

**8:10 p.m.****PANEL DISCUSSION**Norman Beatty  
*University of Florida, Gainesville, FL, United States*Sarah Hamer  
*Texas A&M University, College Station, TX, United States***Friday, October 20****Registration***Grand Ballroom Foyer - Ballroom Level (East Tower)*  
Friday, October 20, 7 a.m. - 5 p.m. U.S. Central Time Zone**Speaker Ready Room (Closed 11 a.m. - Noon)***Grand Suite 2AB - Ballroom Level (East Tower)*  
Friday, October 20, 7 a.m. - 5 p.m. U.S. Central Time Zone**TropStop - Student/Trainee Lounge***Grand Hall MN - Ballroom Level (East Tower)*  
Friday, October 20, 7 a.m. - 5 p.m. U.S. Central Time Zone

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***Horner and Ogden - Third Floor (West Tower)*  
Friday, October 20, 7 a.m. - 7 p.m. U.S. Central Time Zone**Prayer Room***Hong Kong - Ballroom Level (West Tower) and Field - Third Floor (West Tower)*  
Friday, October 20, 7 a.m. - 7 p.m. U.S. Central Time Zone**Nursing Mothers Room***Grand Suite 1 and Grand Suite 4 - Ballroom Level (East Tower)*  
Friday, October 20, 7 a.m. - 7 p.m. U.S. Central Time Zone**Burroughs Wellcome Fund-ASTMH Fellowship Committee Meeting***Michigan Boardroom, Concourse Level, East Tower*  
7 a.m. - 8 a.m. U.S. Central Time Zone**Trainee Membership Committee Meeting***McCormick - Third Floor (West Tower)*  
Friday, October 20, 7 a.m. - 8 a.m.

## Sponsored Symposium

### Chikungunya Virus: A Growing Preventable Risk to Travelers in a Warming Planet

Grand Hall J - Ballroom Level (East Tower)

Friday, October 20, 7 a.m. - 8:45 a.m. United States Central Time Zone

Sponsored by Medscape

See page 54 for information.

This session does not carry ASTMH CME credit.

## Sponsored Symposium

### Climate Change and Malaria Elimination: Perspectives from the Ground

Grand Hall K - Ballroom Level (East Tower)

Friday, October 20, 7 a.m. - 8:45 a.m. United States Central Time Zone

Sponsored by Global Institute for Disease Elimination (GLIDE)

See page 54 for information.

This session does not carry ASTMH CME credit.

## Sponsored Symposium

### Achieving Global Malaria Targets Relies on Quality Health Services: Lessons Learned and Results from PMI's Support for Quality Improvement of Healthcare Services for Malaria

Crystal Ballroom A - Lobby Level (West Tower)

Friday, October 20, 7 a.m. - 8:45 a.m. United States Central Time Zone

Sponsored by U.S. President's Malaria Initiative (PMI) Impact Malaria

See page 53 for information.

This session does not carry ASTMH CME credit.

## Press Room

Randolph 1A - Concourse Level (East Tower)

Friday, October 20, 7:45 a.m. - 5 p.m. U.S. Central Time Zone



## Plenary Session 59

### Plenary Session III: Commemorative Lecture

Grand Ballroom CDEF - Ballroom Level (East Tower)

Friday, October 20, 9 a.m. - 9:45 a.m. U.S. Central Time Zone

The Commemorative Lecture is presented by an outstanding senior scientist in tropical medicine.

#### CHAIR

Daniel G. Bausch  
FIND, Geneva, Switzerland

9 a.m.

#### INTRODUCTION

Daniel G. Bausch  
FIND, Geneva, Switzerland

9:15 a.m.

#### COMMEMORATIVE LECTURE



#### Oluwakemi Ogundipe, MD, MPH

Pediatric Advisor  
Médecins Sans Frontières/Doctors without Borders (MSF)  
Brussels, Belgium

Kemi Ogundipe, MD, MPH is the pediatric advisor for Médecins Sans Frontières/Doctors without Borders (MSF) based in Brussels. In this role she has been supporting their pediatric care programs globally since 2018 by advising MSF projects on the organization and quality of their pediatric care and contributing to MSF guidelines that are used for neonatal and pediatric care worldwide. Previously, Dr. Ogundipe worked extensively in MSF projects, both as a pediatric mobile implementing officer and project doctor. She is from Lagos, Nigeria where she lived until her completion of secondary school. She has also lived in the USA and currently resides in Brussels, Belgium. She is an alumna of Duke University School of Medicine. She completed her pediatric training at Baylor College of Medicine in a specialized training program focused on global health and pediatric HIV and TB. She holds a master's in public health from the University of North Carolina, Chapel Hill, with a concentration in maternal and child health. She has practiced as a pediatrician in Botswana, Lesotho, South Sudan, Tanzania, Papua New Guinea and Saipan (US Territory). Over the past year, she has traveled to Haiti, Niger, Benin and Nigeria, directly supporting MSF's pediatric care activities and has contributed to the newly-released first edition of the MSF international pediatric guidelines. Her interests are in pediatric HIV and TB, neonatal care, malaria, childhood malnutrition, preventive health and healthcare system improvements.

## Exhibit Hall Open

Riverside Center - Exhibit Level (East Tower)  
Friday, October 20, 9:30 a.m. - 10:30 a.m. U.S. Central Time Zone

## Coffee Break

Riverside Center - Exhibit Level (East Tower)  
Friday, October 20, 9:45 a.m. - 10:15 a.m. U.S. Central Time Zone

## Poster Session B Set-Up

Riverside Center - Exhibit Level (East Tower) and Grand Hall GHI – Ballroom Level (East Tower)  
Friday, October 20, 9:45 a.m. - 10:15 a.m.

## Poster Session B Viewing

Riverside Center - Exhibit Level (East Tower) and Grand Hall GHI – Ballroom Level (East Tower)  
Friday, October 20, 10:15 a.m. - Noon

## Symposium 60

### A Scientist's Cheat Sheet to Understanding Washington, DC

Grand Ballroom A - Ballroom Level (East Tower)  
Friday, October 20, 10:15 a.m. - Noon

Every day, research, program, funding, and policy decisions are being made at the U.S. federal level. Whether you realize it or not, you are directly or indirectly impacted by these decisions. To many, Washington, DC, and this process can seem utterly chaotic. When examined more closely, that chaos is built into the system and has a surprisingly regular order to its ebb and flow. This session will focus on understanding the policymaking ecosystem in Washington, DC. Topics will include how Congress really works (yes, it can really work), how a bill becomes a law, the White House and federal agency's roles in policymaking, the ever-present power struggles, and most common breakdowns in the process. What are the roles of coalitions and professional societies like ASTMH in speaking up for the science community? In these trying times, do these long-standing models work? What is the role of social media in advocacy? What impact does a new owner of a social media platform have on you as a user? How can you use social media to convey the value of your work?

#### CHAIR

Karen A. Goraleski  
American Society of Tropical Medicine and Hygiene, Arlington, VA, United States

#### 10:15 a.m. INTRODUCTION

#### 10:20 a.m. THE IMPORTANCE OF UNDERSTANDING WASHINGTON AND HOW POLICY IS MADE

Karen A. Goraleski  
American Society of Tropical Medicine and Hygiene, Arlington, VA, United States

#### 10:35 a.m. HOW DOES WASHINGTON REALLY WORK AND WHAT IS THE US ROLE IN GLOBAL HEALTH RESEARCH FUNDING?

Jodie Curtis  
Venable LLP, Washington, DC, United States

#### 10:50 a.m. A WINDOW INTO ADVOCACY - A LIVED EXPERIENCE

Margaret McDonnell  
United to Beat Malaria, UN Foundation, Washington, DC, United States

#### 11:05 a.m. USING SOCIAL MEDIA STRATEGICALLY AND EFFECTIVELY

Gideon Hertz  
Burness, Bethesda, MD, United States

#### 11:20 a.m. TRANSLATING SCIENCE INTO KEY MESSAGES FOR POLICYMAKERS

Daniel G. Bausch  
FIND, Geneva, Switzerland

## Symposium 61

### Benefits and Challenges of WHO Chemoprevention Guidelines Giving Increased Autonomy for Decision Making to Countries

Grand Ballroom B - Ballroom Level (East Tower)  
Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

In June 2022 WHO released updated recommendations for malaria chemoprevention. According to presentations shared by WHO, the updated recommendations reflected a paradigm shift to provide greater flexibility to NMPs to adapt control strategies to suit their settings. This means there is more decision-making happening at the country level when determining the exact modalities to be used for interventions such as perennial malaria chemoprevention (PMC), which is the expanded recommendation replacing the previous intermittent preventive treatment in infants. This shift presents both opportunities and challenges for countries that are early adopters of PMC. For example, countries need to determine how to adapt these more permissive recommendations, often without having the full set of ideal data available. Countries may also grapple with when, where, and how to scale different chemoprevention strategies – balancing decisions around cost, effectiveness, and practicality all while trying to maximize impact at a time when resources for malaria are flat despite the urgent need. This symposium brings together different perspectives and recent experience on adapting chemoprevention guidelines and will bring to light benefits and challenges resulting from the 2022 updated WHO chemoprevention guidelines. The symposia will start with an orientation on WHO's revised chemoprevention recommendations and the process of revision. A speaker from the MoH in Cameroon will share his experiences with the process to adapt and integrate chemoprevention into their sub-nationally tailored plans. Next a speaker from PATH will share how the role of NGOs may be changing as a result of WHO's more flexible guidelines, and a speaker from MMV will share results from forecasting work designed to understand the potential demand for

SP for PMC. Finally, a speaker from Malaria Consortium will share how more flexibility in guidelines is creating the opportunity for the chemoprevention community to share and learn.

#### **CHAIR**

Jacques Kouakou  
*Population Services International, Abidjan, Côte D'Ivoire*

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

#### **10:20 a.m.** **BACKGROUND ON WHO DECISION TO INCREASE COUNTRY ADAPTED CHEMOPREVENTION DESIGNS**

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

#### **10:30 a.m.** **OPTIMIZING THE CHEMOPREVENTION MIX (PMC AND SMC) IN CAMEROON**

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

#### **10:40 a.m.** **THE EVOLVING ROLE OF NGOS: FROM IMPLEMENTORS TO FACILITATORS?**

Rova Ratsimandisa  
*PATH, Kinshasa, Democratic Republic of the Congo*

#### **10:50 a.m.** **PMC FORECAST: ESTIMATE THE POTENTIAL DEMAND FOR PMC SP FOR A NUMBER OF PREDEFINED SCENARIOS**

Céline Audibert  
*Medicines for Malaria Venture, Geneva, Switzerland*

#### **11 a.m.** **OPPORTUNITIES FOR LEARNING THROUGH A COMMUNITY OF PRACTICE: HOW FLEXIBLE AND ADAPTABLE GUIDELINES CREATE OPPORTUNITIES FOR LEARNING AND RAPID IMPROVEMENT IN IMPLEMENTATION**

Olusola Oresanya  
*Malaria Consortium, Abuja, Nigeria*

## **Symposium 62**

### **Cash for Climate? The Role of Funders and Upstream Stakeholders in Promoting Environmental Sustainability in Global Health Research**

*Grand Hall J - Ballroom Level (East Tower)*

**Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone**

Climate change is here and we are feeling its consequences for water, food security, ecosystems, and human health. However, little attention has been paid to the role academic funders have in shaping sustainable research practices. Funders have a unique opportunity to accelerate the decarbonization of global health. Our collective carbon footprint is significant. Greenhouse gasses are emitted from the energy used to power hospitals, labs, and data centers, from the fuel burned from commuting and air travel, and the carbon in the equipment and consumables we purchase. Institutions across the globe are defining their climate ambitions

for the coming decades, with several committing to net-zero targets before 2050. Funders can stimulate these ambitions by influencing expectations and standards in the working culture of the academic sector. By committing to reduce emissions from their own operations and valuing the efforts of grantee institutions to decarbonize, funders could accelerate the decarbonization of global health. Such efforts would need to take into account the different settings of institutions in high-, and low- and middle-income countries, with funders requiring, incentivizing and supporting grantee institutions in the transition to low-carbon operations in accordance with these contexts. Leadership from funders can help us to rapidly and substantially decarbonize global health. Panelists will discuss sustainability policies and operations in their institutions and what they see as the key next steps in our collective work. Hosted by the Green Task Force, this panel seeks to promote honest dialogue about climate change and our “bottom line” as individual researchers and a collective Society.

#### **CHAIR**

Hanna Ehrlich  
*University of California Davis, Davis, CA, United States*

Michele Barry  
*Stanford University, Palo Alto, CA, United States*

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

#### **10:25 a.m.** **ADVANCING ENVIRONMENTALLY SUSTAINABLE HEALTH RESEARCH**

Talia Caplan  
*Wellcome Trust, London, United Kingdom*

#### **10:35 a.m.** **CLEAN MODERN ENERGY FOR ALL: BENEFITING HEALTH, SOCIETY, ENVIRONMENT, AND CLIMATE IN SUB-SAHARAN AFRICA TO ACHIEVE THE 2030 SUSTAINABLE DEVELOPMENT GOALS**

James Mwitari  
*Kenya Medical Research Institute, Nairobi, Kenya*

#### **10:45 a.m.** **PARTNERSHIPS AROUND CLIMATE CHANGE – LEARNING FROM THE COVID ERA**

Liam Smeeth  
*London School of Hygiene & Tropical Medicine, London, United Kingdom*

#### **10:55 a.m.** **ASTMH GREEN TASK FORCE**

Hanna Ehrlich  
*University of California Davis, Davis, CA, United States*

## Scientific Session 63



### Malaria - Antimalarial Resistance and Chemotherapy

Grand Ballroom CDEF - Ballroom Level (East Tower)

Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

This session does not carry CME credit.

#### CHAIR

Thuy-Nhien Nguyen

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

Carola Salas

ASTMH Scientific Program Committee, Lima, Peru

10:15 a.m.

5758

#### ELUCIDATING THE INTERACTIONS OF PFCRT AND PLASMEPSINS 2/3 IN MODULATING FITNESS AND RESISTANCE IN PLASMODIUM FALCIPARUM TO PIPERAQUINE AND OTHER ARTEMISININ PARTNER DRUGS

Davin Hong<sup>1</sup>, Satish K. Dhingra<sup>2</sup>, Tomas Yeo<sup>2</sup>, David A. Fidock<sup>2</sup>, Sachel Mok<sup>2</sup>

<sup>1</sup>Nanyang Technological University, Singapore, Singapore, <sup>2</sup>Columbia University Irving Medical Center, New York, NY, United States

10:30 a.m.

5759

#### UNDERSTANDING LEAD DISCOVERY ANTIMALARIAL DRUGS RESISTANCE TRANSLATION FROM LAB TO FIELD PARASITES TOWARD SUSTAINABLE MALARIA ELIMINATION

Fatoumata O. Maiga, Laurent Dembélé, Mohamed Maiga, Ousmaila Diakité, Fanta Sogoré, Sekou Sissoko, Antoine Dara, Abdoulaye A Djimde

Université des Sciences, des Techniques et des Technologies de Bamako (USTTB),

Faculté de Pharmacie, Malaria Research and Training Center (MRTC), Point G. PBE : 1805., Bamako, Mali

10:45 a.m.

5760

#### CONFIRMED ARTEMISININ PARTIAL RESISTANCE AND HIGH EFFICACY OF ARTEMETHER - LUMEFANTRINE AND ARTESUNATE - AMODIAQUINE FOR THE TREATMENT OF UNCOMPLICATED PLASMODIUM FALCIPARUM MALARIA IN NORTH-WESTERN TANZANIA

Deus S. Ishengoma<sup>1</sup>, Celine I. Mandara<sup>1</sup>, Rashid Madebe<sup>1</sup>, Catherine Bakari<sup>1</sup>, Misago D. Seth<sup>1</sup>, Filbert Francis<sup>2</sup>, Creyton Buguzi<sup>1</sup>, Issa Garimo<sup>3</sup>, Samwel Lazaro<sup>4</sup>, Abdallah Lusasi<sup>4</sup>, Sijenu Aron<sup>4</sup>, Frank Chacky<sup>4</sup>, Ally Mohamed<sup>4</sup>, Ritha J.A Njau<sup>5</sup>, Jovin Kitau<sup>6</sup>, Jeffrey Bailey<sup>7</sup>, Jonathan Juliano<sup>8</sup>, Marian Warsame<sup>9</sup>, Pascal Ringwald<sup>10</sup>

<sup>1</sup>National Institution for Medical Research, Dar es Salaam, United Republic of Tanzania, <sup>2</sup>National Institution for Medical Research, Tanga, United Republic of Tanzania, <sup>3</sup>National Malaria Control Program, Dodoma, United Republic of Tanzania, <sup>4</sup>National Malaria Control Program, Dar es Salaam, United Republic of Tanzania, <sup>5</sup>Malariologist and Public Health Specialist, Dar es Salaam, United Republic of Tanzania, <sup>6</sup>World Health Organization, Country Office, Dar es Salaam, United Republic of Tanzania, <sup>7</sup>Department of Pathology and Laboratory Medicine and Center for Computational Biology, Brown University, Providence, USA, RI, United States, <sup>8</sup>University of North Carolina, Chapel Hill, NC, United States, <sup>9</sup>Gothenburg University, Gothenburg, Sweden, <sup>10</sup>World Health Organization, Geneva, Switzerland

11 a.m.

5761

#### A RAPID DECLINING OF MULTIDRUG RESISTANT KELT1/PLA1 PLASMODIUM FALCIPARUM PARASITE IN VIETNAM DURING 2020-2022, A RESULT OF DRUG POLICY CHANGE

Thuy-Nhien Nguyen<sup>1</sup>, Huynh Hong Quang<sup>2</sup>, Tuyen Nguyen<sup>1</sup>, Nhat Tran<sup>1</sup>, Olivo Miotto<sup>3</sup>  
<sup>1</sup>Oxford University Clinical Research Unit, Ho Chi Minh City, Vietnam, <sup>2</sup>Institute of Malaria, Parasitology and Entomology - Quy Nhon, Binh Dinh, Vietnam, <sup>3</sup>Mahidol Oxford Research Unit and Oxford University, Bangkok, Thailand

11:15 a.m.

5762

#### ASSOCIATIONS BETWEEN SULFADOXINE-PYRIMETHAMINE+ AMODIAQUINE CONCENTRATIONS, MALARIA INCIDENCE, AND RESISTANCE MARKERS IN CHILDREN RECEIVING SEASONAL MALARIA CHEMOPREVENTION IN BURKINA FASO

Issaka Zongo<sup>1</sup>, Alassane Haro<sup>1</sup>, Michelle E. Roh<sup>2</sup>, Romaric Oscar Zerbo<sup>1</sup>, Liusheng Huang<sup>3</sup>, Aristide Sawadogo<sup>1</sup>, Jennifer Legac<sup>4</sup>, Anyirékun Fabrice Somé<sup>1</sup>, Rakiswendé Serge Yerbanga<sup>1</sup>, Erika Wallender<sup>3</sup>, Francesca Aweeka<sup>3</sup>, Jean-Bosco Ouédraogo<sup>5</sup>, Philip J. Rosenthal<sup>4</sup>

<sup>1</sup>Institut de Recherche en Sciences de la Santé, Bobo-Dioulasso, Burkina Faso, <sup>2</sup>Department of Epidemiology and Biostatistics, University of California, San Francisco, San Francisco, CA, United States, <sup>3</sup>Department of Clinical Pharmacy, University of California, San Francisco, San Francisco, CA, United States, <sup>4</sup>Department of Medicine, University of California, San Francisco, San Francisco, CA, United States, <sup>5</sup>Institut des Sciences et Techniques, Bobo-Dioulasso, Burkina Faso

11:30 a.m.

5763

#### POTENTIAL SUITABILITY OF SULFADOXINE-PYRIMETHAMINE PLUS AMODIAQUINE FOR SEASONAL MALARIA CHEMOPREVENTION IN AREAS OF HIGH, PRE-EXISTING DRUG RESISTANCE

Gina Maria Cuomo-Dannenburg<sup>1</sup>, Andria Mousa<sup>2</sup>, Sam Gudoi<sup>3</sup>, Kevin Baker<sup>3</sup>, Maria Suas Sans<sup>3</sup>, Chuku Nnaji<sup>3</sup>, John Baptist Bwanika<sup>3</sup>, Ivan Alejandro Pulido Tarquino<sup>3</sup>, Christian Rassi<sup>3</sup>, Monica A. de Cola<sup>1</sup>, Craig Bonnington<sup>3</sup>, Robert Verity<sup>1</sup>, Matthew Cairns<sup>2</sup>, Paul Milligan<sup>2</sup>, Cally Roper<sup>2</sup>, Lucy Okell<sup>1</sup>, Patrick G T Walker<sup>1</sup>

<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>3</sup>Malaria Consortium, London, United Kingdom

11:45 a.m.

#### Lightning Talks

(Lightning Talks are two-minute talks to highlight abstracts assigned to poster presentations.)

6770

#### IN VIVO EFFICACY OF SULFADOXINE PYRIMETHAMINE IN PREGNANT WOMEN INFECTED WITH PLASMODIUM FALCIPARUM IN MALI

Coulibaly Oumou

University of Sciences, Technics and Technology of Bamako, Mali, Bamako, Mali

6771

#### TRANSCRIPTOMIC APPROACH TOWARDS UNDERSTANDING THE MOLECULAR MECHANISMS OF IMIDAZOLOPIPERAZINE (IPZ) IN THE MALARIA PARASITE PLASMODIUM FALCIPARUM

Mohamed MAIGA<sup>1</sup>, Antoine Dara<sup>1</sup>, Devendra Kumar Gupta<sup>2</sup>, Abdoulaye Djimdé<sup>1</sup>, Laurent Dembele<sup>1</sup>

<sup>1</sup>Université des Sciences des Techniques et des Technologies de Bamako (USTTB), Bamako, Mali, <sup>2</sup>Novartis Institute for Tropical Diseases, California, CA, United States

6780

**MOLECULAR SURVEILLANCE OF *PLASMODIUM FALCIPARUM* DRUG RESISTANCE REVEALS PRESENCE OF I431V DHPS MUTATION IN PARASITES HARBORING QUINTUPLE AND QUADRUPLE DHPS MUTATIONS IN SENEGAL**

Mouhamad Sy<sup>1</sup>, Yaye Die Ndiaye<sup>1</sup>, Wesley Wong<sup>2</sup>, Mamadou Alpha Diallo<sup>1</sup>, Amy Gaye<sup>1</sup>, Tolla Ndiaye<sup>1</sup>, Aida Sadikh Badiane<sup>1</sup>, Baba Dieye<sup>1</sup>, Ibrahima Mbaye Ndiaye<sup>1</sup>, Younousse Diedhiou<sup>1</sup>, Amadou Moctar Mbaye<sup>1</sup>, Aita Sene<sup>1</sup>, Djiby Sow<sup>1</sup>, Lamine Ndiaye<sup>1</sup>, Khadim Diongue<sup>1</sup>, Mamane Nassirou Garba<sup>1</sup>, Mouhamadou Ndiaye<sup>1</sup>, Bronwyn MacInnis<sup>3</sup>, Dyann F. Wirth<sup>1</sup>, Sarah K. Volkman<sup>2</sup>, Daouda Ndiaye<sup>1</sup>

<sup>1</sup>International Research and Training Center for Applied Genomics and Health Surveillance (CIGASS) at UCAD, Dakar, Senegal, <sup>2</sup>Harvard T.H. Chan School of Public Health, Boston, MA, United States, <sup>3</sup>Broad Institute of MIT and Harvard, Cambridge, MA, United States

6788

**UNDERSTANDING THE DEVELOPMENT OF DRUG RESISTANCE IN LIVER STAGES OF *PLASMODIUM FALCIPARUM***

Margarida T. Grilos<sup>1</sup>, Ines Marreiros<sup>1</sup>, Malhar Khushu<sup>2</sup>, Selina Bopp<sup>2</sup>, David Calvo<sup>1</sup>, David Cebrián<sup>1</sup>, Carmen Cuevas<sup>1</sup>, Sara Viera-Morilla<sup>1</sup>, Dyann F. Wirth<sup>2</sup>, Maria Jose Lafuente-Monasterio<sup>1</sup>, Amanda K. Lukens<sup>3</sup>

<sup>1</sup>GlaxoSmithKline, Tres Cantos, Spain, <sup>2</sup>Harvard T.H. Chan School of Public Health, Boston, MA, United States, <sup>3</sup>Broad Institute of MIT and Harvard, Cambridge, MA, United States

6784

**QPCR ANALYSIS OF RING STAGE SURVIVAL ASSAYS FOR SURVEILLANCE OF ARTEMISININ PARTIAL RESISTANCE IN *PLASMODIUM FALCIPARUM***

Martin Okitwi<sup>1</sup>, Douglas A. Shoue<sup>2</sup>, Lisa A. Checkley<sup>2</sup>, Mackenzie A.C. Sievert<sup>2</sup>, Frida G. Ceja<sup>3</sup>, Patrick K. Tumwebaze<sup>4</sup>, Jeffrey A. Bailey<sup>5</sup>, Melissa D. Conrad<sup>6</sup>, Philip J. Rosenthal<sup>1</sup>, Michael T. Ferdig<sup>2</sup>, Roland A. Cooper<sup>3</sup>

<sup>1</sup>Infectious Disease Research Collaboration, Kampala, Uganda, <sup>2</sup>University of Notre Dame, South Bend, IN, United States, <sup>3</sup>Dominican University of California, San Rafael, CA, United States, <sup>4</sup>Infectious Diseases Research Collaboration, Kampala, Uganda, <sup>5</sup>Brown University, Providence, RI, United States, <sup>6</sup>University of California, San Francisco, CA, United States, <sup>7</sup>University of California, San Francisco, CA, United States

**Symposium 64**

**Advances in Treatment and Diagnostics for Disease Caused by Pathogenic Free - Living Amoebae**

Grand Hall K - Ballroom Level (East Tower)

Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

Infections with pathogenic free-living amoebae (FLA) yield higher fatality rates (>90%) than any eukaryotic parasite, yet they remain the least studied of all tropical diseases of humankind. Each of the amoebae are normally free-living and are ubiquitous in warm fresh water and soil. *Naegleria fowleri* causes Primary Amoebic Meningoencephalitis (PAM), an acute, uniformly fatal central nervous system (CNS) infection that ensues following entry of the amoebae into the nasal cavity. *Balamuthia mandrillaris* is a chronic infection and causes cutaneous lesions followed by hematogenous spread to the brain that results in Balamuthia Amoebic Encephalitis (BAE). *Acanthamoeba keratitis* (AK) is the most prevalent of any infection with FLA, yet *Acanthamoeba* spp. also can cause a chronic deadly CNS infection known as Granulomatous Amoebic Encephalitis (GAE). The purpose of this symposium is to review the significant and impactful new results that demonstrate new treatments and novel biomarkers of infection. Treatment of BAE usually consists of a cocktail of antibiotics and antifungals, but efficacy is poor and unfortunately results in death of most BAE patients. A remarkable case study

will be presented that demonstrates a paradigm shift in treatment regimens for FLA. Nitroxoline, a repurposed drug for urinary tract infections, was identified in an *in vitro* drug screen and then used to successfully treat a BAE patient. One of the many unknowns about *N. fowleri* is why some individuals get infected, whereas millions of people are similarly exposed. We will present new data that demonstrate some isolates of *N. fowleri* are significantly more virulent than others. In addition, we will describe a novel biomarker in plasma or serum that can be used to detect *N. fowleri* infection 2-3 days before animals exhibit signs of infection. A major impediment to validation of drug targets and elucidation of *N. fowleri* biology is the lack of genetic tools. Recent advances in genome editing will be described as will a new target for drug discovery for PAM therapeutics. Finally, *Acanthamoeba* infections are difficult to treat in part because the amoeba encyst in the CNS or cornea and these forms are highly resistant to commonly used drugs and biocides. Recent studies suggest that methods commonly used to assess killing of cysts overestimate efficacy. New methods to discover cysticidal activity will be presented as well as new cysticidal and trophocidal drugs will be profiled.

**CHAIR**

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

James Morris  
Clemson University, Clemson, SC, United States

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

**10:25 a.m.  
CASE STUDY OF NITROXOLINE FOR TREATMENT OF BALAMUTHIA GRANULOMATOUS ENCEPHALITIS**

Natasha Spottiswoode  
University of California San Francisco, San Francisco, CA, United States

**10:50 a.m.  
VARIATIONS IN VIRULENCE AND DISCOVERY OF EARLY BIOMARKERS FOR PRIMARY AMOEBIC MENINGOENCEPHALITIS**

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

**11:15 a.m.  
ADVANCES IN DRUG DISCOVERY AND TOOL DEVELOPMENT FOR NAEGLERIA FOWLERI**

James Morris  
Clemson University, Clemson, SC, United States

**11:40 a.m.  
CYSTICIDAL DRUGS FOR THE TREATMENT OF ACANTHAMOEBA KERATITIS**

Christopher A. Rice  
Purdue University, West Lafayette, IN, United States

## Scientific Session 65

### Filariasis – Epidemiology and Control

Grand Hall L - Ballroom Level (East Tower)

Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

#### CHAIR

Kenneth Pfarr

*Institute of Medical Microbiology, Immunology and Parasitology, University Hospital Bonn, Bonn, Germany*

Jesica Herrick

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

10:15 a.m.

5764

#### WUCHERERIA BANCROFTI MICROFILARIAE POSITIVE INDIVIDUALS SHOW AN INCREASED HUMAN IMMUNODEFICIENCY VIRUS INCIDENCE IN A GENERAL POPULATION STUDY IN SOUTHWEST TANZANIA

Jonathan L. Mnkai<sup>1</sup>, Manuel Ritter<sup>2</sup>, Lucas Maganga<sup>1</sup>, Leonard Maboko<sup>3</sup>, Willyhelmina Olomi<sup>1</sup>, Agola Eric Lelo<sup>4</sup>, Daniel Kariuki<sup>5</sup>, Alexander Yaw Debrah<sup>6</sup>, Christof Geldmacher<sup>7</sup>, Michael Hoelscher<sup>7</sup>, Elmar Saathoff<sup>7</sup>, Mkunde Chachage<sup>1</sup>, Kenneth Pfarr<sup>2</sup>, Achim Hoerauf<sup>2</sup>, Inge Kroidl<sup>7</sup>

<sup>1</sup>National Institute for Medical Research, Mbeya Medical Research Centre (NIMR-MMRC), Mbeya, United Republic of Tanzania, <sup>2</sup>Institute for Medical Microbiology, Immunology and Parasitology (IMMIP), University Hospital Bonn (UKB), 53127, Bonn, Germany, <sup>3</sup>Tanzania Commission for AIDS, Dar es Salaam, United Republic of Tanzania, <sup>4</sup>Kenya Medical Research Institute (KEMRI), KNH, Nairobi, Kenya, <sup>5</sup>College of Health Sciences, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi, Kenya, <sup>6</sup>Kumasi Centre for Collaborative Research (KCCR), Kwame Nkrumah University of Science and Technology, UPO, PMB, Kumasi, Ghana, <sup>7</sup>Division of Infectious Diseases and Tropical Medicine, University Hospital of the University of Munich (LMU), 80802, Munich, Germany

10:30 a.m.

5765

#### DEVELOPING THE NATURAL PRODUCT CORALLOPYRONIN A TO TREAT FILARIASIS, STIS AND STAPHYLOCOCCI

Kenneth Pfarr<sup>1</sup>, Andrea Schiefer<sup>1</sup>, William Shafer<sup>2</sup>, Jennifer Edwards<sup>3</sup>, Tim Becker<sup>1</sup>, Gabriele Bierbaum<sup>1</sup>, Stefan Kehraus<sup>4</sup>, Miriam Grosse<sup>5</sup>, Alexandra Ehrens<sup>1</sup>, Tanja Schneider<sup>4</sup>, Katharina Rox<sup>6</sup>, Marc P. Hübner<sup>1</sup>, Karl G. Wagner<sup>7</sup>, Thomas Hestekamp<sup>6</sup>, Marc Stadler<sup>5</sup>, Achim Hoerauf<sup>1</sup>

<sup>1</sup>University Hospital Bonn, Bonn, Germany, <sup>2</sup>Emory University, Atlanta, GA, United States, <sup>3</sup>Nationwide Children's Hospital, Columbus, OH, United States, <sup>4</sup>University of Bonn, Bonn, Germany, <sup>5</sup>Helmholtz Centre for Infection Research, Braunschweig, Germany, <sup>6</sup>German Center for Infection Research, Braunschweig, Germany

10:45 a.m.

5766

#### ANIMALS AS RESERVOIR OF BRUGIA MALAYI IN BELITUNG DISTRICT, INDONESIA, AS A POTENTIAL THREAD FOR THE ELIMINATION OF LYMPHATIC FILARIASIS IN HUMANS

Taniawati Supali<sup>1</sup>, I Made Suhermanta<sup>2</sup>, Peter U. Fischer<sup>3</sup>

<sup>1</sup>University of Indonesia, Jakarta, Indonesia, <sup>2</sup>District Health Office, Belitung, Indonesia, <sup>3</sup>Washington University School of Medicine, St. Louis, MO, United States

11 a.m.

5767

#### SPATIAL ANALYSIS OF THE RELATIONSHIP OF ONCHOCERCA VOLVULUS EXPOSURE BETWEEN HUMANS AND BLACK FLIES IN ETHIOPIA

Caitlin Duffy<sup>1</sup>, Emily Griswold<sup>2</sup>, Fikresilasie Samuel<sup>3</sup>, Fikre Seife<sup>4</sup>, Sindew Mekasha<sup>5</sup>, Zerihun Tadesse<sup>3</sup>, Frank O. Richards<sup>2</sup>, Gregory S. Noland<sup>2</sup>, Jenna E. Coalson<sup>2</sup>

<sup>1</sup>Emory University, Atlanta, GA, United States, <sup>2</sup>The Carter Center, Atlanta, GA, United States, <sup>3</sup>The Carter Center, Addis Ababa, Ethiopia, <sup>4</sup>Federal Ministry of Health, Addis Ababa, Ethiopia, <sup>5</sup>Ethiopia Public Health Institute, Addis Ababa, Ethiopia

11:15 a.m.

5768

#### CHALLENGES OF APPLICATION OF THE WHO ONCHOCERCIASIS TECHNICAL ADVISORY SUBGROUP-PROPOSED THRESHOLD FOR INITIATING MASS DRUG ADMINISTRATION AGAINST ONCHOCERCIASIS IN ETHIOPIA

Yewondwossen Bitew<sup>1</sup>, Emily Griswold<sup>2</sup>, Aderajew Mohammed<sup>1</sup>, Kadu Meribo<sup>3</sup>, Jenna E. Coalson<sup>2</sup>, Tewodros Seid<sup>1</sup>, Tekola Endeshaw<sup>1</sup>, Desalegn Jemberie<sup>1</sup>, Fikresilasie Samuel<sup>1</sup>, Firdaweke Bekele<sup>1</sup>, Tadesse Asmare<sup>1</sup>, Henok Birhanu<sup>1</sup>, Adane Yayeh<sup>1</sup>, Geremew Haileyesus<sup>1</sup>, Anley Haile<sup>1</sup>, Sindew Mekasha<sup>4</sup>, Fikre Seife<sup>3</sup>, Zerihun Tadesse<sup>1</sup>, Gregory S. Noland<sup>2</sup>, Frank O. Richards, Jr.<sup>2</sup>

<sup>1</sup>The Carter Center, Addis Ababa, Ethiopia, <sup>2</sup>The Carter Center, Atlanta, GA, United States, <sup>3</sup>Federal Ministry of Health, Addis Ababa, Ethiopia, <sup>4</sup>Ethiopia Public Health Research Institute, Addis Ababa, Ethiopia

11:30 a.m.

5769

#### MONITORING IMPACT OF THREE ROUNDS OF MASS DRUG ADMINISTRATION IN EIGHT HIGH-RISK VILLAGES USING A THREE-DRUG REGIMEN ON LYMPHATIC FILARIASIS IN AMERICAN SAMOA

Tara A. Brant<sup>1</sup>, Aifili Tufa<sup>2</sup>, Fara Utu<sup>2</sup>, Noelle Tavale<sup>2</sup>, Lynette Suiaunoa-Scanlan<sup>3</sup>, Ula Pele<sup>3</sup>, Maopa Lewabeci<sup>2</sup>, Benjamin Sili<sup>2</sup>, Emily A. Dodd<sup>1</sup>, Hong Zhou<sup>1</sup>, Janet M. Camacho<sup>4</sup>, Emi Chutaru<sup>4</sup>, Kimberly Y. Won<sup>1</sup>, Motusa T. Nua<sup>2</sup>

<sup>1</sup>US Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>American Samoa Department of Health, Pago Pago, American Samoa, <sup>3</sup>Pacific Island Health Officers' Association, Pago Pago, American Samoa, <sup>4</sup>Pacific Island Health Officers' Association, Honolulu, HI, United States

11:45 a.m.

5770

#### RATE OF ONCHOCERCA VOLVULUS MICROFILARIAE IN NODULE CARRIERS IN VILLAGES UNDER MASS DRUG ADMINISTRATION IN FUAMAH DISTRICT, LIBERIA

Cooper Sannah<sup>1</sup>, Abakar Gankpala<sup>2</sup>, Nicole Fetcho<sup>3</sup>, Lincoln Gankpala<sup>2</sup>, Aaron T. Momolu<sup>2</sup>, Edward B. Guizie<sup>1</sup>, Bindu Taweh<sup>1</sup>, Evon Vesselee<sup>4</sup>, Kasor Kollie<sup>5</sup>, Gary J. Weil<sup>6</sup>, Peter U. Fischer<sup>6</sup>, Patrick N. Kpanyen<sup>1</sup>

<sup>1</sup>National Public Health Institute of Liberia, Monrovia, Liberia, <sup>2</sup>National Public Health Institute of Liberia, Charlesville, Liberia, <sup>3</sup>Washington University School of Medicine, Saint Louis, MO, United States, <sup>4</sup>Family Health, Ministry of Health, Monrovia, Liberia, <sup>5</sup>NTD team, Ministry of Health, Monrovia, Liberia, <sup>6</sup>Washington University School of Medicine, St. Louis, MO, United States

## Scientific Session 66

### Schistosomiasis I

Plaza Ballroom - Lobby Level (East Tower)

Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

#### CHAIR

Oyime Poise Aula

*QIMR Berghofer Medical Research Institute, Herston, Australia*

Aniruddh Sarkar

*Georgia Institute of Technology, Atlanta, GA, United States*

10:15 a.m.

5771

### WHOLE-GENOME SCAN OF AFRICAN SNAIL VECTORS IDENTIFIES GENES ASSOCIATED WITH RESISTANCE TO INFECTION BY SCHISTOSOMES

Jacob A. Tennessen<sup>1</sup>, Tom Pennance<sup>2</sup>, Johannie Spaan<sup>2</sup>, Tammie McQuistan<sup>2</sup>, George Ogara<sup>3</sup>, Fredrick Rawago<sup>3</sup>, Martin Mutuku<sup>3</sup>, Gerald M. Mkoji<sup>3</sup>, Eric S. Loker<sup>4</sup>, Maurice Odiere<sup>5</sup>, Michelle L. Steinauer<sup>2</sup>

<sup>1</sup>Department of Immunology and Infectious Diseases, Harvard T.H. Chan School of Public Health, Boston, MA, United States, <sup>2</sup>College of Osteopathic Medicine of the Pacific – Northwest, Western University of Health Sciences, Lebanon, OR, United States, <sup>3</sup>Center for Biotechnology Research and Development, Kenya Medical Research Institute (KEMRI), Nairobi, Kenya, <sup>4</sup>Department of Biology, Center for Evolutionary and Theoretical Immunology, Parasite Division Museum of Southwestern Biology, University of New Mexico, Albuquerque, NM, United States

10:30 a.m.

5772

### GENOMIC EPIDEMIOLOGY OF THE CARCINOGENIC LIVER FLUKE OPISTHORCHIS VIVERRINI

Thomas Crellen<sup>1</sup>, Opal Pitaksakulrat<sup>2</sup>, Arporn Wangwivatsin<sup>2</sup>, Peter Odermatt<sup>3</sup>, Somphou Sayasone<sup>4</sup>, Poppy H.L. Lamberton<sup>1</sup>, Matthew Berriman<sup>1</sup>, T. D. Hollingsworth<sup>5</sup>, Paiboon Sithithaworn<sup>2</sup>

<sup>1</sup>University of Glasgow, Glasgow, United Kingdom, <sup>2</sup>Khon Kaen University, Khon Kaen, Thailand, <sup>3</sup>Swiss TPH, Basel, Switzerland, <sup>4</sup>Lao TPHI, Vientiane, Lao People's Democratic Republic, <sup>5</sup>University of Oxford, Oxford, United Kingdom

10:45 a.m.

5773

### TEST-TREAT-TRACK-TEST-TREAT (5T) APPROACH FOR BREAKING SCHISTOSOMIASIS TRANSMISSION

Lydia Trippler<sup>1</sup>, Lyndsay Taylor<sup>1</sup>, Mohammed N. Ali<sup>2</sup>, Jan Hattendorf<sup>1</sup>, Saleh Juma<sup>3</sup>, Fatma Kabole<sup>4</sup>, Said M. Ali<sup>2</sup>, Stefanie Knopp<sup>1</sup>

<sup>1</sup>Swiss Tropical and Public Health Institute, Allschwil, Switzerland, <sup>2</sup>Public Health Laboratory - Ivo de Carneri, Wawi, Chake Chake, Pemba, United Republic of Tanzania, <sup>3</sup>Neglected Diseases Programme, Zanzibar Ministry of Health, Mkoroshoni, Pemba, United Republic of Tanzania, <sup>4</sup>Neglected Diseases Program, Zanzibar Ministry of Health, Lumumba, Unguja, United Republic of Tanzania

11 a.m.

5774

### CHARACTERIZATION AND PROCESS DEVELOPMENT OF SERINE PROTEASE INHIBITOR: A NEXT GENERATION TRANSMISSION-BLOCKING VETERINARY MRNA VACCINE FOR ASIATIC SCHISTOSOMIASIS

Adebayo J. Molehin<sup>1</sup>, Brooke Hall<sup>1</sup>, Christine Lee<sup>1</sup>, Sean A. Gray<sup>2</sup>, Darrick Carter<sup>2</sup>

<sup>1</sup>Midwestern University, Glendale, AZ, United States, <sup>2</sup>PAI Life Sciences Inc, Seattle, WA, United States

11:15 a.m.

5775

### SCHISTOSOMA JAPONICUM CHALLENGE INFECTION MODEL IN CARABAOS (PHILIPPINE WATER BUFFALO) FOR THE PLACEBO-CONTROLLED TRIAL OF THE SJ97 AND SJ68 VACCINE CANDIDATES

Mario L. Jiz<sup>1</sup>, Daria L. Manalo<sup>1</sup>, John Ezra David dela Cruz<sup>1</sup>, Joseph Valencia<sup>1</sup>, Sarah Li<sup>2</sup>, Jonathan D. Kurtis<sup>3</sup>, Hannah W. Wu<sup>3</sup>

<sup>1</sup>Research Institute for Tropical Medicine, Muntinlupa City, Philippines, <sup>2</sup>Biomedical Research Institute, Rockville, MD, United States, <sup>3</sup>Warren Alpert Medical School at Brown University, Providence, RI, United States

11:30 a.m.

5776

### TWO KEY ACTINOBACTERIA GENERA BIFIDOBACTERIUM AND COLLINSELLA IN THE HUMAN GUT MICROBIOTA ARE DIFFERENTIALLY ASSOCIATED WITH SCHISTOSOMA MANSONI INFECTION BURDEN

Francis Ankamah Appiah-Twum<sup>1</sup>, Jewelna Akorli<sup>1</sup>, Lydia Okyere<sup>2</sup>, Hilda Darko<sup>1</sup>, Michael Wilson<sup>1</sup>

<sup>1</sup>Noguchi Memorial Institute For Medical Research, Legon, Accra, Ghana, <sup>2</sup>University of Illinois Urbana-Champaign, Chicago, IL, United States

11:45 a.m.

5777

### PREVALENCE AND DISTRIBUTION OF FEMALE GENITAL SCHISTOSOMIASIS (FGS) ACROSS THREE ENDEMIC COUNTRIES, TIMELINE, AND AGE GROUPS

Navneet Kaur, Nilanjan Lodh

Marquette University, Milwaukee, WI, United States

## Symposium 67

### Chagas Disease: Best Practices for Clinical Care

Crystal Ballroom A - Lobby Level (West Tower)

Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

Chagas disease remains underdiagnosed, particularly in non-endemic countries, and even in countries with high endemicity it is undertreated. Of the estimated 6 million individuals living with Chagas disease, less than 1% have received antiparasitic therapy. This symposium will highlight the best practices for diagnosis and treatment for the typical presentations of Chagas disease, including congenital, pediatric, adult indeterminate chronic phase, and reactivation of Chagas disease in the immunosuppressed host. Cardiac manifestations of Chagas disease will be discussed by a cardiologist, Dr. Rachel Marcus. The symposium will address the clinical aspects of Chagas Disease.

#### CHAIR

David Hamer

Center for Emerging Infectious Disease Research and Policy, Boston University School of Public Health, Boston, MA, United States

Christina Coyle

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

10:15 a.m.

#### INTRODUCTION

10:25 a.m.

### CONGENITAL AND PEDIATRIC CHAGAS DISEASE: SCREENING, MANIFESTATIONS, AND TREATMENT

Jaime Altcheh

Hospital de Niños R. Gutierrez, Buenos Aires, Argentina

10:45 a.m.

### REACTIVATION OF CHAGAS DISEASE IN THE IMMUNOSUPPRESSED PATIENT

Maria Aparecida Shikanai-Yasuda

Faculdade de Medicina, University of Sao Paulo, Sao Paulo, Brazil



**11:05 a.m.****TO TREAT OR NOT TO TREAT IN CHAGAS DISEASE, THAT IS THE QUESTION!**Christina Coyle  
*Albert Einstein College of Medicine, Bronx, NY, United States***11:25 a.m.****CARDIAC MANIFESTATIONS OF CHAGAS DISEASE: THE GREAT IMITATOR**Rachel Marcus  
*LASOCHA, Washington, DC, United States***11:45 a.m.****MODERATOR, PANEL DISCUSSION**David H. Hamer  
*Center for Emerging Infectious Disease Research and Policy, Boston University School of Public Health, Boston, MA, United States***Meet the Professors Session 68****Meet the Professors Session B - Dangerous Zebras: Will You Be Ready When A Special Pathogen Comes To Town?***Crystal Ballroom B - Lobby Level (West Tower)***Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone**

Meet the Professors sessions are valuable learning experiences for trainees and practicing clinicians to hear about clinical reasoning from leaders in the field. While the majority of cases of traveler's diarrhea self-resolves, some patients continue to have persistent symptoms. In this session, we will discuss the diagnosis and management of persistent intestinal symptoms associated with travel to, or residence in, a low- and middle-income country.

**CHAIR**Daniel Leung  
*University of Utah, Salt Lake City, UT, United States***10:15 a.m.****PRESENTATION #1**Susan McLellan  
*University of Texas Medical Branch, Galveston, TX, United States***10:45 a.m.****PRESENTATION #2**Henry Wu  
*The Emory Clinic, Emory University, Atlanta, GA, United States***Scientific Session 69****Viruses - Virus Vaccine Clinical Trials and Immunity***Regency Ballroom A - Ballroom Level (West Tower)***Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone***This session does not carry CME credit.***CHAIR**Edwin J. Asturias  
*University of Colorado, Aurora, CO, United States*Alix Miauton  
*Tropical, travel and vaccination clinic, Center for primary care and public health (Unisanté), Lausanne, Switzerland***10:15 a.m.****5778****EFFICACY AND SAFETY OF BUTANTAN-DV LIVE-ATTENUATED TETRAVALENT DENGUE VACCINE FROM A PHASE 3 CLINICAL TRIAL IN CHILDREN, ADOLESCENTS, AND ADULTS****Mauricio L. Nogueira**<sup>1</sup>, Monica A.T. Cintra<sup>2</sup>, José A. Moreira<sup>2</sup>, Elizabeth G. Patiño<sup>2</sup>, Patricia Emilia Braga<sup>2</sup>, Patricia S. Carneiro<sup>2</sup>, Lucas B. Alves<sup>2</sup>, Juliana C.V. Tenório<sup>2</sup>, Vanessa Infante<sup>2</sup>, Alejandra Esteves-Jaramillo<sup>3</sup>, Tulin Shekar<sup>3</sup>, Jung-Jin Lee<sup>3</sup>, Julieta Macey<sup>3</sup>, Sabrina Gozlan Kelner<sup>3</sup>, Beth-Ann G. Collier<sup>3</sup>, Fernanda Castro Boulos<sup>2</sup>, Esper G. Kallás<sup>4</sup><sup>1</sup>Faculdade de Medicina de São José do Rio Preto (FAMERP), São José do Rio Preto, Brazil, <sup>2</sup>Instituto Butantan, Sao Paulo, Brazil, <sup>3</sup>Merck & Co., Inc., Rahway, NJ, United States, <sup>4</sup>Instituto Butantan/Hospital das Clínicas da Faculdade de Medicina da USP-SP, Sao Paulo, Brazil**10:30 a.m.****5779****A PHASE 1 OPEN LABEL TRIAL ASSESSMENT OF A DENGUE HUMAN INFECTION MODEL USING A DENGUE VIRUS SEROTYPE 4 LIVE VIRUS CHALLENGE****Joel V. Chua**<sup>1</sup>, Angie Price<sup>1</sup>, Salma Sharaf<sup>1</sup>, Youngchae J. Yoo<sup>1</sup>, Hernando Gutierrez-Barbosa<sup>1</sup>, Kathleen A. Strauss<sup>2</sup>, Sudhaunshu Joshi<sup>2</sup>, Rafael A. De La Barrera<sup>2</sup>, Heather L. Friberg<sup>4</sup>, Michael A. Koren<sup>4</sup>, Robert Edelman<sup>2</sup>, Kirsten E. Lyke<sup>2</sup><sup>1</sup>Institute of Human Virology, University of Maryland School of Medicine, Baltimore, MD, United States, <sup>2</sup>Center for Vaccine Development and Global Health, University of Maryland School of Medicine, Baltimore, MD, United States, <sup>3</sup>Pilot Bioproduction Facility, Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>4</sup>Viral Diseases Branch, Walter Reed Army Institute of Research, Silver Spring, MD, United States**10:45 a.m.****5780****SAFETY AND IMMUNOGENICITY OF A SYNTHETIC NANOPARTICLE-BASED, T CELL PRIMING PEPTIDE VACCINE AGAINST DENGUE IN HEALTHY ADULTS IN SWITZERLAND: A DOUBLE-BLIND, RANDOMIZED, VEHICLE-CONTROLLED, PHASE 1 STUDY****Alix Miauton**<sup>1</sup>, Régine Audran<sup>2</sup>, Juliette Besson<sup>1</sup>, Hélène Maby-El Hajjami<sup>3</sup>, Maxime Karlen<sup>1</sup>, Loane Warpelin-Decrausaz<sup>2</sup>, Loredana Sene<sup>3</sup>, Sylvain Schaufelberger<sup>5</sup>, Vincent Faivre<sup>6</sup>, Mohamed Faouzi<sup>6</sup>, Mary-Anne Hartley<sup>1</sup>, François Spertini<sup>2</sup>, Blaise Genton<sup>1</sup><sup>1</sup>Tropical, travel and vaccination clinic, Center for primary care and public health (Unisanté), Lausanne, Switzerland, <sup>2</sup>Division of Immunology and Allergy, Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne, Switzerland, <sup>3</sup>Clinical Trial Unit, Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne, Switzerland, <sup>4</sup>Research support unit, Center for primary care and public health (Unisanté), Lausanne, Switzerland, <sup>5</sup>Information systems and digital transformation, Center for primary care and public health (Unisanté), Lausanne, Switzerland, <sup>6</sup>Biosstatistics unit, Center for primary care and public health (Unisanté), Lausanne, Switzerland**11 a.m.****5781****CHIKUNGUNYA VACCINE VLA1553 INDUCES CROSS-NEUTRALIZATION AGAINST DIFFERENT CHIKV GENOTYPES****Karin Kosulin**<sup>1</sup>, Trevor L. Brasel<sup>2</sup>, Jeanon Smith<sup>2</sup>, Maricela Torres<sup>2</sup>, Annegret Bitzer<sup>1</sup>, Katrin Dubischar<sup>1</sup>, Vera Bürger<sup>1</sup>, Scott C. Weaver<sup>2</sup>, David WC Beasley<sup>2</sup>, Romana Hochreiter<sup>1</sup><sup>1</sup>Valveva Austria GmbH, Vienna, Austria, <sup>2</sup>University of Texas Medical Branch, Galveston, TX, United States

11:15 a.m.

5782

### IMMUNOGENICITY OF AN EXTENDED DOSE INTERVAL FOR THE AD26.ZEBOV, MVA-BN-FILO PROPHYLACTIC EBOLA VIRUS VACCINE REGIMEN IN ADULTS AND CHILDREN IN THE DEMOCRATIC REPUBLIC OF THE CONGO

Edward M. Choi<sup>1</sup>, Hugo Kavunga-Membo<sup>2</sup>, Kambale Kasonia<sup>1</sup>, Daniel Mukadi-Bamuleka<sup>2</sup>, Soumah Aboubacar<sup>3</sup>, Zephyrin Mossoko<sup>2</sup>, Tansy Edwards<sup>1</sup>, Darius Tetsa-Tata<sup>1</sup>, Grace Mambula<sup>2</sup>, Daniela Manno<sup>1</sup>, Chelsea McLean<sup>4</sup>, Babajide Keshinro<sup>4</sup>, Auguste Gaddah<sup>5</sup>, Cynthia Robinson<sup>4</sup>, Kerstin Luhn<sup>4</sup>, Nathalie Imbault<sup>6</sup>, Rebecca Grais<sup>5</sup>, Daniel G. Bausch<sup>1</sup>, Deborah Watson-Jones<sup>1</sup>, Jean-Jacques Muyembe<sup>2</sup>

<sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Institut National de Recherche Biomédicale, Kinshasa, Democratic Republic of the Congo, <sup>3</sup>Epicentre, Paris, France, <sup>4</sup>Janssen Vaccines and Prevention B.V., Leiden, Netherlands, <sup>5</sup>Janssen Research & Development, Beerse, Belgium, <sup>6</sup>Coalition for Epidemic Preparedness Innovations, Oslo, Norway

11:30 a.m.

5783

### DETERMINANTS AND DURABILITY OF ANTIBODY RESPONSE TO RVSVDG-ZEBOV-GP AND AD26.ZEBOV,MVA-BN-FILO EBOLA VIRUS DISEASE VACCINES: A MODELLING STUDY FROM THE PREVAC RANDOMIZED TRIAL

Simon Valayer<sup>1</sup>, Marie Alexandre<sup>2</sup>, Mélanie Prague<sup>2</sup>, Abdoul Habib Beavogui<sup>3</sup>, Seydou Doumbia<sup>4</sup>, Mark Kieh<sup>5</sup>, Brian Greenwood<sup>6</sup>, Bailah Leigh<sup>7</sup>, Marie Poupelin<sup>2</sup>, Christine Schwimmer<sup>8</sup>, Samba O. Sow<sup>9</sup>, Irina Maljkovic Berry<sup>10</sup>, Jens H. Kuhn<sup>10</sup>, Daniela Fusco<sup>11</sup>, Natasha Dubois Cauwelaert<sup>11</sup>, Deborah Watson-Jones<sup>6</sup>, Rodolphe Thiébaud<sup>2</sup>, Yves Lévy<sup>12</sup>, Yazdan Yazdanpanah<sup>11</sup>, Laura Richert<sup>2</sup>, Edouard Lhomme<sup>2</sup>, PREVAC Study Team<sup>13</sup>

<sup>1</sup>IAME, Université Sorbonne Paris Nord, Université Sorbonne Paris Cité, and Inserm, Paris, France, <sup>2</sup>Bordeaux Population Health Research Centre, Université de Bordeaux, Inserm, and INRIA, Bordeaux, France, <sup>3</sup>Centre National de Formation et de Recherche en Santé Rurale (CNFRSR) de Mafèrinyah, Mafèrinyah, Guinea, <sup>4</sup>University Clinical Research Center, University of Sciences, Technique and Technology of Bamako, Bamako, Mali, <sup>5</sup>Partnership for Research on Ebola Virus in Liberia (PREVAIL), Monrovia, Liberia, <sup>6</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>7</sup>College of Medicine and Allied Health Sciences (COMAHS), Freetown, Sierra Leone, <sup>8</sup>European CLInical Trials Platform & Development (EUCLID), Université de Bordeaux, Centre Hospitalier Universitaire Bordeaux, and Inserm, Bordeaux, France, <sup>9</sup>Centre pour le Développement des Vaccins, Ministère de la Santé et du Développement Social du Mali, Bamako, Mali, <sup>10</sup>Integrated Research Facility at Fort Detrick, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Frederick, MD, United States, <sup>11</sup>French Agency for Research on AIDS and Viral Hepatitis (ANRS), Emerging Infectious Diseases, Paris, France, <sup>12</sup>Vaccine Research Institute, Université Paris-Est Créteil, Créteil, France

11:45 a.m.

5784

### HIGH DIMENSIONAL IMMUNOPHENOTYPING OF ACUTE EBOLA VIRUS INFECTED NONHUMAN PRIMATES

Andrew Platt<sup>1</sup>, Sydney R. Stein<sup>1</sup>, Scott M. Anthony<sup>2</sup>, Bobbi Barr<sup>2</sup>, Jeffrey R. Strich<sup>2</sup>, Heather Teague<sup>3</sup>, Michael Holbrook<sup>2</sup>, Daniel S. Chertow<sup>1</sup>

<sup>1</sup>National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States, <sup>2</sup>National Institute of Allergy and Infectious Diseases, Frederick, MD, United States, <sup>3</sup>National Heart, Lung, and Blood Institute, Bethesda, MD, United States

## Symposium 70

### Holistic Approaches: Integrating the Complexity of Natural Systems into Public Health Research and Decision-Making

Regency Ballroom B - Ballroom Level (West Tower)

Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

Healthy natural ecosystems are the foundation for thriving flora, fauna, and human societies. This interconnectedness between human societies and nature underpins many of the global issues that have been explored for decades in tropical medicine. At

the root, our imbalanced relationship with nature has led to the emergence and persistence of environmental disruptions that impair human health, as well as the wellbeing of plants, animals, and our shared ecosystems. Climate change, pollution, resource exploitation, and other actions that alter the health of natural environments increase the risks for wildfires, infectious diseases emergence and spread, noncommunicable diseases, and many other health issues. A number of approaches have contributed toward capturing this interconnectedness between human health and nature (e.g., One Health, Planetary Health, among others), but the challenge remains in understanding and integrating the full complexity of natural systems into public health research and decision-making, without centering or elevating the needs of any specific stakeholder above that of others. Public health decisions and policy actions to address these issues must be based on actionable research outcomes that consider nature and human health together in a holistic way. New opportunities and progress can be identified if the well-being of nature and humans are pursued as an interconnected system. Attendees of this symposium will gain appreciation of the full landscape of the interaction between nature and public health, understand possible pathways of disease emergence, discuss opportunities beyond traditional reductionist scientific approaches that can address research gaps to inform decision-making, and reflect on ways that these approaches can be adapted for local settings around the globe where they work.

#### CHAIR

Albert I. Ko  
Yale University School of Public Health, New Haven, CT, United States

10:15 a.m.

#### INTRODUCTION

10:20 a.m.

#### INTERSECTION OF ECOSYSTEM HEALTH AND HUMAN HEALTH

Kathleen Rest  
Boston University Institute for Global Sustainability, Boston, MA, United States

10:40 a.m.

#### ENVIRONMENTAL DRIVERS OF INFECTIOUS DISEASES EMERGENCE

Jonathan Sleeman  
USGS National Wildlife Health Center, Madison, WI, United States

11 a.m.

#### HOLISTIC HEALTH THROUGH TRADITIONAL KNOWLEDGE

Carlos Salinas  
Healing Bridges, Washington, DC, United States

11:20 a.m.

#### HEALING THE PLANET AND IMPROVING HUMAN HEALTH AND WELL-BEING

Maria P. Kartika  
Health in Harmony, Portland, OR, United States

## Scientific Session 71

### Arthropods/Entomology - Other

Regency Ballroom C - Ballroom Level (West Tower)

Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

#### CHAIR

Zinsou Come Koukpo

Centre de Recherche Entomologique de Cotonou, Cotonou, Benin

Selma Jeronimo

Universidade Federal do Rio Grande do Norte, Natal, Brazil

10:15 a.m.

5785

#### CHARACTERIZING THE ROLE OF TICK SPECIES IN POWASSAN VIRUS FITNESS AND EVOLUTION

Rachel Elizabeth Lange<sup>1</sup>, Alan P. Dupuis II<sup>2</sup>, Alexander T. Ciota<sup>2</sup>

<sup>1</sup>University at Albany School of Public Health and Wadsworth Center, Albany, NY, United States, <sup>2</sup>Arbovirus Laboratory, Wadsworth Center NYSDOH, Slingerlands, NY, United States

10:30 a.m.

5786

#### ARE THE BITES OF NON-INFECTED SAND FLIES IMPORTANT FOR THE MAINTENANCE OF CUTANEOUS LEISHMANIASIS ANIMAL RESERVOIRS?

Pedro Cecilio, Maria M. Disotuar, Tiago D. Serafim, Claudio Meneses, Jesus G.

Valenzuela, Fabiano Oliveira

NIAID, NIH, Rockville, MD, United States

10:45 a.m.

5787

#### THE HUMAN SKIN MICROBIOTA CHANGES IN RESPONSE TO SCABIES INFESTATION, WITH AN INCREASE IN OPPORTUNISTIC PATHOGENS

Sara Taylor<sup>1</sup>, Martha Zakrzewski<sup>1</sup>, Charlotte Berniguad<sup>2</sup>, Nuzhat Surve<sup>3</sup>, Pallavi Surase<sup>3</sup>,

Deepani D. Fernando<sup>1</sup>, Françoise Botterel<sup>4</sup>, Troy Darben<sup>5</sup>, Olivier Chosidow<sup>4</sup>, Katja

Fischer<sup>1</sup>

<sup>1</sup>QIMR Berghofer MRI, Brisbane, Australia, <sup>2</sup>Dermatology Department, Assistance Publique des Hôpitaux de Paris (AP-HP), Hôpital Henri Mondor, Université Paris-Est, Créteil, France, Paris, France, <sup>3</sup>King Edward Memorial Hospital Seth Gordhandas Sunderdas Medical College, Mumbai, India, <sup>4</sup>Dermatology Department, Assistance Publique des Hôpitaux de Paris (AP-HP), Hôpital Henri Mondor, Université Paris-Est, Créteil, Paris, France, <sup>5</sup>Robina Skin Specialist Centre, Robina, Australia

11 a.m.

5788

#### EVALUATION OF THE EFFECT OF LONG LASTING INSECTICIDE IMPREGNATED BED NETS ON PHLEBOTOMUS ARGENTIPES EXPOSURE USING SALIVARY BIOMARKERS: AN EARLY ANALYSIS AFTER 6 MONTHS

Sachee Bhanu Piyasiri<sup>1</sup>, Sanath Senanayake<sup>1</sup>, Nilakshi Samaranyake<sup>1</sup>, Eva Iniguez<sup>2</sup>,

Shaden Kamhawi<sup>2</sup>, Nadira Karunaweera<sup>1</sup>

<sup>1</sup>Faculty of Medicine, University of Colombo, Colombo, Sri Lanka, <sup>2</sup>National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States

11:15 a.m.

5789

#### EXPANDING TOOLBOX FOR ODOR-BASED TSETSE FLY CONTROL IN EAST AFRICA

Paul O. Mireji<sup>1</sup>, Benson Wachira<sup>2</sup>, Richard Echodu<sup>3</sup>, Imna Malele<sup>4</sup>, Daniel Gamba<sup>5</sup>, Johnson Ouma<sup>6</sup>, Michael Okal<sup>6</sup>, Margaret Ng'ang'a<sup>2</sup>, Eric Masika<sup>2</sup>, Bernadette Moraa<sup>7</sup>, Ahmed Hassanali<sup>7</sup>

<sup>1</sup>Biotechnology Research Institute, Kenya Agricultural and Livestock Research Organization, Kikuyu, Kenya, <sup>2</sup>Kenyatta University, Nairobi, Kenya, <sup>3</sup>Gulu University, Gulu, Uganda, <sup>4</sup>Vector and Vector Borne Disease Institute (VVBD), Tanzania Veterinary Laboratory Agency (TVLA), Tanga, United Republic of Tanzania, <sup>5</sup>Kenya Tsetse and Trypanosomiasis Eradication Council (KENTTEC), Nairobi, Kenya, <sup>6</sup>Vector Health International (VHI), Arusha, United Republic of Tanzania, <sup>7</sup>Kenyatta University, Kikuyu, Kenya

11:30 a.m.

5790

#### ONCHOCERCIASIS TRANSMISSION IN BENIN: BITING AND PAROUS RATE OF SIMULIUM DAMNOSUM COMPLEX ALONG THE OUEME, SOTA AND ZOU RIVERS

Pelagie M Boko-Collins<sup>1</sup>, Zinsou Come Koukpo<sup>2</sup>, Filémon Tokponnon<sup>2</sup>, Razaki Osse<sup>2</sup>,

Germain Gil Padonou<sup>2</sup>, Martin Akogbeto<sup>2</sup>

<sup>1</sup>Sightsavers, Cotonou, Benin, <sup>2</sup>Centre de Recherche Entomologique de Cotonou, Cotonou, Benin

11:45 a.m.

5791

#### VERTICALLY INFECTED DOGS AS A RESERVOIR FOR LEISHMANIA INFANTUM IN AN ENDEMIC AREA FOR VISCERAL LEISHMANIASIS

Joanna Gardel Valverde<sup>1</sup>, Angelis Falcão<sup>1</sup>, Leticia Paula<sup>1</sup>, Damila de Melo<sup>1</sup>, José Flávio

Coutinho<sup>1</sup>, Jan Pierre Araújo<sup>2</sup>, Ciro Fagundes<sup>2</sup>, Paulo Ricardo Porfirio do Nascimento<sup>1</sup>,

Phillip Lawyer<sup>3</sup>, Jacob Oleson<sup>4</sup>, Mary E. Wilson<sup>5</sup>, Christine A. Petersen<sup>6</sup>, Selma B.

Jerônimo<sup>1</sup>

<sup>1</sup>Federal Unviversity of Rio Grande do Norte, Natal, Brazil, <sup>2</sup>Center for Zoonotic Control, Health Secretariat of Natal, Natal, Brazil, <sup>3</sup>Monte L. Bean Life Science Museum, Brigham Young University, Salt Lake City, UT, United States, <sup>4</sup>Department of Biostatistics, University of Iowa, Iowa City, IA, United States, <sup>5</sup>Departments of Internal Medicine and Microbiology & Immunology, University of Iowa and the VA Medical Center, Iowa City, IA, United States, <sup>6</sup>Department of Epidemiology, University of Iowa, Iowa City, IA, United States

## Symposium 72

### Evidence and Lessons Learned from the Malaria Vaccine Implementation Program (2019-2023)

Regency Ballroom D - Ballroom Level (West Tower)

Friday, October 20, 10:15 a.m. - Noon U.S. Central Time Zone

The Malaria Vaccine Implementation Program (MVIP), taking place in areas of Ghana, Kenya, and Malawi, will be completed at the end of this year (2023). Since the immunization programs in the three countries began vaccinations with RTS,S/AS01 (RTS,S) in 2019 as part of the MVIP, data have been collected on safety, impact, and feasibility of the four-dose regimen in routine use, and many lessons learned, including about how to increase and sustain uptake and coverage in the midst of a global pandemic. The evidence from 24 months of vaccine implementation informed the October 2021 World Health Organization (WHO) recommendation for the broader use of the vaccine to reduce child illness and deaths from malaria in regions with moderate to high *Plasmodium falciparum* transmission. This evidence also informed a decision by Gavi, the Vaccine Alliance, to finance a malaria vaccination program to support vaccine rollout. Demand for the vaccine is unprecedented, with at least 28 countries planning to

introduce the vaccine in the coming years, and more than a dozen countries having applied for support at the first opportunity in January 2023. In this symposium, the speakers will explain why a pilot implementation was recommended in 2015, present the full 46-month analysis of data from the MVIP evaluation, including data on vaccine impact, and share country perspectives on other important learnings from the pilot program, including pros and cons of the experience. The speakers will also share observations from the pilots that could help pave the pathway for future malaria vaccine introductions. Following a welcome and introduction by the symposium chair, John Bawa, the presentations will address the background to the malaria vaccine pilots and their design; present the full 46-month data analysis; provide a country perspective on the lessons learned from the pilots, including implementation challenges and opportunities; share additional scientific lessons learned (beyond safety, feasibility, and impact); and reflect on the pilot program's implications for future malaria vaccine introductions.

#### **CHAIR**

John Bawa  
*PATH, Accra, Ghana*

Eliane Furrer  
*World Health Organization, Geneva, Switzerland*

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

#### **10:25 a.m.** **WHY A PILOT? KEY BACKGROUND ON THE RTS,S MALARIA VACCINE PILOTS**

Eliane Furrer  
*World Health Organization, Geneva, Switzerland*

#### **10:35 a.m.** **MALARIA VACCINE PILOT EVALUATION: SAFETY, IMPACT, AND FEASIBILITY ANALYSIS OF RTS,S 46 MONTHS POST-INTRODUCTION**

Kwaku Poku Asante  
*Kintampo Health Research Centre, Kintampo, Ghana*

#### **10:50 a.m.** **COUNTRY PERSPECTIVE ON LESSONS LEARNED FROM THE RTS,S MALARIA VACCINE PILOTS**

Kwame Amponsa-Achiano  
*Ghana Health Service, Accra, Ghana*

#### **11:05 a.m.** **BEYOND SAFETY, FEASIBILITY, AND IMPACT: LESSONS LEARNED FROM THE RTS,S MALARIA VACCINE PILOTS**

Mary J. Hamel  
*World Health Organization, Geneva, Switzerland*

#### **11:20 a.m.** **KEY TAKEAWAYS FROM THE RTS,S MALARIA VACCINE PILOT EXPERIENCE AND IMPLICATIONS FOR FUTURE MALARIA VACCINE INTRODUCTIONS**

John Bawa  
*PATH, Accra, Ghana*

## **Exhibit Hall Open**

*Riverside Center - Exhibit Level (East Tower)*

**Friday, October 20, Noon- 1:30 p.m. U.S. Central Time Zone**

## Poster Session 73

### Poster Session B Presentations

Riverside Center - Exhibit Level (East Tower) and Grand Hall GHI – Ballroom Level (East Tower)

Friday, October 20, Noon - 1:45 p.m.

### Poster Session B Directory

Global Health - Diversity, Inclusion, Decolonization and Human Rights: 5792- 5809

Global Health - Information/Communication/Technologies Solutions in Global Health including Modeling: 5810-5825

Global Health – Other: 5826-5851

Global Health - Security/Emerging Infection Preparedness, Surveillance and Response(s): 5852-5878

Mosquitoes - Biology and Genetics of Insecticide Resistance: 5879-5892

Mosquitoes - Biology, Physiology and Immunity: 5893- 5905

Mosquitoes - Bionomics, Behavior and Surveillance: 5906- 5926

Mosquitoes - Epidemiology and Vector Control: 5927- 5956

Mosquitoes - Molecular Biology, Population Genetics and Genomics: 5957- 5972

Viruses - Emerging Viral Diseases: 5973- 5989

Viruses – Epidemiology: 5990- 6006

Viruses - Evolution and Genomic Epidemiology: 6007- 6016

Viruses - Field and ecological studies of viruses, including surveillance and spillover risk and emergence: 6017- 6030

Viruses – Immunology: 6031- 6045

Malaria - Antimalarial Resistance and Chemotherapy: 6046- 6067

Malaria - Diagnosis - Challenges and Innovations: 6068- 6086

Malaria - Drug Development and Clinical Trials: 6087- 6099

Malaria – Elimination: 6100- 6115

Malaria – Epidemiology: 6116- 6139

Malaria - Genetics, Genomics and Evolution: 6140- 6156

Malaria – Immunology: 6157- 6167

Malaria – Pathogenesis: 6168- 6178

Malaria – Prevention: 6179- 6204

Malaria – Surveillance and Data Utilization: 6205- 6224

Malaria - Transmission Biology: 6225- 6238

Malaria - Vaccines and Immunotherapeutics: 6239- 6250

Bacteriology - Enteric Infections: 6251- 6262

Bacteriology – Trachoma: 6263- 6266

Cestodes (including taeniasis and cysticercosis, echinococcosis/ hydatid disease, and others): 6267- 6275

Helminths – Nematodes – Intestinal Nematodes: 6276- 6287

Clinical Tropical Medicine: 6288- 6304

HIV and Tropical Co-Infections: 6305- 6316

Integrated Control Measures for Neglected Tropical Diseases (NTDs): 6317- 6327

Kinetoplastida and Other Protozoa - Immunology (Including Leishmania and Trypanosomes): 6328- 6337

Kinetoplastida and Other Protozoa - Invasion, Cellular and Molecular Biology (Including Leishmania and Trypanosomes): 6338- 6344

Kinetoplastida and Other Protozoa - Treatment, Drug Delivery, Drug Repurposing and Drug Discovery (Including Leishmania and Trypanosomes): 6345- 6352

Kinetoplastida and Other Protozoa - Vaccines (Including Leishmania and Trypanosomes): 6353

One Health: The Interconnection between People, Animals, Plants and Their Shared Environment: 6354- 6365

Pneumonia, Respiratory Infections and Tuberculosis: 6366- 6381

Schistosomiasis and Other Trematodes – Epidemiology and Control: 6382- 6389

Schistosomiasis and Other Trematodes – Immunology, Pathology, Cellular and Molecular Biology: 6390- 6393

Water, Sanitation, Hygiene and Environmental Health: 6394- 6403

## Global Health - Diversity, Inclusion, Decolonization and Human Rights

**5792**

### ASSOCIATION OF HIV/AIDS WITH PSYCHIATRIC ILLNESS AMONG TRANSGENDER POPULATION IN A LOW HIV PREVALENCE COUNTRY

**Nayem Akhter Abbasi<sup>1</sup>, Helal Uddin Ahmed<sup>1</sup>, Mohammad Tariqul Alam<sup>1</sup>, Mekhala Sarkar<sup>1</sup>, Lubaba Shahrin<sup>2</sup>**

<sup>1</sup>National Institute of Mental Health, Dhaka, Bangladesh, <sup>2</sup>icddr, Dhaka, Bangladesh

**5793**

### SYNTHESIS OF FINDINGS FROM THE LITERATURE AND A QUALITATIVE RESEARCH STUDY ON THE IMPACTS OF GENDER, DISABILITY, AND ETHNICITY IN NEGLECTED TROPICAL DISEASES PROGRAMMING

**Jennifer K. Arney, Maureen K. Headland, Andrea M. Bertone, Diana Stukel**  
FHI 360, Washington, DC, United States

**5794**

### NEEDS AND PREFERENCE FOR COMMUNITY HEALTH WORKER SERVICES IN CAMBODIA: A COMMUNITY SURVEY

**Panarasri Khonputsai<sup>1</sup>, Long Heng Orng<sup>1</sup>, Monnaphat Jongdeepsaisai<sup>1</sup>, Christopher Pell<sup>2</sup>, Siv Sovannaroth<sup>3</sup>, Massaya Sirimatayanant<sup>1</sup>, Richard J. Maude<sup>1</sup>**

<sup>1</sup>Mahidol Oxford Research Unit, Bangkok, Thailand, <sup>2</sup>Amsterdam Institute for Social Science Research, University of Amsterdam, Amsterdam, Netherlands, <sup>3</sup>National Center for Parasitology, Entomology and Malaria Control (CNM), Phnom Penh, Cambodia

**5795**

### ARMED CONFLICT REFUGEES' RESILIENCE: TRANSDISCIPLINARY STUDY ON A DIALOG FOR HEALTH PREVENTION IN THE EASTERN DEMOCRATIC REPUBLIC OF CONGO

**Christian Ahadi Ireng<sup>1</sup>, Freddy Bikiol<sup>2</sup>, Rodrigue Fikiri Bavarhe<sup>1</sup>, Benedicte Sakina<sup>3</sup>, Yves Coppieters<sup>4</sup>**

<sup>1</sup>Official University of Bukavu, Bukavu, Democratic Republic of the Congo, <sup>2</sup>Antwerp University, Antwerp, Belgium, <sup>3</sup>Université Libre des Pays des Grands Lacs, Goma, Democratic Republic of the Congo, <sup>4</sup>School of Public Health, ULB, Bruxelles, Belgium

**5796**

### LIVING WITH HANSEN'S DISEASE IN MALAYSIA: A TRANSDISCIPLINARY RESEARCH APPROACH

**Norana Abdul Rahman<sup>1</sup>, Vaikunthan Rajaratnam<sup>2</sup>, Ruth M. H. Peters<sup>1</sup>, Karen Morgan<sup>3</sup>, Mohamed Rusli Abdullah<sup>4</sup>, Marjolein B. M. Zweekhorst<sup>1</sup>**

<sup>1</sup>Athena Institute, Vrije University, Amsterdam, Netherlands, <sup>2</sup>Khoo Teck Puat Hospital, Singapore, Singapore, <sup>3</sup>Perdana University-Royal College of Surgeons in Ireland School of Medicine, Kuala Lumpur, Malaysia, <sup>4</sup>Universiti Sains Malaysia, Kota Bharu, Malaysia

5797

### CHARACTERISTICS ASSOCIATED WITH SARS-COV-2 SEROPOSITIVITY IN CAMEROON

**Ebako Ndip Takem**<sup>1</sup>, *Clement B. Ndongmo*<sup>1</sup>, *Judith Shang*<sup>1</sup>, *Adama N'Diri*<sup>1</sup>, *Dubliss Nguafack*<sup>2</sup>, *Gabriel Ekal*<sup>3</sup>, *Emily K. Dokubo*<sup>3</sup>

<sup>1</sup>Centers for Disease Control and Prevention, Yaounde, Cameroon, <sup>2</sup>International Center for AIDS Care and Treatment Program, Yaounde, Cameroon, <sup>3</sup>Centers for Disease Control and Prevention, Kingston, Jamaica

5798

### CONCEPTUALIZING AND UNDERSTANDING STIGMA ASSOCIATED WITH CL IN A RURAL COMMUNITY OF SRI LANKA

**Hasara Nuwangi**<sup>1</sup>, *Lisa Dikomitis*<sup>2</sup>, *Kosala G. Weerakoon*<sup>3</sup>, *Suneth B. Agampodi*<sup>4</sup>, *Thilini C. Agampodi*<sup>1</sup>

<sup>1</sup>Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka, <sup>2</sup>Kent and Medway Medical School, University of Kent and Canterbury Christ Church University, Canterbury, United Kingdom, <sup>3</sup>Department of Parasitology, Faculty of Medicine and Allied Sciences Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka, <sup>4</sup>International Vaccine Institute, Seoul, Republic of Korea

5799

### INTEGRATING AND ACCESSING EQUITY IN GLOBAL HEALTH PROGRAM DESIGN

**Vajra Allan**<sup>1</sup>, *Christelle Gogue*<sup>2</sup>, *Krya Arnett*<sup>1</sup>, *Brianna Musselman*<sup>2</sup>, *Peder Digre*<sup>1</sup>, *Bindiya Patel*<sup>1</sup>

<sup>1</sup>PATH, Seattle, WA, United States, <sup>2</sup>PATH, Washington, DC, United States

5800

### INCREASING ADOPTION OF MALARIA PREVENTION AND CONTROL USING MULTIPRONGED SOCIAL BEHAVIOR CHANGE APPROACHES

**Aaron Musimenta**<sup>1</sup>, *Felix Manano*<sup>1</sup>, *Dorah Anita Talanta*<sup>1</sup>, *Irene Ochola*<sup>1</sup>, *Angela Kateemu*<sup>1</sup>, *Amy Casella*<sup>2</sup>, *Aliza Hasham*<sup>3</sup>, *Benjamin Binagwa*<sup>1</sup>, *Natalia Whitley*<sup>2</sup>

<sup>1</sup>John Snow Inc, Kampala, Uganda, <sup>2</sup>John Snow Inc, Boston, VA, United States, <sup>3</sup>John Snow Inc, Dar es Salaam, United Republic of Tanzania

5801

### EQUALITY IN AJTMH PUBLICATIONS FROM 1952 TO 2022: WHAT CAN WE LEARN TO MAKE GLOBAL HEALTH RESEARCH PUBLISHING MORE EQUITABLE? A BIBLIOMETRIC ANALYSIS

**Nabila Farah Jeehan Youssouf**

*Botswana Harvard Health Partnership, Gaborone, Botswana*

5802

### ESTABLISHING A RELATIONSHIP WITH THE SURVIVORS OF TORTURE CLINIC AND THE UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE; AN INNOVATIVE ALLIANCE TO MENTOR AND ASSIST REFUGEES

**Zoha Mian**

*University of Louisville, Louisville, KY, United States*

5803

### GROW502: A POP-UP CLINIC TO TACKLE HEALTH DISPARITIES WITHIN THE HOUSELESS POPULATION

**Zoha Mian**

*University of Louisville, Louisville, KY, United States*

5804

### NUTRITIONAL STATUS, DIETARY DIVERSITY AND FOOD INSECURITY AMONG WOMEN AND CHILDREN IN PERI-URBAN COMMUNITIES OF KARACHI, PAKISTAN

**Nadia Ansari**, *Mashal Amin*, *Ayesha Khalid*, *Amna K. Haider*, *Junaid Mehmood*, *Rafey Ali*, *Mohammad I. Nisar*, *Fyezah Jehan*, *Zahra Hoodbhoy*

*The Aga Khan University, Karachi, Pakistan*

5805

### A SYSTEMATIC REVIEW & META-ANALYSIS: IMPACT OF THE COVID-19 PANDEMIC ON VIOLENCE AGAINST CHILDREN

**Tomomi Nakaïke**

*Nagasaki university, ichikikushikino, Japan*

5806

### A QUALITATIVE ASSESSMENT OF THE LANDSCAPE AND DYNAMICS OF CAPACITY STRENGTHENING INITIATIVES FOR MALARIA MODELING IN AFRICA

**Letitia Onyango**, *Ghislaine Ouedraogo-Ametchie*, *Jaline Gerardin*

*Northwestern University, Chicago, IL, United States*

5807

### EPIDEMIOLOGICAL PROFILE OF ASYLUM SEEKERS AT THE US-MEXICO BORDER: ASSESSMENT OF DISEASE BURDEN IN A MATAMOROS MIGRANT SETTLEMENT CAMP FROM NOVEMBER 2019 TO MARCH 2021

**Allison W. Cheung**<sup>1</sup>, *Christopher W. Reynolds*<sup>1</sup>, *Raymond Rosenbloom*<sup>2</sup>, *Sarah Draugelis*<sup>3</sup>, *Florian F. Schmitzberger*<sup>4</sup>

<sup>1</sup>University of Michigan Medical School, Ann Arbor, MI, United States, <sup>2</sup>Medical School for International Health, Ben Gurion University of the Negev, Beersheba, Israel, <sup>3</sup>Team fEMR, Cleveland, OH, United States, <sup>4</sup>Department of Emergency Medicine, University of Michigan, Ann Arbor, MI, United States

5808

### EXPLORING THE POTENTIAL OF POLICY IMPLEMENTATION STRATEGIES AS HEALTH JUSTICE-MAKING TOOLS: AN ILLUSTRATIVE CASE OF NEGLECTED TROPICAL DISEASES MASTERPLAN IN ZAMBIA

**Patricia Maritim**, *Margarate Munakampe*, *Joseph M. Zulu*

*University of Zambia, Lusaka, Zambia*

5809

### NATIONAL GUIDELINES AND LEGISLATION CONCERNING THE MANAGEMENT OF ZIKA VIRUS INFECTION IN PREGNANT WOMEN DURING THE 2015-2018 EPIDEMIC IN LATIN AMERICA

*Sarah Bethencourt*<sup>1</sup>, **Olivia Pluss**<sup>2</sup>, *Adriana Gomez*<sup>3</sup>, *Rodrigo Cachay*<sup>4</sup>, *Carmen Soria*<sup>5</sup>, *Ivonne Morales*<sup>6</sup>, *Kerstin Rosenberger*<sup>7</sup>, *Martin Weber*<sup>8</sup>, *Celia Alpuche Aranda*<sup>9</sup>, *Patricia Brasil*<sup>10</sup>, *Paola Mariela Saba Villarreal*<sup>11</sup>, *Ernesto Marques*<sup>12</sup>, *Eduardo Gotuzzo*<sup>4</sup>, *Maria Consuelo Miranda Montoya*<sup>3</sup>, *Adriana Tami*<sup>1</sup>, *Thomas Jaenisch*<sup>2</sup>

<sup>1</sup>Universidad de Carabobo, Valencia, Bolivarian Republic of Venezuela, <sup>2</sup>Center for Global Health, Colorado School of Public Health, Aurora, CO, United States, <sup>3</sup>Universidad Industrial de Santander, Bucaramanga, Colombia, <sup>4</sup>Instituto de Medicina Tropical Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>5</sup>Universidad Católica Santiago de Guayaquil, Guayaquil, Ecuador, <sup>6</sup>Division of Infectious Disease and Tropical Medicine, Center for Infectious Diseases, Heidelberg University Hospital, Heidelberg, Germany, <sup>7</sup>Section Clinical Tropical Medicine, Heidelberg University Hospital, Heidelberg, Germany, <sup>8</sup>WHO Regional Office for Europe, Office for quality of care, Athens, Greece, <sup>9</sup>Centro de Investigación en Enfermedades Infecciosas, Instituto Nacional de Salud

*Pública, Cuernavaca, Morelos, Mexico, <sup>10</sup>Evandro Chagas National Institute of Infectious Diseases, Oswaldo Cruz Foundation, Rio de Janeiro, Brazil, <sup>11</sup>Unité des Virus Émergents (UVE: Aix-Marseille Univ-IRD 190-INSEEM 1207-IHU Méditerranée Infection), Marseille, France, <sup>12</sup>Graduate School of Public Health, Department of Infectious Diseases and Microbiology, University of Pittsburgh, Pittsburgh, PA, United States*

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

5810

### IMPACT EVALUATION OF SOCIAL MEDIA CAMPAIGN TO IMPROVE ATTITUDES AND BEHAVIORS ON COVID-19 VACCINE IN AFRICA: DIFFERENCE-IN-DIFFERENCE ANALYSIS USING TANZANIA AS A CASE STUDY

**Sooyoung Kim<sup>1</sup>**, Asad Liliani<sup>2</sup>, Kate Campana<sup>2</sup>, Yesim Tozan<sup>1</sup>  
*<sup>1</sup>New York University School of Global Public Health, New York, NY, United States, <sup>2</sup>The Access Challenge, New York, NY, United States*

5811

### USING MALARIA SURVEILLANCE AT ANTENATAL CARE TO DECODE LOCAL PATTERNS IN SEASONAL TRANSMISSION TRENDS – TANZANIA, 2014-2022

**Joseph T. Hicks<sup>1</sup>**, Frank Chacky<sup>2</sup>, Sijenunu Aaron<sup>2</sup>, Khalifa Munisi<sup>2</sup>, Samweli L. Nhiga<sup>2</sup>, Julie R. Gutman<sup>3</sup>, Patrick GT Walker<sup>1</sup>  
*<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>National Malaria Control Programme, Ministry of Health, Dodoma, United Republic of Tanzania, <sup>3</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States*

5812

### INTEGRATION, EXPLORATION & REUSE OF CLINICAL & EPIDEMIOLOGICAL DATASETS: A CASE STUDY USING MALARIA DATA ON THE CLINEPIDB PLATFORM

Danica Helb<sup>1</sup>, Sarah Kelly<sup>2</sup>, **Nupur Kitur<sup>3</sup>**, Moses Kumanya<sup>4</sup>, David Roos<sup>1</sup>, Steph Wever Schulman<sup>1</sup>, Weilu Song<sup>1</sup>, Sheena Shah Tomko<sup>1</sup>  
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**Henry Masengere<sup>1</sup>**, Steven Schiff<sup>2</sup>, Jessica Ericson<sup>3</sup>, Edith Mbabazi<sup>1</sup>, Ronald Mulondo<sup>1</sup>, Christine Hehnly<sup>4</sup>

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**COMMUNITY-LEVEL USE OF ANTIBIOTICS IN RURAL BURKINA FASO: A HOUSEHOLD-BASED SURVEY USING THE DRUG BAG METHOD**

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**ASSOCIATIONS BETWEEN MATERNAL AND PATERNAL STRESS, MATERNAL DEPRESSION, MATERNAL EXPOSURE TO INTIMATE PARTNER VIOLENCE, AND CHILD STRESS**

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**UTILIZATION OF PANTOGRAPH AMONG NURSES AND MIDWIVES IN LABOUR WARD AT EDWARD FRANCIS SMALL TEACHING HOSPITAL**

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### MICROBIOME ANALYSIS OF PREGNANT WOMEN AND CHILDREN FROM AMANHI FECAL COHORT

**Waqasuddin Khan**, Samiah Kanwar, Furqan Kabir, Fatima Aziz, Sahrish Muneer, Adil Kalam, Aneeta Hotwani, Muhammad Farrukh Qazi, Farah Khalid, Javairia Khalid, Muhammad Imran Nisar, Fyezah Jehan  
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### SEVERE ACUTE MALNUTRITION IN CHILDREN UNDER FIVES

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### EVALUATION OF THE PANBIO COVID-19 RAPID TEST DEVICE (ABBOTT) AT THE VIROLOGY LABORATORY OF THE ARISTIDE LE DANTEC UNIVERSITY HOSPITAL IN SENEGAL

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[\(ACMCIP Abstract\)](#)

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### APPLICATION OF THE THREE DELAYS MODEL TO UNDERSTAND HOW THE INTERACTION OF COMMUNITY, FAMILY AND HEALTH SYSTEMS CONTRIBUTE TO CHILD MORTALITY IN CHAMPS-KENYA; MAY 2017 - JUNE 2022

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### IMPACT OF MESSAGES ON MATERNAL CONDITION LEADING TO CHILD DEATH AND ON ANC SEEKING PRACTICES AMONG PREGNANT WOMEN IN RURAL BANGLADESH

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### A SYSTEMATIC REVIEW OF PREVALENCE AND RISK FACTORS OF TRANSFUSION TRANSMISSIBLE INFECTIONS AMONG BLOOD DONORS, AND BLOOD SAFETY IMPROVEMENTS IN SOUTHERN AFRICA

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## Global Health - Security/Emerging Infection Preparedness, Surveillance and Response(s)

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### THE REMOTE EMERGING DISEASE INTELLIGENCE NETWORK (REDI-NET): PREPARING FOR ZOOLOGIC SPILLOVER THREATS

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### KNOWLEDGE OF COVID-19 SYMPTOMS, TRANSMISSION, AND PREVENTION: EVIDENCE FROM HEALTH AND DEMOGRAPHIC SURVEILLANCE IN SOUTHERN MOZAMBIQUE, SEPTEMBER 2021 - JANUARY 2022

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### DEVELOPMENT OF SINGLE DOMAIN ANTIBODY-BASED LUMINEX ASSAY FOR THE DETECTION OF SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS-2 IN CLINICAL SAMPLES

**Victor A. Sugiharto**<sup>1</sup>, Hua-Wei Chen<sup>1</sup>, Shuenn-Jue L. Wu<sup>2</sup>, George P. Anderson<sup>3</sup>, Lisa C. Shriver-Lake<sup>3</sup>, Daniel Zabetakis<sup>3</sup>, Ellen R. Goldman<sup>3</sup>  
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### COVID 19 SELF-TESTING: A PROMISING OPPORTUNITY FOR LOW AND MIDDLE INCOME COUNTRIES, YET A REALITY CHECK OF GLOBAL INEQUALITIES

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**ENVIRONMENTAL HYGIENE FOR HOSPITAL INFECTION PREVENTION AND CONTROL MANAGEMENT IN BANGLADESH: EDUCATING HOSPITAL CLEANING STAFF REQUIRES PRIORITY**

**Shariful Amin Sumon**<sup>1</sup>, Md. Saiful Islam<sup>2</sup>, Syed Abul Hassan Md Abdullah<sup>3</sup>, Fairoze Masuda Akther<sup>1</sup>, Md. Golam Dostogir Harun<sup>1</sup>  
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**ONE HEALTH BIOSECURITY: DEVELOPING RECOMMENDATIONS TO ADDRESS LEGISLATIVE GAPS IN THE DEMOCRATIC REPUBLIC OF THE CONGO**

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**BURIAL SITE SURVEILLANCE TO MONITOR EXCESS MORTALITY DURING THE COVID-19 PANDEMIC IN KARACHI, PAKISTAN**

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**AN ETHNOGRAPHIC APPROACH TO UNDERSTAND THE FEASIBILITY OF GRAVEYARD SITE SURVEILLANCE TO ASSESS EXCESS MORTALITY IN A RESOURCE CONSTRAINT SETTING**

**Fauzia Aman Malik**<sup>1</sup>, Nazia Ahsan<sup>2</sup>, Rawshan Jabeen<sup>2</sup>, Saima Jamal<sup>2</sup>, Raheel Allana<sup>2</sup>, Saad B. Omer<sup>1</sup>, Abdul Momin Kazi<sup>3</sup>  
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**THE RELATIONSHIP BETWEEN PRE-EXISTING COMORBIDITIES AND IN-HOSPITAL CARDIOVASCULAR EVENTS AMONG COVID-19 PATIENTS IN BANGLADESH: A PROSPECTIVE COHORT STUDY**

**Farzana Islam**<sup>1</sup>, Shahin Akter<sup>1</sup>, Abdul Wadud Chowdhury<sup>2</sup>, Mohammad Robed Amin<sup>3</sup>, Dorairaj Prabhakaran<sup>4</sup>, Kavita Singh<sup>4</sup>, Karen Sliwa<sup>5</sup>, Pablo Perel<sup>6</sup>, Lana Raspail<sup>6</sup>, Tippawan Liabsuetrakul<sup>6</sup>, Md Shamim Hayder Talukder<sup>1</sup>  
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**PATTERNS OF DATE PALM SAP HARVESTING AND TRADING PRACTICES AND RISK OF NIPAH VIRUS TRANSMISSION AT COMMUNITIES IN BANGLADESH**

**Abdul Khaleque Md. Dawlat Khan**<sup>1</sup>, Ariful Islam<sup>2</sup>, Shusmita Dutta Choudhury<sup>1</sup>, Md. Zulqarnine Ibne Noman<sup>1</sup>, Nabila Nujhat Chowdhury<sup>1</sup>, Sarah Munro<sup>2</sup>, Maryska Kaczmarek<sup>2</sup>, Meerjady Sabrina Flora<sup>3</sup>, Tahmina Shirin<sup>1</sup>, Jonathan H. Epstein<sup>2</sup>  
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**UNDERSTANDING VACCINE HESITANCY IN BOENDE, WESTERN DR CONGO: A MIXED-METHODS STUDY**

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**PERCEPTIONS ON ACCEPTANCE AND BARRIERS RELATED TO MORTALITY SURVEILLANCE FOR DRY NASAL SWAB PROCEDURE RELATED TO COVID 19 IN PERI URBAN SETTINGS, PAKISTAN**

**Nazia Ahsan**<sup>1</sup>, Abdul Momin Kazi<sup>1</sup>, Shaheen Mehboob<sup>1</sup>, Rawshan Jabeen<sup>1</sup>, Farzana Aziz<sup>1</sup>, Saima Jamal<sup>1</sup>, Saad Bin Omer<sup>2</sup>, Obianuju Aguolu<sup>2</sup>, Fauzia Malik<sup>2</sup>  
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**METAGENOMIC DETECTION OF PATHOGENIC BACTERIA IN TICKS FROM ISIOLO AND KWALE COUNTIES IN KENYA**

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**ENGAGING ANTHROPOLOGY IN NIPAH OUTBREAK: FACTS BEHIND THE HUMMING**

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**SURVEILLANCE OF ACUTE FEBRILE ILLNESS IN JORDAN DURING THE TIME OF PANDEMIC OF COVID-19**

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**IMPLEMENTING A "TEST AND TREAT" STRATEGY FOR COVID-19 IN BOLIVIA AND PARAGUAY: LESSONS AND CHALLENGES**

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### COVID 19 KNOWLEDGE, ATTITUDES, PRACTICES (KAP) & MENTAL HEALTH BEHAVIORS IN LIBERIA: FINDINGS, IMPLICATIONS & FUTURE DIRECTIONS

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### COMMUNITY ENGAGEMENT IN EPIDEMIC MANAGEMENT: AN ANALYSIS OF THE EBOLA VIRUS DISEASE AND COVID19 RESPONSES IN BOENDE, WESTERN DR CONGO

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### PERCEPTIONS OF PREVALENCE, IMPACT, AND MANAGEMENT OF POST-ACUTE SEQUELAE OF SARS-COV-2 INFECTION AMONG HEALTHCARE WORKERS IN KWENENG DISTRICT, BOTSWANA

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### VERTICAL TRANSFER OF HUMORAL IMMUNITY AGAINST NIPAH VIRUS: A NOVEL EVIDENCE FROM BANGLADESH

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### SURVEILLANCE OF OPERATIONALLY RELEVANT VIRAL HEMORRHAGIC FEVER AND RICKETTSIAL VECTOR BORNE INFECTIOUS DISEASE THREATS, INSECTICIDE RESISTANCE, AND ASSESSMENT OF VACCINE EFFICACY TO PREDICTED T CELL EPITOPES AND B CELL ANTIGENS IN AFRICOM

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### THE REMOTE EMERGING DISEASE INTELLIGENCE-NETWORK: ENHANCING BIOSURVEILLANCE USING WATER AND SEDIMENT SENTINEL SAMPLES FROM BELIZE, CENTRAL AMERICA

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### CAUSE SPECIFIC MORTALITY FROM VERBAL AUTOPSY FOR UNDER FIVES IN WESTERN KENYA 2019 TO 2022

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### PUBLIC HEALTH DECISION-MAKING DURING COVID-19 PANDEMIC: A DETERMINANTS FRAMEWORK

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### INVESTIGATION & MANAGEMENT OF A STREPTOCOCCUS PNEUMONIAE MENINGITIS EPIDEMIC IN DJADOUBANGO IVORY COAST

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### UNDERSTANDING THE USE OF UTEROTONICS BY COMMUNITY HEALTHCARE PROVIDERS DURING HOME DELIVERY IN RURAL BANGLADESH

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### ROUTINE CHILDHOOD IMMUNIZATION IN BURKINA FASO: IDENTIFYING AND REACHING ZERO-DOSE AND UNDER-VACCINATED CHILDREN IN A SECURITY CHALLENGED COUNTRY

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## Mosquitoes - Biology and Genetics of Insecticide Resistance

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### ASSESSING KNOCK DOWN RESISTANCE MUTATIONS IN THE DENGUE VECTOR (*Aedes Aegypti*) IN POSADAS, ARGENTINA

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### USING TRANSCRIPTOMIC DATA TO IDENTIFY POTENTIAL MARKERS OF TRANSLUTHRIN INSENSITIVITY IN *ANOPHELES GAMBIAE* SS

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(ACMCIP Abstract)

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### IMPACT OF SUGAR DIET ON THE SENSITIVITY OF INSECTICIDES-RESISTANT MOSQUITOES

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### EFFECTS OF AGRICULTURAL PESTICIDES ON THE SUSCEPTIBILITY AND FITNESS OF MALARIA VECTORS IN RURAL SOUTH-EASTERN TANZANIA

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### SUSCEPTIBILITY OF *ANOPHELES GAMBIAE* SENSU LATO TO FOUR CLASSES OF INSECTICIDES AND THE ALLELIC FREQUENCIES OF GENES KDR L1014F AND ACE 1 G119S IN TWO VILLAGES OF THE CIRCLE OF KATI IN MALI

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International Center for Excellence in Research (ICER-MALI), Bamako, Mali

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### ASSESSING INSECTICIDE RESISTANCE PROFILE OF *ANOPHELES GAMBIAE* S.L. FOR STRATEGIC VECTOR CONTROL DECISION MAKING IN GUINEA

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### IDENTIFICATION OF INSECTICIDE RESISTANCE MARKERS IN *ANOPHELES ARABIENSIS* AND *ANOPHELES GAMBIAE* FROM KENYA AND BENIN USING WEIGHTED GENE CORRELATION NETWORK ANALYSIS

Cynthia Awuor Odhiambo<sup>1</sup>, Steven Ger<sup>2</sup>, Dorothy Nyamai<sup>2</sup>, Lucy Impoinvil<sup>3</sup>, Diana Omoke<sup>1</sup>, Derilus Dieunel<sup>3</sup>, Helga Saizonou<sup>4</sup>, Stephen Okeyo<sup>1</sup>, Audrey Lenhart<sup>2</sup>, Luc Djogbénou<sup>4</sup>, Eric Ochomo<sup>1</sup>  
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### POPULATION GENOMICS OF THE INVASIVE MALARIA VECTOR *ANOPHELES STEPHENSI* IN ETHIOPIA

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### CHARACTERIZATION OF A NEW LABORATORY COLONY OF *ANOPHELES FUNESTUS* MOSQUITOES ESTABLISHED IN IFAKARA, TANZANIA

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### CO-OCCURRENCE OF MULTIPLE KDR MUTATIONS (F1534C, V1016I, V410L) IN *Aedes Aegypti* FROM COASTAL AREAS IN GHANA AND ASSESSMENT OF THE ROLE OF MOSQUITO COIL IN CAUSING PYRETHROID RESISTANCE

Aikins Ablorde<sup>1</sup>, Joana Ayettey<sup>2</sup>, Inge Kroidl<sup>1</sup>, Andreas Wieser<sup>1</sup>, Andreas Kudom<sup>2</sup>  
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### TEMPORAL RESISTANCE ESCALATION AND N1575Y MARKED DETECTION IN AN. *GAMBIAE* S.L. POPULATION IN ATATAM, AN EXPERIMENTAL HUT STATION SITE IN SOUTHERN GHANA

Gabriel Akosah-Brempong<sup>1</sup>, Leon Jean Mugenzi<sup>2</sup>, Benjamin Menze<sup>2</sup>, Micareme Tchoupo<sup>2</sup>, Theofelix A. Tekoh<sup>2</sup>, Linus Dottey<sup>3</sup>, Ekene K. Nwaefuna<sup>3</sup>, Samuel Dadzie<sup>4</sup>, Murielle Wondji<sup>2</sup>, Michael Y. Osae<sup>3</sup>, Charles S. Wondji<sup>2</sup>  
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**5890****INSECTICIDE SUSCEPTIBILITY OF ANOPHELES ALBIMANUS IN THE TWO MAIN ACTIVE MALARIA FOCI OF HONDURAS**Denis Escobar<sup>1</sup>, Allan Reyes García<sup>2</sup>, Oscar Urrutia<sup>3</sup>, Neila Julieth Mina<sup>4</sup>, Lucia Fernandez<sup>5</sup>, Raul Barahona<sup>3</sup>, Gustavo Fontecha<sup>1</sup><sup>1</sup>Universidad Nacional Autónoma de Honduras, Tegucigalpa, Honduras, <sup>2</sup>Unidad de Vigilancia Entomológica, Región Sanitaria de Gracias a Dios, Secretaría de Salud, Puerto Lempira, Gracias a Dios, Honduras, <sup>3</sup>Secretaría de Salud, Tegucigalpa, Honduras, <sup>4</sup>Clinton Health Access Initiative, Tegucigalpa, Honduras, <sup>5</sup>Clinton Health Access Initiative, Ciudad de Panamá, Panama**5891****ENTOMOLOGICAL STUDY OF MALARIA TRANSMISSION PARAMETERS AS A PRELUDE TO A PHASE III CLINICAL TRIAL OF ATTRACTIVE TOXIC SUGAR BAIT (ATSB) STATIONS IN THE KOULIKORO REGION, MALI**

Aboubakr Sadik Koné, Mohamed M Traoré, Bintou Kanouté, Amadou Sekou Traoré, Gunter Muller, Seydou Doumbia

University Clinical Research Center (UCRC), University of Sciences, Techniques and Technologies of Bamako (USTTB), BAMAKO, Mali

**5892****PHENOTYPIC INSECTICIDE RESISTANCE STATUS AND MOLECULAR DETECTION OF RESISTANCE MUTATIONS IN ANOPHELES GAMBIAE SENSU LATO IN THE GAMBIA**Ebrima Jatta<sup>1</sup>, Musa Jawara<sup>2</sup>, Assogba Benoit Sessinou<sup>2</sup>, Balla Kandeh<sup>1</sup>, Balla Gibba<sup>1</sup>, Samuel S. Gomez<sup>1</sup>, Momodou Kalleh<sup>1</sup>, Ousman Njie<sup>3</sup>, Yakou Dieye<sup>4</sup>, Smita Das<sup>5</sup><sup>1</sup>National Malaria Control Programme, The Gambia, Banjul, Gambia, <sup>2</sup>Medical Research Council Unit The Gambia at the London School of Hygiene & Tropical Medicine (MRCG at LSHTM), Banjul, Gambia, <sup>3</sup>PATH, Banjul, Gambia, <sup>4</sup>PATH, Dakar, Senegal, <sup>5</sup>PATH, Seattle, WA, United States**Mosquitoes - Biology, Physiology and Immunity****5893****OVEREXPRESSING IMMUNE SIGNALING PROTEIN VAGO RESTRICTS DENGUE VIRUS INFECTION IN Aedes Aegypti MOSQUITOES**Mihra Tavadia, Chinmay Tikhe, Shengzhang Dong, George Dimopoulos  
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States**5894****DEFINING THE ROLE OF JUVENILE HORMONE AND ITS RECEPTOR, METHOPRENE-TOLERANT, IN ANOPHELES GAMBIAE REPRODUCTION AND PLASMODIUM TRANSMISSION**Emre Aksoy<sup>1</sup>, Shriya Anandjee<sup>1</sup>, Naresh Singh<sup>1</sup>, Robert W. Shaw<sup>2</sup>, Flaminia Catteruccia<sup>2</sup><sup>1</sup>Harvard TH Chan School of Public Health, Boston, MA, United States, <sup>2</sup>Harvard TH Chan School of Public Health/Howard Hughes Medical Institute, Boston, MA, United States**(ACMCIP Abstract)****5895****COMPOSITIONAL DIVERSITY IN THE EARLY-DEVELOPMENTAL MICROBIOME OF Aedes albopictus LEADS TO HETEROGENOUS IMMUNE EXPRESSION OF ADULT MOSQUITOES**

Chasen Griffin, Matthew C.I. Medeiros

University of Hawaii at Manoa, Honolulu, HI, United States

**5896****ALTERNATING CURRENT ELECTROPENETROGRAPHY REVEALS IN SITU BEHAVIORAL CHANGES OF Aedes Aegypti BITES ASSOCIATED WITH DENGUE VIRUS INFECTION**

Samuel B. Jameson, Lyndsi Vaughan, Jane E. de Verges, Brendan H. Carter,

Georgina L. Dobek, Berlin Londono-Renteria, Dawn M. Wesson  
Tulane University, New Orleans, LA, United States**5897****TEMPERATURE DEPENDENCE OF ANOPHELES IMMUNE RESPONSE KINETICS AND VECTOR COMPETENCE**

Maria Luisa Simoes

Institute of Tropical Medicine Antwerp, Antwerp, Belgium

**(ACMCIP Abstract)****5898****DISHEVELLED ACTIVITY DIFFERS IN Aedes Aegypti AND Culex tarsalis INFECTED WITH RIFT VALLEY FEVER VIRUS**

Corey L. Campbell

Colorado State University, Fort Collins, CO, United States

**5899****MAMMALIAN HEMOPEXIN REGULATES OXIDATIVE STATE IN ANOPHELES MOSQUITOS DURING PLASMODIUM INFECTION**Francis Monique de Souza Saraiva, Thiago Luiz Alves e Silva, Joel Vega-Rodriguez  
NIH, Rockville, MD, United States**5900****TNF- $\alpha$  SIGNALING MEDIATES MOSQUITO CELLULAR IMMUNITY TO PROMOTE PLASMODIUM KILLING**

George Rafael Samantsidis, Hyeogsun Kwon, Megan Rogers, Catherine Fonder, Ryan Chad Smith

Department of Plant Pathology, Entomology and Microbiology, Iowa State University, Ames, IA, United States

**(ACMCIP Abstract)****5901****EFFECT OF LOW RELATIVE HUMIDITY OVER MORTALITY AND VIRAL VECTOR COMPETENCE IN Aedes Aegypti**Jaime Manzano<sup>1</sup>, Gerard Terradas<sup>1</sup>, Christopher J. Holmes<sup>2</sup>, Joshua B. Benoit<sup>2</sup>, Jason L. Rasgon<sup>1</sup><sup>1</sup>The Pennsylvania State University, State College, PA, United States, <sup>2</sup>University of Cincinnati, Cincinnati, OH, United States**5902****PLAYING SMART: HOW MALE Aedes Aegypti MOSQUITOES USE JUVENILE HORMONE TO MAKE FEMALES FITTER FOR REPRODUCTION BY SUPPRESSING THEIR IMMUNITY AND PROMOTING GUT MICROBIOTA EXPANSION**Mabel Taracena<sup>1</sup>, Ana Beatriz Walter-Nuno<sup>2</sup>, Gabriela Oliveira Paiva-Silva<sup>2</sup><sup>1</sup>Cornell University, Ithaca, NY, United States, <sup>2</sup>Federal University of Rio de Janeiro, Rio de Janeiro, Brazil**5903****WHOLE BODY VOLATILOMICS TO COMBAT VECTOR-BORNE DISEASE**Stephanie Rankin-Turner<sup>1</sup>, Limonty Simubali<sup>2</sup>, Monicah M. Mburu<sup>2</sup>, Edgar Simulundu<sup>2</sup>, Conor J. McMeniman<sup>1</sup><sup>1</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>2</sup>Macha Research Trust, Choma District, Zambia

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**A MICROSCALE PLATFORM FOR IMAGING NEURAL CIRCUITS IN THE AFRICAN MALARIA MOSQUITO**Diego Giraldo, Abel Corver, Andrew Gordus, **Conor J. McMeniman**  
Johns Hopkins University, Baltimore, MD, United States

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**WARBURG METABOLISM IS CRITICAL FOR ANOPHELES MOSQUITOES ANTI-PLASMODIUM IMMUNE DEFENSE****Alex Moon**<sup>1</sup>, Zarna Pala<sup>2</sup>, Joel Vega-Rodriguez<sup>2</sup>, Jiannong Xu<sup>1</sup>  
<sup>1</sup>New Mexico State University, Las Cruces, NM, United States, <sup>2</sup>National Institutes of Health, Bethesda, MD, United States**(ACMCIP Abstract)****Mosquitoes - Bionomics, Behavior and Surveillance**

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**SAMPLING EFFICIENCY AND MOLECULAR SCREENING OF YELLOW FEVER VIRUS IN AEDES MOSQUITOES IN NIGER DELTA REGION OF NIGERIA**Chioma Cynthia Ojianwuna<sup>1</sup>, **Victor Ngozi Enwemiwe**<sup>1</sup>, Andy Ogochukwu Egwunyenga<sup>1</sup>, Chioma Amajoh<sup>2</sup><sup>1</sup>Delta State University, Abraka, Nigeria, <sup>2</sup>Community Vision Initiative (CVI), Abuja, Nigeria

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**SURVEILLANCE OF ARTHROPOD-BORNE VIRUSES IN BENIN, WEST AFRICA 2020-2021: DETECTION OF DENGUE VIRUS 3 IN AEDES AEGYPTI (DIPTERA: CULICIDAE)****Carine Tchiboza**<sup>1</sup>, Gildas Hounkanrin<sup>1</sup>, Anges Yadouleton<sup>2</sup>, Hanna Joest<sup>3</sup>  
<sup>1</sup>Laboratoire de références des fièvres hémorragiques et arbovirus du Bénin, Cotonou, Benin, <sup>2</sup>Laboratoire de références des fièvres hémorragiques et arbovirus du Bénin/ Ecole Normale Supérieure de Natitingou; National University of Science, Technology, Engineering and Mathematics (UNSTIM), Cotonou, Benin, <sup>3</sup>Bernhard Nocht Institute for Tropical Medicine, WHO Collaborating Centre for Arbovirus and Haemorrhagic Fever Reference and Research, Hamburg, Germany, Cotonou, Benin

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**COMMON PREDATORS AND FACTORS INFLUENCING THEIR ABUNDANCES IN ANOPHELES FUNESTUS AQUATIC HABITATS IN RURAL SOUTHERN TANZANIA****Herieth Hezron Mahenge**, Letus L. Muyaga, Joel D. Nkya, Khamis K. Kifungo, Najat F. Kahamba, Halfan S. Ngowo, Emmanuel W. Kaiindoa  
Ifakara Health Institute, Morogoro, United Republic of Tanzania

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**FINE-SCALE SPATIAL AND TEMPORAL DYNAMICS OF ANOPHELES GAMBIAE SWARMS IN SOUTH CENTRAL UGANDA****Krystal Birungi**<sup>1</sup>, Danspaid P. Mabuka<sup>1</sup>, Victor Balyesima<sup>1</sup>, Frederic Tripet<sup>2</sup>, Jonathan K. Kayondo<sup>1</sup>  
<sup>1</sup>Uganda Virus Research Institute, Entebbe, Uganda, <sup>2</sup>Swiss Tropical and Public Health Institute, Allschwil, Switzerland

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**ANOPHELES STEPHENSI: THE EMERGING VECTOR OF MALARIA IN THE REPUBLIC OF DJIBOUTI, HORN OF AFRICA****Renaud Govoetchan**<sup>1</sup>, Mohamed Mousse Ibrahim<sup>2</sup>, Arthur Sovi<sup>1</sup>, Houssein Mouhamed Omar<sup>2</sup>, Abdillahi Omar Boulhan<sup>2</sup>, Houssein Youssouf Darar<sup>2</sup><sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>National Public Health Institute of Djibouti, Djibouti, Djibouti, <sup>3</sup>National Malaria Control Programme of Djibouti, Djibouti, Djibouti

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**VIRAL INFECTION PROFILE OF AEDES MOSQUITOES IN SOME FORESTED AREAS IN GHANA****Helena Anokyewaa Boakye**<sup>1</sup>, Mavis Ofei<sup>1</sup>, Jane Ansah-Owusu<sup>1</sup>, Aaron Adjin-Lartey<sup>1</sup>, Mufeez Abudu<sup>1</sup>, Richard Malm Odoi-Teye<sup>1</sup>, Sandra-Candys Arkorful<sup>1</sup>, Joseph Harold Nyarko Osei<sup>1</sup>, Seth Ofiei Addo<sup>1</sup>, Kofi Bonney<sup>1</sup>, Reginald Quansah<sup>2</sup>, Jewelna Akorli<sup>1</sup>, Samuel Dadzie<sup>1</sup><sup>1</sup>Noguchi Memorial Institute for Medical Research, Accra, Ghana, <sup>2</sup>School of Public Health, University of Ghana, Accra, Ghana

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**THE CHANGING ECOLOGY OF LARVAL MALARIA VECTORS IN THE CITY OF ACCRA, GHANA****Abdul Rahim Mohammed**<sup>1</sup>, Isaac Amankona Hinne<sup>2</sup>, Christopher Mfum Owusu-Asenso<sup>1</sup>, Daniel Kodjo Halou<sup>1</sup>, Richard Doe Tettey<sup>1</sup>, Isaac Kwame Sraqu<sup>1</sup>, Yaw Akuamoah-Boateng<sup>1</sup>, Anisa Abdulai<sup>1</sup>, Fred Aboagyee-Antwi<sup>1</sup>, Yaw Asare Afrane<sup>1</sup><sup>1</sup>University of Ghana, Accra, Ghana, <sup>2</sup>University of Nevada, Reno, NV, United States

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**“FIGHTING AGAINST MALARIA IS EVERYONE’S CONCERN”: A RANDOMISED CONTROL TRIAL ASSESSING THE ROLE OF INCENTIVES FOR ENCOURAGING LOCAL COMMUNITIES TO RECORDING AND UPLOAD MOSQUITO SOUND USING MOZZIWEAR APPLICATION****Winifrida P. Mponzi**  
Ifakara Health Institute, Dar Es Salaam, United Republic of Tanzania

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**MOLECULAR SURVEILLANCE LEADS TO THE FIRST DETECTION OF ANOPHELES STEPHENSI IN KENYA****Brenda Onyango**<sup>1</sup>, Eric Ochomo<sup>1</sup>, Sylvia Milanoi<sup>1</sup>, Benard Abong'o<sup>1</sup>, Margaret Muchoki<sup>1</sup>, Diana Omoke<sup>1</sup>, Evelyn Olanga<sup>2</sup>, Laban Njoroge<sup>3</sup>, Elijah Juma<sup>4</sup>, James Dan Otieno<sup>5</sup>, Damaris Matoke<sup>6</sup>, Luna Kamau<sup>6</sup>, Cristina Rafferty<sup>7</sup>, John E. Gimnig<sup>7</sup>, Joseph Mwangangi<sup>8</sup>, Marta Maia<sup>8</sup>, Charles Chege<sup>9</sup>, Ahmeddin Omar<sup>9</sup>, Charles Mbogo<sup>8</sup>, Lenson Kariuki<sup>9</sup><sup>1</sup>Centre for Global Health Research, Kenya Medical Research Institute, Kisumu, Kenya, <sup>2</sup>PMI Kinga Malaria Project, Abt Associates, Kisumu, Kenya, <sup>3</sup>National Museums of Kenya, Nairobi, Kenya, <sup>4</sup>Pan African Mosquito Control Association, Nairobi, Kenya, <sup>5</sup>World Health Organization, Nairobi, Kenya, <sup>6</sup>Centre for Biotechnology Research and Development, Kenya Medical Research Institute, Nairobi, Kenya, <sup>7</sup>Centre for Disease Control and Prevention, Atlanta, GA, United States, <sup>8</sup>Centre for Geographical Medicine Research, Kenya Medical Research Institute, Kilifi, Kenya, <sup>9</sup>Division for National Malaria Program, Ministry of Health, Nairobi, Kenya**(ACMCIP Abstract)**

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**ARBOVIRUS SURVEILLANCE AND BLOOD-MEAL ANALYSIS OF MOSQUITOES IN JAMAICA****Simmy Noble**, Nadia Khouri, Mario Golding, Simone Sandiford  
The University of the West Indies, Mona campus, Kingston, Jamaica

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### PHENOTYPIC AND MOLECULAR INSECTICIDE RESISTANCE MONITORING OF *ANOPHELES FUNESTUS* MOSQUITOES TO GUIDE MALARIA CONTROL EFFORTS IN TANZANIA

Joel O. Odero<sup>1</sup>, Ismail H. Nambunga<sup>1</sup>, John M. Paliga<sup>1</sup>, Emmanuel E. Hape<sup>1</sup>, Rukiayah M. Njalambaha<sup>1</sup>, Halfan S. Ngowo<sup>1</sup>, Emmanuel W. Kaindoa<sup>1</sup>, Salum A. Mapua<sup>1</sup>, Najat F. Kahamba<sup>1</sup>, Lizette L. Koekemoer<sup>2</sup>, David Weetman<sup>3</sup>, Heather M. Ferguson<sup>4</sup>, Francesco Baldini<sup>4</sup>, Fredros O. Okumu<sup>1</sup>  
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### DEVELOPMENT, PILOTING, AND EVALUATION OF AN ENTOMOLOGICAL ADAPTIVE SAMPLING FRAMEWORK (EASF) IN MOZAMBIQUE AND GHANA

Mercy Opiyo<sup>1</sup>, Elodie Vajda<sup>2</sup>, Steve Gowelo<sup>2</sup>, Edward Thomsen<sup>2</sup>, Dulcisária Morrenjo<sup>3</sup>, Nelson Cuamba<sup>4</sup>, Otubea Akrofi<sup>5</sup>, Christian Atta-Obeng<sup>6</sup>, Ernest Boampong<sup>6</sup>, Boakye-Yiadom Adomako<sup>5</sup>, Samuel Dadzie<sup>6</sup>, Samuel Oppong<sup>7</sup>, Keziah Malm<sup>8</sup>, Candrihno Baltazar<sup>9</sup>, Allison Tatarsky<sup>9</sup>, Luigi Sedda<sup>9</sup>, Neil Lobo<sup>10</sup>  
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### INVESTIGATING THE SIBLING SPECIES DIVERSITY AND BREEDING BEHAVIOR OF THE MAJOR MALARIA VECTOR *ANOPHELES GAMBIAE* SENSU LATO IN SOUTHERN NIGERIA

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### MALARIA TRANSMISSION RISK INDICES OF SECONDARY VECTORS FROM COASTAL & FOREST AXES OF NIGERIA

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### AE. AEGYPTI AND OTHER MOSQUITO SPECIES COHABITATING IN THE CHEKWOPUTOI CAVE, UGANDA

Austin J. Mejia<sup>1</sup>, Teddy Nakayiki<sup>2</sup>, Julius J. Lutwama<sup>2</sup>, Fred Ssenfuka<sup>2</sup>, George Ongodia<sup>2</sup>, Kivumbi Brian<sup>2</sup>, Rebekah C. Kading<sup>1</sup>  
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### ROLE OF MALARIA VECTORS BLOOD-MEAL PREFERENCES ON MALARIA TRANSMISSION RISK IN MASENO AND KOMBWA, WESTERN KENYA

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### BITING PATTERN OF *ANOPHELES ARABIENSIS*, HUMAN BEHAVIOUR, AND SOCIO-ECONOMIC MALARIA RISK FACTORS IN AN IRRIGATED AGROECOSYSTEM IN WESTERN KENYA

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### THE CHANGING LANDSCAPE OF DENGUE AND CHIKUNGUNYA VECTORS IN KENYA - A THREAT TO PUBLIC HEALTH.

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### THE DISTANCE-DENSITY RELATION TO INFORM LARVAL SOURCE MANAGEMENT: HOW FAR IN SUGAR IRRIGATION SCHEMES DO MALARIA MOSQUITOES BREED

Mercy Opiyo<sup>1</sup>, Mara Maquina<sup>2</sup>, Ellie Sherrard Smith<sup>3</sup>, Luis Jamu<sup>2</sup>, Lizette Koekomer<sup>4</sup>, Francisco Saute<sup>5</sup>, Krijn Paaijmans<sup>5</sup>  
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Igor Teixeira<sup>1</sup>, Victoria Bernardi<sup>1</sup>, Maisa Parra<sup>1</sup>, Margareth Dibo<sup>2</sup>, Joao Marques<sup>3</sup>, Nikos Vasilakis<sup>4</sup>, Mauricio Nogueira<sup>1</sup>, Livia Sacchetto<sup>1</sup>  
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## Mosquitoes - Epidemiology and Vector Control

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Clary N. Herrera<sup>1</sup>, Wilmarie Rivera<sup>2</sup>, Alfonso Hernandez-Romeu<sup>3</sup>, Julieanne Miranda-Bermúdez<sup>4</sup>, Nexilianne Borrero-Zeno<sup>4</sup>, Jania García-Zeno<sup>4</sup>, Liliana Sánchez-González<sup>3</sup>, Chelsea G. Major<sup>3</sup>, Vanessa Rivera-Amill<sup>3</sup>, Laura E. Adams<sup>3</sup>, Grayson Brown<sup>4</sup>

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Jose G. Juarez<sup>1</sup>, Harold Suazo<sup>1</sup>, Jacqueline Mojica<sup>1</sup>, Maria Mercedes Lopez<sup>1</sup>, Angel Balmaseda<sup>2</sup>, Eva Harris<sup>3</sup>, Josefina Coloma<sup>3</sup>

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Kevin Conrad Kobylinski<sup>1</sup>, Tri Baskoro<sup>2</sup>, Wisnu Nurcahyo<sup>2</sup>, Arca Testamenti<sup>2</sup>, Diana Timoria<sup>3</sup>, Mary Chambers<sup>3</sup>, Joel Tarning<sup>1</sup>, Lorenz von Seidlein<sup>1</sup>, Claus Bøgh<sup>4</sup>

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Ariel Livne, Elly Ordan, Yoni Waitz, Noa Dahan

Diptera.ai, Jerusalem, Israel

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Jeremiah O. Zablou<sup>1</sup>, Goel Varun<sup>2</sup>, David Giesbrecht<sup>1</sup>, Charlse Mbogo<sup>3</sup>, William Goedel<sup>1</sup>, Damaris O. Matoke-Muhia<sup>3</sup>, Jeff Bailey<sup>1</sup>

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Aissata Sanogo<sup>1</sup>, Amadou Guindo<sup>1</sup>, Sidy Doumbia<sup>1</sup>, Brehima Diallo<sup>1</sup>, Frederic Tripet<sup>2</sup>, Mamadou B. Coulibaly<sup>1</sup>

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Zawadi Mageni Mboma<sup>1</sup>, Fadhila Kihwele<sup>1</sup>, Olukayode G. Odufuwa<sup>1</sup>, Rose Philipo<sup>1</sup>, Jason Moore<sup>1</sup>, Ole Skovmand<sup>2</sup>, Rune Bosselmann<sup>3</sup>, Sarah Moore<sup>1</sup>, John Bradley<sup>4</sup>

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Thomas Syme<sup>1</sup>, Juniace Ahoga<sup>2</sup>, Abel Agbevo<sup>2</sup>, Corine Ngufor<sup>1</sup>

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Angélique Porciani<sup>1</sup>, André Sagna<sup>2</sup>, Christophe Roberge<sup>3</sup>, Sophie Le Lamer-Déchamps<sup>3</sup>, Nicolas Moiroux<sup>1</sup>, Roch Dabire<sup>4</sup>, Fabrice Anyirekun Some<sup>4</sup>, Sié Hermann Pooda<sup>5</sup>, Karine Mouline<sup>1</sup>, Ramsès Djidjou-Demasse<sup>1</sup>

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### EXPLORATORY ANALYSIS OF THE EFFECTIVENESS OF INDOOR RESIDUAL SPRAYING WITH ACTELLIC 300CS AND FLUDORA FUSION TO REDUCE ENTOMOLOGICAL INDICATORS IN ALIBORI AND DONGA REGIONS, NORTHERN BENIN

Gemain Gil Padonou<sup>1</sup>, Albert Sourou Salako<sup>1</sup>, Esdras Mahoutin Odjo<sup>1</sup>, Arthur Sovi<sup>1</sup>, Rock Aikpon<sup>1</sup>, Virgile Gnanguènon<sup>2</sup>, Patrick Condo<sup>2</sup>, Ahmed Saadani Hassani<sup>3</sup>, Daniel Impoinvil<sup>4</sup>, Martin C. Akogbéto<sup>1</sup>

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**5939****MOLECULAR TECHNIQUE FOR THE DETECTION OF WOLBACHIA (WANGA-MALI) WITHIN ANOPHELES GAMBIAE SENSU LATO IN MALI**

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(ACMCIP Abstract)

**5940****ENDECTOCIDES TO COMPLEMENT THE MALARIA VECTOR CONTROL TOOLKIT: EXPECTED AND UNEXPECTED SIDE-EFFECTS OF IVERMECTIN ON MALARIA VECTORS**Andre B. Sagna<sup>1</sup>, Lamidi Zela<sup>2</sup>, Cheick Oumar W. Ouedraogo<sup>3</sup>, Sié H. Pooda<sup>4</sup>, Angélique Porciani<sup>5</sup>, Joanna Furnival-Adams<sup>6</sup>, Paula Lado<sup>7</sup>, Anyirékun F. Some<sup>3</sup>, Fabrice Chandres<sup>8</sup>, Cédric Pennetier<sup>9</sup>, Carlos J. Chaccour<sup>6</sup>, Roch K. Dabire<sup>3</sup>, Karine Mouline<sup>5</sup><sup>1</sup>IRD Burkina Faso, Bobo-Dioulasso, Burkina Faso, <sup>2</sup>CIRDES, Bobo-Dioulasso, Burkina Faso, <sup>3</sup>IRSS, Bobo-Dioulasso, Burkina Faso, <sup>4</sup>University of Dedougou, Dedougou, Burkina Faso, <sup>5</sup>IRD, Montpellier, France, <sup>6</sup>ISGlobal, Barcelona, Spain, <sup>7</sup>Colorado State University, Fort Collins, CO, United States**5941****ANOPHELES STEPHENSI IN TURKANA - PRELIMINARY FINDINGS ON THE LARVAL SURVEILLANCE IN TURKANA COUNTY, KENYA**Lucy Abel<sup>1</sup>, Tabitha Chepkwony<sup>1</sup>, Mark Amunga<sup>1</sup>, Emma Kimachas<sup>1</sup>, Joseph Kipkoech<sup>1</sup>, Emily Robie<sup>2</sup>, Wendy P. O'Meara<sup>2</sup>, Andrew Obala<sup>2</sup><sup>1</sup>Academic Model Providing Access to Health Care (AMPATH), ELDORET, Kenya, <sup>2</sup>Duke Global Health Institute, Duke University, Durham, NC, United States, <sup>3</sup>School of Medicine, College of Health Sciences, Moi University, ELDORET, Kenya**5942****IMPACT OF INDOOR RESIDUAL SPRAYING ON ENTOMOLOGICAL INDICES IN SAKASSOU, CENTRAL CÔTE D'IVOIRE**Bernard L. Kouassi<sup>1</sup>, Ndombour G. Cissé<sup>1</sup>, Constant A. Edi<sup>2</sup>, Constant G. Gbalegba<sup>3</sup>, Antoine M. Tanoh<sup>4</sup>, Pascal Zinzindohoué<sup>5</sup>, Patricia L.Y. Zembrou<sup>6</sup>, Blaise Kouadio<sup>5</sup>, Samson Awolola<sup>6</sup>, Allison Belemvire<sup>6</sup>, Cecilia Flatley<sup>7</sup>, Joseph Chabi<sup>8</sup><sup>1</sup>Abt Associates/ Vectorlink, Abidjan, Côte D'Ivoire, <sup>2</sup>Swiss Center for Scientific Research, Abidjan, Côte D'Ivoire, <sup>3</sup>Abt Associates/ Vectorlink/ NMCP, Abidjan, Côte D'Ivoire, <sup>4</sup>NMCP, Abidjan, Côte D'Ivoire, <sup>5</sup>PMI/USAID, Abidjan, Côte D'Ivoire, <sup>6</sup>PMI/CDC, Washington, WA, United States, <sup>7</sup>Abt Associates/VectorLink, Rockville, DC, WA, United States, <sup>8</sup>Abt Associates/ Vectorlink, Rockville, DC, WA, United States**5943****IS THE UK PREPARED FOR A MOSQUITO-BORNE DISEASE EMERGENCE? A PROTOCOL FOR FIELD WORK**Neelam Iqbal<sup>1</sup>, Giovanni S. Leonard<sup>2</sup>, Alex Vaux<sup>3</sup>, Colin Johnston<sup>3</sup>, Louise Kelly-Hope<sup>1</sup>, Jolyon Medlock<sup>3</sup><sup>1</sup>University of Liverpool, Liverpool, United Kingdom, <sup>2</sup>UK Health Security Agency, Chilton, United Kingdom, <sup>3</sup>UK Health Security Agency, Salisbury, United Kingdom**5944****DETERMINING IMPACT OF DENGUE VIRUS INFECTION IN PREGNANCY ON MATERNAL AND CHILD OUTCOMES**Annabelle Smith<sup>1</sup>, Bethel Bayrau<sup>1</sup>, Jonathan Altamirano<sup>1</sup>, Caroline Ichura<sup>1</sup>, Francis M. Mutuku<sup>2</sup>, Dunstan Mukoko<sup>3</sup>, Peter Mungai<sup>4</sup>, Charles H. King<sup>4</sup>, Indu Malhotra<sup>4</sup>, Angelle D. LaBeaud<sup>1</sup><sup>1</sup>Stanford University, Stanford, CA, United States, <sup>2</sup>Technical University of Mombasa, Mombasa, Kenya, <sup>3</sup>Ministry of Health, Nairobi, Kenya, <sup>4</sup>Center for Global Health and Disease, Case Western Reserve University, Cleveland, OH, United States**5945****YELLOW FEVER VACCINATION COVERAGE IN ARID AREAS OF KENYA AN ASSESSMENT FOLLOWING OUTBREAK, 2022**

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**5946****ASSESSING ENTOMOLOGICAL IMPACT OF A LARVAL SOURCE MANAGEMENT PILOT USING AERIAL SPRAYING OF RICE FIELDS WITH DRONES IN TWO DISTRICTS OF MADAGASCAR**Jean Desire Rakotoson<sup>1</sup>, Timothee Gandaho<sup>2</sup>, Jacob Djenam<sup>3</sup>, Kerri-Ann Guyah<sup>3</sup>, Laurent Kapesa<sup>4</sup>, Sarah Zohdy<sup>5</sup>, Allison elemvire<sup>6</sup>, Laura Steinhardt<sup>7</sup>, Anna Bowen<sup>8</sup>, Omega Raobela<sup>9</sup>, Jocelyn Ratovonjato<sup>10</sup>, Joseph Chabi<sup>11</sup><sup>1</sup>Abt Associates Inc, Antananarivo Avaradrano, Madagascar, <sup>2</sup>Abt Associates Inc, Antananarivo, Madagascar, <sup>3</sup>Abt Associates Inc, Washington, MD, United States, <sup>4</sup>3US President's Malaria Initiative, USAID, Antananarivo, Madagascar, <sup>5</sup>AUS Centers for Disease Control and Prevention, Atlanta, GA, GA, United States, <sup>6</sup>US President's Malaria Initiative, USAID, Washington DC, WA, United States, <sup>7</sup>US Centers for Disease Control and Prevention, Atlanta, GA, GA, United States, <sup>8</sup>US President's Malaria Initiative, US Centers for Disease Control and Prevention, Antananarivo, Madagascar, <sup>9</sup>National Malaria Control Program, Antananarivo, Madagascar, <sup>10</sup>National Malaria Control Program, Madagascar, Antananarivo, Madagascar, <sup>11</sup>Abt Associates Inc, Rockville, MD, United States**5947****DETECTION OF ANTIBODIES AGAINST SALIVARY PROTEINS OF AE. ALBOPICTUS AND CX. QUINQUEFASCIATUS IN NORTHERN CARDINALS IN LOUISIANA**Alyssa R. Schwinn<sup>1</sup>, Sara Harris<sup>2</sup>, Zoe Jacobs<sup>2</sup>, Matt Duckworth<sup>3</sup>, Jane de Verges<sup>2</sup>, Sam Jameson<sup>2</sup>, Dawn Wesson<sup>2</sup>, Kevin Caillouet<sup>3</sup>, Berlin Londono-Renteria<sup>2</sup><sup>1</sup>Tulane University, New Orleans, LA, United States, <sup>2</sup>Tulane University, New Orleans, LA, United States, <sup>3</sup>St. Tammany Parish Mosquito Abatement District, Slidell, LA, United States**5948****ENTOMOLOGICAL SURVEILLANCE STRENGTHENING IN INDIA: MEETING THE CHALLENGES**

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**5949****EVALUATION OF SPATIAL REPELLENT PRODUCTS AGAINST MALARIA VECTOR SPECIES IN PAPUA NEW GUINEA**Michelle N. Katusele<sup>1</sup>, Petrina Johnson<sup>2</sup>, Kilon Manuv<sup>1</sup>, Rebecca Vinit<sup>1</sup>, Lincoln Timinao<sup>1</sup>, David Lahu<sup>1</sup>, Rachael Farquhar<sup>3</sup>, Jason H. Richardson<sup>4</sup>, Moses Laman<sup>1</sup>, Leanne J. Robinson<sup>3</sup>, Stephan Karl<sup>2</sup><sup>1</sup>Papua New Guinea Institute of Medical Research, Madang, Papua New Guinea, <sup>2</sup>Australian Institute of Tropical Health and Medicine, James Cook University, Cairns, Australia, <sup>3</sup>Burnet Institute, Melbourne, Australia, <sup>4</sup>Innovative Vector Control Consortium, Liverpool, United Kingdom**5950****NON-INFERIORITY EVALUATION OF PERMANET<sup>®</sup> DUAL TO INTERCEPTOR<sup>®</sup> G2 AND SUPERIORITY TO PERMANET<sup>®</sup> 3.0 AT THE 'DALA SUNA' EXPERIMENTAL HUTS IN SIAAYA, KENYA**Nashon A. Ogutu<sup>1</sup>, Silas Agumba<sup>2</sup>, Eric O. Ochomo<sup>3</sup>, Benard Abongo<sup>2</sup>, John E. Gimnig<sup>4</sup>, Lenson Kariuki<sup>5</sup>, Vincent Mushi<sup>6</sup>, Collins Ouma<sup>1</sup><sup>1</sup>Maseno University, Kisumu, Kenya, <sup>2</sup>Kenya Medical Research Institute Centre for Global Health Research, Kisumu, Kenya, <sup>3</sup>Kenya Medical Research Institute Centre for Global Health Research, Kisumu, Kenya, <sup>4</sup>Centers\_for\_Disease\_Control\_and\_Prevention, Atlanta, Georgia, United States, <sup>5</sup>Saint Barthélemy, <sup>6</sup>Ministry of Health (Vector Borne Diseases), Nairobi, Kenya, <sup>7</sup>Kenya Medical Research Institute Centre for Global Health Research, Nairobi, Kenya

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**RESIDUAL BIO-EFFICACY OF ATTRACTIVE TARGETED SUGAR BAIT STATIONS TARGETING MALARIA VECTORS DURING SEASONAL DEPLOYMENT IN WESTERN PROVINCE, ZAMBIA**

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**IMPACT OF VOLATILE PYRETHROID SPATIAL REPELLANT ON THE ABUNDANCE OF OUTDOOR BITING ANOPHELES IN A LOW MALARIA TRANSMISSION SETTING, SOUTHERN ZAMBIA**

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**EXPERIMENTAL HUT AND FIELD EVALUATIONS OF THE THERMACELL® BASED METOFLUTHRIN SPATIAL REPELLENT AGAINST PYRETHROID RESISTANT ANOPHELES FUNESTUS IN SIAYA, WESTERN KENYA**

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**APPLICATION OF VECTOR CONTROL OPTIMIZATION MODEL (VCOM) ON EAVE RIBBONS FOR MALARIA VECTOR CONTROL IN KILOMBERO VALLEY, TANZANIA**

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**COMMUNITY-BASED BIOLARVICIDING FOR MALARIA CONTROL IN TANGA REGION, TANZANIA**

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**PILOT STUDY OF BACILLUS THURINGIENSIS ISRAELENIS IS IN THE CONTROL OF PERSISTENT DRY SEASON BREEDING MALARIA VECTORS IN MALI**

Nafomon Sogoba, **Moussa Keita**, Ibrahim Sissoko, Daouda Ouologuem, Alassane Dit Assitoun, Mahamadou Diakite, Seydou Doumbia  
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**Mosquitoes - Molecular Biology, Population Genetics and Genomics**

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**CHARACTERIZATION OF THE PUTATIVE ANOPHELES FUNESTUS-CYP18A1 ORTHOLOG IN ANOPHELES GAMBIAE**

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**TRANSCRIPTOME-WIDE DISCOVERY AND QUANTIFICATION OF LNCRNA EXPRESSION IN VARIOUS CONTEXTS IN THE MALARIA MOSQUITO ANOPHELES GAMBIAE FROM RNA-SEQ DATASETS**

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**ENDOGENOUS NON-RETROVIRAL RNA VIRUS ELEMENTS IN ANOPHELES DARLINGI**

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**ANALYSIS OF THE GENETIC VARIATION OF THE FRUITLESS GENE WITHIN THE ANOPHELES GAMBIAE (DIPTERA: CULICIDAE) COMPLEX POPULATIONS IN AFRICA**

**Honorine Kaboré**<sup>1</sup>, Mahamadi Kientega<sup>1</sup>, Nace Kranjc<sup>2</sup>, Nouhoun Traoré<sup>1</sup>, Morianou Ioanna<sup>2</sup>, Abdoulaye Diabaté<sup>1</sup>

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(ACMCIP Abstract)

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**UNRAVELLING THE GENOMIC AND PHENOTYPIC DIVERGENCE WITHIN SUB-POPULATIONS OF TWO MAJOR MALARIA VECTORS: ANOPHELES GAMBIAE AND ANOPHELES COLUZZII**

**Marilene M. Ambadiang Mae**<sup>1</sup>, Caroline Fouet<sup>2</sup>, Ashu F. Ayukarah<sup>1</sup>, Aditi Kulkarni<sup>2</sup>, Veronique P. Beng<sup>3</sup>, Sourav Roy<sup>2</sup>, Colince Kamdem<sup>2</sup>

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**IDENTIFICATION OF SEX-SPECIFIC PATTERN OF THE DOUBLESEX GENE IN THE MOSQUITO CULEX PIPIENS**

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**CHIP-SEQ STUDY IDENTIFIES TARGETS OF THE CLOCK GENE, PAR DOMAIN PROTEIN 1 (PDP1), THAT REGULATE DIAPAUSE IN CULEX PIPIENS**

**Prabin Dhungana**, Xueyan Wei, Cheolho Sim

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**5964****ASSESSING THE FEASIBILITY OF TWO ‘MULTIPLEXED’ STRATEGIES IN ANOPHELES STEPHENSI MOSQUITOES**Mireia Larrosa<sup>1</sup>, Joshua X. D. Ang<sup>2</sup>, Michelle A. E. Anderson<sup>2</sup>, Estela Gonzalez<sup>1</sup>, Lewis Shackelford<sup>2</sup>, Katherine Nevard<sup>1</sup>, Luke Alphey<sup>2</sup><sup>1</sup>The Pirbright Institute, Pirbright, United Kingdom, <sup>2</sup>University of York, York, United Kingdom**5965****GEOGRAPHICAL DISTRIBUTION AND GENETIC POPULATION STRUCTURE OF AEDES ALBOPICTUS IN THE DEMOCRATIC REPUBLIC OF THE CONGO**Fabien Vulu<sup>1</sup>, Kyoko Futami<sup>1</sup>, Toshihiko Sunahara<sup>1</sup>, Pitshou Mampuya<sup>2</sup>, Thierry Bobanga<sup>2</sup>, Diedonne Mumba Ngoyi<sup>3</sup>, Noboru Minakawa<sup>1</sup><sup>1</sup>Nagasaki University, Nagasaki, Japan, <sup>2</sup>University of Kinshasa, Kinshasa, Democratic Republic of the Congo, <sup>3</sup>National Institute of Biomedical Research, Kinshasa, Democratic Republic of the Congo**5966****GENETIC VARIATION AND TRANSCRIPTIONAL ENHANCER ACTIVITY IN THE MALARIA VECTOR, ANOPHELES COLUZZII**Kimani Njoya<sup>1</sup>, Cameron E. Anderson<sup>1</sup>, Natalia M. Zmarlak<sup>2</sup>, Inge Holm<sup>2</sup>, Karin Eiglmeier<sup>2</sup>, Ronald J. Nowling<sup>3</sup>, Kenneth D. Vernick<sup>2</sup>, Michelle M. Riehle<sup>1</sup><sup>1</sup>Medical College of Wisconsin, Milwaukee, WI, United States, <sup>2</sup>Institut Pasteur, Paris, France, <sup>3</sup>Milwaukee School of Engineering, Milwaukee, WI, United States**5967****IDENTIFICATION OF H3K27ME2 SITES THAT CAUSE VARIOUS DIAPAUSE PHENOTYPES IN THE MOSQUITO CULEX PIPIENS**Xueyan Wei, Prabin Dhungana, Cheolho Sim  
Baylor University, Waco, TX, United States**5968****GENETIC AND NEURAL BASIS OF ATTRACTION OF GRAVID AEDES AEGYPTI TO AFRICAN BERMUDA HAY INFUSIONS**Margot P. Wohl<sup>1</sup>, Luisa M. Otero<sup>2</sup>, Stephanie Rankin-Turner<sup>1</sup>, Robert Barrera<sup>2</sup>, Conor J. McMeniman<sup>1</sup><sup>1</sup>Department of Molecular Microbiology and Immunology, Johns Hopkins Malaria Research Institute, Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States, <sup>2</sup>Entomology and Ecology Team, Dengue Branch, Division of Vector Borne Diseases, Centers for Disease Control and Prevention, San Juan, PR, United States**5969****LEVERAGING FIELD DNA SEQUENCING TO MEASURE SPATIOTEMPORAL VARIATION IN MOSQUITO COMMUNITY COMPOSITION AND FEEDING BEHAVIOR IN RURAL MADAGASCAR**Christina M. Bergey<sup>1</sup>, Bernadette Rabaovola<sup>2</sup>, Beauriche Andriambolaharijaona<sup>3</sup>, Rindra Rakotoarivony<sup>3</sup><sup>1</sup>Rutgers University, Piscataway, NJ, United States, <sup>2</sup>Center ValBio, Ranomafana, Madagascar, <sup>3</sup>Université d'Antananarivo, Antananarivo, Madagascar**5970****CHARACTERIZATION OF THE VIROME IN AEDES AEGYPTI VECTOR OF CONDORCANQUI PROVINCE, AMAZONAS REGION, THROUGH SHOTGUN METAGENOMIC SEQUENCING**Jhon Zumaeta<sup>1</sup>, Luis M. Rojas<sup>2</sup>, Carmen I. Gutierrez<sup>1</sup>, Rafael Tapia-Limonchi<sup>3</sup>, Laura Bergner<sup>4</sup>, Stella M. Chenet<sup>1</sup><sup>1</sup>Instituto de Enfermedades Tropicales, Universidad Nacional Toribio Rodríguez de Mendoza, Chachapoyas, Peru, <sup>2</sup>Laboratorio Referencial de Salud Pública Amazonas, Chachapoyas, Peru, <sup>3</sup>Instituto de Investigaciones de Ciencias Biomédicas, Universidad Ricardo Palma, Lima, Peru, <sup>4</sup>School of Biodiversity, One Health & Veterinary Medicine, University of Glasgow, Glasgow, United Kingdom**5971****EXAMINING WEST NILE VIRUS INFECTION OF CULEX TARSALIS MIDGUTS AT SINGLE-CELL RESOLUTION**Emily Anne Fitzmeyer, Taru Dutt, Gregory D. Ebel  
Colorado State University, Fort Collins, CO, United States**5972****EVOLUTIONARY HISTORY OF SYLVATIC POPULATIONS OF AN. GAMBIAE AND IMPLICATIONS FOR MALARIA TRANSMISSION**Lemonde Bouafou, Josquin Daron, Diego Ayala  
French National Research Institute for Sustainable Development, Montpellier, France**Viruses - Emerging Viral Diseases****5973****TEMPORAL AND COEVOLUTIONARY ANALYSES REVEAL THE EVENTS DRIVING THE EMERGENCE AND CIRCULATION OF HUMAN MAMASTROVIRUSES**Lester J. Perez, Kenn Forberg, Gavin A. Cloherty, Michael G. Berg  
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**RATS' FEEDING BEHAVIOR AT FRUIT TREES IN BANGLADESH AND IMPLICATIONS FOR PATHOGEN SPILLOVER**

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**PREVALENCE AND PREDICTORS OF PERSISTENT SYMPTOMS POST-ACUTE COVID-19 INFECTION AMONG A COHORT OF FRONTLINE HEALTHCARE WORKERS IN BANGLADESH**

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**PSYCHIATRIC SEQUELAE AND PSYCHOSOCIAL IMPACT OF LASSA FEVER IN SURVIVORS IN EDO STATE, NIGERIA**

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**SECONDARY ATTACK RATES AND DETERMINANTS OF SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS 2 (SARS-COV-2) HOUSEHOLD TRANSMISSION IN PAKISTAN: A CASE-ASCERTAINED PROSPECTIVE, LONGITUDINAL STUDY**

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**COMPARISON OF THE PERFORMANCE OF RNA EXTRACTION KITS USED IN THE DIAGNOSIS OF COVID19 AGAINST THE INHOUSE TRIZOL RNA EXTRACTION METHOD**

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**CHANGING PATTERN OF DENGUE SEROTYPE IN THE SINDH REGION OF PAKISTAN 2006-2022**

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**SEVERE MORBIDITY AND MORTALITY FROM RIFT VALLEY FEVER DISEASE BETWEEN NOVEMBER 2017 AND MARCH 2020 AMONG HUMANS IN UGANDA**

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**KNOWLEDGE, AND PERCEPTIONS OF COVID-19 INFECTION AMONG PEOPLE REPORTING FOR COVID-19 VACCINATION IN HEALTH FACILITIES IN MALAWI**

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**A SIMULATION-BASED METHOD TO INFORM SEROSURVEY DESIGN TO ESTIMATE DENGUE FORCE OF INFECTION USING EXISTING BLOOD SAMPLES**

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**LASSA FEVER OUTBREAK IN GHANAIA COMMUNITIES, FEBRUARY 2023**

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**CLINICAL EVIDENCE ON DISEASE BURDEN OF THE MOSQUITO-BORNE CHIKUNGUNYA VIRUS (CHIKV) : A SYSTEMATIC LITERATURE REVIEW**

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**MONKEYPOX VIRUS OUTBREAK IN GHANA**

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## NEUTRALIZING ANTIBODY TITER AFTER COMPLETE SARS-COV-2 VACCINATION

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## Viruses - Epidemiology

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## LOW SEROPREVALENCE OF EBOLA VIRUS IN HEALTH CARE PROVIDERS IN AN ENDEMIC REGION (TSHUAPA PROVINCE) OF THE DEMOCRATIC REPUBLIC OF THE CONGO

Trésor Zola Matuvanga<sup>1</sup>, Joachim Mariën<sup>2</sup>, Ynke Larivière<sup>2</sup>, Bernard Osangir<sup>2</sup>, Solange Milolo<sup>1</sup>, Rachel Meta<sup>1</sup>, Emmanuel Esanga<sup>2</sup>, Vivi Maketa<sup>1</sup>, Junior Matangila<sup>1</sup>, Patrick Mitashi<sup>1</sup>, Steve Ahuka Mundeke<sup>1</sup>, Hypolite Muhindo-Mavoko<sup>1</sup>, Jean-Jacques Muyembe Tamfum<sup>1</sup>, Pierre Van Damme<sup>2</sup>, Jean-Pierre Van gertruyden<sup>2</sup>, Jean-Pierre Van gertruyden<sup>2</sup>

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## MOLECULAR CHARACTERIZATION OF SARS-COV-2 IN HEALTHCARE PERSONNEL WITH THIRD GENERATION SEQUENCING IN LIMA, PERU, 2021-2022

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## ENTERIC VIRAL PATHOGENS AND CHILD GROWTH: INSIGHTS FROM SOUTH ASIA AND SUB-SAHARAN AFRICA

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## PILOT SURVEILLANCE EVALUATION USING LEFTOVER MEASLES/RUBELLA NEGATIVE SURVEILLANCE SPECIMENS TO DETECT ARBOVIRUS INFECTIONS

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## ESTIMATING THE INCIDENCE OF DENGUE IN INTERNATIONAL TRAVELERS FROM NON-ENDEMIC COUNTRIES

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## ARBOVIRUS DISEASE SURVEILLANCE AMONG FEBRILE PATIENTS IN KILIMANJARO, TANZANIA, 2016-2019

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## ACCEPTANCE AND HESITANCY TOWARDS COVID-19 VACCINE AMONG HEALTHCARE WORKERS IN BUKAVU, EASTERN DEMOCRATIC REPUBLIC OF CONGO

Patrick Musole Bugeme<sup>1</sup>, Ashuza Shamamba Guillaume<sup>2</sup>, Victoire Urbain Hatu'm<sup>2</sup>, Gauthier Bahizire Murhula<sup>2</sup>, Alain Balola Ntaboba<sup>2</sup>, Patrick D.M.C. Katoto<sup>1</sup>

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## SOURCES OF INCONSISTENCIES BETWEEN DENGUE INFECTION INTENSITIES ESTIMATED FROM SEROLOGICAL AND PASSIVE CASE SURVEILLANCE STUDIES

Angkana T. Huang<sup>1</sup>, Darunee Buddhari<sup>2</sup>, Surachai Kaewhiran<sup>3</sup>, Sopon Iamsirithaworn<sup>3</sup>, Direk Khampaen<sup>3</sup>, Aaron Farmer<sup>2</sup>, Stefan Fernandez<sup>2</sup>, Stephen J. Thomas<sup>4</sup>, Gabriel Ribeiro dos Santos<sup>1</sup>, Isabel Rodriguez Barraquer<sup>5</sup>, Anon Srikiatkachorn<sup>2</sup>, Derek A. T. Cummings<sup>6</sup>, Timothy Endy<sup>7</sup>, Alan L. Rothman<sup>8</sup>, Kathryn Anderson<sup>4</sup>, Henrik Salje<sup>1</sup>

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## CIRCULATING NON-DENGUE FLAVIVIRUSES IMPACT DENGUE VIRUS DIAGNOSTIC TESTING AND DISEASE RISK IN CAMBODIA

Chloe M. Hasund<sup>1</sup>, Camila Odio<sup>1</sup>, Christina Yek<sup>2</sup>, Somnang Man<sup>3</sup>, Piseth Ly<sup>3</sup>, Sreynik Nhek<sup>3</sup>, Sophana Chea<sup>3</sup>, Chanthap Lon<sup>3</sup>, Rekol Huy<sup>4</sup>, Rithea Leang<sup>4</sup>, Chea Huch<sup>4</sup>, L. Fabiano Oliveira<sup>2</sup>, Jessica E. Manning<sup>2</sup>, Leah C. Katzelnick<sup>1</sup>

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## FORECASTING DENGUE INCIDENCE: REVIEW OF METHODOLOGY AND COVARIATES

Yalda Jafari<sup>1</sup>, Ahyoung Lim<sup>2</sup>, Win Zaw<sup>3</sup>, Tuyen H. Ngoc<sup>4</sup>, Kate Tiley<sup>2</sup>, Chawarat Roetjanaprasert<sup>3</sup>, Oliver Brady<sup>2</sup>, Richard J. Maude<sup>1</sup>

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**COMPARISON OF REPORTED PRIOR DENGUE INFECTION WITH LABORATORY-CONFIRMATION OF SEROSTATUS AMONG 9 TO 14-YEAR-OLD CHILDREN IN CEBU, PHILIPPINES**

**Maria Vinna Crisostomo**<sup>1</sup>, Anna Maureen Cuachin<sup>1</sup>, Kristal An Agrupis<sup>1</sup>, Ava Kristy Sy<sup>2</sup>, Jedas Veronica Daag<sup>1</sup>, Michelle Ylade<sup>1</sup>, Laura White<sup>2</sup>, Aravinda De Silva<sup>3</sup>, Jacqueline Deen<sup>1</sup>

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**DETECTION OF OTHER HUMAN CORONAVIRUSES (HCOVS) AND CROSS- REACTIVITY AGAINST SARS-COV-2 IN CLINICAL SAMPLES**

**Daniel Adjei Odumang**<sup>1</sup>, Elvis Suatey Lomotey<sup>1</sup>, Irene Owusu Donkor<sup>1</sup>, Jewelna Akorli<sup>1</sup>, Ivy Asante<sup>1</sup>, Stephen Nyarko<sup>1</sup>, Lorreta Kwasah<sup>1</sup>, Robert Fischer<sup>2</sup>, Vincent Munster<sup>2</sup>

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**PREVENTION AND CONTROL OF VIRAL HEMORRHAGIC FEVER IN LEARNING INSTITUTIONS IN UGANDA**

**Irene Mwenyango**, Patrick Ajuna, Blandinah Nakiganda  
Ministry of Health, Kampala, Uganda

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**A COHORT STUDY IN GHANA REVEALS HIGH SEROPREVALENCE OF MONKEYPOX IN GHANA**

**Christopher Dorcoo**<sup>1</sup>, Grace Opoku Gyamfi<sup>1</sup>, Irene Owusu Donkor<sup>1</sup>, Millicent Opoku<sup>1</sup>, Kofi Bonney<sup>1</sup>, Robert Fischer<sup>2</sup>, Vincent Munster<sup>2</sup>

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**SHIFTS IN THE SEASONALITY OF DENGUE ASSOCIATED WITH THE TRANSITION TO ENDEMICITY**

**Bachir Assao Neino**<sup>1</sup>, Angkana Huang<sup>2</sup>, Bernardo Garcia-Carreras<sup>1</sup>, Rebecca Borchering<sup>1</sup>, Derek A.T. Cummings<sup>1</sup>

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**FACTORS ASSOCIATED WITH CHIKUNGUNYA INFECTION AMONG PREGNANT WOMEN IN GRENADA, WEST INDIES**

**Melanie Kiener**<sup>1</sup>, Nikita Cudjoe<sup>2</sup>, Roberta Evans<sup>3</sup>, Veronica Mapp-Alexander<sup>2</sup>, Amna Tariq<sup>1</sup>, Calum MacPherson<sup>2</sup>, Trevor Noel<sup>2</sup>, Patrick Gérardin<sup>3</sup>, Randall Waechter<sup>2</sup>, A. Desiree LaBeaud<sup>1</sup>

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**FILOVIRUS VIRUS GLYCOPROTEIN - EPI TOPE MAPPING, PSEUDOTYPING, AND INFECTIVITY TARGETING**

**Edgar Davidson**<sup>1</sup>, Nathan A. Krump<sup>1</sup>, J. Tabb Sullivan<sup>1</sup>, Sonya M. Jacobsen<sup>1</sup>, Parul Ganjoo<sup>1</sup>, Allison Sheetz<sup>1</sup>, M. Javad Aman<sup>2</sup>, Philipp A. Illykh<sup>3</sup>, Alexander Bukreyev<sup>3</sup>, James E. Crowe Jr<sup>4</sup>, Benjamin J. Doranz<sup>1</sup>

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**Viruses - Evolution and Genomic Epidemiology**

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**TRANSMISSION DYNAMICS OF DENGUE VIRUS IN LARGE AND SMALL POPULATION CENTERS IN NORTHERN ECUADOR USING A PHYLOGENETIC ANALYSIS**

**Sully Marquez**<sup>2</sup>, Gwenyth Lee<sup>2</sup>, Bernardo Gutierrez<sup>1</sup>, Shannon Bennett<sup>3</sup>, Joseph Eisenberg<sup>2</sup>, Josefina Coloma<sup>4</sup>, Gabriel Trueba<sup>1</sup>

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**DETECTING AND MONITORING THE RE-EMERGENCE OF DENGUE VIRUSES IN PUERTO RICO WITH GENOMIC SURVEILLANCE**

**Gilberto A. Santiago**<sup>1</sup>, Glenda L. Gonzalez-Morales<sup>1</sup>, Keyla N. Charriez<sup>1</sup>, Betzabel Flores<sup>1</sup>, Laura E. Adams<sup>1</sup>, Joanelis Medina<sup>2</sup>, Grayson Brown<sup>2</sup>, Jessica I. Falcon<sup>3</sup>, Melissa Marzan<sup>3</sup>, Vanessa Rivera-Amill<sup>4</sup>, Gabriela Paz-Bailey<sup>1</sup>, Jorge L. Munoz-Jordan<sup>1</sup>

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**LOCATION AND TIME ARE DRIVERS OF VIRAL DIVERGENCE DURING ACUTE PHASE ZIKA VIRUS INFECTION**

**Mariah Hassert**<sup>1</sup>, Christopher M. Weiss<sup>2</sup>, Reyes A. Murrieta<sup>3</sup>, Elizabeth Geerling<sup>1</sup>, E. Taylor Stone<sup>1</sup>, Stephen Scroggins<sup>1</sup>, Alexandra Dickson<sup>1</sup>, Gregory D. Ebel<sup>3</sup>, Lark L. Coffey<sup>2</sup>, Amelia K. Pinto<sup>1</sup>, **James D. Brien**<sup>1</sup>

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**NEAR-COMPLETE GENOME SEQUENCES OF DENGUE VIRUS 3 ISOLATES ASSOCIATED WITH OUTBREAKS FROM DIFFERENT REGIONS OF KENYA IN 2011 AND 2019**

**Victor O. Ofula**<sup>1</sup>, Arnold W. Wasike<sup>2</sup>, Solomon Langat<sup>1</sup>, Edith Koskei<sup>1</sup>, Hellen Koka<sup>1</sup>, Samuel Owaka<sup>1</sup>, Samson Konongoi<sup>1</sup>, Samoel Khamadi<sup>1</sup>, Edith Limbaso<sup>1</sup>, James Nokes<sup>2</sup>, Charles Nyaigoti<sup>2</sup>, Frank Onyambu<sup>3</sup>, Rosemary Sang<sup>4</sup>

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**DEVELOPMENT AND CHARACTERIZATION OF BARCODED POWASSAN VIRUS TO ANALYZE BOTTLENECK EVENTS DURING TICK TRANSMISSION**

**Samantha J. Courtney**

Colorado State University, Fort Collins, CO, United States

Friday  
October 20

**6012****GENOMIC SURVEILLANCE OF SARS-COV-2 VARIANTS DURING DIFFERENT WAVES OF COVID-19 IN MALI****Antoine Dara**<sup>1</sup>, Sekou Sissoko<sup>1</sup>, Amadou Daou<sup>1</sup>, Amadi Diawara<sup>2</sup>, Abdoul Karim Sangare<sup>2</sup>, Djibril Kassogue<sup>3</sup>, Charles Dara<sup>3</sup>, Demba Koita<sup>4</sup>, Ibrehima Guindo<sup>1</sup>, Bourema Kouriba<sup>2</sup>, Abdoulaye A. Djimde<sup>1</sup><sup>1</sup>University of Science, Techniques and Technologies of Bamako, Bamako, Mali, <sup>2</sup>Centre Charles d'Infectiologie Charles Mérieux, Bamako, Mali, <sup>3</sup>Hôpital de Tombouctou, Tombouctou, Mali, <sup>4</sup>Institut National de Santé Publique, Bamako, Mali**6013****SPATIOTEMPORAL DYNAMICS OF CIRCULATING DENV-1 IN LA VIRGINIA, RISARALDA BETWEEN 2019 AND 2021****Diana Marcela Rojas Gallardo**<sup>1</sup>, Jaime Andres Cardona-Ospina<sup>1</sup>, Jorge E Osorio<sup>2</sup>, Autum Key<sup>3</sup>, Andrei Bombin<sup>3</sup>, Diego Lopez Muñoz<sup>4</sup>, Beatriz Giraldo Ospina<sup>1</sup>, Jesse Waggoner<sup>3</sup>, Matthew H Collins<sup>3</sup>, Anne Piantadosi<sup>3</sup><sup>1</sup>Institución Universitaria Visión de las Américas, Pereira, Colombia, <sup>2</sup>University of Wisconsin, Madison, WI, United States, <sup>3</sup>Emory University, Atlanta, GA, United States, <sup>4</sup>Unidad Central del Valle del Cauca, Tuluá, Colombia**6014****INTRODUCTION OF A NEW CLADE OF ECSA GENOTYPE DURING THE LARGEST OUTBREAK OF CHIKUNGUNYA VIRUS IN PARAGUAY****Alejandra Rojas**<sup>1</sup>, Fátima Cardozo<sup>1</sup>, Adriana Valenzuela<sup>1</sup>, Cynthia Bernal<sup>1</sup>, María Eugenia Galeano<sup>1</sup>, Roque Morel<sup>1</sup>, **Jesse J. Waggoner**<sup>2</sup>, Magaly Martínez<sup>1</sup><sup>1</sup>Universidad Nacional de Asunción, Instituto de Investigaciones en Ciencias de la Salud, San Lorenzo, Paraguay, <sup>2</sup>Emory University, Atlanta, GA, United States**6015****PURIFYING SELECTION DECREASES THE POTENTIAL FOR BANGUI ORTHOBUNYAVIRUS OUTBREAKS IN HUMANS****Gregory S. Orf**<sup>1</sup>, Lester J. Perez<sup>1</sup>, Todd V. Meyer<sup>1</sup>, Ka-Cheung Luk<sup>1</sup>, Kenn Forberg<sup>1</sup>, Mary A. Rodgers<sup>1</sup>, Abbas Hadji<sup>1</sup>, Linda James<sup>2</sup>, Samuel Mampunza<sup>2</sup>, Asmeeta Achari<sup>3</sup>, Guixia Yu<sup>3</sup>, Scot Federman<sup>3</sup>, Charles Y. Chiu<sup>3</sup>, Carole A. McArthur<sup>4</sup>, Gavin A. Cloherty<sup>1</sup>, Michael G. Berg<sup>1</sup><sup>1</sup>Abbott Diagnostics, Abbott Park, IL, United States, <sup>2</sup>Université Protestante au Congo, Kinshasa, Democratic Republic of the Congo, <sup>3</sup>UCSF, San Francisco, CA, United States, <sup>4</sup>UMKC, Kansas City, MO, United States**6016****PROFILING OF DENGUE SEROTYPE -2 SPECIFIC MICRORNA EXPRESSION IN THE SERUM SAMPLES OF DENGUE PATIENTS IN SABAH, MALAYSIA****Nadia Iryani Najri**<sup>1</sup>, Vijay Kumar Subbiah<sup>2</sup>, Noor Haydayati Mohd Yusuff<sup>3</sup>, **Mohammad Zahurul Hoque**<sup>4</sup><sup>1</sup>Faculty Of Medicine & Health Sciences, University malaysia Sabah, Malaysia, Kota Kibnabalu, Malaysia, <sup>2</sup>Biotechnology Research Institute, University malaysia Sabah, Malaysia, Kota Kibnabalu, Malaysia, <sup>3</sup>Biotechnology Research Institute, Universiti Malaysia Sabah, Malaysia, Kota Kibnabalu, Malaysia, <sup>4</sup>Faculty Of Medicine & Health Sciences, Universiti Malaysia Sabah, Malaysia, Kota Kibnabalu, Malaysia**Viruses - Field and ecological studies of viruses, including surveillance and spillover risk and emergence****6017****METAGENOMICS ANALYSES REVEALS PRESENCE OF THE MERIDA-LIKE VIRUS IN GEORGIA (COUNTRY)****Jennifer M. Potter Birriel**<sup>1</sup>, Adam R. Pollio<sup>1</sup>, Brian D. Knott<sup>2</sup>, Matthew A. Conte<sup>1</sup>, Drew D. Reinbold-Wasson<sup>2</sup>, Jun Hang<sup>1</sup><sup>1</sup>Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>2</sup>U.S. Army Medical Research Directorate - Georgia (USAMRD-G), Tbilisi, Georgia**6018****CO-INFECTION OF DENGUE AND CHIKUNGUNYA IN BENGALURU CITY, SOUTHERN INDIA - A MOLECULAR SURVEILLANCE APPROACH****Mansi Malik**<sup>1</sup>, Deepanraj SP<sup>1</sup>, Thrilok Chandra KV<sup>2</sup>, Madhusudan SN<sup>2</sup>, Balasundar A P<sup>2</sup>, Rakesh Mishra<sup>1</sup>, Farah Ishtiaq<sup>1</sup>, **Shruthi Uppoor**<sup>2</sup><sup>1</sup>Tata Institute for Genetics and Society, Bengaluru, India, <sup>2</sup>Bruhath Bengaluru Mahanagara Palike, Bengaluru, India**6019****SEROLOGICAL EVIDENCE OF PRIOR EXPOSURE TO EMERGING PATHOGENS IN RURAL LIBERIA, WEST AFRICA****Emmanuel Kerkula***The University of North Carolina Project-Liberia, Gbanga, Liberia***6020****MAYARO VIRUS EXPOSURE IN FREE-RANGING BATS OF ANIMAL-HUMAN INTERFACE AREAS, MIDWEST BRAZIL****Ingrid Oliveira Garrido**<sup>1</sup>, Helver Gonçalves Dias<sup>1</sup>, Débora Familiar-Macedo<sup>1</sup>, Alex Pauvolid-Corrêa<sup>2</sup>, **Flavia Barreto Dos Santos**<sup>1</sup><sup>1</sup>FIOCRUZ, Rio de Janeiro, Brazil, <sup>2</sup>Universidade Federal de Viçosa, Viçosa, Brazil**6021****EVIDENCE OF CORONAVIRUS TRANSMISSION AMONG PTEROPUS MEDIUS IN BANGLADESH, 2019-2021****Mohammad Enayet Hossain**<sup>1</sup>, Rashedul Hasan<sup>1</sup>, Md. Mahmudul Hasan<sup>1</sup>, Ausraful Islam<sup>1</sup>, Spencer Sterling<sup>2</sup>, Clifton McKee<sup>3</sup>, Eric D. Laing<sup>2</sup>, Md. Jahidul Kabir<sup>4</sup>, Peter Hudson<sup>5</sup>, Raina Plowright<sup>6</sup>, Emily S. Gurley<sup>3</sup>, Mohammed Ziaur Rahman<sup>1</sup><sup>1</sup>icddr, Dhaka, Bangladesh, <sup>2</sup>Uniformed Services University of the Health Sciences, Bethesda, MD, United States, <sup>3</sup>Johns Hopkins University, Baltimore, MD, United States, <sup>4</sup>Bangladesh Forest Department, Dhaka, Bangladesh, <sup>5</sup>The Pennsylvania State University, Pennsylvania, PA, United States, <sup>6</sup>Cornell University, New York, NY, United States**6022****DETECTED ARBOVIRUSES IN EASTERN MEDITERRANEAN REGION AND SOUTH EAST ASIAN REGION MOSQUITO POPULATIONS: A SYSTEMATIC REVIEW****Syed Ali Raza Nasir***Aga Khan University Hospital, Karachi, Pakistan***6023****FACTORS RESPONSIBLE FOR POST-DISCHARGE DEATH IN COVID PATIENTS****Prasan Kumar Panda**, Arjun Kumar, Basavaraj Jatteppanvar*AIIMS, Rishikesh, India***6024****ROLE OF TELEHEALTH AND COMMUNITY MOBILIZATION IN MANAGING COVID-19 WITHIN THE CONTEXT OF A DISTRICT HEALTH SYSTEM IN MALAWI****Titus H. Divala**<sup>1</sup>, Melody Sakala<sup>2</sup>, Marlen Chawani<sup>2</sup>, Edith Milanzi<sup>2</sup>, **Evanze Dazimon Mwale**<sup>1</sup><sup>1</sup>Kamuzu University of Health Sciences, Blantyre, Malawi, <sup>2</sup>Malawi Liverpool Welcome Trust, Blantyre, Malawi



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**DISTRIBUTION AND OUTCOMES OF ANIMAL BITES IN THE MBALE REGION OF EASTERN UGANDA**

**Isabirye Herbert Kiirya**<sup>1</sup>, Benjamin Fuller<sup>2</sup>, Kakoza Francis<sup>3</sup>, Nanyondo Judith<sup>3</sup>, Mohamed Larmode<sup>3</sup>, Allan Komakech<sup>4</sup>, Irene Kyamwine<sup>4</sup>, Doreen Gonahasa<sup>4</sup>, Henry Bosa Kyobe<sup>5</sup>, Kesande Maureen<sup>3</sup>, Edward Juma Nyogesa<sup>6</sup>, Anet Nabumbo<sup>7</sup>, Ssekitoleko Richard<sup>8</sup>, Christopher C Moore<sup>2</sup>

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**MOSQUITO ID: NANOPORE SEQUENCING OUT OF A SUITCASE LAB AS AN EARLY WARNING SYSTEM FOR EMERGING INFECTIOUS DISEASES**

**Arianna Ceruti**<sup>1</sup>, Antonios Michaelakis<sup>2</sup>, Marina Bisia<sup>2</sup>, Uwe Truyen<sup>1</sup>, Georgios Balatsos<sup>2</sup>, John Palmer<sup>3</sup>, Mohammad Shafiqul Alam<sup>4</sup>, Ahmed Abd El Wahed<sup>1</sup>

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**SIMIAR ARTERIVIRUSES: A ZONOTIC THREAT?**

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**CASE AND WASTEWATER SURVEILLANCE TO MONITOR COVID-19 AND OTHER INFECTIOUS DISEASES IN ATLANTA K-12 SCHOOLS**

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**DETECTION OF HUMAN CORONAVIRUSES AMONG PATIENTS WITH RESPIRATORY TRACT INFECTIONS IN GHANA**

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**USE OF LIGHTWEIGHT GPS DATA LOGGERS TO TRACK HORSESHOE BAT MOVEMENT PATTERNS IN EASTERN UGANDA**

**Natalie Wickenkamp**<sup>1</sup>, Kalani Williams<sup>1</sup>, Kevin Castle<sup>2</sup>, Michael J. Mutebi<sup>3</sup>, Lillian Nalukenge<sup>3</sup>, Robert M. Kityo<sup>3</sup>, Betty Nalikka<sup>3</sup>, Benard Matovu<sup>3</sup>, Aggrey Siya<sup>2</sup>, Teddie Nakayiki<sup>4</sup>, Emma Harris<sup>1</sup>, Tanya Dewey<sup>1</sup>, Rebekah C. Kading<sup>1</sup>

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**Viruses - Immunology**

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**IGG HYPORESPONSIVENESS AFTER DENGUE VIRUS INFECTION IN KENYAN CHILDREN**

**David M. Vu**<sup>1</sup>, Bryson A. Ndenga<sup>2</sup>, Francis M. Mutuku<sup>3</sup>, Bethel Bayrau<sup>1</sup>, Jael S. Amugongo<sup>4</sup>, Christabel Winter<sup>2</sup>, Charles Ronga<sup>2</sup>, Philip Chebii<sup>4</sup>, Zainab Jembe<sup>5</sup>, A. Desiree LaBeaud<sup>1</sup>

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**CHIKUNGUNYA VIRUS SPECIFIC T CELLS PREDOMINANTLY RECOGNIZE VIRAL STRUCTURAL PROTEINS**

James Chang<sup>1</sup>, Fernanda H. Cortes<sup>1</sup>, Calvin Ha<sup>1</sup>, Rimjhim Agarwal<sup>1</sup>, E Alexandar Escarrega<sup>1</sup>, Rosa Isela Gálvez<sup>1</sup>, Claudia M. Romero-Vivas<sup>2</sup>, Andrew Falconar<sup>2</sup>, Alessandro Sette<sup>1</sup>, **Daniela Weiskopf**<sup>1</sup>

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**INVESTIGATING THE IMMUNE PROFILES ELICITED BY CLINICALLY APPARENT AND CLINICALLY INAPPARENT DENGUE VIRUS INFECTIONS**

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**MALARIA-EXPOSED UGANDANS EXHIBIT A DIFFERENTIAL SARS-COV-2-SPECIFIC T CELL RESPONSE**

**Kattria van der Ploeg**<sup>1</sup>, Karen B. Jacobson<sup>1</sup>, John ReK<sup>2</sup>, Felistas Nankya<sup>2</sup>, Jessica Briggs<sup>3</sup>, Saki Takahashi<sup>4</sup>, Adam S. Kiroasingh<sup>4</sup>, Diego A M Mori<sup>1</sup>, Kenneth Musinguzi<sup>2</sup>, Isabel Rodriguez-Barraquer<sup>5</sup>, Bryan Greenhouse<sup>2</sup>, Upinder Singh<sup>1</sup>, Moses R. Kanya<sup>6</sup>, Prasanna Jagannathan<sup>1</sup>

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**17DD-BASED YELLOW FEVER INACTIVATED VACCINE IN ASSOCIATION WITH THE NS3 HELICASE DOMAIN INDUCES T LYMPHOCYTE RESPONSES AND SEROCONVERSION TO YELLOW FEVER VIRUS IN A MURINE MODEL**

Vitor G. Floriano, Jhefferson B. Guimarães, Luiza A. Castro-Jorge, Marcio J L Siconelli, **Bendito A L da Fonseca**

School of Medicine of Ribeirão Preto, Ribeirão Preto, Brazil

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**ANTIBODY-DEPENDENT COMPLEMENT ACTIVATION AND DENV3 DISEASE SEVERITY**

**Amro Nasser**, Priscila M Da Silva Castanha, Ernesto T A Marques  
University of Pittsburgh, Pittsburgh, PA, United States

**6037****STRUCTURE-GUIDED DENGUE VIRUS TYPE 2 SUBUNIT VACCINE DESIGN TO FOCUS ANTIBODY RESPONSE TO POTENT, NEUTRALIZING EPITOPES ON VIRAL ENVELOPE PROTEIN**

**Devina J. Thiono**, Demetrios Samaras, Thanh T.N. Phan, Shaomin Tian, Lawrence J. Forsberg, Brian Kuhlman, Aravinda de Silva  
*University of North Carolina at Chapel Hill, Chapel Hill, NC, United States*

**6038****MOLECULAR ANALYSIS OF THE ANTIBODY REPERTOIRE ELICITED AFTER YELLOW FEVER VACCINATION**

**Christina Martins**<sup>1</sup>, Carlena Navas<sup>1</sup>, Marcelle Rocha<sup>1</sup>, Luciana Zuccherato<sup>1</sup>, Adriana de Souza Azevedo Soares<sup>2</sup>, Brenda de Moura Dias<sup>2</sup>, Nathalia dos Santos Alves<sup>2</sup>, Sheila Maria Barbosa de Lima<sup>2</sup>, Waleska Dias Schwarcz<sup>2</sup>, George Georgiou<sup>3</sup>, Jason Lavinder<sup>3</sup>, Gregory Ippolito<sup>3</sup>, Liza Felicori<sup>1</sup>

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**6039****CONSERVED MONOCYTE RESPONSES TO ACUTE RNA VIRUS INFECTION**

**Kalani Ratnasiri**, Jiaying Toh, Hong Zheng, Catherine Blish, Purvesh Khatri  
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**6040****ANTIBODIES AGAINST THE SARS-COV-2 DELTA VARIANT SHOWED CROSS-REACTIVITY TO INFLUENZA VIRUSES**

**Mohammad Mamun Alam**, Asma Salauddin, Sayra Moni, Md. Belayet Hasan Limon, Raisha Musarrat, Mohammed Ziaur Rahman, Mustafizur Rahman  
*icddr,b, Dhaka, Bangladesh*

**6041****ROLE OF THE PLACENTA SPECIFIC CHROMOSOME 19 MICRORNA CLUSTER DURING ZIKA INFECTION**

**Sandra Laurence Lopez-Verges**<sup>1</sup>, Yamileth Chin<sup>2</sup>, Hélène Martin<sup>2</sup>, Patrice Vitali<sup>3</sup>, Marie-Line Bortolin-Cavaillé<sup>4</sup>, Jérôme Cavaillé<sup>5</sup>, Cécile E. Malnou<sup>2</sup>

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**(ACMCIP Abstract)****6042****USE OF A STABILIZED CONFORMATIONAL DENGUE VIRUS SEROTYPE 2 ENVELOPE ANTIGEN TO ISOLATE MEMORY-DERIVED NEUTRALIZING MONOCLONAL ANTIBODIES FROM A CONVALESCENT PATIENT.**

**Sean A. Diehl**<sup>1</sup>, Benjamin D. McElvany<sup>1</sup>, Nancy R. Graham<sup>1</sup>, Devina J. Thiono<sup>2</sup>, Ryan D. Bhowmik<sup>2</sup>, Alena J. Markmann<sup>2</sup>, Aravinda M. DeSilva<sup>2</sup>

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**6043****TISSUE-SPECIFIC T-CELL RESPONSES AMONG 44 FATAL COVID-19 CASES**

**Trevor M. Stantliff**, Andrew Platt, Sydney R. Stein, Cihan Oguz, Kevin M. Vannella, Sabrina C. Ramelli, Stephen M. Hewitt, Daniel S. Chertow  
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**6044****SEROPREVALENCE OF SARS-COV2 ANTIBODIES IN THE GENERAL POPULATION OF BAMAKO, MALI**

**Bourama Traore**<sup>1</sup>, Merepen A Guindo<sup>1</sup>, Drissa Konaté<sup>1</sup>, Fousseyni Kané<sup>1</sup>, Abdouramane Traore<sup>1</sup>, Salimata Kanté<sup>1</sup>, Mariam Sidibé<sup>1</sup>, Bourama Keita<sup>1</sup>, Fatoumata Kasse<sup>1</sup>, Karamoko Tangara<sup>1</sup>, Issoufi Y Maiga<sup>1</sup>, Abdoul RA Dicko<sup>1</sup>, Abdoul RA Dicko<sup>2</sup>, Naman Keita<sup>2</sup>, Diakaridia Kone<sup>3</sup>, Yaya I Coulibaly<sup>1</sup>, Mahamadou Diakit<sup>1</sup>, Seydou Doumbia<sup>1</sup>, Housseini Dolo<sup>1</sup>, Saidou Balam<sup>1</sup>

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**(ACMCIP Abstract)****6045****IMPACT OF DENGUE VIRUS STRAIN AND MATURATION STATE ON DETECTION OF NEUTRALIZING ANTIBODIES INDUCED BY NATURAL INFECTION AND VACCINATION**

Laura J. White<sup>1</sup>, Ruby Shah<sup>1</sup>, Lucas Laszacs<sup>1</sup>, Rajendra Raut<sup>2</sup>, Elizabeth Adams<sup>1</sup>, Emily Freeman<sup>1</sup>, Cameron Adams<sup>1</sup>, Longping V. Tse<sup>3</sup>, Ralph Baric<sup>1</sup>, Jedas V. Daag<sup>4</sup>, Maria Vinna Crisostomo<sup>4</sup>, Kristal-An Agrupis<sup>4</sup>, Michelle Ylade<sup>4</sup>, Jacqueline Deen<sup>4</sup>, Leah Katzelnick<sup>5</sup>, **Aravinda De Silva**<sup>1</sup>

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**Malaria - Antimalarial Resistance and Chemotherapy****6046****MOLECULAR SURVEILLANCE OF SULFADOXINE-PYRIMETHAMINE AND AMODIAQUINE RESISTANCE MARKERS IN KARAMOJA REGION, AN AREA IMPLEMENTING SEASONAL MALARIA CHEMOPREVENTION IN NORTHEASTERN UGANDA**

**Richard Kajubi**<sup>1</sup>, Anthony Nuwa<sup>1</sup>, Craig Bonnington<sup>2</sup>, Kevin Baker<sup>2</sup>, Musa Odongo<sup>1</sup>, Tonny Kyagulanyi<sup>1</sup>, Victor Asua<sup>3</sup>, Chris Ebong<sup>3</sup>, David S. Odong<sup>1</sup>, Jimmy Opigo<sup>4</sup>, Maureen Nakirunda<sup>1</sup>, Godfrey Magumba<sup>1</sup>, James Tibenderana<sup>2</sup>

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**6047****MOLECULAR MARKERS ASSOCIATED WITH ANTIMALARIAL DRUG RESISTANCE AND DISTRIBUTION OF MSP1 AND MSP2 ALLELIC FAMILIES IN RURAL ENDEMIC SETTINGS, NORTHWESTERN BURKINA FASO**

**Moustapha Nikiema**<sup>1</sup>, Awa Gneme<sup>1</sup>, Issiaka Soulama<sup>2</sup>, Boubacar Coulibaly<sup>3</sup>, Seni Nikiema<sup>1</sup>, Ali Sie<sup>4</sup>

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**(ACMCIP Abstract)**

## 6048

**MOLECULAR MARKERS OF ANTIMALARIAL RESISTANCE, AN EXTENSION OF THERAPEUTIC EFFICACY MONITORING IN BURKINA FASO, 2021**

Casimir Tarama<sup>1</sup>, Marko Bajic<sup>2</sup>, Stefano Rosillo<sup>2</sup>, Farida Tiendrebeogo<sup>1</sup>, Salif Sombie<sup>1</sup>, Siaka Debe<sup>1</sup>, Edwin Pierre Louis<sup>2</sup>, Adam Khan<sup>3</sup>, Dhruviben S. Patel<sup>1</sup>, René Kinda<sup>1</sup>, Adama Ganou<sup>1</sup>, Halidou Tinto<sup>2</sup>, Gauthier Tougri<sup>2</sup>, Innocent Valea<sup>2</sup>, Adama Gansane<sup>1</sup>, Leah F. Moriarty<sup>3</sup>

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## 6049

**ASSESSMENT OF *PLASMODIUM FALCIPARUM* CLONALITY AND DRUG RESISTANCE IN AN ARTEMETHER-LUMEFANTRINE DRUG EFFICACY TRIAL IN NORTHWEST ETHIOPIA**

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## 6050

**TEMPORAL GENOMIC ANALYSIS OF *PLASMODIUM FALCIPARUM* REVEALS INCREASED PREVALENCE OF PFAP2MU S160N AND PFMDR1 Y184F MUTATIONS ASSOCIATED WITH REDUCED PARASITE CLEARANCE OR SUSCEPTIBILITY TO LUMEFANTRINE IN CHOMA DISTRICT, SOUTHERN PROVINCE, ZAMBIA**

Abebe A. Fola<sup>1</sup>, Kara A. Moser<sup>2</sup>, Christopher M. Hennelly<sup>2</sup>, Tamaki Kobayashi<sup>3</sup>, Timothy Shields<sup>3</sup>, Harry Hamapumbu<sup>4</sup>, Michael Musonda<sup>4</sup>, Ben Katowa<sup>4</sup>, Japhet Matoba<sup>4</sup>, Jennifer C. Stevenson<sup>4</sup>, Douglas E. Norris<sup>5</sup>, Philip E. Thuma<sup>4</sup>, Amy Wesolowski<sup>6</sup>, Edgar Simulundu<sup>4</sup>, William J. Moss<sup>5</sup>, Jonathan J. Juliano<sup>7</sup>, Jeffrey A. Bailey<sup>1</sup>

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## 6051

**THE IMPACT OF SMC ON *PLASMODIUM FALCIPARUM* RESISTANCE TO SULFADOXINE PYRIMETHAMINE (SP) AND AMODIAQUINE (AQ) OVER A 2 YEAR PERIOD OF SMC IMPLEMENTATION IN NORTHERN MOZAMBIQUE**

Sonia Maria Enosse<sup>1</sup>, Ivan Alejandro Pulido Tarquino<sup>1</sup>, Pedro Aide<sup>2</sup>, Gloria Matambisso<sup>2</sup>, Wilson Simone<sup>2</sup>, Maria Rodrigues<sup>1</sup>, Kevin Baker<sup>3</sup>, Craig Bonnington<sup>3</sup>

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## 6052

**ASSESSMENT OF QUANTITATIVE PCR FOR DETERMINATION OF DRUG RESPONSE OF *PLASMODIUM FALCIPARUM* IN THE ABSENCE OF DNA PURIFICATION**

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(ACMCIP Abstract)

## 6053

**COX UNIVARIATE AND MULTIVARIATE ANALYSIS OF THE DETERMINANTS OF PARASITE RECURRENCE BY DAY 28 AFTER REPETITIVE TREATMENT OF UNCOMPLICATED MALARIA WITH ARTEMETHER-LUMEFANTRINE DURING TWO YEARS IN MALI**

Mamadou Modibo Tekete, Bakary Fofana, Sekou Toure, Souleymane Dama, Oumar Bila Traore, Nianwalou Dara, Bouran Sidibe, Abdoulaye Djimde  
Molecular Epidemiology and Drug Resistance Unit, MRTC, University of Sciences, Techniques and Technologies of Bamako, Bamako, Mali

## 6054

**HEALTH SEEKING BEHAVIORS AND BELIEFS SURROUNDING MALARIA IN THREE EAST AND SOUTHERN AFRICAN NEW GEOGRAPHIES PILOTING SEASONAL MALARIA CHEMOPREVENTION: A SECONDARY QUALITATIVE ANALYSIS**

Maria Suau Sans<sup>1</sup>, Erica Viganò<sup>1</sup>, Ivan Alejandro Pulido Tarquino<sup>2</sup>, Mercia Siteo<sup>2</sup>, Francis Okot<sup>3</sup>, Jennifer Ainsworth<sup>1</sup>, Jamshed Khan<sup>3</sup>, Anthony Nuwa<sup>4</sup>, Sonia Maria Enosse<sup>2</sup>, Maureen Nakirunda<sup>5</sup>, Kevin Baker<sup>1</sup>

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## 6055

**RARE *PLASMODIUM FALCIPARUM* CORONIN GENE MUTATIONS FOLLOWING ACT TREATMENT OF MALARIA IN SOUTH WESTERN NIGERIA**

Olusola Ajibaye<sup>1</sup>, Yetunde A. Olukosi<sup>1</sup>, Eniyou Orierio<sup>2</sup>, Mary Oboh<sup>2</sup>, Ikechukwu Nwankwo<sup>1</sup>, Chinaza Nnam<sup>1</sup>, Olawunmi V. Adaramoye<sup>3</sup>, Somadina Chukwuemeka<sup>1</sup>, Gabriel Eniafe<sup>1</sup>, Judith Okanazu<sup>1</sup>, Bamidele A. Iwalokun<sup>1</sup>, Alfred A. Ngwa<sup>2</sup>

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## 6056

**CHANGES IN SUSCEPTIBILITY OF *PLASMODIUM FALCIPARUM* TO LUMEFANTRINE IN EASTERN AND NORTHERN UGANDA OVER TIME**

Stephen Orena<sup>1</sup>, Melissa Conrad<sup>2</sup>, Martin Opio Okitwi<sup>1</sup>, Patrick Tumwebaze<sup>1</sup>, Oswald Byaruhanga<sup>1</sup>, Thomas Katairo<sup>1</sup>, Jennipher Legac<sup>2</sup>, Shreeya Garg<sup>2</sup>, David Giesbrecht<sup>3</sup>, Smith Sawyer<sup>3</sup>, Frida G. Cega<sup>4</sup>, Sam Nsoya<sup>1</sup>, Jeffrey A. Bailey<sup>2</sup>, Roland Cooper<sup>4</sup>, Philip J. Rosenthal<sup>2</sup>

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## 6057

**EX VIVO SUSCEPTIBILITY OF *PLASMODIUM FALCIPARUM* ISOLATES TO STANDARD ANTIMALARIALS IN BOBO-DIOULASSO, BURKINA FASO**

Anyirekun Fabrice Somé<sup>1</sup>, R. Serge YERBANGA<sup>1</sup>, Zachari Kabré<sup>1</sup>, Aminata Fofana<sup>1</sup>, Thomas Bazié<sup>1</sup>, Catherine Neya Neya<sup>1</sup>, Myrille Somé<sup>1</sup>, Jenny Legac<sup>2</sup>, Melissa Conrad<sup>2</sup>, Jeffrey A. Bailey<sup>4</sup>, Jean-Bosco Ouédraogo<sup>1</sup>, Philip J. Rosenthal<sup>2</sup>, Roland A. Cooper<sup>2</sup>

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## 6058

**LACK OF CORRELATION BETWEEN *IN VITRO* POTENCY AND *IN VIVO* EFFICACY OF MADURAMICIN AGAINST *PLASMODIUM* LIVER STAGES**

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### MALARIA DRUG RESISTANCE MARKERS MOLECULAR SURVEILLANCE USING *ANOPHELES* MOSQUITOES IN BURKINA FASO

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### PFCORONIN MUTATIONS CONFER ARTEMISININ RESISTANCE IN *PLASMODIUM FALCIPARUM* BY ALTERING ACTIN HOMEOSTASIS: A POTENTIAL NEW PLAYER IN THE ENDOCYTIC AND VESICULAR TRANSPORT PATHWAY

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(ACMCIP Abstract)

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### KELCH 13 AND NON-KELCH 13 MEDIATED ARTEMISININ DRUG RESISTANCE

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### SUSCEPTIBILITY OF *PLASMODIUM FALCIPARUM* ISOLATES TO DIHYDROARTEMISININ IN NORTHERN AND EASTERN UGANDA IN 2021 AND 2022

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### DECREASED EX VIVO SUSCEPTIBILITY OF *PLASMODIUM VIVAX* TO CHLOROQUINE IN NORTHWEST COLOMBIA

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### THE CONTINUED EXPANSION OF ARTEMISININ PARTIAL RESISTANCE MUTATION KELCH13 561H AND EMERGENCE OF 675V IN RUKARA IN 2021

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### COMPARISON OF STRENGTH OF SELECTION FOR *P. FALCIPARUM* ARTEMISININ RESISTANCE-ASSOCIATED MUTATIONS BETWEEN SOUTHEAST ASIA AND UGANDA

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### INCREASED RATE OF ARTEMISININ-BASED COMBINATION TREATMENT FAILURE IN PATIENTS RETURNING FROM SUB-SAHARAN AFRICA WITH *P. FALCIPARUM* MALARIA; THE ROLE OF PFCORONIN GENE MUTATION

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### DETECTION OF *PLASMODIUM FALCIPARUM* KELCH 13 GENE MUTATIONS IN CLINICAL SAMPLES FROM FOUR SITES ACROSS KENYA REVEALS INTENSE GENOMIC EVENTS THAT COULD PURIFY RESISTANCE

Benjamin Humphrey Opot<sup>1</sup>, Dennis W. Juma<sup>1</sup>, Raphael O. Okoth<sup>1</sup>, Gladys C. Chemwor<sup>1</sup>, Jackline Juma<sup>1</sup>, Risper Maisiba<sup>1</sup>, Edwin W. Mwakio<sup>1</sup>, Maurine Mwalo<sup>1</sup>, Redemptah Yeda<sup>1</sup>, Charles O. Okello<sup>1</sup>, Farid Abdi<sup>1</sup>, Agnes Cheruiyot<sup>1</sup>, Timothy Egbo<sup>2</sup>, Hoseah Akala<sup>1</sup>

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## Malaria - Diagnosis - Challenges and Innovations

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### IDENTIFICATION AND QUANTIFICATION OF *PLASMODIUM FRAGILE* IN AN *IN VITRO* CULTURE SYSTEM AND NON-HUMAN PRIMATE MODEL

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### LOW FREQUENCY OF HISTIDINE-RICH PROTEIN 2/3 (HRP2/3) AND FLANKING GENE DELETIONS CORRELATES WITH THE HIGH DIAGNOSTIC PERFORMANCE OF HRP2-BASED MALARIA RAPID DIAGNOSTIC TESTS IN CAMEROON

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**PRESENCE OF PFHRP2/3 DELETIONS INCLUDING POLYCLONAL INFECTIONS IN AN INTENSE MALARIA TRANSMISSION AREA OF SIAYA COUNTY, WESTERN KENYA**

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**PREVALENCE OF PFHRP2 AND PFHRP3 DELETIONS, AND PFKELCH13 MUTATIONS ASSOCIATED WITH PARTIAL RESISTANCE TO ARTEMISININ DERIVATIVES IN SOMALILAND**

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**ONE-STEP MULTIPLEX DIGITAL PCR FOR THE DETECTION OF PFHRP2 AND PFHRP3 DELETIONS IN POLYCLONAL INFECTIONS**

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**CHANGES IN MALARIA TEST POSITIVITY RATE FOLLOWING SCALE UP OF LIFE-SAVING MALARIA CONTROL INTERVENTION IN EBONYI STATE, SOUTH EAST NIGERIA**

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**IMPROVING QUALITY OF MALARIA MICROSCOPY THROUGH ONSITE COACHING AND MENTORSHIP TO HEALTH FACILITIES IN TANZANIA**

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**EXTERNAL VALIDATION OF THE WORLD HEALTH ORGANIZATION INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS (IMCI) PROTOCOL FOR MALARIA TESTING IN LOW MALARIA RISK AREAS**

**Nadia Cattaneo**<sup>1</sup>, Alexandra V. Kulinkina<sup>2</sup>, Chacha Mangu<sup>3</sup>, Victor P. Rwandarwacu<sup>4</sup>, Ludovico Cobuccio<sup>1</sup>, Lameck Luwanda<sup>5</sup>, Godfrey Kavishu<sup>6</sup>, Sabine Renggli<sup>7</sup>, Geoffrey I. Ashery<sup>8</sup>, Magreth Joram<sup>9</sup>, Ibrahim E. Mtebene<sup>9</sup>, Peter Agree<sup>3</sup>, Humphrey Mhagama<sup>4</sup>, Joseph Habakurama<sup>4</sup>, Antoinette Makuza Safi<sup>4</sup>, Jonathan Niyonzima<sup>4</sup>, Emmanuel Kalisa<sup>4</sup>, Angeliye Ingabire<sup>4</sup>, Cassien Havugimana<sup>4</sup>, Gilbert Rukundo<sup>4</sup>, Honorati Masanja<sup>5</sup>, Nyanda E. Ntinginya<sup>3</sup>, Valérie D'Acremont<sup>1</sup>, Rainer Tan<sup>1</sup>

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**IMPROVING MALARIA DIAGNOSIS THROUGH QUALITY ASSURANCE IN RWANDA FY 2021-2022**

**Niyonzima Jean Damascene**<sup>1</sup>, Ndikumana Mangara NMJ Jean-Louis<sup>1</sup>, Uwimana UA Aline<sup>1</sup>, Kabera S. KSM Michee<sup>1</sup>, Rucogoza R. A Aniceth<sup>1</sup>, Tharcisse T. M. Munyaneza<sup>1</sup>, Emmanuel E. R Ruzindana<sup>1</sup>, Jean Bosco J B M Mucaca<sup>1</sup>, Aimable A M Mbituyumuremyi<sup>1</sup>, Noella N. U Umulisa<sup>2</sup>

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**THE TESTSMART TRIAL: RESULTS FROM A CLUSTER-RANDOMIZED TRIAL OF MALARIA DIAGNOSTIC TESTING AND CONDITIONAL SUBSIDIES TO TARGET ACTS IN THE RETAIL SECTOR IN KENYA AND NIGERIA**

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**IMPLEMENTATION OF TWO-STEP MALARIA RDT DETECTION PFHRP2/PLDH COMBINING WITH POINT-OF-CARE TESTS FOR BACTERIAL INFECTIONS IN THE MANAGEMENT OF FEBRILE DISEASES IN CHILDREN UNDER-5 YEARS IN BURKINA FASO**

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Friday  
October 20

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### SEROLOGICAL MARKERS PREDICT *PLASMODIUM VIVAX* RELAPSES IN A RETURNING INDONESIAN SOLDIER COHORT

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### THRESHOLD LIMITS OF DETECTION AND QUANTIFICATION OF MALARIA PARASITES IN DRIED BLOOD SPOT: A COMBINED APPROACH OF MID-INFRARED SPECTROSCOPY AND MACHINE LEARNING

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### DETECTION OF *PLASMODIUM MALARIAE* AND *PLASMODIUM KNOWLESII* THROUGH IMPROVEMENTS IN MICROSCOPY SERVICES IN CAMBODIA

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### LOW PREVALENCE OF *PLASMODIUM FALCIPARUM* HISTIDINE-RICH PROTEIN 2 AND 3 GENE DELETIONS—A MULTIREGIONAL STUDY IN CENTRAL AND WEST AFRICA

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### HIGH PREVALENCE OF *PLASMODIUM FALCIPARUM* HRP II-DELETED VARIANTS ASSOCIATED WITH LOW RAPID DIAGNOSTIC EFFICACY 13 YEARS AFTER INTRODUCTION OF MALARIA RDTS IN EASTERN ZIMBABWE

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### A DIGITAL MICROSCOPE FOR THE DIAGNOSIS OF *PLASMODIUM FALCIPARUM* PARASITES WITH HRP2 AND HRP3 DELETION AND *PLASMODIUM VIVAX*

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### FITNESS COST OF PFHRP2/3 GENE DELETION & K13 R622I MUTATION IN NATURAL INFECTIONS IN ETHIOPIA: TRANSMISSION POTENTIAL OF PARASITES EVALUATED BY DIRECT MEMBRANE FEEDING ASSAYS

Ayalew Jejaw Zeleke<sup>1</sup>, Migbaru K. Bezabih<sup>2</sup>, Wakweya Chali<sup>2</sup>, Lina Alemayehu<sup>2</sup>, Melat Abdo<sup>2</sup>, Abraham Gashaw<sup>2</sup>, Adisu Gizat<sup>2</sup>, Desalegn Nibrat<sup>2</sup>, Sinknesh Wolde<sup>2</sup>, Legesse Alamerie<sup>2</sup>, Fikregabrail Abera Kassa<sup>2</sup>, Asrat Hailu Mekuria<sup>3</sup>, Mulugeta Aemero<sup>1</sup>, Fitsum Girma Tadesse<sup>2</sup>

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### PERCEPTIONS OF FACILITY-BASED AND COMMUNITY HEALTH WORKERS IN KENYA: IMPLICATIONS FOR PROGRAMS BASED ON FINDINGS FROM THE KENYA MALARIA BEHAVIOR SURVEY

Zoe M. Hendrickson<sup>1</sup>, Elvis Oyugi<sup>2</sup>, Jacinta Opondo<sup>2</sup>, Daniel Wacira<sup>3</sup>, Joseph Millward<sup>1</sup>, James Andati<sup>4</sup>, Jayme Hughes<sup>1</sup>, Grace Miheso<sup>4</sup>, Jennifer Boyle<sup>1</sup>, Anna McCartney-Melstad<sup>1</sup>, Carol Underwood<sup>1</sup>

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## Malaria - Drug Development and Clinical Trials

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### A NOVEL HUMANIZED MURINE MODEL TO ASSESS PRIMAQUINE-INDUCED HEMOLYSIS IN G6PD DEFICIENCY

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### PREDICTING OPTIMAL ANTIMALARIAL DRUG COMBINATIONS FROM A STANDARDIZED *PLASMODIUM FALCIPARUM* HUMANIZED MOUSE MODEL

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### MODELLING THE HAEM DETOXIFICATION PATHWAY IN *PLASMODIUM FALCIPARUM* TO AID IN TARGET DECONVOLUTION AND MECHANISM OF ACTION STUDIES

Lamelle Faye Garnie<sup>1</sup>, Kathryn Jean Wicht<sup>2</sup>, Timothy John Egan<sup>1</sup>  
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**THE ACTIVITY OF NOVEL SLOW-ACTION ANTIPLASMODIAL 1,3,4-OXADIAZOLES IS ASSOCIATED WITH A *P. FALCIPARUM* PALMITOYLTRANSFERASE**Katherine T. Andrews  
Griffith University, Nathan, Australia

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**A SYSTEMS BIOLOGY APPROACH TO UNDERSTAND THE MECHANISMS OF ACTION OF KALIHINOL, A POTENT NEW ANTIMALARIAL**Zeinab Chahine<sup>1</sup>, Jacques Prudhomme<sup>1</sup>, Steven Abel<sup>1</sup>, I. Renard<sup>2</sup>, JH Chun<sup>3</sup>, Mary Beth Daub<sup>3</sup>, JY Choi JY<sup>2</sup>, V. Pratap<sup>2</sup>, A. Pal<sup>2</sup>, J. Kirkwood<sup>1</sup>, Anita Saraf<sup>4</sup>, Charles Banks<sup>4</sup>, P. Castaneda<sup>5</sup>, MC Cuevas<sup>5</sup>, J. De Mercado-Arnanz<sup>5</sup>, E. Fernandez-Alvaro<sup>5</sup>, A. Garcia-Perez<sup>5</sup>, N. Ibarz<sup>5</sup>, S. Viera-Morilla<sup>5</sup>, A. K. Bei<sup>6</sup>, Laurence Florens<sup>4</sup>, Choukri Ben Mamoun<sup>2</sup>, Christopher D. Vanderwal<sup>7</sup>, **Karine G. Le Roch<sup>1</sup>**<sup>1</sup>UNIVERSITY OF CALIFORNIA, Riverside, CA, United States, <sup>2</sup>Yale School of Medicine, New Haven, CT, United States, <sup>3</sup>UNIVERSITY OF CALIFORNIA, Irvin, CA, United States, <sup>4</sup>Stowers Institute for Medical Research, Kansas City, MO, United States, <sup>5</sup>GSK, Tres Cantos Madrid, Spain, <sup>6</sup>Yale School of Public Health, New Haven, CT, United States, <sup>7</sup>UNIVERSITY OF CALIFORNIA, Irvine, CA, United States

(ACMCIP Abstract)

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**EVALUATION OF THE *IN VITRO* GAMETOCYTOCIDAL ACTIVITY OF TAFENOQUINE IN COMBINATIONS WITH METHYLENE BLUE AND OTHER ANTIMALARIAL COMPOUNDSTAFENOQUINE IN COMBINATIONS WITH METHYLENE BLUE AND OTHER ANTIMALARIAL COMPOUNDS**Jye A. Travis<sup>1</sup>, Kerry Rowcliffe<sup>2</sup>, Luke W. Guddat<sup>1</sup>, Christopher J. Parkinson<sup>3</sup>, Richard K. Haynes<sup>3</sup>, G. Dennis Shanks<sup>2</sup>, Michael D. Edstein<sup>2</sup>, Marina Chavchich<sup>2</sup><sup>1</sup>University of Queensland, Brisbane, Australia, <sup>2</sup>Australian Defence Force Malaria and Infectious Disease Institute, Brisbane, Australia, <sup>3</sup>Charles Sturt University, Orange, Australia

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**A FIRST-IN-HUMAN (FIH) SAFETY, TOLERABILITY, AND PHARMACOKINETICS (PK) STUDY OF MMV367, A NEW CANDIDATE ANTI-MALARIAL AGENT FOR ACUTE UNCOMPLICATED MALARIA**Andrea Kümmerle<sup>1</sup>, Laura Sanz<sup>2</sup>, Denis Gossen<sup>1</sup>, Annick Janin<sup>1</sup>, Raman Sharma<sup>3</sup>, Tony Cahn<sup>3</sup>, Rachel A. Gibson<sup>3</sup>, Som Menakuru<sup>4</sup>, Erin Lambourne<sup>4</sup>, Tom Dove<sup>4</sup>, Francisco-Javier Gamo<sup>2</sup>, Nand Singh<sup>4</sup>, Benoit Bestgen<sup>1</sup>, **Stephan Chalou<sup>1</sup>**<sup>1</sup>Medicines for Malaria Venture, Geneva, Switzerland, <sup>2</sup>GSK Global Health Medicines R&D, Tres Cantos, Spain, <sup>3</sup>GSK Pharmaceuticals, Stevenage, United Kingdom, <sup>4</sup>Quotient Sciences, Nottingham, United Kingdom

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**EFFICACY OF PRAZIQUANTEL FOR TREATMENT OF *PLASMODIUM FALCIPARUM* INFECTION IN ASYMPTOMATIC GABONESE ADULTS**Johannes Mischlinger<sup>1</sup>, Klara Pechmann<sup>1</sup>, Alex Hounmenou Zisou<sup>2</sup>, Wilfrid Nzebe Ndoumba<sup>2</sup>, Ayola Akim Adegnikia<sup>2</sup>, Peter G. Kremsner<sup>3</sup>, Andrea Kreidenweiss<sup>3</sup>, Francisca Sarpong<sup>1</sup>, Lidwine Badjina<sup>1</sup>, Michael Ramharter<sup>1</sup>, Ghyslain Mombongo-Ngoma<sup>2</sup><sup>1</sup>Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, <sup>2</sup>Centre de Recherches Médicales de Lambaréné, Lambaréné, Gabon, <sup>3</sup>Institute of Tropical Medicine, Tübingen, Germany

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**ETHIOPIAN *PLASMODIUM VIVAX* HYPNOZOITES FORMATION DYNAMICS AND THEIR SUSCEPTIBILITY TO REFERENCE ANTIMALARIAL DRUGS**Fanta Sogore, Ousmaila Diakite, Abdoulaye Djimde, Laurent Demebele  
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(ACMCIP Abstract)

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**VIRTUAL SCREENING OF THE NATURAL COMPOUNDS LIBRARY IDENTIFIES NATURE IDENTICAL SYNTHETIC COMPOUND METHYL GREVILLATE AS A NOVEL PFHDAC1 INHIBITOR WITH STEREOSPECIFIC MULTISTAGE ANTIMALARIAL ACTIVITY AND *IN VIVO* EFFICACY**Yash Gupta<sup>1</sup>, Neha Sharma<sup>2</sup>, Vinoth Rajendran<sup>3</sup>, Angela O. Achieng<sup>4</sup>, Reagan M. Mogire<sup>5</sup>, Amoghavarsha Venugopal<sup>1</sup>, Darshankumar Raval<sup>1</sup>, Hoseah M. Akala<sup>5</sup>, Bernhards Ogutu<sup>5</sup>, Thomas R. Caulfield<sup>1</sup>, Ravi Durvasula<sup>1</sup>, Agam P. Singh<sup>6</sup>, Douglas J. Perkins<sup>4</sup>, Brijesh Rath<sup>2</sup>, **Prakasha Kempaiah<sup>1</sup>**<sup>1</sup>Mayo Clinic, Jacksonville, FL, United States, <sup>2</sup>University of Delhi, New Delhi, India, <sup>3</sup>Pondicherry University, Puducherry, India, <sup>4</sup>Center for Global Health, University of New Mexico Health Sciences Center, Albuquerque, NM, United States, <sup>5</sup>Kenya Medical Research Institute, Kisumu, Kenya, <sup>6</sup>National Institute of Immunology, New Delhi, India

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**POPULATION PK ANALYSIS OF CHLOROQUINE IN A HUMANIZED MOUSE MODEL OF *P. FALCIPARUM* MALARIA**Sandra Berja-Checa<sup>1</sup>, Nerea Jauregizar<sup>2</sup>, María-Belén Jiménez-Díaz<sup>1</sup>, Pablo Díaz<sup>1</sup>, Patricia Lorenzo<sup>1</sup>, Rebeca Sánchez<sup>1</sup>, Hazel Gómez<sup>1</sup>, Eider Salazar<sup>1</sup>, Judith Romero<sup>1</sup>, Gabriela Popescu<sup>1</sup>, Lara López<sup>1</sup>, Cristina Eguizabal<sup>3</sup>, **Iñigo Angulo-Barturen<sup>1</sup>**<sup>1</sup>The Art of Discovery, Derio, Spain, <sup>2</sup>Pharmacology Department, Faculty of Medicine, University of the Basque Country (UPV/EHU), Derio, Spain, <sup>3</sup>BioCruces Bizkaia Health Research Institute and Basque Centre for Blood Transfusion and Human Tissues, Barakaldo-Galdakao, Spain

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**WHOLE GENOME SEQUENCE ANALYSIS OF CANDIDATE GENES IDENTIFIED THREE LOCI POTENTIALLY RELATED TO MEFLOQUINE NEUROPSYCHIATRIC SIDE EFFECTS**Monique Hollis-Perry<sup>1</sup>, Joshua Gray<sup>1</sup>, Dutchabong Shaw<sup>1</sup>, Daniel Hupalo<sup>1</sup>, Heidi Adams<sup>1</sup>, Xijun Zhang<sup>1</sup>, Matthew D. Wilkerson<sup>1</sup>, Louis R. Cantilena<sup>2</sup>, Lydia D. Hellwig<sup>1</sup>, Milissa U. Jones<sup>1</sup>, Clifton Dalgard<sup>1</sup>, Jeffrey Livezey<sup>1</sup>, **David Saunders<sup>1</sup>**<sup>1</sup>Uniformed Services University, Bethesda, MD, United States, <sup>2</sup>Deceased, Bethesda, MD, United States

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**OPTIMAL DOSING OF SINGLE LOW DOSE PRIMAQUINE FOR TRANSMISSION BLOCKING OF *P. FALCIPARUM* IN CHILDREN.**Walter R. Taylor<sup>1</sup>, Julie Nguyen Pouplin<sup>2</sup>, Thoopmanee Kaendiao<sup>1</sup>, Chiraporn Taya<sup>1</sup>, Mavuto Mukaka<sup>1</sup>, for the primaquine dosing group –<sup>3</sup><sup>1</sup>MORU, Bangkok, Thailand, <sup>2</sup>ReMed, Bordeaux, France, <sup>3</sup>**Malaria - Elimination**

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**ASSESSMENT OF PV BURDEN IN A MALARIA PRE-ELIMINATION CONTEXT AMONG HARD-TO-REACH POPULATIONS: PV SEROLOGY AND PCR AMONG CLANDESTINE GOLD-MINERS IN THE GUIANA SHIELD (2015-2019)**Alice Sanna<sup>1</sup>, Stephane Pelleau<sup>2</sup>, Lise Musset<sup>3</sup>, Yann Lambert<sup>1</sup>, Stephen Vreden<sup>4</sup>, Louise Hureau<sup>1</sup>, Michael White<sup>2</sup>, Maylis Douine<sup>1</sup><sup>1</sup>Centre Hospitalier de Cayenne, Cayenne, France, <sup>2</sup>Institut Pasteur, Paris, France, <sup>3</sup>Institut Pasteur de la Guyane, Cayenne, France, <sup>4</sup>SWOS Foundation, Paramaribo, Suriname

**6101****IMPLEMENTATION OF MALARIA COMMUNITY CASE MANAGEMENT (MCCM) IN TANZANIA: SUCCESSES, CHALLENGES, AND WAY FORWARD****Onesmo Mwegoha<sup>1</sup>**, Geoffrey Makenga<sup>2</sup>, Abdallah Lusasi<sup>1</sup>, Saidi Mgata<sup>2</sup>, Sigsibert Mkude<sup>2</sup>, Samwel Lazaro<sup>1</sup>, Naomi Serbantez<sup>2</sup>, Erik Reaves<sup>4</sup>, Daniel Mbwambo<sup>1</sup>, Hassan M. Hassan<sup>1</sup>, Chonge Kitojo<sup>3</sup><sup>1</sup>National Malaria Control Programme, Dodoma, United Republic of Tanzania, <sup>2</sup>Population Services International (PSI), Dar es Salaam, United Republic of Tanzania, <sup>3</sup>U.S. President's Malaria Initiative, U.S. Agency for International Development, Dar es Salaam, United Republic of Tanzania, <sup>4</sup>U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Dar es Salaam, United Republic of Tanzania**6102****LESSONS LEARNED FROM MADAGASCAR NATIONAL MALARIA PROGRAM PERFORMANCE REVIEW 2022****Urbain Rabibizaka<sup>1</sup>**, Omega Raobela<sup>1</sup>, Sabas Rabesahala<sup>1</sup>, Brune Estelle Ramiranirina<sup>1</sup>, Solofo Razakamiadana<sup>2</sup>, Lova Avotra Ralijaona<sup>2</sup>, Laurent Kapesa<sup>2</sup>, Maurice Ye<sup>3</sup><sup>1</sup>National Malaria Program, Antananarivo, Madagascar, <sup>2</sup>U.S. President's Malaria Initiative, USAID, Antananarivo, Madagascar, <sup>3</sup>ICF Macro, Rockville, MD, United States**6103****GENERATION OF PLASMODIUM-RESISTANT AN. GAMBIAE****Emilia Cristiana Cuccurullo<sup>1</sup>**, Yuemei Dong, George Dimopoulos<sup>1</sup>Johns Hopkins Bloomberg school of public health, Baltimore, MD, United States**6104****ENTOMOLOGICAL MONITORING IN ZANZIBAR TO SUPPORT MALARIA ELIMINATION EFFORTS****Bakari Khatibu<sup>1</sup>**, Juma Mcha<sup>1</sup>, Kali Omar<sup>1</sup>, Shija J. Shija<sup>1</sup>, Safia Mohammed<sup>1</sup>, Bilal Kabula<sup>2</sup>, Erik Reaves<sup>3</sup>, Naomi Serbantez<sup>2</sup>, Khadija Ali<sup>1</sup>, Zamzam Pandu<sup>1</sup>, Ussi Ussi<sup>1</sup>, Makame Makame<sup>1</sup>, Badru Badru<sup>1</sup>, Makame Kombo<sup>1</sup>, Ramla Haji<sup>1</sup>, Chonge Kitojo<sup>4</sup>, Geoffrey Makenga<sup>5</sup>, Adelin Chan<sup>6</sup>, Nicodemus Govella<sup>5</sup>, Sigsibert Mkude<sup>5</sup><sup>1</sup>Zanzibar Malaria Elimination Program, Ministry of Health, Zanzibar, United Republic of Tanzania, <sup>2</sup>Research Triangle International, Dar es Salaam, United Republic of Tanzania, <sup>3</sup>U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Dar es Salaam, United Republic of Tanzania, <sup>4</sup>U.S. President's Malaria Initiative, U.S. Agency for International Development, Dar es Salaam, United Republic of Tanzania, <sup>5</sup>Dhibiti Malaria project, Population Services International, Dar es Salaam, United Republic of Tanzania, <sup>6</sup>Centre for Disease Control, Atlanta, GA, United States**6105****USING EVIDENCE-BASED RESEARCH TO IMPROVE TIMELY DETECTION, DIAGNOSIS, AND TREATMENT OF MALARIA IN GUATEMALA'S PUSH FOR ELIMINATION****Lily T. Bodinson<sup>1</sup>**, Diego Hernandez<sup>1</sup>, Carlos Dionicio López<sup>1</sup>, José Miguel Echeverría<sup>2</sup>, Justin T. Lana<sup>3</sup>, Kota Yoshioka<sup>4</sup><sup>1</sup>Clinton Health Access Initiative, Inc., Guatemala City, Guatemala, <sup>2</sup>National Malaria Control Program, Guatemala City, Guatemala, <sup>3</sup>Clinton Health Access Initiative, Inc., Panama City, Panama, <sup>4</sup>Nagasaki University, School of Tropical Medicine and Global Health, Nagasaki, Japan**6106****CLUSTERING OF ASYMPTOMATIC MALARIA INFECTIONS IN NEIGHBORING HOUSEHOLDS: REACTIVE CASE DETECTION REVIEW AND META-ANALYSIS FROM 2010 - 2022****Ebenezer K. Aidoo<sup>1</sup>**, Frank T. Aboagye<sup>2</sup>, Felix A. Botchway<sup>1</sup>, George Osei-Adjei<sup>1</sup>, Michael Appiah<sup>1</sup>, Ruth Duku-Takyi<sup>1</sup>, Samuel A. Sakyi<sup>3</sup>, Linda Amoah<sup>4</sup>, Kingsley Badu<sup>5</sup>, Richard H. Asmah<sup>6</sup>, Bernard W. Lawson<sup>5</sup>, Karen A. Krogfelt<sup>7</sup><sup>1</sup>Department of Medical Laboratory Technology, Accra Technical University, Accra, Ghana, <sup>2</sup>Biomedical and Public Health Research Unit, Council for Scientific and Industrial Research-Water Research Institute, Accra, Ghana, <sup>3</sup>Department of Molecular Medicine, Kwame Nkrumah University of Science & Technology, Kumasi, Ghana, <sup>4</sup>Department of Immunology, Noguchi Memorial Institute for Medical Research, University of Ghana, Accra, Ghana, <sup>5</sup>Department of Theoretical & Applied Biology, Kwame Nkrumah University of Science & Technology, Kumasi, Ghana, <sup>6</sup>Department of Biomedical Sciences, School of Basic and Biomedical Science, University of Health & Allied Sciences, Ho, Ghana, <sup>7</sup>Department of Science and Environment, Unit of Molecular and Medical Biology, The Pandemix Center, Roskilde University, Roskilde, Denmark**6107****ACCESS TO MALARIA DIAGNOSIS AND TREATMENT IN ZAMBIA IN THE CONTEXT OF SCALING-UP COMMUNITY CASE MANAGEMENT****Zhiyuan Mao<sup>1</sup>**, Irene Kyomuhang<sup>1</sup>, Joshua Yukich<sup>1</sup>, Andrew Andrada<sup>1</sup>, Refilwe Karabo<sup>1</sup>, Ruth Ashton<sup>1</sup>, Adam Bennett<sup>2</sup>, Justin Millar<sup>2</sup>, Hannah Slater<sup>2</sup>, John Miller<sup>2</sup>, Kafula Silumbe<sup>3</sup>, Thomas P. Eisele<sup>1</sup><sup>1</sup>Tulane University, New Orleans, LA, United States, <sup>2</sup>PATH, Seattle, WA, United States, <sup>3</sup>PATH, Lusaka, Zambia**6108****HALT THE MARCHING OF ANOPHELES STEPHENSI IN AFRICA: FOLLOW INDIA'S INTERVENTION STRATEGIES****Susanta Kumar Ghosh<sup>1</sup>**, Chaitali Ghosh<sup>2</sup><sup>1</sup>ICMR-National Institute of Malaria Research, Bangalore, India, <sup>2</sup>Tata Institute of Genetics and Society, Bangalore, India**6109****REBOUND IN THE PLASMODIUM FALCIPARUM RESERVOIR FOLLOWING THE DISCONTINUATION OF INDOOR RESIDUAL SPRAYING AND IMPLEMENTATION OF SEASONAL MALARIA CHEMOPREVENTION IN NORTHERN GHANA****Kathryn E. Tiedje<sup>1</sup>**, Oscar Bangre<sup>2</sup>, Dionne C. Argyropoulos<sup>1</sup>, Samantha L. Deed<sup>1</sup>, Cecilia Rios Teran<sup>1</sup>, Sanjay S. Gautam<sup>1</sup>, Kwadwo A. Koram<sup>3</sup>, Mercedes Pascual<sup>4</sup>, Patrick Ansah<sup>2</sup>, Abraham R. Oduro<sup>2</sup>, Karen P. Day<sup>1</sup><sup>1</sup>The University of Melbourne, Melbourne, Australia, <sup>2</sup>Navrongo Health Research Centre, Ghana Health Service, Navrongo, Ghana, <sup>3</sup>Noguchi Memorial Institute for Medical Research, Legon, Ghana, <sup>4</sup>The University of Chicago, Chicago, IL, United States**6110****"DON'T WAIT FOR SYMPTOMS!": INCREASING ROUTINE MALARIA TESTING AMONG FOREST-GOERS IN CAMBODIA****Leakhena Ith<sup>1</sup>**, Ly Po<sup>2</sup>, Tha Meas<sup>2</sup>, Cheaty Ly<sup>1</sup>, Sochea Phok<sup>1</sup>, Saad El-Din Hussein Hassan<sup>3</sup>, Sarath Mak<sup>1</sup>, Andrea Ferrand<sup>4</sup><sup>1</sup>Population Services International Cambodia, Phnom Penh, Cambodia, <sup>2</sup>National Center for Parasitology, Entomology and Malaria Control (CNM), Phnom Penh, Cambodia, <sup>3</sup>U.S. President's Malaria Initiative, USAID, Phnom Penh, Cambodia, Phnom Penh, Cambodia, <sup>4</sup>Population Services International, Washington DC, MD, United States



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**AN ONLINE SURVEY OF MALARIA ON MOBILE AND MIGRANT POPULATION AMONG INDONESIAN MALARIA MANAGERS: MINERS**

Iqbal R. F. Elyazar<sup>1</sup>, **Karina Dian Lestari**<sup>1</sup>, Ahsyad Fahmi Abdullah<sup>1</sup>, Rosa Nora Lina<sup>1</sup>, Adhi A. Andrianto<sup>1</sup>, Lenny L. Ekawati<sup>2</sup>, Bimandra A. Djaafara<sup>3</sup>, Henry Surendra<sup>1</sup>, Sri Budi Fajariyani<sup>4</sup>, Hellen Dewi Prameswari<sup>4</sup>, Herdiana Herdiana<sup>5</sup>  
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**SAVING LIVES FOR CHILDREN UNDER FIVE YEARS THROUGH STRENGTHENING COMMUNITY TO HEALTH FACILITY LINKAGE; A CASE OF ICCM IMPLEMENTATION IN NORTHERN UGANDA**

**Geoffrey Beinomugisha**<sup>1</sup>, Francis Abwaimo<sup>1</sup>, Anthrny Nuwa<sup>1</sup>, James Tibenderana<sup>2</sup>  
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**CLINICAL PLASMODIUM FALCIPARUM DURING THE DRY SEASON IN AN ENDEMIC AREA OF MALI, TORODO.**

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**(ACMCI Abstract)**

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**NEW SURVEILLANCE STRATEGIES FOCUSED ON ELIMINATION IN SOUTHERN ANGOLA**

**Paulo Máquina**<sup>1</sup>, José Franco Martins<sup>2</sup>, Teresa Nobrega<sup>3</sup>, Ana Direito<sup>3</sup>, Sérgio Lopes<sup>4</sup>, Bongani Dlamini<sup>5</sup>  
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**MATHEMATICALLY MODELLING THE IMPACT OF CASE MANAGEMENT AT BORDER AREAS ON MALARIA TRANSMISSION IN THE MOZAMBIQUE, SOUTH AFRICA AND ESWATINI REGION**

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**Malaria - Epidemiology**

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**THE UGANDA HOUSING MODIFICATION STUDY - ASSOCIATION BETWEEN HOUSING CHARACTERISTICS AND MALARIA BURDEN IN A MODERATE TO HIGH TRANSMISSION SETTING IN UGANDA**

**Joaniter Nankabirwa**<sup>1</sup>, Samuel Gonahasa<sup>1</sup>, Agaba Katureebe<sup>1</sup>, Peter Mutungi<sup>1</sup>, Martha Nassali<sup>1</sup>, Moses R. Kanya<sup>1</sup>, Nelli Westercamp<sup>2</sup>  
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**IMPACTS OF ARMED CONFLICT FOR MALARIA PREVENTION AND ELIMINATION PROGRAMS IN ETHIOPIA: A TIME-SERIES ANALYSIS**

**Yalemzewod Assefa Gelaw**<sup>1</sup>, Yibeltal Assefa<sup>2</sup>, Dereje D. Birhanu<sup>3</sup>, Solomon Kassahun<sup>4</sup>, Abraham A. Berneh<sup>5</sup>, Belay Bezabih<sup>6</sup>, Gizachew Yismaw<sup>6</sup>, Mastewal Worku<sup>6</sup>, Hiwot Solomon<sup>7</sup>, Michael McPhail<sup>1</sup>, Daniel J. Weiss<sup>1</sup>, Peter W. Gething<sup>1</sup>  
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**SURVEILLANCE OF PLASMODIUM MALARIAE INFECTION AMONG INHABITANTS AND ANOPHELES MOSQUITOES IN RURAL AREAS OF SOUTHERN BENIN**

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**EVALUATING THE EFFECTIVENESS OF TRIMETHOPRIM-SULFAMETHOXAZOLE PROPHYLAXIS IN PREVENTING MALARIA IN PREGNANCY**

**Samyukta Rao**<sup>1</sup>, Ngina Nampota-Nkomba<sup>2</sup>, Oswald Nyirenda<sup>2</sup>, Rhoda Masonga<sup>2</sup>, Felix Mkandawire<sup>2</sup>, Rosita Asawa<sup>3</sup>, Andrea Buchwald<sup>3</sup>, Cristiana Cairo<sup>3</sup>, Miriam Laufer<sup>3</sup>  
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**SPATIOTEMPORAL CORRELATION OF MALARIA INTENSITY AND VECTOR ABUNDANCE IN A PRE-ELIMINATION SETTING OF CHOMA DISTRICT, SOUTHERN ZAMBIA**

**Mukuma Lubinda**<sup>1</sup>, Anne Martin<sup>2</sup>, Japhet Matoba<sup>1</sup>, Caison Sing'anaga<sup>1</sup>, Harry Hamapumbu<sup>1</sup>, Ben Katowa<sup>1</sup>, Michael Musonda<sup>1</sup>, Limonty Simubali<sup>1</sup>, Twig Mudenda<sup>1</sup>, Monicah Mburu<sup>1</sup>, Mary Gebhardt<sup>2</sup>, Edgar Simulundu<sup>1</sup>, Timothy Shields<sup>2</sup>, Douglas E. Norris<sup>2</sup>, William J. Moss<sup>2</sup>  
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**PLASMODIUM FALCIPARUM MALARIA IS ASSOCIATED WITH INCREASED KSHV SEROPOSITIVITY AND HIGHER KSHV ANTIBODY BREADTH AND MAGNITUDE: RESULTS OF A CASE-CONTROL STUDY FROM RURAL UGANDA**

**Angela Nalwoga**<sup>1</sup>, Katherine Sabourin<sup>1</sup>, Wendell Miley<sup>2</sup>, Conner Jackson<sup>1</sup>, Nazzarena Labo<sup>2</sup>, Joseph Mugisha<sup>3</sup>, Denise Whitby<sup>2</sup>, Rosemary Rochford<sup>1</sup>, Robert Newton<sup>3</sup>  
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Friday  
October 20

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### TACKLING ASYMPTOMATIC MALARIA INFECTION IN PREGNANCY AS INTERVENTION TO IMPROVE PREGNANCY OUTCOMES IN BURKINA FASO

**Christian Marc Tahita**<sup>1</sup>, Ousmane Traore<sup>1</sup>, Bérenger Kaboré<sup>1</sup>, Hamidou Ilboudo<sup>1</sup>, Toussaint Rouamba<sup>1</sup>, Adama Kazienga<sup>2</sup>, Hyacinthe Sanou<sup>3</sup>, Nadège Millogo<sup>1</sup>, Dieudonné Ouattara<sup>3</sup>, Hermann Sorgho<sup>1</sup>, Pedro Berzosa<sup>4</sup>, Halidou Tinto<sup>1</sup>

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### INSIGHTS ABOUT MALARIA BURDEN AND CARE IN MALARIA-ENDEMIC, INDIGENOUS COMMUNITIES UNDER THE COVID-19 PANDEMIC USING CONVERGENT-PARALLEL APPROACH

**Susan Cilene Paredes Fernandez**<sup>1</sup>, Luis Martín Rojas Muro<sup>2</sup>, Paloma Diab García<sup>3</sup>, Hilde Bastiaens<sup>3</sup>, Sybil Athierens<sup>3</sup>, Steven Abrams<sup>1</sup>, Jean-Pierre Van geertruyden<sup>1</sup>, Stella Chenet Carrasco<sup>4</sup>, Christopher Delgado-Ratto<sup>1</sup>

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### TEMPORALITY AND MODALITY OF FIRST HEALTH CARE SEEKING AMONG MALARIA PATIENTS IN THE REPUBLIC OF GUINEA

**Elhadj Marouf Diallo**<sup>1</sup>, Fatoumata Bintou Traore<sup>2</sup>, Bienvenu Salim Camara<sup>2</sup>, Abdourahamane Diallo<sup>3</sup>, Alioune Camara<sup>4</sup>, Laurent Gerbaud<sup>5</sup>

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### ANOPHELES MOSQUITO BITE EXPOSURE TESTING TO ASSESS THE IMPACT OF VECTOR CONTROL INTERVENTIONS IN THE COLOMBIAN PACIFIC REGION

**Sara Harris**<sup>1</sup>, Alyssa R. Schwinn<sup>1</sup>, Rebecca Levine<sup>2</sup>, Olayinka Olajiga<sup>1</sup>, Manuela Herrera-Varela<sup>3</sup>, Martha Liliana Ahumada<sup>4</sup>, Audrey Lenhart<sup>5</sup>, Berlin Londono-Renteria<sup>6</sup>

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### EPIDEMIOLOGIC RISK FACTORS TO URBAN MALARIA IN WESTERN AND COASTAL KENYA

**Caroline Ichura**<sup>1</sup>, Bryson Ndenga<sup>2</sup>, Francis Mutuku<sup>3</sup>, Gladys Agola<sup>4</sup>, Jael S. Amugongo<sup>3</sup>, Zainab Jembe<sup>3</sup>, Paul S. Mutuku<sup>3</sup>, Charles M. Nganga<sup>3</sup>, Mwangosho M. Mshahme<sup>5</sup>, Said L. Malumbo<sup>3</sup>, A. Desiree LaBeaud<sup>1</sup>

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### MAXIMIZING THE USE OF HUMAN POPULATION MOVEMENT DATA FOR MALARIA CONTROL AND ELIMINATION

**Greta Tam**<sup>1</sup>, Ipsita Sinha<sup>1</sup>, Kulchada Pongsoipetch<sup>1</sup>, Keobouphaphone Chindavongsa<sup>2</sup>, Mayfong Mayxay<sup>3</sup>, Sonexay Phalivong<sup>1</sup>, Elizabeth Ashley<sup>2</sup>, Benjamin Cowling<sup>4</sup>, Olivo Miotto<sup>1</sup>, Richard Maude<sup>1</sup>

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### POLICIES, KNOWLEDGE, ATTITUDES AND PRACTICES RELATED TO MALARIA, HELMINTHS AND SCHISTOSOMIASIS AMONG PREGNANT WOMEN IN GHANA: AN ETHNOGRAPHIC STUDY IN TWO GHANAIAI REGIONS

**Matilda MA Aberese-Ako**<sup>1</sup>, Gifty Ampofo<sup>1</sup>, Pascal Magnussen<sup>2</sup>, Harry Tagbor<sup>1</sup>

<sup>1</sup>University of Health and Allied Sciences, Ho, Ghana, <sup>2</sup>University of Copenhagen, Copenhagen, Denmark

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### INCREASING PATTERN OF MALARIA CASES IN LOW ENDEMIC DISTRICTS IN RWANDA

**Michee S. Kabera**<sup>1</sup>, Kaendi Munguti<sup>2</sup>, Aimable Mbituyumuremyi<sup>1</sup>, Noella Umulisa<sup>3</sup>, Jean Louis MANGARA<sup>1</sup>, Emmanuel Hakizimana<sup>1</sup>

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### THE ASSOCIATION BETWEEN MALARIA PARASITAEMIA, INTESTINAL PARASITE AND ANEMIA IN CHILDREN LESS THAN 6 MONTH IN SENEGAL: A CROSS SECTIONAL SURVEY

**Lelo Souleye**, Aly Gueye, Sylla Khadim, Cheikh Bintou Fall, Isack Akheneton Manga, Doudou Sow, Magatte Ndiaye, Jean Abdourahim Ndiaye, Oumar Gaye, Roger Clement Tine, Babacar Faye

UCAD, Dakar, Senegal

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### SEASONAL DYNAMICS OF COMPOSITION AND DENSITY OF CO-ENDEMIC *P. FALCIPARUM* & *P. VIVAX* IN ELIMINATION SETTING, SOUTH ETHIOPIA: IMPLICATION FOR ELIMINATION

**Eshetu Molla Belete**, Lina Alemayehu, Legesse Alamerie, Jimma Dinsa, Melat Abdo, Migbaru Keffale, Sinkesh Wolde Behaksra, Sisay Dugassa, Endalamaw Gadisa Belachew, Fitsum Girma Tadesse, Hassen Mamo

Armauer Hansen Research Institute, Addis Ababa, Ethiopia

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### ASSOCIATION BETWEEN ANAEMIA AND PLASMODIUM FALCIPARUM AND HELMINTH INFECTIONS AMONG CHILDREN AND YOUNG ADULTS LIVING IN RURAL AREAS OF GABON, CENTRAL AFRICA

Jean Ronald Edoa<sup>1</sup>, **Christian Lapue Chassem**<sup>1</sup>, Jeannot Fréjus Zinsou<sup>1</sup>, Yabo Josiane Honkpéhédji<sup>1</sup>, Romeo Adegbitè<sup>1</sup>, Stravensky TERENCE Boussougou-Sambe<sup>1</sup>, Tamirat Gebru Woldearegai<sup>2</sup>, Benjamin Mordmüller<sup>3</sup>, Ayóla Akim Adegniká<sup>1</sup>, Jean Claude Dejon-Agobé<sup>1</sup>

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**ASSESSMENT OF THE BURDEN AND DETERMINANTS OF MALARIA TRANSMISSION IN SELECTED URBAN SETTLEMENTS IN NIGERIA**Eniola Adetola Bamgboye<sup>1</sup>, Akintayo Ogunwale<sup>2</sup>, Olanjani Surakat<sup>3</sup>, Joshua O. Akinyemi<sup>2</sup>, Adeniyi Fagbamigbe<sup>2</sup>, Musa Bello<sup>4</sup>, Al-Mukhtar Adamu<sup>4</sup>, Monsuru Adeleke<sup>5</sup>, IkeOluwapo O. Ajayi<sup>2</sup>, Ifeoma Ozodiegwu<sup>1</sup><sup>1</sup>NorthWestern University, Chicago, IL, United States, <sup>2</sup>University of Ibadan, Ibadan, Nigeria, <sup>3</sup>Osun State University, Osogbo, Nigeria, <sup>4</sup>Bayero University, Kano, NigeriaRadboud University, Nijmegen, Netherlands, <sup>5</sup>School of Medicine University of California San Francisco, San Francisco, CA, United States, <sup>6</sup>National Institute of Allergy and Infectious Disease, Bethesda, MD, United States, <sup>7</sup>Mali International Center of Excellence in Research, Malaria Research and Training Centre (MRTC), University of Sciences Techniques and Technologies of Bamako, Bamako, Mali, Bamako, Mali

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**EVALUATING MALARIA PREVALENCE IN NON-HOMOGENEOUS FORMAL AND INFORMAL COMMUNITIES IN FREETOWN SIERRA LEONE: A MULTIPHASE CROSS SECTION SECTIONAL STUDY**Joseph Lewinski<sup>1</sup>, Abdul Koroma<sup>2</sup>, Hilton Matthews<sup>2</sup>, Akinola Shonde<sup>3</sup>, Claudia Smith<sup>2</sup>, Sulaiman Conteh<sup>4</sup>, Mohammed Samai<sup>4</sup><sup>1</sup>Catholic Relief Services, Baltimore, MD, United States, <sup>2</sup>Catholic Relief Services, Freetown, Sierra Leone, <sup>3</sup>Catholic Relief Services, Abuja, Nigeria, <sup>4</sup>College of Medicine and Allied Health Sciences, Freetown, Sierra Leone

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**PLACENTAL MALARIA AND BLOOD PRESSURE AT AGE FOUR YEARS: EVIDENCE FROM THE GHANA RANDOMIZED AIR POLLUTION AND HEALTH STUDY**Seyram Kaali<sup>1</sup>, Darby Jack<sup>2</sup>, Mohammed Nuhu Mujtaba<sup>1</sup>, Steven N. Chillrud<sup>3</sup>, Musa Osei<sup>1</sup>, Theresa Tawiah<sup>1</sup>, Stephaney Gyaase<sup>1</sup>, Prince Agyapong Darko<sup>1</sup>, Blair J. Wylie<sup>4</sup>, Kwaku Poku Asante<sup>1</sup>, Alison G. Lee<sup>5</sup><sup>1</sup>Kintampo Health Research Centre, Kintampo, Ghana, <sup>2</sup>Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY, United States, <sup>3</sup>Lamont-Doherty Earth Observatory of Columbia University, New York, NY, United States, <sup>4</sup>Department of Obstetrics and Gynecology Research, Columbia University Irving Medical Center, New York, NY, United States, <sup>5</sup>Division of Pulmonary, Critical Care and Sleep Medicine, Icahn School of Medicine at Mount Sinai, New York, NY, United States**Malaria - Genetics, Genomics and Evolution**

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**HIGH-THROUGHPUT GENOTYPING OF *PLASMODIUM VIVAX* IN THE PERUVIAN AMAZON VIA MOLECULAR INVERSION PROBES**Zachary R. Popkin-Hall<sup>1</sup>, Karamoko Niaré<sup>2</sup>, Rebecca Crudale<sup>2</sup>, Alfred Simkin<sup>2</sup>, Abebe A. Fola<sup>2</sup>, David J. Giesbrecht<sup>2</sup>, Jeffrey A. Bailey<sup>2</sup>, Jonathan J. Juliano<sup>1</sup>, Hugo O. Valdivia<sup>3</sup><sup>1</sup>University of North Carolina, Chapel Hill, NC, United States, <sup>2</sup>Brown University, Providence, RI, United States, <sup>3</sup>NAMRU-6, Lima, Peru

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**EVALUATION OF THE SEASONALITY OF MALARIA TRANSMISSION THROUGH ROUTINE DATA FROM HEALTH FACILITIES IN BURKINA FASO**Alassane Haro<sup>1</sup>, Issaka Zongo<sup>1</sup>, Abdoul Aziz Sienou<sup>1</sup>, Moussa Zongo<sup>2</sup>, Yves Daniel Compaoré<sup>1</sup>, Paul Snell<sup>3</sup>, Jean-Bosco Ouedraogo<sup>2</sup><sup>1</sup>Institut de Recherche en Sciences de la Santé, Bobo-Dioulasso, Burkina Faso, <sup>2</sup>Institut des Sciences et Techniques, Bobo-Dioulasso, Burkina Faso, <sup>3</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom

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***PLASMODIUM VIVAX* SHOWS HIGH GENETIC DIVERSITY AND RAPID LOCAL ADAPTATION IN A REMOTE COMMUNITY FROM THE PERUVIAN AMAZON REGION**Roberson Ramirez<sup>1</sup>, Katherine Torres<sup>2</sup>, Pamela Rodriguez<sup>1</sup>, Alejandro Llanos-Cuentas<sup>3</sup>, Joseph Vinetz<sup>4</sup>, Dionicia Gamboa<sup>5</sup><sup>1</sup>Laboratorio ICEMR-Amazonia y Enfermedades Infecciosas Emergentes, Laboratorios de Investigación y Desarrollo, Facultad de Ciencias y Filosofía, Universidad Peruana Cayetano Heredia, Lima, Perú., Lima, Perú, <sup>2</sup>Laboratorio ICEMR-Amazonia y Enfermedades Infecciosas Emergentes, Laboratorios de Investigación y Desarrollo, Facultad de Ciencias y Filosofía, Universidad Peruana Cayetano Heredia, Lima, Perú. and Instituto de Medicina Tropical Alexander von Humboldt, Lima, Perú, <sup>3</sup>Instituto de Medicina Tropical Alexander von Humboldt and Universidad Peruana Cayetano Heredia, Lima, Perú, <sup>4</sup>Section of Infectious Diseases, Department of Internal Medicine, Yale School of Medicine, New Haven, CT, USA and Laboratorio ICEMR-Amazonia y Enfermedades Infecciosas Emergentes, Laboratorios de Investigación y Desarrollo, Facultad de Ciencias y Filosofía, USA, CT, United States, <sup>5</sup>Laboratorio ICEMR-Amazonia y Enfermedades Infecciosas Emergentes, Laboratorios de Investigación y Desarrollo, Facultad de Ciencias y Filosofía, Universidad Peruana Cayetano Heredia, Lima, Perú and Instituto de Medicina Tropical Alexander von Humboldt, Lima, Perú

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**MEASURING IMPACT OF SEASONAL MALARIA CHEMOPREVENTION ON MALARIA CASE DISTRIBUTION FROM ROUTINE DATA SOURCES COMPARED TO MODELLED PREDICTIONS IN BURKINA FASO**Monica De Cola<sup>1</sup>, Benoit Sawadogo<sup>2</sup>, Cheick Campaore<sup>2</sup>, Sidzabda Kompaore<sup>3</sup>, Christian Rassi<sup>4</sup>, Patrick Walker<sup>1</sup>, Lucy Okell<sup>1</sup><sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>Malaria Consortium, Ouagadougou, Burkina Faso, <sup>3</sup>Ministry of Health; Permanent Secretary for Malaria Elimination, Ouagadougou, Burkina Faso, <sup>4</sup>Malaria Consortium, London, United Kingdom

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**MOLECULAR SCREENING SUGGESTS ANTAGONISM BETWEEN PARASITEMIA WITH *PLASMODIUM FALCIPARUM* AND OVALE IN TANZANIA**Kelly B. Carey-Ewend<sup>1</sup>, Meredith Muller<sup>1</sup>, Editruda Peter<sup>2</sup>, Melic Odas<sup>2</sup>, Srijana Chhetri<sup>1</sup>, Christopher Basham<sup>1</sup>, Jonathan J. Juliano<sup>1</sup>, Billy Ngasala<sup>3</sup>, Jessica Lin<sup>1</sup><sup>1</sup>University of North Carolina - Chapel Hill, Chapel Hill, NC, United States, <sup>2</sup>Muhimbili University of Health and Allied Sciences, Bagamoyo, United Republic of Tanzania, <sup>3</sup>Muhimbili University of Health and Allied Sciences, Dar es Salaam, United Republic of Tanzania

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**GENETIC ANALYSIS REVEALED HIGHLY RELATED LOCAL TRANSMISSION OF *PLASMODIUM FALCIPARUM* IN THE ISLAND OF SÃO TOMÉ**Ying-An Angie Angie Chen<sup>1</sup>, Arlindo Vicente Carvalho<sup>2</sup>, Peng-Yin Ng<sup>3</sup>, Ju-Hsuan Huang<sup>3</sup>, Yu-Wen Huang<sup>3</sup>, Aaron Elliot<sup>4</sup>, LienFen Tseng<sup>5</sup>, KunHsien Tsai<sup>6</sup>, Bryan Greenhouse<sup>4</sup>, Hsiao-Han Chang<sup>1</sup><sup>1</sup>Institute of Bioinformatics and Structural Biology, College of Life Sciences and Medicine, National Tsing Hua University, Hsinchu, Taiwan, <sup>2</sup>Institute of Health Sciences, University of Sao Tome and Principe, Sao Tome, Sao Tome and Principe, <sup>3</sup>College of Life Sciences and Medicine, National Tsing Hua University, Hsinchu, Taiwan, <sup>4</sup>EPPICenter Research Program, Division of HIV, Infectious Diseases and Global Medicine, Department of Medicine, University of California, San Francisco, San Francisco, CA, United States, <sup>5</sup>Taiwan Anti-Malarial Advisory Mission, Sao Tome, Sao Tome and Principe, <sup>6</sup>Institute of Environmental and Occupational Health Sciences, College of Public Health, National Taiwan University, Taipei, Taiwan

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**INTRA-HOST CLONAL DYNAMICS SHAPE CHRONIC *PLASMODIUM FALCIPARUM* INFECTIONS THROUGH THE DRY SEASON**Manuela Carrasquilla<sup>1</sup>, Pablo Cárdenas<sup>2</sup>, Carolina M. Andrade<sup>3</sup>, Jessica Briggs<sup>4</sup>, Christina Ntalla<sup>1</sup>, Tanto Situmorang<sup>1</sup>, Martin Kampmann<sup>1</sup>, Shanping Li<sup>5</sup>, Safiatou Doumbo<sup>6</sup>, Didier Doumtabe<sup>6</sup>, Aissata Ongoiba<sup>6</sup>, Kassoum Kayentao<sup>6</sup>, Moussa Niangaly<sup>1</sup>, Boubacar Traore<sup>6</sup>, Bryan Greenhouse<sup>4</sup>, Silvia Portugal<sup>1</sup><sup>1</sup>Max Planck Institute for Infection Biology, Berlin, Germany, <sup>2</sup>Department of Biomedical Engineering, MIT, Cambridge, MA, United States, <sup>3</sup>Institute for Molecular Life Sciences

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### GENOME STRUCTURE OF PFHRP2/3-DELETED *PLASMODIUM FALCIPARUM*: DELETION BREAK-POINTS AND CONSEQUENCES OF THE DELETION

Irene Molina-de la Fuente<sup>1</sup>, Jody Phelan<sup>2</sup>, Debbie Nolder<sup>3</sup>, Lindsay Stewart<sup>2</sup>, Donelly A. van Schalkwyk<sup>2</sup>, Susana Campino<sup>2</sup>, Colin J. Sutherland<sup>2</sup>, Khalid B. Beshir<sup>2</sup>  
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### DISTRIBUTION OF *PLASMODIUM FALCIPARUM* APICAL MEMBRANE ANTIGEN 1 CLUSTER ONE LOOP HAPLOTYPES AND THEIR ASSOCIATION WITH MALARIA SYMPTOMS IN BANDIAGARA, MALI

Amed Ouattara<sup>1</sup>, Matthew Adams<sup>1</sup>, Amadou Niangaly<sup>2</sup>, Drissa Coulibaly<sup>2</sup>, Abdoulaye K. Kone<sup>2</sup>, Karim Traore<sup>2</sup>, Matthew B. Laurens<sup>1</sup>, Yacouba Cissoko<sup>2</sup>, Boureima Kouriba<sup>2</sup>, Dapa A. Diallo<sup>2</sup>, Ogobara K. Doumbo<sup>2</sup>, Christopher V. Plowe<sup>1</sup>, Abdoulaye Djimde<sup>2</sup>, Mahamadou A. Thera<sup>2</sup>  
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### A NOVEL PROBABILISTICALLY MODEL BASED ON GENETIC DATA FOR ESTIMATING *PLASMODIUM VIVAX* RELAPSES AFTER RADICAL CURE TREATMENT

Ivonne Melissa Ramirez<sup>1</sup>, Alessandro Grosso<sup>1</sup>, Steven Abrams<sup>1</sup>, Verónica E. Soto-Calle<sup>2</sup>, Annette Erhart<sup>3</sup>, Alejandro Llanos-Cuentas<sup>4</sup>, Umberto D'Alessandro<sup>3</sup>, Anna Rosanas-Urgell<sup>5</sup>, Jean-Pierre Van geertruyden<sup>1</sup>, Dionicia Gamboa<sup>6</sup>, Christopher Delgado-Ratto<sup>1</sup>  
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### MOLECULAR SURVEILLANCE OF MALARIA PARASITES IN AN INDIGENOUS COMMUNITY IN THE PERUVIAN AMAZON

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### COMPARISON OF MOLECULAR SURVEILLANCE METHODS TO ASSESS CHANGES IN THE POPULATION GENETICS OF *PLASMODIUM FALCIPARUM* IN HIGH TRANSMISSION

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### DIFFERENTIAL REGULATION OF PFMDR2 AND PFK13 TRANSCRIPTS IN KENYAN CHILDREN WITH SEVERE MALARIAL ANEMIA: POTENTIAL IMPACT ON ARTEMISININ-BASED COMBINATION THERAPY RESPONSES

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### SPATIAL CONNECTIVITY, IMPORTATION AND TRANSMISSION FLOW OF *PLASMODIUM FALCIPARUM* IN MOZAMBIQUE USING MICROHAPLOTYPE DATA

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### EXPANDING THE GLOBAL WHOLE GENOME SEQUENCE DATASET OF *PLASMODIUM FALCIPARUM*

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### PREVALENCE OF CYP2C8 POLYMORPHISM IN CHILDREN AGED 3 TO 59 MONTHS IN BOBO DILOULASSO, BURKINA FASO

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### INFERRING FORCE OF INFECTION FROM MOLECULAR-BASED ESTIMATES OF MULTIPLICITY OF INFECTION IN *FALCIPARUM* MALARIA WITH AN APPLICATION TO INTERVENTION IN NORTHERN GHANA

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**POPULATION DYNAMICS AND GENOTYPIC VARIATION OF *PLASMODIUM VIVAX* IN A LOW-ENDEMICITY AREA OF SOUTH AMERICA BETWEEN 2012 AND 2020**Camila Eduarda Cabezas<sup>1</sup>, Eileen Velez-Alvarez<sup>1</sup>, Bibiana Salazar<sup>1</sup>, Cynthia Gordon<sup>1</sup>, Manuel Calvopiña<sup>2</sup>, Fabian E. Saenz<sup>1</sup><sup>1</sup>Pontificia Universidad Católica del Ecuador, Quito, Ecuador; <sup>2</sup>Universidad de las Américas, Quito, Ecuador

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**GENETIC CONNECTIVITY AND TRANSMISSION METRICS OF *PLASMODIUM FALCIPARUM* IN ZAMBEZI REGION, NORTHERN NAMIBIA**Jennifer L. Smith<sup>1</sup>, Andres Aranda-Diaz<sup>2</sup>, Maxwell Murphy<sup>2</sup>, Amy Wesolowski<sup>2</sup>, Henry Ntuku<sup>1</sup>, Adam Bennett<sup>1</sup>, Roly Gosling<sup>1</sup>, Davis Mumbengegwi<sup>2</sup>, Bryan Greenhouse<sup>2</sup><sup>1</sup>Malaria Elimination Initiative, University of California San Francisco, San Francisco, CA, United States; <sup>2</sup>School of Medicine, University of California San Francisco, San Francisco, CA, United States; <sup>3</sup>Division of Biostatistics, University of California, Berkeley, Berkeley, CA, United States; <sup>4</sup>Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States; <sup>5</sup>Centre for Research Services, University of Namibia, Windhoek, Namibia

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**BENCHMARKING IDENTITY-BY-DESCENT CALLERS FOR *PLASMODIUM FALCIPARUM***Bing Guo<sup>1</sup>, Michele Spring<sup>2</sup>, Mariusz Wojnarski<sup>2</sup>, Brian A. Vesely<sup>2</sup>, Joana Carneiro Da Silva<sup>1</sup>, Norman C. Waters<sup>2</sup>, Shannon Takala-Harrison<sup>3</sup>, Timothy D. O'Connor<sup>1</sup><sup>1</sup>Institute for Genome Sciences, University of Maryland School of Medicine, Baltimore, MD, United States; <sup>2</sup>Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand; <sup>3</sup>Center for Vaccine Development and Global Health, University of Maryland School of Medicine, Baltimore, MD, United States

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**THE RISK OF VACCINE GENOTYPE REPLACEMENT FOR *PLASMODIUM FALCIPARUM***Thiery Masserey, Tamsin Lee, Aurélien Cavélan, Josephine Malinga, Melissa Penny  
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**INFLAMMATORY MARKERS ASSOCIATED WITH IN-HOSPITAL MORTALITY IN CHILDREN WITH SEVERE MALARIA**Grace Turyasingura<sup>1</sup>, Ruth Namazzi<sup>2</sup>, Kagan A. Mellencamp<sup>1</sup>, Dibyadyuti Datta<sup>1</sup>, Robert O. Opoka<sup>2</sup>, Chandry C. John<sup>1</sup>, Andrea L. Conroy<sup>1</sup><sup>1</sup>Indiana University School of Medicine, Indianapolis, IN, United States; <sup>2</sup>Makerere University, Kampala, Uganda

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**LA TROMBOCITOPENIA GRAVE SE ASOCIA CON AUTOANTICUERPOS CONTRA LA FOSFATIDILSERINA EN LA INFECCIÓN POR *PLASMODIUM VIVAX***Marian Marcela Muskus Montiel<sup>1</sup>, Maria Camila Velasco Pareja<sup>1</sup>, Catalina Tovar<sup>2</sup>, Ana Rodriguez<sup>3</sup>, Maria Fernanda Yasnot<sup>1</sup><sup>1</sup>Universidad de Córdoba, Montería, Colombia; <sup>2</sup>Universidad del Sinu, Montería, Colombia; <sup>3</sup>New York University School of Medicine, New York, NY, United States

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**MULTI-STAGE HUMORAL IMMUNITY TO *P. FALCIPARUM* MALARIA IN A LONGITUDINAL COHORT OF CHILDREN**Linda Reiling<sup>1</sup>, Jo-Anne A. Chan<sup>1</sup>, Gaoqian Feng<sup>1</sup>, Liriyé Kurtovic<sup>1</sup>, Michelle J. Boyle<sup>1</sup>, Eizo Takashima<sup>2</sup>, Takafumi Tsuboi<sup>2</sup>, Jack S. Richards<sup>1</sup>, Livingstone Tavul<sup>3</sup>, Ivo Mueller<sup>1</sup>, James G. Beeson<sup>1</sup><sup>1</sup>Burnet Institute, Melbourne, Australia; <sup>2</sup>Ehime University, Matsuyama, Japan; <sup>3</sup>PNG Institute of Medical Research, Madang, Papua New Guinea

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**ASSOCIATION OF NOVEL IGG3 ALLOTYPE WITH MALARIA IN CHILDREN FROM SEPIK REGION OF PAPUA NEW GUINEA**Maria Saeed<sup>1</sup>, Elizabeth Aitken<sup>1</sup>, Myo Naung<sup>2</sup>, Caitlin Bourke<sup>2</sup>, Rhea Longley<sup>2</sup>, Amy Chung<sup>1</sup>, Timon Damelang<sup>1</sup>, Benson Kiniboro<sup>2</sup>, Ivo Mueller<sup>2</sup>, Stephen Rogerson<sup>1</sup><sup>1</sup>The Peter Doherty Institute for Infection and Immunity, University of Melbourne, Melbourne, Australia; <sup>2</sup>Walter Eliza Hall Medical Institute, Melbourne, Australia; <sup>3</sup>Papua New Guinea Institute of Medical Research, Maprik, Australia

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**A CONSERVED EPI TOPE IN VAR2CSA IS TARGETED BY CROSS-REACTIVE ANTIBODIES ORIGINATING FROM *PLASMODIUM VIVAX* DUFFY BINDING PROTEIN**Uwa Iyamu<sup>1</sup>, Daniel Ferrer Vinals<sup>1</sup>, Bernard Torniyagah<sup>1</sup>, Eliana Arango<sup>2</sup>, Bart Hazes<sup>1</sup>, Simranjit Grewal<sup>1</sup>, Kimberly Martin<sup>1</sup>, Amanda Maestre<sup>2</sup>, Rakesh Bhat<sup>1</sup>, Trixie Rae Adra<sup>1</sup>, Michael Overduin<sup>1</sup>, Stephanie K. Yanow<sup>1</sup><sup>1</sup>University of Alberta, Edmonton, AB, Canada; <sup>2</sup>Universidad de Antioquia, Medellín, Colombia

(ACMCIP Abstract)

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**THE PRESENCE OF DUFFY BINDING PROTEIN II PEPTIDES-SPECIFIC CD4+ T CELL RESPONSES IN *PLASMODIUM VIVAX* PATIENTS**Pongsakorn Thawornpan<sup>1</sup>, Chayapat Malee<sup>1</sup>, Piyawan Kochayoo<sup>1</sup>, Kittikorn Wangriatisak<sup>1</sup>, Chaniya Leepiyasakulchai<sup>1</sup>, Francis B Ntumngia<sup>2</sup>, Sai Lata De<sup>2</sup>, John H Adams<sup>2</sup>, Patchanee Chootong<sup>1</sup><sup>1</sup>Faculty of Medical Technology, Mahidol University, Nakhon Pathom, Thailand; <sup>2</sup>Center for Global Health and Infectious Diseases Research and USF Genomics Program, College of Public Health, University of South Florida, Tampa, FL, United States

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**DYNAMICS OF NEUTROPHILS ACTIVITIES ACCORDING TO MALARIA INFECTION STATUS**Bérenger Kabore<sup>1</sup>, Marc Christian Tahita<sup>1</sup>, Salou Diallo<sup>1</sup>, Annelies Post<sup>2</sup>, Ousmane Traore<sup>1</sup>, Palpougouni Lompo<sup>1</sup>, Joel D. Boghini<sup>1</sup>, Quirijn de Mast<sup>2</sup>, Andre J.A.M. van der Ven<sup>2</sup>, Halidou Tinto<sup>1</sup><sup>1</sup>IRSS/Clinical Research Unit of Nanoro, NANORO, Burkina Faso; <sup>2</sup>Department of Internal Medicine/Radboud University Medical Center, Nijmegen, Netherlands

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**BRAIN SEQUESTERED M1-LIKE MACROPHAGES EXPRESS ABUNDANT LEVELS OF CD163 DURING EXPERIMENTAL CEREBRAL MALARIA IN MICE**Sidharth Srivastava, Victoria Majam, Hong Zheng, Sanjai Kumar, Miranda S. Oakley  
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### IMPACT OF *PLASMODIUM FALCIPARUM* MALARIA ON SARS-COV-2 ANTIBODY RESPONSES IN KENYA AND BURKINA FASO (MALCOV)

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### LOCAL GUT MICROBIOTA TOLEROGENTIC HOMEOSTASIS NEGATIVELY IMPACTS ANTI-*PLASMODIUM* SYSTEMIC IMMUNITY

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(ACMCIP Abstract)

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### ROLE OF IGE RESPONSE AGAINST MALARIA INFECTION IN CHILDREN UNDER FIVE YEAR OLD, LIVING IN MALARIA ENDEMIC RURAL AREA OF BURKINA FASO

**Mariama K. Cherif<sup>1</sup>**, Issa Nebie<sup>2</sup>, Alphonse Ouedraogo<sup>2</sup>, Alfred Tiono Tiono<sup>2</sup>, Marita Troye-Blomberg<sup>3</sup>, Sodiomon B. Sirima<sup>2</sup>

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(ACMCIP Abstract)

## Malaria - Pathogenesis

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### COMPARATIVE ANALYSIS OF *PLASMODIUM FALCIPARUM* TRANSCRIPTOME PROFILES REVEALS UPREGULATION OF HEAT SHOCK PROTEINS AND KINASES IN PEDIATRIC SEVERE MALARIAL ANEMIA

**Sarah Kituyi<sup>1</sup>**, Qiuying Cheng<sup>2</sup>, Clinton O. Onyango<sup>3</sup>, Ivy Hurwitz<sup>2</sup>, Beauty Kolade<sup>4</sup>, Philip D. Seidenberg<sup>5</sup>, Kristan A. Schneider<sup>5</sup>, Christophe G. Lamber<sup>2</sup>, Benjamin H. McMahon<sup>4</sup>, Ananias A. Escalante<sup>2</sup>, Samuel B. Anyona<sup>3</sup>, Collins Ouma<sup>3</sup>, Douglas J. Perkins<sup>2</sup>

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### PERIPHERAL BLOOD TRANSCRIPTOME PREDICTS ALTERED UBIQUITINATION PROCESS IN KENYAN CHILDREN WITH SEVERE MALARIAL ANEMIA

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### DIFFERENTIAL ANTIBODY RESPONSES TO DUAL-BINDING PFEMP1 ANTIGENS IN MALIAN CHILDREN WITH SEVERE MALARIA USING A CUSTOM PROTEIN MICROARRAY

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### ASSOCIATION BETWEEN THE GUT MICROBIOME AND MALARIA INCIDENCE IN INFANTS LIVING IN MALAWI

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### DEFINING THE *PLASMODIUM* PIPECOLIC ACID PATHWAY AND ROLE IN CEREBRAL MALARIA

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### MALARIA - INTESTINAL PARASITES COINFECTION AMONG CHILDREN IN A LYMPHATIC FILARIASIS ENDEMIC REGION OF GHANA

**Amma A. Larbi<sup>1</sup>**, Rosemond Mawuenyega<sup>1</sup>, Emmanuel Amewu<sup>1</sup>, Stephen Opoku<sup>1</sup>, Solomon Wireko<sup>2</sup>, Alexander Kwarteng<sup>1</sup>

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### UNRAVELLING VAR COMPLEXITY: RELATIONSHIP BETWEEN DBLA TYPES AND VAR GENES IN *PLASMODIUM FALCIPARUM*

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**TRANSCRIPTOME ANALYSIS OF BLOOD-STAGE *PLASMODIUM FALCIPARUM* REVEALS UP-REGULATED PFHSP70 AND HISTONE TRANSCRIPTS IN SEVERE MALARIAL ANEMIA**Clinton Onyango<sup>1</sup>, Qiuying Cheng<sup>2</sup>, Samuel B. Anyona<sup>1</sup>, Ivy Hurwitz<sup>2</sup>, Sarah Kituyi<sup>3</sup>, Evans Raballah<sup>4</sup>, Beauty Kolade<sup>5</sup>, Philip D. Seidenberg<sup>6</sup>, Kristan Schneider<sup>7</sup>, Collins Ouma<sup>1</sup>, Ananias Escalante<sup>8</sup>, Benjamin McMahon<sup>5</sup>, Douglas J. Perkins<sup>2</sup><sup>1</sup>Maseno University, Maseno, Kenya, <sup>2</sup>University of New Mexico HSC, Center for Global Health, Albuquerque, NM, United States, <sup>3</sup>University of Embu, Embu, Kenya, <sup>4</sup>Masinde Muliro University of Science and Technology, Kakamega, Kenya, <sup>5</sup>Los Alamos National Laboratory, Los Alamos, NM, United States, <sup>6</sup>University of New Mexico HSC, Dept of Emergency Medicine, Albuquerque, NM, United States, <sup>7</sup>University of Applied Sciences Mittweida, Mittweida, Germany, <sup>8</sup>Temple University, Philadelphia, PA, United States

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**SINGLE CELL SEQUENCING OF BRAIN SEQUESTERED CD8<sup>+</sup> T CELLS DURING EXPERIMENTAL CEREBRAL MALARIA**

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**IMPORTANCE OF INSULIN-LIKE GROWTH FACTOR : IGF-1 IN *PLASMODIUM VIVAX* MALARIA**

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**NON-FALCIPARUM SPECIES INFECTIONS AND MALARIA SEVERITY: PRELIMINARY FINDINGS IN HIGH TRANSMISSION SETTINGS IN SENEGAL**Aissatou Diagne<sup>1</sup>, Babacar Souleymane Samba<sup>1</sup>, Folly Mawulolo Gaba<sup>2</sup>, Ousmane Sadio<sup>1</sup>, Ibrahima Sarr<sup>1</sup>, Arona Sabene Diatta<sup>1</sup>, Serigne Ousmane Mbacké Diaw<sup>1</sup>, Héléne Ataume Mawoungue Diatta<sup>1</sup>, Babacar Diouf<sup>1</sup>, Ines Vigan-Womas<sup>1</sup>, Babacar Mbengue<sup>2</sup>, Makhtar Niang<sup>1</sup><sup>1</sup>Institut Pasteur de Dakar, Dakar, Senegal, <sup>2</sup>Université Cheikh Anta Diop de Dakar, Service d'Immunologie FMPO, Dakar, Senegal**Malaria - Prevention**

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**ACCEPTABILITY OF TECHNOLOGICAL INNOVATION IN MALARIA VECTOR CONTROL IN MALI: THE CASE OF ATTRACTIVE TARGETED SUGAR BAIT IN THE HEALTH DISTRICT OF KATI MALI**

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**EFFECT OF SEASONAL MALARIA CHEMOPREVENTION ON ASEXUAL *PLASMODIUM FALCIPARUM* INFECTION IN CHILDREN AGED 5 TO 14 YEARS IN DANGASSA, MALI**Ibrahim Sanogo<sup>1</sup>, Drissa Konate<sup>2</sup>, Sory Ibrahima Diawara<sup>2</sup>, Bourama Keita<sup>2</sup>, Djeneba Dabita<sup>1</sup>, Seydou Doumbia<sup>1</sup>, Mahamadou Diakite<sup>1</sup><sup>1</sup>University Clinical Research Center, Bamako, Mali, <sup>2</sup>International Center for Excellence in Research, Faculty of Medicine and Odontostomatology, University of Sciences, Techniques and Technologies of Bamako, Bamako, Mali

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**FACTORS AFFECTING PREGNANT WOMEN'S ADHERENCE TO INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN THE NANORO HEALTH DISTRICT**Kadija Ouedraogo<sup>1</sup>, Marc Christian Tahita<sup>2</sup>, Bérneger Kaboré<sup>2</sup>, Hyacinthe Sanou<sup>1</sup>, Toussaint Rouamba<sup>2</sup>, Adélaïde Compaoré<sup>1</sup>, Paul Sondo<sup>3</sup>, Ilboudo Hamidou<sup>2</sup>, Karim Derra<sup>2</sup>, Macaire Nana<sup>4</sup>, Léa Paré<sup>5</sup>, Halidou Tinto<sup>2</sup><sup>1</sup>Clinical Research Unit of Nanoro, OUAGADOUGOU, Burkina Faso, <sup>2</sup>Clinical Research Unit of Nanoro, Institut de Recherche en Science de la Santé/Direction Régionale du Centre-Ouest, OUAGADOUGOU, Burkina Faso, <sup>3</sup>Clinical Research Unit of Nanoro, Institut de Recherche en Science de la Santé/Direction Régionale du Centre Ouest, OUAGADOUGOU, Burkina Faso, <sup>4</sup>District sanitaire de Nanoro, OUAGADOUGOU, Burkina Faso, <sup>5</sup>Institut de Recherche en Sciences de la Santé-Direction Régionale de l'Ouest, Bobo Dioulasso, Burkina Faso

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**LARGER FAMILIES ARE LESS LIKELY TO ACHIEVE UNIVERSAL LONG-LASTING INSECTICIDAL NETS COVERAGE IN ETHIOPIA**Misganu Endriyas Tantu<sup>1</sup>, Tarekegn Solomon<sup>1</sup>, Taye Gari<sup>1</sup>, Teka Samuel<sup>1</sup>, Bernt Lindtjorn<sup>2</sup><sup>1</sup>Hawassa University, Hawassa, Ethiopia, <sup>2</sup>Centre for International Health, University of Bergen, Bergen, Norway

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**CAREGIVER KNOWLEDGE AND CONFIDENCE IN SMC EFFECTIVENESS IN NIGERIA**

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**UTILIZATION OF LONG-LASTING INSECTICIDAL NETS AT HOUSEHOLD AND INDIVIDUAL LEVELS IN SIDAMA REGION, SOUTHERN ETHIOPIA**Tekla Samuel Debeko<sup>1</sup>, Tarekegn Solomon Shanka<sup>1</sup>, Taye Gari Ayana<sup>1</sup>, Misganu Endriyas Tantu<sup>1</sup>, Bernt Lindtjorn<sup>2</sup><sup>1</sup>Hawassa University, Hawassa, Ethiopia, <sup>2</sup>Centre for International Health, University of Bergen, Bergen, Norway

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**IMPACT OF SCALING UP SEASONAL MALARIA CHEMOPREVENTION ON COVERAGE AND QUALITY OF IMPLEMENTATION IN KARAMOJA REGION, UGANDA**Musa Odongo<sup>1</sup>, Anthony Nuwa<sup>1</sup>, Chucks Nnaji<sup>2</sup>, Tonny Kyagulanyi<sup>1</sup>, David Salandini Odong<sup>1</sup>, Jane Nabakooza<sup>3</sup>, Richard Kajubi<sup>1</sup>, Maureen Nakirunda<sup>1</sup>, Damian Rutazaana<sup>3</sup>, Denis Rubahika<sup>3</sup>, Godfrey Magumba<sup>1</sup>, Jimmy Opigo<sup>3</sup><sup>1</sup>Malaria Consortium, Kampala, Uganda, <sup>2</sup>Malaria Consortium, London, United Kingdom, <sup>3</sup>Ministry of Health, Kampala, Uganda

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**STAKEHOLDER PERSPECTIVES ON INCORPORATING A NEW VECTOR CONTROL TOOL INTO THE KENYA NATIONAL MALARIA VECTOR CONTROL POLICY**Jane Klein A. Ikapesi<sup>1</sup>, Prisca A. Oria<sup>1</sup>, Lucy H. Baker<sup>2</sup>, Julius I. Odero<sup>1</sup>, Sheila Ekodiri<sup>1</sup>, Moureen Ekisa<sup>1</sup>, Steven A. Harvey<sup>2</sup>, Eric Ochomo<sup>1</sup>, April Monroe<sup>3</sup><sup>1</sup>Kenya Medical Research Institute, Kisumu, Kenya, <sup>2</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>3</sup>Johns Hopkins Center for Communication Programs, Baltimore, MD, United States

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### FACTORS ASSOCIATED WITH INSECTICIDE TREATED BED NET ACCESS AND USE IN SUSSUNDENGA, MOZAMBIQUE

Kelly M. Searle<sup>1</sup>, Keeley Morris<sup>1</sup>, Dominique E. Earland<sup>1</sup>, Albino B. Francisco<sup>2</sup>, Vali Muhiro<sup>3</sup>, João L. Ferrão<sup>4</sup>

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### PREDICTING MALARIA INFECTION AND ANEMIA IN PREGNANCY AT FIRST ANTENATAL CARE ATTENDANCE

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### IMPACT OF INDOOR RESIDUAL SPRAYING AT THE END OF THE RAINY SEASON IN A HOLOENDEMIC MALARIA TRANSMISSION SETTING IN NORTHERN ZAMBIA: A DEMONSTRATION PROJECT

Anne Martin<sup>1</sup>, Mike Chaponda<sup>2</sup>, Mbanga Muleba<sup>2</sup>, James Sichivula Lupiya<sup>2</sup>, Mary Gebhardt<sup>1</sup>, Sophie Bérubé<sup>1</sup>, Timothy Shields<sup>1</sup>, Amy Wesolowski<sup>1</sup>, Tamaki Kobiyashi<sup>1</sup>, Douglas Norris<sup>1</sup>, Daniel E. Impoinvil<sup>3</sup>, Nduka Iwuchukwu<sup>4</sup>, Gerald Chongo<sup>5</sup>, Emmanuel Kooma<sup>6</sup>, Paul Psychas<sup>7</sup>, Matthew Ippolito<sup>8</sup>, William J. Moss<sup>1</sup>

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### FREE-LISTING OF MOSQUITO CONTROL STRATEGIES IN BUSIA COUNTY, WESTERN KENYA

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### FEASIBILITY AND ACCEPTABILITY OF GROUP ANTENATAL CARE FOR MATERNAL HEALTH CARE PROVIDERS AND SUPERVISORS IN RURAL HEALTH CENTERS IN BENIN

Kady Maiga<sup>1</sup>, Julie N. De Carvalho<sup>1</sup>, Faustin Onikpo<sup>2</sup>, Courtney Emerson<sup>3</sup>, Mandizatou Alao<sup>2</sup>, Fifamè Aubierge Eudoxie Kpatinvoh<sup>2</sup>, Esther Firmine Cadja Dodo<sup>2</sup>, Julie G. Buekens<sup>1</sup>, Maurille Max Noudeviwa<sup>2</sup>, Odette Alihonou Kouassiba<sup>2</sup>, Audrey Semevo Eunice Amoussou<sup>2</sup>, Maria H.E. Legonou Gorette<sup>2</sup>, Cyriaque D. Affoukou<sup>4</sup>, Camille Houetohossou<sup>5</sup>, Aurore Ogouyèmi-Hounto<sup>5</sup>, Katherine Wolf<sup>6</sup>, Stephanie Suhowatsky<sup>6</sup>, Julie R. Gutman<sup>3</sup>, Peter Winch<sup>6</sup>

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### INFLUENCE OF SEASONAL MALARIA CHEMOPREVENTION ON THE PREVALENCE OF MALARIA INFECTION, *PLASMODIUM FALCIPARUM* GENETIC DIVERSITY AND RESISTANCE PROFILE IN CHILDREN LIVING IN RURAL AREAS OF BURKINA FASO

Séni Nikiema<sup>1</sup>, Issiaka SOULAMA<sup>2</sup>, Salif SOMBIE<sup>3</sup>, Samuel Sindie SERME<sup>4</sup>, Noëlie Béré HENRY<sup>4</sup>, Florencia Wendkuuni DJIGMA<sup>1</sup>, Alfred B TIONO<sup>5</sup>, Sodiomon B SIRIMA<sup>4</sup>, Jacques SIMPORE<sup>1</sup>

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### ASSESSING THE IMPACT OF GROUP ANC ON IPTP UPTAKE IN ATLANTIQUE DEPARTMENT, BENIN: A CLUSTER RANDOMIZED CONTROLLED TRIAL

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### COMPARING THE DURABILITY OF SYNERGIST LONG-LASTING INSECTICIDAL NETS PERMANET®3.0 AND CONVENTIONAL NETS YORKOOL® IN SOUTHEAST BENIN REPUBLIC AFTER NATIONAL MASS CAMPAIGN IN 2020

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### PMC INTEGRATION INTO MOZAMBIQUE'S ROUTINE HEALTH SYSTEM: A PLUS PROJECT CASE STUDY

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### EXPLORING NET USAGE, PREFERENCES, AND REPAIR HABITS: A QUALITATIVE STUDY ON MALARIA PREVENTION STRATEGIES IN KONONGO, GHANA

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**EMPOWERING COMMUNITY LEADERS TO INFLUENCE ACTIONS AGAINST MALARIA AT HOUSEHOLD LEVEL. LESSONS FROM MOYO DISTRICT, WEST NILE REGION, UGANDA**

**Felix Manano**<sup>1</sup>, Allan Matovu<sup>2</sup>, Alex Ojaku<sup>3</sup>, Robert Abiriga<sup>1</sup>, Irene Ochola<sup>1</sup>, Dorah Anita Talanta<sup>1</sup>, Ambrose Okite<sup>4</sup>, Amy Casella<sup>5</sup>, Aliza Hasham<sup>6</sup>, Benjamin Binagwa<sup>1</sup>, Natalia Whitley<sup>5</sup>

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**“AFTER A LONG DAY OF PLAY, I GET TIRED AND FORGET TO UNFURL MY BEDNET”: EXPLORING BARRIERS AND FACILITATORS OF BEDNET USE IN EASTERN UGANDA**

**Deborah Ekusai-Sebatta**<sup>1</sup>, Sarah M. Alexander<sup>2</sup>, John C. Rekl<sup>1</sup>, Moses Kanya<sup>1</sup>, Grant Dorsey<sup>3</sup>, Paul Krezanoski<sup>3</sup>

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**PREDICTORS OF ACCESS TO SEASONAL MALARIA CHEMOPREVENTION MEDICINES OUTSIDE HOUSEHOLD VISITS IN NIGERIA IN 2021**

**Sikai Huang**<sup>1</sup>, Sol Richardson<sup>1</sup>, Taiwo Ibinaiye<sup>2</sup>, Olusola Oresanya<sup>2</sup>, Chuks Nnaji<sup>3</sup>, Kevin Baker<sup>3</sup>

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**THE ROLE OF COMMUNITY DRUG DISTRIBUTORS IN THE QUALITY OF SMC DELIVERY IN NIGERIA**

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**PERCEIVED FACTORS IMPACTING COMMUNITY HEALTH WORKERS’ CAPACITY TO IMPLEMENT SEASONAL MALARIA CHEMOPREVENTION ACROSS DELIVERY SETTINGS: QUALITATIVE SECONDARY ANALYSIS FROM RECENT STUDIES IN MOZAMBIQUE, NIGERIA, SOUTH SUDAN AND UGANDA**

**Erica Viganò**<sup>1</sup>, Maria Suau Sans<sup>1</sup>, Ekechi Okereke<sup>2</sup>, Helen Smith<sup>3</sup>, Ivan A. Pulido Tarquino<sup>4</sup>, Mercia Siteo<sup>5</sup>, Francis Okot<sup>6</sup>, Maureen Nakirunda<sup>7</sup>, Jennifer Ainsworth<sup>1</sup>, Jamshed Khan<sup>8</sup>, Anthony Nuwa<sup>9</sup>, Sonia M. Enosse<sup>4</sup>, Olusola Oresanya<sup>2</sup>, Kevin Baker<sup>1</sup>

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**POPULATION DIFFERENCES IN VACCINE RESPONSE: THE ROLE, REVERSIBILITY AND MEDIATORS OF IMMUNOMODULATION BY CHRONIC INFECTIONS IN THE TROPICS PROTOCOL B: THE EFFECT OF INTERMITTENT PREVENTIVE TREATMENT FOR MALARIA WITH DIHYDROARTEMISININ-PIPERAQUINE ON RESPONSE TO VACCINES AMONG RURAL ADOLESCENTS**

**Ludoviko Zirimenya**<sup>1</sup>, Gyaviira Nkurunungi<sup>1</sup>, Agnes Natukunda<sup>1</sup>, Jacent Nassuuna<sup>1</sup>, Emily Webb<sup>2</sup>, Alison Elliott<sup>1</sup>

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**COMMUNITY PERCEPTIONS ON FEASIBILITY AND ACCEPTABILITY OF SEASONAL MALARIA CHEMOPREVENTION IN AWEIL SOUTH COUNTY NORTHERN BAHR EL GHAZAL STATE SOUTH SUDAN**

**Francis Okot**<sup>1</sup>, Jamshed Khan<sup>1</sup>, Abubaker R. Deng<sup>1</sup>, Denis Mubiru<sup>1</sup>, Maria Suau Sans<sup>2</sup>, Erica Viganò<sup>2</sup>, Christian Rassi<sup>2</sup>, Kevin Baker<sup>2</sup>

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**ASSESSING THE IMPACT OF EXTENDING SEASONAL MALARIA CHEMOPREVENTION TO FIVE CYCLES: FINDINGS FROM AN ANALYSIS OF ROUTINE DATA OF 19 DISTRICTS IN BURKINA FASO (2015-2021)**

**Chukwudi A. Nnaji**<sup>1</sup>, Benoit Sawadogo<sup>2</sup>, Sidzabda Kompaore<sup>3</sup>, Monica A. de Cola<sup>1</sup>, Cheick Compaore<sup>2</sup>, Christian Rassi<sup>1</sup>

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**Malaria – Surveillance and Data Utilization**

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**EVALUATION OF THE LEVEL OF SATISFACTION OF AN INTEGRATED MALARIA INFORMATION SYSTEM USERS IN MOZAMBIQUE**

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**COMMUNITY DATA USE; PIVOTAL TO IMPROVING THE UPTAKE OF MALARIA SERVICES BY PREGNANT WOMEN AND THE RESILIENCE OF COMMUNITY HEALTH SYSTEMS - THE CASE OF PHCS IN CROSS RIVER STATE NIGERIA**

**Chinwe Nweze**<sup>1</sup>, Linda Lawrence<sup>1</sup>, Abimbola Olayemi<sup>2</sup>, Arja Huetis<sup>3</sup>, Victor Basse<sup>1</sup>, Augustine Firima<sup>1</sup>, Oluwatobiloba Akerele<sup>1</sup>, Uyi Asuquo<sup>4</sup>, Aderonke Omokhapue<sup>2</sup>, IniAbasi Inglass<sup>2</sup>, Abikoye Olatayo<sup>2</sup>, Uchenna Nwokenna<sup>2</sup>, Thomas Hall<sup>3</sup>, Allan Were<sup>3</sup>, Oluwbenga Mokuolu<sup>3</sup>, Erkwagh Dagba<sup>5</sup>, Veronica Momoh<sup>5</sup>, Jules Mihigo<sup>6</sup>, Chukwu Okoronkwo<sup>6</sup>, Perpetua Uhomoibhi<sup>6</sup>

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**MENTORSHIP IMPROVES QUALITY OF MALARIA IN PREGNANCY SERVICES IN PMI-SUPPORTED REGIONS IN TANZANIA**

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Friday  
October 20

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### QUANTIFYING THE ADDED BENEFIT TOWARD MALARIA ELIMINATION BY COMMUNITY CASE MANAGEMENT IN THE DOMINICAN REPUBLIC

Isabel Byrne<sup>1</sup>, Luca Nelli<sup>2</sup>, Nicole Michelen Strofer<sup>3</sup>, Natalia Tejada Bueno<sup>3</sup>, Claudia H. Rodriguez<sup>4</sup>, Keyla Ureña<sup>4</sup>, Manuel de Jesús Tejada<sup>5</sup>, Jose Luis Cruz Raposo<sup>6</sup>, Chris Drakeley<sup>1</sup>, Luccene Desir<sup>6</sup>, Gregory S. Nolan<sup>6</sup>, Karen Hamre<sup>6</sup>, Gillian Stresman<sup>7</sup>

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### OPTIMAL STRATIFICATION STRATEGIES IN THE SELECTION OF SENTINEL SITES FOR AN INTEGRATED MALARIA SURVEILLANCE IN BENIN

Didier Adjakidje<sup>1</sup>, Florian D. Siaken Yabou<sup>1</sup>, S. Emeric Chris Gbodo<sup>1</sup>, Rock Aikpon<sup>2</sup>

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### IMPROVING MALARIA EPIDEMIC SURVEILLANCE THROUGH ACTIVE ENGAGEMENT OF DISTRICT LEADERS. LESSONS FROM BUSOGA REGION IN EASTERN UGANDA

Richard Opio Ongom<sup>1</sup>, Irene Ochola<sup>1</sup>, Edward Mugwanya<sup>1</sup>, Patricia Mukose<sup>1</sup>, Chris Mugenyi<sup>1</sup>, Irene Ayaa<sup>2</sup>, Susan Nabirye<sup>1</sup>, Amy Casella<sup>3</sup>, Aliza Hasham<sup>4</sup>, Benjamin Binagwa<sup>1</sup>, Natalia Whitley<sup>5</sup>

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### PLASMODIUM FALCIPARUM MALARIA MOLECULAR INDICATORS IN SOUTH WEST BURKINA FASO: COMPARISON OF ACTIVE AND PASSIVE CASE DETECTION

Emilie S Badoum, Amidou Diarra, Ludovic Kouraogo, Daouda Ouattara, Issa Nebie, Alfred B Tiono, Alphonse Ouedraogo, Sodiomon B Sirima

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(ACMCIP Abstract)

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### THE YELLOW FEVER OUTBREAK SHEDS LIGHT ON THE MISSED THREAT OF MALARIA IN ISIOLO COUNTY, KENYA 2022

Geoffrey K. Githinji<sup>1</sup>, Serah Nchoko<sup>1</sup>, Dorcas Ndunge<sup>1</sup>, Nassoro Mwanyalu<sup>1</sup>, Aricha Stephine<sup>1</sup>, Maurice Owiny<sup>1</sup>, Fredrick Odhiambo<sup>1</sup>, Elvis Oyugi<sup>2</sup>

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### PIONEERING ELECTRONIC FORMS AND REPORTING IN SEASONAL MALARIA CHEMOPREVENTION IMPLEMENTATION AMID INSECURITY IN ZAMFARA STATE

Comfort Kingsley-Randa<sup>1</sup>, Abdulmajid Idris Safana<sup>2</sup>, Abba Abdullahi Sagagi<sup>2</sup>, Abimbola Olayemi<sup>3</sup>, Arja Huestis<sup>4</sup>, Aderonke Omokhapue<sup>5</sup>, Kabiru Mohammed Bungudu<sup>5</sup>, Mujahid Aliyu Idris<sup>6</sup>, Yusuf Na Allah Jega<sup>2</sup>, Muhammad Sahabi Gurusu<sup>2</sup>, Munira Isma'il Mustapha<sup>2</sup>, Sherif Ibrahim<sup>2</sup>, Shiwan Dlakwa<sup>2</sup>, Murtala Muhammad<sup>2</sup>, Olugbenga Mokuolu<sup>4</sup>, Justice Adaji<sup>3</sup>, IniAbasi Inglass<sup>3</sup>, Uchenna Nwokenna<sup>3</sup>, Chukwu Okoronkwo<sup>7</sup>, Perpetua Uhomobhi<sup>7</sup>, Erkwagh Dagba<sup>8</sup>, Veronica Momoh<sup>8</sup>, Jules Mihigo<sup>9</sup>

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### INTEGRATING ANTENATAL CLINIC-BASED MALARIA SCREENING DATA AND MATHEMATICAL MODELLING TO CAPTURE THE TRAJECTORY OF MALARIA TRANSMISSION IN WESTERN KENYA IN THE CONTEXT OF THE COVID-19 PANDEMIC.

Patrick GT Walker<sup>1</sup>, Joseph Hicks<sup>1</sup>, Oliver Towett<sup>2</sup>, Brian Seda<sup>3</sup>, Ryan Wiegand<sup>3</sup>, Simon Kariuki<sup>3</sup>, Julie Gutman<sup>3</sup>, Aaron Samuels<sup>3</sup>, Feiko ter Kuile<sup>4</sup>

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### TRACKING PROGRESS OF PROPORTIONAL USAGE ANTIMALARIALS FOR TREATMENT OF P. FALCIPARUM INFECTIONS IN CHILDREN, TWO DECADES OF ACT POLICY IMPLEMENTATION

Susan F. Rumisha<sup>1</sup>, Paul Castle<sup>2</sup>, Jailos Lubinda<sup>2</sup>, Jennifer A. Rozier<sup>2</sup>, Joseph Harris<sup>2</sup>, Camilo Vargas<sup>2</sup>, Peter W. Gething<sup>2</sup>, Daniel J. Weiss<sup>2</sup>

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### SPATIAL AND TEMPORAL VARIATION OF MALARIA CLINICAL INCIDENCE IN CHILDREN UNDER 10 YEARS OF AGE IN KOULIKORO, MALI

Soumba Keita<sup>1</sup>, Mathias Dolo<sup>1</sup>, Ibrahim Sanogo<sup>1</sup>, Daouda Sanogo<sup>1</sup>, Fousseyni Kane<sup>1</sup>, Moussa Keita<sup>1</sup>, Ayouba Diarra<sup>1</sup>, Hamady Coulibaly<sup>1</sup>, Nafomon Sogoba<sup>2</sup>, Mahamadou Diakité<sup>1</sup>, Mahamadou Toure<sup>1</sup>, Seydou Doumbia<sup>1</sup>

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### THE VALUE OF END-USE VERIFICATION SURVEYS ON THE AVAILABILITY OF ANTIMALARIAL COMMODITIES IN MADAGASCAR, 2022

Patrick Harilanto Raheerijatovo<sup>1</sup>, Aline Mukeraboriri<sup>1</sup>, Faratiana Michèle Randrianasolo<sup>1</sup>, Jane Briggs<sup>2</sup>, Luz Razafimbelo<sup>1</sup>, Laurent Kapesa<sup>3</sup>, Hasina Rabarijaona<sup>4</sup>

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### ENGAGING HEALTH FACILITY TEAMS TO IMPROVE MALARIA DATA QUALITY, USE, AND SERVICE DELIVERY IN AKWA IBOM STATE

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**MALARIA MOLECULAR SURVEILLANCE IDENTIFIES CLONAL PARASITE POPULATION STRUCTURE IN DIOURBEL SENEGAL THAT REVEALS TRANSMISSION PATTERNS TO INFORM OPERATIONAL ACTIVITIES**

**Sarah K. Volkman**<sup>1</sup>, Wesley Wong<sup>1</sup>, Stephen F. Schaffner<sup>2</sup>, Yaye Die Ndiaye<sup>3</sup>, Mouhamad Sy<sup>3</sup>, Mame Cheikh Seck<sup>3</sup>, Younouss Diedhiou<sup>3</sup>, Jules Gomis<sup>3</sup>, Aida S. Badiane<sup>3</sup>, Awa B. Deme<sup>3</sup>, Mamadou Alpha Diallo<sup>3</sup>, Aita Sene<sup>3</sup>, Tolla Ndiaye<sup>3</sup>, Djiby Sow<sup>3</sup>, Amy Gaye<sup>3</sup>, Baba Dieye<sup>3</sup>, Abdoulaye Tine<sup>3</sup>, Aliou Ndiaye<sup>3</sup>, Mouhamadou Ndiaye<sup>3</sup>, Ibrahima Mbaye Ndiaye<sup>3</sup>, Mamane Garba<sup>3</sup>, Lamine Ndiaye<sup>3</sup>, Medoune Ndiop<sup>4</sup>, Fatou Ba Fall<sup>4</sup>, Ibrahima Diallo<sup>4</sup>, El Hadji Doucoure<sup>4</sup>, Doudou Sene<sup>4</sup>, Katherine E. Battle<sup>5</sup>, Joshua L. Proctor<sup>5</sup>, Caitlin Bever<sup>5</sup>, Daniel L. Hartl<sup>6</sup>, Bronwyn MacInnis<sup>2</sup>, Dyann F. Wirth<sup>1</sup>, Daouda Ndiaye<sup>3</sup>  
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**IMPROVING MALARIA SURVEILLANCE DATA: INSIGHTS FROM SOUTHERN ANGOLA**

Ana Direito<sup>1</sup>, **Teresa Nobrega**<sup>2</sup>, Paulo Máquina<sup>2</sup>, Fernanda Guimarães<sup>3</sup>, José Franco Martins<sup>3</sup>, Manuel Lando<sup>1</sup>, Sérgio Lopes<sup>4</sup>  
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**DEFINING PCR-DETECTED PARASITEMIA THRESHOLDS FOR CLINICAL MALARIA FROM ACTIVE AND PASSIVE CASE DETECTION**

**Andrea G. Buchwald**<sup>1</sup>, Alick Sixpence<sup>2</sup>, Ernest Matola<sup>3</sup>, Charles Mangani<sup>3</sup>, Alfred Matengeni<sup>3</sup>, Mark L. Wilson<sup>4</sup>, Don P. Mathanga<sup>3</sup>, Miriam K. Laufer<sup>1</sup>, Karl B. Seydel<sup>1</sup>, Clarissa Valim<sup>2</sup>, Lauren M. Cohee<sup>1</sup>  
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**INTEGRATED AND INNOVATIVE DECENTRALIZED MALARIA RESURGENCE RESPONSES IN THE SOUTH EAST OF MADAGASCAR**

**Andry Patrick Raoliarison**<sup>1</sup>, Omega Raobela<sup>2</sup>, Yvette Razafimaharo<sup>2</sup>, Andriamanga Benjatiana Ruffin<sup>1</sup>, Sandy Mbolatiana Ralisata<sup>1</sup>, Soza Andriamarovesatra<sup>1</sup>, Ilo Andriamanamihaja<sup>1</sup>, Martin Rafaljarisoa<sup>1</sup>, Voahangy Razanakotomalala<sup>3</sup>  
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**USING DATA INTEGRATION AND VISUALIZATION TO STRENGTHEN THE MALARIA SURVEILLANCE SYSTEM IN THE DEMOCRATIC REPUBLIC OF THE CONGO**

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**MODEL-BASED ESTIMATES OF LONG-TERM AND SEASONAL MIGRANTS IN NORTHWESTERN DISTRICTS OF ETHIOPIA**

**Amir Siraj**<sup>1</sup>, Mebrahtom Haile<sup>2</sup>, Dereje Dillu<sup>3</sup>, Asefaw Getachew<sup>4</sup>, Gezahegn Tesfaye<sup>4</sup>, Belendia Serda<sup>4</sup>, Asnakew Yeshiwondim<sup>4</sup>, Berhane Tesfay<sup>1</sup>, Tesfaye Tilaye<sup>5</sup>, Kassahun Alemu<sup>6</sup>, Arantxa Roca-Feltrer<sup>7</sup>, Adam Bennett<sup>1</sup>, Hannah Slater<sup>1</sup>  
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**Malaria - Transmission Biology**

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**A SECOND BLOOD MEAL ELEVATES THE PLASMODIUM VIVAX SPOOROZOITE LOAD IN ANOPHELES DIRUS SALIVARY GLANDS**

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 Mahidol University, Bangkok, Thailand

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**CLONAL TRANSMISSIBILITY AND FACTORS INFLUENCING HUMAN-TO-MOSQUITO TRANSMISSION OF ASYMPTOMATIC PLASMODIUM FALCIPARUM INFECTIONS OVER THE COURSE OF ARTEMISININ-BASED COMBINATION THERAPIES IN MALI**

**Leen N. Vanheer**<sup>1</sup>, Almahamoudou Mahamar<sup>2</sup>, Emilia Manko<sup>1</sup>, Sidi M. Niambele<sup>2</sup>, Koualy Sanogo<sup>2</sup>, Ahamadou Youssouf<sup>2</sup>, Adama Dembele<sup>2</sup>, Makonon Diallo<sup>2</sup>, Seydina O. Maguiraga<sup>2</sup>, Teun Bousema<sup>3</sup>, Chris Drakeley<sup>1</sup>, William Stone<sup>1</sup>, Alassane Dicko<sup>2</sup>, Susana Campino<sup>1</sup>  
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(ACMCIP Abstract)

**Cestodes (including taeniasis and cysticercosis, echinococcosis/hydatid disease, and others)**

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**STUDY OF AN IMPORTANT GENE FOR SEXUAL REPRODUCTION OF P. BERGHEI AS A POTENTIAL TARGET FOR BLOCKING MALARIA TRANSMISSION**

**Leticia Morosini**, Miriam Borges, Daniel Bargieri  
 University of São Paulo, São Paulo, Brazil

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**EVALUATION OF THE ACTIVITY OF ESSENTIAL OILS OF HYPTIS SPICIGERA LAM. AND OCIMUM AMERICANUM L. IN THE MALARIA TRANSMISSION BLOCKING**

**W. Jedida M. Ouedraogo**<sup>1</sup>, Seydou B. Ouattara<sup>1</sup>, G. Armel B. Yarbanga<sup>1</sup>, Angela Traore<sup>1</sup>, Christian Younga<sup>1</sup>, Fulgence Da<sup>1</sup>, Francois Hien<sup>2</sup>, R. Serge Yerbanga<sup>1</sup>, Jean-Bosco Ouedraogo<sup>1</sup>  
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### MALARIA VECTOR NUTRITION PREDICTS RATE OF *PLASMODIUM FALCIPARUM* DEVELOPMENT AND INFECTIVITY

Philipp Schwabl<sup>1</sup>, W. Robert Shaw<sup>2</sup>, Shriya Anandjee<sup>1</sup>, Maurice Itoe<sup>1</sup>, Duo Peng<sup>1</sup>, Angela Early<sup>3</sup>, Flaminia Catteruccia<sup>2</sup>, Daniel Neafsey<sup>1</sup>

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### *PLASMODIUM* FEMALE GAMETE SURFACE HSP90 IS A KEY DETERMINANT FOR MOSQUITO INFECTION

Sung-Jae Cha

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(ACMCIP Abstract)

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### INVASION OF RED BLOOD CELLS BY *PLASMODIUM MALARIAE*: UNRAVELING INTRA-ERYTHROCYTE DEVELOPMENT AND MOLECULAR MECHANISMS

Francois Dao<sup>1</sup>, Alejandro Marin Menendez<sup>2</sup>, Abdoulaye Djimde<sup>3</sup>, Arthur Talman<sup>2</sup>, Laurent Dembele<sup>4</sup>

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(ACMCIP Abstract)

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### THE ROLE OF THE *PLASMODIUM FALCIPARUM* ACETYL-COA SYNTHETASE IN GAMETOCYTOGENESIS AND TRANSMISSION

Robert Summers<sup>1</sup>, Charisse Passaje<sup>2</sup>, Barbera Forte<sup>3</sup>, Madeline Farringer<sup>1</sup>, Selina Bopp<sup>1</sup>, Beatriz Baragaña<sup>3</sup>, Jacquin C. Niles<sup>2</sup>, Dyann F. Wirth<sup>1</sup>, Amanda K. Lukens<sup>4</sup>

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(ACMCIP Abstract)

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### MOUSE ERYTHROCYTE BASIGIN INTERACTS WITH *PLASMODIUM* YOELII ERYTHROCYTE BINDING LIKE PROTEIN

Takaaki Yuguchi<sup>1</sup>, Bernard N. Kanoi<sup>1</sup>, Hikaru Nagaoka<sup>1</sup>, Toyokazu Miura<sup>1</sup>, Daisuke Ito<sup>2</sup>, Hiroyuki Takeda<sup>3</sup>, Takafumi Tsuboi<sup>1</sup>, Eizo Takashima<sup>1</sup>, Hitoshi Otsuki<sup>2</sup>

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### TRANSMISSIBILITY OF PRIMARY AND RECURRENT *P. VIVAX* INFECTIONS AND THE ROLE OF TRANSMISSION MODULATING IMMUNITY IN ETHIOPIA

Wakweya Chali<sup>1</sup>, Aimee Taylor<sup>2</sup>, Migbaru Keffale<sup>1</sup>, Lina Alemayehu<sup>1</sup>, Melat Abdo<sup>1</sup>, Desalegn Nibrat<sup>1</sup>, Zewudu Solomon<sup>1</sup>, Abrham Gashaw<sup>1</sup>, Temesgen Ashine<sup>1</sup>, Fikregabrial Aberra Kassa<sup>1</sup>, Michael White<sup>2</sup>, Teun Bousema<sup>3</sup>, Chris Drakeley<sup>4</sup>, Fitsum G. Tadesse<sup>1</sup>

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### A TWO PATCH MODEL FOR MUTASA AND NYANGA DISTRICTS IN MANICALAND PROVINCE ZIMBABWE INCORPORATING CLIMATIC CONDITIONS

Mandidayengeyi Hellen Machingauta, Silal Sheetal

University of Cape Town, Cape Town, South Africa

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### DESCRIPTION OF *PLASMODIUM FALCIPARUM* TRANSMISSION ASSOCIATED HAPLOTYPES

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### DYNEIN HEAVY CHAINS IN *PLASMODIUM FALCIPARUM* DURING GAMETOCYTES DEVELOPMENT

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(ACMCIP Abstract)

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### LOSS OF FUNCTION OF THE *PLASMODIUM FALCIPARUM* PROLINE TRANSPORTER MFR4 MEDIATES HALOFUGINONE RESISTANCE BUT RESULTS IN OOCYST DEVELOPMENTAL DYSFUNCTION.

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(ACMCIP Abstract)

## Malaria - Vaccines and Immunotherapeutics

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### A SINGLE FULL-LENGTH VAR2CSA ECTODOMAIN ELICITS HETEROLOGOUS FUNCTIONAL ANTIBODIES IN AOTUS NANCYMAE

Almahamoudou Mahamar<sup>1</sup>, Jonathan P. Renn<sup>2</sup>, Bacary Soumana Diarra<sup>1</sup>, Moussa Traore<sup>1</sup>, Sidi Mohamed Niambele<sup>1</sup>, Gaoussou Santara<sup>1</sup>, Oulematou Ndiaye<sup>1</sup>, Sekouba Keita<sup>1</sup>, Oumar Attaher<sup>1</sup>, Lynn E. Lambert<sup>2</sup>, Sachy Orr-Gonzales<sup>2</sup>, Alassane Dicko<sup>1</sup>, Patrick E. Duffy<sup>2</sup>, Michal Fried<sup>2</sup>

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**INITIAL EVALUATION OF THE PVS230D1-EPA CONJUGATE VACCINE CANDIDATE**

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**SYSTEMS SEROLOGY OF PFPSPZ VACCINE REVEALS IMPORTANCE OF NON-PFCSP ANTIBODY IMMUNITY IN LONG-LASTING PROTECTION**

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(ACMCIP Abstract)

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**CHARACTERIZATION OF KENYAN PLASMODIUM FALCIPARUM FIELD ISOLATES FOR USE IN CONTROLLED HUMAN MALARIA INFECTION**

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**CROSS-SECTIONAL ASSESSMENT OF FACTORS DRIVING PARTIAL VERSUS FULL UPTAKE OF RTS,S/AS01 MALARIA VACCINE AMONG CHILDREN IN RARIEDA SUB-COUNTY, WESTERN KENYA, 2021 TO 2022**

Victoria Seffren<sup>1</sup>, Brian Seda<sup>2</sup>, Oliver Towett<sup>2</sup>, Nelli Westercamp<sup>1</sup>, Julie Gutman<sup>1</sup>, Simon Kariuki<sup>2</sup>, Feiko O. ter Kuile<sup>3</sup>, Aaron M. Samuels<sup>1</sup>, Titus Kwambai<sup>4</sup>

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**FEASIBILITY EVALUATION OF RTS,S/AS01 MALARIA VACCINE PILOT INTRODUCTION IN WESTERN KENYA: COVERAGE SURVEY RESULTS 30 MONTHS POST-INTRODUCTION**

Nelli Westercamp<sup>1</sup>, Dorcas Akach<sup>2</sup>, Perez L. Siambe<sup>2</sup>, Florence Wafula<sup>2</sup>, Eunice Radiro<sup>2</sup>, Isabella Nyangau<sup>2</sup>, Victoria Seffren<sup>1</sup>, Titus Kwambai<sup>3</sup>, Simon Kariuki<sup>2</sup>, Aaron M. Samuels<sup>3</sup>  
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**THE ADDITIVE VALUE OF RTS, S,AS01 MALARIA VACCINE IN REDUCING MALARIA INFECTION AMONG UNDER FIVE CHILDREN IN MALAWI**

Christopher Chikhosi C. Stanley<sup>1</sup>, Harrison Msuku<sup>1</sup>, Vincent S. Phiri<sup>2</sup>, Tabitha Kaunda<sup>1</sup>, Lawrence N. Kazembe<sup>3</sup>, Jobiba Chinkhumba<sup>2</sup>, Atupele K. Tembo<sup>2</sup>, Don P. Mathanga<sup>1</sup>  
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**RTS,S MALARIA VACCINE COMBINED WITH PYRETHROID-PIPERONYL BUTOXIDE-LONG-LASTING INSECTICIDAL NETS (PBO-LLIN) PROVIDES ADDED PROTECTION AGAINST PLASMODIUM FALCIPARUM INFECTION COMPARED WITH PBO-LLIN ALONE**

Peter A. M. Ntenda<sup>1</sup>, Alfred Matengeni<sup>1</sup>, Lauren Cohee<sup>2</sup>, Mark L. Wilson<sup>3</sup>, Alick Sixpence<sup>4</sup>, Noel Patson<sup>1</sup>, Karl B. Seydel<sup>5</sup>, Miriam K. Laufer<sup>2</sup>, Clarissa Valim<sup>4</sup>, Don P. Mathanga<sup>1</sup>

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**IMPACT OF RTS, S/AS01E VACCINATION ON PLASMODIUM SPECIES COMPOSITION IN INDIVIDUALS ENROLLED FOR AT BASELINE AND DURING THE SUBSEQUENT FOLLOW-UP PERIOD IN MALARIA ENDEMIC REGIONS OF WESTERN KENYA IN KISUMU COUNTY**

Maurine Atieno Mwalo, Gladys C. Chemwor, Benjamin O. Opot, Raphael O. Okoth, Jackline A. Juma, Agnes C. Cheruiyot, Edwin W. Mwakio, Farid A. Salim, Risper N. Maisiba, Denis W. Juma, Hoseah Akala, Timothy Egbo  
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**EFFICACY OF THE RTS,S/AS01E MALARIA VACCINE ADMINISTERED ACCORDING TO DOSAGE REGIMEN UNDER CONDITIONS OF NATURAL EXPOSURE IN AFRICAN CHILDREN AGED 5-17 MONTHS: INSIGHTS FROM EXTENDED GENOTYPING-BASED ENDPOINT RESULTS AND MALARIA INFECTION STATUS AT FIRST VACCINATION FROM A PHASE 2B RANDOMIZED CONTROLLED TRIAL**

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**THE EFFECT OF RTS,S, AND SMC ALONE OR COMBINED ON ANTIMALARIAL ANTIBODY RESPONSES**

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**ESTABLISHING RTS,S/AS01 AS A BENCHMARK COMPARATOR FOR NEXT-GENERATION MALARIA VACCINES IN THE TGPB-PFCSP MOUSE CHALLENGE MODEL**

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## Bacteriology - Enteric Infections

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### GENETIC PHYLOGENY OF DIARRHEAGENIC ESCHERICHIA COLI ISOLATED IN CHILDREN BELOW FIVE YEARS LIVING IN CLOSE CONTACT WITH FOOD ANIMALS, KISUMU COUNTY

Redemptah Yeda, George Makalliwa, John Gachohi, Gideon Kikuvu  
Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

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### CHANGES IN GROWTH OBSERVED IN DIFFERENT ANTHROPOMETRIC INDICES AT 90-DAY POST-DISCHARGE FOLLOW-UP AMONG CHILDREN AGED 2-23 MONTHS REQUIRING READMISSION COMPARED TO THOSE WHO DID NOT REQUIRE READMISSION

Md Farhad Kabir, Irin Parvin, MST Mahmuda Ackhter, Abu Sadat Mohammad Sayeem Bin Shahid, Tahmina Alam, Rina Das, Sharmin Khanam, Jannat Sultana, Sajeda Nasrin, Rumana Sharmin, Mehnaz Kamal, Md. Tanveer Faruk, Tahmeed Ahmed, Mohammad Jobayer Chisti  
International Centre for Diarrhoeal Disease Research, Bangladesh (icddr), Dhaka, Bangladesh

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### CLINICAL, SOCIO-ECONOMIC AND PATHOGENIC FACTORS OF WASTED AND OVERWEIGHT/OBESE UNDER-FIVE CHILDREN WITH DIARRHOEA: EXPERIENCE FROM AN URBAN HOSPITAL IN BANGLADESH

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### SOCIODEMOGRAPHIC AND CLINICAL DETERMINANTS OF DIARRHEA AFFECTED CHILDREN TREATED WITH ANTIBIOTICS EMPIRICALLY PRIOR COMING TO HEALTH CARE FACILITIES IN DEVELOPING COUNTRIES LIKE BANGLADESH

Mst Mahmuda Ackhter, Abu Sadat Mohammad Sayeem Bin Shahid, Irin Parvin, Tahmina Alam, Md Farhad Kabir, Mohammad Jobayer Chisti  
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### DIARRHEA IN A MILITARY SETTING: EPIDEMIOLOGY, ETIOLOGIES AND IMPACT OF THE DISEASE IN MILITARY PERSONNEL DEPLOYED AT CAMP LEMONNIER, DJIBOUTI

Rania Nada<sup>1</sup>, Isabelle Nakhla<sup>1</sup>, Rebecca Pavlicek<sup>2</sup>, Alexandria Kesterson<sup>2</sup>, Jae Dugan<sup>3</sup>, Samuel Levin<sup>1</sup>  
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### ASSOCIATION BETWEEN ENTEROPATHOGENS, THE GUT MICROBIOTA AND BIOMARKERS OF ENVIRONMENTAL ENTERIC DYSFUNCTION IN RURAL MALAWIAN CHILDREN

David Chaima<sup>1</sup>, Lyson Samikwa<sup>1</sup>, John Hart<sup>2</sup>, Harry Pickering<sup>2</sup>, Khumbo Kalua<sup>1</sup>, Kenneth Maleta<sup>1</sup>, Robin Bailey<sup>2</sup>, Martin Holland<sup>2</sup>  
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### HYPERGLYCEMIA IN DIARRHEAL CHILDREN; CAN WE PREDICT CLINICAL STATUS?

Fardaus Ara Begum, Sharika Nuzhat, Abu Sayem Mirza MD Hasibur Rahman, MD Ahshanul Haque, MD Farhad Kabir, Paul Daru, Azharul Islam Khan, Sayera Banu, Tahmeed Ahmed, Mohammad Jobayer Chisti  
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### EPIDEMIOLOGICAL AND LABORATORY INVESTIGATION TO IDENTIFY SOURCES OF A COMMUNITY OUTBREAK OF CHOLERA

Gunaraj Dhungana<sup>1</sup>, Pradip Gyanwali<sup>1</sup>, Bishnu P. Marasini<sup>1</sup>, Suman Pant<sup>1</sup>, Shristi Karki<sup>1</sup>, Anil Paudel<sup>1</sup>, Meghnath Dhimal<sup>1</sup>, Janak Koirala<sup>2</sup>  
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### CHARACTERISTICS OF 2-23 MONTHS OLD CHILDREN WITH PROLONGED DIARRHEA COMPARED TO THOSE WITH ACUTE DIARRHEA AND THEIR IMPACT DURING POST-DISCHARGE FOLLOW-UP AT DAY 90

Irin Parvin, Abu Sadat Mohammad Sayeem Bin Shahid, Mst. Mahmuda Ackhter, Md. Farhad Kabir, Tahmina Alam, Mohammad Jobayer Chisti  
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### CLINICAL AND ENVIRONMENTAL EPIDEMIOLOGY OF VIBRIO CHOLERAЕ IN EASTERN DEMOCRATIC REPUBLIC OF THE CONGO, 2020-2022 (PICHAT7 PROGRAM)

Christine Marie George<sup>1</sup>, Lucien Bisimwa<sup>2</sup>, Kelly Endres<sup>1</sup>, Camille Williams<sup>1</sup>, Jean-Claude Bisimwa<sup>2</sup>, Presence Sanvura<sup>2</sup>, Jamie Perin<sup>1</sup>, Ciruza Cikomola<sup>2</sup>, Ghislain Maheshe<sup>2</sup>, David Sack<sup>1</sup>, Alain Mwishingo<sup>2</sup>  
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### ACUTE FEBRILE ILLNESS IN PAKISTAN: ASSESSING CO-INFECTION OF MALARIA AND TYPHOID FEVER IN TERTIARY CARE FACILITIES IN KARACHI

Zoumana I. Traore<sup>1</sup>, Afsheen Ghani<sup>2</sup>, Zulfiqar A. Naqvi<sup>3</sup>, Kausar A. Saldera<sup>4</sup>, Furqan Hasan<sup>5</sup>, Shamsul A. Qasmi<sup>2</sup>, Claire J. Standley<sup>1</sup>  
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### SIGNATURE OF EUKARYOTIC AND PROKARYOTIC GUT-MICROBIOME AMONG PATIENTS WITH GUT DISORDERS, SAUDI ARABIA

Ayman A. Elbadry, Reem Y. Al Jindan, Nehal M.M. Hosin, Abdulaziz Al Quorain  
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## Bacteriology - Trachoma

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### USE OF BIOMARKERS TO MONITOR TRACHOMA PREVALENCE AFTER IMPLEMENTATION OF MORE FREQUENT THAN ANNUAL MDA IN MAASAI COMMUNITIES IN NORTHERN TANZANIA

**Molly W. Adams**<sup>1</sup>, William E. Oswald<sup>1</sup>, Veronica Kabona<sup>2</sup>, Mabula Kasubi<sup>3</sup>, Alistidia Simon<sup>4</sup>, Jeremiah Ngondi<sup>1</sup>, George Kabona<sup>5</sup>  
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### QUALITY OF TRACHOMATOUS TRICHIASIS (TT) SURGERY IN 25 DISTRICTS OF SNNP AND SWE REGIONS: SUMMARY FINDINGS OF 31 SURGICAL AUDITS IN 2022

**Dawit Seyum Buda**<sup>1</sup>, Nigusie Fetene<sup>1</sup>, Belay Bayissasse<sup>1</sup>, Temesgen Kabeto<sup>1</sup>, Tadesse Data<sup>1</sup>, Doris Macharia<sup>2</sup>, Alemayehu Sisay<sup>1</sup>  
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### UTILIZING MOLECULAR DIAGNOSTICS TO SUPPORT THE TRACHOMA CONTROL PROGRAM IN NAURU

**Carleigh Simone Cowling**<sup>1</sup>, Sue-Chen Apadinuwe<sup>2</sup>, Anasaini Cama<sup>3</sup>, Mitchell Starr<sup>4</sup>, Sarah Boyde<sup>5</sup>, Susana Vaz Nery<sup>1</sup>  
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### NEARING ELIMINATION OF TRACHOMA AS A PUBLIC HEALTH PROBLEM IN AUSTRALIA

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### OLDER AGE IN SUBARACHNOID NEUROCYSTICERCOSIS REFLECTS A LONG PRE-PATENT PERIOD

**Fernando Nateros**<sup>1</sup>, Edith Saenz<sup>2</sup>, Herbert Saavedra<sup>2</sup>, Isidro Gonzales<sup>2</sup>, E. Javier Pretell<sup>3</sup>, Erika Perez<sup>2</sup>, Yesenia Castillo<sup>1</sup>, Javier A. Bustos<sup>1</sup>, Hector H. Garcia<sup>1</sup>  
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### SEROPREVALENCE AND RISK FACTORS FOR NEUROCYSTICERCOSIS IN MEXICAN-AMERICANS IN STARR COUNTY, TEXAS

**Megan M. Duffey**<sup>1</sup>, Elise M. O'Connell<sup>2</sup>, Lauren M. Leining<sup>3</sup>, Nina L. Tang<sup>2</sup>, Craig L. Hanis<sup>3</sup>, Eric L. Brown<sup>3</sup>, Sarah M. Gunter<sup>1</sup>  
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### THE POTENTIAL MECHANISTIC PATHWAYS LEADING FROM PARASITE INFECTION TO CHILDHOOD STUNTING

**Isobel Litton Gabain**<sup>1</sup>, Anouschka S. Ramsteijn<sup>2</sup>, Joanne P. Webster<sup>3</sup>  
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### PROTEOMIC AND IMMUNOINFORMATIC APPROACH TO IDENTIFY IMMUNE REACTIVE PROTEINS OF TAENIA SOLIUM CYSTICERCUS FOR A POTENTIAL MULTIEPIOTOPE VACCINE CANDIDATE

**Amit Prasad**, Rimanpreet Kaur  
Indian Institute of Technology Mandi, Mandi, India

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### NEUROCYSTICERCOSIS, NEUROLOGICAL DISEASE AND HIV IN THE EASTERN CAPE PROVINCE OF SOUTH AFRICA

Hélène Carabin<sup>1</sup>, Humberto Foyaca-Sibat<sup>2</sup>, Christine T. Benner<sup>3</sup>, **Katrina Di Bacco**<sup>1</sup>, Stephen Korsman<sup>4</sup>, Lourdes de Fatima Ibanez-Valdez<sup>2</sup>, Pierre Dorny<sup>6</sup>, Sarah Gabriël<sup>7</sup>  
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### CONSISTENT MEASUREMENT OF PARASITE-SPECIFIC ANTIGEN LEVELS IN SERA OF PATIENTS WITH NEUROCYSTICERCOSIS USING TWO DIFFERENT MONOCLONAL ANTIBODY (MAB)-BASED ENZYME-LINKED IMMUNOSORBENT ASSAYS

**Luz Toribio**<sup>1</sup>, Yesenia Castillo<sup>1</sup>, Carolina Guzman<sup>1</sup>, Gianfranco Arroyo<sup>1</sup>, Cindy Espinoza<sup>1</sup>, Herbert Saavedra<sup>1</sup>, Javier Bustos<sup>1</sup>, Pierre Dorny<sup>2</sup>, Seth O'Neal<sup>3</sup>, Hector Garcia<sup>1</sup>  
<sup>1</sup>Center for Global Health, Lima, Peru, <sup>2</sup>Department of Biomedical Sciences, Institute of Tropical Medicine, Antwerp-Belgium, Lima, Peru, <sup>3</sup>School of Public Health, Oregon Health & Sciences, Portland State University, Oregon, USA, Portland, OR, United States

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### MULTIPLEX BEAD ASSAY (MBA) FOR THE ASSESSMENT OF ANTIBODY RESPONSES DURING CYSTICERCOSIS IN EXPERIMENTAL INFECTED PIGS

**Luz M. Toribio**<sup>1</sup>, Sukwan Handali<sup>2</sup>, Sassan Noazin<sup>3</sup>, Gianfranco Arroyo<sup>1</sup>, Javier Bustos<sup>1</sup>, Hector H. Garcia<sup>1</sup>  
<sup>1</sup>Center for Global Health, Universidad Cayetano Heredia, Lima, Peru, <sup>2</sup>Division of Parasitic Diseases, Center for Disease Control and Prevention, Atlanta, GA, United States, <sup>3</sup>Department of International Health, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States

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### LATERAL FLOW TEST FOR NEUROCYSTICERCOSIS - PRELIMINARY EVALUATION

Nadya Karaseva<sup>1</sup>, Drew Miller<sup>1</sup>, Elise M. O'Connell<sup>2</sup>, **Andrew Levin**<sup>1</sup>  
<sup>1</sup>Kephera Diagnostics, LLC, Framingham, MA, United States, <sup>2</sup>National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

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### LATE POST-TREATMENT INFLAMMATORY RESPONSE AND RESIDUAL CALCIFICATION IN NEUROCYSTICERCOSIS

**Laura E. Baquedano Santana**<sup>1</sup>, Noemi Miranda<sup>1</sup>, Gianfranco Arroyo<sup>1</sup>, Hector H. Garcia<sup>2</sup>, Javier A. Bustos<sup>2</sup>  
<sup>1</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>Instituto Nacional de Ciencias Neurológicas, Lima, Peru

**(ACMCIP Abstract)**

## Helminths – Nematodes – Intestinal Nematodes

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### INFLUENCE OF EUKARYOTIC ENTERIC PATHOGENS ON THE GUT FUNGAL COMMUNITY IN MALIAN CHILDREN

**Aly Kodio**<sup>1</sup>, Estelle Menu<sup>2</sup>, Safiatou Doumbo<sup>1</sup>, Drissa Coulibaly<sup>1</sup>, Abdoulaye Kassoum Koné<sup>1</sup>, Salimata Konaté<sup>1</sup>, Lamine Tall<sup>3</sup>, Abdoulaye Djimé<sup>1</sup>, Didier Raoult<sup>3</sup>, Mahamadou Aly Thera<sup>1</sup>, Stéphane Ranque<sup>2</sup>

<sup>1</sup>Malaria Research and Training Center, USTTB, Bamako, Mali, <sup>2</sup>Aix Marseille Université, Institut de Recherche pour le Développement, Assistance Publique-Hôpitaux de Marseille, Service de Santé des Armées, VITROME : Vecteurs – Infections Tropicales et Méditerranéennes, 19-21 Boulevard Jean Moulin, 13005 Marseille, Fr, Marseille, France, <sup>3</sup>Aix Marseille Université, Institut de Recherche pour le Développement, Assistance Publique-Hôpitaux de Marseille, Service de Santé des Armées, MEPHI : Microbes, Evolution, Phylogénie et Infection, 19-21 Boulevard Jean Moulin, 13005 Marseille, France., Marseille, France

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### HELMINTH INFECTION DRIVES REDUCED SERUM COMPLEMENT AND COMPLEMENT REGULATORY PROTEIN ACTIVATION IN INDIVIDUALS WITH COINCIDENT TYPE 2 DIABETES

**Anuradha Rajamanickam**<sup>1</sup>, Bindu Dasan<sup>1</sup>, Saravanan Munisankar<sup>1</sup>, Pradeep Aravindan Menon<sup>2</sup>, Fayaz Ahmed Shaik<sup>1</sup>, Ponnuraja Chinnaiyan<sup>2</sup>, Thomas B. Nutman<sup>3</sup>, Subash Babu<sup>1</sup>

<sup>1</sup>NIRT-ICER, Chennai, India, <sup>2</sup>National Institute for Research in Tuberculosis, Chennai, India, <sup>3</sup>Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

(ACMCIP Abstract)

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### DESCRIPTIVE AND PREDICTIVE ANALYSIS OF SOIL-TRANSMITTED HELMINTHIASIS IN SCHOOLCHILDREN OF TIERRALTA, CORDOBA, COLOMBIA

**Ana Karina Nisperuza Vidal**, Mayra Ligia Raciny Aleman, William Segundo Hoyos Morales, Maria Fernanda Yasnot Acosta  
*Universidad de Cordoba, Monteria, Colombia*

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### TRICHURIS TRICHIURA INFECTION ASSOCIATED WITH AN INCREASED RISK OF PLASMODIUM FALCIPARUM INFECTION AMONG POPULATION LIVING IN BATA DISTRICT, EQUATORIAL GUINEA

**Gertrudis Ribado Meñé**<sup>1</sup>, Maxmillian G. Mpina<sup>2</sup>, Alejandro Lopelo Bolopa<sup>3</sup>, Elizabeth L. Nyakarungu<sup>2</sup>, José Raso Bijeri<sup>3</sup>, Antonio Martin Elo Elo<sup>4</sup>, Florentino Abaga Ondo<sup>4</sup>, Guillermo A. García<sup>5</sup>, Wonder P. Phiri<sup>6</sup>, Mohamed Ali<sup>2</sup>, Jean Claude Dejon Agobé<sup>6</sup>, Ayola Akim Adegnika<sup>7</sup>, Salim M. Abdulla<sup>2</sup>

<sup>1</sup>National University of Equatorial Guinea, Malabo, Equatorial Guinea, <sup>2</sup>Ifakara Health Institute, Dar-es-Salaam, United Republic of Tanzania, <sup>3</sup>Laboratorio de Investigación de Baneq, Baneq, Equatorial Guinea, <sup>4</sup>Equatorial Guinea Ministry of Health, Malabo, Equatorial Guinea, <sup>5</sup>MCD Global Health, 8403 Colesville Rd, MD, United States, <sup>6</sup>Centre de Recherches Médicales Lambaréné, Lambaréné, Gabon, <sup>7</sup>Institut für Tropenmedizin, Universität Tübingen and German Center for Infection Research, Tübingen, Germany

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### INTESTINAL PARASITIC INFECTIONS AND ASSOCIATED RISK FACTORS, KNOWLEDGE, ATTITUDE AND PRACTICES IN CALABAR, CROSS-RIVERS STATE, NIGERIA

**Onyinye M. Ukpai**

*Michael Okpara University of Agriculture, Umudike, Nigeria*

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### MOLECULAR CHARACTERIZATION OF A NOVEL GHANA STRAIN OF NECATOR AMERICANUS HOOKWORMS

**Lisa M. Harrison**<sup>1</sup>, Emma Allen<sup>1</sup>, Dickson Osabutay<sup>2</sup>, Kelly Hagadorn<sup>1</sup>, Santosh George<sup>1</sup>, Claudia F. Gaither<sup>3</sup>, Kaylee Herzog<sup>4</sup>, Adalgisa Caccone<sup>3</sup>, Joseph Fauver<sup>4</sup>, Michael D. Wilson<sup>2</sup>, Michael Cappello<sup>1</sup>

<sup>1</sup>Yale School of Public Health, New Haven, CT, United States, <sup>2</sup>University of Ghana, Accra, Ghana, <sup>3</sup>Yale University, New Haven, CT, United States, <sup>4</sup>University of Nebraska, Omaha, NE, United States

(ACMCIP Abstract)

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### ASSOCIATED SOCIOECONOMIC AND DEMOGRAPHIC FACTORS WITH SOIL-TRANSMITTED HELMINTHIASIS IN FIVE PROVINCES IN GABON

**Luice Aurtin Joel James**, Noé Patrick M'Bondoukwé, Jacques Mari Ndong Ngomo, Reine Moutongo, Denise Patricia Mawili Mboumba, Marielle Karine Bouyou Akotet  
*Université des Sciences de la Santé du Gabon, Owendo, Gabon*

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### THERAPEUTIC EFFICACY OF MEBENDAZOLE AGAINST HOOKWORM INFECTION AMONG SCHOOL CHILDREN IN BAHIR DAR ZURIA DISTRICT, NORTHWEST ETHIOPIA

**Woyneset Gelaye Yalew**<sup>1</sup>, Sissay Menkir<sup>2</sup>, Destaw Damtie<sup>2</sup>, Hiwot Tadesse<sup>3</sup>, Pedro Emanuel Fleitas<sup>4</sup>, Wendemagegn Enbiale<sup>5</sup>

<sup>1</sup>Bahir Dar University, College of Medicine and Health Science; Bahir Dar University, Institute of Biotechnology, Bahir Dar, Ethiopia, <sup>2</sup>Bahir Dar University, College of Science, Department of Biology, Bahir Dar, Ethiopia, <sup>3</sup>Bahir Dar University, College of Medicine and Health Science, Bahir Dar, Ethiopia, <sup>4</sup>Barcelona Institute for Global Health (ISGlobal), Hospital Clínic - Universitat de Barcelona, Spain; Universidad Nacional de Salta, Instituto de Investigaciones de Enfermedades Tropicales/CONICET, Oran, Salta, Argentina

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### DEVELOPMENT AND EFFICACY OF VARIOUS PAN-HOOKWORM VACCINE TARGETS

**Hanchen Li**<sup>1</sup>, Nicholas Cazeault<sup>1</sup>, Florentina Rus<sup>1</sup>, Qian Ding<sup>1</sup>, Duy Hoang<sup>1</sup>, Erich M. Schwarz<sup>2</sup>, Jeffrey Chicca<sup>1</sup>, Carli Garceau<sup>1</sup>, Jane Homan<sup>3</sup>, Amy M. Weeks<sup>4</sup>, Dante Zarlenga<sup>5</sup>, Wenbin Tuo<sup>5</sup>, Gary R. Ostroff<sup>1</sup>, Raffi V. Aroian<sup>1</sup>

<sup>1</sup>University of Massachusetts Chan Medical School, Worcester, MA, United States, <sup>2</sup>Cornell University, Ithaca, NY, United States, <sup>3</sup>3ioGenetics LLC, Madison, WI, United States, <sup>4</sup>University of Wisconsin, Madison, WI, United States, <sup>5</sup>USDA-ARS, Beltsville, MD, United States

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### NEW CURE FOR SOIL-TRANSMITTED HELMINTH INFECTIONS

**Qian Ding**, Kelly Flanagan, Duy Hoang, Nicholas Cazeault, Hanchen Li, Florentina Rus, Ernesto Soto, Gary R. Ostroff, Raffi V. Aroian  
*University of Massachusetts Chan Medical School, Worcester, MA, United States*

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### EFFECT OF SOIL-TRANSMITTED HELMINTH INFECTIONS ON THE CYTOKINE BALANCE IN CHILDREN FROM AN ENDEMIC AREA IN MONTERÍA - CÓRDOBA - COLOMBIA

**Mayra Raciny - Aleman**<sup>1</sup>, María Fernanda Yasnot Acosta<sup>1</sup>, Ana Rodríguez Fernández<sup>2</sup>  
*<sup>1</sup>Cordoba University, Monteria, Colombia, <sup>2</sup>New York University, New York, NY, United States*



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**INTESTINAL PARASITE INFECTION AND RISK OF CONCOMITANT CERVICO-VAGINAL INFECTIONS IN THE PERUVIAN AMAZON**

Paul C. Holden<sup>1</sup>, Sory Vasquez Alves<sup>2</sup>, Neusa Vasquez Alves<sup>2</sup>, Xiaofan Huang<sup>3</sup>, Charles Minard<sup>3</sup>, Patti E. Gravitt<sup>4</sup>, Robert H. Gilman<sup>5</sup>, Eva H. Clark<sup>6</sup>  
<sup>1</sup>Department of Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, United States, <sup>2</sup>Asociación Benéfica PRISMA, Lima, Peru, <sup>3</sup>Institute for Clinical and Translational Research, Baylor College of Medicine, Houston, TX, United States, <sup>4</sup>Center for Global Health, National Cancer Institute, Rockville, MD, United States, <sup>5</sup>Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States, <sup>6</sup>Department of Medicine, Section of Infectious Diseases, Baylor College of Medicine, Houston, TX, United States

**Clinical Tropical Medicine**

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**SUCCESSFUL TREATMENT OF CUTANEOUS LEISHMANIASIS WITH INTRAMUSCULAR INJECTION OF SODIUM STIBOGLUCONATE IN AN 18 MONTH OLD CHILD**

Selamawit Girma Hailu  
 Addis Ababa University, Addis Ababa, Ethiopia

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**A NOVEL TREATMENT FOR SCABIES**

Deepani Darshika Fernando, Sara Taylor, Gangi Samarawickrama, Nirupama Nammunige, Katja Fischer  
 QIMR Berghofer Medical Research Institute, Brisbane, Australia

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**KINETICS OF CARDIOVASCULAR AND INFLAMMATORY BIOMARKERS IN CHILDREN WITH DENGUE SHOCK SYNDROME**

Ho Quang Chanh<sup>1</sup>, Huynh Trung Trieu<sup>2</sup>, Tu Qui Phan<sup>2</sup>, Duyen Huynh Le<sup>1</sup>, Bridget Wills<sup>1</sup>, Sophie Yacoub<sup>1</sup>  
<sup>1</sup>Oxford University Clinical Research Unit, Ho Chi Minh, Vietnam, <sup>2</sup>Hospital for Tropical Diseases, Ho Chi Minh, Vietnam

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**THE IMPACTS OF COVID-19 ON THE RESURGENCE OF LASSA FEVER IN NIGERIA**

Praise Oyedepo Okunlola  
 Faculty of Dentistry, College of Medicine, University of Ibadan, Ibadan, Nigeria

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**SCRUB TYPHUS AND Q FEVER AMONG HOSPITALIZED PATIENTS WITH ACUTE FEBRILE ILLNESS IN BANGLADESH**

Anik Palit<sup>1</sup>, Tanzir Ahmed Shuvo<sup>1</sup>, Mohammed Ziaur Rahman<sup>1</sup>, Zubair Akhtar<sup>1</sup>, Probir Kumar Ghosh<sup>1</sup>, Muntasir Alam<sup>1</sup>, Md. Mahfuzur Rahman<sup>1</sup>, Mahmudur Rahman<sup>2</sup>, Pawan Angra<sup>3</sup>, Matthew Mikoleit<sup>3</sup>, Daniel Martin<sup>3</sup>, Fahmida Chowdhury<sup>1</sup>  
<sup>1</sup>icddr, Dhaka, Bangladesh, <sup>2</sup>Global Health Development, EMPHNET, Dhaka, Bangladesh, <sup>3</sup>Centers for Disease Control and Prevention (CDC), Atlanta, GA, United States

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**TIMELY RETURN OF TEST RESULTS FOR MEASLES AND YELLOW FEVER: A SURVEY OF CARE PROVIDERS IN GHANA**

Benedicta K. Atsu<sup>1</sup>, Joseph Kenu<sup>1</sup>, Benjamin Buade<sup>1</sup>, Emma E. Kploanyi<sup>1</sup>, David A. Opare<sup>2</sup>, Franklin Asiedu-Bekoe<sup>3</sup>, Lee F. Schroeder<sup>4</sup>, David W. Dowdy<sup>5</sup>, Alfred E. Yawson<sup>6</sup>, Ernest Kenu<sup>1</sup>  
<sup>1</sup>School of Public Health, University of Ghana, Accra, Ghana, <sup>2</sup>National Public Health Reference Laboratory, Ghana Health Service, Accra, Ghana, <sup>3</sup>Public Health Division, Ghana Health Service, Accra, Ghana, <sup>4</sup>Department of Pathology and Clinical Laboratories, University of Michigan, Ann Arbor, MI, United States, <sup>5</sup>Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>6</sup>Department of Community Health, University of Ghana Medical School and Dentistry, Accra, Ghana

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**CEREBROSPINAL FLUID CHLORIDE IN THE DIAGNOSIS OF TUBERCULAR MENINGITIS- A PROSPECTIVE STUDY FROM JODHPUR, INDIA**

Pankaj Sukhadiya<sup>1</sup>, Maya Gopalakrishnan<sup>1</sup>, Varatharajan Sakthivadivel<sup>2</sup>, Gopal Krishna Bohra<sup>1</sup>, Kamlakant Shukla<sup>1</sup>, Mahendra Kumar Garg<sup>1</sup>  
<sup>1</sup>All India Institute of Medical Sciences, Jodhpur, India, <sup>2</sup>All India Institute of Medical Sciences, Bibinagar, India

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**A CASE OF MPOX REINFECTION**

Frederique Jacquerioz<sup>1</sup>, Stefano Musumeci<sup>1</sup>, Iris Najjar<sup>1</sup>, Emmanuelle Boffi El Amari<sup>2</sup>, Laurent Kaiser<sup>1</sup>, Alexandra Calmy<sup>1</sup>, Manuel Schibler<sup>1</sup>, Sabine Yerli<sup>1</sup>  
<sup>1</sup>Geneva University Hospitals, Genève, Switzerland, <sup>2</sup>Private Practice, Genève, Switzerland

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**IMPACT OF DIFFERENTIAL AND SYSTEMATIC DIAGNOSIS OF DENGUE, CHIKUNGUNYA AND MALARIA ON PATIENT MANAGEMENT AND ANTIBIOTIC USE IN BURKINA FASO AND IVORY COAST**

Fanette Ravel<sup>1</sup>, Serge Diabougou<sup>2</sup>, Aristophane Tanon<sup>3</sup>, Kiginlman Horo<sup>4</sup>, Solenne Robert<sup>1</sup>  
<sup>1</sup>bioMerieux, Marcy L'Etoile, France, <sup>2</sup>Institut de Recherche en Sciences de la Santé, Ouagadougou, Burkina Faso, <sup>3</sup>AFS de Réanimation médicale, Université Félix Houphouët Boigny, Abidjan, Côte D'Ivoire, <sup>4</sup>Unité de formation et de Recherche en Sciences Médicales, Université Félix Houphouët-Boigny d'Abidjan, Abidjan, Côte D'Ivoire

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**INTESTINAL IMMUNOHISTOCHEMISTRY AND HISTOLOGY RELATIONSHIPS WITH FECAL ENTERIC PATHOGENS IN A PEDIATRIC POSTMORTEM STUDY**

David M. Coomes<sup>1</sup>, Shyam Raghavan<sup>2</sup>, Brooks Morgan<sup>1</sup>, Robert H.J. Bandsma<sup>3</sup>, Chelsea Marie<sup>2</sup>, Sean Moore<sup>2</sup>, Phillip I. Tarr<sup>4</sup>, Wiegner Voskuijl<sup>5</sup>, Donna M. Denno<sup>1</sup>  
<sup>1</sup>University of Washington, Seattle, WA, United States, <sup>2</sup>University of Virginia, Charlottesville, VA, United States, <sup>3</sup>The Childhood Acute Illness & Nutrition (CHAIN) Network, Nairobi, Kenya, <sup>4</sup>Washington University, St. Louis, MO, United States, <sup>5</sup>Kamuzu University of Health Sciences, Blantyre, Malawi

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**TRAVEL HEALTH NEEDS OF CHILDREN IN US MILITARY FAMILIES STATIONED ABROAD**

Alexandra P. Mauro<sup>1</sup>, Amy Davis<sup>1</sup>, Patrick W. Hickey<sup>2</sup>  
<sup>1</sup>Walter Reed National Military Medical Center, Bethesda, MD, United States, <sup>2</sup>Uniformed Services University, Bethesda, MD, United States

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**VALIDATION OF AN NS1 AND IGM RAPID TEST IN THE EARLY DIAGNOSIS OF DENGUE IN A PRIMARY HEALTH CARE CENTRE IN BUCARAMANGA, COLOMBIA DURING THE YEARS 2018-2020**

Rosa-Margarita Gelvez Ramirez<sup>1</sup>, Monika Patricia Consuegra Rodriguez<sup>1</sup>, Maria Isabel Estupiñan<sup>1</sup>, Adriana Torres Rangel<sup>2</sup>, Victor Herrera<sup>3</sup>, Luis Angel Villar Centeno<sup>1</sup>  
<sup>1</sup>Centro de Atención y Diagnóstico de Enfermedades Infecciosas-CDI, INFOVIDA, Bucaramanga, Colombia, <sup>2</sup>Hospital Local del Norte, Instituto de Salud de Bucaramanga-ISABU, Bucaramanga, Colombia, <sup>3</sup>Universidad Industrial de Santander, Department of Public Health, Bucaramanga, Colombia

Friday  
October 20

**6300****THE EFFECTS OF L-CARNITINE SUPPLEMENTATION ON RATE OF WEIGHT GAIN & BIOMARKERS OF ENVIRONMENTAL ENTERIC DYSFUNCTION IN SEVERELY MALNOURISHED CHILDREN: A DOUBLE-BLINDED RANDOMIZED CLINICAL TRIAL**

Jinat Alam, Shah Mohammad Fahim, Md Ridwan Islam, Md Ashraf Alam, Md Amran Gazi, Tahmeed Ahmed  
International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh

**6301****BRAINSTEM ENCEPHALITIS AND EXTRAPYRAMIDAL SYNDROME AFTER ZIKA VIRUS INFECTION IN SALVADOR, BRAZIL**

Lorena Martins<sup>1</sup>, Mateus Rosário<sup>1</sup>, Pedro Antônio Jesus<sup>2</sup>, Marcos Vinicius Francisco<sup>1</sup>, Cleiton Santos<sup>1</sup>, Marta Giovanetti<sup>3</sup>, Luiz Carlos Alcântara<sup>3</sup>, Isadora Siqueira<sup>1</sup>  
<sup>1</sup>Instituto Gonçalo Moniz, Fiocruz-BA, Salvador, Brazil, <sup>2</sup>Hospital Geral Roberto Santos (Secretaria Estadual da Saúde da Bahia), Salvador, Brazil, <sup>3</sup>Instituto René Rachou- Fundação Oswaldo Cruz (MG), Belo Horizonte, Brazil

**6302****EFFECT OF PRIOR DENGUE INFECTION AND SINGLE-DOSE DENGUE VACCINATION ON THE RISK OF SUBSEQUENT VIROLOGICALLY CONFIRMED DENGUE: A FIVE-YEAR PROSPECTIVE COHORT STUDY IN CEBU, PHILIPPINES**

Michelle Ylade<sup>1</sup>, Ma. Vinna Crisostomo<sup>1</sup>, Jeda Verónica Daag<sup>1</sup>, Kristal An Agrupis<sup>1</sup>, Anna Maureen Cuachin<sup>1</sup>, Ava Kristy Sy<sup>2</sup>, Jesus Sarol Jr.<sup>3</sup>, Cameron Adams<sup>4</sup>, Laura White<sup>4</sup>, Aravinda de Silva<sup>4</sup>, Jacqueline Deen<sup>1</sup>  
<sup>1</sup>University of the Philippines Manila, Manila, Philippines, <sup>2</sup>Research Institute for Tropical Medicine, Muntinlupa, Philippines, <sup>3</sup>University of Illinois at Urbana-Champaign, Urbana, IL, United States, <sup>4</sup>University of North Carolina School of Medicine, Chapel Hill, NC, United States

**6303****MOLECULAR SURVEILLANCE AND EPIDEMIOLOGY OF LEPTOSPIROSIS AND SCRUB TYPHUS FROM PATIENTS WITH FEVER OF UNKNOWN ORIGIN IN URBAN BANGALORE, INDIA**

Mansi Malik  
Tata Institute for Genetics and Society, Bangalore, Karnataka, India

**6304****A CASE OF TYPE 1 LEPROSY REACTION WITH NASAL SEPTUM PERFORATION**

Seble A. Areda  
Addis Ababa University, Addis Ababa, Ethiopia

**HIV and Tropical Co-Infections****6305****PREDICTORS OF VIRAL UNSUPPRESSION AMONG ADOLESCENTS AGED 10 TO 19 ON ANTIRETROVIRAL THERAPY IN THE CITE VERTE HEALTH DISTRICT**

Ayima Nigel Asa'ah  
Catholic University of Central Africa, Yaounde, Cameroon

**6306****INTEGRATION OF FEMALE GENITAL SCHISTOSOMIASIS INTO HIV/SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS AND NEGLECTED TROPICAL DISEASES PROGRAMS AND SERVICES: A SCOPING REVIEW WITH A SYSTEMATIC SEARCH**

Isis Umbelino-Walker<sup>1</sup>, Felicia Wong<sup>2</sup>, Matteo Cassolato<sup>2</sup>, Anastasia Pantelias<sup>1</sup>, Julie Jacobson<sup>1</sup>  
<sup>1</sup>Bridges to Development, Vashon, WA, United States, <sup>2</sup>Frontline Aids, Brighton, United Kingdom

**6307****DIAGNOSING A WOMAN PRESENTING WITH FOCAL WEAKNESS AND FACIAL PALSY IN MONROVIA, LIBERIA WITH PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY: A CASE REPORT**

Joyce Bartekwa<sup>1</sup>, Jessica Tuan<sup>2</sup>  
<sup>1</sup>John F. Kennedy Medical Center, Monrovia, Liberia, <sup>2</sup>Yale University School of Medicine, New Haven, CT, United States

**6308****BONE MARROW CRYPTOCOCCOSIS: A RARE PRESENTATION OF A COMMON INFECTION IN AN IMMUNOSUPPRESSED PATIENT**

Dennys Jimenez, Anthony Hartzler, Ryan Wealthier, Clarissa Meza, Alia Nazarullah  
University of Texas Health Science Center at San Antonio, San Antonio, TX, United States

**6309****TB CASE NOTIFICATIONS, TB/HIV CO-MORBIDITIES AND TREATMENT OUTCOMES IN AMHARA REGION, ETHIOPIA: A RETROSPECTIVE LONGITUDINAL PROGRAM BASED STUDY**

Solomon Sisay  
KNVC Tuberculosis Foundation, Addis Ababa, Ethiopia

**6310****CLINICAL SIGNS AND IMMUNE RESPONSE CHANGES DURING PLASMODIUM FRAGILE CO-INFECTION OF ART-TREATED SIV+ RHESUS MACAQUES**

Sydney Nemphos<sup>1</sup>, Hannah Green<sup>1</sup>, Sallie Fell<sup>1</sup>, James Prusak<sup>1</sup>, Kelly Goff<sup>1</sup>, Matilda Moström<sup>1</sup>, Coty Tatum<sup>1</sup>, Robert Blair<sup>1</sup>, Carolina Allers<sup>1</sup>, Monica Embers<sup>1</sup>, Nicholas Maness<sup>1</sup>, Preston Marx<sup>1</sup>, Brooke Gasperge<sup>1</sup>, Amitinder Kaur<sup>1</sup>, Berlin Londono-Renteria<sup>2</sup>, Jennifer A. Manuzak<sup>1</sup>  
<sup>1</sup>Tulane National Primate Research Center, Covington, LA, United States, <sup>2</sup>Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States

**(ACMCIP Abstract)****6311****EPIDEMIOLOGY OF CO-INFECTIONS IN PREGNANT WOMEN LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS 1 IN RURAL GABON: A CROSS SECTIONAL STUDY**

Saskia Dede Davi<sup>1</sup>, Dearie Glory Okwu<sup>2</sup>, Marc Luetgehetmann<sup>3</sup>, Frederique Mbang Abba<sup>2</sup>, Martin Aepfelbacher<sup>3</sup>, Lillian Rene Endamne<sup>4</sup>, Ayodele Alabi<sup>5</sup>, Rella Zoleko-Manego<sup>6</sup>, Ghyslain Mombo-Ngoma<sup>7</sup>, Saidou Mahmoudou<sup>7</sup>, Marylyn Martina Addo<sup>1</sup>, Michael Ramharter<sup>1</sup>, Johannes Mischlinger<sup>1</sup>  
<sup>1</sup>Bernhard Nocht Institute For Tropical Medicine, Hamburg, Germany, <sup>2</sup>Centre de Recherches Médicales de Lambaréné, Hamburg, Gabon, <sup>3</sup>Center for Diagnostics, Institute of Medical Microbiology, Virology and Hygiene, University Medical Center Hamburg-Eppendorf (UKE), Hamburg, Germany, <sup>4</sup>Albert-Schweitzer Hospital, Lambaréné, Hamburg, Germany, <sup>5</sup>Centre de Recherches Médicales de Lambaréné, Lambaréné, Hamburg, Germany, <sup>6</sup>Centre de Recherches Médicales de Lambaréné, Lambaréné, Germany, <sup>7</sup>Centre de Recherches Médicales de Lambaréné, Lambaréné, Gabon

**6312****A DECADE IN CHANGING TRENDS IN HIV PREVALENCE AND INCIDENCE IN PREGNANT WOMEN IN SOUTHERN MOZAMBIQUE**

Anete Mendes-Muxlhanga<sup>1</sup>, Raquel Gonzalez<sup>2</sup>, Arsénio Nhacolo<sup>1</sup>, Antia Figueroa<sup>2</sup>, Maura Mazuze<sup>1</sup>, Alfredo Mayor<sup>2</sup>, Anifa Vala<sup>1</sup>, Esperança Sevens<sup>1</sup>, Llorenç Quintó<sup>2</sup>, Pedro Alonso<sup>1</sup>, Clara Menendez<sup>2</sup>, Tacilta Nhampossa<sup>1</sup>  
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**DRUG RESISTANCE MUTATIONS DETECTED IN HIV-1 PROTEASE GENES ISOLATED FROM HIV-1 INFECTED PERSONS FROM EASTERN REGION OF GHANA**

Asantewa Sisi Yaa Anang<sup>1</sup>, Dennis Kushitor<sup>2</sup>, Christopher Z. Abana<sup>2</sup>, Evelyn Y. Bonney<sup>2</sup>  
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**CLOSING THE KNOWLEDGE GAP IN HUMAN IMMUNODEFICIENCY VIRUS PREVENTION AMONG ADOLESCENTS IN RURAL SETTINGS, BURKINA FASO**

Noubar Clarisse Dah<sup>1</sup>, Ouhouiré Millogo<sup>1</sup>, Lina Nurhussien<sup>2</sup>, Pascal Zabré<sup>1</sup>, Sachin Shinde<sup>2</sup>, Valentin Boudo<sup>1</sup>, Moustapha Nikiéma<sup>1</sup>, Wafaie W. Fawzi<sup>3</sup>, Ali Sié<sup>1</sup>  
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**KNOWLEDGE AND PERCEPTIONS OF PRIMARY HEALTHCARE PROVIDERS TOWARDS INTEGRATION OF ANTIRETROVIRAL THERAPY SERVICES AT DEPARTMENTAL LEVELS AT SELECTED HEALTH FACILITIES LIRA DISTRICT, UGANDA**

Steven Sean Puleh, Emmanuel Asher Ikwaro, Sylviah Namutebi, Lakeri Nakero, Rogers Isabiry, Maxson Kenneth Anyolitho  
 Lira University, Lira, Uganda

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**PREGNANCY OUTCOMES IN WOMEN WITH INFECTIOUS AND CHRONIC COMORBIDITY IN WESTERN KENYA**

Beth A. Tippett Barr<sup>1</sup>, Joyce Were<sup>2</sup>, Gabriela Toledo<sup>3</sup>, Sammy Khagayi<sup>2</sup>, Richard Omoro<sup>2</sup>, Gregory Ouma<sup>2</sup>, Dickens Onyango<sup>4</sup>, Victor Akelo<sup>1</sup>  
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**Integrated Control Measures for Neglected Tropical Diseases (NTDs)**

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**SOCIAL MOBILIZATION FOR ENHANCED MICROPLANNING IN DEWORMING PROGRAMS**

Clare S. Amuyunzu, Mary Nyamongo, Alice S. Sinkett  
 African Institute for Health and Development, Nairobi, Kenya

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**ENGAGING YOUNG PEOPLE AS AGENTS OF CHANGE: A PRIMARY SCHOOL EDUCATIONAL INTERVENTION TO DECREASE ARBOVIRAL AND PROTOZOAL RISK IN GRENADA**

Bethel Bayrau<sup>1</sup>, Nikita Cudjoe<sup>2</sup>, Prathik Kalva<sup>1</sup>, Zakaria Nadeem Doueiri<sup>1</sup>, Basil Williams<sup>2</sup>, Makeda Fletcher<sup>2</sup>, Sarah Telesford<sup>2</sup>, Arani Thirunavukarasu<sup>2</sup>, Lashawnd Johnson<sup>2</sup>, Calum Macpherson<sup>2</sup>, Ann W. Banchoff<sup>1</sup>, Abby C. King<sup>1</sup>, Trevor Noël<sup>2</sup>, A. Désirée LaBeaud<sup>1</sup>  
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**IMPROVING ACCESS TO MOBILITY MANAGEMENT AND DISABILITY PREVENTION (MMDP) MANAGEMENT OF LYMPHATIC FILARIASIS (LF) COMPLICATIONS TOWARDS THE WORLD HEALTH ORGANIZATION 2030 LF ELIMINATION GOAL: A PILOT STUDY CONDUCTED IN LIBERIA 2022 TO CLOSE THE GAPS IN CASE MANAGEMENT NTDS CARE—LYMPHATIC FILARIASIS**

N Peter Y. Flomo  
 Neglected Tropical Diseases Program, Ministry of Health, Monrovia, Liberia

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**THE EFFECT OF AN INNOVATIVE COMMUNITY HEALTH EDUCATION ON TRACHOMA PREVENTION AND CONTROL IN NORTHERN NIGERIA**

Toluwase Olufadewa, Isaac Olufadewa, Miracle Adesina, Ruth Oladele  
 Slum and Rural Health Initiative, Ibadan, Nigeria

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**GEOSPATIAL RISK PREDICTION OF SCHISTOSOMIASIS AND SOIL-TRANSMITTED HELMINTHS FOLLOWING A SCHOOL PREVENTIVE CHEMOTHERAPY PROGRAM IN HUAMBO, UIGE AND ZAIRE PROVINCES, ANGOLA**

Adam W. Bartlett<sup>1</sup>, Elsa P. Mendes<sup>2</sup>, Marta S. Palmeirim<sup>3</sup>, Ana Direito<sup>4</sup>, Sergio Lopes<sup>4</sup>, Susana Vaz Nery<sup>1</sup>  
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**ENHANCING TIMELINESS OF REPORTING FOR TRACHOMA MASS DRUG ADMINISTRATION (MDA) THROUGH ELECTRONIC DATA CAPTURE (EDC): A PILOT STUDY IN TWO DISTRICTS OF UGANDA**

Edwin Mayoki<sup>1</sup>, Joyce Achan<sup>1</sup>, Stephen Begumisa<sup>1</sup>, Rapheal Opon<sup>2</sup>, Sharone Backers<sup>1</sup>, Stella Agunyo<sup>1</sup>, Clara Burgert-Brucker<sup>3</sup>, Jeremiah Ngondi<sup>3</sup>, Brian Allen<sup>3</sup>, Erica Shoemaker<sup>3</sup>, Charles Kissa<sup>2</sup>, Alfred Mubangizi<sup>2</sup>, Stephen Otim<sup>4</sup>, Denis Olaka<sup>5</sup>  
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**FROM PRIORITY TO PRACTICE: MAKING APPLICATION OF DIGITAL PLATFORMS FOR IMPROVING TRACHOMA MDA PERFORMANCE A REALITY TOWARDS ADDRESSING END GAME CHALLENGES IN LONGIDO TANZANIA**

George E. Kabona<sup>1</sup>, Ambakisye K. Mhiche<sup>2</sup>, Molly Adam<sup>3</sup>, Alpha Malishee<sup>1</sup>, Veronica E. Kabona<sup>4</sup>, Lalji Shabbir<sup>4</sup>, Julius C. Masanika<sup>4</sup>, Oswald Will<sup>5</sup>, Jeremiah Ngondi<sup>6</sup>  
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**THE IMPACT OF TEN ROUNDS OF TWICE-PER-YEAR TREATMENT WITH IVERMECTIN ON ONCHOCERCIASIS TRANSMISSION IN HYPERENDEMIC AREAS OF JIMMA AND ILLUBABOR ZONES, SOUTHWEST ETHIOPIA**

Tekola Endeshaw<sup>1</sup>, Aderajew Mohammed<sup>1</sup>, Fanta Nigussie<sup>1</sup>, Henok Birhanu<sup>1</sup>, Tewodros Seid<sup>1</sup>, Yewondwossen Bitew<sup>1</sup>, Firdaweke Bekele<sup>1</sup>, Fikresilasie Samuel<sup>1</sup>, Jemal Moges<sup>1</sup>, Yakub Ragu<sup>1</sup>, Emily Griswold<sup>2</sup>, Anley Haile<sup>1</sup>, Zerihun Tadesse<sup>1</sup>, Jenna E. Coalson<sup>2</sup>, Frank O. Richards<sup>2</sup>, Gregory S. Noland<sup>2</sup>  
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Friday  
October 20

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### ELIMINATING ONCHOCERCIASIS IN LOIASIS ENDEMIC AREAS: ADDED VALUE OF THE SLASH AND CLEAR STRATEGIES

Joelle L Siakam Tanguiep<sup>1</sup>, Phillipe B Nwane<sup>2</sup>, Hugues C Nana-Djeunga<sup>2</sup>, Sevilor Kekeunou<sup>3</sup>, Joseph Kamgno<sup>4</sup>

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### STRENGTHENING OF THE LOCAL HEALTH CAPACITY FOR THE IMPLEMENTATION OF THE FRAMEWORK FOR ELIMINATION OF MOTHER-TO- CHILD TRANSMISSION (EMTCT) OF HIV, SYPHILIS, CHAGAS DISEASE AND HEPATITIS B IN PAMPA DEL INDIO, CHACO (ARGENTINA)

Mariana Fernández<sup>1</sup>, Karina Duarte<sup>2</sup>, Noelia Zalazar<sup>2</sup>, Silvana Pividori<sup>2</sup>, Graciela I. Martínez<sup>1</sup>, Marcelo Wirtz<sup>1</sup>, Favio Crudo<sup>1</sup>, **Maria Victoria Periago<sup>3</sup>**

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### MONITORING TRACHOMA MASS ADMINISTRATION (MDA) USING AN ELECTRONIC SUPERVISOR COVERAGE TOOL (SCT)

Joyce Achan<sup>1</sup>, Edwin Mayoki<sup>1</sup>, Stephen Begumisa<sup>1</sup>, Rapheal Opon<sup>2</sup>, Charles Kissa<sup>2</sup>, Sharone Backers<sup>1</sup>, Stella Agunyo<sup>1</sup>, Alex Rutagwabeyi<sup>1</sup>, Denis Olaka<sup>3</sup>, Stephen Otim<sup>4</sup>, Alfred Mubangizi<sup>2</sup>, Clara Burgert-Brucker<sup>5</sup>, Brian Allen<sup>5</sup>, Erica Shoemaker<sup>5</sup>, Jeremiah Ngondi<sup>6</sup>

<sup>1</sup>RTI International, Kampala, Uganda, <sup>2</sup>Ministry of Health, Kampala, Uganda, <sup>3</sup>District Local Government, Nabilatuk, Uganda, <sup>4</sup>District Local Government, Moroto, Uganda, <sup>5</sup>RTI International, Washington, DC, United States

## Kinetoplastida and Other Protozoa - Immunology (Including Leishmania and Trypanosomes)

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### THE ROLE OF MICROBIOTA AND CO-LOCALIZATION IN THE DISSEMINATION OF VECTOR TRANSMITTED PATHOGENS

Leon Dimitri Melo, Matheus Carneiro, Chukwunonso Nzelu, Nathan Peters  
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(ACMCIP Abstract)

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### INFECTION OF MONOCYTES WITH LEISHMANIA INFANTUM CAUSES DIFFERENCES IN EXTRACELLULAR VESICLE MIRNA PROFILES

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(ACMCIP Abstract)

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### PEOPLE WITH DIFFERENT CLINICAL PRESENTATIONS OF L. DONOVANI INFECTION HAVE DIFFERENT MICRO-RNA PROFILES IN CIRCULATING PLASMA

Ritirupa Roy<sup>1</sup>, Cinthia Hudachek<sup>2</sup>, Shashi Bhushan Chauhan<sup>1</sup>, Vimal Verma<sup>1</sup>, Sundaram Pandey<sup>1</sup>, Shashi kumar<sup>1</sup>, Rajiv Kumar<sup>3</sup>, Mary E. Wilson<sup>2</sup>, Madhukar Rai<sup>1</sup>, Shyam Sundar<sup>1</sup>

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(ACMCIP Abstract)

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### PREVALENCE OF CUTANEOUS LEISHMANIASIS IN ENDEMIC COMMUNITIES OF THE VOLTA REGION, GHANA

Emmanuel Kwame Amoako<sup>1</sup>, Seth O. Addo<sup>1</sup>, Michael Amoa-Bosompem<sup>2</sup>, Faustus Azerigyik<sup>3</sup>, Thelma N. S Tetteh<sup>1</sup>, Kwadwo Akyea-Mensah<sup>1</sup>, Eric Kyei-Baafour<sup>1</sup>, John A. Larbi<sup>4</sup>, Mitsuko Ohashi<sup>1</sup>, Michael D. Wilson<sup>1</sup>, Ben A. Gyan<sup>1</sup>

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(ACMCIP Abstract)

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### EXPRESSION OF ENDOPLASMIC RETICULUM STRESS RESPONSE MARKERS IN CUTANEOUS LEISHMANIASIS

Nimesha M. Edirisinghe<sup>1</sup>, Nuwani H. Manamperi<sup>2</sup>, Harshima Wijesinghe<sup>3</sup>, Vishmi Wanasinghe<sup>1</sup>, Chamalka De Silva<sup>1</sup>, Nadira D. Karunaweera<sup>1</sup>

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(ACMCIP Abstract)

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### IMPACT OF DECLINING DISEASE TRANSMISSION ON MAINTENANCE OF IMMUNOLOGICAL MEMORY IN SUBJECTS WITH PAST HISTORY OF VISCERAL LEISHMANIASIS

Rahul Tiwari<sup>1</sup>, Awnish Kumar<sup>1</sup>, Vishal Kumar Singh<sup>1</sup>, Shyam Sundar<sup>2</sup>, Rajiv Kumar<sup>1</sup>

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(ACMCIP Abstract)

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### MULTIMODAL THERAPEUTIC TREATMENT FOR CHRONIC CHAGAS DISEASE

Maria Jose Villar<sup>1</sup>, Cristina Poveda<sup>1</sup>, Ana Carolina de Araujo Leao<sup>1</sup>, Yi-Lin Chen<sup>1</sup>, Kris Eckols<sup>2</sup>, Maria Elena Bottazzi<sup>1</sup>, Peter J. Hotez<sup>1</sup>, David J. Tweardy<sup>2</sup>, Kathryn M. Jones<sup>1</sup>

<sup>1</sup>Baylor College of Medicine, Houston, TX, United States, <sup>2</sup>MD Anderson Cancer Center, Houston, TX, United States

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### INTESTINAL MICROBIOTA MEDIATE PROTECTION AGAINST GIARDIA INFECTION INDEPENDENT OF HOST ADAPTIVE IMMUNITY

Renay Ngobeni<sup>1</sup>, Kenneth Walsh<sup>1</sup>, Jason Arnold<sup>1</sup>, Jamie Xiao<sup>1</sup>, Morgan Farmer<sup>1</sup>, Shan Sun<sup>2</sup>, Anthony Fodor<sup>2</sup>, Luther Bartelt<sup>1</sup>

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### COMPARISON OF DERMAL AND SYSTEMIC IMMUNE RESPONSES IN PROGRESSIVE STAGES OF CANINE LEISHMANIOSIS

Max C. Waugh, Danielle Pessôa-Pereira, Christine A. Petersen  
The University of Iowa, Iowa City, IA, United States

(ACMCIP Abstract)

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**EVALUATION OF BLT2 RECEPTOR IMMUNOREACTIVITY IN CARDIAC TISSUE FROM RATS INFECTED WITH TRYPANOSOMA CRUZI AT DIFFERENT POST-INFECTION STAGES**

Carlos Javier Neyra Palacios<sup>1</sup>, Edith S. Málaga Machaca<sup>1</sup>, Jose O. Zapata More<sup>1</sup>, Beth J. Condori<sup>1</sup>, Maritza M. Calderón<sup>2</sup>, Cesar Gavidia<sup>3</sup>, Manuela R. Verástegui<sup>3</sup>, Robert B. Gilman<sup>4</sup>

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**Kinetoplastida and Other Protozoa - Invasion, Cellular and Molecular Biology (Including Leishmania and Trypanosomes)**

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**PEPTIDE SELECTION VIA PHAGE DISPLAY TO INHIBIT LEISHMANIA-MACROPHAGE INTERACTIONS**

Juliane Buzzon Meneghesso Verga

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(ACMCIP Abstract)

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**IN VITRO INTERACTION OF MACROPHAGE U937 WITH LEISHMANIA (VIANNIA) ISOLATES INFECTED WITH LEISHMANIA VIRUS IN PANAMA, CENTRAL AMERICA**

Armando Bonilla<sup>1</sup>, Vanessa Pineda<sup>2</sup>, Jose Eduardo Calzada<sup>3</sup>, Azael Saldaña<sup>4</sup>, Marcia Dalastra Laurenti<sup>5</sup>, Luiz Felipe Passero<sup>6</sup>, Davis Beltran<sup>6</sup>, Leyda Abrego<sup>7</sup>, Kadir Amilcar Gonzalez<sup>8</sup>

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(ACMCIP Abstract)

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**DETECTION OF LEISHMANIAVIIRUS IN ISOLATES OF LEISHMANIA VIANNIA IN PANAMA, CENTRAL AMERICA**

Armando Bonilla<sup>1</sup>, Vanessa Pineda<sup>2</sup>, José Calzada<sup>3</sup>, Azael Saldaña<sup>4</sup>, Marcia Dalastra Laurenti<sup>5</sup>, Luiz Felipe Passero<sup>6</sup>, Davis Beltran<sup>6</sup>, Leyda Abrego<sup>7</sup>, Kadir González<sup>8</sup>

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(ACMCIP Abstract)

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**CELL-BASED CARDIOMYOPATHY MODELS FOR CHAGAS DISEASE BIOMARKER DISCOVERY**

Yu Nakagama<sup>1</sup>, Masamichi Ito<sup>2</sup>, Katherine Candray<sup>3</sup>, Yasutoshi Kido<sup>1</sup>

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(ACMCIP Abstract)

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**GENETIC TAXONOMIC ANALYSIS OF CHILOMASTIX GENUS**

Chuanhao Jiang<sup>1</sup>, Siti Arifah Lacante<sup>1</sup>, Tetsushi Mizuno<sup>1</sup>, Din Syafruddin<sup>2</sup>, Masaharu Tokoro<sup>1</sup>

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**MOLECULAR STUDY OF THE NUCLEOLAR METHYLTRANSFERASE FIBRILLARIN OF THE HUMAN PATHOGEN LEISHMANIA MAJOR**

Tomas Nepomuceno-Mejía, Sagrario Aguirre-González, Luis Enrique Florencio-Martínez, Santiago Martínez-Calvillo

Universidad Nacional Autónoma de México, Estado de México, México

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**ESTABLISHMENT OF AN IN VITRO CULTURE MODEL OF TOXOPLASMA GONDII BRADYZOITE CYSTS**

Fabrizio C. Vasquez<sup>1</sup>, Edith M. Malaga<sup>1</sup>, Maritza Calderon<sup>1</sup>, Juan C. Jimenez<sup>1</sup>, Manuela Verástegui<sup>1</sup>, Robert H. Gilman<sup>2</sup>

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**Kinetoplastida and Other Protozoa - Treatment, Drug Delivery, Drug Repurposing and Drug Discovery (Including Leishmania and Trypanosomes)**

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**DRUG REPURPOSING AND SCREENING OF LIBRARIES OF CHEMICAL COMPOUNDS TO IDENTIFY NEW ANTI-PARASITIC AGENTS**

Oluyomi Stephen Adeyemi

Landmark University, Omu-Aran, Nigeria

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**DEEP LEARNING APPROACH SUCCESSFULLY IDENTIFIES FDA APPROVED MOLECULES TO PRESENT ANTI-LEISHMANIA EFFECT AT THE PROMASTIGOTE STAGE**

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Laboratory of Molecular Epidemiology and Experimental Pathology - LR16IPT04, Institut Pasteur de Tunis, Université de Tunis El Manar, Tunis, Tunisia

Friday  
October 20

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**IN VITRO ANTITRYPANOSOMAL, ANTIOXIDANT AND CYTOTOXICITY ACTIVITIES, LC-MS ANALYSIS AND MOLECULAR DOCKING ANALYSIS OF BIOACTIVE COMPOUNDS FROM ANOPYXIS KLAINEANA AGAINST TRYPANOSOMA BRUCEI'S UDP-GALACTOSE 4'-EPIMERASE (TBGALE)**

Abdul Latif Adams<sup>1</sup>, Siobhan Moane<sup>1</sup>, Dorcas Obiri-Yeboah<sup>2</sup>, Michelle Mckeeon Bennett<sup>1</sup>

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(ACMCIP Abstract)

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**HIGH LEVEL OF 'NEVER TREATMENT' IN MASS DRUG ADMINISTRATION AGAINST NEGLECTED TROPICAL DISEASES IN KENYA, NIGERIA, DEMOCRATIC REPUBLIC OF CONGO AND CAMEROON**

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**OPHTHALMOLOGICAL COMPLICATIONS IN VISCERAL LEISHMANIASIS AND POST KALA-AZAR DERMAL LEISHMANIASIS**

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**HOST, PARASITE AND DRUG DETERMINANTS OF TREATMENT OUTCOMES IN VISCERAL LEISHMANIASIS: AN INDIVIDUAL PATIENT DATA META-ANALYSIS USING THE INFECTIOUS DISEASES DATA OBSERVATORY DATA PLATFORM**

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**SAROCLADIUM STRICTUM SECONDARY METABOLITES BLOCK P. FALCIPARUM TRANSMISSION TO MOSQUITOES**

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**VACCINE-LINKED CHEMOTHERAPY AS A NOVEL STRATEGY FOR CHAGAS DISEASE**

Kathryn M. Jones<sup>1</sup>, Sheraz Pasha<sup>1</sup>, Kris Eckols<sup>2</sup>, Yi-Lin Chen<sup>1</sup>, Cristina Poveda<sup>1</sup>, Ana Carolina de Araujo Leao<sup>1</sup>, Maria Jose J. Villar<sup>1</sup>, Christopher S. Ward<sup>1</sup>, David J. Tweardy<sup>2</sup>, Maria Elena Bottazzi<sup>1</sup>, Peter J. Hotez<sup>1</sup>

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**One Health: The Interconnection between People, Animals, Plants and Their Shared Environment**

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**SURVEILLANCE OF ENTERIC VIRUSES AND SARS-COV-2 IN SELECTED LEAFY VEGETABLES AND FARMERS IN THE OFORIKROM DISTRICT, KUMASI, GHANA**

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**HOUSING STRUCTURES AND VISCERAL LEISHMANIASIS TRANSMISSION IN BARINGO COUNTY, KENYA**

Katherine OBrien<sup>1</sup>, Grace Kennedy<sup>1</sup>, Hellen Nyakundi<sup>2</sup>, Mwatela Kitondo<sup>2</sup>, Wilson Biwott<sup>3</sup>, Valeria Pembee<sup>3</sup>, Richard Wamai<sup>1</sup>

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**A PREDICTIVE MODEL ACCOUNTING FOR DEFORESTATION ACROSS TEMPORAL AND SPATIAL SCALES IDENTIFYING ANNUAL SHIFTS IN THE ODDS OF EBOLAVIRUS ZOOONOTIC SPILLOVER**

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**INTEGRATING ECOLOGY AND EPIDEMIOLOGY TO EMPOWER ONE HEALTH: A STUDY OF RIFT VALLEY FEVER**

Melinda K. Rostal<sup>1</sup>, Ernest Guevarra<sup>1</sup>, Whitney Bagge<sup>1</sup>, Peter Thompson<sup>2</sup>, Janusz T. Paweska<sup>3</sup>, Veerle Msimang<sup>3</sup>, Assaf Anyamba<sup>4</sup>, Alan Kemp<sup>5</sup>, Jacqueline Weyer<sup>3</sup>, Claudia Cordel<sup>6</sup>, Johana Teigen<sup>1</sup>, Catherine Machalaba<sup>1</sup>, Alison Lubisi<sup>7</sup>, Harold Weepener<sup>8</sup>, Zimbini Mdluwa<sup>9</sup>, William B. Karesh<sup>1</sup>, Noam Ross<sup>1</sup>

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**EVIDENCE AND GAP MAP FOR MULTI-SECTOR AND ONE HEALTH RESEARCH IN ZOO NOTIC NEGLECTED TROPICAL DISEASES**

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**PREVALENCE, DISTRIBUTION AND DIVERSITY OF BARTONELLA IN SMALL MAMMAL AND BAT COMMUNITIES ACROSS CAMBODIA**

Sophie A. Borthwick<sup>1</sup>, Alan T. Hitch<sup>2</sup>, Dolyce H.W Low<sup>1</sup>, Lena Chng<sup>1</sup>, Sothya Tum<sup>3</sup>, Sorn San<sup>3</sup>, Dany Chheang<sup>4</sup>, Ian H. Mendenhall<sup>5</sup>, Gavin J. Smith<sup>1</sup>  
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**EPIDEMIOLOGY OF ANIMAL BITES AND POST-EXPOSURE PROPHYLAXIS (PEP) OF RABIES IN RUPANDEHI, NEPAL**

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**DETECTION AND MOLECULAR CHARACTERIZATION OF MULTIRE S I S T A N T ENTEROBACTERIACEAE CARRIED BY HOUSEFLIES IN THE CITY OF BOBO-DIOULASSO, BURKINA FASO**

Soufiane Do M. Sanou<sup>1</sup>, Serge R. Yerbanga<sup>2</sup>, Tinié Bangre<sup>2</sup>, Séverin N'do<sup>3</sup>, Jean Bosco Ouedraogo<sup>2</sup>  
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**HIGH PREVALENCE OF TETRACYCLINE RESISTANT ESCHERICHIA COLI ISOLATES IN AMERICAN CROCODILE CROCODYLUS ACUTUS LIKE BIOINDICATOR IN CAÑAS GUANACASTE COSTA RICA**

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**WHOLE GENOME SEQUENCING TO ELUCIDATE THE ZOO NOTIC TRANSMISSION OF STRONGYLOIDES STERCORALIS AND ANCYLOSTOMA CEYLANICUM BETWEEN DOGS AND SCHOOL AGED CHILDREN LIVING IN THE SAME COMMUNITIES**

Patsy A. Zendejas Heredia<sup>1</sup>, Shannon M. Hedtker<sup>2</sup>, Virak Khieu<sup>3</sup>, Martin Walker<sup>4</sup>, Warwick N. Grant<sup>2</sup>, Rebecca J. Traub<sup>1</sup>, Vito Colella<sup>1</sup>  
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**DETECTION OF BRUCELLA IN HUMANS AT TEKNAF, COX'S BAZAR IN BANGLADESH**

Ireen Sultana Shanta, Mohammed Rahman, Mohammad Hossain, Tareq Rakib, Ziaul Islam, Munirul Islam, Sayera Banu, Firdausi Qadri, Tahmeed Ahmed icddr, Dhaka, Bangladesh

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**MAPPING HOUSEHOLD-SCALE LIVESTOCK HUSBANDRY IN LOW- AND MIDDLE-INCOME COUNTRIES BY ANIMAL TAXON: A BAYESIAN PREDICTION MODEL OF A KEY INFECTIOUS DISEASES RISK FACTOR**

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**Pneumonia, Respiratory Infections and Tuberculosis**

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**ISONIAZID URINE COLORIMETRY FOR EVALUATION OF TUBERCULOSIS PHARMACOKINETICS IN ADULTS AND CHILDREN**

Prakruti Rao<sup>1</sup>, Kyle Reed<sup>1</sup>, Saningo Lukumay<sup>2</sup>, Caroline Kimathi<sup>2</sup>, Restituta Mosha<sup>2</sup>, Sakina Bajuta<sup>2</sup>, Mariamu Temu<sup>2</sup>, Kristen Petros De Guex<sup>1</sup>, Nisha Modi<sup>2</sup>, Deborah Handler<sup>3</sup>, Leonid Kagan<sup>4</sup>, Navaneeth Narayanan<sup>4</sup>, Charles Peloquin<sup>5</sup>, Alfred Lardizabal<sup>3</sup>, Christopher Vinnard<sup>3</sup>, Tania Thomas<sup>1</sup>, Yingda Xie<sup>3</sup>, Scott Heysell<sup>1</sup>  
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**PERFORMANCE OF SARS COV-2 IGG ANTI-N AS AN INDEPENDENT MARKER OF EXPOSURE TO SARS COV-2 IN AN UNVACCINATED WEST-AFRICAN POPULATION**

Adam Abdullahi<sup>1</sup>, Michael Owusu<sup>2</sup>, Mark Cheng<sup>1</sup>, Colette Smith<sup>3</sup>, Sani Aliyu<sup>4</sup>, Alash'le Abimiku<sup>5</sup>, Richard Phillips<sup>2</sup>, Ravindra K. Gupta<sup>1</sup>  
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**FEASIBILITY OF CASH TRANSFERS TO FACILITATE TUBERCULOSIS SCREENING AMONG HOUSEHOLD CONTACTS OF TUBERCULOSIS PATIENTS IN TANZANIA**

Ghassan Ilaiwy<sup>1</sup>, Saning'o Lukumay<sup>2</sup>, Domitila Augustino<sup>2</sup>, Paulo Mejana<sup>2</sup>, Kusulla Simeon<sup>2</sup>, Estomih Mduma<sup>2</sup>, Scott K. Heysell<sup>1</sup>, Tania A. Thomas<sup>1</sup>  
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**THE EFFECT OF THE COVID-19 PANDEMIC ON HEALTHCARE SEEKING IN AN INFORMAL URBAN SETTLEMENT IN NAIROBI AND A RURAL SETTING IN WESTERN KENYA, JANUARY 2016 TO AUGUST 2022**

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Friday  
October 20

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## HEPATITIS B AND INFLUENZA VACCINE COVERAGE AMONG HEALTHCARE WORKERS IN SELECTED HEALTH FACILITIES IN BANGLADESH

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## ASSOCIATION OF ALTERED BASELINE HEMATOLOGICAL PARAMETERS WITH ADVERSE TUBERCULOSIS TREATMENT OUTCOMES

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## SARS-COV-2 OMICRON VARIANT DETECTION WITH BINAXNOW, PANBIO, AND ID NOW RAPID TESTS

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## ANALYTICAL PERFORMANCE OF 17 COMMERCIALY AVAILABLE POINT-OF-CARE TESTS FOR CRP TO SUPPORT PATIENT MANAGEMENT AT LOWER LEVELS OF THE HEALTH SYSTEM

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## EVALUATION OF TUBERCULOSIS TREATMENT OUTCOME AND THEIR PREDICTORS IN PUBLIC AND PRIVATE HEALTH INSTITUTIONS, SOUTHEAST, NIGERIA; AN IMPLICATION FOR POLICY IMPLEMENTATION, CLIENT CENTERED EDUCATION AND TREATMENT FOLLOW-UP

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## ISONIAZID MONORESISTANT TUBERCULOSIS (HR-TB) IN ODISHA, INDIA, DURING 2019

**Sidhartha Giri**, Sujeet Kumar, Sunil Swick Rout, Sarita Kar, Sanghamitra Pati  
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## INFLUENZA, RSV, AND SARS-COV2 SURVEILLANCE IN MACHA, ZAMBIA IN 2022

**Mutinta Hamahuwa<sup>1</sup>**, Pamela Sinywimaanzi<sup>1</sup>, Mathias Muleka<sup>1</sup>, Passwell Munachoonga<sup>1</sup>, Hellen Matakala<sup>1</sup>, Stephanie M. Kenyon<sup>2</sup>, Katherine Z.J. Fenstermacher<sup>3</sup>, Richard E. Rothman<sup>3</sup>, Andrew Pekosz<sup>4</sup>, Mwaka Monze<sup>5</sup>, Philip E. Thuma<sup>1</sup>, Edgar Simulundu<sup>1</sup>, Catherine G. Sutcliffe<sup>6</sup>  
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## IMPORTANCE OF SEROLOGY DIAGNOSTICS FOR CHRONIC PULMONARY ASPERGILLOSIS IN POSSIBLE TUBERCULOSIS PATIENTS IN COTE D'IVOIRE

**David Koffi<sup>1</sup>**, Borel Thierry N'dri-Kouadio<sup>1</sup>, Francis Kouadio<sup>1</sup>, Andre Offianan Toure<sup>1</sup>, Mireille Dosso<sup>1</sup>, David W. Denning<sup>2</sup>  
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## SEX DIFFERENCES IN PLASMA CYTOKINE PROFILES BETWEEN TUBERCULOSIS PATIENTS BEFORE AND DURING TREATMENT

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## BURDEN OF TUBERCULOSIS AMONG CHILDREN UNDER FIVE HOSPITALIZED IN THE RESPIRATORY UNIT OF THE LARGEST DIARRHEAL DISEASE HOSPITAL IN BANGLADESH: A PROSPECTIVE CROSS-SECTIONAL STUDY

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## HYPOXAEMIA PREVALENCE, MANAGEMENT AND OUTCOME AMONG CHILDREN PRESENTING TO LOW-LEVEL HEALTH FACILITIES IN TANZANIA AND RWANDA

**Alix Miauton<sup>1</sup>**, Alexandra V. Kulinkina<sup>2</sup>, Rainer Tan<sup>1</sup>, Chacha Mangu<sup>3</sup>, Victor P. Rwandarwacu<sup>4</sup>, Ludovico Cobuccio<sup>1</sup>, Lameck Luwanda<sup>5</sup>, Godfrey Kavishe<sup>5</sup>, Sabine Renggli<sup>6</sup>, Geoffrey I. Ashery<sup>6</sup>, Magreth Joram<sup>6</sup>, Ibrahim E. Mtebene<sup>6</sup>, Peter Agrea<sup>3</sup>, Humphrey Mhagama<sup>3</sup>, Joseph Habakurama<sup>4</sup>, Emmanuel Kalisa<sup>4</sup>, Angélique Ingabire<sup>4</sup>, Cassien Havugimana<sup>4</sup>, Gilbert Rukundo<sup>4</sup>, Honorati Masanja<sup>5</sup>, Nyanda E. Ntinginya<sup>2</sup>, Valérie D'Acromont<sup>1</sup>  
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### FACTORS CONTRIBUTING TO DISPARITIES IN RESPIRATORY CARE AT ADAMA HOSPITAL MEDICAL COLLEGE, ETHIOPIA

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## Schistosomiasis and Other Trematodes – Epidemiology and Control

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### THE EFFECT OF SOAP USE CONDITIONS ON SCHISTOSOME CERCARIAE IN WATER

Jiaodi Zhang<sup>1</sup>, Ana K. Pitol<sup>2</sup>, Laura Braun<sup>3</sup>, Michael R. Templeton<sup>1</sup>

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### COST-EFFICIENT SURVEY DESIGNS FOR MONITORING AND EVALUATION OF SOIL-TRANSMITTED HELMINTHS CONTROL PROGRAMS

Adama Kazienga<sup>1</sup>, Bruno Levecke<sup>1</sup>, Sake J de Vlas<sup>2</sup>, Luc E. Coffeng<sup>2</sup>

<sup>1</sup>Ghent University, Gent, Belgium, <sup>2</sup>Erasmus MC, University Medical Center, Rotterdam, Netherlands

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### ASSOCIATION OF FEMALE UROGENITAL SCHISTOSOMIASIS WITH HIGH-RISK HUMAN PAPILLOMAVIRUS AMONG WOMEN IN ZAMBIA: BASELINE RESULTS OF A LONGITUDINAL COHORT STUDY (THE ZIPIME WEKA SCHISTA STUDY)

Olimpia Lamberti<sup>1</sup>, Helen Kelly<sup>1</sup>, Rhoda Ndubani<sup>2</sup>, Nkatya Kasese<sup>2</sup>, Emily Webb<sup>3</sup>, Beatrice Nyondo<sup>2</sup>, Barry Kosloff<sup>2</sup>, Jennifer Fitzpatrick<sup>2</sup>, Bonnie Webster<sup>4</sup>, Maina Cheeba<sup>2</sup>, Helen Ayles<sup>2</sup>, Kwame Shanaube<sup>2</sup>, Amaya Bustinduy<sup>1</sup>

<sup>1</sup>Department of Clinical Research, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Zambart, Lusaka, Zambia, <sup>3</sup>Department of Infectious Disease Epidemiology, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>4</sup>Natural History Museum, London, United Kingdom

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### INVESTIGATING THE GENETIC DIVERSITY OF THE SCHISTOSOMA MANSONI TRANSIENT RECEPTOR POTENTIAL MELASTATIN (SMTRPM<sub>p20</sub>) CHANNEL IN RESPONSE TO PRAZIQUANTEL TREATMENT IN NATURAL UGANDAN S. MANSONI POPULATIONS

Shannan Summers<sup>1</sup>, Fiona Allan<sup>2</sup>, Tapan Bhattacharyya<sup>1</sup>, Michael Miles<sup>1</sup>, Bonnie Webster<sup>2</sup>, Amaya Bustinduy<sup>1</sup>

<sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Natural History Museum, London, United Kingdom

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### LIVESTOCK CATTLE AS PREDICTOR OF TRANSMISSION OF SCHISTOSOMIASIS IN NIGERIA

Oyetunde Timothy Oyeyemi, Oluyemi Adewole Okunlola

University of Medical Sciences, Ondo, Nigeria

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### HUMAN SCHISTOSOMIASIS RISK AND SNAIL ABUNDANCE HAVE A UNIMODAL RELATIONSHIP IN THE NATURAL ENVIRONMENT

Sidy Bakhoun<sup>1</sup>, Christopher J. E. Haggerty<sup>2</sup>, Cheikh Tidiane Ba<sup>3</sup>, Jason R. Rohr<sup>4</sup>

<sup>1</sup>Department of Animal Biology, University Cheikh Anta Diop, Dakar, Senegal, <sup>2</sup>University of South Florida, Florida, FL, United States, <sup>3</sup>Department of Animal Biology, University Cheikh Anta Diop, Dakar, Senegal, <sup>4</sup>Department of Biological Sciences, Eck Institute of Global Health, Environmental Change Initiative, University of Notre Dame, Indiana, IN, United States

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### RISK FACTORS AND PREVALENCE OF SCHISTOSOMIASIS AND INTESTINAL PARASITES INFECTIONS IN VILLAGES IMPACTED BY AGRICULTURAL ACTIVITIES IN THE NORTH AND SOUTH OF GABON

Ndong NJ Mari

Faculty of Medicine, Department of Parasitology, Owendo, Gabon

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### COMBINING GENOMICS DATA WITH SOCIAL AND ENVIRONMENTAL CONNECTIVITY MEASURES TO IDENTIFY PATHWAYS OF SCHISTOSOMA JAPONICUM IMPORT IN RURAL CHINA

Elise Grover<sup>1</sup>, Katerina Kechris<sup>1</sup>, Zachary Nikolakis<sup>2</sup>, Yannick Francioli<sup>2</sup>, Hannah Guss<sup>2</sup>, Hamish Pike<sup>2</sup>, Todd Castoe<sup>2</sup>, David Pollock<sup>3</sup>, Yang Liu<sup>4</sup>, Elizabeth Carlton<sup>1</sup>

<sup>1</sup>University of Colorado School of Public Health, Aurora, CO, United States, <sup>2</sup>University of Texas at Arlington, Arlington, TX, United States, <sup>3</sup>University of Colorado Anschutz, Aurora, CO, United States, <sup>4</sup>Sichuan Center for Disease Control and Prevention, Chengdu, China

## Schistosomiasis and Other Trematodes – Immunology, Pathology, Cellular and Molecular Biology

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### PROTEOMICS OF ADULT PARAGONIMUS KELLICOTTI EXTRACELLULAR VESICLES RELEASED IN VITRO OR PRESENT IN LUNG CYSTS

Lucia S. Di Maggio, Kerstin Fischer, Devyn Yates, Kurt C. Curtis, Bruce A. Rosa, John C. Martin, Petra Erdmann-Gilmore, Robert S.W Sprung, Makedonka Mitreva, Reid R. Townsend, Gary J. Weil, Peter U. Fischer

Washington University in Saint Louis, Saint Louis, MO, United States

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### EFFECT OF INTENSIVE TREATMENT FOR SCHISTOSOMIASIS ON VACCINE SPECIFIC RESPONSES AMONG UGANDAN ISLAND ADOLESCENTS: THE POPVAC A TRIAL

Gyaviira Nkurunungi<sup>1</sup>, Ludoviko Zirimanya<sup>1</sup>, Jacent Nassuuna<sup>1</sup>, Agnes Natukunda<sup>1</sup>, Emily L. Webb<sup>2</sup>, Alison M. Elliott<sup>1</sup>

<sup>1</sup>MRC/UVRI & LSHTM Uganda Research Unit, Entebbe, Uganda, <sup>2</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom

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### TRANSFORMING GROWTH BETA LEVELS IN INDIVIDUAL WITH SCHISTOSOMIASIS IN FEDERAL CAPITAL TERRITORY, NIGERIA

Wellington A. Oyibo<sup>1</sup>, Olubunmi Tosin Okurame<sup>1</sup>, Uche Thecla Igbaşi<sup>2</sup>

<sup>1</sup>Centre for Transdisciplinary Research in Malaria and Neglected Tropical Diseases, College of Medicine of the University of Lagos, Nigeria, Lagos, Nigeria, <sup>2</sup>Centre for Infectious Diseases Research, Microbiology Department, Nigeria Institute of Medical Research, 6 Edmond Crescent, Yaba- Lagos, Nigeria, Lagos, Nigeria

# Water, Sanitation, Hygiene and Environmental Health

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## MEASURING WATER QUANTITY USED FOR PERSONAL AND DOMESTIC HYGIENE IN A LOW-INCOME URBAN COMMUNITY IN BANGLADESH

**Rebeca Sultana**<sup>1</sup>, Nazmun Nahar<sup>2</sup>, Stephen P. Luby<sup>3</sup>, Sayeda Tasnuva Swarna<sup>1</sup>, Emily S. Gurley<sup>4</sup>, Charlotte Crim Tamason<sup>5</sup>, Shifat Khan<sup>1</sup>, Nadia Ali Rimi<sup>1</sup>, Humayun Kabir<sup>1</sup>, Md. Khaled Saifullah<sup>1</sup>, Sushil Ranjan Howlader<sup>6</sup>, Peter Kjær Mackie Jensen<sup>5</sup>  
<sup>1</sup>icddr, Dhaka, Bangladesh, <sup>2</sup>Department of Gastroenterology, Hepatology and Infectious Diseases, University Hospital Düsseldorf, Medical Faculty of Heinrich Heine University Düsseldorf, Düsseldorf, Germany, <sup>3</sup>Infectious Diseases and Geographic Medicine, Stanford University, Stanford, CA, United States, <sup>4</sup>Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States, <sup>5</sup>Copenhagen Center for Disaster Research, Global Health Section, Department of Public Health, University of Copenhagen, Copenhagen, Denmark, <sup>6</sup>Institute of Health Economics, University of Dhaka, Dhaka, Bangladesh

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## SUPPORTIVE SUPERVISION IS ASSOCIATED WITH AVAILABILITY OF WORLD HEALTH ORGANIZATION INFECTION PREVENTION AND CONTROL CORE COMPONENTS IN HEALTH FACILITIES IN SOUTHWESTERN UGANDA

**Cozie Gwaikolo**<sup>1</sup>, Bongomin Bodo<sup>2</sup>, Doreen Nabawanuka<sup>2</sup>, Michael Mukibi<sup>2</sup>, Emmanuel Seremba<sup>3</sup>, Paul Muyinda<sup>3</sup>, Andrew Bakainaga<sup>2</sup>, Yonas T. Woldenariam<sup>2</sup>, Christopher C. Moore<sup>4</sup>, Richard Ssekitoleko<sup>5</sup>  
<sup>1</sup>University of California San Francisco, San Francisco, CA, United States, <sup>2</sup>World Health Organization, Kampala, Uganda, <sup>3</sup>College of Health Sciences, Makerere University, Kampala, Uganda, <sup>4</sup>Division of Infectious Diseases and International Health, University of Virginia, Charlottesville, VA, United States, <sup>5</sup>World Health Organization, Kampala, Uganda

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## A SEMI-AUTOMATED SCOPING REVIEW OF MICROPLASTIC CONTAMINATION IN FOOD AND WATER BANGLADESH PERSPECTIVE

**Tania Jahir**<sup>1</sup>, Jaynal Abedin<sup>2</sup>, Farha Sharmin<sup>3</sup>, John Newell<sup>4</sup>  
<sup>1</sup>College of Medicine, Nursing, and Health Sciences, University of Galway, Galway, Ireland, <sup>2</sup>Center for Data Research and Analytics (CfDRA), Galway, Ireland, <sup>3</sup>Spreetha Bangladesh Foundation, Dhaka, Bangladesh, <sup>4</sup>School of Mathematical and Statistical Sciences, Galway, Ireland

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## TOILET FUNCTIONALITY AND CLEANLINESS STATUS IN HEALTHCARE FACILITIES (HCF) IN DHAKA, BANGLADESH

**Nuhu Amin**, Juliet Willetts, Tim Foster  
University of Technology Sydney, Sydney, Australia

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## ASSESSING FAECAL CONTAMINATION IN SOILS OF INFORMAL SETTLEMENTS- A COMPARATIVE STUDY OF TRADITIONAL SOIL TESTING AND INNOVATIVE BOOTSOCK TECHNIQUE

**Lamiya Nerose Bata**, Rebekah M. Henry, David T. McCarthy  
Monash University, Clayton, Australia

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## PREVALENCE OF PATHOGENIC MDR ESCHERICHIA COLI IN FAECAL SLUDGE TREATMENT PLANTS AND ADJACENT HOUSEHOLD DRINKING WATER OF ROHINGYA CAMPS, BANGLADESH

**Zahid Hayat Mahmud**<sup>1</sup>, Mohammed Tanveer Hussain<sup>1</sup>, Md. Sakib Hossain<sup>1</sup>, Mohammad Atique Ul Alam<sup>1</sup>, Amanta Rahman<sup>1</sup>, Ashrin Haque<sup>1</sup>, Faisal Chowdhury Galib<sup>1</sup>, Md. Hajbiur Rahman<sup>1</sup>, Md. Rafiqul Islam<sup>1</sup>, Mahbubul H. Siddiquee<sup>2</sup>, Md. Shafiqul Islam<sup>1</sup>  
<sup>1</sup>International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>2</sup>BRAC University, Dhaka, Bangladesh

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## ASSESSING THE IMPLEMENTATION OF WASH INTERVENTIONS IN A COASTAL DISTRICT WITH HIGH DIARRHOEA BURDEN, GHANA, 2022

**Delia Akosua Benewah Bando**<sup>1</sup>, Ernest Kenu<sup>1</sup>, Edwin Andrew Afari<sup>1</sup>, Kwadwo Duah Dwomoh<sup>1</sup>, Dzidzo Yirenya-Tawiah<sup>2</sup>, Mawuli Dzodzomenyo<sup>1</sup>  
<sup>1</sup>University of Ghana School of Public Health, Accra, Ghana, <sup>2</sup>Institute of Environmental Studies, University of Ghana, Accra, Ghana

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## DETECTION OF SARS-COV-2 AND ENTERIC PATHOGENS IN MEGACITY DHAKA WASTEWATER; FINDINGS FROM AN ENVIRONMENTAL SURVEILLANCE PLATFORM

**Mahbubur Rahman**<sup>1</sup>, Md Rezaul Hasan<sup>1</sup>, Md Ziaur Rahman<sup>1</sup>, Mohammed Ziaur Rahman<sup>2</sup>, Md Nuhu Amin<sup>1</sup>, Rehnuma Haque Sarah<sup>1</sup>, Md Shariful Islam<sup>3</sup>, Afroza Jannat Suchana<sup>1</sup>, Mohammad Enayet Hossain<sup>2</sup>, Monju Mia<sup>4</sup>, Suraja Raj<sup>4</sup>, Pengbo Liu<sup>4</sup>, Yuke Wang<sup>4</sup>, Marlene Wolfe<sup>4</sup>, Stephen Patrick Hilton<sup>4</sup>, Chloe Svezia<sup>4</sup>, Mahbubur Rahman<sup>5</sup>, Ahmed Nawsher Alam<sup>5</sup>, Zakir Hossain Habib<sup>5</sup>, Aninda Rahman<sup>6</sup>, Alamgir Hossain<sup>7</sup>, Megan B. Diamond<sup>8</sup>, Tahmina Shirin<sup>5</sup>, Christine L. Moe<sup>4</sup>  
<sup>1</sup>Environmental Interventions Unit, Infectious Diseases Division, International Center for Diarrheal Disease Research, Bangladesh (icddr), Dhaka 1212, Bangladesh, <sup>2</sup>One Health Laboratory, Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr), Dhaka 1212, Bangladesh, <sup>3</sup>School of Public Health, University of Queensland, Brisbane, Australia, <sup>4</sup>The Center for Global Safe Water, Sanitation, and Hygiene at Emory University, Atlanta, GA, United States, <sup>5</sup>Institute of Epidemiology, Disease Control, and Research (IEDCR), Dhaka 1212, Bangladesh, <sup>6</sup>Communicable Disease Control (CDC) Program, Directorate General of Health Services (DGHS), Dhaka 1212, Bangladesh, <sup>7</sup>Dhaka Water Supply and Sewerage Authority (DWASA), Dhaka 1215, Bangladesh, <sup>8</sup>The Rockefeller Foundation, New York, NY, United States

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## FINDINGS OF ENVIRONMENTAL SURVEILLANCE FOR SARS-COV-2 AND ENTERIC PATHOGENS TRIGGER FUTURE PATH: LEARNING FROM A MEGACITY AND HUMANITARIAN SETTINGS IN BANGLADESH

**Md Ziaur Rahman**<sup>1</sup>, Zakir Hossain Habib<sup>2</sup>, Rezaul Hasan<sup>1</sup>, Nuhu Amin<sup>1</sup>, Rehnuma Haque<sup>1</sup>, Md Shariful Islam<sup>3</sup>, Afroza Jannat Suchana<sup>1</sup>, Mohammed Ziaur Rahman<sup>4</sup>, Mohammad Enayet Hossain<sup>4</sup>, Moju Miah<sup>4</sup>, Suraja Raj<sup>4</sup>, Pengbo Liu<sup>5</sup>, Yuke Wang<sup>5</sup>, Marlene Wolfe<sup>5</sup>, Stephen Patrick Hilton<sup>5</sup>, Chloe Svezia<sup>5</sup>, Mahbubur Rahman<sup>2</sup>, Ahmed Nawsher Alam<sup>2</sup>, Aninda Rahman<sup>6</sup>, Alamgir Hossain<sup>7</sup>, Mahbubur Rahman<sup>1</sup>, Megan B. Diamond<sup>8</sup>, Tahmina Shirin<sup>2</sup>, Christine L. Moe<sup>5</sup>  
<sup>1</sup>Environmental Interventions Unit, Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr), Dhaka-1212, Bangladesh, <sup>2</sup>Institute of Epidemiology, Disease Control, and Research (IEDCR), Dhaka, Bangladesh, <sup>3</sup>School of Public Health, University of Queensland, Brisbane, Australia, <sup>4</sup>One Health Laboratory, Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr), Dhaka-1212, Bangladesh, <sup>5</sup>The Center for Global Safe Water, Sanitation, and Hygiene, Emory University, GA, United States, <sup>6</sup>Communicable Disease Control (CDC) Program, Directorate General of Health Services (DGHS), Dhaka-1212, Bangladesh, <sup>7</sup>Dhaka Water Supply and Sewerage Authority (DWASA), Dhaka-1212, Bangladesh, <sup>8</sup>The Rockefeller Foundation, New York City, NY, United States

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**HOUSEHOLD COPING STRATEGIES DUE TO WATER INTERMITTENCY: A MIXED-METHODS STUDY IN NORTHWESTERN ECUADOR**Andrea Sosa-Moreno<sup>1</sup>, Gwenyth O. Lee<sup>2</sup>, Karen Levy<sup>3</sup>, Josefina Coloma<sup>4</sup>, Joseph N.S. Eisenberg<sup>1</sup><sup>1</sup>University of Michigan, Ann Arbor, MI, United States, <sup>2</sup>Rutgers Global Health Institute, New Brunswick, NJ, United States, <sup>3</sup>University of Washington, Seattle, WA, United States, <sup>4</sup>University of California-Berkeley, Berkeley, CA, United States**CTropMed Exam Committee Meeting**

Wright, Third Floor, West Tower

Friday, October 20, 12:15 p.m. - 1:30 p.m. U.S. Central Time Zone

**Late-Breaker Abstract Session 74****Late-Breakers in Clinical and Applied Sciences**

Grand Hall J - Ballroom Level (East Tower)

Friday, October 20, 12:15 p.m. - 1:30 p.m. U.S. Central Time Zone

*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**

Miguel Cabada

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

Sharon Tennant

University of Maryland School of Medicine, Baltimore, MD, United States

**Late-Breaker Abstract Session 75****Late-Breakers in Malaria**

Grand Ballroom CDEF - Ballroom Level (East Tower)

Friday, October 20, 12:15 p.m. - 1:30 p.m. U.S. Central Time Zone

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**

Giselle Lima-Cooper

Indiana University, Indianapolis, IN, United States

Mahamadou Diakite

MRTC-USTTB, Bamako, Mali

**Poster Session B Viewing**

Riverside Center - Exhibit Level (East Tower) and Grand Hall GHI - Ballroom Level (East Tower)

Friday, October 20, 1:45 p.m. - 4 p.m. United States Central Time Zone

**Symposium 76****ASTMH Committee on Global Health (ACGH) Symposium I: Effectively Communicating Sensitive Issues in Global Health: Lessons from the Field**

Grand Ballroom A - Ballroom Level (East Tower)

Friday, October 20, 1:45 p.m. - 3:30 p.m. U.S. Central Time Zone

Over the past few years, communication has become an integral part of successful global health campaigns. Political perspectives have become key parts of the discussion around sensitive global health topics such as climate change and vaccine mandates, to the point that traditional methods of presenting and using results, evidence to guide public health decision making are no longer sufficient. Communicating key public health messages to the general public requires different skill sets than presenting to scientific audiences, and recent events like the COVID-19 pandemic have shown that these are skills many professionals in global health are lacking. In this symposium we will discuss methods for effectively communicating results and evidence to the public, governments, and health-care professionals by highlighting three topics that can be considered sensitive: pandemic preparedness, gene-drive technology, climate change; as well as discussions around best practices for communicating general global health themes.

**CHAIR**

James Colborn

Clinton Health Access Initiative, Evergreen, CO, United States

Yazoume Ye

ICF International, Calverton, MD, United States

**1:45 p.m.****INTRODUCTION****1:55 p.m.****COMMUNICATING THE SCIENCE OF PANDEMIC PREPAREDNESS**

Catherine Kyobutungi

APHRC, Nairobi, Kenya

**2 p.m.****REGULATING THE DEVELOPMENT AND TESTING OF GENETICALLY MODIFIED MOSQUITOES FOR MALARIA CONTROL AND ELIMINATION IN AFRICA**

Richard Mukabana

African Institute for Development Policy, Nairobi, Kenya

**2:05 p.m.****SCIENCE COMMUNICATION AND ENGAGEMENT TO EFFECTIVELY TRANSLATE THE INTERSECTION BETWEEN CLIMATE CHANGE AND TROPICAL MEDICINE**

Maria Elena Bottazzi

Baylor College of Medicine, Houston, TX, United States

**2:10 p.m.****LESSONS IN COMMUNICATING PUBLIC HEALTH FROM A CAREER WORKING IN THE MINISTRY OF HEALTH**

Devanand Moonasar

WHO, Johannesburg, South Africa

Friday  
October 20

**2:15 p.m.**

**ACGH ANNUAL BUSINESS MEETING**

James Colborn

*Clinton Health Access Initiative, Inc., Evergreen, CO, United States*

**2:45 p.m.**

**NETWORKING RECEPTION**

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## Symposium 77

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**American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Symposium I: Molecular Mechanisms of Transitions Between Acute and Chronic Parasitic Infections**

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*Grand Ballroom B - Ballroom Level (East Tower)*

**Friday, October 20, 1:45 p.m. - 3:30 p.m. U.S. Central Time Zone**

*This session does not carry CME credit.*

Many parasites of human and veterinary importance cycle between acute and chronic stages. Acute stages typically involve rapid growth and parasite expansion after the initial infection with the parasite. This stage can either be mild and asymptomatic or can cause morbidity and mortality of the host. During the acute stages, the immune system is triggered and mounts an effective immune response limiting the number of parasites. The initial type of immune response can determine if an infection is cleared or becomes chronic, or if there is potential tissue damage to the host.

The chronic stages enable parasites to persist within their host. Often, parasites can evade the host's defenses by modulating the host immune system or forming dormant stages such as cysts. While parasites are in the acute stages, they are difficult to treat with drugs as most metabolic pathways are inactive and cyst walls are thick and cannot easily be penetrated by a compound. Chronic infections can be asymptomatic (*Toxoplasma*, *Plasmodium*) or highly lethal if untreated (visceral Leishmaniasis). Patients with immune suppression either due to another infection such as HIV or through the administration of drug therapy for organ transplants or leukemia, are more likely to have reactivation of the chronic disease to the acute phase.

This symposium will address the biological factors that are determining the differentiation from one stage to another in a diverse set of parasites. We will first hear about work being done to fill gaps in the life cycle of *Trichomonas vaginalis*, with a particular focus on the cyst stage. This important work sheds light on a previously unknown chronic stage of the *T. vaginalis* parasite that has only recently been identified. And while we have known for some time that *Toxoplasma gondii* has a chronic phase, the signals that promote the differentiation into chronic stages have not been well understood. Here, we will learn about chronicity in the parasite *T. gondii*, and how a positive feedback loop controls the differentiation of these parasites into chronic stages. Shifting away from the parasite biology toward the host response, we will next delve into the host-side with a talk on immunoregulation

and tissue homeostasis in the context of both acute and chronic Chagas disease (infection with *Trypanosoma cruzi*). Finally, we will end with a discussion of what can be done about these chronic stages from a treatment perspective, as we hear a talk about dormancy in *Plasmodium vivax*, and strategies that can be used to successfully eliminate these dormant stages from the body.

**CHAIR**

Regina Cordy

*Wake Forest University, Winston Salem, NC, United States*

Sebastian Lourido

*Massachusetts Institute of Technology Whitehead Institute for Biomedical Research, Cambridge, MA, United States*

**1:45 p.m.**

**INTRODUCTION**

**1:55 p.m.**

**FILLING THE GAPS IN THE LIFE CYCLE OF TRICHOMONAS VAGINALIS: CHARACTERIZATION OF CYSTS**

Utpal Tatu

*Indian Institute of Science, Bangalore, India*

**2:15 p.m.**

**A POSITIVE FEEDBACK LOOP CONTROLS TOXOPLASMA CHRONIC DIFFERENTIATION**

Sebastian Lourido

*Massachusetts Institute of Technology Whitehead Institute for Biomedical Research, Cambridge, MA, United States*

**2:35 p.m.**

**IMMUNOREGULATION OF CELLULAR IMMUNITY AND TISSUE HOMEOSTASIS DURING ACUTE AND CHRONIC CHAGAS DISEASE**

Eva Virginia Acosta Rodriguez

*National University of Cordoba, Argentina, Cordoba, Argentina*

**2:55 p.m.**

**PLASMODIUM DORMANCY: KILLING MECHANISMS AND DRUGGABLE TARGETS**

Erika Flannery

*Novartis Institutes for BioMedical Research, Emeryville, CA, United States*

**3:15 p.m.**

**NETWORKING RECEPTION**

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## Symposium 78

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**Community Engagement and Involvement in Control and Prevention of Cutaneous Leishmaniasis: The ECLIPSE Experience**

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*Grand Hall J - Ballroom Level (East Tower)*

**Friday, October 20, 1:45 p.m. - 3:30 p.m. U.S. Central Time Zone**

The control and prevention of neglected tropical diseases (NTDs) have conventionally focused on the utilization of biomedical interventions. However, with the growing emphasis on equity in healthcare and the adoption of a decolonized perspective in global health, community engagement and involvement (CEI) has emerged as a crucial component in global health research. Despite the widespread recognition of the importance of CEI, its

actual implementation within healthcare programs and research projects is often hindered by a lack of understanding and expertise. The ECLIPSE program is a five-year global health initiative aimed at improving the patient journey for those affected by cutaneous leishmaniasis (CL) and reducing stigma in underserved communities in Brazil, Ethiopia, and Sri Lanka. The program is a multidisciplinary collaboration involving over 60 researchers, including anthropologists, parasitologists, clinicians, psychologists, disease specialists, and public health researchers, and brings together expertise in leishmaniasis and social sciences from an international, cross-cultural perspective. The ECLIPSE team employs a combination of qualitative and quantitative methods, informed by ethnographic and anthropological theories, to gain a comprehensive understanding of the experiences, views, and perspectives of affected individuals, their communities, and healthcare professionals. These insights are now informing bespoke interventions, including the development of community education campaigns to increase disease awareness and reduce stigma, as well as training packages for healthcare professionals. The ECLIPSE research process, including design, implementation, and evaluation, is co-developed in each country using a unique CEI approach. Comparison of approaches adopted in three different countries shows that while a common model could be feasible to initiate CEI work, context-specific ongoing iterative adaptations are required during the whole project life cycle to enable the impact of the interventions to be sustainable. While traditional research methodologies such as clinical trials may provide the best evidence for biomedical interventions, broader public health interventions that aim to effect context-specific behavior change often necessitate ongoing adaptation of both the research process and interventions in line with broader societal and political changes in countries and communities. The lessons learned from the ECLIPSE program on the successful adaptation of novel methodologies based on the CEI approach, during the COVID-19 pandemic in three different country-specific crisis situations, will provide valuable insights into the utilization of CEI in global health research.

#### CHAIR

Suneth Agampodi  
Rajarata University of Sri Lanka, Saliyapura, Sri Lanka  
Helen P. Price  
Keele University, Newcastle-under-Lyme, United Kingdom

#### 1:45 p.m. INTRODUCTION

#### 1:55 p.m. INTRODUCTION TO THE ECLIPSE PROGRAM AND A DECOLONIZED APPROACH TO COMMUNITY ENGAGEMENT AND INVOLVEMENT (CEI)

Helen P. Price  
Keele University, Newcastle-under-Lyme, United Kingdom

#### 2:15 p.m. THE ECLIPSE CEI APPROACH IN BRAZIL: EMPOWERING COMMUNITIES DURING A PANDEMIC

Paulo R. Machado  
Federal University of Bahia, Salvador, Brazil

#### 2:35 p.m. THE ECLIPSE CEI APPROACH IN TIGRAY, ETHIOPIA DURING CONFLICT

Shewaye Belay Tessema  
Mekelle University, Mekelle, Ethiopia

#### 2:55 p.m. THE ECLIPSE CEI APPROACH IN SRI LANKA: COMBINING ARTS AND HEALTH TO RAISE AWARENESS OF CUTANEOUS LEISHMANIASIS

Suneth Agampodi  
Rajarata University of Sri Lanka, Saliyapura, Sri Lanka



### Scientific Session 79

#### Viruses - Epidemiology and Transmission Biology

Grand Ballroom CDEF - Ballroom Level (East Tower)  
Friday, October 20, 1:45 p.m. - 3:30 p.m. U.S. Central Time Zone

#### CHAIR

Matthew Aliota  
University of Minnesota, St. Paul, MN, United States  
Rachel Fay  
State University of New York Albany, Albany, NY, United States

#### 1:45 p.m. 6404

#### DENGUE SEROEPIDEMIOLOGY RELATED TO DEFORESTATION RATES IN RURAL VILLAGES OF THE PERUVIAN AMAZON COMMUNITIES

Edson J. Ascencio<sup>1</sup>, Luca Nelli<sup>2</sup>, Isabel Byrne<sup>2</sup>, Monica Hill<sup>2</sup>, Elin Dumont<sup>2</sup>, Lynn Gringard<sup>2</sup>, Kevin Tetteh<sup>2</sup>, Lindsey Wu<sup>2</sup>, Alejandro Llanos-Cuentas<sup>3</sup>, Chris Drakeley<sup>2</sup>, Gillian Stresman<sup>2</sup>, Gabriel Carrasco-Escobar<sup>1</sup>  
<sup>1</sup>Institute of Tropical Medicine 'Alexander von Humboldt', Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>3</sup>Institute of Tropical Medicine Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru

#### 2 p.m. 6405

#### SPATIOTEMPORAL MODELLING TO INVESTIGATE THE IMPACT OF CLIMATE AND EXTREME WEATHER EVENTS ON ARBOVIRUS TRANSMISSION IN BRAZIL

Victoria M. Cox<sup>1</sup>, Wes Hinsley<sup>1</sup>, Megan O'Driscoll<sup>2</sup>, Felipe Campos de Melo Iani<sup>3</sup>, Nuno R. Faria<sup>4</sup>, Samir Bhatt<sup>5</sup>, Ilaria Dorigatti<sup>1</sup>  
<sup>1</sup>MRC Centre for Global Infectious Disease Analysis, School of Public Health, Imperial College London, London, United Kingdom, <sup>2</sup>Department of Genetics, University of Cambridge, Cambridge, United Kingdom, <sup>3</sup>Laboratório de Genética Celular e Molecular, Universidade Federal de Minas Gerais; Laboratório Central de Saúde Pública, Fundação Ezequiel Dias, Belo Horizonte, Brazil, <sup>4</sup>MRC Centre for Global Infectious Disease Analysis, School of Public Health, Imperial College London, London, United Kingdom; Department of Biology, University of Oxford, Oxford, United Kingdom; Institute of Tropical Medicine, University of São Paulo, São Paulo, Brazil, <sup>5</sup>MRC Centre for Global Infectious Disease Analysis, School of Public Health, Imperial College London, London, United Kingdom; Section of Epidemiology, Department of Public Health, University of Copenhagen, Copenhagen, Denmark

2:15 p.m.

6406

### PRIOR ZIKA VIRUS INFECTION INCREASES RISK OF SUBSEQUENT SYMPTOMATIC INFECTION BY DENGUE VIRUS SEROTYPES 2 AND 4 BUT NOT SEROTYPES 1 AND 3

Jose Victor Zambrana<sup>1</sup>, Chloe M. Hasund<sup>2</sup>, Rosemary A. Aogo<sup>3</sup>, Sonia Arguello<sup>3</sup>, Cesar Narvaez<sup>3</sup>, Karla Gonzalez<sup>2</sup>, Damaris Collado<sup>3</sup>, Tatiana Miranda<sup>3</sup>, Guillermina Kuan<sup>4</sup>, Angel Balmaseda<sup>5</sup>, Leah Katzelnick<sup>2</sup>, Eva Harris<sup>6</sup>

<sup>1</sup>Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI, United States, <sup>2</sup>Viral Epidemiology and Immunity Unit, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States, <sup>3</sup>Sustainable Sciences Institute, Managua, Nicaragua, <sup>4</sup>Centro de Salud Sócrates Flores Vivas, Ministerio de Salud, Managua, Nicaragua, <sup>5</sup>Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua, <sup>6</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States

2:30 p.m.

6407

### INVESTIGATING THE POTENTIAL OF DENGUE AND ZIKA VIRUS TO ESTABLISH A SYLVATIC TRANSMISSION CYCLE IN THE NEOTROPICS THROUGH A MODELING LENS

Hélène Cecilia<sup>1</sup>, Benjamin M. Althouse<sup>2</sup>, Sasha R. Azar<sup>3</sup>, Shannan L. Rossi<sup>3</sup>, Nikos Vasilakis<sup>3</sup>, Kathryn A. Hanley<sup>1</sup>

<sup>1</sup>New Mexico State University, Las Cruces, NM, United States, <sup>2</sup>University of Washington, Seattle, WA, United States, <sup>3</sup>University of Texas Medical Branch, Galveston, TX, United States

2:45 p.m.

6408

### INVESTIGATING THE VECTOR COMPETENCE OF A SCOPE OF MOSQUITO SPECIES IN THE TRANSMISSION OF GETAH VIRUS

Faustus A. Azerigyik<sup>1</sup>, Astri Nur Faizah<sup>2</sup>, Daisuke Kobayashi<sup>2</sup>, Michael Amoa-Bosompem<sup>3</sup>, Ryo Matsumura<sup>2</sup>, Izumi Kai<sup>2</sup>, Toshinori Sasaki<sup>2</sup>, Yukiko Higa<sup>2</sup>, Haruhiko Isawa<sup>2</sup>, Shiroh Iwanaga<sup>4</sup>, Tomoko Ishino<sup>1</sup>

<sup>1</sup>Tokyo Medical and Dental University, Bunkyo-ku, Japan, <sup>2</sup>National Institute of Infectious Diseases, Shinjuku-ku, Japan, <sup>3</sup>University of Tennessee, Knoxville, TN, United States, <sup>4</sup>Research Institute for Microbial Diseases, Osaka University, Suita, Osaka, Japan

3 p.m.

6409

### EXPOSURE TO WEST NILE VIRUS AND STRAIN-SPECIFIC DIFFERENCES SHAPE TRANSMISSION BYCX. PIPIENSUNDER CLIMATE CHANGE

Rachel Fay<sup>1</sup>, Mauricio Cruz-Loya<sup>2</sup>, Elyse Banker<sup>3</sup>, Jessica Stout<sup>3</sup>, Anne Payne<sup>3</sup>, Erin Mordecai<sup>2</sup>, Alexander Ciota<sup>2</sup>

<sup>1</sup>School of Public Health, State University of New York Albany, Albany, NY, United States, <sup>2</sup>Biology Department, Stanford University, Stanford, CA, United States, <sup>3</sup>Arbovirus Laboratory, Wadsworth Center, New York State Department of Health, Slingerlands, NY, United States

3:15 p.m.

6410

### IDENTIFICATION OF ZIKA VIRUS GENES INVOLVED IN MOSQUITO TRANSMISSIBILITY

Shiho Torii<sup>1</sup>, Alicia Lecuyer<sup>1</sup>, Caroline Manet<sup>1</sup>, Matthieu Prot<sup>1</sup>, Cheikh T. Diagne<sup>2</sup>, Oumar Faye<sup>2</sup>, Ousmane Faye<sup>2</sup>, Amadou A. Sall<sup>2</sup>, Etienne Simon-Lorière<sup>1</sup>, Xavier Montagutelli<sup>1</sup>, Louis Lambrechts<sup>1</sup>

<sup>1</sup>Institut Pasteur, Paris, France, <sup>2</sup>Institut Pasteur de Dakar, Dakar, Senegal

## Scientific Session 80

### Kinetoplastida and Other Protozoa: Genomics, Proteomics and Metabolomics, Molecular Therapeutic Targets. Treatment, Drug Delivery, Drug Repurposing and Drug Discovery

Grand Hall K - Ballroom Level (East Tower)

Friday, October 20, 1:45 p.m. - 3:30 p.m. U.S. Central Time Zone

#### CHAIR

Frederick S. Buckner  
University of Washington, Seattle, WA, United States

Alyse Wheelock  
Boston University Medical Center, Boston, MA, United States

1:45 p.m.

6411

### CRYPTOSPORIDIUM PARVUM: THIOREDOXIN REDUCTASE ACTS AS THE PRIMARY REGULATOR OF GLUTATHIONE AND THIOREDOXIN REDOX PATHWAYS AND IS A TARGET FOR DRUG DISCOVERY FOR CRYPTOSPORIDIOSIS

Jala Bogard<sup>1</sup>, Federica Gabriele<sup>2</sup>, Matteo Ardini<sup>2</sup>, Marta Palerma<sup>2</sup>, Xian-Ming Chen<sup>1</sup>, Francesco Angelucci<sup>2</sup>, David Williams<sup>1</sup>

<sup>1</sup>Rush University Medical Center, Chicago, IL, United States, <sup>2</sup>University of L'Aquila, L'Aquila, Italy

2 p.m.

6412

### PROGRESS IN DEVELOPING METHIONYL-TRNA SYNTHETASE INHIBITORS FOR CHAGAS DISEASE

Frederick S. Buckner, Zhongsheng Zhang, Aisha Mushtaq, John R. Gillespie, Zackary M. Herbst, Sayaka Shibata, Erkang Fan  
University of Washington, Seattle, WA, United States

2:15 p.m.

6413

### METABOLOMIC ANALYSIS REVEALS A NOVEL IMMUNOMODULATORY ROLE OF LYSOPHOSPHATIDYLCHOLINES IN IMMUNIZATION WITH A GENETICALLY MODIFIED LIVE ATTENUATED PARASITIC VACCINE

Parna Bhattacharya<sup>1</sup>, Jinchun Sun<sup>2</sup>, Nazli Azodi<sup>1</sup>, Hannah Markle<sup>1</sup>, Sreenivas Gannavaram<sup>1</sup>, Richard Beger<sup>2</sup>, Hira Nakhasi<sup>1</sup>

<sup>1</sup>FDA, Silver Spring, MD, United States, <sup>2</sup>FDA, Jefferson, AR, United States

2:30 p.m.

6414

### NEW TRYPANOSOME GENOMES DEMONSTRATE THE CO-EVOLUTIONARY RELATIONSHIP BETWEEN ENERGY SOURCE AND SURVIVAL STRATEGY

Ross Stuart Low<sup>1</sup>, Kevin Tyler<sup>2</sup>, Neil Hall<sup>1</sup>

<sup>1</sup>The Earlham Institute, Norwich, United Kingdom, <sup>2</sup>University of East Anglia, School of Medicine, Norwich, United Kingdom

2:45 p.m.

6415

### FACING ADVERSITY: CHAGAS DISEASE TREATMENT TOLERABILITY AND ADVERSE EVENTS AT AN ACADEMIC SAFETY-NET HOSPITAL IN NEW ENGLAND

Alyse Wheelock<sup>1</sup>, Katherine Reifler<sup>1</sup>, Alejandra Salazar<sup>2</sup>, Samantha Hall<sup>3</sup>, Natasha Hochberg<sup>2</sup>, Davidson H. Hamer<sup>3</sup>, Daniel Bourque<sup>1</sup>

<sup>1</sup>Boston University Medical Center, Boston, MA, United States, <sup>2</sup>Boston Medical Center, Boston, MA, United States, <sup>3</sup>Boston University, Boston, MA, United States

3 p.m.

6416

**INTRA-SPECIES GENETIC CLASSIFICATION OF ENTEROMONAS SP. DETECTED FROM HUMAN AND ANIMAL HOSTS IN INDONESIA**

**Siti Arifah Lacante**<sup>1</sup>, Chuanhao Jiang<sup>1</sup>, Tetsushi Mizuno<sup>1</sup>, Din Syafruddin<sup>2</sup>, Masaharu Tokoro<sup>1</sup>  
<sup>1</sup>Kanazawa University, Kanazawa, Japan, <sup>2</sup>Universitas Hasanuddin, Makassar, Indonesia

3:15 p.m.

6417

**CHEMICAL AND GENETIC INVESTIGATIONS ON LEISHMANIA DEXD/H-BOX PROTEINS AS POTENTIAL DRUG TARGETS AGAINST LEISHMANIASIS**

**Yosser zina Abdelkrim É. Guediche**<sup>1</sup>, Emna Harigua<sup>1</sup>, Imen Bassoumi-Jamoussi<sup>1</sup>, Molka Mokdadi<sup>1</sup>, Mourad Barhoumi<sup>1</sup>, Josette Banroques<sup>2</sup>, Lucien Crobu<sup>3</sup>, Yvon Sterckers<sup>3</sup>, Khadija Essafi-Benkhadir<sup>1</sup>, Michael Nilges<sup>4</sup>, Arnaud Blondel<sup>4</sup>, N. Kyle Tanner<sup>2</sup>, Ikram Guizani<sup>1</sup>  
<sup>1</sup>Institut Pasteur de Tunis, Tunis, Tunisia, <sup>2</sup>Institut De biologie Physico-chimique, Paris, France, <sup>3</sup>C.H.U. de Montpellier, Montpellier, France, <sup>4</sup>Institut Pasteur de Paris, Paris, France

**Scientific Session 81**

**Filariasis – Clinical, Immunology, and Diagnosis**

Grand Hall L - Ballroom Level (East Tower)

Friday, October 20, 1:45 p.m. - 3:30 p.m. U.S. Central Time Zone

**CHAIR**

Rachel Pietrow  
NIH, Bethesda, MD, United States

Benoit Dembele  
Helen Keller International, Regional Office for Africa, Dakar, Senegal

1:45 p.m.

6418

**EFFICACY OF MOXIDECTIN VS. IVERMECTIN COMBINATION TREATMENTS FOR BANCROFTIAN FILARIASIS IN COTE D'IVOIRE: PRELIMINARY 24 MONTH RESULTS**

**Benjamin G. Koudou**<sup>1</sup>, Philip J. Budge<sup>2</sup>, Allassane F. Ouattara<sup>1</sup>, Pascal T. Gabo<sup>3</sup>, Peter U. Fischer<sup>2</sup>, Christopher L. King<sup>4</sup>, Gary J. Weil<sup>2</sup>, Catherine M. Bjerum<sup>1</sup>  
<sup>1</sup>Centre Suisse de Recherche Scientifique, Abidjan, Côte D'Ivoire, <sup>2</sup>Washington University, St. Louis, MO, United States, <sup>3</sup>Hôpital Générale d'Agboville, Agboville, Côte D'Ivoire, <sup>4</sup>Case Western Reserve University, Cleveland, OH, United States

2 p.m.

6419

**EFFICACY AND SAFETY OF ALBENDAZOLE 400 AND 800 MG ON HYPERMICROFILAREMIC LOIASIS : PRELIMINARY RESULTS OF A PHASE IIB, RANDOMIZED, SINGLE-BLIND CLINICAL TRIAL IN NORTHERN GABON**

**Noé Patrick M'Bondoukwé**, Luccheri Ndong Akomezogho, Jacques Mari Ndong Ngomo, Bridy Chesly Moutombi Ditombi, Roger Hadry Sibi Matotou, Meredith Flore Ada Mengome, Denise Patricia Mawili Mboumba, Marielle Karine Bouyou-Akotet  
Université des Sciences de la Santé du Gabon, Owendo, Gabon

2:15 p.m.

6420

**DEVELOPMENT OF AN ELISA TO DETECT ANTIBODY TO ONCHOCERCA VOLVULUS INFECTION USING A MAMMALIAN EXPRESSED RECOMBINANT ANTIGEN OV16**

**Sylvia Ossai**, Eric S. Elder, Won Y. Kimberly, William E. Secor, Sukwan Handali  
Centers for disease control and Prevention, Atlanta, GA, United States

2:30 p.m.

6421

**LABORATORY EVALUATION OF ONCHOCERCIASIS RAPID DIAGNOSTIC TESTS (RDTS)**

**Eric S. Elder**<sup>1</sup>, Marco Biamonte<sup>2</sup>, Lily Sullins<sup>2</sup>, Pete Augostini<sup>1</sup>, William E. Secor<sup>1</sup>, Kimberly Y. Won<sup>1</sup>  
<sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>Drugs and Diagnostics for Tropical Diseases, San Diego, CA, United States

2:45 p.m.

6422

**WB 5, A NOVEL BIOMARKER FOR MONITORING EFFICACY AND SUCCESS OF MASS DRUG ADMINISTRATION PROGRAMS FOR WUCHERERIA BANCROFTI ELIMINATION**

**Rachel E. Pietrow**, Thomas B. Nutman, Sasisekhar Bennuru  
National Institutes of Health, Bethesda, MD, United States

3 p.m.

6423

**PROTEIN INVENTORY OF ONCHOCERCA VOLVULUS NEOPLASMS IDENTIFIED BY DEEP VISUAL PROTEOMICS**

**Kerstin Fischer**<sup>1</sup>, Lucia S. Di Maggio<sup>1</sup>, Bruce A. Rosa<sup>1</sup>, Makedonka Mitreva<sup>1</sup>, Jessica K. Lukowski<sup>1</sup>, Minsoo Son<sup>1</sup>, Byoung-Kyu Cho<sup>1</sup>, Young Ah Goo<sup>1</sup>, Nicholas Opoku<sup>2</sup>, Gary J. Weil<sup>1</sup>, Peter U. Fischer<sup>1</sup>  
<sup>1</sup>Washington University School of Medicine, St. Louis, MO, United States, <sup>2</sup>University of Health and Allied Sciences, Ho, Ghana

3:15 p.m.

6424

**ASSOCIATION BETWEEN ALTERED COGNITION AND LOIASIS: FIRST EVIDENCE FROM A CROSS-SECTIONAL STUDY IN A RURAL AREA OF THE REPUBLIC OF CONGO**

Thomas Checkouri<sup>1</sup>, Francois Missamou<sup>2</sup>, Sebastien D. S. Pion<sup>3</sup>, Paul Bikita<sup>2</sup>, Marlhand C. Hemilembolo<sup>2</sup>, Michel Boussinesq<sup>3</sup>, Cédric B. Chesnais<sup>3</sup>, **Jérémy T. Campillo**<sup>3</sup>  
<sup>1</sup>AP-HP, Paris, France, <sup>2</sup>PNLO, Brazzaville, Republic of the Congo, <sup>3</sup>Institut de Recherche pour le Développement, Montpellier, France

**Scientific Session 82**

**Schistosomiasis II**

Plaza Ballroom - Lobby Level (East Tower)

Friday, October 20, 1:45 p.m. - 3:30 p.m. U.S. Central Time Zone

**CHAIR**

Charles B. Delahunty  
Global Health Labs, Seattle, WA, United States

Adebayo Molehin  
Midwestern University, Glendale, AZ, United States

1:45 p.m.

6425

**DEVELOPING NOVEL FLATWORM ION CHANNEL LIGANDS TO TREAT NEGLECTED TROPICAL DISEASES**

**Daniel J. Sprague**<sup>1</sup>, Sang-Kyu Park<sup>1</sup>, Claudia M. Rohr<sup>1</sup>, Simone Häberlein<sup>2</sup>, Jonathan S. Marchant<sup>1</sup>  
<sup>1</sup>Medical College of Wisconsin, Milwaukee, WI, United States, <sup>2</sup>Institute of Parasitology, Justus Liebig University Giessen, Giessen, Germany

Friday  
October 20

2 p.m.

6426

### NOVEL INHIBITORS OF THIOREDOXIN GLUTATHIONE REDUCTASE WITH SCHISTOSOMICIDAL ACTIVITY

Samuel Y. Aboagye<sup>1</sup>, Valentina Z. Petukhova<sup>2</sup>, Matteo Ardini<sup>3</sup>, Rachel P. Lullo<sup>1</sup>, Margaret Byrne<sup>1</sup>, Lucy M. Martin<sup>1</sup>, Gregory Effantin<sup>4</sup>, Wai-Li Ling<sup>4</sup>, Gregory RJ Thatcher<sup>5</sup>, Francesco Angelucci<sup>3</sup>, Pavel A. Petukhov<sup>6</sup>, David Williams<sup>1</sup>

<sup>1</sup>Rush University Medical Center, Chicago, IL, United States, <sup>2</sup>University of Illinois at Chicago, Chicago, IL, United States, <sup>3</sup>University of L'Aquila, L'Aquila, Italy, <sup>4</sup>University of Grenoble Alpes, Grenoble, France, <sup>5</sup>University of Arizona, Tucson, AZ, United States, <sup>6</sup>University of Illinois at Chicago, Chicago, IL, United States

2:15 p.m.

6427

### HIGH SENSITIVITY BUT LOW SPECIFICITY OF FEMALE GENITAL SCHISTOSOMIASIS SYMPTOMS AND RISK FACTORS DIAGNOSTIC TOOL ON GENITAL LESIONS ASSOCIATED WITH FEMALE GENITAL SCHISTOSOMIASIS IN ADOLESCENT GIRLS AND WOMEN IN MASWA DISTRICT, TANZANIA

Gladys Mbwangi, Humphrey Mazigo

Catholic University of Health and Allied Sciences, Mwanza, United Republic of Tanzania

2:30 p.m.

6428

### OPTIMISATION OF THE DNA DIPSTICK AS A RAPID EXTRACTION METHOD FOR *S. JAPONICUM* IN INFECTED MICE SAMPLES AND SPIKED HUMAN CLINICAL SAMPLES

Oyime Poise Aula<sup>1</sup>, Donald P. McManus<sup>1</sup>, Malcolm K. Jones<sup>2</sup>, Hong You<sup>1</sup>, Pengfei Cai<sup>1</sup>, Mary Duke<sup>1</sup>, Catherine A. Gordon<sup>1</sup>

<sup>1</sup>QIMR Berghofer Medical Research Institute, Herston, Australia, <sup>2</sup>University of Queensland, Gatton, Australia

2:45 p.m.

6429

### ACCEPTABILITY OF GENITAL SELF-SAMPLING FOR THE DIAGNOSIS OF FEMALE GENITAL SCHISTOSOMIASIS IN HARD-TO-REACH COMMUNITIES

Emmanuel Timmy Donkoh<sup>1</sup>, Edward T. Dassah<sup>2</sup>, Samuel Fosu Gyasi<sup>1</sup>, Oksana Debrah<sup>3</sup>, Dodzi Amelior<sup>4</sup>, Richard Asmah<sup>5</sup>, Ahmed Ramseyer<sup>6</sup>, Kwame O. Boadu<sup>7</sup>, Emma Donkoh<sup>8</sup>, Angelina Kantam<sup>1</sup>, Lois Kyeretwie<sup>1</sup>, Esther Owusu Yawson<sup>1</sup>, Nathanael Agyapong-Apraku<sup>1</sup>, Josephine Opoku-Agyemang<sup>1</sup>

<sup>1</sup>University of Energy and Natural Resources, Sunyani, Ghana, <sup>2</sup>Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, <sup>3</sup>University of Cape Coast, Cape Coast, Ghana, <sup>4</sup>Ghana Health Service, Accra, Ghana, <sup>5</sup>University of Health and Allied Sciences, Ho, Ghana, <sup>6</sup>Ghana Health Service, Yeji, Ghana, <sup>7</sup>Ghana Health Service, Kumasi, Ghana, <sup>8</sup>Ghana Health Service, Tain, Ghana

3 p.m.

6430

### EXPANDING FEMALE GENITAL SCHISTOSOMIASIS (FGS) LEARNING AND APPLICATION THROUGH AN ONLINE TRAINING FOR MIXED CADRES OF HEALTH CARE WORKERS IN FRANCOPHONE AFRICA

Martha N. Mberu<sup>1</sup>, Kelly Yotebieng<sup>1</sup>, Isis Umbelino-Walker<sup>2</sup>, Anastasia Pantelias<sup>2</sup>, Julie Jacobson<sup>2</sup>

<sup>1</sup>The END Fund, New York, NY, United States, <sup>2</sup>Bridges to Development, Vashon, WA, United States

3:15 p.m.

6431

### THE STATUS OF SCHISTOSOMIASIS AFTER A DECADE OF MASS DRUG ADMINISTRATION IN SIERRA LEONE

Ibrahim Kargbo-Labour<sup>1</sup>, Mohamed S. Bah<sup>2</sup>, Victoria Turay<sup>2</sup>, Abdulai Conteh<sup>1</sup>, Abdulai Koroma<sup>1</sup>, Elisabeth Chop<sup>3</sup>, Patricia Houck<sup>3</sup>, Anna Phillips<sup>4</sup>, Angela Weaver<sup>3</sup>, Steven D. Reid<sup>3</sup>

<sup>1</sup>Neglected Tropical Diseases Program, Ministry of Health and Sanitation, Freetown, Sierra Leone, <sup>2</sup>Helen Keller International, Freetown, Sierra Leone, <sup>3</sup>Helen Keller International, New York, NY, United States, <sup>4</sup>FHI 360, Washington, DC, United States

## Symposium 83

### Reimagining the Continuum of Care for Severe Malaria Patients

Crystal Ballroom A - Lobby Level (West Tower)

Friday, October 20, 1:45 p.m. - 3:30 p.m. United States Central Time Zone

The diagnosis and management of severe malaria remains a challenge. It is important and deserves more attention. In 2021, an estimated 619,000 malaria related deaths occurred, mostly in children in sub-Saharan Africa. The standard treatment pathway for patients in remote areas, consisting of pre-referral intervention with artesunate rectal capsules, followed by appropriate severe malaria treatment with injectable artesunate at a referral health facility, and completed with a full ACT course, may not always be achievable. There has been a lively debate about the interpretation of data about the deployment of rectal artesunate as a pre-referral intervention. Updated guidance to countries is being developed and expected to be released by mid-2023, pending WHO review process. Translating current guidelines into practice is proving challenging in remote settings. The full treatment paradigm is not always feasible when access to primary healthcare facilities is limited due to factors such as lack of transport, availability of services, and cost. This symposium will provide an opportunity to learn about practical approaches and new ways to reimagine severe malaria case management in the continuum of care for severe malaria patients.

#### CHAIR

Hans Rietveld

Medicines for Malaria Venture, Geneva, Switzerland

Christine Manyando

Tropical Diseases Research Center, Ndola, Zambia

1:45 p.m.

#### INTRODUCTION

1:55 p.m.

### UPDATED GUIDANCE FOR THE RESPONSIBLE DEPLOYMENT OF RECTAL ARTESUNATE AS A PRE-REFERRAL INTERVENTION FOR SEVERE MALARIA

Olugbenga Mokuolu

Management Sciences for Health, Arlington, VA, United States



**2:15 p.m.****AN ALTERNATIVE PATHWAY FOR SEVERE MALARIA PATIENTS IN REMOTE AREAS “WHERE THERE IS NO DOCTOR” – REFLECTIONS FROM DRC AND ZAMBIA**Christine Manyando  
*Tropical Diseases Research Center, Ndola, Zambia***2:35 p.m.****NEW TARGET PRODUCT PROFILE FOR ANTIMALARIALS TO ADDRESS THE NEEDS OF PATIENTS WITH SEVERE MALARIA**Jane Achan  
*Malaria Consortium, Kampala, Uganda***2:55 p.m.****COUNTRY PERSPECTIVES ON THE NEW WHO RECOMMENDATION FOR POST-DISCHARGE MALARIA CHEMOPREVENTION IN PATIENTS WITH SEVERE ANEMIA**Titus Kwambai  
*Centre for Disease Control Kenya Malaria Programme, Kisumu, Kenya*

## Symposium 84

### What's New in Clinical Tropical Medicine Literature?

*Crystal Ballroom B - Lobby Level (West Tower)***Friday, October 20, 1:45 p.m. - 3:30 p.m. United States Central Time Zone**

Experts in Tropical Medicine and Travelers' Health base their decisions on the knowledge of disease epidemiology, clinical course, diagnostic tools, resistance patterns, and vaccine data. This symposium will highlight recent studies on these aspects of Malaria, Yellow Fever, SARS-CoV-2 and Chikungunya virus.

**CHAIR**Ivan A. Gonzalez  
*University of Miami, Miami, FL, United States*Lin H. Chen  
*Mount Auburn Hospital and Harvard Medical School, Cambridge, MA, United States***1:45 p.m.****INTRODUCTION****1:55 p.m.****WHAT'S NEW IN THE LITERATURE: SARS-COV-2?**Henry Wu  
*The Emory Clinic, Emory University, Atlanta, GA, United States***2:10 p.m.****WHAT'S NEW IN THE LITERATURE: MALARIA?**Bartholomew Ondigo  
*Egerton University, Nakuru, Kenya***2:35 p.m.****WHAT'S NEW IN THE LITERATURE: YELLOW FEVER**J Erin Staples  
*U.S. Centers for Disease Control and Prevention, Fort Collins, CO, United States***3 p.m.****WHAT'S NEW IN THE LITERATURE: CHIKUNGUNYA?**Susan Hills  
*Centers for Disease Control and Prevention, Fort Collins, CO, United States***3:25 p.m.****MODERATOR, PANEL DISCUSSION**Lin H. Chen  
*Mount Auburn Hospital, Cambridge, MA, United States*

## Symposium 85

### Bridging the "Know-Do-Gap": Using Implementation Science to Adapt Evidence-Based Interventions and Improve Their Uptake in Low-and-Middle-Income Countries

*Regency Ballroom A - Ballroom Level (West Tower)***Friday, October 20, 1:45 p.m. - 3:30 p.m. United States Central Time Zone**

Studies show that it takes an average of 17 years for evidence-based interventions (EBIs) to be implemented into routine clinical practice. This gap between what we “know” from available evidence and what we actually “do” in routine clinical care is particularly pronounced in low-and-middle income countries (LMICs). Most EBIs were developed in or by those in high-resource countries and may not consider or account for context such as healthcare infrastructure or resource limitations in LMICs. Implementation science aims to bridge this “know-do-gap” by providing rigorous scientific methods to adapt EBIs to different healthcare settings, identify barriers to EBI implementation, and develop strategies to overcome these barriers. Implementation science also provides structured approaches to assessing the success of implementation strategies by measuring implementation outcomes such as acceptability, feasibility, appropriateness, and cost-effectiveness. Implementation science provides implementation researchers and practitioners with the tools to adapt and test EBIs using contextually appropriate strategies that address individual, collective, and/or systemic barriers to care, optimizing EBIs to improve uptake, adoption, and health outcomes. This ultimately results in improved health equity for patients requiring health services relevant to the EBIs. In this symposium, we will use real-world examples to introduce and demystify the field of implementation science. To provide a broad introduction to this topic, we will highlight different aspects of implementation science across diverse practice sites and patient demographics. These include (1) developing and implementing HIV prevention and treatment programs for children living in Nigeria; (2) using qualitative research methods to assess organizational readiness for change and prioritize requirements for electronic medical record rollout within cancer centers in African countries; (3) exploring how guidelines can be adapted to improve the uptake of evidence-based practices in China, and (4) assessing the cost-effectiveness of point-of-care diagnostics in Ugandan patients with advanced HIV. This symposium will introduce clinicians, researchers, program implementers, and policymakers to implementation science. It will also provide tools for assessing barriers to implementing EBIs, designing implementation strategies to overcome these barriers, and evaluating the effectiveness of these implementation strategies in improving EBI uptake/adoption. For clinicians and policymakers working in LMICs, this symposium intends to improve the understanding and

use of implementation science to facilitate integration of EBIs into routine clinical care, improving health outcomes in resource-limited settings.

#### CHAIR

Beth Thielen  
*University of Minnesota, Minneapolis, MN, United States*  
Elizabeth Anne Gulleen  
*Fred Hutchinson Cancer Center, Seattle, WA, United States*

#### 1:45 p.m. INTRODUCTION

#### 1:55 p.m. UNDERSTANDING IMPLEMENTATION SCIENCE THROUGH THE LENS OF HIV PROGRAM DEVELOPMENT

Nadia A. Sam-Agudu  
*Institute of Human Virology Nigeria, Abuja, Nigeria*

#### 2:15 p.m. IMPLEMENTABILITY OF AND IMPLEMENTATION STRATEGIES FOR CLINICAL PRACTICE GUIDELINES

Dong (Roman) Xu  
*Southern Medical University, Guangzhou, China*

#### 2:35 p.m. COST-EFFECTIVENESS ANALYSIS TO INFORM INFECTION MANAGEMENT STRATEGIES FOR PATIENTS WITH HIV IN UGANDA

Radha Rajasingham  
*University of Minnesota, St Paul, MN, United States*

#### 2:55 p.m. OPTIMIZING ELECTRONIC MEDICAL RECORD USAGE FOR CANCER CARE IN SUB-SAHARAN AFRICA

Johnblack Kabukye  
*Uganda Cancer Institute, Kampala, Uganda*

#### 3:15 p.m. THE CASE FOR IMPLEMENTATION SCIENCE

Elizabeth Anne Gulleen  
*Fred Hutchinson Cancer Center, Seattle, WA, United States*

## Scientific Session 86

### Pneumonia, Respiratory Infections and Tuberculosis I

*Regency Ballroom B - Ballroom Level (West Tower)*  
Friday, October 20, 1:45 p.m. - 3:30 p.m. U.S. Central Time Zone

#### CHAIR

Jasper Chan  
*The University of Hong Kong, Hong Kong, Hong Kong*  
Douglas Perkins  
*University of New Mexico, Albuquerque, NM, United States*

1:45 p.m.

### PRESENTATION BY BURROUGHS WELLCOME FUND-ASTMH FELLOWSHIP RECIPIENT

6432

#### DISCORDANT CIRCULATING AND MUCOSAL ANTIBODY RESPONSES ELICITED BY SARS-COV-2 INFECTION AND VACCINATION IN A LONGITUDINAL COHORT FROM BRAZIL

Mariam O. Fofana<sup>1</sup>, Julio Silva<sup>2</sup>, Nivison Nery Jr<sup>3</sup>, Juan Pablo Aguilar Ticona<sup>3</sup>, Valter Silva Monteiro<sup>3</sup>, Emilia Andrade Belitardo<sup>3</sup>, M. Catherine Muenker<sup>1</sup>, Jaqueline Cruz<sup>3</sup>, Renato Victoriano<sup>3</sup>, Daiana Santos de Oliveira<sup>3</sup>, Laiara Lopes dos Santos<sup>3</sup>, Juliet Oliveira Santana<sup>3</sup>, Ananias Sena do Aragão Filho<sup>3</sup>, Adam Waickman<sup>4</sup>, Ricardo Khouri<sup>3</sup>, Matt D.T. Hitchings<sup>5</sup>, Mitermayer G. Reis<sup>3</sup>, Frederico Costa<sup>6</sup>, Carolina Lucas<sup>3</sup>, Akiko Iwasaki<sup>2</sup>, Derek Cummings<sup>5</sup>, Albert I. Ko<sup>1</sup>

<sup>1</sup>Yale School of Public Health, New Haven, CT, United States, <sup>2</sup>Yale School of Medicine, New Haven, CT, United States, <sup>3</sup>Instituto Gonçalo Moniz (Fiocruz), Salvador, Brazil, <sup>4</sup>SUNY Upstate Medical University, Syracuse, NY, United States, <sup>5</sup>University of Florida, Gainesville, FL, United States, <sup>6</sup>Universidade Federal da Bahia, Salvador, Brazil

2 p.m.

6433

#### DIFFERENTIAL PROTEOME EXPRESSION IN A DIVERSE POPULATION OF HOSPITALIZED PATIENTS WITH COVID-19

Douglas J. Perkins<sup>1</sup>, Qiuying Cheng<sup>1</sup>, Clinton Onyango<sup>1</sup>, Kristan Schneider<sup>2</sup>, Ivy Hurwitz<sup>1</sup>  
<sup>1</sup>University of New Mexico HSC, Center for Global Health, Albuquerque, NM, United States, <sup>2</sup>University of Applied Sciences Mittweida, Mittweida, Germany

2:15 p.m.

6434

#### EXTENSIVE TRANSMISSION OF SARS-COV-2 BQ.1 VARIANT IN A POPULATION WITH HIGH LEVELS OF HYBRID IMMUNITY

Juan P. Aguilar Ticona<sup>1</sup>, Meng Xiao<sup>2</sup>, Dan Li<sup>3</sup>, Nivison Nery Jr<sup>1</sup>, Matt Hitchings<sup>4</sup>, Emilia M. M. De Andrade Belitardo<sup>5</sup>, Mariam O. Fofana<sup>6</sup>, Renato Victoriano<sup>6</sup>, Jaqueline Cruz<sup>6</sup>, Laise Eduarda Paixão de Moraes<sup>5</sup>, Icaro Moraes Strobelf<sup>6</sup>, Jessica Jesus Silva<sup>5</sup>, Ananias Sena do Aragão Filho<sup>6</sup>, Guilherme S. Ribeiro<sup>6</sup>, Mitermayer G. Reis<sup>6</sup>, Frederico Costa<sup>1</sup>, Ricardo Khouri<sup>6</sup>, Albert I. Ko<sup>6</sup>, Derek A. T. Cummings<sup>7</sup>

<sup>1</sup>Instituto de Saúde Coletiva, Universidade Federal da Bahia, Salvador, Brazil, <sup>2</sup>Department of Laboratory Medicine, State Key Laboratory of Complex Severe and Rare Diseases, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China, <sup>3</sup>Public Health Emergency Center, Chinese Center for Disease Control and Prevention, Beijing, China, <sup>4</sup>Department of Biostatistics, University of Florida, Gainesville, FL, United States, <sup>5</sup>Instituto Gonçalo Moniz, Fundação Oswaldo Cruz, Ministério da Saúde, Salvador, Brazil, <sup>6</sup>Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, CT, United States, <sup>7</sup>Department of Biology, University of Florida, Gainesville, FL, United States

2:30 p.m.

6435

#### PERFORMANCE OF A NOVEL REALTIME-TIME PCR DEVICE FOR DETECTION OF SARS-COV-2, RESPIRATORY SYNCYTIAL VIRUS AND INFLUENZA VIRUSES FROM AUGUST 2022 TO JANUARY, 2023

Michael Owusu<sup>1</sup>, Bernard Nkrumah<sup>2</sup>, Godfred Acheampong<sup>3</sup>, Stephen Opoku Afriyie<sup>3</sup>, Richard Larbi<sup>3</sup>, Richard Owusu-Ansah<sup>3</sup>, Chrysantus Kubio<sup>4</sup>, Farouk Saeed<sup>5</sup>, Nana Kwame Ayisi-Boateng<sup>6</sup>, Eric Darko<sup>6</sup>, James Frimpong<sup>6</sup>, Veronica Bannor<sup>7</sup>, Frederick Ayensu<sup>8</sup>, Pawan Angra<sup>9</sup>, Danielle T. Barradas<sup>10</sup>

<sup>1</sup>Kwame Nkrumah University of Science and Technology, Centre for Health System Strengthening, Kumasi, Ghana, <sup>2</sup>US Centers for Disease Control and Prevention, Kumasi, Ghana, <sup>3</sup>Centre for Health System Strengthening, Kumasi, Ghana, <sup>4</sup>Regional Health Directorate, Savannah Region, Kumasi, Ghana, <sup>5</sup>Regional Health Directorate, Ghana Health Service, Savannah Region, Kumasi, Ghana, <sup>6</sup>Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, <sup>7</sup>Asokwa Children Hospital, Kumasi, Ghana, <sup>8</sup>HopeXchange, Kumasi, Ghana, <sup>9</sup>US Centers for Disease Control and Prevention, Georgia-Atlanta, GA, United States, <sup>10</sup>US Centers for Disease Control and Prevention, Atlanta, Ghana

2:45 p.m.

6436

**PATHWAYS & MORTALITY OF UNDER 5 CHILDREN IDENTIFIED AS SEVERE CASES WITH ROUTINE PULSE OXIMETRY USED INTO THE INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS GUIDELINES AT PRIMARY HEALTH CENTERS IN WEST AFRICA, JUNE 2021 TO JUNE 2022**

**Gildas Boris HEDIBLE**<sup>1</sup>, Desire Neboua<sup>2</sup>, Lucie Peters Bokol<sup>1</sup>, Gildas ANAGO<sup>2</sup>, Zineb ZAIR<sup>1</sup>, Severin Lénard<sup>3</sup>, Honorat Agbeci<sup>1</sup>, Abdoul Guaniyi SAWADOGO<sup>4</sup>, Désiré KARGOUGOU<sup>5</sup>, Bertrand Meda<sup>6</sup>, Jacques Séraphin Kolié<sup>7</sup>, Sandrine Busiere<sup>8</sup>, Franck Lamontagne<sup>9</sup>, Sarah Louart<sup>10</sup>, Valery Ridde<sup>11</sup>, Valérie Leroy<sup>1</sup>  
<sup>1</sup>CERPOP UMR 1295 INSERM UT3, Toulouse, France, <sup>2</sup>ALIMA, Dakar, Senegal, <sup>3</sup>PACCI, Abidjan, Côte D'Ivoire, <sup>4</sup>Tdh, Ouagadougou, Burkina Faso, <sup>5</sup>ALIMA, Bamako, Mali, <sup>6</sup>SOLTHIS, Niamey, Niger, <sup>7</sup>ALIMA, Conakry, Guinea, <sup>8</sup>Tdh, Dakar, Senegal, <sup>9</sup>Solthis, Paris, France, <sup>10</sup>ALIMA & 8. University of Lille, CLERSE - Centre Lillois d'Études et de Recherches Sociologiques et Économiques, Dakar, Senegal, <sup>11</sup>IRD, Paris, France

3 p.m.

6437

**IMPACT OF PNEUMOCOCCAL CONJUGATE VACCINES ON PENICILLIN RESISTANT S. PNEUMONIAE**

**Sebastian Loli**<sup>1</sup>, Theresa Ochoa<sup>1</sup>, Stephen Bentley<sup>2</sup>, Stephanie Lo<sup>2</sup>  
<sup>1</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>Wellcome Sanger Institute, Hinxton, Cambridgeshire, United Kingdom

3:15 p.m.

6438

**MULTIPLXED ANTIGEN SPECIFIC ANTIBODY FC PROFILING FOR POINT OF CARE DIAGNOSIS OF TUBERCULOSIS**

**Sarah Ali**, Preetham Peddireddy, Abhipsa Panigrahi, Asma Hashim, Aniruddh Sarkar  
 Georgia Institute of Technology, Atlanta, GA, United States

**Symposium 87****American Committee of Medical Entomology (ACME) Symposium I: Invasive Arthropods and their Impact on Public Health**

Regency Ballroom C - Ballroom Level (West Tower)

Friday, October 20, 1:45 p.m. - 3:30 p.m. United States Central Time Zone

Among the current impacts of globalization and climate change is the introduction of arthropods to new areas, where they can thrive if the local conditions are adequate. Invasive arthropods can have a significant impact on human and animal health due to the establishment of ectoparasites, pathogen vectors, and vector borne diseases in new regions. The bed bugs *Cimex lectularius* and *Cimex hemipterus* are within the most important invasive pest ectoparasites that have resurged globally in the past decade, causing substantial human health impact and economic burden. In Africa, an Asian malaria vector, *Anopheles stephensi*, continues expanding its geographical range, with the subsequent impact on local mosquito surveillance and control programs, as well as potential effects on urban malaria epidemiology. Likewise, one of the most extensively dispersed ticks worldwide, the brown dog tick (*Rhipicephalus sanguineus* s. l.), is capable of reaching high densities in urban areas and can transmit important zoonotic pathogens to humans. Although these and other invasive arthropods may already be established, tracking them is key for monitoring further expansion and controlling population densities.

For this, there are successful citizen science initiatives underway, such as NASA's GLOBE Observer Mosquito Habitat Mapper, which could be adapted to different species and local contexts. This symposium aims to present updated information on invasive arthropods, their impact on public health, and available tracking tools, in order to raise awareness on the need to understand, detect, and monitor invasive species to improve their control and reduce disease burden.

**CHAIR**

Adriana Troyo  
 Universidad de Costa Rica, San Jose, Costa Rica  
 Catherine A. Hill  
 Purdue University, West Lafayette, IN, United States

1:45 p.m.

**INTRODUCTION**

1:55 p.m.

**CIMEX LECTULARIUS AND CIMEX HEMIPTERUS: PUBLIC HEALTH IMPACT OF BED BUGS**

Jose E. Pietri  
 Sanford School of Medicine, University of South Dakota, Vermillion, SD, United States

2:15 p.m.

**ANOPHELES STEPHENSI IN AFRICA: CURRENT DISTRIBUTION AND POTENTIAL IMPACT ON MALARIA**

Fredros O. Okumu  
 Ifakara Health Institute, Ifakara, United Republic of Tanzania

2:35 p.m.

**RHIPICEPHALUS SANGUINEUS SENSU LATO: CURRENT DISTRIBUTION AND VECTOR COMPETENCE**

Filipe Dantas-Torres  
 Oswaldo Cruz Foundation (Fiocruz), Recife, Brazil

2:55 p.m.

**NASA'S GLOBE OBSERVER MOSQUITO HABITAT MAPPER: THE ROLE OF CITIZEN SCIENCE IN MOSQUITO SURVEILLANCE, VECTOR RE-SEARCH AND LOCAL HEALTH**

Russanne D. Low  
 Institute for Global Environmental Strategies, Arlington, VA, United States

3:15 p.m.

**MODERATOR, PANEL DISCUSSION**

Adriana Troyo  
 Universidad de Costa Rica, San Jose, Costa Rica

**Symposium 88****Integrated Malaria Molecular Surveillance (iMMS) in Africa: Current Initiatives and Future Direction**

Regency Ballroom D - Ballroom Level (West Tower)

Friday, October 20, 1:45 p.m. - 3:30 p.m. United States Central Time Zone

Interoperable data generated from multiple sources using robust integrated malaria molecular surveillance (iMMS) is essential for sustainable control and elimination of malaria. This will enable country-led decision making, informed by a holistic understanding

of how the three genomes - human, parasite, and vector - respond to specific malaria control interventions. National laboratories and Regional hubs (where one laboratory supports multiple countries) will greatly facilitate integration and utilization of genomics data at national, regional, continental, and global context. Through active engagement with policy makers and National malaria control programs (NMCPs), the laboratories/hubs will generate data that is routinely and better integrated into decision making. For hubs, each hub leader will catalyze their own discrete but complementary regional networks providing training to neighboring countries from sample collection to translation of genomic data into actionable knowledge by NMCPs. Currently, iMMS platforms supporting the generation, processing, storing and analysis of data and regional centers of genomic surveillance are limited and not widely implemented. There is an urgent need to bring genome experts, bioinformaticians, and data analysts together to address cross-cutting questions that deepen our understanding of iMMS and its potentials for supporting the ongoing malaria elimination strategies. Addressing these challenges collectively will support the development of key operational questions, evidence-based decisions, and policy-making by NMCPs and other stakeholders. The symposium will bring together iMMS experts to provide updates and discuss current efforts to develop sampling frameworks and build data generation and analysis capacity and regional hubs across Africa. It will detail how harmonized iMMS approaches can address challenges of procurement, training and data interoperability and give specific examples of implementation in Ghana, The Gambia, Mali and Vietnam. It will highlight on integration with NMCPs for optimal use of the data to address relevant use cases and building regional networks for iMMS. Symposium attendees will hear from experts who are either implementing or supporting iMMS projects in Africa and South-East Asia. In addition, a diverse group of panelists made of experts will discuss and highlight the pressing issues and perspectives on effective implementation of iMMS in malaria endemic countries. Experts will discuss and share experiences and lessons and offer recommendations for effective implementation of iMMS in malaria-endemic countries with varying landscapes of disease burden.

#### **CHAIR**

Deus S. Ishengoma  
*National Institute for Medical Research, Dar es Salaam, United Republic of Tanzania*

Shavanthi Rajatileka  
*Wellcome Sanger Institute, Hinxton, United Kingdom*

#### **1:45 p.m. INTRODUCTION**

#### **1:55 p.m. ESTABLISHMENT AND IMPLEMENTATION OF AN INTEGRATED MALARIA PARASITE AND VECTOR MOLECULAR SURVEILLANCE IN GHANA (IMPAVES-GHANA)**

Lucas Amenga-Etego  
*West African Centre for Cell Biology of Infectious Pathogens (WACCBIP), University of Ghana, Accra, Ghana*

#### **2:10 p.m. ESTABLISHING A REGIONAL HUB FOR MALARIA GENOMIC SURVEILLANCE IN THE GAMBIA**

Eniyou Cheryll Oriero  
*MRC Unit The Gambia Unit at the London School of Hygiene and Tropical Medicine., Banjul, Gambia*

#### **2:25 p.m. PAN-AFRICAN OMICS AND BIOINFORMATICS INITIATIVES FOR MALARIA VECTOR RESEARCH AND SURVEILLANCE**

Nsa Dada  
*Norwegian University of Life Sciences, Ski, GA, Norway*

#### **2:40 p.m. INCREASING PUBLIC HEALTH VALUE OF MALARIA SURVEILLANCE DATA**

Olivo Miotto  
*University of Oxford, Bangkok, Thailand*

#### **2:55 p.m. PANELIST**

Nana A. Williams  
*Barcelona Institute for Global Health (ISGlobal), Hospital Clínic - Universitat de Barcelona, Barcelona, Spain*

#### **3:05 p.m. MODERATOR, PANEL DISCUSSION**

Deus Ishengoma  
*National Institute for Medical Research, Dar es Salaam, United Republic of Tanzania*

### **Career Chats: Meet the Overseas Mentors**

*Grand Hall MN - Ballroom Level (East Tower)*  
**Friday, October 20, 3 p.m. - 4 p.m. U.S. Central Time Zone**

This session will provide trainees with an opportunity to learn directly from international researchers and other experts as a means to building on academic experiences to help them create networks that may aid in navigating future career paths. Trainees will have the opportunity to hear directly from established scientists, passionate about working with international students, at the forefront of global health and raise questions and ideas which could motivate their career advancement at the global stage. The mentors will discuss their institutional global health portfolio and offer supportive strategies in navigating cultural, academic, and social challenges in overseas countries.

#### **CHAIR**

Bartholomew Ondigo  
*Egerton University, Nakuru, Kenya*

Katherine Dobbs  
*Case Western Reserve University, Cleveland, OH, United States*

#### **PANELISTS**

John H. Amuasi, Senior Lecturer in Global Health  
*Kwame Nkrumah University of Science and Technology, Kumasi, Ghana*

Katherine Dobbs  
*Case Western Reserve University, Cleveland, OH, United States*

Andres G. Lescano, Associate Professor  
*Universidad Peruana Cayetano Heredia, Lima, Peru*

Bartholomew Ondigo  
*Egerton University, Nakuru, Kenya*

Liam Smeeth, Director  
*London School of Hygiene & Tropical Medicine, London, United Kingdom*

## Exhibit Hall Open

Riverside Center - Exhibit Level (East Tower)

Friday, October 20, 3:15 p.m. - 4:15 p.m. U.S. Central Time Zone

## Coffee Break

Riverside Center - Exhibit Level (East Tower)

Friday, October 20, 3:30 p.m. - 4 p.m. U.S. Central Time Zone

## Richard Hunt Sculpture Tour

Meet in Hotel Lobby at Wacker Drive Entrance

Friday, October 20, 3:30 p.m. – 5 p.m.

Please join us along with the Green Task Force for a Chicago Art Walk featuring the work of Chicago's own famous sculptor, Richard Hunt. According to Kinshasha Holman Conwill, Director of the Studio Museum in Harlem, "Hunt has been a major figure in American Art for forty years. His sculpture and public commissions have earned a singular place in the cultural landscape and public imagination." Jesus Lopes, a staff artist in Richard Hunt's Studio, will lead the tours. The tours will be held on Thursday, October 19 at 3:30 p.m. - 5 p.m. and Friday, October 20 at 3:30 p.m. - 5 p.m. Meet in the lobby of the Hyatt Regency Chicago at the Wacker Drive entrance.

## Poster Session B Dismantle

Riverside Center - Exhibit Level (East Tower) and Grand Hall GHI – Ballroom Level (East Tower)

Friday, October 20, 4 p.m. - 6:15 p.m.

## Symposium 89

### ASTMH Committee on Global Health (ACGH) Symposium II: From Concept to Practice: How to Sustainably Democratize/Decolonize Global Health

Grand Ballroom A - Ballroom Level (East Tower)

Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone

To achieve true and sustained decolonization of global health practices, actors and decision-makers need a better understanding of the processes, lessons learned along the way and the factors that can enable or interfere with decolonization of global health. This symposium will provide an overview of how global health can sustainably achieve decolonization from concept to practice. Presentations will address decolonizing global health education and research, decolonizing global organizations, country-level and community-level initiatives, and a call to action to be a proactive decolonizer. This symposium will enable and empower participants to play an active role in decolonizing global health, leading to better 'industry' policies and practices.

#### CHAIR

Maria Elena Bottazzi  
Baylor College of Medicine, Houston, TX, United States

Katherine Wolf  
JHPIEGO, Baltimore, MD, United States

#### 4 p.m. INTRODUCTION

#### 4:10 p.m. RECIPROCAL INNOVATION AS A STRATEGY TO DEMOCRATIZE GLOBAL HEALTH

Virginia Rowthorn  
University of Maryland Baltimore Graduate School, Baltimore, MD, United States

#### 4:25 p.m. WHY IT IS CRITICAL TO ENSURE MEANINGFUL CONTRIBUTIONS OF LOCAL ACTORS AND COMMUNITIES AFFECTED BY MALARIA

Olivia Ngou  
impact santé Afrique (ISA) & CS4ME platform, Yaoundé, Cameroon

#### 4:40 p.m. A COUNTRY PERSPECTIVE: WHY AND FOR WHOM ARE WE DECOLONIZING GLOBAL HEALTH?

Elizabeth Anne Bukusi  
Center for Microbiology Research, KEMRI, Nairobi, Kenya

#### 4:55 p.m. PUTTING DECOLONIZATION AND LOCALIZATION INTO PRACTICE: AN INGO PERSPECTIVE?

Katherine Wolf  
JHPIEGO, Baltimore, MD, United States

#### 5:10 p.m. A CALL TO ACTION: STRIVING TOWARD TRUE EQUITY IN GLOBAL HEALTH: AN AFRICAN PERSPECTIVE

Yap Boum  
Institut Pasteur, Bangui, Central African Republic

## Symposium 90

### American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Symposium II: Trager, Trainees and Take-off!

Grand Ballroom B - Ballroom Level (East Tower)

Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone

ACMCIP has bestowed the William Trager Award for Basic Parasitology since 2015. The award recognizes a fundamental breakthrough in molecular, cellular, or immunoparasitology. The Trager & Trainee Awardees Symposium exists to celebrate the present excellence, as well as highlight the bright future of molecular, cellular, and immunoparasitology research. This symposium will highlight the scientific work on the Trager awardee, along with the work of trainee and up-and-coming investigators in ACMCIP-related research. These include an ACMCIP Young Investigator awardee who works in parasitology as well as the winners of the ACMCIP Trainee 3-minute thesis competition. The coupling of both pivotal and emerging parasitology research will serve as both an educational and aspirational event for ACMCIP trainee members and the broader ASTMH membership.

#### CHAIR

Mahalia S. Desruisseaux  
Yale University School of Medicine, New Haven, CT, United States

Dinah Nahid  
Wake Forest University, Winston-Salem, NC, United States

**4 p.m.**  
**INTRODUCTION**

**4:10 p.m.**  
**WILLIAM TRAGER AWARD FOR BASIC PARASITOLOGY:  
PRAZIQUANTEL: A NEW TARGET FOR AN OLD DRUG**

Jonathan S. Marchant  
*Medical College of Wisconsin, Milwaukee, WI, United States*

**4:40 p.m.**  
**TRAINEE AWARD WINNER: LOSS OF SIGLEC-7 CORRELATES  
WITH ENHANCED NATURAL KILLER CELL FUNCTION AND  
PROTECTION FROM MALARIA SYMPTOMS**

Jenna Dick  
*Department of Medicine, Division of Infectious Diseases and International Medicine,  
University of Minnesota, Minneapolis, MN, United States*

**4:50 p.m.**  
**TRAINEE AWARD WINNER: AFRICAN MALARIA PARASITES  
CARRY A C-TERMINAL DELETION IN PFAP2-G THAT HAS A  
MAJOR IMPACT ON SEXUAL COMMITMENT**

Ritwik Singhal  
*Pennsylvania State University, State College, PA, United States*

**5 p.m.**  
**TRAINEE AWARD WINNER**

Claudia Rohr  
*Neurobiology and Anatomy, Medical College of Wisconsin, Milwaukee, WI, United States*

**5:10 p.m.**  
**TAKE-OFF AWARD IN PARASITOLOGY RESEARCH: MAPPING  
THE GENOMIC LANDSCAPE OF MULTIDRUG RESISTANCE IN *P.  
FALCIPARUM* MALARIA AND ITS IMPACT ON PARASITE FITNESS**

Sachel Mok  
*Columbia University Irving Medical Center, New York, NY, United States*

**5:30 p.m.**  
**ACMCIP ANNUAL BUSINESS MEETING**

Mahalia S. Desruisseaux  
*Yale University School of Medicine, New Haven, CT, United States*

## Symposium 91

### From a Single Dataset to a Million Patients: Solutions to Pool and Harmonize IPD for Effective and Equitable Reuse of Data to Generate New Evidence in an Open Science Framework

*Grand Hall J - Ballroom Level (East Tower)*

**Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone**

There is growing evidence of the improved statistical power of conducting individual-patient data (IPD) meta-analysis compared to aggregated meta-analysis. However, in order to do so, sharing, harmonizing and reusing data is a necessary step. There are increasing numbers of policies encouraging data sharing employed by funders and publishers. Actual practice however is still stagnating due to perceived and practical barriers. The Infectious Diseases Data Observatory (IDDO) has, with partners and collaborators from around the world, implemented solutions for many of the regulatory, ethical, and scientific hurdles that are

routinely cited by researchers as reasons for a lack of sharing and reuse. These solutions include establishment of equitable group collaborations and implementation of DOIs to ensure credit and traceability of data reuse; development of governance bodies, agreements, and procedures to address ethical and legal concerns and access barriers; and curation of data to CDISC-compliant standards to address heterogeneity and increase findability and reusability, alleviating resource burden on researchers. As exemplified through multiple published IPD meta-analyses and their impact on the development of WHO treatment guidelines the experience of IDDO and research partners serves as compelling evidence for the significant contribution that facilitation of data reuse can make to researchers, science and ultimately for the benefit of patients. The progress in understanding and overcoming those barriers within IDDO's context has been a relatively long journey but is significant, with novel infrastructure, collaborators and environments evolving. Workable solutions and ways forward will be explored, examining how current solutions could be improved, and where next steps should be focused. This symposium will provide a platform for experiences and practical solutions in open science focusing on data reuse, and a forum to push the field further. Overcoming these hurdles, and showcasing these successes is critical to start changing the dialogue from focusing on barriers to driving solutions.

#### CHAIR

Philippe J. Guerin  
*University of Oxford, Oxford, United Kingdom*

Manju Rahi  
*Indian Council of Medical Research, New Delhi, India*

**4 p.m.**  
**INTRODUCTION**

**4:10 p.m.**  
**SOLUTIONS TO OPEN SCIENCE AND DATA REUSE**

Kalynn Kennon  
*Infectious Diseases Data Observatory, Oxford, United Kingdom*

**4:35 p.m.**  
**GOVERNANCE OF DATA REUSE**

Robert Terry  
*TDR, World Health Organization, Geneva, Switzerland*

**4:50 p.m.**  
**THE IMPACT OF DATA REUSE IN MALARIA**

Robert J. Commons  
*Menzies School of Health Research, Darwin, Australia*

**5:05 p.m.**  
**IMPACT OF DATA REUSE IN NTDS**

María Jesús Pinazo  
*Drugs for Neglected Diseases initiative, Rio de Janeiro, Brazil*

**5:20 p.m.**  
**APPLICATIONS AND NEXT STEPS IN NEW ENVIRONMENTS**

Phaik Yeong Cheah  
*Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand*

**5:35 p.m.**  
**MODERATOR, PANEL DISCUSSION**  
 Philippe J. Guérin  
 University of Oxford, Oxford, United Kingdom

**Scientific Session 92**



**Mosquitoes – Biology and Genetics of Insecticide Resistance**

Grand Ballroom CDEF - Ballroom Level (East Tower)  
 Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone

**CHAIR**

Victoria Ingham  
 Heidelberg University Hospital, Heidelberg, Germany  
 Tchouakui Magellan  
 Centre for Research in Infectious Diseases, Yaounde, Cameroon

**4 p.m.** **6439**

**THE IMPACT OF NEXT-GENERATION DUAL-ACTIVE INGREDIENT LONG-LASTING INSECTICIDAL NET DEPLOYMENT ON INSECTICIDE RESISTANCE IN MALARIA VECTORS DURING A THREE-YEAR CLUSTER-RANDOMIZED CONTROLLED TRIAL IN TANZANIA**

Louisa Alexandra Messenger<sup>1</sup>, Nancy S. Matowo<sup>2</sup>, Chad L. Cross<sup>1</sup>, Mohamed Jumanne<sup>3</sup>, Natalie M. Portwood<sup>2</sup>, Jackline Martin<sup>2</sup>, Eliud Lukole<sup>3</sup>, Elizabeth Mallya<sup>3</sup>, Jacklin F. Moshia<sup>3</sup>, Robert Kaaya<sup>4</sup>, Oliva Moshi<sup>2</sup>, Bethanie Pelloquin<sup>2</sup>, Katherine Fullerton<sup>2</sup>, Alphaxard Manjuran<sup>2</sup>, Franklin W. Moshia<sup>4</sup>, Thomas Walker<sup>5</sup>, Mark Rowland<sup>2</sup>, Manisha A. Kulkarni<sup>6</sup>, Natacha Prottopopoff<sup>2</sup>  
<sup>1</sup>University of Nevada, Las Vegas, Las Vegas, NV, United States, <sup>2</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>3</sup>National Institute for Medical Research, Mwanza, United Republic of Tanzania, <sup>4</sup>Kilimanjaro Christian Medical University College, Moshi, United Republic of Tanzania, <sup>5</sup>University of Warwick, Warwick, United Kingdom, <sup>6</sup>University of Ottawa, Ottawa, ON, Canada

**4:15 p.m.** **6440**

**WHOLE GENOME SEQUENCING AND RNASEQ IDENTIFIES POTENTIAL MOLECULAR MARKERS OF INSECTICIDE RESISTANCE WITHIN THE ANOPHELES GAMBIAE SPECIES COMPLEX**

Juan Carlos Lol<sup>1</sup>, Antoine Sanou<sup>2</sup>, Marion Morris<sup>3</sup>, Wasim Hussain<sup>1</sup>, Hilary Ranson<sup>3</sup>, Victoria A. Ingham<sup>1</sup>  
<sup>1</sup>Heidelberg University Hospital, Heidelberg, Germany, <sup>2</sup>Centre National de Recherche et de Formation sur le Paludisme, Ouagadougou, Burkina Faso, <sup>3</sup>Liverpool School of Tropical, Liverpool, United Kingdom

**4:30 p.m.** **6441**

**EFFICACY OF DUAL-ACTIVE INGREDIENT LONG-LASTING INSECTICIDAL NETS RELATIVE TO STANDARD NETS, AGAINST HIGHLY PYRETHROID-RESISTANT ANOPHELES MOSQUITOES IN TANZANIA: AN EXPERIMENTAL HUT TRIAL**

Jackline L. Martin<sup>1</sup>, Louisa Messenger<sup>2</sup>, Franklin W. Moshia<sup>3</sup>, Nancy Matowo<sup>4</sup>, Jacklin F. Moshia<sup>1</sup>, Mark Rowland<sup>4</sup>, Manisha Kulkarni<sup>5</sup>, Natacha Prottopopoff<sup>4</sup>  
<sup>1</sup>NIMR Mwanza, Mwanza, United Republic of Tanzania, <sup>2</sup>Department of Environmental and Occupational Health, School of Public Health, University of Nevada, Las Vegas, NV, United States of America, Las Vegas, FL, United States, <sup>3</sup>Kilimanjaro Christian Medical University College, Moshi, United Republic of Tanzania, Moshi, United Republic of Tanzania, <sup>4</sup>London School of Hygiene and Tropical, London, United Kingdom, London, United Kingdom, <sup>5</sup>University of Ottawa, Canada, Ottawa, ON, Canada

**4:45 p.m.** **6442**

**EVIDENCE SUPPORTING DEPLOYMENT OF NEXT GENERATION INSECTICIDE TREATED NETS IN BURKINA FASO: BIOASSAYS WITH CHLORFENAPYR AND PIPERONYL BUTOXIDE INCREASE MORTALITY OF PYRETHROID-RESISTANT ANOPHELES GAMBIAE**

Aristide S. Hien<sup>1</sup>, Dieudonné Diloma Soma<sup>2</sup>, Adama Koné<sup>3</sup>, Birame Mame Diouf<sup>4</sup>, Sheila Barasa Ogoma<sup>5</sup>, Allison Belemvire<sup>6</sup>, Djenam Jacob<sup>5</sup>, Roch Kounbobr Dabiré<sup>1</sup>  
<sup>1</sup>Institut de Recherche en Sciences de la Santé, Bobo-Dioulasso, Burkina Faso, <sup>2</sup>Institut de Recherche en Sciences de la Santé / UNB, Bobo-Dioulasso, Burkina Faso, <sup>3</sup>PMI VectorLink Project, Abt Associates, Ouagadougou, Burkina Faso, <sup>4</sup>US President's Malaria Initiative, US Agency for International Development, Ouagadougou, Burkina Faso, <sup>5</sup>PMI VectorLink Project, Abt Associates Inc, Rockville, MD, United States, <sup>6</sup>US President's Malaria Initiative, US Agency for International Development, Washington, DC, United States

**5 p.m.** **6443**

**PHENOTYPIC RESISTANCE TO PYRETHROID ASSOCIATED TO METABOLIC MECHANISM IN VGSC-L995F RESISTANT-ANOPHELES GAMBIAE MALARIA MOSQUITOES**

France Paraudie A. Kouadio<sup>1</sup>, Angele N. Sika<sup>2</sup>, Behi K. Fodjo<sup>1</sup>, Christabelle G. Sadia<sup>1</sup>, Sébastien K. Oyou<sup>3</sup>, Allassane F. Ouattara<sup>1</sup>, Chouaibou S. Mouhamadou<sup>3</sup>  
<sup>1</sup>Centre Suisse de Recherches Scientifiques en Côte d'Ivoire, Université Nangui Abrogoua, Abidjan, Côte D'Ivoire, <sup>2</sup>Université Nangui Abrogoua, Abidjan, Côte D'Ivoire, <sup>3</sup>Centre Suisse de Recherches Scientifiques en Côte d'Ivoire, Abidjan, Côte D'Ivoire

**5:15 p.m.** **6444**

**RNASEQ-BASED GENE EXPRESSION PROFILING OF THE CHLORFENAPYR -RESISTANT ANOPHELES GAMBIAE FROM CAMEROON HIGHLIGHTS DOWN-REGULATION OF MAJOR PYRETHROID RESISTANCE GENES**

Tchouakui Magellan<sup>1</sup>, Tatiane Assatse<sup>1</sup>, Hervé Tazokong<sup>1</sup>, Ambrose Oruni<sup>2</sup>, Jonathan Kayondo<sup>3</sup>, Francis Watsenga<sup>3</sup>, Themba Mzilahowa<sup>4</sup>, Michael Osae<sup>5</sup>, Charles S. Wondji<sup>6</sup>  
<sup>1</sup>Centre for Research in Infectious Diseases, Yaoundé, Cameroon, <sup>2</sup>Uganda Virus Research Institute (UVRI), Entomology department, P.O.Box 49, Entebbe, Uganda, <sup>3</sup>Institut National de Recherche Biomédicale, P.O Box 1197, Kinshasa, Democratic Republic of the Congo, <sup>4</sup>Malaria Alert Centre (MAC), Kamuzu University of Health Sciences (KUHeS), Entomology department, P.O Box 265, Blantyre, Malawi, <sup>5</sup>Radiation Entomology and Pest Management Centre, Ghana Atomic Energy Commission, PO Box LG80, Legon, Ghana, <sup>6</sup>Department of Vector Biology, Liverpool School of Tropical Medicine, Pembroke Place, L35QA, Liverpool, United Kingdom

**5:30 p.m.** **6445**

**INSECTICIDE RESISTANCE AND WHOLE TRANSCRIPTOME PROFILES OF ANOPHELES FUNESTUS POPULATION IN WESTERN KENYA**

Isaiah Debrah<sup>1</sup>, Daibin Zhong<sup>2</sup>, Linda E. Amoah<sup>3</sup>, Andrew K. Githeko<sup>4</sup>, Yaw A. Afrane<sup>5</sup>, Guiyun Yan<sup>2</sup>  
<sup>1</sup>West African Centre for Cell Biology of Infectious Pathogens (WACCBIP), University of Ghana, Accra, Ghana, <sup>2</sup>University of California, Irvine, CA, United States, <sup>3</sup>Noguchi Memorial Institute for Medical Research, University of Ghana, Accra, Ghana, <sup>4</sup>Centre for Global Health Research, Kenya Medical Research Institute, Kisumu, Kenya, <sup>5</sup>Department of Medical Microbiology, University of Ghana Medical School, Accra, Ghana

Friday  
 October 20

## Symposium 93

### Leveraging Mathematical Modelling to Inform Decision Making for Control of Neglected Tropical Diseases Through Collaboration Between National Programs and Academia

Grand Hall K - Ballroom Level (East Tower)

Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone

Neglected tropical diseases (NTDs) impact the health, development and livelihood of over one billion people globally. Substantial progress has been made over the last few decades with 42 countries having eliminated at least one NTD since 2010. To accelerate progress and capitalize on these gains, the World Health Organization (WHO) published a roadmap for NTDs with the aim of controlling and eliminating NTDs from endemic countries by 2030. The main method of control for the preventive chemotherapy NTDs is mass drug administration (MDA). Rigorous use of accurate data could identify areas where progress may be slowing and evaluate causes for the continuation of transmission. Projects such as the Expanded Special Project for Elimination (ESPEN) work on the consolidation, access and use of NTD data to inform decision making for programs and identify gaps in intervention efforts (e.g. MDA campaigns) that could be filled to better impact transmission and reach elimination. With increasing data quality and data use comes the opportunity to apply methods such as mathematical modelling. Mathematical modelling has been regularly used to inform decision making for disease programs. For example, in malaria, modelling has frequently been used to evaluate the most impactful combination of interventions that a country could apply to reach prevalence and incidence goals. Or to give predictions on how changing the structure of an intervention may improve impact by expanding to new geographies or age groups. NTD modelling has already been used to evaluate high-level questions such as the prevalence threshold required to interrupt transmission, and the impact of increasing frequency of MDA rounds. NTD country programs could greatly benefit from these methods and for modelling groups to work with programs to identify areas where modelling could provide evidence for their decision making. The goal of this symposium is to provide insight and ideas into how NTD models can be applied to country settings and be used to inform program decision making. We will hear from the NTD Modelling Consortium on bringing together academic groups to share methods and results as well as being a resource for other institutions that wish to learn about or apply modelling for NTDs. We will then learn about two use cases for NTD modelling at country level. First, in Kenya, where modelling is being used to inform MDA planning and implementation for schistosomiasis. Second, on geospatial modelling for identifying onchocerciasis vector breeding sites in Nigeria. Finally, we will hear about a consortium that aims to bring together modelers and programs in sub-Saharan Africa to share knowledge, build capacity and form partnerships between institutions based in NTD endemic countries.

#### CHAIR

Julia C. Dunn  
*Clinton Health Access Initiative, Manchester, United Kingdom*

Thumbi Mwangi  
*Center for Epidemiological Modelling and Analysis, University of Nairobi, Nairobi, Kenya*

4 p.m.

#### INTRODUCTION

4:10 p.m.

#### HARNESSING THE OPPORTUNITIES OF MATHEMATICAL MODELLING TO INFORM AND EVALUATE NTD PROGRAMS

Andreia Vasconcelos  
*NTD Modelling Consortium, Oxford, United Kingdom*

4:30 p.m.

#### EPIDEMIOLOGICAL MODELS TO SUPPORT PLANNING AND IMPLEMENTATION OF KENYA'S SCHISTOSOMIASIS ELIMINATION PLAN

Mutono Nyamai  
*Center for Epidemiological Modelling and Analysis, University of Nairobi, Nairobi, Kenya*

4:50 p.m.

#### BLACKFLY HABITAT SUITABILITY MODELING FOR IMPROVED ENTOMOLOGICAL SURVEILLANCE FOR MEETING WHO STOP-MDA REQUIREMENTS IN NIGERIA

Monsuru Adeleke  
*Osun State University, Osogbo, Nigeria*

5:10 p.m.

#### AM2NTD - BUILDING NETWORKS BETWEEN COUNTRIES IN ENDEMIC COUNTRIES TO DESIGN AND APPLY MATHEMATICAL MODELLING STUDIES FOR NTD CONTROL AND ELIMINATION

Thumbi Mwangi  
*Center for Epidemiological Modelling and Analysis, University of Nairobi, Nairobi, Kenya*

## Scientific Session 94

### Bacteriology: Other Bacterial Infections

Grand Hall L - Ballroom Level (East Tower)

Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone

#### CHAIR

Pedro Marcal  
*School of Public Health, Emory University, Atlanta, GA, United States*

Scott D. Nash  
*The Carter Center, Atlanta, GA, United States*

4 p.m.

6446

#### THE THREE-DIMENSIONAL APPROACHES BY MULTIPLE CORRESPONDENCE ANALYSIS (MCA) CAN DIFFERENTIATE LEPROSY DISEASE STATES AND HOUSEHOLD CONTACTS WITH HIGH ACCURACY

Pedro Marcal<sup>1</sup>, Marcio Souza<sup>1</sup>, Rafael Gama<sup>2</sup>, Lorena Oliveira<sup>2</sup>, Marcos Pinheiro<sup>1</sup>, Thalisson Gomides<sup>2</sup>, Heloíne Leite<sup>1</sup>, Suelly Rodrigues<sup>2</sup>, Marileny Brandão<sup>2</sup>, Leonardo Silva<sup>2</sup>, Roberta Pinheiro<sup>3</sup>, Jessica Fairley<sup>4</sup>, Lucia Fraga<sup>1</sup>  
<sup>1</sup>Universidade Federal de Juiz de Fora (UFJF-Campus GV/PMBqBM), Governador Valadares, Brazil, <sup>2</sup>Universidade Vale do Rio Doce - Univale, Governador Valadares, Brazil, <sup>3</sup>Fundação Oswaldo Cruz - FIOCRUZ/RJ, Rio de Janeiro, Brazil, <sup>4</sup>Emory University, Atlanta, GA, United States



4:15 p.m.

6447

**LEPTOSPIROSIS SEROPREVALENCE AND RISK FACTORS AMONG SLAUGHTERHOUSE WORKERS IN BURKINA FASO**Sylvie Zida<sup>1</sup>, Henri Gautier Ouédraogo<sup>1</sup>, Tegwinde Rebeca Compaoré<sup>1</sup>, Tani Sagna<sup>1</sup>, Serge Théophile Soubeiga<sup>1</sup>, Bienvenu Banhoro<sup>1</sup>, Abdou Azaque Zouré<sup>1</sup>, Dinanibè Kambiré<sup>1</sup>, Amadou Dicko<sup>2</sup>, Elsie A. Wunder Jr.<sup>3</sup>, Seni Kouanda<sup>1</sup><sup>1</sup>Institut de Recherche en Sciences de la Santé (IRSS), Ouagadougou, Burkina Faso, <sup>2</sup>Centre Muraz, Bobo Dioulasso, Burkina Faso, <sup>3</sup>Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, CT, United States

4:30 p.m.

6448

**LEPTOSPIROSIS OUTBREAK AFTER HURRICANE FIONA, PUERTO RICO, 2022**Forrest Kirby Jones<sup>1</sup>, Abigail G. Medina<sup>2</sup>, Kyle R. Ryff<sup>2</sup>, Jessica Irizarry-Ramos<sup>3</sup>, Joshua M. Wong<sup>1</sup>, Eduardo O'Neill<sup>3</sup>, Ismael A. Rodriguez<sup>2</sup>, Alfonso C. Hernandez-Romieu<sup>1</sup>, Maile T. Phillips<sup>1</sup>, Michael A. Johansson<sup>1</sup>, Tesfaye Bayleyegn<sup>1</sup>, Christine Atherstone<sup>4</sup>, Katherine R. Debord<sup>4</sup>, Maria E. Negron<sup>4</sup>, Renee Galloway<sup>4</sup>, Laura E. Adams<sup>1</sup>, Melissa Marzan-Rodriguez<sup>2</sup><sup>1</sup>CDC Dengue Branch, San Juan, PR, United States, <sup>2</sup>Puerto Rico Department of Health, San Juan, PR, United States, <sup>3</sup>CDC Office of Island Affairs, San Juan, PR, United States, <sup>4</sup>CDC Bacterial Special Pathogens Branch, Atlanta, GA, United States

4:45 p.m.

6449

**OCULAR CHLAMYDIA TRACHOMATIS INFECTION MONITORING WITHIN DISTRICT-LEVEL TRACHOMA IMPACT AND SURVEILLANCE SURVEYS: RESULTS AND LESSONS LEARNED 2018-2021**Scott D. Nash<sup>1</sup>, Ambahun Chernet<sup>2</sup>, Eshetu Sata<sup>2</sup>, Mulat Zerihun<sup>2</sup>, Demelash Gessese<sup>2</sup>, Kimberly A. Jensen<sup>1</sup>, Zebene Ayele<sup>2</sup>, Berhanu Melak<sup>2</sup>, Taye Zeru<sup>3</sup>, Gizachew Yismaw<sup>3</sup>, Abdulkarim Mengistu<sup>4</sup>, Adisu Abebe<sup>4</sup>, Fikre Seife<sup>5</sup>, Zerihun Tadesse<sup>2</sup>, E. Kelly Callahan<sup>1</sup><sup>1</sup>The Carter Center, Atlanta, GA, United States, <sup>2</sup>The Carter Center, Addis Ababa, Ethiopia, <sup>3</sup>Amhara Public Health Institute, Bahir Dar, Ethiopia, <sup>4</sup>Amhara Regional Health Bureau, Bahir Dar, Ethiopia, <sup>5</sup>Ministry of Health, Addis Ababa, Ethiopia

5 p.m.

6450

**PHOTOGRAPHIC GRADING OF TRACHOMATOUS SCARRING AMONG ADULTS IN TRACHOMA ENDEMIC AMHARA REGION OF ETHIOPIA**Jaymie A. Bromfield<sup>1</sup>, Ugochi T. Aguwa<sup>2</sup>, Kimberly A. Jensen<sup>1</sup>, Fetene Mihretu<sup>3</sup>, Eshetu Sata<sup>3</sup>, Meraf Wolle<sup>2</sup>, E. Kelly Callahan<sup>1</sup>, Sheila K. West<sup>2</sup>, Scott D. Nash<sup>1</sup><sup>1</sup>The Carter Center, Atlanta, GA, United States, <sup>2</sup>Dana Center for Preventative Ophthalmology, Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore, MD, United States, <sup>3</sup>The Carter Center, Addis Ababa, Ethiopia

5:15 p.m.

6451

**IMPACT OF PARTNERS IN SCALING UP THE PREVENTION OF BLINDNESS FROM TRACHOMA IN SOUTH SUDAN**Kenneth Ladu Lino Sube<sup>1</sup>, Lubari Loro<sup>2</sup>, Joseph Lako<sup>3</sup><sup>1</sup>College of Medicine, University of Juba, Juba, South Sudan, <sup>2</sup>Christian Blind Mission, Juba, South Sudan, <sup>3</sup>South University of Medicine, Science and Technology, Juba, South Sudan

5:30 p.m.

6452

**AN RNA VACCINE FOR PLAGUE**R. Shattock<sup>1</sup>, V. Andrianaivoarimanana<sup>2</sup>, M. Rajerison<sup>2</sup>, L. Randriantseheno<sup>2</sup>, K. Moore<sup>3</sup>, R.V d'Elia<sup>3</sup>, T.R Laws<sup>3</sup>, J.L Prior<sup>3</sup>, E.D Williamson<sup>3</sup><sup>1</sup>Dept of Infectious Disease, Imperial College London, United Kingdom, <sup>2</sup>Institut Pasteur de Madagascar, Tananarive, Madagascar, <sup>3</sup>CBR Division, Dstl Porton Down UK, United Kingdom**Symposium 95****More Than a Guideline: Using the WHO 2030 NTD Road Map to End the Neglect of Soil-Transmitted Helminthiasis**

Plaza Ballroom - Lobby Level (East Tower)

Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone

The Road Map for Neglected Tropical Diseases (NTDs) for 2021–2030 (the 'Road Map') outlines a plan to address the global burden of these diseases and reach the 2030 targets for control, elimination, and eradication. This symposium will showcase how African and Asian soil-transmitted helminthiasis (STH) control programs have adapted their programs to stimulate progress in achieving the 2030 targets using the three foundational pillars outlined in the Road Map. Each speaker will highlight how their program's successes have mapped to the three pillars: (i) accelerate programmatic action, (ii) intensify cross-cutting approaches, and (iii) change operating models and culture to facilitate country ownership. The first presentation will highlight how Bangladesh's Ministry of Health and Family Welfare has pivoted one of the world's largest STH programs from population-based deworming to targeted evidence-based deworming among school-aged children. The speaker will discuss the STH situation in Bangladesh and share the findings of community-based surveys and geostatistical modeling intended to guide programmatic deworming decisions. The second presentation will describe how the national STH program in Malawi monitors the country's changing epidemiology and how this information guides interventions being delivered. The speaker will address the translation of the findings of research studies into practice and the challenges the program faces in implementing the Road Map pillars. Next, the Ugandan Vector Borne & Neglected Tropical Diseases Division speaker will describe the program's challenges in data collection and diagnostics for STH control and the innovative approaches taken to address these challenges. Finally, audience members will hear from the speaker from the African Institute for Health & Development, who will discuss the integration of STH control activities into broader coordination with cultural movements within and around the globe. The final segment of the symposium will feature a panel discussion. Here, the speakers will share their experiences and insights on the successes and challenges of implementing the 2030 Road Map pillars. The discussion will provide a platform for program managers, researchers, and other STH stakeholders to exchange ideas and identify new ways to reach the 2030 targets. The goal of the panel is to encourage south-south dialogue, foster understanding, and promote collaboration among stakeholders in addressing STH.

**CHAIR**

Kristin M. Sullivan

*The Task Force for Global Health, Decatur, GA, United States*

Khumbo Kalua

*Blantyre Institute for Community Outreach, Blantyre, Malawi*Friday  
October 20

**4 p.m.**  
**INTRODUCTION**

**4:10 p.m.**  
**EPIDEMIOLOGICAL EVIDENCE TO INFORM PROGRAMMING FOR SOIL-TRANSMITTED HELMINTH INFECTION CONTROL IN BANGLADESH**

M.M. Aktaruzzaman  
*Ministry of Health and Family Welfare of Bangladesh, Dhaka, Bangladesh*

**4:35 p.m.**  
**PUTTING 2030 NTD ROAD MAP PILLARS INTO PRACTICE: EXPERIENCE FROM THE MALAWI SOIL-TRANSMITTED HELMINTHIASIS CONTROL PROGRAM**

Khumbo Kalua  
*Blantyre Institute for Community Outreach, Blantyre, Malawi*

**4:50 p.m.**  
**INNOVATIONS AND INITIATIVES IN THE UGANDAN SOIL-TRANSMITTED HELMINTHIASIS CONTROL PROGRAM SINCE THE ADOPTION OF THE 2030 NTD ROAD MAP**

Betty Nabatte  
*Division of Vector Borne and Neglected Tropical Diseases, Kampala, Uganda*

**5:05 p.m.**  
**ADOPTION OF CULTURALLY SENSITIVE MODELS FOR SOIL-TRANSMITTED HELMINTHIASIS CONTROL AND SUSTAINABLE IMPACTS AT NATIONAL AND SUB-NATIONAL LEVELS**

Mary Nyamongo  
*African Institute for Health and Development, Nairobi, Kenya*

## Symposium 96

### CDC Yellow Book Travel Medicine Update

*Crystal Ballroom A - Lobby Level (West Tower)*  
**Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone**

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 newly published edition, CDC Yellow Book 2024, compiles the US government's most current travel health guidelines, including pretravel vaccine recommendations, destination-specific health advice, and easy-to-reference maps, tables, and charts. This symposium will introduce novel features of the CDC Yellow Book, including new topics and a sleek, more intuitive on-line interface. CDC-based subject matter experts will offer overviews and updates on three of the most common topics addressed by travel medicine providers: travel vaccines, dengue, and malaria. Drawing from the respective CDC Yellow Book chapter, each presenter will provide an overview of common issues and new updates related to each topic.

#### CHAIR

Eric Halsey  
*CDC, Atlanta, GA, United States*  
Kristina Angelo  
*CDC, Atlanta, GA, United States*

**4 p.m.**  
**INTRODUCTION**

**4:10 p.m.**  
**YELLOW BOOK 2024 OVERVIEW**

Eric Halsey  
*CDC, Atlanta, GA, United States*

**4:30 p.m.**  
**TRAVEL VACCINE REVIEW AND UPDATE**

Kristina Angelo  
*CDC, Atlanta, GA, United States*

**4:55 p.m.**  
**DENGUE REVIEW AND UPDATE**

Liliana Sanchez-Gonzalez  
*CDC, San Juan, PR, United States*

**5:20 p.m.**  
**MALARIA REVIEW AND UPDATE**

Alison Ridpath  
*CDC, Atlanta, GA, United States*

## Symposium 97

### Wolbachia Based Vector Control for Arboviral Diseases: Next Steps in Rolling out the Intervention at Scale

*Regency Ballroom A - Ballroom Level (West Tower)*  
**Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone**

Arboviral infections such as dengue pose a global public health threat. The incidence has been increasing with half of the world's population at risk, a trend perpetuated by climate change. Communities in low resource settings are particularly affected. To prevent the transmission of arboviral diseases, strategies to control mosquito populations have been deployed. The wMel strain of the intracellular bacterium Wolbachia, endowing a pathogen-blocking phenotype, has been introduced in natural populations of *Aedes aegypti*. This method is considered an environmentally friendly approach to control arboviral diseases. The World Mosquito Program's (WMP) Wolbachia method has been assessed by the WHO Vector Control Advisory Group as demonstrating evidence of public health value, and the WMP is applying for WHO prequalification. To reduce the transmission of arboviruses such as dengue and chikungunya in more communities at risk, it is pertinent to scale this arboviral control strategy for widespread roll out. The introgression of wMel into local *Aedes aegypti* populations has been shown to significantly reduce the incidence of dengue in randomized and non-randomized field trials. Challenges to broad implementation include threats to introgression of wMel into the mosquito population, sustained effectiveness, generalizability and affordability of the technology. The symposium will address these challenges by discussing the accumulating evidence and lessons learned from field deployments of wMel-infected *Aedes aegypti* in 12 countries in Asia-Pacific and Latin America. wMel has been shown to reduce the incidence of both dengue and chikungunya in Brazil. Our speakers will reflect on the effect of the wMel release program in Rio de Janeiro, Brazil, an urban setting. Experiences from this observational study will highlight the challenges to wMel introgression encountered in complex urban communities.

Open questions remain about factors such as heterogeneity of baseline mosquito populations, seasonal fluctuations, local accessibility, circulation of *Aedes albopictus*, an alternative vector for arboviruses and the approach to egg as compared to adult mosquito release carrying wMel. The symposium will discuss a modelling framework for spatially and temporally targeted interventions in complex transmission dynamics. To further address evidence gaps, our symposium will present the EVITA Dengue trial, a cluster-randomized controlled trial to evaluate the efficacy of wMel-infected *Aedes aegypti* mosquitoes in reducing the incidence of arboviral infection in Brazil. The symposium will address issues of cost-effectiveness as well as community-engagement and point out future directions for widespread roll out of this promising arboviral control strategy.

#### CHAIR

Hendrik Sy  
Montefiore Medical Center/Albert Einstein College of Medicine, The Bronx, NY, United States

Albert I. Ko  
Yale School of Public Health, New Haven, CT, United States

#### 4 p.m.

##### INTRODUCTION

#### 4:10 p.m.

##### UPDATE ON GLOBAL EVIDENCE FOR THE EFFECTIVENESS, SCALABILITY, AND COST-EFFECTIVENESS OF WMP'S WOLBACHIA METHOD

Katie Anders  
Monash University, Melbourne, Australia

#### 4:30 p.m.

##### EFFECT OF THE WMEI RELEASE PROGRAM ON THE INCIDENCE OF DENGUE AND CHIKUNGUNYA IN BRAZIL

Henrik Salje  
University of Cambridge, Cambridge, United Kingdom

#### 4:50 p.m.

##### EXPERIENCE WITH THE EVITA DENGUE TRIAL IN BRAZIL - EVIDENCE GAPS REMAIN

Luciano A. Moreira  
Fundação Oswaldo Cruz, Belo Horizonte, Brazil

#### 5:10 p.m.

##### FUTURE PLANS FOR THE GLOBAL SCALE UP OF THE WMP WOLBACHIA METHOD

Scott O'Neill  
Monash University, Clayton, Australia

#### 5:30 p.m.

##### MODERATOR, PANEL DISCUSSION

Hendrik Sy  
Montefiore Medical Center / Albert Einstein College of Medicine, The Bronx, NY, United States

## Scientific Session 98

### Pneumonia, Respiratory Infections and Tuberculosis II

Regency Ballroom B - Ballroom Level (West Tower)

Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone

#### CHAIR

Jasper Chan  
The University of Hong Kong, Hong Kong, Hong Kong

David Hamer  
Center for Emerging Infectious Disease Research and Policy, Boston University School of Public Health, Boston, MA, United States

#### 4 p.m.

6453

##### A SALIVA-BASED, DNA-EXTRACTION-FREE APPROACH FOR THE MOLECULAR DETECTION OF STREPTOCOCCUS PNEUMONIAE

Tzu-Yi Lin, Chikondi Peno, Maikel Stefano Hislop, Amy Bei, Anne L. Wyllie  
Yale School of Public Health, New Haven, CT, United States

#### 4:15 p.m.

6454

##### PNEUMOCOCCAL CARRIAGE IN THE SAHEL REGION OF BURKINA FASO BEFORE A 13 VALENT PNEUMOCOCCAL CONJUGATE VACCINATION CAMPAIGN

Zoma L. Robert<sup>1</sup>, Issa Ouedraogo<sup>2</sup>, Lana Childs<sup>3</sup>, Guetwendé Sawadogo<sup>1</sup>, T. Félix Tarbangdo<sup>1</sup>, Aristide Zoma<sup>4</sup>, Soufiane Sanou<sup>4</sup>, Brice Bicaba<sup>5</sup>, Simon Sanou<sup>5</sup>, Lesley McGee<sup>6</sup>, Miwako Kobayashi<sup>6</sup>, Jennifer R. Verani<sup>6</sup>, Flavien H. AKE<sup>1</sup>, Mahamoudou Ouattara<sup>6</sup>

<sup>1</sup>Davycas International, Ouagadougou, Burkina Faso, <sup>2</sup>Ministry of health, Ouagadougou, Burkina Faso, <sup>3</sup>National Foundation for the Centers for Disease Control and Prevention, Inc., Atlanta, GA, GA, United States, <sup>4</sup>Centre Muraz, Bobo-Dioulasso, Burkina Faso, <sup>5</sup>Centre des Operations de Réponse aux Urgences Sanitaires, Ouagadougou, Burkina Faso, <sup>6</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States

#### 4:30 p.m.

6455

##### PNEUMOCOCCAL CARRIAGE AND CHANGES IN SEROTYPE DISTRIBUTION AFTER A SWITCH FROM PCV10 TO PCV13 IN CHILDREN IN A RURAL SITE IN MATIARI, PAKISTAN

Shahira Shahid, Izn Iqbal, Samiah Kanwar, Furqan Kabir, Sheraz Ahmed, Aneeta Hotwani, Sehrish Munir, Muhammad Farrukh Qazi, Fyezah Jehan, Muhammad Imran Nisar

Aga Khan University, Karachi, Pakistan

#### 4:45 p.m.

6456

##### ANTIBIOTIC USE AMONG ADULT PATIENTS WITH SEVERE ACUTE RESPIRATORY INFECTION IN TERTIARY LEVEL HOSPITALS ACCORDING TO THE WHO AWARE CLASSIFICATION IN BANGLADESH

Fahmida Chowdhury, Md. Ariful Islam, Tanzir Ahmed Shuvo, Md. Kaousar Ahmmed, Probir Kumar Kumar Ghosh, Syeda Mah-E- Muneer Mah-E- Muneer, Md. Zakiul Hassan  
icddr,b, Dhaka, Bangladesh

5 p.m.

6457

### PREVALENCE OF SOIL-TRANSMITTED HELMINTH CO-INFECTION AMONG PERSONS WITH TB

**Pranay Sinha**<sup>1</sup>, Prakash B. Narasimhan<sup>2</sup>, Madolyn Dauphinais<sup>1</sup>, Komal Jain<sup>2</sup>, Subitha L. Lakshminarayanan<sup>2</sup>, Nonika Rajkumari<sup>2</sup>, Madeline Carwile<sup>1</sup>, Scott K. Heysell<sup>3</sup>, Natasha S. Hochberg<sup>1</sup>

<sup>1</sup>Boston University, Boston, MA, United States, <sup>2</sup>Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India, <sup>3</sup>University of Virginia, Charlottesville, VA, United States

5:15 p.m.

6458

### ASSESSING PROGRESS TOWARDS THE WORLD HEALTH ORGANIZATION TARGET OF ZERO CATASTROPHIC COSTS DUE TO TUBERCULOSIS BY 2035

**Paula P. Jimenez**<sup>1</sup>, Sumona Datta<sup>2</sup>, Luz Quevedo Cruz<sup>1</sup>, Matthew J. Saunders<sup>1</sup>, Carlton A. Evans<sup>1</sup>

<sup>1</sup>Innovation For Health and Development, London, United Kingdom, <sup>2</sup>Department of Clinical Sciences, Liverpool School of Tropical Medicine, Liverpool, United Kingdom

5:30 p.m.

6459

### THE EPIDEMIOLOGICAL SHIFTS OF DRUG-RESISTANT TUBERCULOSIS IN SABAH, EAST MALAYSIA DURING THE COVID-19 PANDEMIC: A 6-YEAR REVIEW OF THE GAINS AND LOSSES FROM 2016 TO 2021

**Yao Long Lew**<sup>1</sup>, Roddy Teo<sup>2</sup>, Amabel Min Hui Seow<sup>2</sup>, Tsin Wen Yeo<sup>3</sup>, Anne B. Chang<sup>1</sup>, Christopher P. Lowbridge<sup>1</sup>

<sup>1</sup>Menzies School of Health Research, Darwin, Australia, <sup>2</sup>Tuberculosis and Leprosy Control Unit, Sabah State Health Department, Kota Kinabalu, Sabah, Malaysia, <sup>3</sup>Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore, Singapore

## Symposium 99

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

*Regency Ballroom C - Ballroom Level (West Tower)*

**Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone**

This symposium provides a forum for exchange of information among people interested in research on arthropod vectors of disease. This session features a short ACME business meeting followed by presentation of the 2023 ACME awards. The award ceremony features the ACME Student Travel awards, Future Leaders in International Research awards, Breakthrough in Medical Entomology award, Award of Distinction, and the Hoogstraal Medal, the highest distinction conferred by ACME. The symposium will highlight the next generation of medical entomologists and recognize the early, mid- and late career achievements of individuals in the field of medical entomology. The plenary session will be delivered by the 2023 Hoogstraal Medal recipient and will feature the contributions of the awardee to advancing the field of medical entomology. The symposium will conclude with the passing of the gavel, transfer of office and the ACME professional networking session.

### CHAIR

Catherine A. Hill  
*Purdue University, West Lafayette, IN, United States*

Adriana Troyo  
*Universidad de Costa Rica, San Jose, Costa Rica*

4 p.m.

### INTRODUCTION

4:10 p.m.

### ACME ANNUAL BUSINESS MEETING AND AWARDS

Catherine Hill  
*Purdue University, West Lafayette, IN, United States*

4:30 p.m.

### ACME AWARDS: FUTURE LEADERS IN INTERNATIONAL RESEARCH, AWARD OF DISTINCTION, STUDENT TRAVEL AWARDS

Catherine Hill  
*Purdue University, West Lafayette, IN, United States*

4:55 p.m.

### HARRY HOOGSTRAAL MEDAL PRESENTATION AND PLENARY

Jose Ribeiro  
*National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States*

5:20 p.m.

### ACME NETWORKING SESSION

## Scientific Session 100

### Malaria - Epidemiology: Intervention Impact on Infection, Disease and Mortality

*Regency Ballroom D - Ballroom Level (West Tower)*

**Friday, October 20, 4 p.m. - 5:45 p.m. U.S. Central Time Zone**

### CHAIR

Ruth Ashton  
*Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States*

Hellen Barsosio  
*Kenya Medical Research Institute, Kisumu, Kenya*

4 p.m.

6460

### MALARIA IN CAMEROON: A RETROSPECTIVE ANALYSIS

**Sophie Diarra**<sup>1</sup>, Mar Velarde<sup>1</sup>, Christian Selinger<sup>1</sup>, Branwen Owen<sup>1</sup>, Emilie Pothin<sup>1</sup>, Jean Fosso<sup>2</sup>, Moise Abomabo<sup>2</sup>

<sup>1</sup>Swiss Tropical and Public Health Institute, Allschwil, Switzerland, <sup>2</sup>Ministry of Health Cameroon, Yaoundé, Cameroon

4:15 p.m.

6461

### QUANTIFYING THE IMPACT OF MALARIA IN PREGNANCY ON MATERNAL ANEMIA AND ITS ASSOCIATED BURDEN ACROSS AFRICA

**Sequoia I. Leuba**<sup>1</sup>, Robert Verity<sup>1</sup>, Julie R. Gutman<sup>2</sup>, Meghna Desai<sup>2</sup>, Kassoum Kayentao<sup>3</sup>, Simon Kariuki<sup>4</sup>, James Dodd<sup>5</sup>, Daniel Chandramohan<sup>6</sup>, Daniel J. Weiss<sup>7</sup>, Brian Greenwood<sup>8</sup>, Patrick G.T. Walker<sup>1</sup>

<sup>1</sup>MRC Centre for Global Infectious Disease Analysis, School of Public Health, Imperial College London, London, United Kingdom, <sup>2</sup>Malaria Branch, Division of Parasitic Diseases and Malaria, Center for Global Health, Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>3</sup>Malaria Research and Training Center, Mali International Center for Excellence in Research, University of Sciences, Techniques, and Technologies of Bamako,

Bamako, Mali, <sup>4</sup>Kenya Medical Research Institute, Centre for Global Health Research, Kisumu, Kenya, <sup>5</sup>Department of Clinical Sciences, Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>6</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>7</sup>Malaria Atlas Project, Telethon Kids Institute, Perth Children's Hospital, Nedlands, Australia

4:30 p.m.

6462

### A GLOBAL MALARIA CASE-MANAGEMENT MODEL CASCADE WITH AN INTERACTIVE TOOL FOR POINT-OF-CARE CONSUMPTION ANALYSIS

Tasmin L. Symons, Susan Rumisha, Paulina Dzianach, Francesca Sanna, Mauricio Van Den Berg, Sarah Connor, Camilo Vargas, Daniel J. Weiss, Tolu Okitika, Peter W. Gething  
Telethon Kids Institute, Perth, Australia

4:45 p.m.

6463

### MALARIA AS A RISK FACTOR FOR COVID-19 IN WESTERN KENYA AND BURKINA FASO (MALCOV)

Hellen C. Barsosio<sup>1</sup>, Brian Tangara<sup>1</sup>, Tegwen Marlais<sup>2</sup>, Jean M. Kabore<sup>3</sup>, Alfred B. Tiono<sup>3</sup>, Kephass Otieno<sup>1</sup>, Miriam C. Wanjiku<sup>1</sup>, Morine Achieng<sup>1</sup>, Eric D. Ongango<sup>1</sup>, Everlyne D. Ondieki<sup>1</sup>, Henry Aura<sup>1</sup>, Telesphorus Odawo<sup>1</sup>, David J. Allen<sup>4</sup>, Luke Hannan<sup>5</sup>, Kevin Tetteh<sup>2</sup>, Issiaka Soulama<sup>3</sup>, Alphonse Ouedraogo<sup>3</sup>, Samuel S. Serme<sup>3</sup>, Ben I. Soulama<sup>3</sup>, Aissata Barry<sup>3</sup>, Emilie Badoum<sup>3</sup>, Julian Matthewman<sup>6</sup>, Helena Brazal-Monzó<sup>4</sup>, Jennifer Canizales<sup>4</sup>, Anna Drabko<sup>7</sup>, William Wu<sup>7</sup>, Simon Kariuki<sup>1</sup>, Maia Lesosky<sup>8</sup>, Sodiomon B. Sirima<sup>3</sup>, Chris Drakeley<sup>4</sup>, Feiko O. ter Kuile<sup>5</sup>

<sup>1</sup>Kenya Medical Research Institute, Centre for Global Health Research, Kisumu, Kenya, <sup>2</sup>Department of Clinical Research, Faculty of Infectious and Tropical Diseases, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>3</sup>Groupe de Recherche Action en Santé (GRAS), Ouagadougou, Burkina Faso, <sup>4</sup>Department of Infection Biology, Faculty of Infectious and Tropical Diseases, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>5</sup>Department of Clinical Sciences, Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>6</sup>Department of Non-Communicable Disease Epidemiology, Faculty of Epidemiology and Population Health, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>7</sup>Quantitative Engineering Design (QED.ai), Warsaw, Poland

5 p.m.

6464

### PREVALENCE OF MALARIA INFECTION AND COVERAGE OF KEY CONTROL INTERVENTIONS AMONG SEASONAL MIGRANT WORKERS AT FARM SITES AND SURROUNDING RESIDENT POPULATIONS IN NORTHWEST AMHARA REGION, ETHIOPIA

Melkamu Tiruneh<sup>1</sup>, Berhane Tesfay<sup>1</sup>, Henry Ntuku<sup>1</sup>, Adem Agmas<sup>1</sup>, Asefaw Getachew<sup>1</sup>, Laura Merriman<sup>1</sup>, Belay Bezabih<sup>2</sup>, Gudissa Assefa<sup>3</sup>, Hiwot Solomon<sup>4</sup>, Endalamaw Gadisa<sup>5</sup>, Dereje Dillu<sup>1</sup>, Asnakew Yeshiwondim<sup>1</sup>, Gezahegn Tesfaye<sup>1</sup>, Belendia Serda<sup>1</sup>, Caterina Guinovart<sup>6</sup>, Jennifer Smith<sup>7</sup>, Amir Siraj<sup>1</sup>, Adam Bennett<sup>1</sup>

<sup>1</sup>PATH Malaria Control and Elimination Partnership in Africa (MACEPA), Addis Ababa, Ethiopia, <sup>2</sup>Amhara National Regional State Health Bureau, Bahir Dar, Ethiopia, <sup>3</sup>Ministry of Health, Ethiopia, Addis Ababa, Ethiopia, <sup>4</sup>Ministry of Health, Addis Ababa, Ethiopia, <sup>5</sup>Armauer Hansen Research Institute, Addis Ababa, Ethiopia, <sup>6</sup>PATH Malaria Control and Elimination Partnership in Africa, Barcelona Institute for Global Health, Barcelona, Spain, <sup>7</sup>University of California, San Francisco, San Francisco, CA, United States

5:15 p.m.

6465

### MALARIA SEROEPIDEMIOLOGY IN VERY LOW TRANSMISSION SETTINGS IN THE PERUVIAN AMAZON

Bryan Fernandez-Camacho<sup>1</sup>, Brian Peña-Calero<sup>1</sup>, Martina Guillermo-Roman<sup>1</sup>, Jorge Ruiz-Cabrejos<sup>1</sup>, Jose Luis Barboza<sup>1</sup>, Lucia Bartolini-Arana<sup>1</sup>, Hugo Rodriguez-Ferrucci<sup>2</sup>, Veronica Soto-Calle<sup>3</sup>, Luca Nelli<sup>4</sup>, Isabel Byrne<sup>4</sup>, Monica Hill<sup>4</sup>, Elin Dumont<sup>4</sup>, Lynn Grignard<sup>4</sup>, Kevin Tetteh<sup>4</sup>, Lindsey Wu<sup>4</sup>, Alejandro Llanos-Cuentas<sup>5</sup>, Chris Drakeley<sup>4</sup>, Gillian Stresman<sup>4</sup>, Gabriel Carrasco-Escobar<sup>1</sup>

<sup>1</sup>Health Innovation Laboratory, Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>Universidad Nacional de la Amazonia Peruana, Iquitos, Peru, <sup>3</sup>Dirección de Prevención y Control de Enfermedades Metaxénicas y Zoonosis - Ministerio de Salud, Lima, Peru, <sup>4</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>5</sup>Institute of Tropical Medicine Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru

5:30 p.m.

### Lightning Talks

(Lightning Talks are two-minute talks to highlight abstracts assigned to poster presentations.)

6842

### UPDATING MALARIA RISK MAP OF KENYA BY PRE-SERVICE DIAGNOSIS OF THE MALARIA ASYMPTOMATIC INDIVIDUALS RECRUITED IN THE KENYA DEFENCE FORCES

Edwin Wachenje Mwakio<sup>1</sup>, Charles Ekkuttan<sup>2</sup>, John Lugonza<sup>2</sup>, Juliana Munyao<sup>2</sup>, Gladys Chemwor<sup>1</sup>, Jackline Juma<sup>1</sup>, Charles Okudo<sup>1</sup>, Raphael Okoth<sup>1</sup>, Benjamin Opot<sup>1</sup>, Philip Njatha<sup>1</sup>, Dennis Juma<sup>1</sup>, Hoseah M. Akala<sup>1</sup>, Kirti Tiwari<sup>3</sup>, Elly Ojwang<sup>3</sup>, Timothy Egbo<sup>3</sup>, Eric Garges<sup>3</sup>

<sup>1</sup>Kenya Medical Research Institute, Kisumu, Kenya, <sup>2</sup>Kenya Defence Forces, Eldoret, Kenya, <sup>3</sup>United States Army Medical Research Directorate-Africa, Kisumu, Kenya

6860

### REDUCTION OF MALARIA CASE INCIDENCE FOLLOWING THE INTRODUCTION OF CLOTHIANIDIN-BASED INDOOR RESIDUAL SPRAYING IN PREVIOUSLY UNSPRAYED DISTRICTS: AN OBSERVATIONAL ANALYSIS USING HEALTH FACILITY REGISTER DATA FROM COTE D'IVOIRE, 2018-2022

Emily R. Hilton<sup>1</sup>, Ndombour Gning-Cisse<sup>2</sup>, Auguste Assi<sup>2</sup>, Mathieu Eyakou<sup>2</sup>, John Koffi<sup>2</sup>, Barthelemy Gnakou<sup>2</sup>, Bernard Kouassi<sup>2</sup>, Cecilia Flatley<sup>3</sup>, Joseph Chabi<sup>3</sup>, Constant Guy N'Guessan Gbalegba<sup>4</sup>, Serge Alex Aimain<sup>4</sup>, Colette Yah Kokrasset<sup>4</sup>, Antoine Mea Tanoh<sup>4</sup>, Sylvain Koffi N'Gotta<sup>4</sup>, Francine Octavie Yao<sup>4</sup>, Hugues Assi Egou<sup>5</sup>, Philomène Konan<sup>5</sup>, Kelly Davis<sup>6</sup>, Edi Constant<sup>7</sup>, Allison Belemvire<sup>6</sup>, Patricia Yepassis-Zembrou<sup>9</sup>, Pascal Zinzindohoue<sup>10</sup>, Blaise Kouadio<sup>10</sup>, Sarah Burnett<sup>6</sup>

<sup>1</sup>PMI VectorLink Project, Seattle, WA, United States, <sup>2</sup>PMI VectorLink Project, Abt Associates, Abidjan, Côte D'Ivoire, <sup>3</sup>PMI VectorLink Project, Abt Associates, Rockville, MD, United States, <sup>4</sup>Programme National de Lutte Contre le Paludisme, Abidjan, Côte D'Ivoire, <sup>5</sup>Direction de l'Informatique et de l'Information Sanitaire, Abidjan, Côte D'Ivoire, <sup>6</sup>PMI VectorLink Project, Washington, DC, United States, <sup>7</sup>Centre Suisse de Recherches Scientifiques en Côte d'Ivoire, Abidjan, Côte D'Ivoire, <sup>8</sup>U.S. President's Malaria Initiative, U.S. Agency for International Development, Washington, DC, United States, <sup>9</sup>U.S. President's Malaria Initiative, Centers for Disease Control and Prevention, Abidjan, Côte D'Ivoire, <sup>10</sup>U.S. President's Malaria Initiative, U.S. Agency for International Development, Abidjan, Côte D'Ivoire

## 6843

### LLIN EVALUATION IN UGANDA PROJECT (LLINEUP2) - ASSOCIATION BETWEEN HOUSING CONSTRUCTION AND MALARIA BURDEN IN UGANDA: RESULTS FROM AN OBSERVATIONAL STUDY OF 32 DISTRICTS

**Martha J. Nassali**<sup>1</sup>, Samuel Gonahasa<sup>1</sup>, Catherine Maiteki-Sebuguzi<sup>2</sup>, Jane F. Namuganga<sup>1</sup>, Jimmy Opigo<sup>2</sup>, Daniel Kyabayinze<sup>3</sup>, Isaiah Nabende<sup>1</sup>, Jaffer Okiring<sup>1</sup>, Emmanuel Arinaitwe<sup>1</sup>, Adrienne Epstein<sup>4</sup>, Katherine Snyman<sup>5</sup>, Joaniter Nankabirwa<sup>1</sup>, Grant Dorsey<sup>6</sup>, Moses R. Kanya<sup>7</sup>, Sarah Staedke<sup>4</sup>

<sup>1</sup>Infectious Diseases Research Collaboration, Kampala, Uganda, <sup>2</sup>National Malaria Control Division, Ministry of Health, Kampala, Uganda, <sup>3</sup>Directorate of Public Health, Ministry of Health, Kampala, Uganda, <sup>4</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>5</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>6</sup>Department of Medicine, University of California, San Francisco, San Francisco, CA, United States, <sup>7</sup>Department of Medicine, Makerere University, Kampala, Uganda

## 6839

### HIGH COMMUNITY HEALTH WORKER USAGE WITH APPROPRIATE MALARIA MANAGEMENT IN A MODERATE *PLASMODIUM FALCIPARUM* BURDEN REGION OF CHADIZA DISTRICT, ZAMBIA, APRIL-MAY, 2021

**Erika Wallender**<sup>1</sup>, Bupe M. Kabamba<sup>2</sup>, Marie-Reine I. Rutagwera<sup>3</sup>, Chabu Kangale<sup>3</sup>, Travis Porter<sup>4</sup>, Maximilian Musunse<sup>5</sup>, Sarah Gallalee<sup>6</sup>, Adam Bennett<sup>4</sup>, Paul Psychas<sup>6</sup>, Julie Gutman<sup>1</sup>, Busiku Hamainza<sup>7</sup>, Julie Thwing<sup>1</sup>

<sup>1</sup>U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>PATH PAMO Plus, Lusaka, Zambia, <sup>3</sup>PATH PAMO Plus, Atlanta, Zambia, <sup>4</sup>PATH MACEPA, Seattle, WA, United States, <sup>5</sup>University of California, San Francisco, San Francisco, CA, United States, <sup>6</sup>U.S. President's Malaria Initiative, CDC, Lusaka, Zambia, <sup>7</sup>Zambia Ministry of Health, National Malaria Elimination Center, Lusaka, Zambia

## 6838

### HIGH BURDEN OF ASYMPTOMATIC MALARIA AND ANAEMIA DESPITE HIGH ADHERENCE TO MALARIA CONTROL MEASURES: A CROSS-SECTIONAL STUDY AMONG PREGNANT WOMEN ACROSS TWO SEASONS IN A MALARIA-ENDEMIC SETTING IN GHANA

**Nsoh Godwin Anabire**<sup>1</sup>, Belinda Aculley<sup>2</sup>, Abigail Pobee<sup>2</sup>, Eric Kyei-Baafour<sup>2</sup>, Gordon Awandare<sup>3</sup>, Maria del Pilar Quintana<sup>4</sup>, Lars Hviid<sup>4</sup>, Michael Ofori<sup>2</sup>

<sup>1</sup>Department of Biochemistry and Molecular Medicine, School of Medicine, University for Development Studies, Tamale, Ghana, <sup>2</sup>Department of Immunology, Noguchi Memorial Institute for Medical Research, University of Ghana, Accra, Ghana, <sup>3</sup>West African Centre for Cell Biology of Infectious Pathogens, Department of Biochemistry, Cell and Molecular Biology, University of Ghana, Accra, Ghana, <sup>4</sup>Centre for Medical Parasitology, Department of Immunology and Microbiology, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark

### Break

Friday, October 20, 5:45 p.m. - 6:15 p.m. U.S. Central Time Zone

## Special Session 101

### Speed-Networking with the Experts

Crystal Ballroom B - Lobby Level (West Tower)

Friday, October 20, 6:15 p.m. - 8 p.m. U.S. Central Time Zone

The annual Speed-Networking session is organized by the Trainee Membership Committee and the five ASTMH subgroups: ASTMH Committee on Global Health (ACGH), the American Committee on Clinical Tropical Medicine and Travelers' Health (ACCTMTH/ Clinical Group), the American Committee of Medical Entomology (ACME), the American Committee on Arthropod-Borne Viruses (ACAV) and the American Committee of Molecular, Cellular and Immunoparasitology (ACMICP). The session is designed

to facilitate interactions between senior scientists, physicians and trainees in an informal setting in order to provide an array of important information on possible career paths in tropical medicine. During this session, students and young career scientists will have an opportunity to briefly meet experts who represent each of the subgroup fields, including scientists in global health, clinicians, epidemiologists, entomologists and basic research scientists. Experts will have a broad range of career experiences working in international posts, policy, federal government, and the military, among others. Experts will share information with students about their career choices, trajectories, challenges along the way, and how they see their work fitting into the larger tropical medicine arena. Students in this session will be designated to a subgroup to match their interests and current educational paths. Please note that this meeting is limited to those who pre-registered for the event.

### CHAIR

Bartholomew Ondigo  
Egerton University, Nakuru, Kenya

Hannah Steinberg  
University of Illinois Chicago, Chicago, IL, United States

Laia Vazquez Guillamet  
ISGlobal, Barcelona, Spain

## Sponsored Symposium

### The Role of Antivirals for Prevention and Treatment of Dengue

Grand Hall J - Ballroom Level (East Tower)

Friday, October 20, 6:15 p.m. – 8 p.m. United States Central Time Zone

Sponsored by Johnson & Johnson

See page 55 for information.

This session does not carry ASTMH CME credit.

## Sponsored Symposium

### PfHRP2/3 Deletion: A Call to Action

Crystal Ballroom A - Lobby Level (West Tower)

Friday, October 20, 6:15 p.m. – 8 p.m. United States Central Time Zone

Sponsored by Abbott

See page 56 for information.

This session does not carry ASTMH CME credit.