for some time, it has garnered significant interest recently for improving accuracy and effective management of neglected tropical diseases (NTDs). Increasingly AI is being recognized for its potential to optimize NTD diagnostic sensitivity, which is particularly pertinent in the context of declaring elimination. This session aims to present an overview of the current research into AI studies that have been conducted for NTD diagnostics, which are vulnerable to human error resulting in poor sensitivity and reproducibility. AI, or use support of AI, can address some shortcomings in diagnostic accuracy. There are limitations to AI, however, including affordability, large datasets needed to optimize techniques, and scalability. In this symposium, we present proof-of-concept for AI in NTDs, including trachoma, soil-transmitted helminths (STH) and schistosomiasis, onchocerciasis, skin NTDs, and dengue. As trachoma prevalence significantly decreases, it has become difficult to train health workers to detect cases due to their rarity. To address this, a novel image-recognition based smartphone app has been developed to improve trachoma (TT) screening by taking an image of an individual's eyelid and the app indicates whether the individual may have TT. The app has been tested in three countries, with an accuracy of over 95%. Similarly, photographic imaging has been used for the detection of STH and intestinal schistosomiasis eggs in Kato-Katz using an AI-based digital pathology scanner. Like trachoma, years of mass drug administration has resulted in a significant reduction in STH and intestinal schistosomiasis, as a result Kato Katz has poor sensitivity in low-intensity settings. The AI Kato Katz scanner has been tested in four countries, with an average precision of 96.1%. To evaluate the success of novel drugs or regimens against onchocerciasis, worm nodules must be removed from patients and analysed. Like Kato Katz, this process is time-consuming and depends on the experience of the laboratory technician. The University Hospital Bonn has developed an AI system that automatically evaluates *Onchocerca volvulus* worm nodule samples that could overcome limitations with human graders. Skin NTDs are a group of diseases that manifest symptoms on the skin, including leprosy, Buruli ulcer, mycetoma, and scabies. The diagnosis of skin diseases depends in large, though not exclusively, on visual inspection. The diagnosis of these diseases is amendable to AI approaches whereby machine learning is trained using skin images through the eSkinHealth app. Finally, statistical and machine learning approaches were explored simultaneously for differentiating tropical infections including Dengue and Malaria.

#### **CHAIR**

Anna E. Phillips  
*FHI360, Washington, DC, United States*

Rie Roselyne Yotsu  
*Nagasaki University, Nagasaki-shi, Japan*

**5:15 p.m.**  
**INTRODUCTION**

**5:25 p.m.**  
**USING ARTIFICIAL INTELLIGENCE-BASED DIGITAL PATHOLOGY FOR THE DETECTION OF SOIL-TRANSMITTED HELMINTHS AND INTESTINAL SCHISTOSOMIASIS**

Peter Kenneth Ward  
*University of Technology Sydney, Uppsala, Sweden*

**5:45 p.m.**  
**ARTIFICIAL INTELLIGENCE IN THE EVALUATION OF ONCHOCERCA VOLVULUS WORM NODULES**

Professor Achim Hoerauf  
*Bonn University Medical Center, Bonn, Germany*

**6:05 p.m.**  
**ARTIFICIAL INTELLIGENCE FOR SKIN NEGLECTED TROPICAL DISEASES (SKIN NTDs) – THE CURRENT STATE OF THE ART AND THE CHALLENGES**

Rie Roselyne Yotsu  
*Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States*

**6:25 p.m.**  
**A NOVEL IMAGE-RECOGNITION BASED SMARTPHONE APPLICATION TO IMPROVE TRACHOMA SCREENING**

Emily Gower  
*University of North Carolina, Chapel Hill, NC, United States*

**6:45 p.m.**  
**USING BIOMETRIC FINGERPRINTING TO TRACK COMPLIANCE TO TREATMENT**

Ewnetu F. Liyew  
*Ethiopian Public Health Institute, Addis Ababa, Ethiopia*



## Symposium 160

### The Economics of Global Health R&D: Can We Find a Balance Between Financial Sustainability and Equitable Access?

*Convention Center - Room 388/389 (3rd Floor)*  
**Saturday, November 16, 5:15 p.m. - 7 p.m.**

From novel vaccine platforms to full genome sequencing and gene therapies, recent decades have seen stunning technical advances in the health sciences. However, deep divides persist with regards to access to the fruits of these amazing advances, both across countries and regions and often even between demographic groups in the same country or city. Many if not all pharmaceutical products have been partially supported, at some stage, by governments or other public resources, typically through competitive grants and contracts. In most cases the final pharmaceutical is then produced and distributed primarily by private sector partners, at prices generally set by them, often protected for a time by intellectual property law. However, access to the final products is often not equitably distributed, prompting increasing criticism of this process, and calls to revisit private sector products and the profits fueled in part by public funds. On the other hand, defenders of this process point to the scientific

innovation that public funding and its economic incentives bring. In this symposium, a panel of experts will discuss the economics of research and the complex financial gauntlet that must be traversed to bring technological advances to the forefront and make them equitably available. #ClinicalResearch #InfectiousDisease #Diagnostics #Therapeutics #Vaccinology

#### CHAIR

Daniel Bausch  
*London School of Hygiene & Tropical Medicine, London, United Kingdom*

Cristina Cassetti  
*NIH/NIAID, Rockville, MD, United States*

**5:15 p.m.**  
**INTRODUCTION**

**5:25 p.m.**  
**CAN GLOBAL VACCINE EQUITY BE BALANCED WITH THE NEEDS FOR INCENTIVES FOR VACCINE DEVELOPMENT?**

Mark Jit  
*New York University School of Global Public Health, New York, NY, United States*

**5:50 p.m.**  
**LICENSING TECHNOLOGIES FOR PUBLIC HEALTH – THE NIH EXPERIENCE**

Tara Kirby  
*National Institutes of Health, Bethesda, MD, United States*

**6:10 p.m.**  
**AN INDUSTRY PERSPECTIVE**

Kent Kester  
*Coalition for Epidemic Preparedness Innovations, Washington, DC, United States*

**6:30 p.m.**  
**ENSURING EQUITABLE ACCESS – REFLECTIONS FROM MSF'S 25 YEARS ON THE FRONT LINES**

Mihir Mankad  
*MSF-USA, New York, NY, United States*

## Symposium 161

### Generating Durable Protective Immunity with Malaria Vaccines

*Convention Center - Room 391/392 (3rd Floor)*  
**Saturday, November 16, 5:15 p.m. - 7 p.m.**

A major impediment to malaria elimination remains relatively low vaccine efficacy and duration of protection for both RTS,S and R21 vaccines. Although the hypothesis that prior malaria exposure contributes to poor vaccine immunogenicity is supported by multiple studies, direct evidence of the causal mechanisms remains elusive. While vaccine mediated protection can be improved by combining vaccination with other control measures such as seasonal malaria chemoprevention, limited durability of protection remains a major risk for a post-intervention "rebound" in symptomatic or severe disease, or a resurgence of malaria if there is a breakdown or disruption in vaccination programs or other control measures. Therefore, it is important that we establish the extent to which immune regulatory networks that protect against



disease are maintained within the immune cells of people living in malaria endemic areas, and whether these functional patterns can be modified to improve anti-parasitic immune responses without increasing the risk of developing severe disease. Recent advances in our understanding of dynamics of T cell subset population structures, such as the relationships between memory T cells with stem cell-like properties, and those with various effector functions, will be key to making these advances. Analysis of samples from well-defined longitudinal studies conducted in malaria endemic areas, placebo-controlled clinical trials assessing the impact of seasonal or perennial malarial chemoprevention on immune regulatory or vaccine-induced responses, and CHMI studies in malaria naïve and exposed individuals, provide new opportunities. Multimodal analysis of these samples using single cell RNA sequencing and single cell assay for transposase-accessible chromatin with sequencing is allowing evaluation of immune cell responses at high resolution *ex vivo* and identify inflammatory and regulatory genes. Such approaches can also identify molecular targets for host-directed strategies aimed at improving both the efficacy and duration of immune responses. In depth immunological analysis from vaccination trials will also lead to new strategies to increase efficacy and longevity. For example, in some studies delayed fractional dosing has higher efficacy than monthly vaccination. The continued application of emerging technologies to human malaria research provides opportunities for the discovery of new strategies to target and overcome malaria driven immunoregulatory networks that prevent development of durable protection from malaria vaccination. These opportunities will be discussed in the proposed symposium. #Immunology, #InfectiousDisease, #HostResponse, #Vaccinology, #ClinicalResearch

#### CHAIR

Christian Engwerda  
*QIMR Berghofer, Brisbane, Australia*

Michelle Boyle  
*Burnet Institute, Melbourne, Australia*

#### 5:15 p.m. INTRODUCTION

#### 5:25 p.m. LONGEVITY OF RTS,S IMMUNE RESPONSES IN AFRICAN CHILDREN AND DETERMINANTS OF DURABILITY

Gemma Moncunill  
*ISGlobal Barcelona Institute for Global Health Hospital Clínic - Universitat de Barcelona, Barcelona, Spain*

#### 5:40 p.m. UNDERSTANDING HOW SEMI-IMMUNE INDIVIDUALS CONTROL MALARIA PARASITE GROWTH AND THE ASSOCIATED INFLAMMATION.

Francis Ndungu  
*KEMRI Wellcome Trust Research Program, Kilifi, Kenya*

#### 5:55 p.m. HOST-DIRECTED TREATMENTS TO IMPROVE ANTI-PARASITIC IMMUNE RESPONSES

Michelle Boyle  
*Burnet Institute, Melbourne, Australia*

#### 6:10 p.m. NEW INSIGHTS INTO REGULATORY RESPONSES INDUCED BY REPEATED *PLASMODIUM* INFECTIONS IN CHILDREN

Prasanna Jagannathan  
*Stanford University, Palo Alto, CA, United States*

#### 6:25 p.m. THE HUMAN ADAPTIVE IMMUNE RESPONSE TO *PLASMODIUM FALCIPARUM* CIRCUMSPOROZOITE PROTEIN

Hedda Wardemann  
*Division of B Cell Immunology at the German Cancer Research Center & Bill & Melinda Gates Foundation, Heidelberg, Germany*

## Symposium 162

### Artemisinin Resistance Response in Africa: Integrating Molecular Surveillance and Mathematical Modeling to Mitigate Emerging Risk and Impact on Malaria Burden Reduction

*Convention Center - Room 393/394 (3rd Floor)*  
**Saturday, November 16, 5:15 p.m. - 7 p.m.**

The evolution of artemisinin resistance (ART-R) in Africa threatens to reverse the gains in malaria control made in the last 25 years. Artemisinin resistance has now emerged independently in multiple countries in eastern Africa. De novo emergence of WHO validated markers of ART-R were first identified in Rwanda in 2014. Since 2014, artemisinin resistance has been observed in 6 countries in Africa and, more concerningly, the evidence from longitudinal molecular surveys in these countries suggests that it is rapidly spreading. While phenotypic evidence of treatment failure is still limited, the increasing reports of validated ART-R mutations are alarming. Unlike the emergence of artemisinin resistance in South-East Asia, our understanding of the genetic determinants of artemisinin resistance and our ability to sequence and map the spread of resistance are significantly greater. With this greater insight comes the ability to map both the emergence and spread of ART-R in Africa, but equally importantly the ability to design interventions and leverage innovative tools to slow the spread of resistance. This symposium will explore the current state of ART-R in Africa, the specific challenges faced by hotspot countries, the use of mathematical modelling and the broader implications for malaria control efforts. The session will begin with an overview of the current distribution of ART-R in Africa, highlighting the regions most affected and the molecular markers that signal the presence of resistance. Country-specific insights will shed light on the unique challenges and developments in Ethiopia, Uganda, and other regions, offering a comprehensive picture of the resistance landscape. In addition to surveillance, the symposium will focus on the role of mathematical modelling in guiding response strategies. By combining genomic data with control program expertise, the

modelling efforts aim to identify effective drug strategies and policies to slow the spread of resistance. Innovative tools, such as novel point-of-care diagnostics, will be discussed for their potential to extend the useful lifespan of antimalarial drugs. The symposium will conclude with a dynamic panel discussion and a closing call to action, where experts will discuss the emerging risks, impacts, and mitigation strategies for ART-R in Africa. The panel will also explore how genomic surveillance data can be used by National Malaria Control Programs (NMCPs) and other governmental organizations to inform decision-making and policy implementation. #Genomics #Modeling #PopulationSurveillance #Resistance #Evolution

**CHAIR**

Issiaka Soulama  
*Institut de Recherche en Sciences de la Sante, Ouagadougou, Burkina Faso*

Oliver J. Watson  
*Department of Infectious Disease Epidemiology, Imperial College London, London, United Kingdom*

**5:15 p.m.**  
**INTRODUCTION**

**5:25 p.m.**  
**CURRENT UNDERSTANDING OF ARTEMISININ RESISTANCE (ART-R) IN AFRICA**

Jeff Bailey  
*Brown University, Providence, RI, United States*

**5:30 p.m.**  
**IMPACT OF HRP2/3 DELETION AND ANOPHELES STEPHENSI ON ART-R IN ETHIOPIA**

Bokretsion Gidey  
*Ethiopian Public Health Institute, Addis Ababa, Ethiopia*

**5:35 p.m.**  
**EXPLORING PARTNER DRUG RESISTANCE WITH EX VIVO AND IN VITRO STUDIES IN UGANDA**

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

**5:45 p.m.**  
**PMI COUNTRY STRATEGIES OF SURVEILLANCE AND TES UNDER PARMA**

Awa Deme  
*PARMA, CIGASS, UCAD, Dakar, Senegal*

**5:55 p.m.**  
**GENOMIC SURVEILLANCE AND EVOLUTION OF ARTEMISININ DRUG RESISTANCE IN WEST AFRICA**

Alfred Amambua-Ngwa  
*Medical Research Council Unit The Gambia, Banjul, Gambia*

**6 p.m.**  
**CONTEXTUALIZING HOW MATHEMATICAL MODELLING CAN GUIDE THE RESPONSE TO RESISTANCE BUT INTEGRATING THE OUTPUTS OF MOLECULAR SURVEILLANCE EFFORTS**

Maciej F. Boni  
*Temple University, Philadelphia, PA, United States*

**6:05 p.m.**  
**MODELLING THE IMPACT OF NOVEL POINT-OF-CARE RESISTANCE DIAGNOSTICS ON THE SPREAD OF ANTIMALARIAL RESISTANCE**

Lucy Okell  
*Imperial College London, London, United Kingdom*

**6:15 p.m.**  
**MAPPING THE RISK AND SPREAD OF ANTIMALARIAL RESISTANCE IN AFRICA**

Oliver J. Watson  
*Department of Infectious Disease Epidemiology, Imperial College London, London, United Kingdom*

**6:25 p.m.**  
**PANEL: CONTROL PROGRAM STRATEGIES FOR OVERCOMING ANTIMALARIAL DRUG RESISTANCE**

Corine K. Karema  
*Infectious Diseases Prevention and Control, University of Global Health Equity, Kigali, Rwanda*

**6:35 p.m.**  
**PANEL: CONTROL PROGRAM STRATEGIES FOR OVERCOMING ANTIMALARIAL DRUG RESISTANCE**

Dyann Wirth  
*Harvard T.H. Chan School of Public Health, Boston, MA, United States*

**6:45 p.m.**  
**PANEL: CONTROL PROGRAM STRATEGIES FOR OVERCOMING ANTIMALARIAL DRUG RESISTANCE**

Didier Menard  
*Institut Pasteur, Paris, France*

**6:55 p.m.**  
**OPTIMIZING STRATEGIES TO LIMIT OR PREVENT ART-R EMERGENCE AND SPREAD IN AFRICA**

Deus Ishengoma  
*National Institute of Medical Research, Dar es Salaam, United Republic of Tanzania*

**Symposium 163**

**Outlook for Vaccination and Global Elimination of Leishmaniasis**

*Convention Center - Room 395/396 (3rd Floor)*

**Saturday, November 16, 5:15 p.m. - 7 p.m.**

***This session does not carry CME credit.***

Leishmaniasis is a neglected tropical disease caused by infection with *Leishmania* parasites transmitted via the bite of an infected sand fly. The different clinical presentations of leishmaniasis range from cutaneous leishmaniasis (CL), leading to skin ulceration and physical disfigurement, to visceral leishmaniasis (VL), resulting in fatal systemic infection if not treated. Over a billion people worldwide live in areas endemic for leishmaniasis, with over 600,000 cases of CL and 50,000 cases of VL each year. Although progress has been made in reducing VL in South Asia through the VL elimination program, there are numerous new outbreaks worldwide, including Chad, Senegal, Tanzania, Ethiopia, Brazil, Nepal, Somalia, and Sudan. To make progress towards the global

elimination of leishmaniasis, new tools are required, including a safe and effective vaccine and better surveillance. The majority of patients with leishmaniasis develop long-term protective immunity after cure, indicating that development of an effective human vaccine against leishmaniasis is achievable, particularly using a live attenuated vaccine strategy. Because of the sporadic nature of VL outbreaks, we propose that vaccine efficacy studies can be performed using a Controlled Human Infection Model (CHIM) and in field studies using the leishmanin skin test (LST) as a biomarker of protective cellular immunity. Moreover, the LST is needed to enhance surveillance that will better define the epidemiology of VL in countries with ongoing and new outbreaks. This symposium will present the current challenges to VL elimination, the advancement of the LmCen-/- live attenuated vaccine toward human trials, the reintroduction of the LST into the field, and the planned integration of these efforts in the near future to support the elimination of visceral leishmaniasis as a major global public health problem. #EmergingDiseaseThreats #Elimination #InfectiousDisease #Vaccinology #TranslationalScience

#### **CHAIR**

Shinjiro Hamano  
*Department of Parasitology, Institute of Tropical Medicine (NEKKEN), Nagasaki University, Nagasaki, Japan*

Kawsar Talaat  
*John Hopkins University, School of Public Health, Baltimore, MD, United States*

#### **5:15 p.m.** **INTRODUCTION**

#### **5:25 p.m.** **VL ELIMINATION AND THE NEED FOR VACCINES AND BETTER SURVEILLANCE**

Greg Matlashewski  
*McGill University, Montreal, QC, Canada*

#### **5:45 p.m.** **FIELD STUDIES OF LST FOR LEISHMANIA SURVEILLANCE AND VACCINE TRIALS**

Ahmed Musa  
*Institute of Endemic Diseases, University of Khartoum, Khartoum, Sudan*

#### **6:05 p.m.** **GMP PRODUCTION OF THE LMCEN-/- LIVE ATTENUATED VACCINE AND THE LEISHMANIN ANTIGEN**

Sanjay Singh  
*Gennova Biopharmaceutical Ltd., Hinjawadi, Pune, India*

#### **6:25 p.m.** **CONTROLLED HUMAN INFECTION MODELS FOR LEISHMANIASIS**

Shaden Kamhawi  
*National Institutes of Health, National Institute of Allergy and Infectious Diseases, Rockville, MD, United States*

#### **6:45 p.m.** **THE REGULATORY PATHWAY FOR PARASITIC VACCINES**

Peter Weina  
*OVR, CBER, FDA, Silver Spring, MD, United States*

## **Special Session 164**

### **ASTMH Committee on Global Health (ACGH) Networking and Lightning Presentations**

*Convention Center - Room 398 (3rd Floor)*  
**Saturday, November 16, 5 p.m. - 6:30 p.m.**

Please join ACGH members for an early-evening social that brings together members of the subgroup, stimulates opportunities for networking, and gives trainees an opportunity to present their research in 3-minute presentations. Light snacks provided with one free drink for the first 50 ACGH members to arrive. Light snacks provided with one free drink for the first 50 ACGH members to arrive.

#### **CHAIR**

Jennifer A. Downs  
*Weill-Cornell Medical College, New York, NY, United States*

### **Ben Kean Fellowship Reception - By Invitation Only**

*Hilton - Fulton (3rd Floor)*  
**Saturday, November 16, 6 p.m. - 7 p.m.**