# Wednesday November 1

# Wednesday, November 13

# **Nursing Mothers Room**

Convention Center – Office I120 and Office J121 (1st Floor) Wednesday, November 13, 7 a.m. - 7 p.m.

# **Prayer Room**

Convention Center - Room 342 (3rd Floor) Wednesday, November 13, 8 a.m. - 7 p.m.

# Medical Entomology (ACME) Pre-Meeting Course: Medical Entomology for the Public Heath Practitioner and Clinician

Offsite at Tulane University Wednesday, November 13, 7:30 a.m. - 4 p.m.

#### COURSE ORGANIZERS

Berlin L. Londono Tulane University, New Orleans, LA, United States Sarah R. Michaels Tulane University, New Orleans, LA, United States

Maria Luisa Simoes Institute of Tropical Medicine Antwerp, Antwerp, Belgium

#### 7:30 a.m. COFFEE AND LIGHT REFRESHMENTS

#### 8 a.m. WELCOME AND OVERVIEW OF THE COURSE - INTRODUCTION TO ARTHROPOD-BORNE DISEASES

Ronald E. Blanton Tulane University, School of Public Health and Tropical Medicine, New Orleans, LA, United States

Sarah R. Michaels Tulane University, New Orleans, LA, United States

Adriana Troyo University of Costa Rica, San Pedro, San José, Costa Rica

#### 8:30 a.m.

# CLINICAL AND DIAGNOSTIC TOOLS FOR FLEA- AND TICK-BORNE DISEASES

Adriana Troyo University of Costa Rica, San Pedro, San José, Costa Rica

#### 9 a.m.

# MALARIA: EMERGING TECHNOLOGY AND MOSQUITO VECTORS

Maria Luisa Simoes Institute of Tropical Medicine Antwerp, Antwerp, Belgium

#### 9:30 a.m.

# ARBOVIRAL DISEASE: IMMUNOLOGY, CLINICAL DIAGNOSTICS AND MOSQUITO VECTORS

Berlin L. Londono Tulane University, New Orleans, LA, United States

#### 10 a.m.

#### CHAGAS DISEASE: PHYSICIAN OUTREACH AND KISSING BUGS

Claudia Herrera Bernal Tulane University, School of Public Health and Tropical Medicine, New Orleans, LA, United States

#### 10:30 a.m. COFFEE BREAK

#### 10:45 a.m.

#### LABORATORY IDENTIFICATION OF INSECTS AND ARTHROPODS OF MEDICAL IMPORTANCE

Brian Byrd Western Carolina University, Cullowhee, NC, United States Megan E. Saunders

California Department of Public Health, Richmond, CA, United States

#### Noon LUNCH (LUNCH PROVIDED)

#### 12:45 p.m. FIELD SITE VISIT IN HISTORIC NEW ORLEANS CEMETERY

Emily A. Ford Oak & Laurel Cemetery Preservation, LLC, New Orleans, LA, United States

Catherine A. Pruszynski Florida Keys Mosquito Control, Key West, FL, United States

Katie Westby Tyson Research Center, Washington University in St. Louis, Eureka, MO, United States

#### 2:30 p.m.

# CLINICAL CASE STUDIES: DIAGNOSIS, PROPHYLAXIS AND PREVENTION OF VECTOR-BORNE DISEASE

Tulane School of Medicine, New Orleans, LA, United States

#### 3:30 p.m.

## QUESTION AND ANSWER SESSION AND COURSE WRAP-UP

#### Registration

Convention Center - Lobby I (1st Floor) Wednesday, November 13, 8 a.m. - 7:30 p.m.

#### Young Investigator Award Sessions

#### Supported with funding from William A. Petri, Jr. in memory of William A. Petri Sr.

# All individuals who made a donation during registration and throughout the year.

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

## Young Investigator Award Session A

#### Convention Center - Room 343/344 (3rd Floor) Wednesday, November 13, 9 a.m. - 2 p.m.

#### **JUDGE**

Lauren Cohee University of Maryland, Baltimore, MD, United States

Rebecca SB Fischer Texas A&M University, College Station, TX, United States

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

Katherine Torres Universidad Peruana Cayetano Heredia, Lima, Peru

#### 6062

#### GENOMIC EPIDEMIOLOGY OF ARBOVIRUSES REVEALS NEW VIRUS INTRODUCTIONS AND SIMULTANEOUS VIRUS CIRCULATION DURING DENGUE AND CHIKUNGUNYA OUTBREAKS IN BRAZIL

Lívia Sacchetto<sup>1</sup>, Beatriz Marques<sup>1</sup>, Victoria Bernardi<sup>1</sup>, Victor Hernandes<sup>1</sup>, Igor Teixiera<sup>1</sup>, Andreia Negri<sup>2</sup>, Nikos Vasilakis<sup>3</sup>, Mauricio Nogueira<sup>1</sup> <sup>1</sup>Faculdade de Medicina de Sao Jose do Rio Preto, Sao Jose do Rio Preto,

Brazil, <sup>2</sup>Departamento de Vigilancia Epidemiologica, Sao Jose do Rio Preto, Brazil, <sup>3</sup>The University of Texas Medical Branch, Galveston, TX, United States

## 6312

#### NEUTROPHIL MEDIATORS LINKED TO TIGHT JUNCTION DISRUPTION AND INCREASED INTESTINAL PERMEABILITY IN SEVERE DENGUE

Andrew Teo1, Po Ying Chia2, Tsin Wen Yeo1

<sup>1</sup>Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore, Singapore, <sup>2</sup>National Centre for Infectious Diseases, Singapore, Singapore

#### **6328**

FIRST EVALUATION OF MOLECULAR AND PATHOGEN GENOMIC IMPACT ON *P. FALCIPARUM* POPULATION FOLLOWING SEASONAL MASS DRUG ADMINISTRATION WITH DIHYDROARTEMISININ-PIPERAQUINE IN A HIGH TRANSMISSION HIGHLY SEASONAL SETTING IN WEST AFRICA David McGregor

London School of Hygiene and Tropical Medicine, London, United Kingdom

#### 6366

#### DIHYDROARTEMISININ-PIPERAQUINE AS AN ALTERNATIVE TO SULFADOXINE-PYRIMETHAMINE FOR INTERMITTENT PREVENTIVE TREATMENT IN PREGNANCY: A META-ANALYSIS OF MATERNAL, BIRTH, AND INFANT OUTCOMES

Michelle E. Roh<sup>1</sup>, Julie Gutman<sup>2</sup>, Mywayiwawo Madanitsa<sup>3</sup>, Abel Kakuru<sup>4</sup>, Hellen C. Barsosio<sup>5</sup>, Simon Kariuki<sup>5</sup>, John Lusingu<sup>6</sup>, Frank Mosha<sup>7</sup>, Richard Kajubi<sup>4</sup>, Moses R. Kamya<sup>8</sup>, Don Mathanga<sup>9</sup>, Jobiba Chinkhumba<sup>10</sup>, Miriam K. Laufer<sup>11</sup>, Eulambius Mlugu<sup>12</sup>, Appolinary A.R. Kamuhabwa<sup>13</sup>, Eleni Akillu<sup>14</sup>, Omary Minzi<sup>13</sup>, Roland Nnaemeka Okoro<sup>15</sup>, Ado Danazumi Geidam<sup>16</sup>, John David Ohieku<sup>15</sup>, Jenny Hill<sup>17</sup>, Meghna Desai<sup>2</sup>, Prasanna Jagannathan<sup>18</sup>, Grant Dorsey<sup>19</sup>, Feiko O. ter Kuile<sup>17</sup>

<sup>1</sup>Institute for Global Health Sciences, University of California, San Francisco, San Francisco, CA, United States, <sup>2</sup>Malaria Branch, Division of Parasitic Diseases and Malaria, Centers for Disease Control and Prevention (CDC), Atlanta, GA, United States, <sup>3</sup>School of Global and Public Health, Kamuzu University of Health Sciences, Blantyre, Malawi, <sup>4</sup>Infectious Diseases Research Collaboration, Kampala, Uganda, <sup>5</sup>Kenya Medical Research Institute, Centre for Global Health Research, Kisumu, Kenya, <sup>6</sup>National Institute for Medical Research (NIMR), Tanga Medical Research Centre, Tanga, United Republic of Tanzania, <sup>7</sup>Kilimanjaro Christian Medical Centre, Moshi, United Republic of Tanzania, <sup>8</sup>School of Medicine, Makerere University College of Health Sciences, Kampala, Uganda, <sup>9</sup>Malaria Alert Center, College of Medicine, University of Malawi, Blantyre, Malawi, <sup>10</sup>Department of Health Systems and Policy, School of Global and Public Health, Kamuzu University of Health Sciences, Blantyre, Malawi, <sup>11</sup>Center for Vaccine Development and Global Health, University of Maryland

School of Medicine, Baltimore, MD, United States, <sup>12</sup>Department of Pharmaceutics, School of Pharmacy, Muhimbili University of Health and Allied Sciences, Dar es Salaam, United Republic of Tanzania, <sup>13</sup>Department of Clinical Pharmacy and Pharmacology, School of Pharmacy, Muhimbili University of Health and Allied Sciences, Dar es Salaam, United Republic of Tanzania, <sup>14</sup>Department of Global Public Health, Karolinska Institute, Karolinska University Hospital, Stockholm, Sweden, <sup>15</sup>Department of Clinical Pharmacy and Pharmacy Administration, Faculty of Pharmacy, University of Maiduguri, Maiduguri, Nigeria, <sup>16</sup>Department of Obstetrics and Gynaecology, University of Maiduguri Teaching Hospital, Maiduguri, Nigeria, <sup>17</sup>Department of Clinical Sciences, Liverpool School of Tropical Medicine, Liverpool, United States, <sup>19</sup>Department of Medicine, Stanford University, Stanford, CA, United States, <sup>19</sup>Department of Medicine, University of California, San Francisco, San Francisco, CA, United States

#### 6523

#### ASSOCIATION OF GUT REDOX POTENTIAL WITH SEVERE ACUTE MALNUTRITION AND STUNTING IN HOSPITALIZED CHILDREN Md. Shabab Hossain

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

#### 6615

#### HIV MORTALITY TRENDS AMONG THE UNITED STATES POPULATION, FROM 1999-2023: A CDC WONDER DATABASE STUDY

Muhammad Sohaib Asghar<sup>1</sup>, Abuoma Cherry Ekpendu<sup>1</sup>, Nisar Ahmed<sup>2</sup>, Zain Khalid<sup>3</sup>, Luis Angel Duharte-Vidaurre<sup>1</sup>, Chad Kelly Brands<sup>1</sup>

<sup>1</sup>AdventHealth Sebring, Sebring, FL, United States, <sup>2</sup>Rapido Clinica Familiar, Chicago, IL, United States, <sup>3</sup>University of Kentucky, Lexington, KY, United States

#### **6617**

#### THE PREVALENCE OF CRYPTOCOCCAL ANTIGENEMIA AMONG PATIENTS WITH ADVANCED HIV DISEASES IN SOUTHWEST AND NORTHCENTRAL NIGERIA

Justin Onyebuchi Nwofe, Mary Onyenike, Adeola Awolola, Olabamiji Osho, Patrick Okonkwo, Daniel Offie, Emmanuel Ojo, Femi Emmanuel Owolagba, Eke Ofuche, Jay Samuels

APIN Public Health Initiatives, Abuja, Nigeria

#### 6624

#### EXPLORING HISTOPLASMOSIS IN NON-ENDEMIC AREAS: COMPARATIVE ANALYSIS OF CLINICAL FEATURES, RISK FACTORS, AND OUTCOME OF HISTOPLASMOSIS IN HIV-POSITIVE AND HIV-NEGATIVE COHORTS IN WESTERN INDIA

Akshatha Ravindra<sup>1</sup>, Deepak Kumar<sup>1</sup>, Santhanam Naguthevar<sup>1</sup>, Abhishek G P<sup>2</sup>, Gopal Krishana Bohra<sup>1</sup>

<sup>1</sup>AIIMS Jodhpur, Jodhpur, India, <sup>2</sup>KGMU, Lucknow, India

#### 7275

#### PLASMODIUM KNOWLESI INFECTION IS ASSOCIATED WITH ELEVATED CIRCULATING BIOMARKERS OF BRAIN INJURY AND ENDOTHELIAL ACTIVATION

Cesc Bertran Cobo<sup>1</sup>, Elin Dumont<sup>1</sup>, Naqib Rafieqin Noordin<sup>2</sup>, Meng-Yee Lai<sup>2</sup>, William Stone<sup>1</sup>, Kevin Tetteh<sup>1</sup>, Chris Drakeley<sup>1</sup>, Sanjeev Krishna<sup>3</sup>, Yee-Ling Lau<sup>2</sup>, Samuel C. Wassmer<sup>1</sup>

<sup>1</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom, <sup>2</sup>Universiti Malaya, Kuala Lumpur, Malaysia, <sup>3</sup>St George's University of London, London, United Kingdom

#### 7398

#### SARS-COV-2 EXPOSURE BEFORE OR AFTER PLASMODIUM VIVAX INFECTION EXACERBATES THE HUMORAL RESPONSE AGAINST THE LATTER

Alonso Cruz-Echevarría<sup>1</sup>, Katherine Garro<sup>1</sup>, Françoise Donnadieu<sup>2</sup>, Joseph Vinetz<sup>3</sup>, Stéphane Pelleau<sup>2</sup>, Dionicia Gamboa<sup>4</sup>, Michael White<sup>2</sup>, Katherine Torres<sup>1</sup> <sup>1</sup>Laboratorio de Malaria, Laboratorios de Investigación y Desarrollo, Facultad de Ciencias e Ingeniería, Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>Infectious Disease Epidemiology and Analytics G5 Unit, Institut Pasteur, Université Paris Cité, Paris, France, <sup>3</sup>Laboratorio ICEMR-Amazonia y Enfermedades Infecciosas Emergentes, Laboratorios de Investigación y Desarrollo, Facultad de Ciencias e Ingeniería, Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>4</sup>Laboratorio de Malaria: Parásitos y Vectores, Laboratorios de Investigación y Desarrollo, Facultad de Ciencias e Ingeniería, Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>4</sup>Laboratorio de Malaria: Parásitos y Vectores, Laboratorios de Investigación y Desarrollo, Facultad de Ciencias e Ingeniería, Universidad Peruana Cayetano Heredia, Lima, Peru

## 7408

#### PREVALENCE OF PLASMODIUM FALCIPARUM INFECTION AMONG CHILDREN HOSPITALIZED WITH ACUTE RESPIRATORY ILLNESS IN WESTERN UGANDA

Elise R. King<sup>1</sup>, Ronnie Ndizeye<sup>2</sup>, Emmanuel Baguma<sup>2</sup>, Georget Kibaba<sup>2</sup>, Ross Boyce<sup>1</sup>, Edgar M. Mulogo<sup>2</sup>, Emily Ciccone<sup>1</sup>

<sup>1</sup>UNC Chapel Hill, Chapel Hill, NC, United States, <sup>2</sup>Mbarara University of Science & Technology, Mbarara, Uganda

#### 7579

# DENGUE VIREMIA KINETICS AND THE EFFECTS ON PLATELET COUNT AND CLINICAL OUTCOMES

Nguyen L. Vuong<sup>1</sup>, Nguyen T. H. Quyen<sup>1</sup>, Nguyen T. H. Tien<sup>1</sup>, Duong T. H. Kien<sup>1</sup>, Huynh T. L. Duyen<sup>1</sup>, Phung K. Lam<sup>1</sup>, Dong T. H. Tam<sup>1</sup>, Tran V. Ngoc<sup>2</sup>, Thomas Jaenisch<sup>3</sup>, Cameron P. Simmons<sup>4</sup>, Sophie Yacoub<sup>1</sup>, Bridget A. Wills<sup>1</sup>, Ronald B. Geskus<sup>1</sup>

<sup>1</sup>Oxford University Clinical Research Unit, Ho Chi Minh City, Vietnam, <sup>2</sup>Hospital for Tropical Diseases, Ho Chi Minh City, Vietnam, <sup>3</sup>Center for Global Health, Colorado School of Public Health, Aurora, CO, United States, <sup>4</sup>World Mosquito Program, Monash University, Monash, Australia

#### 7659

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

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

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

#### 8083

#### APPLICATION OF THE RAPID DIAGNOSTIC TEST BASED ON LOOP-MEDIATED ISOTHERMAL AMPLIFICATION (RLDT) FOR SHIGELLA AND ENTEROTOXIGENIC ESCHERICHIA COLI (ETEC) DETECTION IN CHILDHOOD DIARRHEA IN BURKINA FASO

Alimatou Héma<sup>1</sup>, Samuel S. Sermé<sup>1</sup>, Jean W. Sawadogo<sup>1</sup>, Amidou Diarra<sup>1</sup>, Amidou Z. Ouédraogo<sup>1</sup>, Issa Nébié<sup>1</sup>, Alfred B. Tiono<sup>1</sup>, Sophie Houard<sup>2</sup>, Subhra Chakraborty<sup>3</sup>, Alphonse Ouédraogo<sup>1</sup>, Sodiomon B. Sirima<sup>1</sup>

<sup>1</sup>Groupe de Recherche Action en Santé (GRAS), Ouagadougou, Burkina Faso, <sup>2</sup>European Vaccine Initiative (EVI), Heidelberg, Germany, <sup>3</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, Baltimore, WA, United States

# Young Investigator Award Session B

Convention Center - Room 345 (3rd Floor) Wednesday, November 13, 9 a.m. – 2 p.m.

<u>JUDGE</u> Silvia Di Santi *USP, Sao Paulo, Brazil* 

Pedro Gazzinelli-Guimaraes The George Washington University, Washington, DC, United States

Kirsten E. Lyke Center for Vaccine Development, University of Maryland, Baltimore, MD, United States

Hugues Clotaire Nana Djeunga University of Yaounde I, Yaounde, Cameroon

#### 6295

# CROSS-NEUTRALIZING ANTIBODY RESPONSES ELICITED BY THE CHIKUNGUNYA VACCINE VLA1553

Whitney C. Weber<sup>1</sup>, Zachary J. Streblow<sup>1</sup>, Craig N. Kreklywich<sup>1</sup>, Michael Denton<sup>1</sup>, Gauthami Sulgey<sup>1</sup>, Magdalene M. Streblow<sup>1</sup>, Dorca Marcano<sup>2</sup>, Paola N. Flores<sup>2</sup>, Rachel M. Rodriguez-Santiago<sup>2</sup>, Luisa Alvarado<sup>2</sup>, Vanessa Rivera-Amill<sup>2</sup>, William B. Messer<sup>3</sup>, Romana Hochreiter<sup>4</sup>, Karin Kosulin<sup>4</sup>, Katrin Dubischar<sup>4</sup>, Vera Bürger<sup>4</sup>, Daniel N. Streblow<sup>1</sup> <sup>1</sup>Oregon Health and Science University, Beaverton, OR, United States, <sup>2</sup>Ponce Health Sciences University, Ponce, Puerto Rico, <sup>3</sup>Oregon Health and Science University, Portland, OR, United States, <sup>4</sup>Valneva Austria GmbH, Vienna, Austria

#### 6442

# BONE VOYAGE: HOW *PLASMODIUM* INFECTION DISRUPTS THE PLASMA CELL MICROENVIRONMENT IN THE BONE MARROW

Elizabeth Fusco, Alexander R. Maldeney, Layne Bower, Wei Luo, Nathan W. Schmidt Indiana University School of Medicine, Indianapolis, IN, United States

#### 6504

#### SINGLE IMMUNIZATION WITH GENETICALLY ATTENUATED *PLASMODIUM FALCIPARUM ΔΜΕΙ2* (GA2) SPOROZOITES INDUCES HIGH LEVEL PROTECTION AGAINST A CONTROLLED HUMAN MALARIA INFECTION

Geert V.T. Roozen, Roos van Schuijlenburg, Annefleur D.O. Hensen, Jan Pieter R. Koopman, Olivia A.C. Lamers, Fiona J.A. Geurten, Jeroen C. Sijtsma, Els Baalbergen, Jacqueline J. Janse, Séverine C. Chevalley-Maurel, Chanel M. Naar, Sascha Bezemer, Hans Kroeze, Huybert J.F. van de Stadt, Abraham de Visser, Pauline Meij, Mara S. Tihaya, Emil D. Colstrup, Eva Iliopoulou, Helena M. de Bes-Roeleveld, Els Wessels, M.Y. Eileen C. van der Stoep, Chris J. Janse, Rajagopal A. Murugan, Blandine Franke-Fayard, Meta Roestenberg

Leiden University Medical Center, Leiden, Netherlands

#### 6857

#### TRANSPLACENTAL TRANSFER OF FUNCTIONAL ANTIBODIES DIRECTED AGAINST *PLASMODIUM FALCIPARUM* BLOOD STAGE ANTIGENS

Djelili Biaou<sup>1</sup>, Aziz Bouraïma<sup>2</sup>, Ibrahim Sadissou<sup>2</sup>, David Courtin<sup>1</sup>, Andre Garcia<sup>1</sup>, Florence Migot-Nabias<sup>1</sup>, Achille Massougbodji<sup>3</sup>, Michael Theisen<sup>4</sup>, Sébastien Dechavanne<sup>1</sup>, Celia Dechavanne<sup>1</sup>

<sup>1</sup>Affiliation 1: Université de Paris, Institut de Recherche pour le Développement (IRD), UMR 261 MERIT, Paris France. Affiliation 2: CERPAGE (Centre d'Etude et de Recherche sur les Pathologies Associées à la Grossesse et à l'Enfance), Cotonou, Benin, <sup>2</sup>CERPAGE (Centre d'Etude et de Recherche sur les Pathologies Associées à la Grossesse et à l'Enfance), Cotonou, Benin, <sup>3</sup>Institut de Recherche Clinique du Bénin (IRCB), Cotonou, Benin, <sup>4</sup>Centre for Medical Parasitology at Department of International Health, Immunology and Microbiology, University of Copenhagen and Department for Congenital Disorders, Statens Serum Institut, Copenhagen, Demmark

#### 6858

#### ANTIBODY FC GLYCOSYLATION MODULATES NATURAL KILLER CELL-MEDIATED ADCC IN MALARIA-EXPOSED PREGNANT WOMEN

Savannah N. Lewis<sup>1</sup>, Adam S. Kirosingh<sup>1</sup>, Kattria van der Ploeg<sup>1</sup>, Kathleen D. Press<sup>1</sup>, Felistas Namirimu Nankya<sup>2</sup>, Kenneth Musinguzi<sup>2</sup>, Evelyn Nansubuga<sup>2</sup>, Stephen Tukwasibwe<sup>2</sup>, Mary Lopez-Perez<sup>3</sup>, Moses R. Kamya<sup>2</sup>, Philip Rosenthal<sup>4</sup>, Grant Dorsey<sup>4</sup>, Lars Hviid<sup>3</sup>, Prasanna Jagannathan<sup>1</sup>

<sup>1</sup>Stanford University School of Medicine, Stanford, CA, United States, <sup>2</sup>Infectious Diseases Research Collaboration, Kampala, Uganda, <sup>3</sup>University of Copenhagen, Copenhagen, Denmark, <sup>4</sup>University of California, San Francisco, San Francisco, CA, United States

#### 6859

#### CHRONIC PLASMODIUM INFECTIONS CAUSE PERSISTENT CHANGES IN THE HOST IMMUNOLOGICAL LANDSCAPE

Saniya S. Sabnis<sup>1</sup>, Celia L. Saney<sup>1</sup>, Monica Cabrera-Mora<sup>2</sup>, The MaHPIC Consortium -<sup>2</sup>, Ignacio Sanz<sup>2</sup>, F. Eun-Hyung Lee<sup>2</sup>, Jessica C. Kissinger<sup>1</sup>, Regina Joice-Cordy<sup>3</sup>, Alberto Moreno<sup>2</sup>, Tracey J. Lamb<sup>4</sup>, Mary R. Galinski<sup>2</sup>, Chester J. Joyner<sup>1</sup>

<sup>1</sup>University of Georgia, Athens, GA, United States, <sup>2</sup>Emory University, Atlanta, GA, United States, <sup>3</sup>Wake Forest University, Winston-Salem, NC, United States, <sup>4</sup>University of Utah, Salt Lake City, UT, United States

#### **6862**

#### IMMUNO-INFORMATIC APPROACH TO IDENTIFYING VARIANT-TRANSCENDENT NATURALLY-ACQUIRED PROTECTION AGAINST *PLASMODIUM FALCIPARUM*

Katherine Chew, Steve Taylor, Wendy O'Meara, Christine Markwalter Duke University, Durham, NC, United States

#### 7106

#### HUMAN IN VITRO MODELING CHARACTERIZES MECHANISM OF ACTION OF ADJUVANTATION SYSTEMS DEFINING SCALABLE AND AFFORDABLE PRECISION VACCINE FORMULATIONS FOR EARLY CHILDHOOD

Sanya Thomas, Caitlin Syphurs, Kevin Ryff, Simon Doss-Gollin, Kayla Lesch, Ofer Levy, Joann Arce, Simon van Haren Boston Children's Hospital, Boston, MA, United States

Boston Uniferen's Hospital, Boston, MA, United States

#### 7334

#### DEVELOPMENT OF VACCINE CANDIDATES AGAINST PLACENTAL MALARIA USING PEPTIDE-DECORATED ANTIGENIC LIPOSOMES Payton LeBlanc

University of Alberta, Edmonton, AB, Canada

#### 7347

#### AMA1-SPECIFIC HUMAN MONOCLONAL ANTIBODIES INHIBIT PLASMODIUM VIVAX PRE-ERYTHROCYTIC AND BLOOD STAGE INFECTION

Anna C. Winnicki<sup>1</sup>, Melanie H. Dietrich<sup>2</sup>, Lee M. Yeoh<sup>3</sup>, Lenore L. Carias<sup>1</sup>, Wanlapa Roobsoong<sup>4</sup>, Chiara L. Drago<sup>3</sup>, Alyssa N. Malachin<sup>1</sup>, Karli R. Redinger<sup>1</sup>, Lionel Brice Feufack-Donfack<sup>5</sup>, Payton Kirtley<sup>6</sup>, Maya Aleshnick<sup>6</sup>, Lea Baldor<sup>5</sup>, Nicolai C. Jung<sup>2</sup>, Olivia S. McLaine<sup>1</sup>, Yelenna Skomorovska-Prokvolit<sup>1</sup>, Agnes Orban<sup>5</sup>, D. Herbert Opi<sup>3</sup>, Jetsumon Sattabongkat<sup>4</sup>, Wai-Hong Tham<sup>2</sup>, Jean Popovici<sup>5</sup>, Ashley M. Vaughan<sup>7</sup>, Brandon K. Wilder<sup>6</sup>, James G. Beeson<sup>3</sup>, Jurgen Bosch<sup>1</sup>, Christopher L. King<sup>1</sup>

<sup>1</sup>Case Western Reserve University, Cleveland, OH, United States, <sup>2</sup>Walter and Eliza Hall Institute, Melbourne, Australia, <sup>3</sup>Burnet Institute, Melbourne, Australia, <sup>4</sup>Mahidol University, Bangkok, Thailand, <sup>5</sup>Institut Pasteur du Cambodge, Phnom Penh, Cambodia, <sup>6</sup>Vaccine & Gene Therapy Institute, Oregon Health & Science University, Hillsboro, OR, United States, <sup>7</sup>Center for Global Infectious Disease Research, Seattle Children's Research Institute, Seattle, OH, United States

#### 7993

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

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

<sup>1</sup>University of California, San Francisco, San Francisco, CA, United States, <sup>2</sup>Infectious Diseases Research Collaboration, Kampala, Uganda, <sup>3</sup>Stanford University, Stanford, CA, United States

#### 8073

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

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

<sup>1</sup>Johns Hopkins, Baltimore, MD, United States, <sup>2</sup>NIH, Bethesda, MD, United States, <sup>3</sup>University of Victoria, Victoria, BC, Canada

#### 8430

#### DIFFERENT MICRORNA PROFILES IN THE CIRCULATING CD4+T CELLS ARE ASSOCIATED WITH DIFFERENT CLINICAL PRESENTATIONS OF LEISHMANIA DONOVANI INFECTION

RITIRUPA ROY<sup>1</sup>, Cinthia Hudachek<sup>2</sup>, Shashi Bhushan Chauhan<sup>1</sup>, Sundaram Pandey<sup>1</sup>, Rajiv Kumar<sup>3</sup>, Madhukar Rai<sup>1</sup>, Mary E. Wilson<sup>2</sup>, Shyam Sundar<sup>1</sup> <sup>1</sup>INSTITUTE OF MEDICAL SCIENCES, BANARAS HINDU UNIVERSITY, VARANASI, India, <sup>2</sup>University of Iowa and the Iowa City VA Medical Center, Iowa, IA, United States, <sup>3</sup>Centre of Experimental Medicine and Surgery, Banaras Hindu University, Varanasi, India, VARANASI, India

#### 8432

#### EXTRACELLULAR VESICLES FROM *TAENIA SOLIUM* DAMPENS PI3K-AKT-MTORC1 SIGNALING AND AMELIORATES DSS-COLITIS IN MICE

Suraj Singh Rawat, Amit Prasad Indian Institute of Technology Mandi, Mandi, Himachal Pradesh, India

#### Young Investigator Award Session C

Convention Center - Room 352 (3rd Floor) Wednesday, November 13, 9 a.m. – 2 p.m.

#### JUDGE

Sasisekhar Bennuru National Institutes of Health, Bethesda, MD, United States

Dionicia Gamboa Universidad Peruana Cayetano Heredia, Lima, Peru

Juliana Otieno *Uzima University, Kisumu, Kenya* 

Joana Carneiro da Silva University of Maryland School of Medicine, Baltimore, MD, United States

#### 6308

#### IDENTIFICATION OF THE FLAVIVIRUS CONSERVED E-L295 RESIDUE AS A TARGET FOR THE RATIONAL DESIGN OF CANDIDATE WEST NILE LIVE-ATTENUATED VACCINES

Emily K. Mantlo<sup>1</sup>, Bailey E. Maloney<sup>2</sup>, So Lee Park<sup>3</sup>, Adrienne E. Pohl<sup>3</sup>, Natalia Costa-Ball<sup>3</sup>, Claire Y.-H. Huang<sup>2</sup>, Alan D.T. Barrett<sup>4</sup>, Yan-Jang S. Huang<sup>1</sup>

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#### 6336

ASSESSING ANTIMALARIAL *EX-VIVO* DRUG EFFICACY IN WEST AND CENTRAL AFRICA FROM IMPORTED *PLASMODIUM FALCIPARUM* MALARIA CASES IN FRANCE BETWEEN 2016 AND 2023: A GENOTYPE-PHENOTYPE ASSOCIATION STUDY

Jason Rosado<sup>1</sup>, Abebe A. Fola<sup>2</sup>, Sandrine Cojean<sup>3</sup>, Veronique Sarrasin<sup>3</sup>, Bruno Pradines<sup>4</sup>, Romain Coppée<sup>5</sup>, Justine Bailly<sup>1</sup>, Rebecca Crudale<sup>2</sup>, French National Reference Center for Imported Malaria group<sup>6</sup>, Sandrine Houzé<sup>7</sup>, Jeffrey A. Bailey<sup>2</sup>, Jérôme Clain<sup>1</sup> <sup>1</sup>Université Paris Cité, Institut de Recherche pour le Développement, Paris, France, <sup>2</sup>Department of Pathology and Laboratory Medicine, Center for Computational Molecular Biology, Brown University, Providence, RI, United States, <sup>3</sup>Centre National de Référence du Paludisme, Assistance Publique-Hôpitaux de Paris, Hôpital Bichat-Claude-Bernard, Paris, France, <sup>4</sup>Centre national de référence du Paludisme, Institut hospitalouniversitaire Méditerranée Infection, Marseille, France, <sup>5</sup>Université Rouen Normandie, Rouen, France, <sup>6</sup>-, -, France, <sup>7</sup>Université Paris Cité, Institut de Recherche pour le Développement, Centre National de Référence du Paludisme, Assistance Publique-Hôpitaux de Paris, Hôpital Bichat-Claude-Bernard, Paris, France

#### 6416

#### GENE EXPRESSION NETWORKS IN STAGE-CONTROLLED PLASMODIUM VIVAX INFECTIONS FROM NORTHERN THAILAND: A WEIGHTED GENE CO-EXPRESSION NETWORK ANALYSIS (WGCNA)

Graham Ellis<sup>1</sup>, Francis C. Motta<sup>2</sup>, Suwanna Chaorattanakawee<sup>3</sup>, Nichaphat Uthaimongkol<sup>3</sup>, Worachet Kuntawunginn<sup>3</sup>, Chadin Thongpiam<sup>3</sup>, Chatchadaporn Thamnurak<sup>3</sup>, Montri Arsanok<sup>3</sup>, Mariusz Wojnarski<sup>1</sup>, Pattaraporn Vanchayangkul<sup>3</sup>, Nonlawat Boonyalai<sup>3</sup>, Philip L. Smith<sup>4</sup>, Michele D. Spring<sup>5</sup>, Krisada Jongsakul<sup>9</sup>, Ilin Chuang<sup>6</sup>, Sidhartha Chaudhury<sup>3</sup>, Jeffrey Livezey<sup>3</sup>, Steven B. Haase<sup>7</sup> <sup>1</sup>Walter Reed National Military Medical Center, Bethesda, MD, United States, <sup>2</sup>Florida Atlantic University, Boca Raton, FL, United States, <sup>3</sup>US-Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, <sup>4</sup>U.S. Military HIV Research Program Walter Reed Army Institute of Research, Bethesda, MD, United States, <sup>5</sup>SUNY Upstate Medical University, Syracuse, NY, United States, <sup>6</sup>US Naval Medical Research Center-Asia, Singapore, Singapore, <sup>7</sup>Duke University, Durham, NC, United States

#### 6418

#### GENOME-WIDE ASSOCIATION STUDY OF GLOBAL *PLASMODIUM VIVAX* POPULATIONS PROVIDES INSIGHTS INTO THE EVOLUTION OF DRUG RESISTANCE

Gabrielle C. Ngwana-Joseph<sup>1</sup>, Jody E. Phelan<sup>1</sup>, Emilia Manko<sup>1</sup>, Jamille G. Dombrowski<sup>1</sup>, Simone da Silva Santos<sup>2</sup>, Martha Suarez-Mutis<sup>2</sup>, Ricardo L. Dantas Machado<sup>3</sup>, Claudio R. F. Marinho<sup>4</sup>, Debbie Nolder<sup>1</sup>, Francois Nosten<sup>5</sup>, Colin J. Sutherland<sup>1</sup>, Susana Campino<sup>1</sup>, Taane G. Clark<sup>1</sup>

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#### 6428

# GENOMIC EPIDEMIOLOGY OF MALARIA IN ZANZIBAR: DEFINING THE ROLE OF IMPORTATION AND LOCAL TRANSMISSION

Sean Connelly<sup>1</sup>, Mohamed Ali<sup>2</sup>, Billy E. Ngasala<sup>3</sup>, Wahida Hassan<sup>2</sup>, Bakari Mohamed<sup>2</sup>, Safia Mohammed<sup>2</sup>, Shija J. Shija<sup>2</sup>, Abdallah Zacharia<sup>3</sup>, Msolo C. Dominick<sup>3</sup>, Rebecca Crudale<sup>4</sup>, Varun Goel<sup>5</sup>, Barbara B. Choloi<sup>6</sup>, Anders Björkman<sup>7</sup>, Jeffrey A. Bailey<sup>4</sup>, Jessica T. Lin<sup>6</sup>, Jonathan J. Juliano<sup>6</sup>

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#### 6767

#### GENERATING THE GENERATOR: A GIANT COMPLEX ESSENTIAL FOR MITOCHONDRIAL BIOGENESIS IN PLASMODIUM FALCIPARUM

ljeoma Okoye, Ian Lamb, Swati Dass, Joanne M. Morrisey, Michael W. Mather, Akhil B. Vaidya

Drexel University College of Medicine, Philadelphia, PA, United States

## 6768

#### A DRUGGABLE AGC KINASE CLRK MEDIATES TEMPORAL REGULATION OF CYCLIC NUCLEOTIDE SIGNALING AND CONTROLS PARASITE EGRESS AND INVASION

Deepti Sarkar, Ravi Kumar Narayanasamy, Luciana Ribeiro Dinis, Abhai Tripathi, Isabelle Coppens, Prakash Srinivasan

Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States

## 6769

#### INCREASED DUFFY BINDING PROTEIN 1 EXPRESSION CORRELATES WITH *PLASMODIUM CYNOMOLGI* GROWTH IN CONTINUOUS CULTURE

Wayne Cheng<sup>1</sup>, Magdalena Argomaniz<sup>1</sup>, Caitlin C. Cooper<sup>1</sup>, Amadis Vivas<sup>1</sup>, Saniya Sabnis<sup>1</sup>, Sarah G. Roberson<sup>1</sup>, Celia L. Saney<sup>1</sup>, Mary R. Galinski<sup>2</sup>, Steven P. Maher<sup>1</sup>, Dennis E. Kyle<sup>1</sup>, Chester J. Joyner<sup>1</sup>

<sup>1</sup>University of Georgia, Athens, GA, United States, <sup>2</sup>Emory University, Atlanta, GA, United States

#### 7557

#### HOST-SPECIFIC ADAPTATION OF POWASSAN VIRUS TO AMBLYOMMA AMERICANUM: ROLE OF PRM IN TICK-SPECIFIC VIRAL FITNESS

Rachel E. Lange<sup>1</sup>, Alan P. Dupuis<sup>2</sup>, Melissa A. Prusinski<sup>3</sup>, Alexander T. Ciota<sup>2</sup> <sup>1</sup>University at Albany School of Public Health, Albany, NY, United States, <sup>2</sup>The Arbovirus Laboratory, Wadsworth Center, New York State Department of Health, Slingerlands, NY, United States, <sup>3</sup>New York State Department of Health, Bureau of Communicable Disease Control, Vector Ecology Laboratory, Albany, NY, United States

#### 7807

# POPULATION GENOMICS OF AN INVASIVE MOSQUITO VECTOR, AEDES AEGYPTI, IN SOUTHERN NEVADA

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

<sup>1</sup>University of Nevada, Las Vegas, Las Vegas, NV, United States, <sup>2</sup>Southern Nevada Health District, Las Vegas, NV, United States

#### 7980

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

Magdalena Alba Argomaniz, Wayne Cheng, Amadis Vivas, Grace Hawkins, Sarah Gayle Roberson, Henry Davie, Diego Huet, Steven P. Maher, Chester J. Joyner University of Georgia, Athens, GA, United States

# 8264

#### EFFECT OF SCHISTOSOMA MANSONI INFECTION ON GUT MICROBIOTA IN PRE-SCHOOL AGED CHILDREN IN ALBERTINE REGION, UGANDA.

Andrew Edielu<sup>1</sup>, John Kelvin Mugerwa<sup>1</sup>, Gloria Oduru<sup>1</sup>, Jacent Nassuuna<sup>1</sup>, Hannah W. Wu<sup>2</sup>, Susannah Colt<sup>2</sup>, Emily L. Webb<sup>3</sup>, Jennifer F. Friedman<sup>2</sup>, Patrice Akusa Mawa<sup>1</sup>, Amaya L. Bustinduy<sup>3</sup>, Martin Holland<sup>3</sup>

<sup>1</sup>MRC/UVRI & LSHTM Uganda Research Unit, Entebbe, Uganda, <sup>2</sup>Rhode Island Hospital, Center for International Health Research, Providence, RI, United States, <sup>3</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom

#### 8399

#### USING ANCESTRAL SEQUENCE RECONSTRUCTION FOR GENERATION OF BROAD-SPECTRUM VACCINE PLATFORMS AGAINST TICK-BORNE FLAVIVIRUSES

Chasity E. Trammell, Brian J. Geiss, Gregory D. Ebel Colorado State University, Fort Collins, CO, United States

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#### 8423

# UNIQUE IMMUNE AND TISSUE REPAIR MARKERS IN CONGENITAL CHAGAS

Sneider Alexander Gutierrez Guarnizo<sup>1</sup>, Carolina Duque<sup>1</sup>, Jill Hakim<sup>1</sup>, Martín Obregón<sup>2</sup>, Jessi Condori<sup>2</sup>, Paloma Samame<sup>3</sup>, Emily Arteaga<sup>3</sup>, Clariza Roxana<sup>3</sup>, Jean Karla Velarde<sup>3</sup>, Edith Malaga<sup>2</sup>, Andrea Diestra<sup>2</sup>, Alejandra Pando<sup>2</sup>, Manuela Verastegui<sup>2</sup>, Monica Pajuelo<sup>2</sup>, Maritza Calderon<sup>2</sup>, Freddy Tinajeros<sup>3</sup>, Natalie Bowman<sup>4</sup>, Robert Gilman<sup>1</sup>, Monica Mugnier<sup>1</sup>

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#### 8431

#### ISOLATION AND CHARACTERIZATION OF A-GAL-CONTAINING EXTRACELLULAR VESICLES FROM *TRYPANOSOMA CRUZI*: UNVEILING NEW BIOMARKERS FOR CHAGAS DISEASE

**Priscila Silva Grijo Farani**, Nasim Karimi Hosseini, Susana Portillo, Maria Tays Mendes, Brian Grajeda, Colin Knight, Cameron Ellis, Igor Almeida *The University of Texas at El Paso, El Paso, TX, United States* 

#### Young Investigator Award Session D

Convention Center - Room 353 (3rd Floor) Wednesday, November 13, 9 a.m. – 2 p.m.

#### JUDGE

Aissatou Diawara

Global Institute for Disease Elimination (GLIDE), Abu Dhabi, United Arab Emirates Susanta K. Ghosh

National Institute of Malaria Research, Bangalore, India

Ruth Namazzi Makerere University, Kampala, Uganda

Isaac Olayinka Oyewole Babcock University, Ilisan Remo, Nigeria

#### 6082

#### DEVELOPMENT OF AMPLICON-BASED WHOLE-GENOME SEQUENCING OF MYCOBACTERIUM TUBERCULOSIS

Chaney C. Kalinich<sup>1</sup>, Freddy Gonzalez<sup>2</sup>, Mallery I. Breban<sup>3</sup>, Isabel Distefano<sup>3</sup>, Ted Cohen<sup>3</sup>, Nathan D. Grubaugh<sup>3</sup>, Seth Redmond<sup>3</sup>

<sup>1</sup>Yale School of Medicine, New Haven, CT, United States, <sup>2</sup>Department of Ecology and Evolutionary Biology, Yale University, New Haven, CT, United States, <sup>3</sup>Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, CT, United States

## 6741

#### INTERACTIONS BETWEEN WATER, SANITATION, AND HYGIENE (WASH) AND MOSQUITO DYNAMICS IN WESTERN KENYA: IMPLICATIONS FOR DIARRHEAL AND MALARIA DISEASES

Noriko Tamari<sup>1</sup>, Maurice Agawo<sup>2</sup>, Heidi E. Brown<sup>1</sup>, Luigi Sedda<sup>3</sup>, Gary L. Christopherson<sup>1</sup>, Katherine D. Ellingson<sup>1</sup>, Stephen Munga<sup>4</sup>, Kacey C. Ernst<sup>1</sup>

<sup>1</sup>University of Arizona, Tucson, AZ, United States, <sup>2</sup>Maseno University, Kisumu,

Kenya, <sup>3</sup>Lancaster University, Lancaster, United Kingdom, <sup>4</sup>Kenya Medical Research Institute (KEMRI), Kisumu, Kenya

## 6780

#### SPATIAL VARIATION IN ENVIRONMENTAL AND SOCIODEMOGRAPHIC DRIVERS OF LEPTOSPIROSIS IN THE DOMINICAN REPUBLIC USING A GEOGRAPHICALLY WEIGHTED REGRESSION

Beatris M. Martin<sup>1</sup>, Benn Sartorius<sup>1</sup>, Helen Mayfield<sup>1</sup>, Angela Cadavid Restrepo<sup>2</sup>, Cecilia J. Then Paulino<sup>3</sup>, Marie C. Etienne<sup>3</sup>, Ronald Skewes-Ramm<sup>3</sup>, Eric J. Nilles<sup>4</sup>, Colleen L. Lau<sup>1</sup>

<sup>1</sup>Centre fo Clinical Research, Faculty of Medicine, The University of Queensland, Brisbane, Australia, <sup>2</sup>School of Public Health, Faculty of Medicine, The University of Queensland, Brisbane, Australia, <sup>3</sup>Ministerio de Salud, Republica Dominicana, Santo Domingo, Dominican Republic, <sup>4</sup>Brigham and Womens Hospital, Harvard Medical School, Boston, MA, United States

#### **6804**

#### FECAL EXPOSURE PATHWAYS FOR CHILDREN IN LOW-INCOME, UNPLANNED COMMUNITIES OF URBAN MAPUTO, MOZAMBIQUE USING A QUANTITATIVE MICROBIAL RISK ASSESSMENT FRAMEWORK (QMRA)

Julia Silva Sobolik<sup>1</sup>, Elly Mataveia<sup>2</sup>, Mahira Amade<sup>2</sup>, Cynthia Silva<sup>2</sup>, Liliana Dengo-Baloi<sup>1</sup>, Laura Braun<sup>1</sup>, Oliver Cumming<sup>1</sup>, Edna Viegas<sup>2</sup>, Jackie Knee<sup>1</sup> <sup>1</sup>LSHTM, London, United Kingdom, <sup>2</sup>Centro de Investigação e Treino em Saúde da Polana Caniço (CISPOC), Maputo, Mozambique

#### **6897**

#### DETECTION OF RECURRENT MALARIA BY IMPROVING THE ACCURACY OF UNIQUE PATIENT IDENTIFICATION WITH BIOMETRICS IN PAPUA, INDONESIA

Liony Fransisca<sup>1</sup>, Reynold Rizal Ubra<sup>2</sup>, Enny Kenangalem<sup>1</sup>, Benedikt Ley<sup>3</sup>, Ric N. Price<sup>3</sup>, Nicholas M. Douglas<sup>3</sup>, Jeanne Rini Poespoprodjo<sup>1</sup>

<sup>1</sup>Papuan Community Health and Development Foundation, Timika, Indonesia, <sup>2</sup>Mimika Regency Health Office, Timika, Indonesia, <sup>3</sup>Menzies School of Health Research, Charles Darwin University, Darwin, Australia

#### 7271

#### ASYMPTOMATIC *P. FALCIPARUM* INFECTION IS NOT ASSOCIATED WITH EXPOSURE TO SOIL TRANSMITTED HELMINTHS IN CHILDREN FROM A MULTI SCHOOL-BASED STUDY IN ESSE, CAMEROON

Lauren Lajos<sup>1</sup>, Balotin Fogang<sup>2</sup>, Anne Jensen<sup>3</sup>, Derrick Atchombat<sup>2</sup>, Douglas H. Cornwall<sup>3</sup>, Christiane Donkeu<sup>2</sup>, Chris-Marco Nana-Mbianda<sup>2</sup>, Celine Slam<sup>3</sup>, Hugues Clotaire Nana Djeunga<sup>4</sup>, Bin Zhan<sup>5</sup>, Anne J. Blaschke<sup>1</sup>, Krow Ampofo<sup>1</sup>, Paul Olivier Koki Ndombo<sup>6</sup>, Lawrence Ayong<sup>2</sup>, Tracey Lamb<sup>3</sup>

<sup>1</sup>University of Utah - Division of Pediatric Infectious Disease, SLC, UT, United States, <sup>2</sup>Centre Pasteur du Cameroun - Molecular Parasitology Lab, Yaounde, Cameroon, <sup>3</sup>University of Utah - Department of Pathology, SLC, UT, United States, <sup>4</sup>Higher Institute of Scientific and Medical Research (ISM), Yaounde, Cameroon, <sup>5</sup>Baylor College of Medicine - Department of Pediatrics, Section of Tropical Medicine and Texas Children's Hospital Center for Vaccine Development - Molecular biology and Antigen Discovery Unit, Houston, TX, United States, <sup>6</sup>Foundation Chantal Biya Centre Mere et Enfant, Yaounde, Cameroon

#### 7688

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

Afsana Afrin<sup>1</sup>, Afruna Rahman<sup>1</sup>, Mohammad Zahid Hossain<sup>1</sup>, Md. Abu Bakkar Siddique<sup>1</sup>, Tazrin Rahman Lopa<sup>1</sup>, Md. Alinoor Islam Khan<sup>1</sup>, Md. Atique Iqbal Chowdhury<sup>1</sup>, Qazi Sadeq-ur Rahman<sup>1</sup>, Md. Mamunur Rashid<sup>1</sup>, Shams El Arifeen<sup>1</sup>, Emily S. Gurley<sup>2</sup> <sup>1</sup>International Centre for Diarrhoeal Research, Bangladesh, Dhaka, Bangladesh, <sup>2</sup>Johns Hopkins University, Baltimore, MD, United States

#### 7701

#### NAVIGATING MATERNAL HEALTH CHALLENGES IN BANGLADESH: AN ANALYSIS OF PREGNANCY COMPLICATIONS AND CARE-SEEKING BEHAVIORS USING NATIONALLY REPRESENTATIVE SURVEYS

MD ABUBAKKAR SIDDIQUE, Ashiquzzaman ., Aniqa Tasnim Hossain, Ema Akter, Abu Sayeed, Shams El Arifeen, Ahmed Ehsanur Rahman icddr.b, Dhaka, Bangladesh

#### IMPACT OF HEAT AND HUMIDITY EXPOSURE ON EFFICACY OF SELECTED ANTIBIOTICS

Justin T. Vasquez<sup>1</sup>, Amos Onditi<sup>2</sup>, Doris Njoroge<sup>2</sup>, Dan Krauth<sup>3</sup>, Trevor Wellington<sup>1</sup>, Kirti Tiwari<sup>4</sup>, Ashleigh Roberds<sup>5</sup>

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#### 7838

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

**Gabriel Ribeiro dos Santos**<sup>1</sup>, Fariha Jawed<sup>2</sup>, Christinah Mukandavire<sup>3</sup>, Arminder Deol<sup>3</sup>, Danny Scarponi<sup>3</sup>, Eric Rogier<sup>4</sup>, Eric Seruyange<sup>5</sup>, Mathieu J. P. Poirier<sup>6</sup>, Samuel Bosomprah<sup>7</sup>, Augustine O. Udeze<sup>8</sup>, Koussay Dellagi<sup>9</sup>, Nathanaël Hozé<sup>10</sup>, Jaffu Chilongola<sup>11</sup>, Leonard E. G. Mboera<sup>12</sup>, Gheyath Nasrallah<sup>13</sup>, Elmar Saathof<sup>14</sup>, Simon Cauchemez<sup>15</sup>, Henrik Salje<sup>2</sup>

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# 8141

# SAFETY, IMMUNOGENICITY AND EFFICACY OF THE SHIGELLA VACCINE - A SYSTEMATIC REVIEW

Salman Haq

Aga Khan university, Karachi, Pakistan

#### 8246

#### OUT-OF-SEASON RESPIRATORY VIRUS INFECTIONS DURING THE PANDEMIC PERIOD OF SARS-COV-2 TRANSMISSION IN BRAZIL

Juan Pablo A. Ticona<sup>1</sup>, Luciane Santos Amorim Santos<sup>2</sup>, Meng Xiao<sup>3</sup>, Nivison Nery Jr<sup>2</sup>, Emilia M. M. Andrade Belitardo<sup>2</sup>, Mariam O. Fofana<sup>4</sup>, Renato Victoriano<sup>2</sup>, Jaqueline Cruz<sup>2</sup>, Laise Eduarda Paixão de Moraes<sup>2</sup>, Mitermayer G. Reis<sup>2</sup>, Federico Costa<sup>1</sup>, Ricardo Khouri<sup>2</sup>, Derek A. Cummings<sup>5</sup>, Albert I. Ko<sup>4</sup>

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#### 8275

#### ASSOCIATIONS BETWEEN MICRONUTRIENT STATUS, HORMONES, AND IMMUNE STATUS DURING PREGNANCY AND CHILD GROWTH IN RURAL BANGLADESH

Belinda Chen<sup>1</sup>, Chih-Hsien Lin<sup>1</sup>, Andrew Mertens<sup>1</sup>, Sophia T. Tan<sup>2</sup>, Farheen Jamshed<sup>1</sup>, Diego Figueroa<sup>1</sup>, Caitlin Hemlock<sup>3</sup>, Zachary Butzin-Dozier<sup>1</sup>, Lia C. H. Fernald<sup>1</sup>, Christine P. Stewart<sup>4</sup>, Alan E. Hubbard<sup>1</sup>, Md. Ziaur Rahman<sup>5</sup>, Shahjahan Ali<sup>6</sup>, Benjamin F. Arnold<sup>7</sup>, Firdaus S. Dhabhar<sup>8</sup>, Douglas Granger<sup>9</sup>, Mahbubur Rahman<sup>10</sup>, Stephen P. Luby<sup>2</sup>, Jack Colford<sup>1</sup>, Audrie Lin<sup>11</sup>

<sup>1</sup>UC Berkeley School of Public Health, Berkeley, CA, United States, <sup>2</sup>Division of Infectious Diseases and Geographic Medicine, Stanford University, Stanford, CA, United States, <sup>3</sup>Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, WA, United States, <sup>4</sup>University of California Davis, Institute for Global Nutrition, Davis, CA, United States, <sup>5</sup>University of California, Santa Cruz, Department of Microbiology and Environmental Toxicology, Santa Cruz, CA, United States, <sup>6</sup>Department of Epidemiology, Colorado School of Public Health, University of Colorado,, Denver, CO, United States, <sup>7</sup>Francis I. Proctor Foundation, University of California San Francisco, San Francisco, CA, United States, <sup>8</sup>Department of Psychiatry & Behavioral Sciences, Department of Microbiology and Immunology, Sylvester Comprehensive Cancer Center, Miller School of Medicine, University of Miami, Miami, FL, United States, <sup>9</sup>Institute for Interdisciplinary Salivary Bioscience Research, University of California, Irvine, Irvine, CA, United States, <sup>10</sup>Environmental Health and WASH, Health System and Population Studies Division, International Centre for Diarrhoeal Disease Research, Dhaka, Bangladesh, <sup>11</sup>Department of Environmental and Occupational Health Sciences, University of Washington, Santa Cruz, CA, United States

## 8280

#### INFLUENCE OF MATERNAL AND CHILD FUT2 SECRETOR STATUS ON GROWTH AND ON THE EFFICACY OF WATER, SANITATION, HANDWASHING, AND NUTRITION INTERVENTIONS ON ENVIRONMENTAL ENTERIC DYSFUNCTION IN RURAL BANGLADESH

Ronit Gupta<sup>1</sup>, Andrew N. Mertens<sup>2</sup>, Akram Ullah<sup>3</sup>, Tahmeed Ahmed<sup>4</sup>, Rashidul Haque<sup>3</sup>, Mamun Kabir<sup>3</sup>, Mondar M. M. Ahmed<sup>3</sup>, Mustafa Mahfuz<sup>4</sup>, Shahjahan Ali<sup>5</sup>, Mohammad Alauddin<sup>6</sup>, Md. Ziaur Rahman<sup>7</sup>, Jessica Grembi<sup>8</sup>, Abul K. Shoab<sup>9</sup>, Mahbubur Rahman<sup>9</sup>, Leanne Unicomb<sup>9</sup>, Benjamin F. Arnold<sup>10</sup>, Syeda L. Famida<sup>3</sup>, Salma Akther<sup>3</sup>, Md. Saheen Hossen<sup>3</sup>, Palash Mutsuddi<sup>3</sup>, Alan E. Hubbard<sup>11</sup>, Christine P. Stewart<sup>12</sup>, John M. Colford Jr.<sup>11</sup>, Stephen P. Luby<sup>8</sup>, Audrie Lin<sup>7</sup>

<sup>1</sup>Department of Biostatistics, T.H. Chan School of Public Health, Harvard University, Boston, MA, United States, <sup>2</sup>Division of Epidemiology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>3</sup>Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>4</sup>Nutrition Research Division, International Centre for Diarrhoeal Disease Research, Bangladesh, bhaka, Bangladesh, <sup>5</sup>Department of Epidemiology, Colorado School of Public Health, University of Colorado, Denver, CO, United States, <sup>5</sup>Department of Chemistry, Wagner College, Staten Island, NY, United States, <sup>7</sup>Department of Microbiology and Environmental Toxicology, University of California, Santa Cruz, Santa Cruz, CA, United States, <sup>8</sup>Division of Infectious Diseases and Geographic Medicine, Stanford University, Stanford, CA, United States, <sup>9</sup>Health System and Population Studies Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>16</sup>Francis I. Proctor Foundation, University of California, San Francisco, San Francisco, CA, United States, <sup>11</sup>Division of Epidemiology and Biostatistics, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>12</sup>Department of Nutrition, University of California, Davis, Davis, CA, United States

#### 8311

# MAPPING THE GLOBAL ENVIRONMENTAL SUITABILITY FOR SCRUB TYPHUS

Qian Wang<sup>1</sup>, Tian Ma<sup>2</sup>, Fangyu Ding<sup>2</sup>, Nicholas Day<sup>1</sup>, Benn Sartorius<sup>3</sup>, Richard Maude<sup>1</sup> <sup>1</sup>MORU, Bangkok, Thailand, <sup>2</sup>Chinese Academy of Sciences, Beijing, China, <sup>3</sup>University of Oxford, Oxford, United Kingdom

# Young Investigator Award Session E

Convention Center - Room 354/355 (3rd Floor) Wednesday, November 13, 9 a.m. – 2 p.m.

#### JUDGE

Solomon Kibret Birhanie West Valley Mosquito and Vector Control District, Ontario, CA, United States

Katia Bruxvoort University of Alabama at Birmingham, Birmingham, AL, United States

Adélaïde Miarinjara Emory University, Atlanta, GA, United States

Chukwuanugo Ogbuagu

Nnamdi Azikiwe University Teaching Hospital, Nnewi, Nigeria

#### 6157

#### TRACKING THE SOURCE POPULATION OF *SIMULIUM* BLACKFLY INVASION IN URBAN SETTINGS IN GHANA: A GENOMICS APPROACH

Millicent Opoku<sup>1</sup>, Neha Sirwani<sup>1</sup>, Emily N. Hendrickson<sup>1</sup>, Himal Shrestha<sup>1</sup>, Kwadwo K. Frempong<sup>2</sup>, Sampson Otoo<sup>2</sup>, Franklin Ayisi Ayisi<sup>3</sup>, Millicent S. Afatodzie<sup>2</sup>, Abena A. Nyarko<sup>2</sup>, Sarah M. Dogbe<sup>2</sup>, Joseph H.N. Osei<sup>2</sup>, Sellase Pi-Bansa<sup>2</sup>, Sindew M. Feleke<sup>1</sup>, Warwick Grant<sup>1</sup>, Daniel Boakye<sup>2</sup>, Shannon Hedtke<sup>1</sup>

<sup>1</sup>La Trobe University, Melbourne, Australia, <sup>2</sup>Noguchi Memorial Institute for Medical Research, Accra, Ghana, <sup>3</sup>University of Ghana, Accra, Ghana

#### 6264

# THE IMPACTS OF COVID-19 ON THE TREND OF MEASLES OUTBREAK IN NIGERIA

Promise Ayooluwa Ajala, Ayooluwa Oluwaseun Ajayi, Funmilayo Grace Adelakun, Favour Mofiyinfoluwa Abiona, Oluwatomisin Oluwadamilola Olawoye College of Medicine, University of Ibadan, Ibadan, Nigeria

#### 6384

#### INCREASING CERTAINTY AROUND IMPACT OF SEASONAL MALARIA CHEMOPREVENTION: A MODELING FRAMEWORK USING ROUTINE DATA SOURCES IN BURKINA FASO

Monica Anna de Cola<sup>1</sup>, Benoit Sawadogo<sup>2</sup>, Cheick Campaore<sup>2</sup>, Chuks Nnaji<sup>3</sup>, Sidzabda Kompaore<sup>4</sup>, Arantxa Roca-Feltrer<sup>5</sup>, Sol Richardson<sup>6</sup>, Christian Rassi<sup>3</sup>, Patrick Walker<sup>1</sup>, Lucy C. Okell<sup>1</sup>

<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>Malaria Consortium, Burkina Faso, Ouagadougou, Burkina Faso, <sup>3</sup>Malaria Consortium, London, United Kingdom, <sup>4</sup>Ministry of Health, Burkina Faso, Ouagadougou, Burkina Faso, <sup>5</sup>PATH, Mozambique, Maputo, Mozambique, <sup>6</sup>Tsinghua University, Beijing, China

#### 6385

#### MOLECULAR INVESTIGATION OF RECURRENT *PLASMODIUM MALARIAE* INFECTION IN THE DEMOCRATIC REPUBLIC OF THE CONGO

Wenqiao He<sup>1</sup>, Rachel Sendor<sup>2</sup>, Melchior Kashamuka<sup>3</sup>, Kristin Banek<sup>3</sup>, Joseph Losoma Atibu<sup>3</sup>, Zachary R. Popkin-Hall<sup>1</sup>, Jonathan J. Juliano<sup>1</sup>, Antoinette Tshefu<sup>3</sup>, Jonathan B. Parr<sup>1</sup>

<sup>1</sup>Division of Infectious Diseases and Institute for Global Health and Infectious Diseases, University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, <sup>2</sup>Department of Epidemiology, Gillings School of Global Public Health, Chapel Hill, NC, United States, <sup>3</sup>Kinshasa School of Public Health, Kinshasa, Democratic Republic of the Congo

#### 6461

#### LEVERAGING COMMUNITY HEALTH WORKERS TO SUSTAIN UNIVERSAL BED NET COVERAGE IN RURAL UGANDA: A PILOT FEASIBILITY STUDY

Annika K. Gunderson<sup>1</sup>, Rapheal Mbusa<sup>2</sup>, Emmanuel Baguma<sup>2</sup>, Emmanuel Ayebare<sup>2</sup>, John Barber<sup>1</sup>, Moses Ntaro<sup>2</sup>, Edgar M. Mulogo<sup>2</sup>, Ross M. Boyce<sup>1</sup> <sup>1</sup>University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, <sup>2</sup>Mbarara University of Science & Technology, Mbarara, Uganda

#### 6490

#### QUANTIFYING THE SUITABILITY OF WATERSHED-BASED AREAL UNITS FOR MALARIA MODELING IN THE PERUVIAN AMAZON REGION

Edson J. Ascencio, Antony Barja, Jazmin Qquellon, Gabriel Carrasco-Escobar Health Innovation Laboratory - Institute of Tropical Medicine 'Alexander von Humboldt', Universidad Peruana Cayetano Heredia, Lima, Peru

#### 6729

Ж

#### INVESTIGATING THE PREVALENCE, INTENSITY, AND CONTRIBUTING FACTORS OF SCHISTOSOMA MANSONI INFECTION IN ALMATA DISTRICT, TIGRAY, NORTHERN ETHIOPIA

Gessessew Bugssa Hailu<sup>1</sup>, Nega Berhe Belay<sup>2</sup>, Prof. Tilahun Tekelehaymanot<sup>2</sup> <sup>1</sup>Department of Medical Parasitology and Entomology, Biomedical Sciences Division, College of Health Sciences, Mekelle University, Mekelle, Ethiopia, <sup>2</sup>Aklilu Lemma Institute of Pathobiology, Addis Ababa University, Addis Ababa, Ethiopia

#### 7084

#### A MULTICENTER STUDY TO ASSESS THE EFFECTIVENESS OF AN INACTIVATED COVID-19 VACCINE AGAINST HOSPITALIZED COVID-19 IN THE PHILIPPINES

Kristal An Agrupis<sup>1</sup>, Maria Vinna Crisostomo<sup>1</sup>, Jedas Veronica Daag<sup>1</sup>, March Helena Jane Lopez<sup>1</sup>, Kiarah Louise Florendo<sup>1</sup>, Jude Raphael Lo<sup>1</sup>, Yang-Yang Qi<sup>2</sup>, Gianne Lariz Magsakay<sup>1</sup>, Gretchen Velasco-Ranada<sup>3</sup>, Mitzi Marie Chua<sup>4</sup>, Mitzie Lou Osabel<sup>5</sup>, Lorenz von Seidlein<sup>6</sup>, Xuan-Yi Wang<sup>2</sup>, Michelle Ylade<sup>1</sup>, Jacqueline Deen<sup>1</sup>

<sup>1</sup>Institute of Child Health and Human Development, University of the Philippines - National Institutes of Health, Manila, Philippines, <sup>2</sup>Key Laboratory of Medical Molecular Virology of MoE & MoH, and Institutes of Biomedical Sciences, Shanghai Medical College, Fudan University, Shanghai, China, <sup>3</sup>Mariano Marcos Memorial Hospital & Medical Center, Batac City, Ilocos Norte, Philippines, <sup>4</sup>Vicente Sotto Memorial Medical Center, Cebu City, Philippines, <sup>5</sup>Davao Regional Medical Center, Tagum City, Davao del Norte, Philippines, <sup>6</sup>MahidolOxford Tropical Medicine Research Unit, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand

#### 7215

#### QUANTIFYING THE RELATIONSHIP BETWEEN MALARIA IN PREGNANCY AND MATERNAL ANEMIA USING ROUTINE ANTENATAL CARE-BASED SURVEILLANCE DATA IN TANZANIA

Abigail R. Goodship<sup>1</sup>, Sequoia I. Leuba<sup>1</sup>, Joseph T. Hicks<sup>1</sup>, Abdallah Lusasi<sup>2</sup>, Sijenunu Aaron<sup>2</sup>, Samwel L. Nhiga<sup>2</sup>, Mzee M. Nassoro<sup>3</sup>, Frank Chacky<sup>2</sup>, Patrick G.T. Walker<sup>1</sup> <sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>Ministry of Health, National Malaria Control Programme, Dodoma, United Republic of Tanzania, <sup>3</sup>Ministry of Health, Division of Reproductive and Child Health, Dodoma, United Republic of Tanzania

#### 7433

#### HIGH MORTALITY AMONG PERSONS WITH SUSPECTED EPILEPSY: A FOCUS ON ONCHOCERCIASIS-ENDEMIC COUNTIES OF SOUTH SUDAN

Luís-Jorge Amaral<sup>1</sup>, Stephen Raimon Jada<sup>2</sup>, Jane Y. Carter<sup>3</sup>, Yak Yak Bol<sup>4</sup>, Joseph N Siewe Fodjo<sup>1</sup>, Robert Colebunders<sup>1</sup>

<sup>1</sup>University of Antwerp, Antwerpen, Belgium, <sup>2</sup>Amref Health Africa, Juba, South Sudan, <sup>3</sup>Amref Health Africa Headquarters, Nairobi, Kenya, <sup>4</sup>Neglected Tropical Diseases Unit, Ministry of Health, Juba, South Sudan

#### 7633

#### DIFFERENTIAL IMPACT OF INSECTICIDE TREATED NETS AGAINST MALARIA: A META-ANALYSIS AND MODELLING STUDY OF CLUSTER-RANDOMIZED CONTROLLED TRIALS IN AFRICA

Dominic P. Dee<sup>1</sup>, Joseph Biggs<sup>2</sup>, Joseph D. Challenger<sup>1</sup>, Isaac J. Stopard<sup>1</sup>, Ellie Sherrard-Smith<sup>1</sup>, Jackie Cook<sup>2</sup>, Thomas S. Churcher<sup>1</sup>

<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>London School of Hygiene and Tropical Medicine, London, United Kingdom

#### 7711

#### CO-PRODUCING AN EARLY WARNING PLATFORM TO FORECAST OUTBREAKS OF CLIMATE-SENSITIVE INFECTIOUS DISEASES

Chloe Fletcher<sup>1</sup>, Martín Lotto Batista<sup>1</sup>, Alba Llabrés-Brustenga<sup>1</sup>, Daniela Lührsen<sup>1</sup>, Bruno M. Carvalho<sup>1</sup>, Gabriela Müller<sup>2</sup>, Andrea Gómez<sup>2</sup>, Soledad López<sup>2</sup>, Paloma M. Carcamo<sup>3</sup>, Gabriel Carrasco-Escobar<sup>3</sup>, Juan D. Umaña<sup>4</sup>, Mauricio Santos-Vega<sup>4</sup>, Renata Gracie<sup>5</sup>, Diego Ricardo Xavier<sup>5</sup>, Christovam Barcellos<sup>5</sup>, Leslie Rollock<sup>6</sup>, Avriel R. Diaz<sup>7</sup>, Sadie J. Ryan<sup>8</sup>, Anna M. Stewart-Ibarra<sup>9</sup>, Mercy Borbor-Cordova<sup>10</sup>, Rachel Lowe<sup>11</sup> <sup>1</sup>Barcelona Supercomputing Center, Barcelona, Spain, <sup>2</sup>National Council for Scientific & Technical Research, Sante Fe, Argentina, <sup>3</sup>Health Innovation Laboratory, Institute of Tropical Medicine "Alexander von Humboldt", Universidad Peruana Cayetano Heredia, San Martin de Porres, Peru, <sup>4</sup>Research Group in Mathematical & Computational Biology, Universidad de los Andes, Bogotá, Colombia, <sup>5</sup>Institute of Scientific & Technological Communication & Information in Health, Fundação Oswaldo Cruz, Rio de Janeiro, Brazil, <sup>6</sup>Ministry of Health & Wellness, Saint Michael, Barbados, <sup>7</sup>International Research Institute of Climate & Society, Palisades, NY, United States, <sup>8</sup>Department of Geography, University of Florida, Gainsville, FL, United States, <sup>9</sup>Inter-American Institute For Global Change Research, Montevideo, Uruguay, <sup>10</sup>Faculty of Maritime Engineering & Marine Sciences, Escuela Superior Politécnica del Litoral, Guayaquil, Ecuador, <sup>11</sup>Catalan Institution for Research & Advanced Studies, Barcelona, Spain

#### 8304

#### INAPPARENT PRIMARY DENGUE VIRUS INFECTIONS REVEAL HIDDEN SEROTYPE-SPECIFIC EPIDEMIOLOGICAL PATTERNS AND SPECTRUM OF INFECTION OUTCOME: A COHORT STUDY IN NICARAGUA

Jose V. Zambrana<sup>1</sup>, Sandra Bos<sup>2</sup>, Elias Duarte<sup>2</sup>, Aaron L. Graber<sup>2</sup>, Julia Huffaker<sup>2</sup>, Carlos Montenegro<sup>3</sup>, Lakshmanane Premkumar<sup>4</sup>, Aubree Gordon<sup>1</sup>, Angel Balmaseda<sup>5</sup>, Eva Harris<sup>2</sup>

<sup>1</sup>Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI, United States, <sup>2</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>3</sup>Sustainable Sciences Institute, Managua, Nicaragua, <sup>4</sup>Department of Microbiology and Immunology, University of North Carolina School of Medicine, Chapel Hill, NC, United States, <sup>5</sup>Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua

#### 8412

# ASSOCIATION OF *S. HAEMATOBIUM* INFECTION WITH PREGNANCY IN TANZANIA

Sheridan Bowers<sup>1</sup>, Jane K. Maganga<sup>2</sup>, Loyce Mhango<sup>2</sup>, Peter Shigella<sup>2</sup>, Crispin Mukerebe<sup>2</sup>, Humphrey D. Mazigo<sup>3</sup>, Govert J. van Dam<sup>4</sup>, Danielle de Jong<sup>5</sup>, Paul L. Corstjens<sup>5</sup>, Saidi H. Kapiga<sup>2</sup>, W. Evan Secor<sup>4</sup>, Myung Hee Lee<sup>7</sup>, Jennifer A. Downs<sup>7</sup>, John M. Changalucha<sup>2</sup>

<sup>1</sup>Weill Cornell Medicine, New York, NY, United States, <sup>2</sup>Mwanza Intervention Trials Unit/ National Institute for Medical Research, Mwanza, United Republic of Tanzania, <sup>3</sup>Department of Parasitology, Catholic University of Health and Allied Sciences, Mwanza, United Republic of Tanzania, <sup>4</sup>Department of Parasitology, Leiden University Medical Center, Leiden, Netherlands, <sup>5</sup>Department of Cell and Chemical Biology, Leiden University Medical Center, Leiden, Netherlands, <sup>6</sup>Division of Parasitic Diseases for Malaria, Center for Global Health, Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>7</sup>Center for Global Health, Weill Cornell Medicine, New York, NY, United States

#### Young Investigator Award Session F

Convention Center - Room 356 (3rd Floor) Wednesday, November 13, 9 a.m. – 2 p.m.

JUDGE Karen E.S. Hamre The Carter Center, Atlanta, GA, United States

Carla N. Mavian University of Florida, Gainesville, FL, United States

Caroline Ng University of Nebraska Medical Center, Omaha, NE, United States

Amit Prasad Indian Institute of Technology Mandi, Mandi, India

#### 6068

# THE DYNAMICS OF PARASITE GROWTH IN *P. FALCIPARUM* AND *P. KNOWLESI* CO-CULTURES

Jeremy S. Goodwin-Gower, Jenny M. Peters, Hayley E. Mitchell, Stacey Llewellyn, Fiona H. Amante, Bridget E. Barber *QIMR Berghofer Medical Research Institute, Herston, Australia* 

#### 6317

# GENETIC ANCESTRY-ASSOCIATED DIFFERENCES IN DENGUE VIRUS INFECTION OF PRIMARY HUMAN SKIN CELLS

Michelle M. Martí, Priscila M. S. Castanha, Jocelyn M. Taddonio, Jeremy J. Martinson, Simon M. Barratt-Boyes

University of Pittsburgh, Pittsburgh, PA, United States

#### 6318

#### ARBOVIRUS DISEASE PATHOGENESIS IN OBESE AND TYPE-II DIABETIC-LIKE MICE

Natalia Ingrid O. Silva<sup>1</sup>, Sasha R. Azar<sup>2</sup>, Vidyleison N. Camargos<sup>1</sup>, Rafael K. Campos<sup>3</sup>, Rumei Yun<sup>3</sup>, Jiehua Zhou<sup>1</sup>, Alice F. Versiani<sup>1</sup>, Shannan L. Rossi<sup>3</sup>, Nikos Vasilakis<sup>1</sup> <sup>1</sup>University of Texas Medical Branch, Department of Pathology, Galveston, TX, United States, <sup>2</sup>Center for Tissue Engineering, Department of Surgery, Houston Methodist Research Institute, Houston, TX, United States, <sup>3</sup>University of Texas Medical Branch, Department of Microbiology and Immunology, Galveston, TX, United States

#### 6324

#### LOW LEVEL OF ANTIMALARIAL DRUG RESISTANCE IN 2014-15: INTEGRATION OF PRIMAQUINE INTO INDIA'S ANTIMALARIAL DRUG POLICY 2013

Shrikant Nema<sup>1</sup>, Nazia Ali<sup>2</sup>, Kristan A. Schneider<sup>3</sup>, Sri Krishna<sup>2</sup>, Anil Kumar Verma<sup>2</sup>, Aparup Das<sup>2</sup>, Praveen Kumar Bharti<sup>1</sup>

<sup>1</sup>ICMR-National Institute of Malaria Research, New Delhi, India, <sup>2</sup>ICMR-National Institute of Research in Tribal Health, Jabalpur, India, <sup>3</sup>University of Applied Sciences Mittweida, Germany, Germany



#### ASSESSMENT OF ALBENDAZOLE SUSCEPTIBILITY IN FASCIOLA HEPATICA EGGS FROM ENDEMIC REGIONS OF THE PERUVIAN HIGHLANDS

César A. Murga-Moreno<sup>1</sup>, Dayana M. Terrones-Cerna<sup>1</sup>, David Ruiz-Pérez<sup>1</sup>, Luis I. Alvarez<sup>2</sup>, Laura Ceballos<sup>2</sup>, Miguel M. Cabada<sup>3</sup>, Martha V. Fernandez-Baca<sup>4</sup>, César E. Vila-Anticona<sup>5</sup>, Ana M. Fernández-Sánchez<sup>1</sup>, Rodrigo A. Ore<sup>4</sup>, Cristian Hobán<sup>1</sup>, Pedro Ortiz<sup>1</sup>

<sup>1</sup>Universidad Nacional de Cajamarca, Cajamarca, Peru, <sup>2</sup>Universidad Nacional del Centro de la Provincia de Buenos Aires, Tandil, Argentina, <sup>3</sup>University of Texas Medical Branch, Galveston, TX, United States, <sup>4</sup>Universidad Peruana Cayetano Heredia, Cusco, Peru, <sup>5</sup>Servicio Nacional de Sanidad Agraria, Junín, Peru

#### 6814

#### DIETARY EFFECTS ON THE COURSE OF VISCERAL LEISHMANIASIS IN A MOUSE MODEL

Natalie Jarvis, Grace Gutzman, Yani Chen, Bayan Zhanbolat, Patrick Nuro-Gyina, Jacilara Conceicao, Mary Wilson University of Iowa, Iowa City, IA, United States

# 6852

#### LEISHMANIA TRANSMISSION IS DISRUPTED IN SANDFLIES COLONIZED BY DELFTIA TSURUHATENSIS TC1 BACTERIA

Pedro Cecilio<sup>1</sup>, Luana A. Rogerio<sup>2</sup>, Tiago D. Serafim<sup>2</sup>, Kristina Tang<sup>2</sup>, Laura Willen<sup>2</sup>, Eva Iniguez<sup>2</sup>, Claudio Meneses<sup>2</sup>, Luis F. Chaves<sup>3</sup>, Yue Zhang<sup>4</sup>, Wei Huang<sup>5</sup>, Pablo Castaneda-Casado<sup>6</sup>, Marcelo Jacobs-Lorena<sup>5</sup>, Jesus G. Valenzuela<sup>2</sup>, Janneth Rodrigues<sup>6</sup>, Fabiano Oliveira<sup>2</sup>

<sup>1</sup>Vector Biology Section, LMVR, NIAID, NIH, Rockville, MD, United States, <sup>2</sup>Vector Molecular Biology Section, LMVR, NIAID, NIH, Rockville, MD, United States, <sup>3</sup>Department of Environmental and Occupational Health, School of Public Health-Bloomington, Indiana University, Bloomington, IN, United States, <sup>4</sup>Integrated Data Sciences Section (IDSS), Research Technologies Branch, NIAID, NIH, Bethesda, MD, United States, <sup>5</sup>Department of Molecular Microbiology and Immunology, Malaria Research Institute, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>6</sup>Global Health Medicines R&D, GSK; Tres Cantos, Madrid, Spain

#### 6980

#### HIGH SURVIVORSHIP OF ANOPHELES GAMBIAE LARVAE TO LETHAL CONCENTRATIONS OF CLOTHIANIDIN, ACETAMIPRID OR IMIDACLOPRID IS CONSISTENT WITH CROSS-RESISTANCE TO NEONICOTINOIDS

Marilene M Ambadiang Mae<sup>1</sup>, Caroline Fouet<sup>2</sup>, Fred Ashu<sup>1</sup>, Calmes Bouaka<sup>1</sup>, Véronique Penlap-Beng<sup>3</sup>, Colince Kamdem<sup>2</sup>

<sup>1</sup>Centre for Research in Infectious Diseases, Yaoundé, Cameroon, <sup>2</sup>Department of Biological Sciences, University of Texas, El Paso, TX, United States, <sup>3</sup>Department of Biochemistry, Faculty of Science, University of Yaoundé 1, Yaoundé, Cameroon

## 7156

#### UNDERSTANDING THE BIPHASIC DOSE-RESPONSE CURVE ASSOCIATED WITH PIPERAQUINE RESISTANCE IN PLASMODIUM FALCIPARUM

John Kane<sup>1</sup>, Xue Li<sup>2</sup>, Sudhir Kumar<sup>3</sup>, Katrina A. Button-Simons<sup>1</sup>, LIsa A. Checkley<sup>1</sup>, Douglas A. Shoue<sup>1</sup>, Shalini Nair<sup>2</sup>, Ann Reyes<sup>2</sup>, Rupam Tripura<sup>4</sup>, Thomas J. Peto<sup>4</sup>, Dysoley Lek<sup>5</sup>, Stefan H. I. Kappe<sup>6</sup>, Mehul Dhorda<sup>4</sup>, Standwell C. Nkhoma<sup>7</sup>, Ian H. Cheeseman<sup>2</sup>, Ashley M. Vaughan<sup>6</sup>, Timothy J. C. Anderson<sup>2</sup>, Michael T. Ferdig<sup>1</sup>

<sup>1</sup>University of Notre Dame, South Bend, IN, United States, <sup>2</sup>Texas Biomedical Research Institute, San Antonio, TX, United States, <sup>3</sup>Iowa State University, Ames, IA, United States, <sup>4</sup>Mahidol-Oxford Tropical Medicine Research Unit, Mahidol University, Bangkok, Thailand, <sup>5</sup>National Center for Parasitology, Entomology and Malaria Control, Phnom Penh, Cambodia, <sup>6</sup>Seattle Children's Research Institute, Seattle, WA, United States, <sup>7</sup>BEI Resources, Manassas, VA, United States

#### 7486

#### OUTCOME OF SNAKEBITE VICTIMS MANAGED BY TRAINED HEALTH ASSISTANTS AT A SNAKEBITE TREATMENT CENTER IN NEPAL

Aarjav Sharma<sup>1</sup>, Arun Gautam<sup>1</sup>, Urza Bhattarai<sup>1</sup>, Srista Manandhar<sup>1</sup>, Sunit Chhetri<sup>1</sup>, Rohan Basnet<sup>1</sup>, Aakriti Sapkota<sup>2</sup>, Khem Adhikari<sup>3</sup>, Sanjib K. Sharma<sup>1</sup> <sup>1</sup>BP Koirala Institute of Health Sciences, Dharan, Nepal, <sup>2</sup>Damauli Hospital, Vyas, Nepal, <sup>3</sup>Sankebite Treatment Center, Damak, Damak, Nepal

#### 7644

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

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

## 8166

#### EVALUATION OF THE BIOLOGICAL ACTIVITY OF CHEMICAL CONSTITUENTS FROM THE STEMBARK OF *KIGELIA AFRICANA*, A CAMEROONIAN MEDICINAL PLANT, AGAINST *ONCHOCERCA OCHENGI* PARASITES

Ghansenyuy Salome Yuwong<sup>1</sup>, Yemback Piere<sup>1</sup>, Eyong Kenneth Oben<sup>1</sup>, Gabriel Ngosong Folefoc<sup>1</sup>, Fidelis Cho Ngwa<sup>2</sup>

<sup>1</sup>University of Yaounde 1, Yaounde, Cameroon, <sup>2</sup>University of Buea, Buea, Cameroon

#### 8318

#### MORPHOLOGICAL AND MOLECULAR IDENTIFICATION OF *B. MALAYI* AND OTHER FILARIAL SPECIES IN ANIMALS FROM BELITUNG, INDONESIA: IMPLICATIONS FOR LYMPHATIC FILARIASIS ELIMINATION

Irina Diekmann<sup>1</sup>, Kerstin Fischer<sup>1</sup>, Taniawati Supali<sup>2</sup>, Peter Fischer<sup>1</sup> <sup>1</sup>Infectious Diseases Division, Department of Medicine, Washington University School of Medicine, St. Louis, MO, United States, <sup>2</sup>Department of Parasitology, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia

#### 8366

#### PATHOGENESIS AND TRANSMISSION OF SEVERE FEVER WITH THROMBOCYTOPENIA SYNDROME VIRUS IN EXPERIMENTALLY INFECTED ANIMALS

Jeffrey M. Marano<sup>1</sup>, Angela Bosco-Lauth<sup>1</sup>, Airn E. Hartwig<sup>1</sup>, Stephanie M. Porter<sup>2</sup>, Nicole M. Nemeth<sup>3</sup>, Marissa Quilici<sup>1</sup>

<sup>1</sup>Colorado State, Fort Collins, CO, United States, <sup>2</sup>United Stated Department of Agriculture - Animal & Plant Health Inspection Service, Fort Collins, CO, United States, <sup>3</sup>University of Georgia, Athens, GA, United States

#### American Committee on Arthropod-Borne and Zoonotic Viruses (ACAV) SIE Subcommittee Meeting

Convention Center - Room 390 (3rd Floor) Wednesday, November 13, 11 a.m. - Noon

## ACCTMTH Clinical Research Award Session

Convention Center - Room 351 (3rd Floor) Wednesday, November 13, Noon - 2:30 p.m.

The ACCTMTH Clinical Research Award recognizes excellence in clinically-oriented research presented by a student (within six months of completing undergraduate or master's level training, including medical undergraduate degrees) or person in graduate medical training at the Annual Meeting.

#### **CHAIR**

Obinna Nnaemeka Nnedu Ochsner Clinic Foundation, New Orleans, LA, United States

<u>JUDGE</u> Miguel Cabada University of Texas Medical Branch, Galveston, TX, United States

Kristina Krohn University of Minnesota, Minneapolis, MN, United States

Latha Rajan Tulane University, New Orleans, LA, United States

Bryan N. Tegomoh

University of Yaounde I Medical School, Cameroon, Yaounde, Cameroon

# Noon

#### THE CLINICO-EPIDEMIOLOGICAL EXPERIENCE OF AN MPOX OUTBREAK AT A LARGE HEALTHCARE SYSTEM IN LOUISIANA, USA.

6045

Mary Ellen Owings<sup>1</sup>, Latha Rajan<sup>1</sup>, Obinna Nnedu<sup>2</sup>

<sup>1</sup>Tulane University School of Public Health and Tropical Medicine, New Orleans, LA, United States, <sup>2</sup>Ochsner Medical Center, Infectious Diseases Department, New Orleans, LA, United States

# 12:15 p.m.

#### 6289

ENHANCED IFN-Γ, BUT NOT IL-2, RESPONSE TO MYCOBACTERIUM TUBERCULOSIS ANTIGENS IN HIV/LATENT TB CO-INFECTED PATIENTS ON LONG-TERM HAART

**Dawit Gebreegziabiher Hagos** 

Mekelle University, college of health Sciences, Mekelle, Ethiopia

#### 12:30 p.m.

## 6436

#### MATURATION AND DIVERSIFICATION OF THE B AND T CELL RECEPTOR REPERTOIRES OVER 9 YEARS OF REPEATED MALARIA INFECTIONS

Helen George<sup>1</sup>, Heike Baum<sup>2</sup>, Stephan Lorenzen<sup>3</sup>, Aissata Ongoiba<sup>4</sup>, Safiatou Doumbo<sup>4</sup>, Didier Doumtabe<sup>4</sup>, Shanping Li<sup>5</sup>, Maren Sandkuhl<sup>6</sup>, Thomas Jacobs<sup>1</sup>, Kassoum Kayentao<sup>4</sup>, Boubacar Traore<sup>4</sup>, Peter D. Crompton<sup>7</sup>, Martin Davey<sup>8</sup>, Dániel Cadar<sup>2</sup>, Maria Mackroth<sup>6</sup>, Christine S. Hopp<sup>1</sup>

<sup>1</sup>Protozoa Immunology, Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, <sup>2</sup>Bernhard Nocht Institute for Tropical Medicine, National Reference Centre for Tropical Infectious Diseases, Hamburg, Germany, <sup>3</sup>Bioinformatics, Bernhard Nocht Institute, Hamburg, Germany, 4Malaria Research and Training Centre, Department of Epidemiology of Parasitic Diseases, International Center of Excellence in Research, University of Sciences, Technique and Technology of Bamako, Bamako, Mali, <sup>5</sup>Malaria Infection Biology and Immunity Section, Laboratory of Immunogenetics, NIAID, NIH, Rockville, MD, United States, <sup>6</sup>First Medical Department, Division of Infectious Diseases, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, <sup>7</sup>Malaria Infection Biology and Immunity Section, Laboratory of Immunogenetics, NIAID, NIH, Rockvielle, MD, United States, <sup>8</sup>Division of Biomedical Sciences, Warwick Medical School, University of Warwick, Coventry, United Kingdom

#### 12:45 p.m.

#### 6621

#### RESPIRATORY VIRUSES AND BACTERIA CARRIAGE AMONG PEOPLE LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS IN ACCRA, GHANA

Lawrencia Ami Emefa Ativi<sup>1</sup>, Mildred Adusei-Poku<sup>1</sup>, Beverly Egyir<sup>2</sup> <sup>1</sup>University of Ghana, ACCRA, Ghana, <sup>2</sup>Noguchi Memorial Institute for Medical Research, ACCRA, Ghana

#### 1 p.m.

#### 7082

#### TRENDS IN MORTALITY CAUSED BY VIRAL HEPATITIS IN THE UNITED STATES POPULATION: A RETROSPECTIVE CROSS-SECTIONAL STUDY USING THE CDC WONDER DATABASE.

Muhammad Sohaib Asghar<sup>1</sup>, **Abuoma C. Ekpendu**<sup>1</sup>, Mohammed Akram<sup>2</sup>, Rumael Jawed<sup>3</sup>, Pankajkumar Patel<sup>1</sup>, Chad K. Brands<sup>1</sup>

<sup>1</sup>Advent Health, Sebring, FL, United States, <sup>2</sup>HCA Aventura, Aventura, FL, United States, <sup>3</sup>Nazareth Hospital, Philadelphia, PA, United States

#### 1:15 p.m.

#### 7399

# EVALUATION OF NEUROCYSTICERCOSIS PRESENTATION AND MANAGEMENT IN HOUSTON, TEXAS

Theresa Sepulveda, Fernando H. Centeno, Jose A. Serpa-Alvarez, Jill Weatherhead, Eva H. Clark Baylor College of Medicine, Houston, TX, United States

Baylor College of Medicine, Houston, TX,

#### 1:30 p.m.

#### 7556

#### COINFECTION OF POWASSAN VIRUS AND BORRELIA BURGDORFERI IN A C3H MOUSE MODEL

Jessica Crooker, Dakota Paine, Saravanan Thangamani SUNY Upstate Medical University, Syracuse, NY, United States

#### 1:45 p.m.

# 8093

#### APPLICATION OF THE RAPID DIAGNOSTIC TEST BASED ON LOOP-MEDIATED ISOTHERMAL AMPLIFICATION (RLDT) FOR SHIGELLA AND ENTEROTOXIGENIC ESCHERICHIA COLI (ETEC) DETECTION IN CHILDHOOD DIARRHEA IN BURKINA FASO

Alimatou Héma<sup>1</sup>, Samuel S. Sermé<sup>1</sup>, Jean W. Sawadogo<sup>1</sup>, Amidou Diarra<sup>1</sup>, Amidou Z. Ouédraogo<sup>1</sup>, Issa Nébié<sup>1</sup>, Alfred B. Tiono<sup>1</sup>, Sophie Houard<sup>2</sup>, Subhra Chakraborty<sup>3</sup>, Alphonse Ouédraogo<sup>1</sup>, Sodiomon B. Sirima<sup>1</sup>

<sup>1</sup>Groupe de Recherche Action en Santé (GRAS), Ouagadougou, Burkina Faso, <sup>2</sup>European Vaccine Initiative (EVI), Heidelberg, Germany, <sup>3</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, Baltimore, WA, United States

## American Committee on Arthropod-Borne and Zoonotic Viruses (ACAV) SIRACA Subcommittee Meeting

Convention Center - Room 390 (3rd Floor) Wednesday, November 13, Noon - 2 p.m.

## Press Room

Convention Center - Room 340 (3rd Floor) Wednesday, November 13, Noon - 5 p.m.

#### **Speaker Ready Room**

Convention Center - Room 387 (3rd Floor) Wednesday, November 13, Noon - 6 p.m.

#### Point-of-Entry: First-Time Attendee Orientation

Convention Center - Room 383/384/385 (3rd Floor) Wednesday, November 13, 1 p.m. - 2 p.m.

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

#### 1 p.m.

# POINT-OF-ENTRY: FIRST-TIME ATTENDEE ORIENTATION Koya Allen

Booz Allen Hamilton, Baden-Wurttemberg, Germany

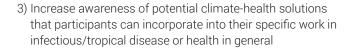
#### Workshop

Climate Fresk: Understanding the Physics, Causes and Consequences of Climate Change to Empower Action

Convention Center - Room 350 (3rd Floor) Wednesday, November 13, 2024, 1:00 pm - 4:00 pm

The ASTMH Committee on Global Health and Forecasting Healthy Futures present the second annual Climate Fresk workshop to encourage climate-informed practices and tools in global health work. The workshop will consist of a collaborative card game to learn the mechanisms of climate change and gain a holistic view of climate change, including the impacts on health. Participants will reflect on the lessons from the card game and collectively brainstorm solutions to address climate change's impacts on health. The objectives of this workshop are:

- Offer a collaborative learning experience for the ASTMH community to understand the science, causes, and consequences of climate change, based on the IPCC reports
- 2) Encourage participants to engage with climate change by identifying strategic linkages to their existing body of work



# Workshop

# Meet the Editors and Writing Workshop

## Convention Center - Room 391/392 (3rd Floor) Wednesday, November 13, 1 p.m. - 5 p.m.

The American Journal of Tropical Medicine and Hygiene (AJTMH) presents a writing workshop for early-career researchers and researchers from disease-endemic regions. The goal is to guide attendees through the scholarly publication process and provide best practices for manuscript writing. The session will address how to frame research, choose a journal, map out your paper, write an abstract, the mechanics of writing, how to properly respond to reviewer comments, and best practices for data sharing and Open Science. The panel includes Editors-in-Chief from top global-health journals who will participate in a Q&A at the end of the first part of the session. The second part of the session will include one-on-one analysis of pre-chosen abstracts with feedback and edits being shared with the group at-large.

#### <u>CHAIR</u>

Alison Jaeb, Managing Editor and Publisher American Journal of Tropical Medicine and Hygiene, Arlington, VA, United States

Kasturi Haldar, Professor University of Notre Dame, Notre Dame, IN, United States

#### 1 p.m. MEET THE EDITORS

Phillip J. Rosenthal, AJTMH Editor-in-Chief University of California San Francisco, San Francisco, CA, United States

Shaden Kamhawi, Editor-in-Chief, PLOS Neglected Tropical Diseases PLOS Neglected Tropical Diseases, Bethesda, MD, United States

Stephen Higgs, Editor-in-Chief, Vector-Borne & Zoonotic Diseases Kansas State University, Manhattan, KS, United States

Marco De Ambrogi, Deputy Editor The Lancet Infectious Diseases, London, United Kingdom

2:30 p.m. BREAK

**3 p.m.** ROUNDTABLES: ABSTRACT REVIEWS AND FEEDBACK

# American Committee on Arthropod-Borne and Zoonotic Viruses (ACAV) SALS Subcommittee Meeting

Convention Center - Room 390 (3rd Floor) Wednesday, November 13, 2 p.m. - 3:30 p.m.

#### Young Investigator Award Committee Meeting

Convention Center - Room 343/344 (3rd Floor) Wednesday, November 13, 2 p.m. - 3:30 p.m.

#### **Student Reception**

#### Hilton - River (Riverside Building) Wednesday, November 13, 2:30 p.m. - 3:30 p.m.

The ASTMH Board of Directors invites students, postdoctoral fellows and residents to the student reception. This reception is an opportunity to meet fellow trainees, network with colleagues and mentors and engage in conversation with Society leaders.

# ACCTMTH Clinical Research Award Committee Meeting

Convention Center - Room 351 (3rd Floor) Wednesday, November 13, 3 p.m. - 4 p.m.

## American Committee of Medical Entomology (ACME) Council Meeting

Convention Center - Room 397 (3rd Floor) Wednesday, November 13, 3:30 p.m. - 5:30 p.m.

## American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Council Meeting

Convention Center - Room 349 (3rd Floor) Wednesday, November 13, 3:30 p.m. - 5:30 p.m.

# American Committee on Arthropod-Borne and Zoonotic Viruses (ACAV) Council Meeting

Convention Center - Room 390 (3rd Floor) Wednesday, November 13, 3:30 p.m. - 5:30 p.m.

# ASTMH Committee on Global Health (ACGH) Council Meeting

Convention Center - Room 399 (3rd Floor) Wednesday, November 13, 3:30 p.m. - 5:30 p.m.

## Clinical Group (American Committee on Clinical Tropical Medicine and Travelers' Health - ACCTMTH) Council Meeting

Convention Center - Room 398 (3rd Floor) Wednesday, November 13, 3:30 p.m. - 5:30 p.m.

#### Young Investigator Award Reception

Convention Center - Room 346/347 (3rd Floor) Wednesday, November 13, 3:45 p.m. - 4:30 p.m.

Supported with funding from Pfizer

# LIVE Plenary Session 1

# Plenary Session I: Opening Session and Awards Program

Convention Center - Hall I-2 (1st Floor) Wednesday, November 13, 5:30 p.m. - 7 p.m.

#### THIS SESSION DOES NOT CARRY CME CREDIT.

CHAIR Linnie Golightly Weill Cornell Medical College, New York, NY, United States

# 5:30 p.m. SCIENTIFIC PROGRAM CHAIR WELCOMING REMARKS

David Hamer Boston University, Boston, MA, United States

#### 5:45 p.m. KEYNOTE ADDRESS



# Monique Wasunna, MD, PhD

Africa Ambassador Drugs for Neglected Diseases *initiative* Nairobi, Kenya

Dr. Monique Wasunna is the Drugs for Neglected Diseases *initiative's* (DND*i*) Africa Ambassador. In this role, she engages African policy leaders and other stakeholders to support their ambitions of advancing universal health coverage, treatment access and eliminating neglected diseases though R&D collaborations that deliver new treatments for the most vulnerable patients. Previously, she served as the Regional Director of DNDi Eastern Africa. She is a founding chair and member of the Leishmaniasis East Africa Platform, which promotes clinical research and strengthens research capacity for leishmaniasis in the region.

Dr. Wasunna was the Chief Research Officer and Assistant Director of Research at the Kenya Medical Research Institute (KEMRI). She has served as the Director, Centre for Clinical Research, KEMRI, and subsequently served as the Acting Director KEMRI. She was a member of the International Bioethics Committee of UNESCO, Kenya National Bioethics Committee, the Kenyatta National Hospital and University of Nairobi Scientific and Research Ethics committee, and currently a member of the Expert Committee of Clinical Trials of the Pharmacy and Poisons Board, Kenya.

Dr. Wasunna is a physician and an infectious disease and tropical medicine specialist. She holds a Bachelor of Medicine and Bachelor of Surgery degree from the University of Nairobi as well as an MSc and PhD from the London School of Hygiene & Tropical Medicine. She also holds a diploma in Tropical Medicine and Hygiene from the Royal College of Physicians of London. Dr. Wasunna is a Fellow of both the Royal Society of Tropical Medicine and the Eastern, Central, and Southern Africa College of Physicians. Dr. Wasunna has been recognized for her contributions to neglected disease research. She is the recipient of the Distinguished Neglected Tropical Diseases Researcher award from the Kenyan Ministry of Health and the National Order of Merit (Officier de l'ordre national du mérite) from the French government. Additionally, she has been honored with a Collaboration and Partnership award from the Kenya Medical Research Institute and was named a Mycetoma Ambassador. Dr. Wasunna has been a researcher and a principal investigator in visceral leishmaniasis, malaria, and HIV studies. Her contributions are well-documented in peer-reviewed journals.

#### 6:05 p.m. AWARDS PROGRAM

Presiding Officer. Linnie Golightly Weill Cornell Medical College, New York, NY, United States

Mwele Malecela Mentorship Programme for Women in Neglected Tropical Diseases

**Recognition of ASTMH/BMGF Annual Meeting Travel Awards** 

**Recognition of Young Investigator Awards** 

# Recognition of ACCTMTH (Clinical Group) Clinical Research Award

# Burroughs Wellcome Fund - ASTMH Postdoctoral Fellowship in Tropical Infectious Diseases

Emily Evans Emory University, United States

Jesse Ross Columbia University Medical Center, United States

Sahal Thahir University of North Carolina at Chapel Hill, United States

#### **Donald Krogstad Award for Early-Career Malian Scientists**

Nouhoum Diallo MRTC/USTTB

# Recognition of 2024 Fellows of ASTMH (FASTMH)

Hoseah Miima Akala Kenya Medical Research Institute/ Walter Reed Army Institute of Research – Africa, Kenya

Matthew Aliota University of Minnesota-Twin Cities, United States

Lyric Bartholomay University of Wisconsin-Madison, United States

May Chu Colorado School of Public Health, United States

Maria Diuk-Wasser Columbia University, United States Linnie Golightly *Weill Cornell Medical Center, United States* 

Karen A. Goraleski ASTMH CEO Emeritus, United States

Kasturi Haldar University of Notre Dame, United States

Eric Halsey Centers for Disease Control and Prevention, United States

Manuel Llinás The Pennsylvania State University, United States

Kristy Murray Emory University, United States

Kyle Petersen Uniformed Services University of the Health Sciences, United States

Dylan Pillai University of Calgary, Canada

Bobbi Pritt Mayo Clinic, United States

David Saunders Uniformed Services University of the Health Sciences, United States

Maggy Sikulu-Lord The University of Queensland, Australia

Sharon Tennant University of Maryland School of Medicine, United States

# Recognition of ASTMH Distinguished International Fellows (FASTMH)

Kwaku Poku Asante Kintampo Health Research Institute, Ghana

Mauricio Barreto FIOCRUZ/Federal University of Bahia, Brazil

Christopher Drakeley London School of Hygiene and Tropical Medicine, United Kingdom

Fyezah Jehan Aga Khan University, Pakistan

Claudio Lanata Institute Investigacion Nutricional, Peru

Joel Tarning Mahidol Oxford Tropical Medicine Research Institute, Thailand

Antoinette Tshefu Kitoto Kinshasa School of Public Health, Democratic Republic of Congo

Monique Wasunna Drugs for Neglected Diseases Initiative (DNDi), Kenya

Alan J. Magill Fellow Punam Amratia Ifakara Health Institute

# **Subgroup Medals and Awards**

Harry Hoogstraal Medal (ACME) Marcelo Jacobs-Lorena Johns Hopkins University, United States

**William Trager Award for Basic Parasitology (ACMCIP)** Sebastian Lourido *MIT and the Whitehead Institute for Biomedical Reseach, United States* 

#### Martin Wolfe Mentoring Award (ACCTMTH)

Thomas Nutman National Institutes of Health, United States

#### Scherer Hardy (ACAV)

Jean-Paul Carrera Gorgas Memorial Institute of Health Studies, Panama

# **Society-Level Medals and Awards**

Presented by Laila Woc-Colburn and Jamie Bay Nishi, ASTMH Communications Award Co-Chairs

Communications Award A spiking fever. Long neglected, Lassa fever is surging in West Africa. Researchers want to know why By Leslie Roberts February 22, 2024 Science

#### Bailey K. Ashford Medal

Andrew S. Azman Johns Hopkins Bloomberg School of Public Health, United States

Jonathan Juliano University of North Carolina at Chapel Hill, United States

#### **Clara Southmayd Ludlow Medal**

Firdausi Qadri icddr,b, Bangladesh

#### Joseph Augustin LePrince Medal

Didier Menard Institut Pasteur, France

## Walter Reed Medal

Stephen L. Hoffman Sanaria Inc., United States

#### **Opening Reception**

Convention Center - Hall J (1st Floor) Wednesday, November 13, 7 p.m. - 9:30 p.m.

# **Exhibit Hall Open**

Convention Center - Hall J (1st Floor) Wednesday, November 13, 7 p.m. - 9:30 p.m.

# **Thursday, November 14**

# Registration

*Convention Center - Lobby I (1st Floor)* **Thursday, November 14, 7 a.m. - 5 p.m.** 

## Speaker Ready Room (Closed 11 a.m. - Noon)

Convention Center - Room 387 (3rd Floor) Thursday, November 14, 7 a.m. - 6 p.m.

## TropStop -Student/Trainee Lounge

Convention Center - Room 346/347 (3rd Floor) Thursday, November 14, 7 a.m. - 5 p.m.

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

# Meeting Sign-Up Room

Hilton – Norwich Room and Windsor Room (3rd Floor) Thursday, November 14, 7 a.m. - 7 p.m.

#### **Nursing Mothers Room**

Convention Center – Office I120 and Office J121 (1st Floor) Thursday, November 14, 7 a.m. - 7 p.m.

#### **Prayer Room**

Convention Center - Room 342 (3rd Floor) Thursday, November 14, 7 a.m. - 7 p.m.

#### AJTMH Editorial Board Meeting

Hilton - Marlborough B (2nd Floor) Thursday, November 14, 7 a.m. - 8 a.m.

#### **Centennial Travel Award Committee Meeting**

Hilton - Marlborough A (2nd Floor) Thursday, November 14, 7 a.m. - 8 a.m.

#### **Diploma Course Directors Meeting**

Hilton - Ascot (3rd Floor) Thursday, November 14, 7 a.m. - 8 a.m.

#### **International Membership Committee Meeting**

Hilton – Churchill A1 (2nd Floor) Thursday, November 14, 7 a.m. - 8 a.m.

## Press Room

Convention Center - Room 340 (3rd Floor) Thursday, November 14, 7:45 a.m. - 5 p.m.

# LIVE Symposium 2

## Can We Expect Triple/Multiple Artemisinin-Based Combination Therapies for Malaria in the Near Future?

Convention Center - Hall I-2 (1st Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

Recent reports of artemisinin resistance in African countries necessitate urgent action to prevent further emergence and/or spread of artemisinin resistance in Africa. Artemether-lumefantrine (AL) is the most widely used ACT, accounting for >70% of ACT use. Recent reports of decreased in vitro susceptibility to lumefantrine and increased reports of travelers presenting with AL treatment failures is additionally worrisome. New antimalarial drugs may not come to the market within the next 5 years and one of the leading candidates, ganaplacide, is currently combined with lumefantrine. Preventing lumefantrine resistance is crucial. Triple or multidrug ACTs (TACTs or MDACTs), combining artemisinin with two or more currently available drugs, could be one of the last remaining safe and effective treatments for malaria that can be deployed rapidly. The Tracking Resistance to Artemisinin Collaboration II (TRACII) trial enrolled 1100 patients, mainly adults from Southeast Asia, and provided the first clinical proof of concept of TACTs. Mathematical modeling efforts have shown the advantage of deploying TACTs to prevent or delay resistance. The Development of Triple Artemisinin-based Combination Therapies (DeTACT project), the ArteSunate-Amodiaguine-Atovaguone-Proguanil (ASAAP) consortium and the Multi-drug combination therapies to prevent Malaria drug resistance (MULTIMAL) consortium have been working TACTs and MDACTs to be primarily deployed in pediatric populations in African countries. The DeTACT project takes a holistic approach to provide multi-faceted evidence needed for deployment of TACTs. These range from safety, tolerability and efficacy of TACTs, modeling future benefits of TACTs, stakeholder perception on acceptability and market positioning of TACTs. The DeTACT clinical trial is complete and final results on safety, tolerability and efficacy of AL+amodiaguine (AL+AQ) and artesunate-mefloguine+piperaguine from eight African countries will be presented. The safety, tolerability and efficacy of AL+AQ in Cambodia, where >90% of parasites are artemisinin-resistant will be presented. The development, clinical trial plan, market readiness and deployment plan of the fixed-dose combination (FDC) of a TACT comprising artemether-lumefantrine-amodiaguine (FDC ALAQ) will be presented. The ASAAP consortium's evaluation of clinical efficacy and transmission blocking potential of AL+atovaquone-proguanil in five African countries will be presented. The MULTIMAL consortium's final results on clinical efficacy, safety/tolerability and pharmacokinetics of an age-deescalation trial of artesunate-pyronaridine+atovaguoneproguanil and artesunate-fosmidomycin-clindamycin against

astmh.org ajtmh.org #TropMed24

n You

standard artesunate-pyronaridine therapy in two African countries will be presented. #ClinicalResearch #Resistance #Therapeutics #InfectiousDisease

#### <u>CHAIR</u>

Arjen M. Dondorp Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Quique Bassat Barcelona Institute for Global Health (ISGlobal), Barcelona, Spain

#### 8 a.m. INTRODUCTION

#### 8:10 a.m.

THE SAFETY, TOLERABILITY AND EFFICACY OF ARTEMETHER-LUMEFANTRINE+AMODIAQUINE AND ARTESUNATE+MEFLOQ UINE+PIPERAQUINE AGAINST UNCOMPLICATED MALARIA IN EIGHT AFRICAN COUNTRIES

Mehul J. Dhorda Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand

#### 8:25 a.m.

#### ARTEMETHER-LUMEFANTRINE+AMODIAQUINE PROTECTS AGAINST MULTI-DRUG RESISTANT MALARIA IN CAMBODIA

Chanaki Amaratunga Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand

#### 8:40 a.m.

#### DEVELOPMENT, TESTING AND DEPLOYMENT PLANS OF A FIXED-DOSE COMBINATION OF ARTEMETHER-LUMEFANTRINE-AMODIAQUINE FOR UNCOMPLICATED MALARIA

**MIchelle Xiong** 

Shanghai Fosun Pharmaceutical Industrial Development Co. Ltd,, Shanghai, China

#### 8:55 a.m.

#### PHASE II EVALUATION OF ARTESUNATE-PYRONARIDINE+ ATOVAQUONE-PROGUANIL AND ARTESUNATE+ FOSMIDOMYCIN+CLINDAMYCIN FOR THE TREATMENT OF UNCOMPLICATED MALARIA

Michael Ramharter Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany

#### 9:15 a.m.

#### THE SAFETY, EFFICACY AND TRANSMISSION BLOCKING EFFECT OF ARTEMETHER-LUMEFANTRINE +ATOVAQUONE-PROGUANIL FOR UNCOMPLICATED MALARIA

Oumou Maiga Ascofaré Kumasi Centre for Collaborative Research in Tropical Medicine, Kumasi, Ghana

#### 9:35 a.m.

# ARTEMISININ PARTIAL RESISTANCE IN UGANDAN CHILDREN WITH COMPLICATED MALARIA

Ruth Namazzi Makerere University, Kampala, Uganda



#### What's New in Clinical Tropical Medicine Literature?

Convention Center - Room 343/344 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

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 Tuberculosis, Malaria, Scrub Typhus and Leishmaniasis. #InfectiousDisease #ClinicalResearch #Epidemiology

#### <u>CHAIR</u>

Ivan A. Gonzalez

University of Miami, Miami, FL, United States

#### Lin H. Chen

Mount Auburn Hospital and Harvard Medical School, Cambridge, MA, United States

#### 8 a.m. INTRODUCTION

# 8:10 a.m.

# WHAT'S NEW IN THE LITERATURE: LEISHMANIASIS?

Naomi E. Aronson Uniformed Services University of the Health Sciences, Bethesda, MD, United States

# 8:35 a.m.

#### WHAT'S NEW IN THE LITERATURE: SCRUB TYPHUS?

Priscilla Rupali Christian Medical College Vellore, Vellore, India

#### 9 a.m.

# WHAT'S NEW IN THE LITERATURE: TUBERCULOSIS?

German Henostroza University Of Alabama At Birmingham, Birmingham, AL, United States

#### 9:25 a.m.

#### WHAT'S NEW IN THE LITERATURE: MALARIA?

Sapha Barkati McGill University Health Centre, Montreal, QC, Canada

# **Scientific Session 4**

#### Kinetoplastida and Other Opportunistic and Anaerobic Protozoa: Diagnosis and New Detection Tools

Convention Center - Room 345 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

This session does not carry CME credit.

#### #Diagnostics #TranslationalScience #InfectiousDisease

#### **CHAIR**

Thalia Pacheco-Fernandez Food and Drug Administration, Silver Spring, MD, United States

Camila I. De Oliveira FIOCRUZ, Salvador, Brazil

# 8 a.m.

#### 6000

# HIGHLY SENSITIVE TARGETS FOR DIAGNOSIS AND SPECIATION OF HUMAN LEISHMANIASIS

Nicholas Ray Duncan<sup>1</sup>, Elise O'Connell<sup>1</sup>, Janitzio Guzmán<sup>1</sup>, Joshua R. Lacsina<sup>2</sup>, Thalia Pacheco-Fernandez<sup>3</sup>, Sreenivas Gannavaram<sup>3</sup>, Andrea Paun<sup>1</sup>, Thomas Nutman<sup>1</sup>, Sasisekhar Sasisekhar Bennuru<sup>1</sup>

<sup>1</sup>Laboratory of Parasitic Diseases, NIAID, National Institutes of Health, Bethesda, MD, United States, <sup>2</sup>Laboratory of Malaria & Vector Research, NIAID, National Institutes of Health, Bethesda, MD, United States, <sup>3</sup>Center for Biologics Evaluation and Research, FDA, Silver Spring, MD, United States

8:15 a.m.

#### 6001

#### THE ROLE OF LIPIDS AS POTENTIAL BIOMARKERS OF DISEASE PROGRESSION AND THERAPEUTIC RESPONSE IN PATIENTS WITH CHRONIC *T. CRUZI* INFECTION

Juan C. Gabaldón-Figueira<sup>1</sup>, Albert Ros-Lucas<sup>1</sup>, Nieves Martínez-Peinado<sup>1</sup>, Gavin Blackburn<sup>2</sup>, Irene Losada-Galván<sup>1</sup>, Elizabeth Posada<sup>1</sup>, Cristina Ballart<sup>3</sup>, Elisa Escabia<sup>1</sup>, Jordi Capellades<sup>4</sup>, Oscar Yanes<sup>4</sup>, Maria J. Pinazo<sup>5</sup>, Joaquim Gascón<sup>1</sup>, Julio Alonso-Padilla<sup>1</sup>

<sup>1</sup>Barcelona Institute for Global Health, Barcelona, Spain, <sup>2</sup>Glasgow Polyomics, Glasgow, United Kingdom, <sup>3</sup>Universitat de Barcelona, Barcelona, Spain, <sup>4</sup>Universitat Rovira i Virgili, Tarragona, Spain, <sup>5</sup>Drugs for Neglected Diseases Initiative (DNDi), Rio de Janeiro, Brazil

#### 8:30 a.m.

#### 6002

# DEVELOPMENT OF A CRISPR-LAMP BASED BIOSENSOR WITH A LATERAL FLOW READOUT FOR THE DETECTION OF CUTANEOUS LEISHMANIASIS

Laud Anthony Wihibeturo Basing<sup>1</sup>, Belinda O. Antwi<sup>1</sup>, Anthony Y. Dziworshie<sup>1</sup>, Francisca Adomako<sup>2</sup>, Christabel Aning Boateng<sup>3</sup>, Yaw Adu-Sarkodie<sup>4</sup>

<sup>1</sup>Department of Medical Diagnostics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, <sup>2</sup>R&D Department, Incas Diagnostics, Kumasi, Ghana, <sup>3</sup>School of Medicine and Dentistry, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, <sup>4</sup>Department of Clinical Microbiology, School of Medicine and Dentistry, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

8:45 a.m.

#### 6003

#### DEVELOPMENT AND CLINICAL VALIDATION OF LEISHID, A LAMP-BASED SPECIES-SPECIFIC *LEISHMANIA* DETECTION TOOL FOR THE MOLECULAR DIAGNOSIS OF LEISHMANIASES

Alessandra Mara de Sousa<sup>1</sup>, Raphael França Oliveira<sup>1</sup>, Stephanie Megale Ferreira<sup>1</sup>, Ellen Gonçalves de Oliveira<sup>1</sup>, Ana Caroline de Castro Nascimento Sousa<sup>2</sup>, Rafael Luiz da Silva Neves<sup>1</sup>, Eduardo Martinez<sup>3</sup>, Célia Maria Ferreira Gontijo<sup>1</sup>, Rodrigo Pedro Soares<sup>1</sup>, Vinicius Maracajá Coutinho<sup>3</sup>, Nilmar Silvio Moretti<sup>4</sup>, **Rubens Lima do Monte-Neto**<sup>1</sup> 'Instituto René Rachou - Fundação Oswaldo Cruz - IRR/Fiocruz Minas, Belo Horizonte, Brazil, <sup>2</sup>Laboratório de Biologia Molecular de Patógenos (LBMP) - Departamento de Microbiologia Imunologia e Parasitologia - Universidad e Federal de São Paulo - Unifesp, São Paulo, Brazil, <sup>3</sup>Integrative Bioinformatics, Universidad de Chile, Santiago, Chile, Santiago, Chile, <sup>4</sup>Department of Pathology and Microbiology, Faculty of Veterinary Medicine, Université de Montréal, Saint-Hyacinthe, QC, Canada

#### 9 a.m.

#### 6004

#### NEW STRATEGY FOR THE OPTIMIZATION OF TAQMAN QPCR FOR ENTAMOEBA HISTOLYTICA BY DROPLET DIGITAL PCR

**Akira Kawashima**<sup>1</sup>, Yanagawa Yasuaki<sup>2</sup>, Rieko Shimogawara<sup>3</sup>, Kenji Yagita<sup>4</sup>, Hiroyuki Gatanaga<sup>1</sup>, Koji Watanabe<sup>5</sup>

<sup>1</sup>AIDS Clinical Center, National Center for Global Health and Medicine, Tokyo, Japan, <sup>2</sup>Department of Microbiology and Immunology, Stanford University School of Medicine, Stardford, CA, United States, <sup>3</sup>Department of Parasitology, National Institute of Infectious Disease, Tokyo, Japan, <sup>4</sup>Department of Parasitology, National Institute of Infectious Diseases, Tokyo, Japan, <sup>5</sup>Division of Host Defense Mechanism, Tokai University School of Medicine, Kanagawa, Japan

#### 9:15 a.m.

#### 6005

#### CHARACTERIZATION OF THE LEISHMANIN SKIN TEST ANTIGEN AS A BIOMARKER OF VACCINE EFFICACY AND DISEASE SURVEILLANCE

Laura Klenow<sup>1</sup>, Ranadhir Dey<sup>1</sup>, Hannah Markle<sup>1</sup>, Nazli Azodi<sup>1</sup>, Lais Da Silva Pereira<sup>1</sup>, Thalia Pacheco-Fernandez<sup>1</sup>, Patrick Lypaczewski<sup>2</sup>, Greg Matlashewski<sup>2</sup>, Abhay Satoskar<sup>3</sup>, Sreenivas Gannavaram<sup>1</sup>, Hira Nakhasi<sup>1</sup>

<sup>1</sup>FDA, Silver Spring, MD, United States, <sup>2</sup>McGill University, Montreal, QC, Canada, <sup>3</sup>Ohio State University, Columbus, OH, United States

#### 9:30 a.m.

#### 6006

#### VISCERAL LEISHMANIASIS DIAGNOSIS WITH DIGITAL MICROSCOPY AND EDGE-AI MODELS

Lin Lin<sup>1</sup>, Ramón Vallés-López<sup>2</sup>, Daniel Cuadrado<sup>2</sup>, David Bermejo-Peláez<sup>2</sup>, Alexander Vladimirov<sup>2</sup>, Maria Postigo<sup>2</sup>, Fabiana Alves<sup>3</sup>, Eleni Ayele<sup>4</sup>, Arega Yeshanew<sup>5</sup>, Miguel Luengo-Oroz<sup>2</sup>, Israel Cruz<sup>6</sup>, Elena Dacal<sup>2</sup>

<sup>1</sup>Spotlab, Madrid & Spain Biomedical Image Technologies, ETSI Telecomunicación, Universidad Politécnica de Madrid, Madrid, Spain & CIBER de Bioingeniería, Biomateriales y Nanomedicina, Madrid, Spain, <sup>2</sup>Spotlab, Madrid, Spain, <sup>8</sup>Drugs for Neglected Diseases initiative, Geneva, Switzerland, <sup>4</sup>University of Gondar Department of Internal Medicine, Gondar, Ethiopia, <sup>8</sup>University of Gondar Department of Internal Medicine. Leishmaniasis Research Treatment Center, Gondar, Ethiopia, <sup>6</sup>National School of Public Health, CIBERINFEC, Instituto de Salud Carlos III, Madrid, Spain

# Symposium 5

## American Committee of Medical Entomology (ACME) Symposium I: Animal-Targeted One Health Interventions to Protect Humans from Vector-Borne Diseases

Convention Center - Room 352 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

Vector-borne diseases continue to emerge worldwide, with new options needed for management of vectors and pathogens in nature. Wild and domestic animals serve as reservoirs for zoonotic pathogens and hosts for blood feeding arthropod vectors. There is increasing attention to various ways in which the animal hosts can be targeted with management approaches to reduce human disease risk. The goals of animal targeted interventions are typically to (i) reduce the number of animal hosts; (ii) reduce the infection prevalence in animal hosts; and/or (iii) reduce vector densities by creating toxic animal blood meals. Approaches include culling of wildlife; treating of domestic or wild animals with insecticides; vaccination of domestic or wild animals and more. This symposium will feature research programs aimed at developing or evaluating animal-targeted interventions to reduce human risk of vector-borne diseases. Speakers will feature diverse vector-borne disease systems for which innovative public health solutions are needed. Presented works will focus on managing dogs, wild birds, livestock and deer in order to reduce risk of sand fly, mosquito, and tick-borne disease. Our speakers include those with backgrounds in human medicine, veterinary medicine, medical entomology and ecology, and together will feature key elements of animal-targeted 'One Health' solutions for vectorborne disease. #EcologicalStudies #Epidemiology #FieldStudies #InfectiousDisease #Prevention

#### <u>CHAIR</u>

Sarah A. Hamer Texas A&M University, College Station, TX, United States

Adriana Troyo Universidad de Costa Rica, San Jose, Costa Rica

8 a.m. INTRODUCTION

astmh.org ajtmh.org #TropMed24



#### 8:10 a.m.

#### TREATING WILD BIRDS WITH IVERMECTIN THROUGH BACKYARD BIRD FEEDERS TO REDUCE WEST NILE VIRUS TRANSMISSION RISK IN COLORADO

Brian Foy Colorado State University, Fort Collins, CO, United States

#### 8:25 a.m.

# DEVELOPING A PROTOCOL TO TREAT DEER TO REDUCE HUMAN EXPOSURE TO INFECTED TICKS

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

#### 8:45 a.m.

#### VETERINARY ENDECTOCIDES FOR MALARIA CONTROL AND ELIMINATION: PROSPECTS AND CHALLENGE

Carlos Chaccour ISGlobal Barcelona Institute for Global Health, Barcelona, Spain

#### 9:05 a.m.

#### ONE HEALTH ARBOVIRUS SURVEILLANCE IN AFRICA CAN INFORM PROSPECTS FOR TARGETED INTERVENTIONS TO PROTECT HUMANS

Rosemary Sang

International Center of Insect Physiology and Ecology (ICIPE) Kenya and Arbovirology/VHF Unit, Medical Research Institute (KEMRI), Kenya, Nairobi, Kenya

#### 9:25 a.m.

# WAYS TO USE IMMUNOLOGY TO COMBAT *LEISHMANIA* AND CANINE INFECTIOUSNESS TO SAND FLIES

Max Waugh Ohio State University, Columbus, OH, United States

# Symposium 6

# Back to Basics: The Essential Role of Basic Sciences in Clinical Tropical Medicine and Public Health

Convention Center - Room 353 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

There is a critical need for better integration between clinical and basic sciences to accomplish de-siloing of science and to better prepare clinicians and scientists to communicate the science behind and impact of both pharmaceutical and nonpharmaceutical interventions. Amidst the pandemic, it became increasingly clear that communication among basic and clinical scientists, as well as with patients, clients, decision-makers, and the public at-large must be improved. We must contextualize the role of basic and clinical science from hypothesis to improved outcomes in order to increase the efficacy and adoption of medical and public health interventions. The "soup-to-nuts" framework describes the scientific pipeline from the clinical problem ("what") to the basic investigations to understand the significance of the problem ("why") and to identify the mechanism(s) underlying the problem that lead to translational outcomes ("how"), and finally engagement with the public to increase trust in and adoption of medical and public health interventions ("impact"). While each talk will focus on a particular aspect of this framework, every talk will tell the full story of their scientific problem to cover the whatwhy-how-impact pipeline. The ultimate goal is to show - across

our stories and perspectives – how basic and clinical science are interdependent and must be integrated to effectively tackle problems in tropical medicine. The panel discussion will include a reverse Q&A to hear ASTMH community perspectives. #CellBiology #Genetics #Genomics #Immunology #InfectiousDisease

#### <u>CHAIR</u>

John H. Adams University of South Florida, Tampa, FL, United States

Mahalia Desruisseaux Yale University School of Medicine, New Haven, CT, United States

#### 8 a.m. INTRODUCTION

#### 8:10 a.m. FRAMING THE PIPELINE

John H. Adams University of South Florida, Tampa, FL, United States

#### 8:15 a.m. CYSTICERCOSIS IN PERU

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

#### 8:30 a.m.

#### IMMUNOPATHOGENESIS IN CUTANEOUS LEISHMANIASIS: FROM MICE TO HUMANS

Fernanda Novais The Ohio State University, Columbus, OH, United States

#### 8:45 a.m.

#### MONITORING PATHOGEN GENOMICS TO INFORM PUBLIC HEALTH POLICY

Shannon Takala Harrison University of Maryland, Baltimore, Baltimore, MD, United States

#### 9 a.m.

#### HOW CITIZEN SCIENCE ENGAGES THE PUBLIC - FOLLOWED BY OPEN DISCUSSION OF SPEAKERS AND AUDIENCE PARTICIPANTS

Saravanan Thangamani SUNY Upstate Medical University, Syracuse, United States

Mahalia S. Desruisseaux Yale University School of Medicine, New Haven, CT, United States

# Symposium 7

Preliminary Results from The Enterics for Global Health (EFGH) Shigella Surveillance Study- Preparing for Shigella Vaccine Trials in the Target Population of Young Children Living in Low and Middle-Income Countries

Convention Center - Room 354/355 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

In low- and middle-income countries, nearly one third of children experience at least one episode of *Shigella*-attributable diarrhea during their first 2 years of life. In addition to it being a leading cause of diarrhea, this enteric bacterium is also associated with linear growth faltering, a precursor to stunting. Stunting is a

# efficacy and lifelong morbidity. Currently, several promising Shigella vaccines are in development with a Phase 3 licensure trial on the 2-5 year horizon. Eventual Shigella vaccine trials will require a consortium of potential vaccine trial sites in settings with a high incidence of Shigella-attributed medically-attended diarrhea, high participant retention, and the laboratory capacity to confirm Shigella infection. The Enterics for Global Health (EFGH) Shigella surveillance study (ClinicalTrials.gov NCT06047821) employs cross-sectional and longitudinal study designs to establish updated incidence rates and document consequences of Shigella diarrhea within 7 country sites in Africa, Asia, and Latin America. Over a two-year period from 2022-2024, the EFGH study is enrolling 9,800 children (1,400 per country site) between 6-35 months with medically-attended diarrhea and following them for three months. Detailed clinical information including diarrhea severity indicators combined with microbiologic culture with antibiotic susceptibility testing and quantitative PCR, both with serotyping assays, will enable incidence rate calculations for sample size calculations utilizing various primary clinical and microbiologic endpoint definitions in eventual vaccine trials. Follow-up, including anthropometric measurements and diarrhea duration and recurrence ascertainment as well as costing information will provide critical data to the value proposition of a Shigella vaccine. Through this multi-country surveillance network, select EFGH sites will be ready to quickly implement rigorous and efficient vaccine trials and provide critical data to policy makers about the relative importance of this vaccine-preventable disease, accelerating the time to vaccine availability and uptake among children in high Shigella burden settings. In this symposium, comprised of short oral presentations and a panel discussion, we will present interim results from the EFGH study. #ChildHealth #InfectiousDisease #MNCH

marker of vulnerability to childhood infection, decreased vaccine

<u>CHAIR</u>

Patricia Pavlinac University of Washington, Seattle, WA, United States

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

#### 8 a.m. INTRODUCTION

#### 8:10 a.m.

# ENTERICS FOR GLOBAL HEALTH (EFGH)- RATIONALE, STUDY DESIGN, AND GOVERNANCE STRUCTURE

Richard Omore Kenya Medical Research Institute, Kisumu, Kenya

#### 8:25 a.m.

#### SEROTYPE-SPECIFIC SHIGELLA INCIDENCE RATE BY TRADITIONAL CULTURE AND QUANTITATIVE PCR AND VARIOUS SEVERITY DEFINITIONS-IMPLICATIONS FOR POWERING VACCINE TRIALS

Jen Cornick Malawi Liverpool Wellcome Programme, Blantyre, Malawi

## 8:40 a.m.

# ANTIMICROBIAL RESISTANCE IN *SHIGELLA* AND IMPLICATIONS FOR THE FUTURE OF DIARRHEAL MANAGEMENT

Jane Juma

Center for Vaccine Development (CVD) -Mali, Bamako, Mali

## 8:55 a.m.

# ADDING TO THE VALUE PROPOSITION OF A SHIGELLA VACCINE: SHIGELLA CONSEQUENCES BEYOND DIARRHEA

Margaret Kosek

University of Virginia, Charlottesville, VA, United States

## 9:10 a.m.

## COST OF *SHIGELLA* DIARRHEA-IMPLICATIONS FOR GENERATING DEMAND FOR *SHIGELLA* VACCINES AND EVENTUAL COST EFFECTIVENESS CALCULATIONS

Jahangir Hossain Medical Research Council Unit The Gambia (MRCG), Fajara, Gambia

## 9:25 a.m.

#### CLINICAL PRESENTATION OF SHIGELLA AND OTHER DIARRHEA ETIOLOGIES AND RELEVANCE TO GLOBAL ETIOLOGY-SPECIFIC DIARRHEA ESTIMATES

Farah Qamar Aga Khan University, Karachi, Pakistan

## EDU-CATION Symposium 8

# ASTMH Committee on Global Health (ACGH) Symposium I: Strengthening Health System Resilience for Pandemic Preparedness and Response: A Multifaceted Approach

Convention Center - Room 356 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

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

The COVID-19 pandemic has highlighted the urgent need for resilient and equitable health systems that are able to better prepare and effectively respond to future pandemics. The proposed symposium aims to provide a forum for engaging discussions among global health scientists, pharmaceutical scientists, policymakers, and other key stakeholders to discuss the role of health system strengthening on pandemic preparedness, response, and resilience from various perspectives. The symposium will explore innovative strategies for investments in healthcare infrastructure, including therapeutics, diagnostics and vaccines needed for a resilient and adaptable healthcare infrastructure. Furthermore, the symposium will discuss the importance of a skilled and adaptable healthcare workforce and building mental resilience among healthcare professionals in the context of pandemic preparedness and response. In addition, we will discuss mechanisms for implementing robust data, surveillance and disease intelligence systems for data collection, analysis, and information sharing for early detection and monitoring of pandemics, leveraging statistical and mathematical modeling, artificial intelligence, and big data. The symposium will also emphasize research development and innovation, particularly in drug and vaccine development, diagnostics, and treatments. Global policy and governance in pandemic response

will be another critical topic, aiming at discussing existing global health governance models and whether they are fit for purpose in ensuring equitable pandemic preparedness. This will examine power balances and ethical resource allocation, ensuring universal access to health innovations, treatment, and preventive interventions. The symposium is set to be a call to action for global health efforts to strengthen health systems. Through sharing knowledge, the outputs of the symposium will contribute to the discourse on world's resilience and preparedness for future global health threats. The format of the symposium will involve a panel discussion with experts, guided by questions from a moderator and the audience. #Pandemic Preparedness #Health System Resilience #Global Health Governance #Healthcare Innovation

#### <u>CHAIR</u>

Yazoume Ye CESMEL Health, Bowie, MD, United States

Miguel Reina Ortiz Indiana University, Indianapolis, IN, United States

#### 8 a.m. INTRODUCTION

#### 8:10 a.m.

ROLE OF DOCTORAL-LEVEL LEADERSHIP DEVELOPMENT ON GLOBAL HEALTH AND GLOBAL HEALTH DIPLOMACY AS A TOOL FOR STRENGTHENING HEALTH SYSTEMS RESILIENCE FOR PANDEMIC PREPAREDNESS, MITIGATION, AND RESPONSE.

Miguel Reina Ortiz Indiana University, Indianapolis, IN, United States

#### 8:25 a.m.

# DISCUSS RESEARCH AND DEVELOPMENT - DRUG R&D '101' FOR VIRAL THREATS WITH PANDEMIC POTENTIAL

Nadine Jarrousse

Novartis Institutes for BioMedical Research, San Francisco, CA, United States

#### 8:40 a.m.

#### ENHANCING PANDEMIC PREPAREDNESS WITH ROBUST DATA SYSTEMS: INCORPORATING SURVEILLANCE AND DISEASE INTELLIGENCE WITH STATISTICAL AND MATHEMATICAL MODELING

Bobby Reiner

Institute for Health Metrics and Evaluation/Schools of Medicine at the University of Washington, Seattle, WA, United States

#### 8:55 a.m.

#### THE ROLE OF RESEARCH INSTITUTIONS IN STRENGTHENING HEALTH SYSTEMS FOR ENHANCED PANDEMIC PREPAREDNESS IN AFRICA

Catherine Kyobutungi APHRC, Nairobi, Kenya

9:10 a.m. ACGH ANNUAL BUSINESS MEETING

#### 9:25 a.m.

**NETWORKING RECEPTION** 

# Symposium 9

# Interrupting the Transmission of Soil Transmitted Helminths: Results and Implications of the DeWorm3 Trial

Convention Center - Room 357 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

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

The DeWorm3 Trial was a large multi-country hybrid community cluster randomized trial designed to evaluate the feasibility of interrupting the transmission of soil-transmitted helminths (STH) using sustained community-wide MDA. The study included approximately 300,000 individuals across population-based sites in Benin, India and Malawi. Each study area was divided into 40 clusters and clusters were randomized to communitywide or standard-of-care targeted MDA for three years. Two years following the final round of MDA, prevalence of STH was compared between arms and transmission interruption assessed in each cluster. To support this study, a high-throughput molecular diagnostics platform was built that included laboratories in Benin, India and the United States. The results of this comprehensive rigorous trial are now available. This symposium will provide an opportunity for the principal investigators of the DeWorm3 trial sites in Benin, India and Malawi to present a summary of the trial results (including implementation science objectives), the potential of programs to reach high coverage of community-wide MDA across multiple consecutive rounds, and to highlight the use of molecular diagnostics at scale to assess STH prevalence. In addition, there will be a panel discussion to discuss the scientific and programmatic implications of these important data. Key learning objectives for this session include; 1) To understand the baseline prevalence of STH across multiple geographies assessed using standardized microscopic and molecular diagnostics, 2) to understand pathways to achieve exceptionally high coverage of MDA within STH programs, 3) to review the results of the trial to determine the feasibility of interrupting STH transmission and to 4) to understand the potential utility of high quality molecular diagnostics to support existing and future STH program goals. #Elimination #Epidemiology #FieldStudies #InfectiousDisease #MNCH

#### <u>CHAIR</u>

Judd L. Walson

Johns Hopkins University, Baltimore, MD, United States

Sitara S. Ajjampur Christian Medical College and Hospital, Tamil Nadu, India

#### 8 a.m. INTRODUCTION

#### 8:10 a.m.

MOLECULAR TESTING TO ENHANCE STH PROGRAM DELIVERY Malathi Manuel Christian Medical College, Vellore, India

#### 8:20 a.m.

# ACHIEVING AND SUSTAINING HIGH COMMUNITY-WIDE MDA

Khumbo Kalua Blantyre Institute for Community Outreach, Blantyre, Malawi

#### 8:30 a.m.

## **DEWORM3 TRIAL RESULTS**

Kristjana Ásbjörnsdóttir University of Iceland, Reykjavik, Iceland

#### 8:45 a.m.

# IMPLEMENTATION SCIENCE METHODS TO ASSESS MDA

Euripide F. G. A. Avokpaho Institut de Recherche Clinique du Benin, Abomey-Calavi, Benin

#### 8:55 a.m.

CORRELATES OF COVERAGE AND IMPACT

Stefan Witek-McManus London School of Hygiene & Tropical Medicine, London, United Kingdom

# Scientific Session 10

## Viruses - Immunology

Convention Center - Room 383/384/385 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

#### #Immunology #InfectiousDisease

#### **CHAIR**

Rosemary A. Aogo National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD. United States

Laura Rivino University of Bristol, Bristol, United Kinadom

#### 8 a.m.

# 6007

#### DYNAMICS OF DENGUE VIRUS-REACTIVE B CELLS IN PEDIATRIC CASES FROM A HOSPITAL STUDY IN NICARAGUA

Tulika Singh<sup>1</sup>, Amir Balakhmet<sup>1</sup>, Rohan Shinkre<sup>1</sup>, Nharae Lee<sup>1</sup>, Aaron Graber<sup>1</sup>, Raul Zapata<sup>2</sup>, Walter Brenes<sup>2</sup>, Angel Balmaseda<sup>3</sup>, Eva Harris<sup>1</sup>

<sup>1</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>2</sup>Sustainable Sciences Institute, Managua, Nicaragua, <sup>3</sup>Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua

#### 8:15 a.m.

#### 6008

#### **ORDER MATTERS: DENV2-ZIKV AND ZIKV-DENV2 SEQUENTIAL** INFECTIONS DIFFERENTIALLY MODULATE THE MAGNITUDE AND BREADTH OF HOMOTYPIC AND DENV CROSS-REACTIVE ANTIBODY RESPONSES

Sandra Bos<sup>1</sup>, Elias Duarte<sup>1</sup>, Nharae Lee<sup>1</sup>, Jose Victor Zambrana<sup>2</sup>, Aaron Graber<sup>1</sup>, Angel Balmaseda<sup>3</sup>, Eva Harris<sup>1</sup>

<sup>1</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>2</sup>Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI, United States, 3Sustainable Sciences Institute, Managua, Nicaragua

#### 8:30 a.m.

## 6009

#### MECHANISTIC MODELING OF HOST-VIRAL INTERACTIONS TO ELUCIDATE IMMUNE MECHANISMS UNDERPINNING DISPARATE **RESPONSES TO DENGUE VIRUS INFECTION BY PRIOR** EXPOSURE HISTORY

Rosemary A. Aogo<sup>1</sup>, Kelsey E. Lowman<sup>1</sup>, Chloe M. Hasund<sup>1</sup>, Charlie Voirin<sup>1</sup>, Gitanjali Bhushan<sup>1</sup>, Patrick I. Mpingabo<sup>1</sup>, Saba Firdous<sup>1</sup>, Silvia Blanco-Rivera<sup>1</sup>, Melissa Law<sup>1</sup>, Daniela Weiskopf<sup>2</sup>, Viviane Callier<sup>3</sup>, Sally Hunsberger<sup>4</sup>, Robbie Kattappuram<sup>5</sup>, Jeffrey R. Strich<sup>6</sup>, Heather L. Teague<sup>6</sup>, Lauren Knabe<sup>6</sup>, Jeffery I. Cohen<sup>7</sup>, Anna Durbin<sup>8</sup>, Stephen S. Whitehead<sup>9</sup>, Camila D. Odio<sup>1</sup>, Leah C. Katzelnick<sup>1</sup>

<sup>1</sup>Viral Epidemiology and Immunity Unit, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, <sup>2</sup>Department of Medicine, Division of Infectious Diseases and Global Public Health, University of California San Diego (UCSD), La Jolla, CA, United States, <sup>3</sup>Clinical Monitoring Research Program Directorate, Frederick National Laboratory for Cancer Research, Bethesda, MD, United States, <sup>4</sup>Division of Clinical Research, Biostatistics Research Branch, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, 5Department of Pharmacy, NIH Clinical Center, National Institutes of Health, Bethesda, MD, United States, 6Critical Care Medicine Department, National Institutes of Health Clinical Center, Bethesda, MD, United States, <sup>7</sup>Medical Virology Section, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, <sup>8</sup>Johns Hopkins Bloomberg School of Public Health, Department of International Health, Baltimore, MD, United States, 9Arbovirus Vaccine Research Section, Laboratory of Viral Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

#### 8:45 a.m.

## 6010 IMMUNOLOGICAL FEATURES ASSOCIATED WITH SEVERE DENGUE IN CHILDREN AND YOUNG ADULTS WITH OBESITY AND

NORMAL WEIGHT Michaela Gregorova<sup>1</sup>, Marianna Santopaolo<sup>1</sup>, Divya Diamond<sup>1</sup>, Vi Tran Thuy<sup>2</sup>, Nguyet Nguyen Minh<sup>2</sup>, Vuong Nguyen Lam<sup>2</sup>, Hoa Vo Thi My<sup>2</sup>, Chanh Ho Quang<sup>2</sup>, Chau Nguyen Thi Xuan<sup>2</sup>, Tam Dong Thi Hoai<sup>2</sup>, Duyen Huynh Thi Le<sup>2</sup>, Tam Cao Thi<sup>3</sup>, Sophie

Yacoub<sup>2</sup>, Laura Rivino<sup>1</sup> <sup>1</sup>University of Bristol, Bristol, United Kingdom, <sup>2</sup>OUCRU, HCMC, Vietnam, <sup>3</sup>Hospital of Tropical Diseases, HCMC, Vietnam

#### 9 a.m.

#### 6011

NEW INSIGHTS INTO AN OLD VACCINE: HETEROLOGOUS FLAVIVIRUS INFECTION ENHANCES THE POTENCY AND **BREADTH OF 17D-ELICITED NEUTRALIZING ANTIBODIES** AGAINST A PANEL OF WILD-TYPE YELLOW FEVER VIRUSES

Felicity J. Coulter, Abram E. Estrda, Samantha R. Osman, Shuhua Luo, Courtney A. Micheletti, Peter D. Sullivan, Brian L. Booty, William B. Messer Oregon Health & Science University, Portland, OR, United States

# 9:15 a.m.

# 6012

#### PROTECTIVE VACCINATION OF NONHUMAN PRIMATES AGAINST AEROSOL EXPOSURE TO MARBURG VIRUS USING A VESICULAR STOMATITIS VIRUS-VECTORED VACCINE: IMPLICATIONS FOR MUCOSAL VACCINE STRATEGIES AND UNPREDICTABLE FILOVIRUS TRANSMISSION

Christopher L. Cooper<sup>1</sup>, Gavin Morrow<sup>1</sup>, Thomas Postler<sup>1</sup>, Yesle Choi<sup>1</sup>, Aaron Wilson<sup>1</sup>, Zhou Liu<sup>1</sup>, Karina Peregrina<sup>1</sup>, Fuxiang Hou<sup>1</sup>, Shui Li<sup>1</sup>, Suzane Ramos da Silva<sup>1</sup>, Denise Wagner<sup>1</sup>, Alexei Carpov<sup>1</sup>, Michal Gazi<sup>2</sup>, Yenny Goez-Gazi<sup>2</sup>, Kendra J. Alfson<sup>2</sup>, Ricardo Carrion<sup>2</sup>, Anne Ercolini<sup>1</sup>, Nina Malkevich<sup>3</sup>, Mark B. Feinberg<sup>3</sup>, Swati B. Gupta<sup>3</sup>, Christopher L Parks<sup>1</sup>

<sup>1</sup>Vaccine Design and Development Laboratory, The International AIDS Vaccine Initiative, Inc. (IAVI), Brooklyn, NY, United States, <sup>2</sup>Applied Science & Innovation, Texas Biomedical Research Institute, San Antonio, TX, United States, 3The International AIDS Vaccine Initiative, Inc. (IAVI), New York, NY, United States

# 9:30 a.m. Lightning Talks

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

#### 6253

#### ACCURACY OF PHYSICIANS' CLINICAL DIAGNOSIS OF DENGUE AMONG PATIENTS PRESENTING TO EMERGENCY ROOMS – PUERTO RICO, 2012-2022

Joshua M. Wong<sup>1</sup>, Zachary J. Madewell<sup>1</sup>, Alfonso Hernandez-Romieu<sup>2</sup>, Janice Perez-Padilla<sup>1</sup>, Liliana Sánchez-González<sup>1</sup>, Diego Sainz<sup>3</sup>, Jorge Bertran<sup>3</sup>, Jorge Munoz<sup>1</sup>, Vanessa Rivera-Amill<sup>4</sup>, Gabriela Paz-Bailey<sup>1</sup>, Laura E. Adams<sup>1</sup> <sup>1</sup>Centers for Disease Control, San Juan, PR, United States, <sup>2</sup>Centers for Disease Control,

Atlanta, GA, United States, <sup>3</sup>Auxilio Mutuo Hospital, San Juan, PR, United States, <sup>4</sup>Ponce Health Science University, Ponce, PR, United States

#### 7866

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

Nharae Lee<sup>1</sup>, Tulika Singh<sup>1</sup>, Rohan Shinkre<sup>1</sup>, Nethra Koushik<sup>1</sup>, Aaron Graber<sup>1</sup>, Elias Duarte<sup>1</sup>, Sandra Bos<sup>1</sup>, José Victor Zambrana<sup>2</sup>, Cesar Narvaez<sup>3</sup>, Sonia Arguello<sup>4</sup>, Federico Narvaez<sup>3</sup>, Angel Balmaseda<sup>5</sup>, Eva Harris<sup>1</sup>

<sup>1</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>2</sup>Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI, United States, <sup>3</sup>Hospital Infantil Manuel de Jesus Rivera, Managua, Nicaragua, <sup>4</sup>Sustainable Sciences Institute, Managua, Nicaragua, <sup>5</sup>Laboratorio Nacional de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua

#### 7869

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

Henry Nelson Puerta Guardo<sup>1</sup>, Manuel Alejandro Parra Cardeña<sup>1</sup>, Gloria Barrera Fuentes<sup>1</sup>, Oscar D. Kirstein<sup>2</sup>, Azael David Che Mendoza<sup>1</sup>, K. Jacqueline Ciau<sup>1</sup>, J. Kevin Yam<sup>1</sup>, Mathew Collins<sup>3</sup>, Daniel Espinoza<sup>3</sup>, Pablo Manrique Saide<sup>1</sup>, Norma Pavía Ruz<sup>1</sup>, Guadalupe Ayora Talavera<sup>1</sup>, Gonzalo Vazquez Prokopec<sup>4</sup>, James Earnest<sup>4</sup> <sup>1</sup>Universidad Autonoma de Yucatan, Merida, Mexico, <sup>2</sup>Dep. of Environmental Sciences, Emory University, Atlanta, GA, United States, <sup>4</sup>Department of Environmental Sciences, Emory University, Atlanta, GA, United States

#### 6294

#### DELETIONS IN THE 3' UNTRANSLATED REGION COMPROMISED TRANSLATION INITIATION TO ATTENUATE A DENGUE VIRUS 3 VACCINE STRAIN

Kiven Kumar, Esteban Finol, Hwee Cheng Tan, Wy Ching Ng, Eng Eong Ooi DUKE-NUS Medical School, Singapore, Singapore

#### 6295

#### CROSS-NEUTRALIZING ANTIBODY RESPONSES ELICITED BY THE CHIKUNGUNYA VACCINE VLA1553

Whitney C. Weber<sup>1</sup>, Zachary J. Streblow<sup>1</sup>, Craig N. Kreklywich<sup>1</sup>, Michael Denton<sup>1</sup>, Gauthami Sulgey<sup>1</sup>, Magdalene M. Streblow<sup>1</sup>, Dorca Marcano<sup>2</sup>, Paola N. Flores<sup>2</sup>, Rachel M. Rodriguez-Santiago<sup>2</sup>, Luisa Alvarado<sup>2</sup>, Vanessa Rivera-Amill<sup>2</sup>, William B. Messer<sup>3</sup>, Romana Hochreiter<sup>4</sup>, Karin Kosulin<sup>4</sup>, Katrin Dubischar<sup>4</sup>, Vera Bürger<sup>4</sup>, Daniel N. Streblow<sup>1</sup> <sup>1</sup>Oregon Health and Science University, Beaverton, OR, United States, <sup>2</sup>Ponce Health Sciences University, Ponce, Puerto Rico, <sup>3</sup>Oregon Health and Science University, Portland, OR, United States, <sup>4</sup>Valneva Austria GmbH, Vienna, Austria

# Scientific Session 11

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

Convention Center - Room 388/389 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

This session does not carry CME credit.

#### #FieldStudies #PopulationSurveillance

#### <u>CHAIR</u>

Heidi Goethert Tufts University School of Veterinary Medicine, North Grafton, MA, United States

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

8 a.m.

#### 6013

#### FIRST, DO NO HARM: FIELD EVALUATION OF AN INDEPENDENT RIFT VALLEY FEVER VACCINATION CAMPAIGN AND THE IMPACT ON PREGNANT LIVESTOCK IN A SEMI-PASTORAL AREA IN KENYA

Keli N. Gerken<sup>1</sup>, Abraham Rereu<sup>2</sup>, Fredrick Sururu<sup>3</sup>, Alice Kiyong'a<sup>4</sup>, Cynthia M. McMillen<sup>5</sup>, Amy L. Hartman<sup>6</sup>, Bernard Bett<sup>4</sup>, Andrew P. Stringer<sup>7</sup>, Matthew Baylis<sup>7</sup>, Eric M. Fèvre<sup>1</sup>

<sup>1</sup>International Livestock Research Institute, Nairobi, Kenya and Institute of Infection, Veterinary and Ecological Sciences, University of Liverpool, Liverpool, United Kingdom, Liverpool, United Kingdom, <sup>2</sup>Loitokitok Sub-County Department of Veterinary Services, Kajiado County, Kenya, Loitokitok, Kenya, <sup>3</sup>Loitokitok Sub-County Department of Veterinary Services, Kajiado County, Kenya, Liverpool, United Kingdom, <sup>4</sup>International Livestock Research Institute, Nairobi, Kenya, <sup>5</sup>ADepartment of Microbiology and Molecular Genetics, Center for Vaccine Research, University of Pittsburgh, Pittsburgh, PA, United States, <sup>6</sup>Department of Microbiology and Molecular Genetics, Center for Vaccine Research, University of Pittsburgh, Pittsburgh, Pittsburgh, Center for Vaccine Research, University of Pittsburgh, Pittsburgh, Pittsburgh, Center for Vaccine Research, University of Pittsburgh, Pittsburgh, PA, United States, <sup>7</sup>Institute of Infection, Veterinary and Ecological Sciences, University of Liverpool, Liverpool, United Kingdom, Liverpool, United Kingdom

## 8:15 a.m.

#### USING A ONE HEALTH APPROACH IN INVESTIGATING A CRIMEAN-CONGO HEMORRHAGIC FEVER OUTBREAK IN LYANTONDE DISTRICT, UGANDA 2024

Luke Nyakarahuka<sup>1</sup>, Sophia Mulei<sup>1</sup>, Joanita Mutesi<sup>1</sup>, Jimmy Baluku<sup>1</sup>, Alex Tumusiime<sup>1</sup>, Jackson Kyondo<sup>1</sup>, Calvin R. Torach<sup>1</sup>, Dianah Namanya<sup>1</sup>, Stephen K. Balinandi<sup>1</sup>, Trevor Shoemaker<sup>2</sup>, John Klena<sup>2</sup>, Joel Montgomery<sup>2</sup>, Julius Lutwama<sup>1</sup>

6014

<sup>1</sup>Uganda Virus Research Institute, Kampala, Uganda, <sup>2</sup>United States Centers for Disease Control and Prevention, Atlanta, GA, United States

#### 8:30 a.m.

#### 6015

#### AN EPIZOOTIC OF DEER TICK VIRUS ON MARTHA'S VINEYARD DUE TO AMPLIFICATION OF A SINGLE VIRAL GENOTYPE

Heidi Goethert<sup>1</sup>, Alanna O'Callahan<sup>1</sup>, Richard Johnson<sup>2</sup>, Sam Telford<sup>1</sup> <sup>1</sup>Tufts Cummings School of Veterinary Medicine, Grafton, MA, United States, <sup>2</sup>Martha's Vineyard Tick Initiative, Edgartown, MA, United States

#### 8:45 a.m.

#### 6016

GENOMIC SURVEILLANCE OF TICK AND MOSQUITO POOLS FROM GEORGIA (SOUTH CAUCASUS), SCREENED FOR VIRUSES ASSOCIATED WITH ACUTE FEBRILE ILLNESSES

Chanel A. Mosby-Tourtellot<sup>1</sup>, Quinn K. Thomas<sup>2</sup>, Adrian C. Paskey<sup>2</sup>, J. Alex Chitty<sup>2</sup>,

Andrea E. Luquette<sup>2</sup>, Maren C. Fitzpatrick<sup>2</sup>, Jennetta Green<sup>3</sup>, Maggie Bartlett<sup>4</sup>, Danielle Ali<sup>4</sup>, Malik Kadir<sup>4</sup>, Drew D. Reinbold-Wasson<sup>5</sup>, Tamar Chunashvili<sup>5</sup>, Giorgi Kirkitadze<sup>5</sup>, Anano Shubashishvili<sup>5</sup>, Gregory K. Rice<sup>2</sup>, Regina Z. Cer<sup>3</sup>, Francisco Malagon<sup>2</sup>, Darci R. Smith<sup>3</sup>, Kimberly A. Bishop-Lilly<sup>3</sup>

<sup>1</sup>Defense Threat Reduction Agency, Fort Belvoir, VA, United States, <sup>2</sup>Leidos, Reston, VA, United States, <sup>3</sup>Naval Medical Research Command, Fort Detrick, MD, United States, <sup>4</sup>Parsons Corporation, Centreville, VA, United States, <sup>5</sup>Walter Reed Army Institute of Research Europe – Middle East, Tbilisi, Georgia

#### 9 a.m.

#### 6017

# THE BAT BUSHMEAT TRADE AS AN INTERFACE FOR FILOVIRUS AND HENIPAVIRUS SPILLOVER IN THE REPUBLIC OF CONGO

McKenna Roe<sup>1</sup>, Eeva Kuisma<sup>2</sup>, Evrard Missamou<sup>2</sup>, Alain Ondzie<sup>2</sup>, Chastel Mapanguy<sup>3</sup>, Providence Sita<sup>3</sup>, Robert J Fischer<sup>4</sup>, Claude Kwe Yinda<sup>4</sup>, Morgane Cournarie<sup>2</sup>, Diane Detoeuf<sup>2</sup>, Francine Ntoumi<sup>3</sup>, Eric Laing<sup>1</sup>, Vincent J. Munster<sup>5</sup>, Sarah H. Olson<sup>2</sup> <sup>1</sup>Department of Microbiology and Immunology, Uniformed Services University, Bethesda, MD, United States, <sup>2</sup>Wildlife Conservation Society, New York, NY, United States, <sup>3</sup>Fondation Congolaise pour la Recherche Médicale (FCRM), Brazzaville, Republic of the Congo, <sup>4</sup>Laboratory of Virology, Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Hamilton, MT, United States, <sup>5</sup>Rocky Mountain Laboratories, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Hamilton, MT, United States

#### 9:15 a.m.

#### 6018

# NEXT-GENERATION SEQUENCING SURVEY OF ACUTE FEBRILE ILLNESS IN SENEGAL (2020-2022)

Gregory S. Orf<sup>1</sup>, Ambroise D. Ahouidi<sup>2</sup>, Maximillian Mata<sup>1</sup>, Cyrille Diedhiou<sup>2</sup>, Aminata Mboup<sup>2</sup>, Abdou Padane<sup>2</sup>, Noel Magloire Manga<sup>3</sup>, Agbogbenkou Tevi Dela-del Lawson<sup>4</sup>, Francisco Averhoff<sup>1</sup>, Michael G. Berg<sup>1</sup>, Gavin A. Cloherty<sup>1</sup>, Souleymane Mboup<sup>2</sup> <sup>1</sup>Abbott Laboratories, Abbott Park, IL, United States, <sup>2</sup>Institut de Recherche en Santé, de Surveillance Epidémiologique et de Formation, Dakar, Senegal, <sup>3</sup>Hôpital de la Paix, Ziguinchor, Senegal, <sup>4</sup>Hôpital Mame Abdou Aziz Sy Dabakh, Tivaouane, Senegal

#### 9:30 a.m.

#### 6019

#### INVESTIGATION OF YELLOW FEVER VIRUS, VECTOR AND HOST NETWORK IN THE METROPOLITAN REGION OF MINAS GERAIS, BRAZIL IN 2023, INDICATES THE CONTINUED CIRCULATION OF YELLOW FEVER VIRUS

Matheus Soares Arruda<sup>1</sup>, Daniel C. Jacob<sup>1</sup>, Mikaelly F. Testa<sup>1</sup>, Marcelle Alves de Oliveira<sup>1</sup>, Ana Maria Paschoal<sup>1</sup>, Gabriel Dias Moreira<sup>1</sup>, Anna Catarina D.S. Guimarães<sup>1</sup>, Natália Lima Pessoa<sup>1</sup>, Gabriela Fernanda Garcia Oliveira<sup>1</sup>, Thais Alkifeles Costa<sup>1</sup>, Samantha S F M Viegas<sup>1</sup>, Daniel A. Rocha Vilela<sup>2</sup>, Marina do Vale Beirão<sup>1</sup>, Kathy A. Hankey<sup>3</sup>, Nikos Vasilakis<sup>4</sup>, **Betânia Paiva Drumond**<sup>1</sup>

<sup>1</sup>Federal University of Minas Gerais, Belo Horizonte, Brazil, <sup>2</sup>IBAMA, Belo Horizonte, Brazil, <sup>3</sup>New Mexico State University, Las Cruces, NM, United States, <sup>4</sup>University of Texas -Medical Branch, Galveston, TX, United States

# **Scientific Session 12**

#### Malaria: Transmission Biology

Convention Center - Room 391/392 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

#### #Therapeutics #CellBiology #MolecularBiology #HostResponse #Genomics

#### **CHAIR**

Matthias Marti University of Zurich, Zurich, Switzerland

Priscilla Adjei-Kusi Centre for Collaborative Research in Tropical Medicine (KCCR), Kumasi, Ghana

#### 8 a.m.

#### 6020

#### DYNAMICS AND REGULATION OF SEXUAL COMMITMENT IN PLASMODIUM FALCIPARUM

Surendra K. Prajapati<sup>1</sup>, Jeffrey X. Dong<sup>1</sup>, Kim C. Williamson<sup>2</sup>

<sup>1</sup>Uniformed Services University of the Health Sciences and Henry M Jackson Foundation for the Advancement of Military Medicine, Inc., Bethesda, MD, United States, <sup>2</sup>Uniformed Services University of the Health Sciences, Bethesda, MD, United States

# 8:15 a.m.

SPECIALIZED SPOROZOITE-TYPE RIBOSOMES IN *PLASMODIUM* YOELII DRIVE INITIAL RAPID ASEXUAL BLOOD STAGE GROWTH AND SEXUAL DEVELOPMENT

6021

James P. McGee<sup>1</sup>, Sylvie Briquet<sup>2</sup>, Olivier Silvie<sup>2</sup>, Scott E. Lindner<sup>1</sup>

<sup>1</sup>Pennsylvania State University, University Park, PA, United States, <sup>2</sup>Centre d'Immunologie et des Maladies Infectieuses, INSERM, CNRS, CIMI-Paris, Sorbonne Universite, Paris, France

# 8:30 a.m.

# IDENTIFICATION OF NOVEL ANTI GAMETOCYTE TRANSMISSION BLOCKING VACCINE TARGETS

6022

Fiona Angrisano<sup>1</sup>, Hayley Bullen<sup>1</sup>, Amelia Ford<sup>2</sup>, Katarzyna Sala<sup>3</sup>, Andrew Blagborough<sup>2</sup> <sup>1</sup>Burnet Institute, Melbourne, Australia, <sup>2</sup>Cambridge University, Cambridge, United Kingdom, <sup>3</sup>Imperial College, Iondon, United Kingdom

6023

#### 8:45 a.m.

#### LOSS OF FUNCTION OF THE *PLASMODIUM FALCIPARUM* PROLINE TRANSPORTER *PF*APIAT2 MEDIATES HALOFUGINONE RESISTANCE BUT RESULTS IN OOCYST DEVELOPMENTAL DYSFUNCTION

Malhar Khushu<sup>1</sup>, Lola Fagbami<sup>2</sup>, Alexandra Probst<sup>1</sup>, Tasneem Rinvee<sup>1</sup>, Robert Summers<sup>1</sup>, Amanda K. Lukens<sup>3</sup>, Flaminia Catteruccia<sup>4</sup>, Dyann Wirth<sup>3</sup>, Selina Bopp<sup>1</sup> <sup>1</sup>Harvard T. H. Chan School of Public Health, Boston, MA, United States, <sup>2</sup>Harvard T. H. Chan School of Public Health/Metabolomics Platform, Broad Institute, Boston/Cambridge, MA, United States, <sup>3</sup>Harvard T. H. Chan School of Public Health/Infectious Disease and Microbiome Program, Broad Institute, Boston, MA, United States, <sup>4</sup>Harvard T. H. Chan School of Public Health/Howard Hughes Medical Institute, Boston, MA, United States

#### 9 a.m.

6024

PARTIAL CLEARANCE OF PRE-ESTABLISHED PLASMODIUM FALCIPARUM INFECTION IN MOSQUITOES BY MIMICKING A BLOODMEAL ON TREATED PATIENTS WITH ARTEMETHER+LUMEFANTRINE + ATOVAQUONE-PROGUANIL

Priscilla Adjei-Kusi<sup>1</sup>, Serge Rakiswendé Yerbanga<sup>2</sup>, Thierry Lefèvre<sup>3</sup>, Esi Bart-Plange<sup>1</sup>, Esther Naadu Placca<sup>1</sup>, Melvin Agbogbatey<sup>1</sup>, John Asiedu Larbi<sup>4</sup>, John Amuasi<sup>1</sup>, Jerome Clain<sup>5</sup>, Oumou Maiga Ascofaré<sup>6</sup>, Anna Cohuet<sup>3</sup>, ASAAP Consortium -<sup>7</sup> <sup>1</sup>*Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR), Kumasi, Ghana, <sup>2</sup>Institut des Sciences et Techniques (INSTech - BOBO), Bobo-Dioulasso, Burkina Faso, <sup>3</sup>MIVEGEC, Université de Montpellier, IRD, CNRS, Montpellier, France, <sup>4</sup>Department of Theoretical and Applied Biology, College of Science, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana, <sup>5</sup>Université de Paris Cité, UMR 261 MERIT, Paris, France, <sup>6</sup>Department of Infectious Disease Epidemiology, Bernhard Nocht Institute for Tropical Medicine (BNITM), Hamburg, Germany, <sup>7</sup>-, -, VA, United States*  9:15 a.m.

#### 6025

#### UNRAVELING THE JOURNEY OF *PLASMODIUM FALCIPARUM* PARASITES INSIDE THEIR MOSQUITO VECTOR AT THE SINGLE CELL RESOLUTION

Yan Yan<sup>1</sup>, Elaine Cheung<sup>1</sup>, **Lisa H. Verzie**<sup>1</sup>, Duo Peng<sup>2</sup>, Federico Appetecchia<sup>1</sup>, Tasneem A. Rinvee<sup>1</sup>, Esrah Du<sup>1</sup>, Alexandra S. Probst<sup>1</sup>, Naresh Singh<sup>1</sup>, W. Robert Shaw<sup>3</sup>, Flaminia Catteruccia<sup>3</sup>

<sup>1</sup>Harvard TH Chan School of Public Health, Boston, MA, United States, <sup>2</sup>The Chan Zuckerberg Biohub, San Francisco, CA, United States, <sup>3</sup>Harvard TH Chan School of Public Health & Howard Hughes Medical Institute, Boston, MA, United States

#### 9:30 a.m.

#### 6026

#### DEFINING TRANSCRIPTIONAL SIGNATURES OF *PLASMODIUM FALCIPARUM* HEMATOPOIETIC INFECTION AT THE SINGLE CELL LEVEL

**Barbara Stokes**<sup>1</sup>, Fiona Achcar<sup>1</sup>, Charles Ndovi<sup>2</sup>, James Nyirenda<sup>2</sup>, Priscilla Ngotho<sup>1</sup>, Edward Agboraw<sup>1</sup>, Thomas Otto<sup>1</sup>, Christopher Moxon<sup>2</sup>, Matthias Marti<sup>1</sup> <sup>1</sup>University of Glasgow, Glasgow, United Kingdom, <sup>2</sup>Malawi Liverpool Wellcome Clinical Research Programme, Blantyre, Malawi

# **Scientific Session 13**

## Malaria: Surveillance and Data Use

Convention Center - Room 393/394 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

#### #Elimination #Genomics #PopulationSurveillance #TranslationalScience

#### **CHAIR**

Ruth Ashton Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States

Julien Aissan Benin National Malaria Control Program, Cotonou, Benin

#### 8 a.m.

# 6027

# ENHANCING MALARIA DATA QUALITY IN BENIN: IMPACT OF MONTHLY DATA VALIDATION AND DEATH DATA AUDIT

Julien Aissan<sup>1</sup>, Cyriaque Affoukou<sup>1</sup>, Achille Batonon<sup>1</sup>, Raoul Oloukoi<sup>2</sup>, Virgile Gnanguenon<sup>2</sup>, Pascal Zinzindohoue<sup>2</sup>, Achille Couao-Zotti<sup>1</sup>, Christian Godjo<sup>1</sup>, Koffi Emmanuel Yovo<sup>3</sup>, Michael Humes<sup>4</sup>, Ashley Garley<sup>4</sup>, John Bernon<sup>4</sup> <sup>1</sup>Benin National Malaria Control Program, Cotonou, Benin, <sup>2</sup>U.S. President's Malaria Initiative, USAID, Cotonou, Benin, <sup>3</sup>Clinton Health Access Initiative (CHAI), Cotonou, Benin, <sup>4</sup>U.S. President's Malaria Initiative, USAID, Washington, DC, United States

#### 8:15 a.m.

#### 6028

#### ICCM COMMUNITY HEALTH WORKERS AND THEIR IMPACT ON SEVERE MALARIA AND MALARIA MORTALITY IN LUAPULA PROVINCE, ZAMBIA'S HIGHEST MALARIA BURDEN PROVINCE, 2016-2023

**Melody N. Simataa**<sup>1</sup>, Webby Phiri<sup>1</sup>, Ellen Ferris<sup>2</sup>, Sarah Shankwaya<sup>1</sup>, Mulakwa Kamuliwo<sup>3</sup>, Chabu Kangale<sup>1</sup>, Bupe M. Kabamba<sup>1</sup>, Marie-Reine I. Rutagwera<sup>1</sup>, Caroline Phiri-Chibawe<sup>1</sup>, Jennifer Somtore<sup>4</sup>, Busiku Hamainza<sup>5</sup>

<sup>1</sup>PATH PAMO Plus, Lusaka, Zambia, <sup>2</sup>PATH, Seattle, WA, United States, <sup>3</sup>Jhpiego, Lusaka, Zambia, <sup>4</sup>U.S. President's Malaria Initiative, Lusaka, Zambia, <sup>5</sup>Zambia Ministry of Health National Malaria Elimination Centre, Lusaka, Zambia 8:30 a.m.

#### 6029

#### ANTENATAL CARE SURVEILLANCE FOR MONITORING PREVALENCE AND COVERAGE OF INSECTICIDE-TREATED NETS-A MULTI-COUNTRY ANALYSIS

Anna Munsey<sup>1</sup>, Patrick G. T. Walker<sup>2</sup>, Peder Digre<sup>3</sup>, Joseph Wagman<sup>4</sup>, Molly Robertson<sup>5</sup>, Joseph Hicks<sup>2</sup>, Manzidatou Alao<sup>6</sup>, Aurore Hounto<sup>7</sup>, Adama Gansane<sup>8</sup>, Siaka Debe<sup>8</sup>, Baltazar Candrinho<sup>9</sup>, Perpetua Uhomoibhi<sup>10</sup>, Okefu Oyale Okoko<sup>10</sup>, Ruth Lemwayi<sup>11</sup>, Sijenunu Aaron<sup>12</sup>, Chabu Kangale<sup>13</sup>, Bupe Kabamba<sup>13</sup>, Julie R. Gutman<sup>1</sup>, ANC Surveillance Working Group<sup>1</sup>

<sup>1</sup>CDC, Atlanta, GA, United States, <sup>2</sup>MRC Centre for Global Infectious Disease Analysis, School of Public Health, Imperial College, London, United Kingdom, <sup>3</sup>PATH, Seattle, WA, United States, <sup>4</sup>PATH, Washington, DC, United States, <sup>5</sup>The Global Fund to Fight AIDS, Tuberculosis, and Malaria, Geneva, Switzerland, <sup>6</sup>U.S. Presidents' Malaria Initiative Impact Malaria Project, Medical Care Development Global Health, Cotonou, Benin, <sup>7</sup>Unité de Parasitologie/Faculté des Sciences de la Santé, Université d'Abomey, Calavi, Cotonou, Benin, <sup>8</sup>Centre National de Recherche et Formation sur le Paludisme, Ouagadougou, Burkina Faso, <sup>9</sup>National Malaria Control Program, Ministry of Health, Maputo, Mozambique, <sup>10</sup>National Malaria Elimination Programme, Abuja, Nigeria, <sup>11</sup>Jhpiego, Dar es Salaam, United Republic of Tanzania, <sup>12</sup>National Malaria Control Program, Dodoma, United Republic of Tanzania, <sup>13</sup>PATH, Lusaka, Zambia

#### 8:45 a.m.

#### 6030

#### MALARIA SURVEILLANCE TO PREVENT THE RE-ESTABLISHMENT OF MALARIA IN MOBILITY DYNAMIC SETTING OF RAMREE TOWNSHIP IN MYANMAR

Khin Mon Mon<sup>1</sup>, Wah Wah Thaw<sup>1</sup>, Hnin Su Su Khin<sup>1</sup>, Sway Min Htet<sup>1</sup>, Nu Nu Khin<sup>2</sup>, Gunawardena Dissanayake<sup>3</sup>, Ersin Topcuoglu<sup>4</sup>, Kyaw Myint Tun<sup>1</sup>, Danielle Awabdeh<sup>4</sup> <sup>1</sup>PMI Eliminate Malaria, University Research Co., LLC, Yangon, Myanmar, <sup>2</sup>U.S. President's Malaria Initiative, USAID, Yangon, Myanmar, <sup>3</sup>U.S. President's Malaria Initiative, USAID, Bangkok, Thailand, <sup>4</sup>PMI Eliminate Malaria, University Research Co., LLC, Chevy Chase, MD, United States

#### 9 a.m.

#### 6031

#### DATA INTEGRATION FOR DECISION-MAKING: A MALARIA DATA DASHBOARD THAT MERGES ROUTINE SURVEILLANCE AND GENOMIC RESEARCH DATA WITH MODELED OUTPUTS FOR PROGRAMMATIC ACTION IN SENEGAL

Katherine E. Battle<sup>1</sup>, Médoune NDiop<sup>2</sup>, David Kong<sup>1</sup>, Joshua L. Proctor<sup>1</sup>, Emily K. Driano<sup>1</sup>, Caitlin A. Bever<sup>1</sup>, Punam Amratia<sup>3</sup>, Mouhamad Sy<sup>4</sup>, Bassirou Ngom<sup>4</sup>, Ibrahima Diallo<sup>2</sup>, Doudou Sene<sup>2</sup>, Dyann F. Wirth<sup>5</sup>, Sarah K. Volkman<sup>5</sup>, Daouda Ndiaye<sup>4</sup>

<sup>1</sup>Bill & Melinda Gates Foundation, Seattle, WA, United States, <sup>2</sup>Programme National de Lutte contre le Paludisme, Dakar, Senegal, <sup>3</sup>Malaria Atlas Project, Dar es Salaam, United Republic of Tanzania, <sup>4</sup>Centre International de recherche, de formation en Genomique Appliquee et de Surveillance Sanitaire, Dakar, Senegal, <sup>5</sup>Harvard T. H. Chan School of Public Health, Boston, MA, United States

# 9:15 a.m.

#### 6032

#### FORECASTING GLOBAL NEED AND DEMAND FOR CRITICAL MALARIA COMMODITIES TO ANTICIPATE POTENTIAL MARKET DISRUPTIONS

Jessica Floyd<sup>1</sup>, Monica Golumbeanu<sup>2</sup>, Tasmin Symons<sup>3</sup>, Anna Trett<sup>1</sup>, Punam Amratia<sup>3</sup>, Graziella Scudu<sup>1</sup>, Ioana Ursu<sup>4</sup>, Salome Muchiri<sup>1</sup>, Oliver J. Watson<sup>5</sup>, Abigail Ward<sup>1</sup>, Tara Seethaler<sup>1</sup>, Peter W. Gething<sup>3</sup>, Emilie Pothin<sup>2</sup>, Aaron Woolsey<sup>1</sup>

<sup>1</sup>Clinton Health Access Initiative, Boston, MA, United States, <sup>2</sup>Swiss Tropical and Public Health Institute, Allschwil, Switzerland, <sup>3</sup>Telethon Kids Institute, Perth, Australia, <sup>4</sup>Innovative Vector Control Consortium, Liverpool, United Kingdom, <sup>5</sup>Imperial College, London, United Kingdom

# 9:30 a.m. Lightning Talks

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

# 8052

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

Ousmane Oumou DIALLO<sup>1</sup>, Ambroise Ouédraogo<sup>2</sup>, Sebastian Rodriguez<sup>1</sup>, Oumar Billa<sup>1</sup>, Jean Pascal Sandwidi<sup>2</sup>, Jean Baptiste Ouedraougou<sup>2</sup>, Aissata Barry<sup>2</sup>, Beatriz Galatas<sup>3</sup>, Noelle Samia<sup>1</sup>, Jaline Gerardin<sup>4</sup>, Sidzabda C. B. Kompaoré<sup>2</sup>

<sup>1</sup>Northwestern University, Evanston, IL, United States, <sup>2</sup>Secrétariat Permanent pour l'élimination du Paludisme, Ouagadougou, Burkina Faso, <sup>3</sup>Global Malaria Programme, World Health Organization, Geneva, Switzerland, 4Northwestern University, Chicago, IL, United States

#### 6487

#### IMPROVING THE APPROACH TO MONITOR AND REPORT **ON COVERAGE OF MALARIA INTERMITTENT PREVENTIVE** TREATMENT IN PREGNANCY: TIME FOR A RETHINK

Donal Bisanzio<sup>1</sup>, Raguel González<sup>2</sup>, Cristina Enguita<sup>2</sup>, Clara Menedez<sup>2</sup>, Richard **Reithinger**<sup>1</sup>

<sup>1</sup>RTI International, Washington, DC, United States, <sup>2</sup>ISGlobal, Hospital Clínic - Universitat de Barcelona, Barcelona, Spain

## 7326

#### IMPACT OF ROUTINE DATA QUALITY AUDITS (RDQA) IN IMPROVING DATA QUALITY AND MALARIA MANAGEMENT STANDARDS IN HEALTH FACILITIES IN THE DEMOCRATIC **REPUBLIC OF CONGO (DRC)**

Jicko Bondole<sup>1</sup>, Aline Nkulu<sup>1</sup>, Jimmy Anzolo<sup>1</sup>, Rova Ratsimandisa<sup>1</sup>, Michael Hainsworth<sup>2</sup>, Arantxa Roca Feltrer<sup>3</sup>, Hyacinthe Kaseya<sup>4</sup>, Alain Bokota<sup>4</sup>, Ghislain Kikunda<sup>4</sup>, Andre Kaseba<sup>4</sup>, Eric Mukomena<sup>4</sup>

<sup>1</sup>PATH, Kinshasa, Democratic Republic of the Congo, <sup>2</sup>PATH, Seattle, WA, United States, <sup>3</sup>PATH, Maputo, Mozambique, <sup>4</sup>National Malaria Control Program, Kinshasa, Democratic Republic of the Congo

#### 8063

#### STREAMLINING THE MEDICINE REGISTRATION SYSTEM TO IMPROVE ACCESS TO QUALITY MALARIA COMMODITIES IN MADAGASCAR, 2018 - 2024

Jean René Randriasamimanana<sup>1</sup>, Fania Rakotomanana<sup>2</sup>, Hoby Sitraka Ravelomampianina<sup>2</sup>, Soafara Andrianome<sup>3</sup>, Antonia Stéphanie Rakotoniaina<sup>1</sup>, Aline Mukerabirori<sup>1</sup>, Aishling Thurow<sup>4</sup>, Jane Briggs<sup>4</sup>, Thomas Hall<sup>4</sup>, Luz Razafimbelo<sup>1</sup>, Laurent Kapesa<sup>5</sup>

<sup>1</sup>IMPACT Program, Management Sciences for Health, Antananarivo,

Development, Antananarivo, Madagascar

Madagascar, <sup>2</sup>Madagascar Medicines Regulatory Authority, Antananarivo, Madagascar, 3Madagascar Central Medical Store (SALAMA), Antananarivo, Madagascar, <sup>4</sup>Management Sciences for Health, United States of America, Arlington, VA, United States, 5U.S. President's Malaria Initiative, United States Agency for International

# 7320

#### MALARIA OUTBREAK INVESTIGATION IN THE ARID NORTHERN WAJIR COUNTY, KENYA, DEC 2023-FEB 2024

Diana Rose Wangari Mwaura<sup>1</sup>, Megumi Itoh<sup>2</sup>, Brian Sigu<sup>1</sup>, Elizabeth N. Kileku<sup>1</sup>, Rose Ajambo<sup>3</sup>, Ahmed Abade<sup>1</sup>, Beatrice Machini<sup>4</sup>, James Kiarie<sup>4</sup>, James Sang<sup>4</sup>, Jane Githuku<sup>5</sup>, Maurice Owinv

<sup>1</sup>Kenya Field Epidemiology and Laboratory Training Program (FELTP), Nairobi, Kenya, <sup>2</sup>United States President's Malaria Initiative, United States Centers for Disease Control and Prevention, Nairobi, Kenya, <sup>3</sup>Wajir County Health Department, Ministry of Health, Kenya, Wajir, Kenya, <sup>4</sup>National Malaria Control Program, Ministry of Health, Nairobi, Kenya, <sup>5</sup>Country Health Information Systems and Data Use, Nairobi, Kenya

# Scientific Session 14

# Pneumonia, Respiratory Infections and Tuberculosis I

Convention Center - Room 395/396 (3rd Floor) Thursday, November 14, 8 a.m. - 9:45 a.m.

#### #Epidemiology #InfectiousDisease #Child Health #Vaccinology

CHAIR

Muhammad Imran Nisar Aga Khan University, Karachi, Pakistan

#### Kevin Baker

Malaria Consortium, London, United Kingdom

#### 8 a.m.

#### 6033

#### TEMPORAL TRANSCRIPTOMICS UNRAVEL MOLECULAR SIGNATURES OF SEVERE COVID-19

Clinton Onyango<sup>1</sup>, Ivy Hurwitz<sup>2</sup>, Qiuying Cheng<sup>2</sup>, Kristan Schneider<sup>2</sup>, Douglas J. Perkins<sup>3</sup> <sup>1</sup>Maseno University, Maseno, Kenya, <sup>2</sup>University of New Mexico Health Sciences Center, Albuquerque, NM, United States, <sup>3</sup>University of New Mexico Health Sciences Center, Alubquerque, NM, United States

#### 8:15 a.m.

## 6034

#### EVALUATING THE BURDEN OF RESPIRATORY TRACT INFECTIONS IN DECEASED IN KARACHI, PAKISTAN: A POST-PANDEMIC MORTALITY SURVEILLANCE ANALYSIS

Furgan Kabir<sup>1</sup>, Raheel Allana<sup>1</sup>, Sameer Belgaumi<sup>2</sup>, Chrisitina Arif<sup>1</sup>, Saima Jamal<sup>1</sup>, Sehrish Amir Ali<sup>1</sup>, Saad B Omer<sup>2</sup>, Abdul Momin Kazi<sup>1</sup>

<sup>1</sup>Aga Khan University, Hospital, Karachi, Pakistan, <sup>2</sup>UT Southwestern Medical Center, Dallas, TX United States

6035

## 8:30 a.m.

#### **BIOMARKERS FOR PROGNOSTIC PREDICTION OF CHILDHOOD** CLINICAL PNEUMONIA IN SUB-SAHARAN AFRICA

Isabelle Silber<sup>1</sup>, Yasir Shitu Isa<sup>2</sup>, Yekini Ajauoi Olatunji<sup>2</sup>, Rasheed Salaudeen<sup>2</sup>, Sarwar Golam<sup>2</sup>, Galega Lobga<sup>2</sup>, Megan Carelus<sup>1</sup>, Patricia Hibberd<sup>1</sup>, Edward F. Knol<sup>3</sup>, Grant Mackenzie<sup>4</sup>, Clarissa Valim<sup>1</sup>

<sup>1</sup>Boston University School of Public Health, Boston, MA, United States, <sup>2</sup>MRC Unit, The Gambia at the London School of Hygiene & Tropical Medicine, Fajara, Gambia, <sup>3</sup>Center of Translational Immunology and Department of Dermatology/Allergology, University Medical Center Utrecht, Utrecht, Netherlands, <sup>4</sup>Department of Disease Control, Faculty of Infectious and Tropical Diseases, London School of Hygiene & Tropical Medicine, London, United Kingdom

## 8:45 a.m.

6036

#### THE EFFECT OF AZITHROMYCIN ON STREPTOCOCCUS PNEUMONIAE CARRIAGE AMONG KENYAN CHILDREN DISCHARGED FROM THE HOSPITAL

Tanva E. Libby<sup>1</sup>, Angela Karani<sup>2</sup>, J. Anthony G. Scott<sup>2</sup>, Donald Akech<sup>2</sup>, Benson Singa<sup>3</sup>, Kirkby Tickell<sup>1</sup>, Doreen Rwigi<sup>3</sup>, Kevin Kariuki<sup>3</sup>, Nancy Onamu<sup>3</sup>, Derrick Ounga<sup>3</sup>, James A. Berkley<sup>2</sup>, Judd L. Walson<sup>4</sup>, Patricia B. Pavlinac<sup>1</sup>

<sup>1</sup>University of Washington, Seattle, WA, United States, <sup>2</sup>Kenya Medical Research Institute-Wellcome Trust Research Programme, Kilifi, Kenya, <sup>3</sup>Kenya Medical Research Institute, Nairobi, Kenya, <sup>4</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

#### 9 a.m.

#### 6037

#### COMPARISON OF ANTIBIOTIC RESISTANCE PATTERNS OF S. PNEUMONIAE IN CASES OF INVASIVE PNEUMOCOCCAL DISEASE AND PAIRED NASOPHARYNGEAL COLONIZATION ISOLATES

**Morr cham**, Grant Mackenzie, Isaac Osei, Rasheed Salaudeen, Hendry Badji, Baleng-Mahama Wutor, Molfa Minteh, Ousman Barjo, Yusuf Abdulsalam Olawale, Golam Sarwar, Abdoullah Nyassi

Medical Research Council The Gambian at London School of Hygiene & Tropical Medicine(MRC@LSHTM), Basse santa su, Gambia

#### 9:15 a.m.

#### 6038

#### HIGH RESIDUAL NASOPHARYNGEAL CARRIAGE OF VACCINE SEROTYPE PNEUMOCOCCI AFTER 12 YEARS OF INTRODUCTION OF PNEUMOCOCCAL CONJUGATE VACCINE IN THE GAMBIA

Isaac Osei<sup>1</sup>, Emmanuel Mendy<sup>1</sup>, Effua Usuf<sup>2</sup>, Christian Bottomley<sup>3</sup>, Rasheed Salaudeen<sup>1</sup>, Henry Badji<sup>1</sup>, Ikumapayi U. Nurudeen<sup>1</sup>, Phillip Hill<sup>4</sup>, Brian Greenwood<sup>5</sup>, Grant Mackenzie<sup>6</sup> <sup>1</sup>Medical Research Council The Gambia at the London School of Hygiene & Tropical Medicine, Banjul, Gambia, <sup>2</sup>Medical Research Council The Gambia at the London School of Hygiene & Tropical Medicine, Fajara, Gambia, <sup>3</sup>Department of Infectious Disease Epidemiology, London School of Hygiene & Tropical Medicine, London, UK, London, United Kingdom, <sup>4</sup>Centre for International Health, University of Otago, Otago, New Zealand, <sup>6</sup>Faculty of Infectious and Tropical Diseases, London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>6</sup>Medical Research Council The Gambia at the London School of Hygiene & Tropical Medicine, Basse, Gambia

#### 9:30 a.m.

#### 6039

#### EVALUATION OF THE USABILITY, ACCEPTABILITY, AND FEASIBILITY OF TWO DEVICES FOR THE DELIVERY OF INTRANASAL VACCINES IN LOW-AND-MIDDLE INCOME COUNTRIES

Jennifer Foster<sup>1</sup>, Erin Rowand<sup>1</sup>, Wilkister Musau<sup>2</sup>, Edith Jepleting<sup>2</sup>, Sandeep Kumar<sup>3</sup>, Priyanka Bajaj<sup>3</sup>

<sup>1</sup>PATH, Seattle, WA, United States, <sup>2</sup>PATH, Nairobi, Kenya, <sup>3</sup>PATH, New Delhi, India

#### Career Chats (via Zoom): Grants 101

#### (via Zoom)

This session is limited to Livestream attendees who pre-registered for the event.

#### Thursday, November 14, 9:15 a.m. - 10:15 a.m.

The aim of this session is to empower and provide trainees with tips for successful grant writing. This session is tailored for earlycareer researchers, mid-career professionals, and trainees eager to refine their grant writing skills. In this interactive and informative workshop, experienced grant writers and successful researchers will share their personal journeys through the grant writing process. Participants will gain valuable insights into crafting compelling proposals, understanding funding agency expectations, and avoiding common pitfalls. Special emphasis will be placed on the essential skills required for grant writing in the biomedical and global health fields, including how to articulate clear research aims, demonstrate the significance and innovation of your work, and develop a feasible, well-structured research plan. Whether you're applying for your first grant or seeking to enhance your grant writing proficiency, this session will equip you with practical tips and strategies to increase your chances of securing funding. Join us for an engaging discussion that will empower you to navigate the complexities of grant applications with confidence.

<u>CHAIR</u> Winter Okoth

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

Ghassan Ilaiwy Burroughs Wellcome Fund/University of Virginia, Charlottesville, VA, United States

#### PANELISTS David A. Fidock

Columbia University, New York, NY, United States Daniel Kiboi

Jomo Kenyatta University of Agriculture & Technology, Nairobi, Kenya

Peter H. Kilmarx Fogarty International Center, National Institutes of Health, Bethesda, MD, United States Charles Narh

Deakin University, Geelong, Australia

Christine Ngaruiya Stanford University School of Medicine, Standford, CA, United States

Maria Luisa Simoes Institute of Tropical Medicine, Antwerp, Antwerp, Belgium

## **Exhibit Hall Open**

Convention Center - Hall J (1st Floor) Thursday, November 14, 9:30 a.m. - 10:30 a.m.

#### **Coffee Break**

Convention Center - Hall J (1st Floor) Thursday, November 14, 9:45 a.m. - 10:15 a.m.

#### Poster Session A Set-Up

Convention Center - Hall I-1 (1st Floor) Thursday, November 14, 9:45 a.m. - 10:15 a.m.

#### Poster Session A Viewing

Convention Center - Hall I-1 (1st Floor) Thursday, November 14, 10:15 a.m. - Noon



## Alan J. Magill Malaria Eradication Symposium: Developing Leaders in the Continuing Fight for Malaria Eradication: Perspectives from Past Alan J. Magill Fellows

## Convention Center - Hall I-2 (1st Floor) Thursday, November 14, 10:15 a.m. – Noon

Supported with funding from the Bill & Melinda Gates Foundation



This annual symposium honors the life and work of ASTMH Past President Alan Magill, who at the time of his untimely death in 2015 was promoting the bold goal of global malaria eradication in his role as the Malaria Director at the Bill & Melinda Gates Foundation. The symposium will bring leaders in the malaria field together to summarize the challenges and

advances in areas of relevance to the malaria elimination and eradication effort.

Dr. Alan Magill worked tirelessly for not only malaria eradication but to foster the next generation of leaders in tropical medicine and global health. In line with this vision, the Alan J. Magill Fellowship was created to fund early-to-middle career scientists to pursue leadership and professional development opportunities. We have invited five previous Magill Fellows, with projects focusing on malaria, to speak about their project objectives and progress as well as their leadership journey and impact of the fellowship. A final speaker will talk about the influence of Dr. Magill on malaria programs in Peru, where as head of Parasitology at the U.S. Navy's Medical Research Center, he inspired many malaria researchers in the same spirit of the fellowship that bears his name today.

#### <u>CHAIR</u>

Michelle D. Spring State University of New York, Upstate Medical University, Syracuse, NY, United States

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

#### 10:20 a.m.

LEADING THE WAY: MOZAMBIQUE'S QUEST FOR A MALARIA-FREE FUTURE

Pedro C. Aide Manhica Health Research Center (CISM), Maputo, Mozambique

#### 10:35 a.m.

LEADERSHIP DEVELOPMENT AND TRAINING FOR TRANSLATING RESEARCH FINDINGS INTO POLICY FOR MALARIA CONTROL AND ELIMINATION IN AFRICA: EXPERIENCE FROM THE ALAN J. MAGILL FELLOWSHIP

Deus Ishengoma National Institute for Medical Research, Dar es Salaam, United Republic of Tanzania

#### 10:50 a.m.

LEADERSHIP DEVELOPMENT THROUGH THE ALAN J. MAGILL FELLOWSHIP IN USING GLOBAL INFECTION SURVEILLANCE TO REDUCE THE HEALTH BURDEN OF DISEASES OF POVERTY

Awa Bineta Deme International Research Training Center on Genomics, Dakar, Senegal

#### 11:05 a.m.

#### ALAN J. MAGILL FELLOWSHIP. AT THE TIME OF EXPANSION AND CONVERGENCE OF MALARIA BIOLOGICAL THREATS IN THE HORN OF AFRICA

Fitsum Girma G. Tadesse Armauer Hansen Research Institute, Addis Ababa, Ethiopia

#### 11:20 a.m.

#### ALAN J. MAGILL FELLOWSHIP. BROADENED CAREER OPPORTUNITY TO CONTRIBUTE TO MALARIA ELIMINATION IN BURKINA FASO

Issiaka Soulama

Institut de Recherche en Sciences de la Santé (IRSS), Ouagadougou, Burkina Faso

#### 11:35 a.m.

#### ALAN J. MAGILL'S JOURNEY IN PERU: SHAPING AND INSPIRING CURRENT AND FUTURE LEADERS IN INFECTIOUS DISEASES

Dionicia Gamboa Universidad Peruana Cayetano Heredia, Lima, Peru

#### 11:50 a.m. QUESTIONS AND ANSWERS

# **Scientific Session 16**

#### **Clinical Tropical Medicine: HIV and Mpox**

Convention Center - Room 343/344 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

#### #InfectiousDisease #EmergingDiseaseThreats #Prevention #Diagnostics

#### <u>CHAIR</u>

Michael Hawkes University of British Columbia, Vancouver, BC, Canada

Aisha Khatib University of Toronto, Toronto, ON, Canada

# 10:15 a.m.

#### 6040

#### THE LIVED EXPERIENCES OF UGANDAN COMMUNITY HEALTH WORKERS ENGAGED IN PREVENTION OF VERTICAL TRANSMISSION OF HIV AND A CAPACITY-BUILDING INTERVENTION

Victor Mocanu<sup>1</sup>, Hannah M. Brooks<sup>1</sup>, Sophie Namasopo<sup>2</sup>, Robert O. Opoka<sup>3</sup>, Michael T. Hawkes<sup>4</sup>

<sup>1</sup>University of Alberta, Edmonton, AB, Canada, <sup>2</sup>Kabale District Hospital, Kabale, Uganda, <sup>3</sup>Medical College East Africa, Aga Khan University, Nairobi, Kenya, <sup>4</sup>University of British Columbia, Vancouver, BC, Canada

# 10:30 a.m.

#### FACTORS CONTRIBUTING TO LOW LINKAGE TO HIV TREATMENT **IN GHANA, 2023**

6041

Jennifer Nai-Dowetin<sup>1</sup>, Vincent Ganu<sup>2</sup>, Grace Ocansey<sup>1</sup>, Anthony Ashinyo<sup>3</sup>, Stephen Ayisi-Addo3, Ernest Kenu4

<sup>1</sup>Ghana Field Epidemiology and Laboratory Training Programme, Accra, Ghana, <sup>2</sup>Infectious Disease Unit. Department of Medicine and Therapeutics. Korle-Bu Teaching Hospital. Accra, Ghana, 3National HIV/AIDS/STI Control Programme, Ghana Health Service, Accra, Ghana, <sup>4</sup>Department of Epidemiology and Disease Control, School of Public Health, University of Ghana. Ghana Field Epidemiology and Laboratory Training Programme, Accra, Ghana

# 10:45 a.m.

# 6042

ASSESSING THE RISK OF ADVERSE PREGNANCY OUTCOME AMONG HIV-POSITIVE AND HIV-NEGATIVE PREGNANT WOMEN: ANALYSIS FROM A COHORT OF WOMEN PARTICIPATING IN TWO INDIVIDUALLY RANDOMIZED CONTROLLED TRIALS IN WESTERN **KENYA** 

EVERLINE DELYLAH ONDIEKI, Eric Donald, George O. Olilo, Hellen C. Barsosio Kenya Medical Research Institute, Kisumu, Kenya

# 11 a.m.

# 6043

#### AFRICAN BRAIN POWERED GAMES APPS AVAILABLE ON COMPUTER TABLETS CAN BE USED TO DYNAMICALLY ASSESS BRAIN/BEHAVIOR INTEGRITY AND NEUROCOGNITIVE PERFORMANCE IN UGANDAN AND MALAWIAN SCHOOL-AGE CHILDREN AFFECTED BY HIV

Michael J. Boivin<sup>1</sup>, Itziar M. Familiar-Lopez<sup>1</sup>, Lillian Wambuzi Ogwang<sup>2</sup>, Sufia Dadabhai<sup>3</sup>, Brian Winn<sup>1</sup>, Alla Sikorskii<sup>1</sup>, Bruno Giordani<sup>4</sup>

<sup>1</sup>Michigan State University, East Lansing, MI, United States, <sup>2</sup>Makerere University - Johns Hopkins University, Kampala, Uganda, 3 Malawi College of Medicine - Johns Hopkins University, Blantyre, Malawi, <sup>4</sup>University of Michigan, Ann Arbor, MI, United States

#### 11:15 a.m.

# 6044

#### ONE AND TWO DOSE TYPHOID CONJUGATE VACCINE SAFETY AND IMMUNOGENICITY IN HIV-EXPOSED UNINFECTED AND **HIV-UNEXPOSED UNINFECTED MALAWIAN CHILDREN**

Nginache Nampota-Nkomba<sup>1</sup>, Osward M. Nyirenda<sup>2</sup>, Divya Hosangadi<sup>1</sup>, Victoria Mapemba<sup>2</sup>, Priyanka D. Patel<sup>3</sup>, Happy C. Banda<sup>3</sup>, Felistas Mwakiseghile<sup>3</sup>, Theresa Misiri<sup>3</sup>, Richard Wachepa<sup>3</sup>, John Ndaferankhande<sup>3</sup>, Bright Lipenga<sup>3</sup>, Robert S. Heyderman<sup>4</sup>, Marcela Pasetti<sup>1</sup>, Leslie P. Jamka<sup>1</sup>, Shrimati Datta<sup>1</sup>, Melita A. Gordon<sup>3</sup>, Kathleen M. Neuzil<sup>1</sup>, Matthew B. Laurens<sup>1</sup>

<sup>1</sup>University of Maryland School of Medicine, Baltimore, MD, United States, <sup>2</sup>Blantyre Malaria Project, Blantyre, Malawi, 3 Malawi Liverpool Wellcome Programme, Blantyre, Malawi, <sup>4</sup>University College London, London, United Kingdom

# 11:30 a.m.

#### THE CLINICO-EPIDEMIOLOGICAL EXPERIENCE OF AN MPOX **OUTBREAK AT A LARGE HEALTHCARE SYSTEM IN LOUISIANA,** USA

6045

Mary Ellen Owings<sup>1</sup>, Latha Rajan<sup>1</sup>, Obinna Nnedu<sup>2</sup>

<sup>1</sup>Tulane University School of Public Health and Tropical Medicine, New Orleans, LA, United States, <sup>2</sup>Ochsner Medical Center, Infectious Diseases Department, New Orleans, LA, United States

11:45 a.m.

#### 6046

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#### PERFORMANCE EVALUATION OF FIVE POINT-OF-CARE TESTS FOR MPOX DETECTION

Devy M. Emperador<sup>1</sup>, Elie Ishara<sup>2</sup>, Jacob Parkes<sup>3</sup>, Juvenal Nkeramahame<sup>4</sup>, Mikaela Watson<sup>5</sup>, Anushri Somasundaran<sup>3</sup>, Yusra Hussain<sup>3</sup>, Nadia Kontogianni<sup>3</sup>, Daniel Mukadi<sup>2</sup>, Marithé Mukoka<sup>2</sup>, Hugues Mirimo<sup>2</sup>, Emile Milonde<sup>2</sup>, Susan Logoose<sup>4</sup>, Audrey Albertini<sup>6</sup>, Berra Erkosar<sup>5</sup>, Emmanuel Agogo<sup>1</sup>, Jake Dunning<sup>7</sup>, Ana Cubas Atienzar<sup>3</sup>, Hugo Kavunga-Membo<sup>2</sup>

<sup>1</sup>Pandemic Threats Program, FIND, Geneva, Switzerland, <sup>2</sup>Laboratoire Rodolphe Mérieux - Institut National de Recherche Biomédicale, Goma, Democratic Republic of the Congo, <sup>3</sup>Center for Drugs and Diagnostics, Liverpool School of Tropical Medicine, Liverpool, United Kingdom, 4 Clinical Trial Unit, FIND, Geneva, Switzerland, 5 Data Science Unit, FIND, Geneva, Switzerland, <sup>6</sup>Program Management Unit, FIND, Geneva, Switzerland, <sup>7</sup>Pandemic Sciences Institute, University of Oxford, Oxford, United Kingdom

# Scientific Session 17

# Kinetoplastida and Other Opportunistic and Anaerobic Protozoa: Epidemiology

Convention Center - Room 345 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

# #InfectiousDisease #Epidemiology #FieldStudies

<u>CHAIR</u>

Malla Rao NIAID. Rockville. MD. United States

Kawsar Talaat

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

## 10:15 a.m.

#### BURDEN OF CHAGAS DISEASE RELATED TO CARDIOMYOPATHY IN THE UNITED STATES

6047

Steffany Vucetich, Kelly DeToy, Yeonsoo Baik, Robert H. Gilman, Bryan Patenaude Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

6048

## 10:30 a.m.

#### WHAT IS THE EFFECT OF DEFORESTATION OF THE ATLANTIC FOREST ON THE OCCURRENCE OF PANSTRONGYLUS TIBIAMACULATUS IN URBAN AREAS?

Gilmar Ribeiro-Jr<sup>1</sup>, Fernanda C. Lanza<sup>1</sup>, Diego L P Miranda<sup>1</sup>, Renato B. Reis<sup>2</sup>, Cristiane W. Cardoso<sup>3</sup>, Fabiano Simões<sup>3</sup>, Eliaci C L Costa<sup>3</sup>, Márcia Castro<sup>4</sup>, Rodrigo Gurgel-Goncalves<sup>5</sup>, Mitermayer G. Reis<sup>1</sup>

<sup>1</sup>Oswaldo Cruz Foundation, Salvador, Brazil, <sup>2</sup>Facudade Salvador, Salvador, Brazil, <sup>3</sup>Secretaria de Saúde de Salvador, Salvador, Brazil, <sup>4</sup>Harvard School of Public Health, Boston, MA, United States, <sup>5</sup>Universidade de Brasília, Brasília, Brazil

6049

# 10:45 a.m.

111

#### SYSTEMIC CLINICAL PARAMETERS AND INFECTIVITY IN CANINE LEISHMANIOSIS (CANL)

Max Waugh<sup>1</sup>, Karen Cyndari<sup>2</sup>, Tom Lynch<sup>3</sup>, Soomin Koh<sup>2</sup>, Ferney Henao-Ceballos<sup>2</sup>, Jacob J. Oleson<sup>2</sup>, Paul Kaye<sup>2</sup>, Christine A. Petersen<sup>2</sup>

<sup>1</sup>The University of Iowa, Coralville, IA, United States, <sup>2</sup>The University of Iowa, Iowa City, IA, United States, 3The Ohio State University, Columbus, OH, United States

11 a.m.

## 6050

#### EPIDEMIOLOGY OF VISCERAL LEISHMANIASIS AND OTHER PARASITIC INFECTIONS IN REFUGEE CAMPS OF ETHIOPIA

Bortola A. Ayana<sup>1</sup>, Adugna Abera<sup>1</sup>, Aman Yesuf<sup>2</sup>, Habtamu Belay<sup>1</sup>, Mahlet Belachew<sup>1</sup>, Tesfahun Bishaw<sup>3</sup>, Fransisco Averhoff<sup>4</sup>, Alan Landay<sup>5</sup>, Paulina A. Rebolledo<sup>6</sup>, Geremew Tasew

<sup>1</sup>Ethiopian Public Health Institute, Addis Ababa, Ethiopia, <sup>2</sup>St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, 3 Ministry of Health of Ethiopia, Addis Ababa, Ethiopia, <sup>4</sup>Abbott Diagnostics, Abbott Park, IL, IL, United States, <sup>5</sup>University of Texas, Austin, TX, United States, 6Emory University, Atalanta GA, GA, United States

#### 11:15 a.m.

#### 6051

#### SPECIFIC PATHOGEN TESTING FOR OPPORTUNISTIC INFECTIONS IN PERSONS WITH HIV IN PERU AND BOLIVIA

Hannah E. Steinberg<sup>1</sup>, Andrea Diestra<sup>2</sup>, Beth J. Condori<sup>2</sup>, Edith Malaga<sup>2</sup>, Christian Guerra<sup>3</sup>, Margot Ramirez Jaldin<sup>4</sup>, Lynn Pinchi<sup>5</sup>, Ricardo Medrano Colmenares<sup>2</sup>, Maria J. Pessoa<sup>4</sup>, Sergio Burgoa<sup>4</sup>, Cusi Ferradas<sup>6</sup>, Daniela E. Kirwan<sup>7</sup>, Monica M. Diaz<sup>8</sup>, Michael Sciaudone9, Maritza Calderón2, Manuela Verastegui2, Lilia Cabrera5, Viviana Pinedo Cancino<sup>3</sup>, Frine Samalvides<sup>2</sup>, Freddy Tinajeros<sup>4</sup>, Cesar Ramal Asayag<sup>10</sup>, Robert H. Gilman<sup>11</sup>, Natalie M. Bowman<sup>8</sup>

<sup>1</sup>University of Washington, Seattle, WA, United States, <sup>2</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>3</sup>Universidad Nacional de la Amazonía Peruana, Iguitos, Peru, <sup>4</sup>AB Prisma, Santa Cruz, Plurinational State of Bolivia, <sup>5</sup>AB Prisma, Lima, Peru, <sup>6</sup>University of California Davis, Davis, CA, United States, 7St George's, University of London, London, United Kingdom, <sup>8</sup>University of North Carolina, Chapel Hill, NC, United States, <sup>9</sup>Tulane University, New Orleans, LA, United States, <sup>10</sup>Hospital Regional de Loreto, Iguitos, Peru, <sup>11</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

#### 11:30 a.m.

# 6052

#### COHORT ESTIMATION ANALYSIS OF CUTANEOUS AND **MUCOCUTANEOUS LEISHMANIASIS, 1990-2021**

Cathleen Keller, Michael Celone, Ewerton Cousin, Taren Gorman, Quince Hara, Olivia Nesbit, Lydia Plante, Joanna Whisnant, Steph Zimsen, Jon Mosser Institute for Health Metrics and Evaluation. Seattle, WA. United States

#### 11:45 a.m.

#### 6053

#### LOW RISK FOR LOCALLY ACQUIRED CHAGAS DISEASE IN **CALIFORNIA: A REVIEW OF HUMAN CASES AND TRIATOMINE SUBMISSIONS, 2013-2023**

Andrea Lund<sup>1</sup>, Marco E. Metzger<sup>2</sup>, Vicki L. Kramer<sup>1</sup>, Anne M. Kjemtrup<sup>1</sup> <sup>1</sup>California Department of Public Health, Sacramento, CA, United States, <sup>2</sup>California Department of Public Health, Ontario, CA, United States

# Symposium 18

# American Committee of Medical Entomology (ACME) Symposium II: Annual Business Meeting, Awards Ceremony, Hoogstraal Medal Presentation, and **Networking Reception**

Convention Center - Room 352 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

This symposium provides a forum for exchange of information among people interested in research on arthropods that cause disease or transmit disease-causing agents. The session begins with a short ACME business meeting followed by presentation of the 2024 ACME awards. The awards ceremony features the ACME Young Investigator Travel Awards, Breakthrough in Medical Entomology Award, Future Leaders Fellowship in

International Medical Entomology, Award of Distinction, and the Hoogstraal Medal, the highest distinction conferred by ACME. The awards ceremony will highlight the next generation of medical entomologists and recognize the early, mid- and late career achievements of individuals in the field on medical entomology. After the awards ceremony, a lecture will be delivered by the Hoogstraal Medal recipient, which will feature contributions of the awardee to advancing the field of medical entomology. The symposium will continue with the passing of the gavel (transfer of office), and conclude with the ACME professional networking and socializing session. #EarlyCareer #Trainee #InfectiousDisease

#### **CHAIR**

Adriana Troyo Universidad de Costa Rica, San Jose, Costa Rica

Sarah A. Hamer Texas A&M University, College Station, TX, United States

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

# 10:25 a.m.

# ACME ANNUAL BUSINESS MEETING

Adriana Trovo Universidad de Costa Rica, San Jose, Costa Rica

#### 10:45 a.m.

## ACME AWARDS CEREMONY I: YOUNG INVESTIGATOR TRAVEL AWARDS

Nsa Dada Arizona State University, Tempe, AZ, United States

#### 11:10 a.m.

ACME AWARDS CEREMONY II: BREAKTHROUGH IN MEDICAL ENTOMOLOGY, FUTURE LEADERS IN INTERNATIONAL MEDICAL ENTOMOLOGY, AWARD OF DISTINCTION, AND HOOGSTRAAL MEDAL

#### Adriana Troyo

Universidad de Costa Rica, San Jose, Costa Rica

#### 11:30 a.m.

#### HARRY HOOGSTRAAL MEDAL PRESENTATION

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

#### 11:45 a.m.

# ACME NETWORKING AND SOCIALIZING SESSION

# Symposium 19

# Rocky Mountain Spotted Fever in Mexico: Raging On

Convention Center - Room 353 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

The ASTMH 2006 meeting celebrated the 100th anniversary of Howard Taylor Ricketts' seminal 1906 discoveries and publications about Rocky Mountain spotted fever (RMSF). At that time, RMSF incidence was barely edging upward from its 1998 U.S. nadir and declining case fatality; it was largely forgotten in other Western Hemisphere countries, including Mexico. However, between 2009

and 2023, over 4,250 cases of RMSF were recorded in the Mexican states of Baja California Sonora, Chihuahua, Coahuila, and Nuevo León. With 1,240 deaths and an overall case fatality rate of 29% to as high as 63% - Mexico is now ground-zero for RMSF resurgence with incidence and case fatality not observed since Ricketts' time. The ensuing epidemic involves multiple foci across vast ranges of Mexico, including those that border on the U.S. In Mexico, it affects predominantly vulnerable populations such as children, the elderly, ethnic minorities and those living in poverty. Lessons from the past may not inform approaches to control these catastrophic outbreaks as distinct vectors and reservoir hosts are implicated, and the health care basis of identifying and managing affected patients is wanting. This symposium will gather the expertise of key medical, epidemiological, and ecological scientists involved in the ongoing investigations of RMSF in Mexico, presenting data on similarities and differences in epidemiology, clinical presentations and complications, and the underlying ecology and vector biology as compared to historical expectations. These data will then be used to advance discussions on better and more rapid recognition, implementation of health care resources, and data-driven solutions that address the ecology and epizootiology of RMSF in Mexico. #EmergingDiseaseThreats #Prevention #EcologicalStudies #Epidemiology

#### **CHAIR**

J. Stephen Dumler Uniformed Services University, Bethesda, MD, United States

David H. Walker University of Texas Medical Branch, Galveston, TX, United States

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

#### 10:25 a.m.

#### CLINICAL AND LABORATORY ASPECTS OF SEVERE DISEASE IN PEDIATRIC PATIENTS WITH RMSF IN MEXICO

Oscar Tamez-Rivera

Instituto de Pediatría Hospital Zambrano Hellion; Tecnológico de Monterrey, Monterrey, Mexico

#### 10:45 a.m.

#### THE EPIDEMIOLOGICAL IMPACT OF ROCKY MOUNTAIN SPOTTED FEVER IN NORTHERN MEXICO

Gerardo Álvarez-Hernández Departamento de Medicina y Ciencias de la Salud, Universidad de Sonora, Hermosillo, Mexico

#### 11:05 a.m.

#### RICKETTSIA RICKETTSII AND THE TRIAD OF HOST-VECTOR-PATHOGEN IN DISEASE PATHOGENESIS OF RMSF

Christopher D. Paddock Rickettsial Zoonoses Branch, CDC, Atlanta, GA, United States

# 11:25 a.m.

#### CANINE ECOLOGY IS KEY TO ROCKY MOUNTAIN SPOTTED FEVER EPIDEMIC CRISIS

Janet E. Foley University of California, Davis, Davis, CA, United States

# **Scientific Session 20**

## **Bacteriology: Shigella and Salmonella**

Convention Center - Room 354/355 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

This session does not carry CME credit.

#### #Immunology #Epidemiology #PopulationSurveillance **#Vaccinology** #Genetics

#### CHAIR

Charlotte Chong University of Cambridge, Cambridge, United Kingdom

Farhana Khanam

International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh

## 10:15 a.m.

## SECONDARY SHIGELLA TRANSMISSION AND PREDISPOSING FACTORS FOR DEVELOPING SHIGELLOSIS AMONG HOUSEHOLD CONTACTS IN THE EFGH CATCHMENT AREA, DHAKA,

6054

#### BANGLADESH

Md. Taufiqul Islam, Farhana Khanam, Ismail Hossen, Nazmul Hasan Rajib, Mahzabeen Ireen, Syed Qudrat-E- Khuda, Md Golam Firoj, Prasanta Kumar Biswas, Amirul Islam Bhuiyan, Faisal Ahmmed, Firdausi Qadri International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh

#### 10:30 a.m.

#### **GENETIC FACTORS CONTRIBUTING TO DISEASE IN SHIGELLA**

6055

Charlotte E. Chong<sup>1</sup>, Xiaoliang Ba<sup>1</sup>, Rebecca Ji Bengtsson<sup>2</sup>, P. Malaka De Silva<sup>1</sup>, Mark A. Holmes<sup>1</sup>, Karen Kotloff<sup>3</sup>, Sharon M. Tennant<sup>3</sup>, Kate S. Baker<sup>1</sup> <sup>1</sup>University of Cambridge, Cambridge, United Kingdom, <sup>2</sup>University of Liverpool, Liverpool, United Kingdom, <sup>3</sup>University of Maryland, Baltimore, MD, United States

#### 10:45 a.m.

#### ANTIBODY-MEDIATED PROTECTION AGAINST SHIGELLOSIS

Biana Bernshtein<sup>1</sup>, Julia Zhiteneva<sup>1</sup>, Galit Alter<sup>2</sup>, Edward T. Ryan<sup>3</sup> <sup>1</sup>Ragon Institute of MGH, MIT and Harvard, Cambridge, MA, United States, <sup>2</sup>Ragon Institute of MGH, MIT and Harvard, CAMBRIDGE, MA, United States, 3MGH, Boston, MA, United States

6056

# 11 a.m.

# 6057 DEVELOPMENT OF A SEROEPIDEMIOLOGY TOOL FOR SHIGELLA

Claire E. Munroe<sup>1</sup>, Ashraful I. Khan<sup>2</sup>, Fahima Chowdhury<sup>2</sup>, Paul Kovac<sup>3</sup>, Peng Xu<sup>3</sup>, Polina Kamenskaya<sup>1</sup>, Meagan Kelly<sup>1</sup>, Jeshina Janardhana<sup>1</sup>, Chanchal Wagh<sup>1</sup>, Jessica C. Seidman<sup>4</sup>, Kristen Aiemjoy<sup>5</sup>, Firdausi Qadri<sup>2</sup>, Edward T. Ryan<sup>1</sup>, Richelle C. Charles<sup>1</sup> <sup>1</sup>Division of Infectious Diseases, Massachusetts General Hospital, Boston, MA, United States. <sup>2</sup>Infectious Diseases Division. International Centre for Diarrhoeal Disease Research. Dhaka, Bangladesh, <sup>3</sup>National Institutes of Health, Bethesda, MD, United States, <sup>4</sup>Sabin Vaccine Institute, Washington, DC, United States, <sup>5</sup>Department of Public Health Sciences, University of California Davis School of Medicine, Davis, CA, United States

#### 11:15 a.m.

## 6058

#### PROTECTION CONFERRED BY A SINGLE DOSE OF TYPHOID CONJUGATE VACCINE AMONG BANGLADESHI CHILDREN AFTER FIVE YEARS OF VACCINATION: ANALYSIS OF A CLUSTER RANDOMIZED CONTROLLED TRIAL

Farhana Khanam<sup>1</sup>, Firdausi Qadri<sup>1</sup>, Yiyuan Zhang<sup>2</sup>, Prasanta Kumar Biswas<sup>1</sup>, Merryn Voysey<sup>3</sup>, Yama F Mujadidi<sup>2</sup>, Sarah Kelly<sup>2</sup>, Amirul Islam Bhuiyan<sup>1</sup>, Nazmul Hasan Rajib<sup>1</sup>, Ismail Hossen<sup>1</sup>, Nazia Rahman<sup>1</sup>, Sadia Islam<sup>1</sup>, Virginia E. Pitzer<sup>4</sup>, John D. Clemens<sup>5</sup>, Andrew J. Pollard<sup>2</sup>, Xinxue Liu<sup>2</sup>

<sup>1</sup>International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>2</sup>Oxford Vaccine Group, Department of Paediatrics, University of Oxford, Oxford, UK, UK, United Kingdom, <sup>3</sup>UKNIHR Oxford Biomedical Research Centre and Oxford University Hospitals NHS Foundation Trust, Oxford, UK, UK, United Kingdom, 4Department of Epidemiology of Microbial Diseases and Public Health Modelling Unit, Yale School of Public Health, New Haven, Connecticut, United States of America, Connecticut, CT, United States, <sup>5</sup>International Vaccine Institute, Seoul, Republic of Korea

#### 11:30 a.m.

## 6059

#### SAFETY AND IMMUNOGENICITY OF A BIVALENT VACCINE AGAINST SALMONELLA TYPHI AND SALMONELLA PARATYPHI A: INTERIM DATA FROM A PHASE 1 RANDOMIZED CONTROLLED **OBSERVER-BLIND, TRIAL AMONG HEALTHY ADULTS IN EUROPE**

Usman N. Nakakana<sup>1</sup>, Ilse de Coster<sup>2</sup>, Marie-Annick Götze<sup>2</sup>, Pierre Van Damme<sup>2</sup>, Eleanna Sarakinou<sup>1</sup>, Chiara Fineschi<sup>1</sup>, Elisa Marchetti<sup>1</sup>, Mohammad A. AbdelGhany<sup>1</sup>, Kanchanamala Withanage<sup>2</sup>, Francesco Berlandascorza<sup>1</sup>, Giulia Luna Cilio<sup>3</sup>, Alimamy Serry-Bangura<sup>3</sup>, Iris Sarah De Ryck<sup>3</sup>, Martina Carducci<sup>1</sup>, Luisa Massai<sup>1</sup>, Simona Rondini<sup>1</sup>, Valentino Conti<sup>1</sup>, Omar Rossi<sup>1</sup>, Ashwani Arora<sup>1</sup>

<sup>1</sup>GSK Vaccines Institute for Global Health, Siena, Italy, <sup>2</sup>Centre for the Evaluation of Vaccination, University of Antwerp, Antwerp, Belgium, 3GSK Vaccines Srl, Siena, Italy

#### 11:45 a.m.

#### 6060

#### EFFECT OF BIANNUAL AZITHROMYCIN MASS DRUG ADMINISTRATION ON ENTERIC FEVER TRANSMISSION **INTENSITY IN NIGER**

Kristen Aiemjoy<sup>1</sup>, Jessica C. Seidman<sup>2</sup>, Ahmed M. Arzika<sup>3</sup>, Kristina Wen-Jeh Lai<sup>1</sup>, Ramatou Maliki<sup>3</sup>, Amza Abdou<sup>4</sup>, Denise Garrett<sup>2</sup>, Claire Munroe<sup>5</sup>, Abel Gonzalez<sup>5</sup>, Leah Sukri<sup>6</sup>, Elodie Lebas<sup>7</sup>, Catherine Cook<sup>7</sup>, Benjamin F. Arnold<sup>7</sup>, Thomas M. Lietman<sup>7</sup>, Kathleen M. Neuzil<sup>6</sup>, Jason R. Andrews<sup>8</sup>, Jeremy D. Keenan<sup>9</sup>, Richelle C. Charles<sup>5</sup> <sup>1</sup>University of California Davis, Davis, CA, United States, <sup>2</sup>Sabin Vaccine Institute, Washington, DC, United States, 3Centre de Recherche et Interventions en Santé Publique, Niamey, Niger, <sup>4</sup>Nationale de Santé Oculaire, Niamey, Niger, <sup>5</sup>Massachusetts General Hospital, Boston, MA, United States, 6 Center for Vaccine Development and Global Health, Baltimore, MD, United States, 7UCSF Francis I. Proctor Foundation, San Francisco, CA, United States, 8 Stanford University School of Medicine, Palo Alto, CA, United States, 9 UCSF-Francis I. Proctor Foundation, San Francisco, CA, United States



# **ASTMH Committee on Global Health (ACGH)** Symposium II: Building a Diverse Workforce in Global Health Research

Convention Center - Room 356 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

Despite the growing recognition that diversity in leadership leads to better health outcomes, leadership in global health research remains largely undiversified. The Global Health 50/50 organization has documented that, among almost 400 global organizations surveyed in 2023, 66% of CEOs and Board Chairs are men and 73% are nationals of high-income countries (globalhealth5050.org). In this symposium, we will hear from

experts who have dedicated their careers to working towards greater diversity in global health leadership, including building leadership of women and leadership from countries that have historically been underrepresented in global decision-making. Speakers will include leaders of academic and non-governmental institutions, policy-makers, and funders. Speakers will discuss strategies that they have implemented, challenges faced, and lessons learned, with a focus on how session attendees at all levels of training can work towards cultivating greater diversity in global health research. As a result of the symposium, it is expected that attendees will gain new ideas for how they can incorporate training and can promote diverse researchers in their ongoing work. #EarlyCareer #Trainee

#### **CHAIR**

Jennifer A. Downs Weill Cornell Medicine, New York, NY, United States

Maria E. Bottazzi Baylor College of Medicine, Houston, TX, United States

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

#### 10:25 a.m.

#### ACCOUNTABILITY FOR EQUALITY IN GLOBAL HEALTH CAREERS Sarah J. Hawkes

Global Health 50/50, Cambridge, United Kingdom

#### 10:40 a.m.

#### MOBILIZING OUR LEADERS: GENDER-BASED BARRIERS AND EVIDENCE-BASED SOLUTIONS IN FOUR COUNTRIES

Adolfine A.K. Hokororo Catholic University of Health and Allied Sciences, Mwanza, United Republic of Tanzania

#### 10:55 a.m.

STRENGTHENING RESEARCH CAPACITY IN A RESOURCE-CONSTRAINED ENVIRONMENT: CONNECTING AND SHARING WITH STRATEGIC PARTNERS

Jackeline Alger University Hospital, Tegucigalpa, Honduras

#### 11:10 a.m.

#### HEALTH EQUITY: A GLOBAL PERSPECTIVE FROM THE NIH FOGARTY INTERNATIONAL CENTER

Barbara J. Sina Fogarty International Center, National Institutes of Health, Bethesda, MD, United States

#### 11:25 a.m.

#### TRAINING JUNIOR SCIENTISTS FROM SITES WORLDWIDE TO CONDUCT CUTTING-EDGE TRANSLATIONAL RESEARCH

Maria Elena Botazzi Baylor College of Medicine, Houston, TX, United States

#### 11:40 a.m.

#### DOCTORAL-LEVEL LEADERSHIP TRAINING IN GLOBAL HEALTH: CREATING AGENTS OF CHANGE TO BUILD A DIVERSE WORKFORCE IN GLOBAL HEALTH RESEARCH AND PRACTICE Miquel Beina Ortiz

Indiana University, Indianapolis, IN, United States

# n M

# Symposium 22

# **Neglected Tropical Diseases: Getting the Dose Right**

## Convention Center - Room 357 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

Neglected Tropical Diseases (NTDs) affects predominantly marginalized and impoverished communities, and receive insufficient attention and funding for research, prevention, and treatment compared to other diseases. NTDs pose significant public health challenges, affecting over a billion people worldwide, primarily in low-resource settings. They cause substantial morbidity and mortality, leading to long-term disabilities, economic losses, and hindering of socioeconomic development in affected regions. Efforts to control and eliminate NTDs have gained momentum in recent years, with initiatives such as the World Health Organization's (WHO) NTD Roadmap 2030 aiming to accelerate progress towards eliminating these diseases as public health threats. Key strategies include improved treatment of acute infections, prevention, mass drug administration, improved access to healthcare services, vector control, and community engagement. Addressing these challenges requires a multifaceted approach involving governments, non-governmental organizations, researchers, and communities. Many of these diseases have a limited number of effective and safe drugs available, and they are often not used at optimal doses. Sub-optimal dosing could result in treatment failures and the development and spread of drug resistance. It is absolutely crucial to use available drugs at optimal doses, to reach treatment and elimination targets. The only way to truly determine the optimal dose in a particular population of patients, is to characterize and quantify the relationship between dosing - drug exposure - therapeutic efficacy in this group of patients. This can be achieved through well-planned and executed pre-clinical and clinical studies in combination with pharmacokinetic and pharmacodynamic modelling. This is particularly important in vulnerable population, such as pregnant women and small children. This symposium will provide an overview of the importance, impact and use of pharmacokinetic and pharmacodynamic tools in optimizing treatments of NTDs. Speakers will cover the use of pharmacokinetic-pharmacodynamic modelling of pre-clinical and clinical data to inform dosing, as well as the use of human challenge models in the development of novel therapies. The topics covered are not specific to a particular disease but generic for all NTDs, with presented case-studies and examples anchored in certain diseases to attract a wider audience. The novel methodologies presented will hopefully inspire future collaborations between clinical pharmacologists, trialists, laboratory scientists, and physicians. #ClinicalResearch #InfectiousDisease #Modeling #Therapeutics #TranslationalScience

#### <u>CHAIR</u>

Joel Tarning Mahidol Oxford Tropical Research Unit, Bangkok, Thailand

Radojka Savic University of California San Francisco, San Francisco, CA, United States

# INTRODUCTION

#### 10:25 a.m.

10:15 a.m.

# SCALING FROM PRE-CLINICAL TO CLINICAL TRIALS IN NEGLECTED TROPICAL DISEASES

Richard Hoglund

Mahidol Oxford Tropical Research Unit, Bangkok, Thailand

#### 10:45 a.m.

# PHARMACOMETRIC MODELLING TO OPTIMIZE HUMAN DOSE PREDICTIONS FOR MALARIA TREATMENT

Devasha Redhi University of Cape Town, Cape Town, South Africa

#### 11:05 a.m.

# THE USE OF HUMAN CHALLENGE MODELS IN OPTIMIZING TREATMENT OF INFECTIOUS DISEASES

James McCarthy The University of Melbourne, Melbourne, Australia

#### 11:25 a.m.

# PHARMACOKINETIC CONSIDERATIONS WHEN TREATING PREGNANT AND BREASTFEEDING MOTHERS

Catriona Waitt Makerere University, Kampala, Uganda

#### 11:45 a.m.

# THE ROLE OF PHARMACOMETRICS IN GLOBAL HEALTH RESEARCH

Savic Rada University of California San Francisco, San Francisco, CA, United States

# Symposium 23

## Human Flavivirus Challenge Models: Advances and Lessons Learned

Convention Center - Room 383/384/385 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon This session does not carry CME credit.

# Development of effective dengue virus (DENV) and Zika virus (ZIKV) countermeasures has been hindered by fundamental gaps in our understanding of flavivirus transmission, pathogenesis, and immunity. These knowledge gaps include understanding who is at risk of exposure, why do some infected people become ill and others do not, and what environmental and/or genetic factors increases a person's infection risk. Studying wild type infections to answer these questions has been challenging for a number of

to answer these questions has been challenging for a number of reasons including; 1) it is extremely difficult to capture people in the first few days after infection and before symptoms develop; 2) many people living in DENV/ZIKV endemic regions have preexisting flavivirus immunity from past infections or vaccinations; and 3) it is difficult to collect blood samples with a frequency which allows for detailed kinetic analyses. Furthermore, the seasonal and highly episodic nature of DENV and ZIKV transmission makes testing of candidate countermeasures extremely challenging. For these reasons, human flavivirus challenge models present a unique and powerful opportunity to study human host responses to DENV or ZIKV infection and to test the efficacy of candidate countermeasures in a safe, ethical, and reproducible setting. The objectives of this symposium are to provide a comprehensive overview and update on current human flavivirus challenge efforts and to highlight advances and lessons learned from these unique models. The symposium will start with an introduction and historical overview of the development and use of flavivirus human challenge studies, with specific focus on the DENV-1, -3, and -4 human challenge strains developed by the US Army, SUNY Upstate Medical University, and the University of Maryland School of Medicine as part of the Dengue Human Infection Model (DHIM) consortium. Next will be a presentation on the development and characteristics of the DENV challenge models established by the National Institutes of Health in collaboration with the Johns Hopkins University School of Medicine, followed by a presentation on immunologic and virologic lessons learned from the DHIM consortium DENV challenge models. The symposium will end with a presentation on recent efforts to develop a human Zika virus challenge model. #InfectiousDisease #TranslationalScience #ClinicalResearch

#### <u>CHAIR</u>

Adam Waickman SUNY Upstate Medical University, Syracuse, NY, United States

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

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

#### 10:25 a.m.

DENGUE HUMAN INFECTION MODELS - HISTORIC, BIOETHICAL, AND USE CASE PERSPECTIVES

Stephen J. Thomas SUNY Upstate Medical University, Syracuse, NY, United States

#### 10:50 a.m.

#### DENGUE HUMAN INFECTION MODELS DEVELOPED AT THE NIH Stephen S. Whitehead

Laboratory of Viral Diseases NIAID, NIH, DHHS, Bethesda, MD, United States

#### 11:15 a.m.

# IMMUNOLOGIC, VIROLOGIC, AND CLINICAL LESSONS LEARNED FROM DENGUE HUMAN INFECTION STUDIES

Kirsten E. Lyke University of Maryland, Baltimore, MD, United States

#### 11:35 a.m.

# ZIKA VIRUS HUMAN INFECTION MODELS

Anna P. Durbin Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

# **Scientific Session 24**

# Viruses - Evolution and Genomic Epidemiology

Convention Center - Room 388/389 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

# #MolecularBiology #Evolution #Epidemiology

# <u>CHAIR</u>

Lívia Sacchetto

Faculdade de Medicina de Sao Jose do Rio Preto, Sao Jose do Rio Preto, Brazil

Henry Puerta-Guardo Universidad Autonoma de Yucatan, Merida, Mexico

# 10:15 a.m.

6061

#### MACHINE LEARNING CAN REVEAL GENOMIC SIGNALS ASSOCIATED WITH ANTIGENIC DISTANCE IN DENGUE VIRUSES

**Ozan Kiratli**<sup>1</sup>, Lin Wang<sup>2</sup>, Angkana T. Huang<sup>2</sup>, Derek A. Cummings<sup>3</sup>, Henrik Salje<sup>2</sup>, Matthew A. Conte<sup>1</sup>

<sup>1</sup>Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>2</sup>University of Cambridge, Cambridge, United Kingdom, <sup>3</sup>University of Florida, Gainesville, FL, United States

6062

## 10:30 a.m.

#### GENOMIC EPIDEMIOLOGY OF ARBOVIRUSES REVEALS NEW VIRUS INTRODUCTIONS AND SIMULTANEOUS VIRUS CIRCULATION DURING DENGUE AND CHIKUNGUNYA OUTBREAKS IN BRAZIL

Lívia Sacchetto<sup>1</sup>, Beatriz Marques<sup>1</sup>, Victoria Bernardi<sup>1</sup>, Victor Hernandes<sup>1</sup>, Igor Teixiera<sup>1</sup>, Andreia Negri<sup>2</sup>, Nikos Vasilakis<sup>3</sup>, Mauricio Nogueira<sup>1</sup>

<sup>1</sup>Faculdade de Medicina de Sao Jose do Rio Preto, Sao Jose do Rio Preto, Brazil, <sup>2</sup>Departamento de Vigilancia Epidemiologica, Sao Jose do Rio Preto, Brazil, <sup>3</sup>The University of Texas Medical Branch, Galveston, TX, United States

# 10:45 a.m.

#### 6063

#### SEROLOGICAL AND GENETIC CHARACTERIZATION OF THE DENGUE VIRUS SEROTYPE 3 (DENV-3) INFECTING CHILDREN'S POPULATIONS DURING A DENGUE OUTBREAK IN MERIDA, MEXICO

Henry Nelson Puerta Guardo<sup>1</sup>, Hannah C. Dakanay<sup>2</sup>, K. Jacqueline Ciau<sup>1</sup>, Manuel Alejandro Parra Cardeña<sup>1</sup>, James Earnest<sup>3</sup>, Gloria Barrera Fuentes<sup>1</sup>, Oscar D. Kirstein<sup>4</sup>, Azael D. Che Mendoza<sup>1</sup>, J. Kevin Yam<sup>1</sup>, Mathew Collins<sup>5</sup>, Daniel Espinoza<sup>5</sup>, Pablo Manrique Saide<sup>1</sup>, Norma Pavía Ruz<sup>1</sup>, Guadalupe Ayora Talavera<sup>1</sup>, Anne L. Piantadosi<sup>6</sup>, Gonzalo Vazquez Prokopec<sup>3</sup>

<sup>1</sup>Universidad Autonoma de Yucatan, Merida, Mexico, <sup>2</sup>Department of Pathology and Laboratory Medicine, Emory University, Atlanta, GA, United States, <sup>3</sup>Department of Environmental Sciences, Emory University, Atlanta, GA, United States, <sup>4</sup>Dept. of Environmental Sciences, Emory University, Atlanta, GA, United States, <sup>5</sup>Division of Infectious Diseases, Department of Medicine, Emory University, Atlanta, GA, United States, <sup>6</sup>Department of Pathology and Laboratory Medicine, Emory University School of Medicine, Atlanta, GA, United States

# 11 a.m.

#### 6064

GENOMIC SURVEILLANCE OF DENGUE VIRUS FROM AN ACUTE FEBRILE ILLNESS STUDY IN EL SALVADOR, 2022-2023

Alexander R. Kneubehl<sup>1</sup>, Avery A. Kaye<sup>1</sup>, Elías Aguilar<sup>2</sup>, Kenni Campos<sup>1</sup>, Delmy Lisseth Recinos<sup>2</sup>, Sarah M. Gunter<sup>1</sup>, Gilberto A. Santiago<sup>3</sup>, Jorge L. Muñoz-Jordán<sup>3</sup>, Rafael Chacon<sup>4</sup>, Beatriz Lopez<sup>4</sup>, Emily Zielinski-Gutierrez<sup>4</sup>, Rhina Dominguez<sup>2</sup>, Xochitl Sandoval<sup>2</sup>, Kristy O. Murray<sup>1</sup>, Shannon E. Ronca<sup>1</sup>

<sup>1</sup>Baylor College of Medicine, Houston, TX, United States, <sup>2</sup>National Institute of Health of El Salvador, San Salvador, El Salvador, <sup>3</sup>Division of Vector-Borne Diseases, Centers for Disease Control and Prevention, San Juan, PR, United States, <sup>4</sup>Centers for Disease Control and Prevention. Central America Region, Guatemala City, Guatemala

#### 11:15 a.m.

#### 6065

# ECOLOGICAL AND GENETIC DETERMINANTS OF WEST NILE VIRUS PERSISTENCE IN FORT COLLINS, COLORADO

Robert Tobias Koch, Gregory Ebel Colorado State University, Fort Collins, CO, United States

11:30 a.m.

#### 6066

#### GENOMIC EPIDEMIOLOGY OF RIFT VALLEY FEVER VIRUS INVOLVED IN THE 2018 & 2022 OUTBREAKS IN LIVESTOCK IN RWANDA

Isidore Nsengimana<sup>1</sup>, John Juma<sup>2</sup>, Method N. Gasana<sup>3</sup>, Emmanuel Hakizimana<sup>4</sup>, Claude M. Muvunyi<sup>4</sup>, Jean N. Hakizimana<sup>5</sup>, Gillian Eastwood<sup>6</sup>, Augustino Chengula<sup>1</sup>, Bernard Bett<sup>2</sup>, Samuel O. Oyola<sup>2</sup>, Christopher J. Kasanga<sup>1</sup>

<sup>1</sup>Sokoine University of Agriculture, Morogoro, United Republic of Tanzania, <sup>2</sup>International Livestock Research Institute, Nairobi, Kenya, <sup>3</sup>Rwanda Agriculture and Animal Resources Development Board, Huye, Rwanda, <sup>4</sup>Rwanda Biomedical Center, Kigali, Rwanda, <sup>5</sup>SACIDS Foundation for One Health, Morogoro, United Republic of Tanzania, <sup>6</sup>Virginia Polytechnic Institute and State University, Blacksburg, VA, United States

#### 11:45 a.m. Lightning Talks

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

#### 7821

#### EVALUATING THE EFFICACY AND CORRELATES OF PROTECTION OF AN INSECT-SPECIFIC FLAVIVIRUS VECTORED ZIKA VACCINE

**Albert Jonathan Auguste**<sup>1</sup>, Danielle Porier<sup>1</sup>, Manette Tanelus<sup>1</sup>, Dawn I. Auguste<sup>1</sup>, Awadalkareem Adam<sup>2</sup>, Irving C. Allen<sup>3</sup>, Tian Wang<sup>2</sup>

<sup>1</sup>Virginia Polytechnic Institute and State University, Blacksburg, VA, United States, <sup>2</sup>University of Texas Medical Branch, Galveston, TX, United States, <sup>3</sup>Virginia-Maryland College of Veterinary Medicine, Blacksburg, VA, United States

#### 7073

#### SURVEILLANCE OF CORONAVIRUS IN WILD MAMMALS SEIZED AND RESCUED BY THE NATIONAL FOREST AND WILDLIFE SERVICE OF LIMA, PERU

**Carol A. Sanchez Chicana**<sup>1</sup>, Lisseth M. Leiva Herrera<sup>2</sup>, M. Teresa Lopez-Urbina<sup>2</sup>, Victor L. Izaguirre Pasquel<sup>3</sup>, Walter Silva<sup>4</sup>, Luis A. Gomez-Puerta<sup>2</sup>, Armando E. Gonzalez<sup>2</sup>, Juan A. Jimenez Chunga<sup>1</sup>

<sup>1</sup>School of Biological Sciences, Universidad Nacional Mayor de San Marcos, Lima, Peru, <sup>2</sup>Department of Animal and Public Health, School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, <sup>3</sup>School of Pharmacy and Biochemistry, Universidad Nacional Mayor de San Marcos, Lima, Peru, <sup>4</sup>Servicio Nacional Forestal y de Fauna Silvestre – SERFOR, Lima, Peru

#### 6269

#### SPATIO-TEMPORAL DISTRIBUTION OF CRIMEAN CONGO HEMORRHAGIC FEVER AND ITS RELATIONSHIP WITH CLIMATE FACTORS IN PAKISTAN: A DECADE-LONG EXPERIENCE FROM TERTIARY CARE LABORATORY NETWORK

**Muhammad Abbas Abid**, Joveria Farooqi, Rabiya Owais, Ayesha Sadiqa, Najia Ghanchi, Humaira Shafaq, Erum Khan *Aga Khan University, Karachi, Pakistan* 

#### 6317

# GENETIC ANCESTRY-ASSOCIATED DIFFERENCES IN DENGUE VIRUS INFECTION OF PRIMARY HUMAN SKIN CELLS

Michelle M. Martí, Priscila M. S. Castanha, Jocelyn M. Taddonio, Jeremy J. Martinson, Simon M. Barratt-Boyes University of Pittsburgh, Pittsburgh, PA, United States

#### 6315

#### EXPLORING THE ROLE OF HOST GLYCOSAMINOGLYCANS ON FLAVIVIRUS NS1-MEDIATED ENDOTHELIAL DYSFUNCTION

E. Vanessa Jimenez Posada<sup>1</sup>, Julianna L. Follmar<sup>2</sup>, Francielle T. Gomes de Sousa<sup>1</sup>, Scott Espich<sup>1</sup>, Nicholas Lo<sup>1</sup>, Robert Beatty<sup>1</sup>, Scott B. Biering<sup>1</sup>, Kamil Godula<sup>2</sup>, Eva Harris<sup>1</sup> <sup>1</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>2</sup>Department of Chemistry and Biochemistry and Glycobiology Research and Training Center, University of California, San Diego, CA, United States

# Scientific Session 25

# Malaria Pathogenesis: Parasite, Host and 'Omics Studies

Convention Center - Room 391/392 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

#### #TranslationalScience #Pathogenesis #MolecularBiology #InfectiousDisease

# <u>CHAIR</u>

Giselle Lima-Cooper Indiana University, Indianapolis, IN, United States

Miranda Oakley Food and Drug Administration, Silver Spring, MD, United States

# 10:15 a.m.

# SINGLE CELL TRANSCRIPTIONAL PROFILING OF DRY AND WET SEASON PLASMODIUM FALCIPARUM

6067

Lasse Votborg-Novél<sup>1</sup> Votborg-Novél<sup>1</sup>, Martin Kampmann<sup>1</sup>, Manuela Carrasquilla<sup>1</sup>, Georgia Angeli<sup>1</sup>, Hamidou Cisse<sup>2</sup>, Safiatou Duombo<sup>2</sup>, Didier Doumtabe<sup>2</sup>, Gabriela M. Guerra<sup>3</sup>, Kassoum Kayentao<sup>2</sup>, Aissata Ongoiba<sup>2</sup>, Mir-Farzin Mashreghi<sup>3</sup>, Thomas D. Otto<sup>4</sup>, Peter D. Crompton<sup>5</sup>, Boubacar Traore<sup>2</sup>, **Silvia Portuga**<sup>1</sup> <sup>1</sup>Max Planck Institute for INfection Biology, Berlin, Germany, <sup>2</sup>Malaria Research and Training

Center, Barnako, Mali, 3DRFZ, Berlin, Germany, 4University of Glasgow, Glasgow, United Kingdom, 5NIH, Rockville, MD, United States

#### (ACMCIP Abstract)

# 10:30 a.m.

6068

#### THE DYNAMICS OF PARASITE GROWTH IN P. FALCIPARUM AND P. KNOWLESI CO-CULTURES

Jeremy S. Goodwin-Gower, Jenny M. Peters, Hayley E. Mitchell, Stacey Llewellyn, Fiona H. Amante, Bridget E. Barber

QIMR Berghofer Medical Research Institute, Herston, Australia

(ACMCIP Abstract)

#### 10:45 a.m.

#### 6069

# DEFINING THE ROLE OF PIPECOLIC ACID IN THE ENCEPHALOPATHY OF CEREBRAL MALARIA

Cheryl Sachdeva<sup>1</sup>, Akua Mensah<sup>1</sup>, Maxwell Rubin<sup>2</sup>, Kyu Rhee<sup>3</sup>, Anas Saleh<sup>3</sup>, Terrie Taylor<sup>4</sup>, Karina Garcia<sup>1</sup>, Stephen Ray<sup>5</sup>, Nicole O'Brien<sup>6</sup>, Karl Seydel<sup>7</sup>, **Johanna Daily**<sup>1</sup> <sup>1</sup>Albert Einstein College of Medicine, Bronx, NY, United States, <sup>2</sup>Tulane University, New Orleans, LA, United States, <sup>3</sup>Weill Cornell College of Medicine, New York, NY, United States, <sup>4</sup>Michigan State University, Lansing, NY, United States, <sup>5</sup>University of Oxford, Oxford, United Kingdom, <sup>6</sup>Ohio State University, Columbus, OH, United States, <sup>7</sup>Michigan State University, Lansing, MI, United States

#### (ACMCIP Abstract)

#### 11 a.m.

6070

#### CEREBRAL MALARIA, THE BLOOD-BRAIN BARRIER AND BEYOND. THE IMPACT OF ICAM-1/EPCR DUAL BINDING PARASITES ON BARRIER DYSFUNCTION

Yvonne Adams, Katrine Zeeberg, Nanna Dalgaard, Anja R. Jensen University of Copenhagen, Copenhagen, Denmark

(ACMCIP Abstract)

#### 11:15 a.m.

## 6071

#### HETEROGENEITY IN PATHOGENIC BRAIN SEQUESTERED CD8<sup>+</sup> T CELLS DURING EXPERIMENTAL CEREBRAL MALARIA REVEALED BY SINGLE CELL SEQUENCING

Miranda Oakley<sup>1</sup>, Micah P. Fletcher<sup>2</sup>, Victoria Majam<sup>1</sup>, Hong Zheng<sup>1</sup>, Gregory K. Tharp<sup>2</sup>, Mark KuKuruga<sup>1</sup>, Sanjai Kumar<sup>1</sup>

<sup>1</sup>FDA, Silver Spring, MD, United States, <sup>2</sup>Emory, Atlanta, GA, United States

#### (ACMCIP Abstract)

#### 11:30 a.m.

#### 6072

#### METABOLITES ASSOCIATED WITH CEREBRAL MALARIA PATHOGENESIS AND PROTRACTED PRO-THROMBOTIC PROPENSITY IN CHILD SURVIVORS OF CEREBRAL MALARIA

Katherine Dobbs<sup>1</sup>, Kenzie Birse<sup>1</sup>, Sausan Azzam<sup>1</sup>, Laura Noel-Romas<sup>1</sup>, David Midem<sup>2</sup>, Paula Embury<sup>1</sup>, Yelenna Skomorovska-Prokvolit<sup>1</sup>, Arlene Dent<sup>1</sup>, Adam Burgener<sup>1</sup>, Sidney Ogolla<sup>2</sup>, James Kazura<sup>1</sup>

<sup>1</sup>Case Western Reserve University, Cleveland, OH, United States, <sup>2</sup>Kenya Medical Research Institute, Kisumu, Kenya

#### (ACMCIP Abstract)

#### 11:45 a.m.

#### 6073

#### TRANSCRIPTOMIC DATA ANALYSIS IDENTIFIES ACTIVE HOST UBIQUITIN-PROTEASOME PATHWAY IN KENYAN CHILDREN WITH SEVERE MALARIAL ANEMIA

Samuel B. Anyona<sup>1</sup>, Qiuying Cheng<sup>2</sup>, Sharley A. Wasena<sup>3</sup>, Shamim W. Osata<sup>4</sup>, Evans Raballah<sup>5</sup>, Ivy Hurwitz<sup>2</sup>, Clinton O. Onyango<sup>3</sup>, Philip D. Seidenber<sup>6</sup>, Benjamin H. McMahon<sup>7</sup>, Christophe G. Lambert<sup>8</sup>, Kristan A. Schneider<sup>9</sup>, Collins Ouma<sup>3</sup>, Douglas J. Perkins<sup>2</sup>

<sup>1</sup>Department of Medical Biochemistry, School of Medicine, Maseno University, Maseno, Kenya, <sup>2</sup>Department of Internal Medicine, Center for Global Health, University of New Mexico, Albuquerque, NM, United States, <sup>3</sup>Department of Biomedical Sciences and Technology, School of Public Health and Community Development, Maseno University, Maseno, Kenya, <sup>4</sup>University of New Mexico-Kenya Global Health Programs, Kisumu and Siaya, Kenya, <sup>5</sup>Department of Medical Laboratory Sciences, School of Public Health, Biomedical Sciences and Technology, Masinde Muliro University of Science and Technology, Kakamega, Kenya, <sup>6</sup>Department of Emergency Medicine, School of Medicine, University of New Mexico, Albuquerque, NM, United States, <sup>7</sup>Theoretical Biology and Biophysics Group, Theoretical Division, Los Alamos National Laboratory, Los Alamos, NM, United States, <sup>8</sup>Department of Internal Medicine, Division of Translational Informatics, University of New Mexico, Albuquerque, NM, United States, <sup>9</sup>Department Applied Computer and Bio-Sciences, University of Applied Sciences Mittweida, Mittweida, Germany

#### (ACMCIP Abstract)

ASTMH — Advancing Global Health Since 1903

# **Scientific Session 26**

# Malaria: Diagnosis - Challenges and Innovations

Convention Center - Room 393/394 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon CHAIR Christian Nsanzabana

Swiss Tropical and Public Health Institute, Allschwil, Switzerland

Steve Taylor Duke University, Durham, NC, United States

#### 10:15 a.m.

#### 6074

#### TO TEST OR NOT TO TEST: WHAT DETERMINES WHETHER CLIENTS TEST FOR MALARIA IN THE PRIVATE SECTOR IN KENYA AND NIGERIA?

Meley Woldeghebriel<sup>1</sup>, Indrani Saran<sup>2</sup>, David Arthur<sup>3</sup>, Nwamaka Eze<sup>4</sup>, Theodoor Visser<sup>5</sup>, Jeremiah Laktabai<sup>6</sup>

<sup>1</sup>CHAI, Kampala, Uganda, <sup>2</sup>Boston College School of Social Work, Boston, MA, United States, <sup>3</sup>Duke University Department of Biostatistics & Bioinformatics, Durham, NC, United States, <sup>4</sup>CHAI, Lagos, Nigeria, <sup>5</sup>CHAI, Boston, MA, United States, <sup>6</sup>Academic Model Providing Access to Healthcare, Eldoret, Kenya

#### 10:30 a.m.

#### 6075

#### PERFORMANCE AND UTILITY OF HIGHLY SENSITIVE MALARIA RAPID DIAGNOSTIC TEST FOR DETECTING INFECTIONS THAT AFFECT HEALTH AND TRANSMISSION IN SCHOOL-AGED CHILDREN IN SOUTHERN MALAWI

Meredith G. Sherman<sup>1</sup>, Godfrey Mvula<sup>2</sup>, Karl B. Seydel<sup>3</sup>, Lauren M. Cohee<sup>4</sup> <sup>1</sup>Global Health Initiative, Children's National Hospital, Washington, DC, United States, <sup>2</sup>Kamuzu University of Health Sciences, Blantyre, Malawi, <sup>3</sup>Department of Internal Medicine, College of Osteopathic Medicine, Michigan State University, East Lansing, MI, United States, <sup>4</sup>Department of Clinical Sciences, Liverpool School of Tropical Medicine, Liverpool, United Kingdom

## 10:45 a.m.

# 6076

WIDESPREAD PFHRP2/3 DELETIONS AND FALSE NEGATIVE RESULTS ASSOCIATED TO HRP2-BASED RDTS IN SOUTHERN ETHIOPIA

Lemu Golassa<sup>1</sup>, Bacha Mekonen<sup>1</sup>, Sisay Dugassa<sup>1</sup>, Sindew M. Feleke<sup>1</sup>, Boja Dufera<sup>2</sup>, Bedasa Gidisa<sup>3</sup>, Aderaw Adamu<sup>4</sup>, Aynalem Mandefro<sup>1</sup>, Geremew Tassew<sup>5</sup> <sup>1</sup>Addis Ababa University, Addis Ababa, Ethiopia, <sup>2</sup>alaria and NTDs research team, Bacterial, Parasitic, and Zoonotic Diseases Research, Addis Ababa, Ethiopia, <sup>3</sup>rmeur Hansen Research Institute, Malaria and NTDs Research Team, Addis Ababa, Ethiopia, 4Wollo University College of Medicine and Health Science, Department of Medical Laboratory Science, Wollo, Ethiopia, <sup>5</sup>Malaria and NTDs research team, Bacterial, Parasitic, and Zoonotic Diseases Research, Addis Ababa, Ethiopia

#### 11 a.m.

#### 6077

#### PREVALENCE OF *PFHRP2/3* DELETIONS IN SOUTH SUDAN: RESULTS OF A 10-SITE NATIONAL SURVEY

Désiré Ndisabiye<sup>1</sup>, Constantino Doggale<sup>2</sup>, Olivier Denis<sup>3</sup>, Pascale Chaillet<sup>3</sup>, Letizia Di Stefano<sup>3</sup>, Erwan Piriou<sup>4</sup>, Valérie Briand<sup>5</sup>, Jane Cunningham<sup>6</sup>, Qin Cheng<sup>7</sup>, **Matthew Coldiron**<sup>5</sup>

<sup>1</sup>Médecins Sans Frontières, Juba, South Sudan, <sup>2</sup>National Malaria Control Programme, Juba, South Sudan, <sup>3</sup>Médecins Sans Frontières, Brussels, Belgium, <sup>4</sup>Médecins Sans Frontières, Amsterdam, Netherlands, <sup>5</sup>Epicentre, Paris, France, <sup>6</sup>WHO, Geneva, Switzerland, <sup>7</sup>Australian Defence Force Malaria and Infectious Disease Institute, Brisbane, Australia

# Thursday wember 14

# COUNTRYWIDE PFHRP2 GENE DELETION SURVEILLANCE IN MALI

Hinda DOUCOURE<sup>1</sup>, Mahamadou S. Sissoko<sup>1</sup>, Mamadou M. Tekete<sup>1</sup>, Antoine Dara<sup>1</sup>, Maimouna Dembele<sup>1</sup>, Bintou Diarra<sup>1</sup>, Boi Koné<sup>1</sup>, Aïssata Koné<sup>2</sup>, Mady Cissoko<sup>2</sup>, Vincent Sanogo<sup>2</sup>, Abdoulaye Djimde<sup>1</sup>

6078

<sup>1</sup>Pathogens genomics Diversity Network Africa, Barnako, Mali, <sup>2</sup>National Malaria Control Program of Mali, Barnako, Mali

# 11:30 a.m.

11:15 a.m.

# 6079

#### ANALYTICAL PERFORMANCE ASSESSMENT OF THE AUTOMATED AND ARTIFICIAL INTELLIGENCE-ENABLED MILAB<sup>™</sup> MAL MALARIA SYSTEM FOR THE DETECTION OF *PLASMODIUM FALCIPARUM* IN SUSPECTED MALARIA PATIENTS IN LAGOS, NIGERIA

Wellington A. Oyibo<sup>1</sup>, Chinonye Anabike<sup>1</sup>, Oladipo O. Oladosu<sup>1</sup>, Michael O. Kusimo<sup>1</sup>, Rita O. Urude<sup>2</sup>, Chinyere Okoro<sup>1</sup>

<sup>1</sup>Centre for Transdisciplinary Research for Malaria and Neglected Tropical Diseases (CENTRAL-NTDS)/ANDI Centre of Excellence for Malaria Diagnosis,College of Medicine of the University of Lagos, Nigeria, Idi-Araba, Nigeria, <sup>2</sup>NTD Division, Federal Ministry of health, Abuja, Nigeria

11:45 a.m.

# 6080

# END-USERS PERCEPTIONS ON THEORETICAL NON-INVASIVE MALARIA TESTING TOOLS

Serafina Calarco<sup>1</sup>, Vanessa Fargnoli<sup>1</sup>, Catherine Thomas<sup>2</sup>, Caroline Thomas<sup>2</sup>, Claudius Mone Iye<sup>2</sup>, Valerie Paz Soldan<sup>3</sup>, Amy Aegypti<sup>3</sup>, Janvier Serumondo<sup>4</sup>, Ladislas Nshimiyimana<sup>4</sup>, Yvonne Delphine Nsaba Uwera<sup>4</sup>, Sonjelle Shilton<sup>1</sup>, Kevin KA Tetteh<sup>1</sup> <sup>1</sup>Foundation for innovative New Diagnostics (FIND), Geneva, Switzerland, <sup>2</sup>Yayasan Peduli Hati Bangsa, Jakarta, Indonesia, <sup>3</sup>Asociación Benéfica PRISMA, Lima, Peru, <sup>4</sup>Rwanda Biomedical Center, Kingali, Rwanda

# **Scientific Session 27**

# Pneumonia, Respiratory Infections and Tuberculosis II

Convention Center - Room 395/396 (3rd Floor) Thursday, November 14, 10:15 a.m. - Noon

#### #InfectiousDIsease #Genomics #Epidemiology #PopulationSurveillance #Resistance

<u>CHAIR</u>

Muhammad Imran Nisar Pediatrics and Child Health, Aga Khan University, Karachi, Pakistan

Jasper Chan The University of Hong Kong, Hong Kong, Hong Kong

# 10:15 a.m.

# 6081

#### ANTIBODY-OMICS REVEALS DISTINCT HUMORAL PROFILES AND BIOMARKERS IN HIV/TB COINFECTION

Sarah M. Ali<sup>1</sup>, Abhipsa Panigrahi<sup>1</sup>, Marwou de Kock<sup>2</sup>, Willem A. Hanekom<sup>3</sup>, Cheryl L. Day<sup>4</sup>, Aniruddh Sarkar<sup>1</sup>

<sup>1</sup>Georgia Institute of Technology, Atlanta, GA, United States, <sup>2</sup>South African Tuberculosis Vaccine Initiative, University of Cape Town, Cape Town, South Africa, <sup>3</sup>Africa Health Research Institute, Durban, South Africa, <sup>4</sup>Emory University School of Medicine, Atlanta, GA, United States 10:30 a.m.

## 6082

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# DEVELOPMENT OF AMPLICON-BASED WHOLE-GENOME SEQUENCING OF MYCOBACTERIUM TUBERCULOSIS

Chaney C. Kalinich<sup>1</sup>, Freddy Gonzalez<sup>2</sup>, Mallery I. Breban<sup>3</sup>, Isabel Distefano<sup>3</sup>, Ted Cohen<sup>3</sup>, Nathan D. Grubaugh<sup>3</sup>, Seth Redmond<sup>3</sup>

<sup>1</sup>Yale School of Medicine, New Haven, CT, United States, <sup>2</sup>Department of Ecology and Evolutionary Biology, Yale University, New Haven, CT, United States, <sup>3</sup>Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, CT, United States

6083

#### 10:45 a.m.

#### TWO DECADES OF MOLECULAR SURVEILLANCE OF MULTIDRUG-RESISTANT TUBERCULOSIS IN ARGENTINA: LATEST TRENDS AT THE DAWN OF THE GENOMIC ERA

Roxana Paul, Federico Lorenzo, Francisco Delvento, Eduardo Mazzeo, Ingrid Wainmayer, Beatriz López, Norberto Simboli, **Noemi Kaoru Yokobori** *INEI, ANLIS "Dr. C. G. Malbrán", Ciudad Autónoma de Buenos Aires, Argentina* 

# 11 a.m.

#### PRELIMINARY OUTCOMES FROM A PROSPECTIVE OBSERVATIONAL COHORT OF ADULTS WITH DRUG-SUSCEPTIBLE CAVITARY TUBERCULOSIS IN HAITI

Nancy Dorvil<sup>1</sup>, Marc A. JeanJuste<sup>1</sup>, Nao Haba<sup>2</sup>, Joissaint Guy<sup>1</sup>, Kathleen Walsh<sup>2</sup>, Jean W. Pape<sup>1</sup>, **Daniel Fitzgerald**<sup>2</sup>

6085

6086

6084

<sup>1</sup>GHESKIO, Port-au-Prince, Haiti, <sup>2</sup>Weill Cornell Medicine, New York, NY, United States

# 11:15 a.m.

#### TUBERCULOSIS DRUG SUSCEPTIBILITY TEST WITH SNP-RESOLUTION USING SINGLE SAMPLE MELT ANALYSIS

Nicole A. Malofsky, Dalton J. Nelson, Megan E. Pask, Frederick R. Haselton Vanderbilt University, Nashville, TN, United States

#### 11:30 a.m.

#### RISK FACTORS ASSOCIATED WITH POST-TUBERCULOSIS SEQUELAE: A SYSTEMATIC REVIEW AND META-ANALYSIS

Temesgen Yihunie Akalu<sup>1</sup>, Archie C.A Clements<sup>2</sup>, Alemneh Mekuriaw Liyew<sup>1</sup>, Beth Gilmour<sup>3</sup>, Megan B. Murray<sup>4</sup>, Kefyalew Addis Alene<sup>1</sup> <sup>1</sup>Curtin University, Perth, Australia, <sup>2</sup>Queens University Belfast, Belfast, United Kingdom, <sup>3</sup>Teleth, Perth, Australia, <sup>4</sup>Harvard University, Boston, MA, United States

# 11:45 a.m.

TUBERCULOSIS TRENDS AMONG INDIGENOUS PEOPLE IN BRAZIL BEFORE, DURING, AND AFTER THE SARS-COV-2 PANDEMIC

Ida Kolte<sup>1</sup>, Eunice Atsuko Totumi Cunha<sup>2</sup>, Paulo Cesar Basta<sup>1</sup> <sup>1</sup>Oswaldo Cruz Foundation (FIOCRUZ), Rio de Janeiro, Brazil, <sup>2</sup>Laboratório Central de Saúde Pública do Estado de Mato Grosso do Sul, Campo Grande, Brazil

6087

# **Exhibit Hall Open**

119

Convention Center - Hall J (1st Floor) Thursday, November 14, Noon - 1:30 p.m.



# **Poster Session 28**

# **Poster Session A**

Convention Center - Hall I-1 (1st Floor) Thursday, November 14, Noon - 1:45 p.m.

# **Poster Session A Directory**

Global Health - Information/Communication/Technologies Solutions in Global Health including Modeling: 6088-6100 Global Health - Other: 6101-6131 Global Health - Security/Emerging Infection Preparedness, Surveillance and Response(s): 6132-6149 Arthropods/Entomology - Other: 6150-6167 Mosquitoes - Biology, Physiology and Immunity: 6168-6177 Mosquitoes - Bionomics, Behavior and Surveillance: 6178-6191 Mosquitoes - Epidemiology and Vector Control: 6192-6223 Mosquitoes - Molecular Biology, Population Genetics and Genomics: 6224-6235 Viruses - Emerging Viral Diseases: 6236-6251 Viruses - Epidemiology: 6252-6272 Viruses - Evolution and Genomic Epidemiology: 6273- 6288 Viruses - Immunology: 6289-6306 Viruses - Pathogenesis and Animal Models: 6307-6322 Malaria - Antimalarial Resistance and Chemotherapy: 6323-6343 Malaria - Diagnosis - Challenges and Innovations: 6344-6355 Malaria - Drug Development and Clinical Trials: 6356-6366 Malaria - Elimination: 6367-6382 Malaria – Epidemiology: 6383-6413 Malaria - Genetics, Genomics and Evolution: 6414-6429 Malaria - Immunology: 6430-6443 Malaria - Parasite Transmission Biology: 6444-6451 Malaria - Prevention: 6452- 6477 Malaria – Surveillance and Data Utilization: 6478-6501 Malaria - Vaccines and Immunotherapeutics: 6502-6520 Bacteriology - Enteric Infections: 6521-6534 Bacteriology - Other Bacterial Infections: 6535-6548 Clinical Tropical Medicine: 6549-6575 Helminths - Nematodes - Filariasis (Diagnostics and Therapeutics): 6576-6592 Helminths - Nematodes - Intestinal Nematodes: 6593-6614 HIV and Tropical Co-Infections: 6615-6635 Kinetoplastida and Other Protozoa - Diagnosis and New Detection Tools (Including Leishmania and Trypanosomes): 6636-6659 Measures for Control and Elimination of Neglected Tropical Diseases (NTDs): 6660-6686 One Health: The Interconnection between People, Animals, Plants and Their Shared Environment: 6687-6699 Pneumonia, Respiratory Infections and Tuberculosis: 6700-6716 Schistosomiasis and Other Trematodes - Diagnostics and Treatment:

Schistosomiasis and Other Trematodes – Diagnostics and Treatment: 6717-6727

Schistosomiasis and Other Trematodes – Epidemiology and Control: 6728-6737

Water, Sanitation, Hygiene and Environmental Health: 6738-6751

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

# 6088

### COVID-19 COMMUNITY 'BANTABA': RAISING AWARENESS AND REDUCING MISINFORMATION ON COVID-19 WITHIN TWO URBAN LOCALITIES IN THE GAMBIA

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#### 6089

THE EFFECT OF PANDEMICS ON DECENT WORK AND TASK PERFORMANCE AND ITS INFLUENCE ON LEADERS' EMOTIONAL INTELLIGENCE EMMANUEL BOATENG FOSU

UNIVERSITY OF GHANA, ACCRA, Ghana

### 6090

QUANTIFYING THE IMPACT OF MODIFIABLE RISK AND PROTECTIVE FACTORS ON MORTALITY AMONG CHILDREN AND YOUNG ADOLESCENTS RECEIVING ANTIRETROVIRAL THERAPY

Jiawei He, Hmwe Kyu, Amanda Novotney, Edmond Brewer, Austin Carter, Kemal Oumer

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#### 6091

CHALLENGES AND LESSONS LEARNED WHILE COMPLETING/ INITIATING VACCINE CLINICAL TRIALS DURING THE COVID-19 PANDEMIC IN A DEVELOPING COUNTRY: EXPERIENCE FROM NEPAL

Pragya Thapa<sup>1</sup>, Tarun Saluja<sup>2</sup>, Pranodan Poudel<sup>3</sup>, Shanti Bogati<sup>3</sup>, Naveena Aloysia D'Cor<sup>2</sup>, Birendra Prasad Gupta<sup>1</sup>

<sup>1</sup>International Vaccine Institute, Kathmandu, Nepal, <sup>2</sup>International Vaccine Institute, Seoul, Korea, Democratic People's Republic of, <sup>3</sup>Dhulikhel Hospital-Kathmandu University Hospital, Dhulikhel, Nepal

### 6092

ADVANCING GEOSTATISTICAL METHODS FOR FUTURE STRATEGIES IN NEGLECTED TROPICAL DISEASE PROJECTS Luke EW Klein

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### 6093

#### FROM RESEARCH TO POLICY - LEVERAGING SCIENCE AND STRATEGIC COMMUNICATION TO TACKLE DENGUE IN BANGLADESH

A K M Tariful Islam Khan, Mohammad Shafiul Alam, Tahmeed Ahmed International Centre for Diarrheal Disease Research, Bangladesh (icddr,b), Dhaka, Bangladesh

#### DOCUMENTATION AND ANALYSIS OF THE SOCIAL CONTACT PATTERNS USING STANDARDIZED DIARIES ACROSS DIFFERENT AGES IN LOW-INCOME SETTINGS IN VELLORE DISTRICT, TAMIL NADU, SOUTHERN INDIA

RAJAN SRINIVASAN<sup>1</sup>, Ayyappan V R<sup>1</sup>, Janani Rathi<sup>1</sup>, Agil Somasundaram<sup>1</sup>, Meenakshi N<sup>1</sup>, Moses Chapa Kiti<sup>2</sup>, Noureen Ahmed<sup>3</sup>, Ben Lopman<sup>2</sup>, Saad Omer<sup>3</sup>, Venkat Raghava Mohan<sup>1</sup>

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# 6095

#### ENHANCING COMMUNITY HEALTH DIGITIZATION IN BURKINA FASO WITH ENTERPRISE ARCHITECTURE: ACHIEVEMENTS AND LESSONS.

Alain Kabore<sup>1</sup>, Fatou Fall<sup>2</sup>, Salif Traore<sup>3</sup>, Jean Serge Dimitri Ouattara<sup>3</sup> <sup>1</sup>PATH, Ouagadougou, Burkina Faso, <sup>2</sup>PATH, Dakar, Senegal, <sup>3</sup>Ministry of health and public hygiene, Ouagadougou, Burkina Faso

### 6096

#### CHIKUNGUNYA VIRUS RISK OF ACQUISITION, DIFFERENTIAL DIAGNOSIS AND VACCINE DEVELOPMENT: IMPACT OF INDEPENDENT ONLINE MEDICAL EDUCATION ON PHYSICIAN KNOWLEDGE AND CONFIDENCE

Julia C. Duffey<sup>1</sup>, Iwona Misiuta<sup>2</sup>, Lin H. Chen<sup>3</sup>

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### **6097**

#### AN EXPLAINABLE MACHINE LEARNING APPROACH FOR PREDICTING LINEAR GROWTH FALTERING FOLLOWING A DIARRHEAL ILLNESS AMONG CHILDREN AGED 6-35 MONTHS IN WESTERN KENYA

Billy Ogwel<sup>1</sup>, Vincent H. Mzazi<sup>2</sup>, Alex O. Awuor<sup>1</sup>, John B. Ochieng<sup>1</sup>, Stephen Munga<sup>1</sup>, Kirkby D. Tickell<sup>3</sup>, Patricia B. Pavlinac<sup>3</sup>, Karen L. Kotloff<sup>4</sup>, Richard Omore<sup>1</sup> <sup>1</sup>Kenya Medical Research Institute, Kisumu, Kenya, <sup>2</sup>University of South Africa, Pretoria, South Africa, <sup>3</sup>University of Washington, Seattle, WA, United States, <sup>4</sup>University of Maryland, Baltimore, MD, United States

# 6098

#### ANALYSIS OF CARE-SEEKING PATHWAY AND FACTORS INFLUENCING EARLY AND APPROPRIATE CARE-SEEKING FOR MALARIA PATIENTS IN THE REPUBLIC OF GUINEA, 2022-2023

Elhadj Marouf DIALLO<sup>1</sup>, Mateusz M Plucinski<sup>2</sup>, Fatoumata Bintou TRAORE<sup>1</sup>, Bienvenu Salim CAMARA<sup>3</sup>, Alice LANGLET<sup>4</sup>, Alexandre DELAMOU<sup>1</sup>, Ousmane Oumou DIALLO<sup>5</sup>, Laurent GERBAUD<sup>4</sup>, Alioune CAMARA<sup>6</sup>

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#### 6099

# SCREENING, VACCINATION, AND AWARENESS CREATION FOR HEPATITIS B VIRUS INFECTION IN ACCRA, GHANA

Rawdat Baba-Adam, Kwadwo Asamoah Kusi Lab –, Linda Eva Amoah, Kwadwo Asamoah Kusi, Joseph Humphrey Kofi Bonney

Noguchi Memorial Institute for Medical Research, University of Ghana, Accra, Ghana

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# SUSTAINING MALARIA CONTROL THROUGH WARD DEVELOPMENT COMMITTEES IN NIGERIA

**Ekpo Edet**<sup>1</sup>, Olusola Adeoye<sup>1</sup>, Oluseyi Akintola<sup>1</sup>, Oluyemi Abodunrin<sup>1</sup>, Aderonke Popoola<sup>1</sup>, Foyeke Oyedokun-Adebagbo<sup>2</sup>, Veronica Momoh<sup>2</sup>, Jules Mihigo<sup>2</sup>, Samuel Owoya<sup>3</sup>, Angela Acosta<sup>4</sup>, Bolatito Aiyenigba<sup>1</sup>

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# **Global Health - Other**

### 6101

CALL FOR A FAIRER APPROACH TO AUTHORSHIP PRACTICE IN THE REPORTING OF BIOMEDICAL RESEARCH

#### Phaik Yeong Cheah<sup>1</sup>, Michael Parker<sup>2</sup>

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# 6102

UNDERSTANDING THE VIEWS OF PREGNANT AND LACTATING WOMEN ON CHILD BREASTFEEDING. A QUALITATIVE STUDY IN EASTERN ETHIOPIA.

Ketema Begna

Haramaya University, Harar, Ethiopia

# 6103

LESSONS FROM THE FIELD: MINIMUM SERVICE STANDARDS ASSESSMENT TOOL AND THE HOSPITAL STRENGTHENING PROGRAM: A NOVEL FIRST STEP TOWARDS THE QUALITY IMPROVEMENT OF NEPAL'S GOVERNMENT HOSPITALS

Rita Pokhrel<sup>1</sup>, **Abigail Knoble**<sup>2</sup>, Pratibha Gautam<sup>3</sup>, Mohammad Kashim Shah<sup>1</sup>, Archana Amatya<sup>1</sup>, Ruma Rajbhandari<sup>2</sup>

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#### 6104

#### PHYSICIAN KNOWLEDGE, ATTITUDES, AND PERCEPTIONS OF FACILITY-WIDE ANTIBIOGRAMS IN SOUTHERN SRI LANKA: A PRE-IMPLEMENTATION STUDY

Lorenna Cristal Garcia-Bochas<sup>1</sup>, Sherine Nanayakkar<sup>2</sup>, Perla Medrano<sup>1</sup>, Ajith Nagahawatte<sup>1</sup>, Lakmal Fonseka<sup>2</sup>, Armstrong Obale<sup>1</sup>, Lana Abusalem<sup>1</sup>, Melissa Watt<sup>3</sup>, Christopher Woods<sup>1</sup>, Truls Ostbye<sup>1</sup>, Champica Bodinayake<sup>2</sup>, Gayani Tillekeratne<sup>1</sup> <sup>1</sup>Duke University, Durham, NC, United States, <sup>2</sup>University of Ruhuna, Galle, Sri Lanka, <sup>3</sup>University of Utah, Salt Lake City, UT, United States

#### 6105

#### EFFECTS OF A SCHOOL-BASED PHYSICAL ACTIVITY PROGRAM AND MULTI-MICRONUTRIENT SUPPLEMENTATION ON BODY COMPOSITION AMONG SCHOOLCHILDREN IN THE KILOMBERO DISTRICT, TANZANIA

Elihaika Gilbert Minja<sup>1</sup>, Emmanuel C. Mrimi<sup>1</sup>, Winfrida Mponzi<sup>2</sup>, Johanna Beckmann<sup>3</sup>, Marceline F. Finda<sup>2</sup>, Christin Lang<sup>3</sup>, Fredros O. Okumu<sup>2</sup>, Markus Gerber<sup>3</sup>, Juerg Utzinger<sup>1</sup>, Kurt Z. Long<sup>1</sup>

<sup>1</sup>Swiss Tropical and Public Health, CH-4123 Allschwil, Switzerland, <sup>2</sup>Ifakara Health Insitute, Ifakara, United Republic of Tanzania, <sup>3</sup>University of Basel, CH-4052 Basel, Switzerland

#### CHARACTERIZATION OF MICROBIAL ISOLATES IN ANTIMICROBIAL STEWARDSHIP PROGRAM (ASP) OF A TERTIARY HEALTHCARE FACILITY IN SOUTHEAST NIGERIA -THE MONITORY PROJECT

Perpetua Onyinye Nnemelu<sup>1</sup>, Chukwuanugo N. Ogbuagu<sup>1</sup>, Ikemefuna N. C Onyeyili<sup>1</sup>, Grace A. Elemuo<sup>1</sup>, Irene U. Okeke<sup>1</sup>, Ngozika U. Anazoba<sup>1</sup>, Debra U. Okeh<sup>2</sup> <sup>1</sup>Nnamdi Azikiwe University Teaching Hospital Nnewi Anambra state Nigeria, Nnewi, Nigeria, <sup>2</sup>Federal Medical Centre Umuahhia Abia state Nigeria, Umuahia, Nigeria

### 6107

#### PRECARIOUS HUMANITARIAN SITUATION RISKING INFECTIOUS DISEASES OUTBREAKS FOR INTERNALLY DISPLACED PERSONS IN PORT-AU-PRINCE, HAITI

Fritznel C. Pierre<sup>1</sup>, Saurel Doirin<sup>1</sup>, Anthony Meme<sup>1</sup>, Matthew H. Howard<sup>2</sup>, Louise C. Ivers<sup>3</sup> <sup>1</sup>Combite Pour la Paix et le Développement, Port-au-Prince, Haiti, <sup>2</sup>Milton Public Schools, Milton, MA, United States, <sup>3</sup>Harvard Global Health Institute, Cambridge, MA, United States

#### 6108

#### AWARENESS AND PRACTICE OF MEDICAL WASTE MANAGEMENT AMONG HEALTHCARE PROVIDERS AT SALAVANH AND SEKONG PROVINCIAL HOSPITAL, LAO PDR

Vannyda NAMVONGSA<sup>1</sup>, Chathaya WONGRATHANANDHA<sup>2</sup>

<sup>1</sup>Sethathirath Hospital, Vientiane, Lao People's Democratic Republic, <sup>2</sup>Faculty of Medicine, Ramathibodi Hospita, Mahidol Universityl, Bangkok, Thailand

#### 6109

#### UNVEILING LIVES: EXPLORING THE DAILY ROUTINES OF LEPROSY-AFFECTED INDIVIDUALS IN MALAYSIA THROUGH VIDEO ETHNOGRAPHY

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

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#### 6110

# EMPOWERING WOMEN AND GIRLS: A PATH TO GENDER EQUITY IN HEALTH AND WELLBEING

Elvis Safary<sup>1</sup>, Angela Nguku<sup>2</sup>, Vanessa Fargnoli<sup>1</sup>, Debashish Das<sup>1</sup>, Angela Muriuki<sup>1</sup> <sup>1</sup>FIND, Geneva, Switzerland, <sup>2</sup>White Ribbon Alliance Kenya, Nairobi, Kenya

# 6111

#### EXPLORING RESILIENCE AND WELL-BEING AMONG COMMUNITY HEALTH WORKERS: AN EXPLORATORY STUDY IN THE UPPER EAST REGION, GHANA

James Kotuah Sakeah<sup>1</sup>, David Addiss<sup>2</sup>, Cindy Feng<sup>3</sup>, John Bosco Aburiya<sup>4</sup>, Norbert Achibase<sup>5</sup>, Margaret Gyapong<sup>6</sup>, Ian Colman<sup>1</sup>, Alison Krentel<sup>1</sup> <sup>1</sup>University of Ottawa, Ottawa, ON, Canada, <sup>2</sup>The Task Force for Global Health, Atlanta, GA, United States, <sup>3</sup>Dalhousie University, Halifax, NS, Canada, <sup>4</sup>SD Dombo University of Business

and Integrated Development Studies, Wa, Ghana, <sup>5</sup>Navrongo Health Research Centre, Navrongo, Ghana, <sup>6</sup>University of Health and Allied Sciences, Ho, Ghana

# 6112

#### THE COST OF ACCESS TO HEALTH CARE FOR CHILDREN UNDER-FIVE YEARS WITH SEVERE ANAEMIA - A COSTING STUDY OF REFERRAL HOSPITALS IN MALAWI KENYA AND UGANDA

Grace Wezi Mzumara<sup>1</sup>, Melf-Jakob Kühl<sup>2</sup>, Jobiba Chinkhumba<sup>3</sup>, Oddvar Martin Kaarbøe<sup>2</sup>, Bjarne Bjarne Robberstad<sup>2</sup>

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# 6113

#### MORTALITY ESTIMATES IN SOUTH AND SOUTHEAST ASIA BY ELECTRONIC VERBAL AUTOPSIES

Nan Shwe Nwe Htun<sup>1</sup>, Elizabeth Ashley<sup>2</sup>, Koukeo Phommasone<sup>3</sup>, François Nosten<sup>4</sup>, Aung Pyae Phyo<sup>4</sup>, Moul Vanna<sup>5</sup>, Md Akramul Islam<sup>6</sup>, Shayla Islam<sup>6</sup>, Aninda Sen<sup>6</sup>, Nawrin Kabir<sup>6</sup>, Carlo Perrone<sup>1</sup>, Sue J Lee<sup>7</sup>, Yoel Lubell<sup>8</sup>, Thomas J Peto<sup>8</sup>

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### 6114

#### UNDERSTANDING THE IMPACT OF WORKING HOURS ON MEDICAL DOCTORS IN NIGERIA. A STUDY ON MENTAL HEALTH AND DECISION-MAKING

Alamin M. Usman, Aisha J. Suleiman Dalhatu Araf specialist Hospital, Lafia, Nasarawa state., Niqeria

### 6115

# THE ROLE OF GENDER IN MALARIA HEALTHCARE PROVIDER PERFORMANCE

**Elizabeth Arlotti-Parish**<sup>1</sup>, Katherine Wolf<sup>1</sup>, Lolade Oseni<sup>1</sup>, Annie Ciceron<sup>2</sup>, Patricia Gomez<sup>1</sup>, Thierno Ba<sup>2</sup>, Jadmin Mostel<sup>2</sup>

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### 6116

EVALUATION OF PHYSICAL ACTIVITY AND DIET INTERVENTIONS IN PREVENTING CHILDHOOD OBESITY IN THE UNITED STATES OF AMERICA: A SYSTEMATIC REVIEW

#### Christopher I. Chukwu

University of Oxford, Oxford, United Kingdom

#### 6117

NAVIGATING THE LOW COVID-19 VACCINATION RATE NEXUS: BIBLICAL INTERPRETATIONS AND PRACTICES OF PENTECOSTAL CHRISTIANS IN DMV

#### Patricia Mbah Epse Nchamukong

Walden University, Minneapolis, MN, United States

#### 6118

#### MASS CYTOMETRY DATA INTEGRATION METHODS REVEAL RURAL-URBAN GRADIENT OF IMMUNE PROFILES ACROSS GEOGRAPHY

Koen Stam<sup>1</sup>, **Marloes M.A.R. Dorst**<sup>1</sup>, Mikhael D. Manurung<sup>1</sup>, Jeremia J. Pyuza<sup>2</sup>, Dicky L. Tahapary<sup>3</sup>, Taniawati Supali<sup>4</sup>, Ahmed Mafouz<sup>5</sup>, Mohammed Charrout<sup>6</sup>, Simon P. Jochems<sup>1</sup>, Marion H. König<sup>1</sup>, Yvonne C.M. Kruize<sup>1</sup>, Moustapha Mbow<sup>7</sup>, Wouter A.A. A.A. de Steenhuijsen Piters<sup>1</sup>, Maria Yazdanbakhsh<sup>1</sup>

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#### SUCCESSFUL RECRUITMENT STRATEGIES FOR ENGAGING PREGNANT WOMEN IN CLINICAL TRIALS: LESSONS LEARNED FROM TWO INDIVIDUALLY RANDOMIZED CONTROLLED TRIALS CONDUCTED IN KENYA

EVERLINE DELYLAH ONDIEKI

Kenya Medical Research Institute, Kisumu, Kenya

#### 6120

#### ESTABLISHING A NATIONAL DEEP VEIN THROMBOSIS NETWORK IN GHANA: RESULTS FROM A PROSPECTIVE MULTI-CENTER STUDY

Lena Huebl\*<sup>1</sup>, Isaac Kofi Owusu\*<sup>2</sup>, Collins Kokuro<sup>2</sup>, Yaw Adu-Boakye<sup>2</sup>, Bernard C. Nkum<sup>2</sup>, Isaac Nana Ogyefo<sup>2</sup>, Emmanuel Acheamfour-Akowuah<sup>2</sup>, Musah Labarau<sup>2</sup>, Samuel Frimpong Odoom<sup>2</sup>, Richard King Nyamekye<sup>3</sup>, Daniel Ohemeng Minkah<sup>4</sup>, Henry Kofi Andoh<sup>5</sup>, Alfred Doku<sup>6</sup>, Francis Agyekum<sup>6</sup>, Seth Yao Nani Jnr<sup>6</sup>, Allen Steele-Dadzie<sup>6</sup>, Klenam Dzefi-Tettey<sup>6</sup>, Yaw Asante Awuku<sup>7</sup>, Ama Gyadua Boadu<sup>8</sup>, Adam Atiku<sup>9</sup>, Joan Aquyire9, Jameela Afriyie Khalid10, Kirsten Eberhardt11, Michael Ramharter1, Christina Rolling<sup>12</sup>, Thierry Rolling<sup>13</sup>, Christof V. Vinnemeier #<sup>1</sup>, Melina Heinemann #<sup>1</sup> <sup>1</sup>Department of Tropical Medicine, Bernhard Nocht Institute for Tropical Medicine & I Department of Medicine, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, <sup>2</sup>Komfo Anokye Teaching Hospital, Kumasi, Ghana, <sup>3</sup>Agogo Presbyterian Hospital, Agogo, Ghana, <sup>4</sup>Kumasi South Hospital, Kumasi, Ghana, <sup>5</sup>Bono Regional Hospital, Sunyani, Ghana, <sup>6</sup>Korle-Bu Teaching Hospital, Accra, Ghana, <sup>7</sup>Ho Teaching Hospital, Ho, Ghana, <sup>8</sup>Cape Coast Teaching Hospital, Cape Coast, Ghana, <sup>9</sup>Tamale Teaching Hospital, Tamale, Ghana, 10 Effia Nkwanta Regional Hospital, Takoradi, Ghana, 11 Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, <sup>12</sup>Department of Oncology and Hematology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, <sup>13</sup>I. Department of Medicine, University Medical Center Hamburg-Eppendorf, Hamburg, Germany

# 6121

#### THE FIRST AFRICAN CENTER OF EXCELLENCE IN BIOINFORMATICS & DATA SCIENCE (ACE-MALI): TEN-YEAR ACCOMPLISHMENTS

Mamadou WELE<sup>1</sup>, Jeffrey G. Shaffer<sup>2</sup>, Cheickna Cisse<sup>1</sup>, Mahamadou Diakite<sup>1</sup>, Jian Li<sup>3</sup>, Abdoulaye Djimde<sup>1</sup>, Seydou O. Doumbia<sup>1</sup>, Darrell Hurt<sup>4</sup>, Mike Tartakovsky<sup>4</sup>, Christopher Whalen<sup>4</sup>, Alia Benkahla<sup>5</sup>, Doulaye Dembele<sup>6</sup>

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### 6122

#### EXAMINING THE PRESENCE OF MONKEYPOX IN A GHANAIAN COMMUNITY: A CASE STUDY AT PENTECOST HOSPITAL MARY BOADU

GHANA HEALTH SERVICE, ACCRA, Ghana

### 6123

#### INVESTIGATING THE INFLUENCE OF HUMAN MILK OLIGOSACCHARIDES ON CHILD GROWTH DEVELOPMENT

Luis E. Zambrana<sup>1</sup>, Fredman Gonzalez<sup>2</sup>, Lester Gutierrez<sup>2</sup>, Nadja Vielot<sup>3</sup>, Christian Toval-Ruiz<sup>2</sup>, Rebecca Rubinstein<sup>1</sup>, Lars Bode<sup>4</sup>, Filemon Bucardo<sup>5</sup>, Samuel Vilchez<sup>3</sup>, Sylvia Becker-Dreps<sup>3</sup>

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#### DETERMINANTS FOR EARLY CARE SEEKING FOR MALARIA AMONG CAREGIVERS OF CHILDREN UNDER FIVE YEARS IN UGANDA

Judith Nalukwago<sup>1</sup>, Leonard Bufumbo<sup>1</sup>, Anna Passaniti<sup>2</sup>, Pallen Mugabe<sup>1</sup>, Musa Kimbowa<sup>1</sup>, Moses Sembatya<sup>1</sup>, Elli Leontsini<sup>3</sup>, Jane Alaii<sup>4</sup>, Emmanuel Kayongo<sup>1</sup>, Pearl Kobusingye<sup>1</sup>, Arzum Ciloglu<sup>2</sup>, Leanne Wolff<sup>2</sup>, Glory Mkandawire<sup>1</sup>, Joel Kisubi<sup>5</sup>, Sheila Nyakwezi<sup>5</sup>, Jimmy Opigo<sup>6</sup>, Sharminah Kawuma<sup>6</sup>, Richard Kabanda<sup>7</sup>, Suruchi Sood<sup>2</sup> <sup>1</sup>Johns Hopkins University Center for Communication Programs, Kampala, Uganda, <sup>2</sup>Johns Hopkins University Center for Communication Programs, Baltimore, MD, United States, <sup>3</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>4</sup>Simba Educational Consultants, Kampala, Uganda, <sup>5</sup>US President's Malaria Initiative, USAID, Kampala, Uganda, Kampala, Uganda, <sup>7</sup>Department of Health Promotion, Education and Communication, Ministry of Health, Kampala, Uganda, Kampala, Uganda

#### 6125

#### TRADITIONAL HEALERS REFERRING FOR MALARIA IN UGANDA: RESULTS FROM RAPID ETHNOGRAPHIES

Leonard Bufumbo<sup>1</sup>, Judith Nalukwago<sup>1</sup>, Anna Passaniti<sup>2</sup>, Pearl Kobusingye<sup>1</sup>, Pallen Mugabe<sup>1</sup>, Musa Kimbowa<sup>1</sup>, Paul Odeke<sup>1</sup>, Emmanuel Kayongo<sup>1</sup>, Nanah Claren<sup>1</sup>, Fiona Amado<sup>1</sup>, Venansio Ahabwe<sup>1</sup>, Glory Mkandawire<sup>1</sup>, Moses Sembatya<sup>1</sup>, Edward Kagguma<sup>1</sup>, Allan Mukumbwa<sup>1</sup>, Ivan Ireeta<sup>1</sup>, Elli Leontsini<sup>3</sup>, Jimmy Opigo<sup>4</sup>, Joel Kisubi<sup>5</sup>, Sheila Nyakwezi<sup>6</sup>, Suruchi Sood<sup>2</sup>

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#### 6126

#### ENHANCING CHILD MORTALITY SURVEILLANCE AND PREVENTION STRATEGIES IN LOW MIDDLE-INCOME COUNTRIES: THE CHAMPS NETWORK APPROACH IN PAKISTAN

Asefa S. Ansari<sup>1</sup>, Sameer Belgaumi<sup>2</sup>, Saima Jamal<sup>1</sup>, Raheel Allana<sup>1</sup>, Dr. Saad B. Omer<sup>2</sup>, Dr. Zeeshan Uddin<sup>1</sup>, Dr. Abdul Momin Kazi<sup>1</sup>

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#### 6127

#### ASSESSING TENSION AND ALIGNMENT OF COMMUNITY VALUES AND CHILD HEALTH AND MORTALITY PREVENTION SURVEILLANCE (CHAMPS) IN URBAN NEIGHBORHOODS OF KARACHI, PAKISTAN

Shaheen Sarfraz<sup>1</sup>, Nazia Ahsan<sup>1</sup>, Hannah Melchinger<sup>2</sup>, Sameer Belgaumi<sup>2</sup>, Iqbal Sheikh<sup>3</sup>, Sultana Mukhtar<sup>1</sup>, Momin Kazi<sup>1</sup>, Saad Omer<sup>2</sup>, John Belvins<sup>4</sup>, Fauzia Malik<sup>2</sup> <sup>1</sup>Aga Khan University, karachi, Pakistan, <sup>2</sup>UT Southwestern, Dellas, TX, United States, <sup>3</sup>Aga Khan University, Karchi, Pakistan, <sup>4</sup>Emory University, Atlanta, GA, United States

#### 6128

#### ENHANCING THE IDENTIFICATION OF CAUSES OF DEATH THROUGH COMMUNITY-BASED VERBAL AUTOPSY METHODS DURING THE COVID 19 OUTBREAK

Raheel Allana<sup>1</sup>, Chrisitina Arif<sup>1</sup>, Saima Jamal<sup>1</sup>, Sehrish AmirAli<sup>1</sup>, Abdul Momin Kazi<sup>1</sup>, Saad B. Omer<sup>2</sup>

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#### COMMUNITY BEHAVIORS AND PRACTICES TOWARDS ROUTINE IMMUNIZATION IN POLIO HIGH RISK UNION COUNCILS OF PAKISTAN

Ahmad Khan, Imtiaz Hussain, Muhammad Umer, Sajid B. Soofi Aga Khan University, Karachi, Pakistan

#### OPTIMIZING COMMUNITY HEALTH RESOURCES FOR UNIVERSAL ITN COVERAGE IN THE DRC: OUTCOMES OF A *TRINÔME* TO*BINÔME* PILOT IN LUALABA PROVINCE, 2023-2024

Jeanine D. Musau<sup>1</sup>, Yibayiri Osee Sanogo<sup>2</sup>, Clara Harb<sup>1</sup>, Ferdinand Ntoya<sup>3</sup>, Eric Mukomena<sup>4</sup>, Mulamuli Mpofu<sup>1</sup>

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# 6131

#### INSIGHTS FROM CHILD HEALTH & MORTALITY PREVENTION SURVEILLANCE (CHAMPS) NETWORK - PAKISTAN SITE

Farah Jabeen<sup>1</sup>, Sameer Belgaumi<sup>2</sup>, Asefa Shariq<sup>1</sup>, Saima Jamal<sup>1</sup>, Tehreem Maqsood<sup>1</sup>, Saad B. Omer<sup>2</sup>, Zeeshan Uddin<sup>1</sup>, Momin Kazi<sup>1</sup>

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

### 6132

#### ENHANCING DISEASE SURVEILLANCE AND RESPONSE SYSTEMS IN THE GAMBIA AND SENEGAL: A CROSS-BORDER COLLABORATION

Haddijatou Allen, Sergio Torres Rueda, Hilary Bower, Melisa Martinez-Alvarez, Anna Vassall

London School of Hygiene & Tropical Medicine, London, United Kingdom

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#### IDENTIFYING DISTRICT-LEVEL RISK FACTORS FOR DELAYS IN YELLOW FEVER SPECIMEN COLLECTION AND ARRIVAL FOR TESTING IN GHANA

Seth Judson<sup>1</sup>, Lee Schroeder<sup>2</sup>, Franklin Asiedu-Bekoe<sup>3</sup>, Dennis Laryea<sup>3</sup>, Gifty Boateng<sup>3</sup>, Horlali Gudjinu<sup>3</sup>, David Dowdy<sup>1</sup>, Ernest Kenu<sup>4</sup>

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# 6134

# SEROPREVALENCE OF ELEVEN NEGLECTED DISEASES OF PUBLIC HEALTH INTEREST IN NAURU

Ashley Simon<sup>1</sup>, **Zachary M. Reynolds**<sup>2</sup>, Sarah Gwyn<sup>1</sup>, Diana Martin<sup>1</sup>, John Kaldor<sup>3</sup>, Sue Chen Apadinuwe<sup>4</sup>, Susana Vaz Nery<sup>3</sup>

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# 6135

#### COVID-19 VACCINE HESITANCY: A GLOBAL SURVEY ON KNOWLEDGE, EXPERIENCE, ATTITUDE, AND PSYCHOLOGICAL STRESS

Le Van Truong<sup>1</sup>, **Van Thanh Nguyen**<sup>2</sup>, Vu Thi Thu Trang<sup>3</sup>, Thi Thu Thao Le<sup>2</sup>, Chern Choong Thum<sup>4</sup>, Dang Nguyen<sup>5</sup>, Yen Jun Wong<sup>6</sup>, Minh Nguyen Le Thi Binh<sup>7</sup>, Dao Huynh Anh<sup>8</sup>, Fatima Ezzahraa EL IDRISSI<sup>9</sup>, Nityanand Jain<sup>10</sup>, Khoa Le Anh Huynh<sup>11</sup>, Abdelrahman M Makram<sup>12</sup>, Nguyen Tien Huy<sup>13</sup>, TMGH Online Research Club Global Team<sup>14</sup> <sup>1</sup>Traditional Medicine Hospital, Ministry of Public Security, Hanoi, 100000, Vietnam, <sup>2</sup>Oxford University Clinical Research Unit, Ho Chi Minh City, 700000, Vietnam, <sup>3</sup>National Hospital of Traditional Medicine, Hanoi, 100000, Vietnam, <sup>4</sup>Ministry of Communications, Putrajaya, 62100, Malaysia, <sup>5</sup>Massachusetts General Hospital, Corrigan Minehan Heart Center, Harvard Medical School, Boston, MA, United States, <sup>6</sup>School of Pharmacy, Monash University Malaysia, Subang Jaya, 47500, Malaysia, <sup>7</sup>University of Medicine and Pharmacy at Ho Chi Minh City, Ho Chi Minh City, 700000, Vietnam, <sup>8</sup>Faculty of Medicine, Can Tho University of Medicine and Pharmacy, Can Tho, 900000, Vietnam, <sup>9</sup>Faculty of Medicine, Pharmacy and Dental Medicine of Fez - Sidi Mohammed Ben Abdellah University, Morocco, Morocco, <sup>10</sup>Statistics Unit, Riga Stradinš University, Riga, LV-1007, Latvia, <sup>11</sup>Department of Biostatistics, Virginia Commonwealth University, Richmond, VA, United States, <sup>12</sup>School of Public Health, Imperial College London, London, United Kingdom, <sup>13</sup>School of Tropical Medicine and Global Health, Nagasaki University, 1-12-4 Sakamoto, Nagasaki, 852-8523, Japan, <sup>14</sup>

# 6136

COMPARATIVE ANALYSIS OF STATE-LEVEL POLICY RESPONSES IN GLOBAL HEALTH GOVERNANCE: COVID-19 AS A CASE

Fengyuan Tang, Hengjin Dong Zhejiang University, hangzhou, China

### 6137

#### SEARCH FOR ACTIVE CASES OF YAWS IN PARTS OF IMO STATE, SOUTHEAST NIGERIA

Treasure Njideka Njoku-Obi<sup>1</sup>, Chiinyere Nneka Ukaga<sup>2</sup>, Chika Maureen Ezenwa<sup>1</sup>, Innocentia Ogechi Nwachukwu<sup>1</sup>

<sup>1</sup>Imo State University Owerri, Imo State Nigeria, Owerri, Nigeria, <sup>2</sup>Wigwe University Isiokpe, Port Harcount, Nigeria

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#### IDENTIFICATION OF ANTHRAX AS THE CAUSE OF A CLUSTER OF UNEXPLAINED DEATHS, UGANDA, 2023: THE ROLE OF METAGENOMIC NEXT GENERATION SEQUENCING AND POSTMORTEM SPECIMENS

Sonja Weiss<sup>1</sup>, Nicholas Bbosa<sup>2</sup>, Deogratius Ssemwanga<sup>2</sup>, Sam Kalungi<sup>3</sup>, Anatoli Mawanda<sup>3</sup>, Richard Ssentudde<sup>3</sup>, Emmanuel Ssekyeru<sup>4</sup>, Alfred Ssekagiri<sup>2</sup>, Ronald Kiiza<sup>2</sup>, Cleophous Rwankindo<sup>2</sup>, Joshua Buule<sup>2</sup>, Hamidah Suubi Namagembe<sup>2</sup>, Stella Esther Nabirye<sup>2</sup>, Justine Priscilla Nassolo<sup>2</sup>, Robert Downing<sup>2</sup>, Julius Lutwama<sup>2</sup>, Tom Lutalo<sup>2</sup>, Henry Kyobe Bosa<sup>5</sup>, Michael Berg<sup>1</sup>, Mary Rodgers<sup>1</sup>, Francisco Averhoff<sup>1</sup>, Gavin Cloherty<sup>1</sup>, Pontiano Kaleebu<sup>2</sup>

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#### 6139

#### SARS-COV-2 TRANSMISSION POTENTIAL AND CONTROL MEASURES IN ZIMBABWE: AN ECOLOGICAL ANALYSIS

Emmanuela Nwaonumah<sup>1</sup>, Jing Kersey<sup>1</sup>, Gerardo Chowell<sup>2</sup>, **Isaac Chun-Hai Fung**<sup>1</sup> <sup>1</sup>Georgia Southern University, Statesboro, GA, United States, <sup>2</sup>Georgia State University, Atlanta, GA, United States

### 6140

#### ONE-YEAR PATTERN OF ANTIMICROBIAL RESISTANCE IN ESCHERICHIA COLI, KLEBSIELLA PNEUMONIAE AND PSEUDOMONAS AERUGINOSA ISOLATES IN OSOGBO, NIGERIA

**Oluwabunmi Bola Olajide**<sup>1</sup>, Olubunmi O. Alaka<sup>2</sup>, Joshua S. Olajide<sup>3</sup>, Isaac O. Oni<sup>4</sup>, Idara E. Inyanq<sup>1</sup>, Titilayo Olaoye<sup>1</sup>

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#### COMMUNITY PERCEPTIONS OF HEALTH-RELATED RISK FACTORS, HEALTH STATUS, AND HEALTHCARE SERVICE IN RURAL SOUTHEAST ASIA: INSIGHTS FROM A CROSS-SECTIONAL HOUSEHOLD SURVEY IN BANGLADESH, CAMBODIA, AND THAILAND

Meiwen Zhang<sup>1</sup>, Shayla Islam<sup>2</sup>, Aninda Sen<sup>2</sup>, Md Akramul Islam<sup>2</sup>, Amit Kumer Neogi<sup>2</sup>, Rupam Tripura<sup>1</sup>, Lek Dysoley<sup>3</sup>, Carlo Perrone<sup>1</sup>, Nan Shwe Nwe Htun<sup>1</sup>, Marco Liverani<sup>4</sup>, Richard J. Maude<sup>1</sup>, Nicholas P.J. Day<sup>1</sup>, Sue J. Lee<sup>1</sup>, Yoel Lubell<sup>1</sup>, Thomas J. Peto<sup>1</sup> <sup>1</sup>Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand, <sup>2</sup>Communicable Diseases Program, BRAC, Dhaka, Bangladesh, <sup>3</sup>Cambodian National Malaria Control Program, Phnom Penh, Cambodia, <sup>4</sup>Department of Global Health and Development, London School of Hygiene & Tropical Medicine, London, United Kingdom

### 6142

# DEVELOPING THE CONCEPT AND PRACTICE OF ANTICIPATORY ACTION FOR EPIDEMICS WITHIN THE HUMANITARIAN SECTOR

Tilly Alcayna<sup>1</sup>, Franziska Kellerhaus<sup>2</sup>, Léo Tremblay<sup>3</sup>, Juan Chaves<sup>4</sup>, Rachel Goodermote<sup>5</sup>, Mauricio Santos-Vega<sup>6</sup>, Bhargavi Rao<sup>1</sup>, Rachel Lowe<sup>7</sup> <sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>German Red Cross, Berlin, Germany, <sup>3</sup>Medecins Sans Frontieres, Toronto, ON, Canada, <sup>4</sup>United Nations Office for the Coordination of Humanitarian Affairs, New York City, NY, United States, <sup>5</sup>International Federation of the Red Cross Red Crescent, Geneva, Switzerland, <sup>6</sup>Universidad de los Andes, Bogota, Colombia, <sup>7</sup>Barcelona Supercomputing Center, Barcelona, Spain

#### 6143

#### ASSESSMENT OF COMMUNITY AWARENESS, CONDUCT AND HABITS ON YELLOW FEVER IN THE UPPER EAST REGION OF GHANA

Millicent Captain-Esoah<sup>1</sup>, Kwadwo K. Frempong<sup>2</sup>, Abdul Malik Hussein<sup>1</sup>, Francis Balungnaa D. Veriegh<sup>3</sup>, Martin N. Donkor<sup>4</sup>, Abigail Asiedu<sup>1</sup>, Vanessa N. Kayan<sup>1</sup>, Emmanuel Frimpong<sup>1</sup>, Daniel K. Aluu<sup>1</sup>, Iddrisu Fuseini<sup>5</sup>, Elijah D. Angyiereyiri<sup>1</sup>, Dorothy Obuobi<sup>6</sup>, Bernice Olivia A. Baako<sup>7</sup>, Chrysantus Kubio<sup>8</sup>, Victor Asoala<sup>7</sup>, Daniel A. Boakye<sup>2</sup>, Samuel K. Dadzie<sup>2</sup>

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# 6144

#### ECOLOGICAL STUDY OF TERRESTRIAL SMALL MAMMALS IN AN ENDEMIC PLAGUE FOCUS IN THE CENTRAL HIGHLANDS OF MADAGASCAR, IMPACT ON SURVEILLANCE STRATEGIES

Mamionah Noro Jully Parany<sup>1</sup>, Nils Christian Stenseth<sup>2</sup>, Fanohinjanaharinirina Rasoamalala<sup>1</sup>, Soanandrasana Rahelinirina<sup>1</sup>, Soloandry Rahajandraibe<sup>1</sup>, Gauthier Dobigny<sup>3</sup>, Eric Valade<sup>4</sup>, Olivier Gorgé<sup>5</sup>, Beza Ramasindrazana<sup>1</sup>, Minoarisoa Rajerison<sup>1</sup> <sup>1</sup>Pasteur Institute of Madagascar, Antananarivo, Madagascar, <sup>2</sup>Center for Pandemics and One Health Research, Sustainable Health Unit (SUSTAINIT), Faculty of Medicine; Centre for Ecological and Evolutionary Synthesis, Department of Biosciences, University of Oslo; Vanke School of Public Health, Oslo, Norway, <sup>3</sup>Institut de Recherche pour le Développement, UMR CBGP, Montpellier, France, <sup>4</sup>Institut de Recherche Biomédicale des Armées; Ecole du Val-de-Grâce, Paris, France, Paris, France, <sup>5</sup>Institut de Recherche Biomédicale des Armées, Paris, France

#### 6145

#### RETROSPECTIVE EVALUATION OF THE DIAGNOSTIC ACCURACY OF THE RELASVPAN LASSA ANTIGEN RAPID DIAGNOSTIC TEST FOR THE DETECTION OF ACUTE LASSA VIRUS INFECTION IN NIGERIA USING REAL TIME POLYMERASE CHAIN REACTION AS REFERENCE STANDARD

Hanesh Fru chi<sup>1</sup>, Johnson Etafo<sup>2</sup>, Frtiz Fonkeng<sup>1</sup>, Olufunke Ibitokun<sup>2</sup>, Ronke Ireneh<sup>2</sup>, Chuckwuyem Abejegah<sup>2</sup>, Sampson Owhin<sup>2</sup>, Aurelia Vessiere<sup>1</sup>, Adedosu. Nelson<sup>2</sup>, Emmanuel Agogo<sup>1</sup>, Devy Emperador<sup>1</sup>

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#### 6146

COMPARISON OF KNOWLEDGE, ATTITUDES AND PERCEPTIONS ON RESPONSE TO THE COVID-19 PANDEMIC BETWEEN RURAL AND URBAN COMMUNITIES IN DEMOCRATIC REPUBLIC OF CONGO

Mireille Amba Ngale, Samuel Mampunza Ma Miezi, Thérèse Mpiempie Ngamasata, Tarcisse Kilara Kapene, Joel Kiniati Fumwankau, Nsengi Ntamabyaliro, Gauthier Mesia Kahunu, Gaston Tona Lutete

University of Kinshasa, Kinshasa, Democratic Republic of the Congo

# 6147

#### A MIXED-METHOD STUDY TO DETERMINE CAUSES OF DEATH USING MINIMAL INVASIVE TISSUE SAMPLING AND VERBAL AUTOPSY IN THE BONO EAST REGION, GHANA.

**Grace Manu**<sup>1</sup>, Samuel Bernard Ekow Harrison<sup>1</sup>, Dennis Adu-Gyasi<sup>1</sup>, Mahama Abukari<sup>1</sup>, Jones Opoku-Mensah<sup>1</sup>, Farrid Boadu<sup>1</sup>, Charles Zandoh<sup>1</sup>, Abubakari Sulemana<sup>1</sup>, Norman Goco<sup>2</sup>, Kaali Seyram<sup>1</sup>, Ernest Akwasi Adjei<sup>3</sup>, Christiana Paganelli<sup>2</sup>, Kwaku Poku Asante<sup>1</sup> <sup>1</sup>Kintampo Health Research Centre, Kintampo, Bono East Region- Ghana, Ghana, <sup>2</sup>RTI International, Durham, NC, United States, <sup>3</sup>Komfo Anokye Teaching Hospital, Kumasi, Ashanti Region, Ghana

# 6148

#### USING MINIMALLY INVASIVE TISSUES SAMPLING TO DETERMINE CAUSES OF DEATHS IN THE MIDDLE-BELT OF GHANA: IMPLEMENTATION SUCCESSES, CHALLENGES AND OPPORTUNITIES

Mahama Abukari<sup>1</sup>, Grace Manu<sup>1</sup>, Samuel Bernard Ekow Harrison<sup>1</sup>, Dennis Adu-Gyasi<sup>1</sup>, Jones Opoku-Mensah<sup>1</sup>, Farid Boadu<sup>1</sup>, Sulemana Abubakari<sup>1</sup>, Kaali Seyram<sup>1</sup>, Ernest Akwasi Adjei<sup>2</sup>, Norman Goco<sup>3</sup>, Christina Paganelli<sup>3</sup>, Kwaku Poku Asante<sup>1</sup> <sup>1</sup>Kintampo Health Research Centre, Kintampo, Ghana, <sup>2</sup>Komfo Anokye, Kumasi, Ghana, <sup>3</sup>RTI International, Durham, NC, United States

#### 6149

#### COLLABORATING WITH KEY COMMUNITY ACTORS TO PREPARE FOR FUTURE OUTBREAK RESPONSES: LESSONS FROM LIBERIA

Hannah Berrian<sup>1</sup>, Stephen B. Kennedy<sup>1</sup>, Bartholomew Wilson<sup>2</sup>, Mark Kieh<sup>2</sup>, Tamba Fayiah<sup>2</sup>, Ophelia Bongolee<sup>2</sup>

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# Arthropods/Entomology - Other

# 6150

# SEROLOGICAL SURVEY OF A COMMUNITY IN GHANA INVADED BY BLACKFLIES

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# 6151

# THREAT OF URBAN ARBOVIRAL DISEASES FROM AEDES AEGYPTI IN COLOMBIA

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# 6152

#### DEMONSTRATION OF RNA ACTIVATION IN TICKS

Kofi D. Kwofie<sup>1</sup>, Emmanuel P. Hernandez<sup>2</sup>, Anisuzzaman .<sup>3</sup>, Hayato Kawada<sup>1</sup>, Yuki Koike<sup>1</sup>, Sana Sasaki<sup>1</sup>, Takahiro Inoue<sup>1</sup>, Fusako Mikami<sup>1</sup>, Danielle Ladzekpo<sup>1</sup>, Rika Shirafuji-Umemiya<sup>4</sup>, Makoto Matsubayashi<sup>5</sup>, Md Abdul Alim<sup>3</sup>, Samuel K. Dadzie<sup>6</sup>, Naotoshi Tsuji<sup>1</sup>, Takeshi Hatta<sup>1</sup>

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### 6153

# TICKS ON DROMEDARY CAMELS (CAMELUS DROMEDARIUS, LINNAEUS, 1758) FROM SOMALIA

Aamir M. Osman<sup>1</sup>, Flávia CM Collere<sup>1</sup>, Vanessa S. Coradi<sup>1</sup>, Abdalla M. Ibrahim<sup>2</sup>, Ahmed A. Hassan-Kadle<sup>2</sup>, Mohamed A. Shair<sup>2</sup>, Marcos R. André<sup>3</sup>, Thiago F. Martins<sup>4</sup>, Thállitha SWJ Vieira<sup>5</sup>, Rosangela Z. Machado<sup>3</sup>, **Rafael FC Vieira<sup>5</sup>** 

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Brazil, <sup>5</sup>The University of North Carolina at Charlotte, Charlotte, NC, United States

# 6154

#### UNDERSTANDING BARRIERS IN TRIATOMINE SURVEILLANCE: CHALLENGES AND COMMUNITY-DRIVING SOLUTIONS IN AREQUIPA-PERU

Laura D. Tamayo<sup>1</sup>, Carlos E. Condori-Pino<sup>1</sup>, Raquel Gonçalves<sup>1</sup>, Ricardo Castillo-Neyra<sup>2</sup>, Michael Z. Levy<sup>2</sup>, Valerie A. Paz-Soldan<sup>3</sup>

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### 6155

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

Austin Jose 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>

<sup>1</sup>Colorado State University, Fort Collins, CO, United States, <sup>2</sup>Uganda Virus Research Institute, Entebbe, Uganda

# 6156

#### MULTIDIMENSIONAL EVALUATION OF FACTORS ASSOCIATED WITH TICK INFESTATION AMONG DOGS LIVING IN ECOTONES OF MADRE DE DIOS, PERU

Cusi Ferradas<sup>1</sup>, Oliver A. Bocanegra<sup>1</sup>, Veronica K. Castro<sup>1</sup>, Carla M. Yauris<sup>1</sup>, Winnie M. Contreras<sup>1</sup>, Raúl Flores-Mara<sup>1</sup>, Caroline Glidden<sup>2</sup>, Andrés G. Lescano<sup>1</sup>, Maureen Laroche<sup>3</sup>

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# 6157

#### TRACKING THE SOURCE POPULATION OF SIMULIUM BLACKFLY INVASION IN URBAN SETTINGS IN GHANA: A GENOMICS APPROACH

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#### 6158

#### LAND REVERSION AND PALM FEATURES ARE MAJOR DRIVERS INFLUENCING THE OCCURRENCE OF A CHAGAS DISEASE VECTOR IN RURAL AREAS IN PANAMA

Juliana Hoyos<sup>1</sup>, Vanessa Pineda<sup>2</sup>, Kadir Gonzalez<sup>2</sup>, Daniel Mendieta<sup>2</sup>, Azael Saldaña<sup>2</sup>, Jose Calzada<sup>2</sup>, Bryna Wilson<sup>3</sup>, Chystrie Rigg<sup>2</sup>, Vanessa Vasquez<sup>2</sup>, Luis F. Chaves<sup>4</sup>, Sonia Altizer<sup>1</sup>, Nicole Gottdenker<sup>1</sup>

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#### 6159

# INSECT CELL LINES DERIVED FROM OLD AND NEW WORLD VECTORS OF TRYPANOSOMES

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#### 6160

#### DETERMINING TRYPANOSOMA CRUZI INFECTION PREVALENCE, BLOOD-MEAL PREFERENCE AND MICROBIOME COMPOSITION IN TRIATOMA RUBIDA, TRIATOMA RECURVA, TRIATOMA PROTRACTA AND PARATRIATOMA HIRSUTA COLLECTED BY I-NATURALIST CITIZEN SCIENTISTS IN THE AMERICAN SOUTHWEST

Richard M. Oxborough<sup>1</sup>, **Zoee Sanchez**<sup>1</sup>, Chad L. Cross<sup>1</sup>, Evan Teal<sup>2</sup>, Susan D. Carnahan<sup>3</sup>, Michael Z. Levy<sup>4</sup>, Jeff Hill<sup>5</sup>, Michael M. Webber<sup>5</sup>, Caryn Bern<sup>7</sup>, Jeffrey Whitman<sup>8</sup>, Louisa A. Messenger<sup>1</sup>

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#### 6161

#### RHIPICEPHALUS MICROPLUS SERPINS RMS-3 AND RMS-17 AND IXODES RICINUS SERPIN IRIPIN-3 EMPLOY DISTINCT MECHANISMS TO INHIBIT PROLIFERATION OF MOUSE T CELLS

Adela Chlastakova<sup>1</sup>, Jindrich Chmelar<sup>2</sup>, Anderson Sa-Nunes<sup>3</sup>, Itabajara da Silva Vaz Jr<sup>4</sup>, Lucas Tirloni<sup>1</sup>

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#### EXPLORING THE TRANSCRIPTOME OF IMMATURE STAGES OF ORNITHODOROS HERMSI, THE SOFT-TICK VECTOR OF TICK-BORNE RELAPSING FEVER

Lucas C. Sousa-Paula<sup>1</sup>, Markus Berger<sup>1</sup>, Octavio A. C. Talyuli<sup>2</sup>, Cindi L. Schwartz<sup>1</sup>, Greg A. Saturday<sup>1</sup>, José M.C. Ribeiro<sup>2</sup>, Lucas Tirloni<sup>1</sup>

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# 6163

#### ECTOPARASITE BURDEN OF SMALL MAMMALS LINKED TO LAND USE AND LAND COVER IN THE SOUTHEASTERN PERUVIAN AMAZON

Winnie Contreras<sup>1</sup>, Cusi Ferradas<sup>1</sup>, Oliver A. Bocanegra<sup>1</sup>, Raúl Flores-Mara<sup>1</sup>, Caroline Glidden<sup>2</sup>, Andrés G. Lescano<sup>1</sup>, Maureen Laroche<sup>3</sup>

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# 6164

#### CHARACTERIZATION OF TICK-BORNE ENCEPHALITIS VIRUS SAMPLES FROM *IXODES* TICKS COLLECTED IN MONGOLIA

Bazartseren Boldbaatar<sup>1</sup>, Noel Cote<sup>2</sup>, Andrew G. Letizia<sup>2</sup>, Doniddemberel Altantogtokh<sup>3</sup>, Graham A. Matulis<sup>4</sup>, **Nora G. Cleary**<sup>4</sup>, Michael E. von Fricken<sup>4</sup>

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# 6165

#### GENOMIC INSIGHTS INTO THE SPIROPLASMA SYMBIONT OF GLOSSINA FUSCIPES FUSCIPES: IMPLICATIONS FOR TRYPANOSOME TRANSMISSION CONTROL

Daniel J. Bruzzese<sup>1</sup>, Fabian Gstöttenmayer<sup>2</sup>, Brian L. Weiss<sup>1</sup>, Adly M.M Abd-Alla<sup>3</sup>, Serap Aksoy<sup>1</sup>

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#### 6166

#### MICROBIAL DIVERSITY OF CULICOIDES REEVESI FROM CHIHUAHUA, MEXICO: A METAGENOMIC ANALYSIS OF RRNA 16S

Rodolfo Gonzalez Peña<sup>1</sup>, David Orlando Hidalgo Martínez<sup>2</sup>, Herón Huerta<sup>3</sup>, Erick de Jesús De Luna Santillana<sup>4</sup>, Jaime Raúl Adame Gallegos<sup>5</sup>, Carlos Arturo Rodríguez Alarcón<sup>2</sup>, Stephanie Viridiana Laredo Tiscareño<sup>2</sup>, Ezequiel Rubio Tabarez<sup>2</sup>, Julián Everardo García Rejón<sup>1</sup>, Luis M. Hernández Triana<sup>6</sup>, Javier Alfonso Garza Hernandez<sup>2</sup> <sup>1</sup>Universidad Autónoma de Yucatán, Merida, Mexico, <sup>2</sup>Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, Mexico, <sup>3</sup>Instituto de Diagnóstico y Referencia Epidemiológicos, Ciudad de México, Mexico, <sup>4</sup>Laboratorio Medicina de la Conservación, Centro de Biotecnología Genómica del Instituto Politécnico Nacional, Reynosa, Mexico, <sup>5</sup>Universidad Autónoma de Chihuahua, Chihuahua, Mexico, <sup>6</sup>Animal and Plant Health Agency, Virology Department, Rabies and Wildlife Zoonoses Research Group, Addlestone, United Kingdom

# 6167

# ASSESSING FINE-SCALE ENVIRONMENTAL INFLUENCE ON COMMUNITIES OF CUTANEOUS LEISHMANIASIS VECTORS IN SOUTHERN IN PERU

Sergio Méndez-Cardona<sup>1</sup>, Alejandro Lopera-Toro<sup>2</sup>, Juliana A. Morales-Monje<sup>2</sup>, Adrian Adrian Forsyth<sup>2</sup>, Amely Bauer<sup>1</sup>, Alexandra Bauer<sup>1</sup>, Olivia Magaletta<sup>1</sup>, Panpim Thongsripong<sup>1</sup>, Olga L. Cabrera-Quintero<sup>3</sup>

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# Mosquitoes - Biology, Physiology and Immunity

# **6168**

#### FIRST REPORT OF NATURAL INFECTION OF ANOPHELES GAMBIAE S.S. AND ANOPHELES COLUZZII BY WOLBACHIA AND MICROSPORIDIA IN BENIN: A CROSS-SECTIONAL STUDY

wilfrid SEWADE<sup>1</sup>, Minassou Juvénal Ahouandjinou<sup>1</sup>, Arthur Sovi<sup>1</sup>, Aboubakar Sidick<sup>1</sup>, Come Koukpo<sup>1</sup>, Saïd Chitou<sup>1</sup>, Linda Towakinou<sup>1</sup>, Bruno Adjottin<sup>1</sup>, Steve Hougbe<sup>1</sup>, Filémon Tokponnon<sup>1</sup>, Germain Gil Padonou<sup>1</sup>, Martin Akogbéto<sup>1</sup>, Louisa A. Messenger<sup>2</sup>, Razaki Ossè<sup>1</sup>

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#### 6169

#### INTRA-POPULATION DIFFERENCES IN CTMAX AND EGG SURVIVAL IN USA POPULATIONS OF THE TIGER MOSQUITO, AEDES ALBOPICTUS: IMPLICATIONS FOR CLIMATE ADAPTATION?

Katie Westby, Ben Orlinick, Angela Smith, Kim Medley Washington University in St. Louis, Eureka, MO, United States

#### 6170

#### PYRUVATE KINASE AND SIRTUIN 2 PROTEIN INTERACTION TIGHTLY REGULATES CARBON AND NITROGEN METABOLISM IN AEDES AEGYPTI MOSQUITOES

Patricia Y. Scaraffia<sup>1</sup>, Natthida Petchampai<sup>1</sup>, Jun Isoe<sup>2</sup>

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# 6171

EXPLORING THE IMPLICATIONS OF TRAIT VARIATION AND LIFE HISTORY TRADE-OFFS FOR VECTOR-BORNE DISEASE TRANSMISSION

Brit Johnson, Greg Jacobs, Courtney Murdock Cornell University, Ithaca, NY, United States

#### 6172

#### EXPLORING HOW LARVAL DIET AND REARING WATER INFLUENCE AEDES AEGYPTI FITNESS, MICROBIOTA AND VECTOR COMPETENCE

**Elodie CALVEZ**<sup>1</sup>, Isaure QUETEL<sup>1</sup>, Caitlin GAETE<sup>1</sup>, Ludmina SAINT-ALBAN<sup>1</sup>, Gladys GUTIERREZ-BUGALLO<sup>2</sup>, Christelle DOLLIN<sup>1</sup>, Cédric RAMDINI<sup>3</sup>, Anubis VEGA-RUA<sup>1</sup> <sup>1</sup>Institut Pasteur de la Guadeloupe, Les Abymes, Guadeloupe, <sup>2</sup>Institute of Tropical Medicine Pedro Kourí, Havana, Cuba, <sup>3</sup>Regional Health Agency, Les Abymes, Guadeloupe

#### 6173

### HARNESSING MOSQUITO SYMBIONTS FOR MALARIA TRANSMISSION BLOCKING

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# 6174

# CULEX MODESTUS CAN TRANSMIT USUTU VIRUS AND CAN BE COLONIZED IN A LAB SETTING

Alina Soto, Lotte Wauters, Leen Delang

Rega Institute for Medical Research, KU Leuven, Leuven, Belgium

#### TIME TO LOSS OF PHYSICAL INTEGRITY OF ATTRACTIVE TARGETED SUGAR BAIT (ATSB) STATIONS IN WESTERN PROVINCE, ZAMBIA: A SURVIVAL ANALYSIS

Refilwe Y. Karabo<sup>1</sup>, Mundia Masuzyo<sup>2</sup>, Mwansa Mwenya<sup>2</sup>, Kochelani Saili<sup>3</sup>, Erica Orange<sup>4</sup>, Zhiyuan Mao<sup>1</sup>, John Miller<sup>2</sup>, Kafula Silumbe<sup>2</sup>, Javan Chanda<sup>5</sup>, Busiku Hamainza<sup>6</sup>, Joe Wagman<sup>7</sup>, Irene Kyomohangi<sup>1</sup>, Angela Harris<sup>7</sup>, Megan Littrell<sup>7</sup>, Thomas P. Eisele<sup>1</sup>, Ruth A. Ashton<sup>1</sup>, Joshua Yukich<sup>1</sup>

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# IDENTIFICATION OF NOVEL WOLBACHIA INFECTIONS IN FLORIDA MOSQUITOES

Leena Salama, Daniel W. Pérez-Ramos, Ian J. Sandum, Alex Bauer, Alex Urlaub, Abdullah Alomar, Lawrence E. Reeves, Eric P. Caragata

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#### VERTICAL AND HORIZONTAL TRANSMISSION OF MICROSPORIDIA MB IN ANOPHELES ARABIENSIS OCCURS THROUGH GERMLINE INFECTIONS

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# Mosquitoes - Bionomics, Behavior and Surveillance

# 6178

# ZOONOTIC AND HUMAN MALARIA TRANSMISSION BY VECTOR SPECIES AND LANDSCAPES IN INDONESIA

Thomas R. Burkot<sup>1</sup>, Boni Sebayang<sup>1</sup>, Bram van der Straat<sup>1</sup>, Ahadi Kurniawan<sup>2</sup>, Inke Lubis<sup>3</sup>, Matt Grigg<sup>4</sup>, Triwibowo Ambargarjito<sup>5</sup>, Tanya L. Russell<sup>1</sup> <sup>1</sup>Australian Institute of Tropical Health and Medicine, Cairns, Australia, <sup>2</sup>Public Health Laboratory of Medan, Medan, Indonesia, <sup>3</sup>Universitas Sumatera Utara, Medan, Indonesia, <sup>4</sup>Menzies School of Health Research, Darwin, Australia, <sup>5</sup>National Research and Innovation Agency, Salitiga, Indonesia

# 6179

#### ADVANCING MOSQUITO SURVEILLANCE USING MALDI TOF MS

**Mercy Tuwei**<sup>1</sup>, Jonathan Karisa<sup>1</sup>, Caroline Wanjiku<sup>1</sup>, Caroline Kiuru<sup>2</sup>, Edith Ramaita<sup>3</sup>, Martin Rono<sup>1</sup>, Joseph Mwangangi<sup>1</sup>, Derek Charlwood<sup>4</sup>, Charles Mbogo<sup>5</sup>, Marta Maia<sup>1</sup> <sup>1</sup>KEMRI-Wellcome Trust Research Proramme, Kilifi, Kenya, <sup>2</sup>Barcelona Institute for Global Health, Barcelona, Spain, Barcelona, Spain, <sup>3</sup>Ministry of Health Kenya, Nairobi, Kenya, <sup>4</sup>Instituto de Higiene e Medicine Tropical, Lisbon, Portugal, Lisbon, Portugal, <sup>5</sup>Kenya Medical Research Institute, Nairobi, Kenya

# 6180

#### FACTORS AND EXTENT OF DISCORDANCE BETWEEN HOUSEHOLD DECLARATIONS OF INSECTICIDE TREATED BED NET USE AND CONFIRMATORY DIRECT OBSERVATIONS OF NETS HANGING ON OR LYING NEAR THE BED

Martin C. Akogbéto<sup>1</sup>, Gil G. Padonou<sup>1</sup>, kefilath Badirou<sup>1</sup>, Bruno Akinro<sup>1</sup>, Saïd Chitou<sup>1</sup>, Moustapha Idrissou Souler<sup>1</sup>, Salako S. Albert<sup>1</sup>, Rock Aikpon<sup>2</sup>, Cyriaque Affoukou<sup>2</sup>, Virgile Gnanguenon<sup>3</sup>, Raoul Oloukoi<sup>3</sup>, Daniel Impoinvil<sup>4</sup>

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# 6181

#### COMPREHENSIVE ASSESSMENT OF SOCIODEMOGRAPHIC PROFILE, MALARIA EPIDEMIOLOGY AND VECTOR BIONOMICS IN NORTHEASTERN TANZANIA: A PRE-INTERVENTION BASELINE SURVEY FOR A PROSPECTIVE CLUSTER RANDOMIZED CONTROLLED TRIAL ASSESSING THE EFFICACY OF A NOVEL 3D-WINDOW DOUBLE SCREENS (3D-WDS) FOR SUSTAINABLE MALARIA VECTOR CONTROL

Subam Kathet<sup>1</sup>, Venneranda Mbwana<sup>2</sup>, Mwantumu A. Fereji<sup>2</sup>, Jane B. Mhando<sup>2</sup>, Gladness Kiyaya<sup>2</sup>, Patrick Tungu<sup>2</sup>, Victor S. Mwingira<sup>2</sup>, Frank S. Magogo<sup>2</sup>, William N. Kisinza<sup>2</sup>, Seppo Meri<sup>1</sup>, Ayman Khattab<sup>1</sup>

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#### THERMAL ADAPTATION IN AEDES ALBOPICTUS

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#### 6183

#### THE EFFECT OF VARIATION IN MICROCLIMATE AND LAND USE ON THE DISTRIBUTION OF THE AEDES ALBOPICTUS AT THE INVASION EDGE

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# PREDICTION MODELING OF THE GEOGRAPHICAL DISTRIBUTION OF AEDES ALBOPICTUS IN TUNISIA

Hala S. Thabet<sup>1</sup>, Walid Barhoumi<sup>2</sup>, Ifhem Chelbi<sup>2</sup>, Nada Toumi<sup>2</sup>, Reham TagEldin<sup>1</sup>, Oumaima Jlassi<sup>2</sup>, Kais Ben-Ahmed<sup>2</sup>, Mbarek Nasri<sup>2</sup>, Matthew Montgomery<sup>1</sup>, James Harwood<sup>1</sup>, Elyes Zhioua<sup>2</sup>

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# 6185

#### FIRST RECORD OF AEDES ALBOPICTUS IN YEMEN

Alia Zayed<sup>1</sup>, Yasser Baheshm<sup>2</sup>, Matthew J. Montgomery<sup>3</sup> <sup>1</sup>Naval Medical Research Unit EURAFCENT, Cairo, Egypt, <sup>2</sup>National Malaria Control Program, Aden, Yemen, <sup>3</sup>Naval Medical Research Unit EURAFCENT, Sigonella, Italy

# 6186

#### THE USE OF EDNA AS A METHOD TO DETECT PRESENCE OF AEDES AEGYPTI AND AEDES ALBOPICTUS IN INTERSPECIFIC LARVAL HABITAT

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#### IMPACT OF SUGARCANE IRRIGATION SCHEME ON ANOPHELINE MOSQUITO ECOLOGY, BEHAVIOR, MALARIA TRANSMISSION **RISK AND INSECTICIDE RESISTANCE IN SOUTHWESTERN ETHIOPIA**

Assalif Demissew<sup>1</sup>, Abebe Animut<sup>2</sup>, Solomon Kibret Birhanie<sup>3</sup>, Dawit Hawaria<sup>4</sup>, Arega Tsegaye<sup>5</sup>, Teshome Degefa<sup>5</sup>, Hallelujah Getachew<sup>6</sup>, Ming-Chieh Lee<sup>7</sup>, Guiyun Yan<sup>7</sup>, Delenasaw Yewhalaw<sup>5</sup>

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#### 6188

#### **CONTRIBUTION OF ANOPHELES FUNESTUS IN MALARIA** ENDEMIC TRANSMISSION ON THE EAST COAST OF MADAGASCAR

Alice Zilera SUZANANTSOA<sup>1</sup>, Tauni RAZAFIMANANTSOA<sup>1</sup>, Iavonirina RANDRIANANJANTENAINA<sup>1</sup>, Irma IVONINTSOA VAVIFARA ZILERA<sup>2</sup>, Omega RAOBELA<sup>1</sup> <sup>1</sup>National Malaria Control Program, ANTANANARIVO, Madagascar, <sup>2</sup>University of Antananarivo Madagascar, ANTANANARIVO, Madagascar

### 6189

#### COST COMPARISON ANALYSIS OF DIFFERENT WORKFLOWS FOR ENTOMOLOGICAL SURVEILLANCE USING A DECISION-TREE **APPROACH**

Jonathan Karisa<sup>1</sup>, Rist Cassidv<sup>2</sup>, Mercy Tuwei<sup>1</sup>, Kelly Ominde<sup>1</sup>, Brian Bartilol<sup>1</sup>, Zedekiah Ondieki<sup>1</sup>, Caroline Wanjiku<sup>1</sup>, Joseph Mwangangi<sup>1</sup>, Charles Mbogo<sup>3</sup>, Martin Rono<sup>1</sup>, Philip Beion<sup>4</sup> Marta Maia<sup>1</sup>

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#### 6190

#### DEVELOPMENT OF A SYSTEM TO SUPPORT COMMUNITY-**BASED SURVEILLANCE OF DISEASE-TRANSMITTING** MOSQUITOES IN RESOURCE-CONSTRAINED SETTINGS

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# 6191

#### INTEGRATION OF VECTOR AND HUMAN BEHAVIOR IN RESIDUAL MALARIA IN RURAL COMMUNITIES IN THE PERUVIAN AMAZON

Jan E. Conn<sup>1</sup>, Carlos Acosta<sup>2</sup>, Joaquin Gomez<sup>2</sup>, Diana Cubas<sup>2</sup>, Pamela Rodriguez<sup>2</sup>, Mitchel Guzman-Guzman<sup>2</sup>, Marlon P. Saavedra<sup>2</sup>, Joseph M. Vinetz<sup>3</sup>, Dionicia Gamboa<sup>2</sup> <sup>1</sup>Wadsworth Center, New York State Dept of Health, Albany, NY, United States, <sup>2</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>3</sup>Yale School of Medicine, New Haven, CT, United States

# Mosquitoes - Epidemiology and Vector Control

#### 6192

#### EFFECT OF MICROSPORIDIA MB INFECTION ON THE DEVELOPMENT AND FITNESS OF ANOPHELES **ARABIENSIS UNDER DIFFERENT DIET REGIMES**

Godfred Yaw Boanyah<sup>1</sup>, Lizette K. Koekemoer<sup>2</sup>, Tullu Bukhari<sup>3</sup>, Jeremy Herren<sup>3</sup> <sup>1</sup>International Centre of Insect Physiology and Ecology, Kenya, Mbita, Kenya, <sup>2</sup>Wits Research Institute of Malaria, University of Witwatersrand, Johannesburg, South Africa, <sup>3</sup>International Centre of Insect Physiology and Ecology, Kenya, Nairobi, Kenya

#### 6193

CLIMATE-SENSITIVE VECTOR-BORNE DISEASES: INTEGRATION OF TEMPERATURE, PRECIPITATION AND RELATIVE HUMIDITY IN A DYNAMIC PROCESS-BASED MODELLING APPROACH FOR IMPROVED SURVEILLANCE AND OUTBREAK PREPAREDNESS

Oliver Mhaoma

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### 6194

#### MODELLING WOLBACHIA REPLACEMENT FOR DENGUE **CONTROL: A SCOPING REVIEW**

Katie Tiley, Laith Yakob, Oliver Brady LSHTM, London, United Kingdom

## 6195

#### FIGHTING MALARIA WITH THE MOSQUITO SYMBIONT BACTERIA SECRETED BIOACTIVE CELL-FREE SUPERNATANT

Jacques E. GNAMBANI, Etienne M. BILGO, François de Sales D. HIEN, Djènebou MILLOGO, Abdoulaye DIABATE

IRSS/DRO, Bobo-Dioulasso, Burkina Faso

#### 6196

ASSESSMENT OF THE EFFICACY OF FLUDORA FUSION ON SPRAYED SURFACES IN THE GAMBIA AMINATA BAH

Ministry of Health, Banjul, Gambia

### 6197

#### SPATIOTEMPORAL CO-DISTRIBUTION AND TIME LAGGED CROSS CORRELATION OF MALARIA AND DENGUE IN LORETO, PERU

Paloma M. Carcamo<sup>1</sup>, Gabriel Carrasco-Escobar<sup>1</sup>, Samantha R. Kaplan<sup>2</sup>, Jesus M. Quispe<sup>1</sup>, Gordon C. McCord<sup>3</sup>, Tarik Benmarhnia<sup>3</sup>

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### DIET AFFECTS THE LONGEVITY AND THE RESPONSE TO INSECTICIDE OF ANOPHELES GAMBIAE SL.

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#### **ABUNDANCE & CHARACTERIZATION OF MALARIA VECTORS IN** SAKASSOU, CENTRAL IVORY COAST

Louise Golou Bellai<sup>1</sup>, Constant A. Edi<sup>2</sup>, Amanda Ross<sup>1</sup>, Benjamin G. Koudou<sup>2</sup>, Jürg Utzinger<sup>1</sup>, Pie Müller<sup>1</sup>

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#### **OPTIMIZING AND VALIDATING THE HOST-FREE TUNNEL TEST: A** MORE AFFORDABLE, PRACTICAL, AND ETHICAL TOOL FOR THE EVALUATION OF INSECTICIDE-TREATED NETS

Kath Gleave. Rosemary Lees. Jessica Williams

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#### RESIDUAL EFFICACY OF WALL CONTACT BIOASSAYS AND FUMIGANTS EFFECTS INDUCED BY ACTELLIC® 300CS AND FLUDORA® FUSION WP-SB 56.25 INSECTICIDES USED FOR INDOOR RESIDUAL SPRAYING AGAINST SUSCEPTIBLE ANOPHELES GAMBIAE S.S.

**Beatus Cyubahiro** 

Rwanda Biomedical Centre - Malaria and Other Parasitic Diseases Division, Kigali, Rwanda

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#### IMPACT OF FOCAL MALARIA CONTROL USING TARGETED INDOOR RESIDUAL SPRAYING (IRS), 4 YEARS RESULTS FROM RUSIZI DISTRICT, WESTERN PROVINCE OF RWANDA

Dunia Munyakanage<sup>1</sup>, Beatus Cyubahiro<sup>1</sup>, Elias Niyituma<sup>1</sup>, Xavier Misago<sup>1</sup>, Jules Nahimana<sup>2</sup>, Phocas Mazimpaka<sup>1</sup>, Michee Kabera<sup>1</sup>, Naomi W. Lucchi<sup>3</sup>, Kaendi Munguti<sup>4</sup>, Aimable Mbituyumuremyi<sup>1</sup>, Emmanuel Hakizimana<sup>1</sup>

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#### BUILDING AN EVIDENCE BASE TO SUPPORT INSECTICIDE-TREATED NET DISTRIBUTION IN TWO HIGH-BURDEN TO HIGH-IMPACT COUNTRIES

Angharad Steele<sup>1</sup>, Nnamdi Dum-Buo<sup>2</sup>, Jackline Martin<sup>3</sup>, Erica Vigano<sup>1</sup>, Alphaxard Manjurano<sup>3</sup>, Siân Clarke<sup>4</sup>, Jo Lines<sup>4</sup>, Katherine Theiss-Nyland<sup>1</sup>

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# 6204

#### COMBINING HOUSE-SCREENING AND ODOUR BAITED MOSQUITO TRAPS FOR SUSTAINABLE CONTROL OF MALARIA TRANSMISSION IN LOW INCOME COMMUNITIES DOMINATED BY ANOPHELES FUNESTUS

DOREEN JOSEN SIRIA<sup>1</sup>, Halfan Said Ngowo<sup>1</sup>, Anold Mmbando<sup>1</sup>, Emmanuel Kaindoa<sup>1</sup>, Frances Hawkes<sup>2</sup>, Heather Ferguson<sup>3</sup>, Fredros Okumu<sup>1</sup>

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# **6205**

#### THE EFFECT OF REPEATED WASHING OF THE ROYAL GUARD, INTERCEPTOR G1 AND G2 NETS ON BLOOD FEEDING BEHAVIOR AND SURVIVAL OF ANOPHELES MOSQUITOES

Judith Sinkanako Banda<sup>1</sup>, Owen Ndalama<sup>1</sup>, Shupikayi Kambiring'oma<sup>1</sup>, Raphael Linno<sup>2</sup>, Hilary Ranson<sup>3</sup>, Themba Mzilahowa<sup>1</sup>, Elizabeth Bandason<sup>4</sup>

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# 6206

#### DISTRIBUTION OF ANOPHELES VECTORS AND THEIR ROLE IN MALARIA TRANSMISSION ACROSS HIGH MALARIA BURDEN AREAS IN MALAWI INCLUDING CHIKWAWA, KARONGA AND NKHATA BAY DISTRICTS

Nellie Chikondi Kaunde<sup>1</sup>, Leonard Dandalo<sup>1</sup>, Yemane Yihdego<sup>2</sup>, Abdoulaye Bangoura<sup>1</sup>, Miriam Williams<sup>2</sup>, Austin Gumbo<sup>3</sup>, Lumbani Munthali<sup>3</sup>, Liliah Gerberg<sup>4</sup>, Pius Masache<sup>5</sup>, Themba Mzilahowa<sup>6</sup>

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# 6207

#### EFFECTS OF SAMPLE PRESERVATION METHODS AND DURATION OF STORAGE ON THE PERFORMANCE OF MID-INFRARED SPECTROSCOPY FOR PREDICTING THE AGE OF MALARIA VECTORS

Jacqueline Nicholaus Mgaya<sup>1</sup>, Doreen J. Siria<sup>1</sup>, Faraja E. Makala<sup>1</sup>, Joseph P. Mgando<sup>1</sup>, John-Mary Vianney<sup>2</sup>, Emmanuel Peter Mwanga<sup>1</sup>, Fredros O. Okumu<sup>3</sup> <sup>1</sup>Ifakara Health Institute, Morogoro, United Republic of Tanzania, <sup>2</sup>The Nelson Mandela African Institution of Science and Technology, Arusha, United Republic of Tanzania, <sup>3</sup>University of Glasgow, Glasgow, Scotland, United Kingdom

# **6208**

#### EXPLORING THE INFLUENCE OF MOSQUITO FEEDING BEHAVIOR AND EXISTING VECTOR CONTROL INTERVENTIONS ON THE IMPACT OF ENDECTOCIDES FOR MALARIA CONTROL

Nilani Chandradeva<sup>1</sup>, Joseph D. Challenger<sup>1</sup>, Ellie Sherrard-Smith<sup>1</sup>, Hannah C. Slater<sup>2</sup>, Thomas S. Churcher<sup>1</sup>

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# EVALUATION OF THE CHAIN OF CUSTODY OF THE RESIDUAL INSECTICIDE USED IN MALARIA VECTOR CONTROL IN THE AMAZON REGION OF BRAZIL

Marcela Lima Dourado<sup>1</sup>, Marcia Caldas de Castro<sup>2</sup>, Pablo Secato Fontoura<sup>3</sup>, Daniele Pereira de Castro<sup>4</sup>, Jose Bento Pereira Lima<sup>4</sup>

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#### THE INTERSPECIFIC COMPETITION BETWEEN LARVAE OF AEDES AEGYPTI AND MAJOR AFRICAN MALARIA VECTORS IN A SEMI FIELD SYSTEM IN TANZANIA

sperancia Coelestine Lushasi Ifakara Health Institute, Morogoro, United Republic of Tanzania

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#### ESTIMATING SPATIAL DISTRIBUTIONS OF AEDES AEGYPTI, AEDES ALBOPICTUS AND CULEX QUINQUEFASCIATUS IN HAITI

Ian A. Pshea-Smith<sup>1</sup>, Bernard Okech<sup>2</sup>, Ian Sutherland<sup>3</sup>, James Dunford<sup>3</sup>, John So<sup>3</sup>, Jeffrey Koehler<sup>4</sup>, Jacques Boncy<sup>5</sup>, Graham A. Matulis<sup>6</sup>, Jason K. Blackburn<sup>1</sup>, Michael E. von Fricken<sup>6</sup>

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# ALARMINGLY EXPANDING GEOGRAPHIC DISTRIBUTION OF ANOPHELES STEPHENSI IN ETHIOPIA

Dawit Hawaria Logita<sup>1</sup>, Solomon Kibret<sup>2</sup>, Daibin Zhong<sup>3</sup>, Ming-Chieh Lee<sup>3</sup>, Delenesaw Yewhalaw<sup>4</sup>, Guiyun Yan<sup>3</sup>

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#### A SYSTEMATIC REVIEW OF ENTOMOLOGICAL INDICATORS AND SAMPLING APPROACHES USED IN THE EVALUATION OF CLUSTER RANDOMIZED TRIALS FOR MALARIA VECTOR CONTROL PRODUCTS

Victoria James Githu<sup>1</sup>, Alex MacConnachie<sup>1</sup>, Samson Kiware<sup>2</sup>, Joseph Biggs<sup>3</sup>, Jackie Cook<sup>3</sup>, Paul Johnson<sup>1</sup>, Heather Ferguson<sup>1</sup>

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# 6214

#### MALARIA VECTOR CONTROL IN SUB-SAHARAN AFRICA; COMPLEX TRADE-OFFS TO COMBAT THE GROWING THREAT OF INSECTICIDE RESISTANCE

Richard M. Oxborough<sup>1</sup>, Karen C. Figueroa<sup>1</sup>, Tatchémè F. Tokponnon<sup>2</sup>, Louisa A. Messenger<sup>1</sup>

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# 6215

#### IVERMECTIN AND ANOPHELES GLUTAMATE-GATED CHLORIDE ION CHANNEL INTERACTIONS

Kevin C. Kobylinski<sup>1</sup>, Minh N. Nguyen<sup>2</sup>, David Hotwagner<sup>3</sup>, Andrew K. Jones<sup>3</sup>, Joel Tarning<sup>1</sup>

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# 6216

#### EFFECTIVENESS OF ECO BIOTRAPS - AN INNOVATIVE LARVAL SOURCE MANAGEMENT VECTOR CONTROL TOOL IN DHARAVI, MUMBAI, INDIA

Dr Susanta Kumar K. Ghosh<sup>1</sup>, Prasad Phadke<sup>2</sup>, Nitin Khope<sup>2</sup>, Daksha Shah<sup>3</sup>, Sashibala D. Shukla<sup>3</sup>, Satish Revatkar<sup>3</sup>, Chetan Choubal<sup>3</sup>

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# 6217

#### ANOPHELES ARABIENSIS, A POTENTIAL THREAT TO MALARIA ELIMINATION IN HWEDZA DISTRICT, ZIMBABWE 2023

Trust Nyakunu<sup>1</sup>, Elias Nyamande<sup>2</sup>, Charmaine C. Matimba<sup>1</sup>, Tanatswa X. Gara<sup>1</sup>, Brenda Makonyere<sup>1</sup>, Tariro P. Chikava<sup>1</sup>, Agatha Nduna<sup>1</sup>, Prosper Nyamutsamba<sup>2</sup>, Brighton Sibanda<sup>2</sup>, Aramu Makuwaza<sup>1</sup>, Nobert Mudare<sup>1</sup>, Busisani Dube<sup>3</sup>, Jessica Kafuko<sup>3</sup>, Regis Magauzi<sup>3</sup>, Sungano I. Mharakurwa<sup>1</sup>

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#### TAILORING MALARIA CONTROL IN ETHIOPIA: HUMAN AND VECTOR BEHAVIOR CREATE DIFFERENT EXPOSURE PROFILES IN HIGHLANDS AND LOWLANDS

Endashaw Esayas<sup>1</sup>, Adam Bennett<sup>2</sup>, Edward Thomsen<sup>3</sup>, Muluken Assefa<sup>1</sup>, Elodie Vajda<sup>3</sup>, Steven Gowelo<sup>3</sup>, Asefaw Getachew<sup>4</sup>, Henry Ntuku<sup>5</sup>, Lemu Golassa<sup>6</sup>, Endalamaw Gadisa<sup>1</sup>, Neil F. Lobo<sup>7</sup>

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#### COMPARATIVE SUSCEPTIBILITY OF WILD-DERIVED AND LABORATORY-REARED AEDES AND ANOPHELES LARVAE TO IVERMECTIN: A PRELIMINARY STUDY TOWARD EXPERIMENTAL SELECTION OF LARVAL IVERMECTIN RESISTANCE MECHANISMS

Cheick Oumar Wendpagnandé OUEDRAOGO<sup>1</sup>, Emmanuel Daouda SOUGUE<sup>1</sup>, André B. SAGNA<sup>2</sup>, Olive TRAORE<sup>3</sup>, Dieudonné Diloma SOMA<sup>3</sup>, Sié Hermann POODA<sup>4</sup>, Lamidi ZELA<sup>5</sup>, Mady NDIAYE<sup>6</sup>, El Hadji Mamadou NIANG<sup>6</sup>, Sophie Le Lamer Déchamps<sup>7</sup>, Karine MOULINE<sup>8</sup>, Fabrice A. SOME<sup>1</sup>, Roch K. DABIRE<sup>1</sup>

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#### UPDATES ON COMMUNITY-BASED BIOLARVICIDING FOR MALARIA CONTROL IN TANGA REGION, TANZANIA

Denis Richard Kailembo<sup>1</sup>, Tegemeo Gavana<sup>2</sup>, Jubilate Bernard Minja<sup>3</sup>, Elizabeth Kasagama<sup>1</sup>, Fabrizio Molteni<sup>1</sup>, Noela Kisoka<sup>1</sup>, Best Yoram<sup>4</sup>, Stella Kajange<sup>4</sup>, Samwel Lazaro<sup>3</sup>, Charles Dismas<sup>3</sup>, Propser Chaki<sup>2</sup>, Christian Lengeler<sup>5</sup> <sup>1</sup>Swiss TPH, Dar es Salaam, United Republic of Tanzania, <sup>2</sup>IHI, Dar es Salaam, United Republic of Tanzania, <sup>3</sup>NMCP, Dodoma, United Republic of Tanzania, <sup>4</sup>PORALG, Dodoma, United Republic of Tanzania, <sup>5</sup>Swiss TPH, Basel, Switzerland

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#### INVESTIGATING THE MOSQUITO MYCOBIOTA: FROM BASIC KNOWLEDGE TO POTENTIAL APPLICATIONS FOR MOSQUITO CONTROL

Irene Ricci, Alessia Cappelli, Mohammad Sameer Zubair, Valentina Cecarini, Claudia Damiani, Guido Favia

University of Camerino, Camerino, Italy

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# BACTERIAL SYMBIONTS IMPACTING THE BIOLOGY AND VECTORIAL COMPETENCE OF MOSQUITOES

Guido Favia, Claudia Damiani, Alessia Cappelli, Monica Falcinelli, Silvia Sorana, Paolo Luigi Catapano, Paolo Rossi, Irene Ricci University of Camerino, Camerino, Italy

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#### MICROBIAL COMPETITION IN MOSQUITO: POSSIBLE APPLICATION IN MONITORING AND CONTROL

**Claudia Damiani**<sup>1</sup>, Alessia Cappelli<sup>1</sup>, Marie Paul Audrey Mayi<sup>1</sup>, Paolo Luigi Catapano<sup>1</sup>, Lodovico Sterzi<sup>2</sup>, Irene Ricci<sup>1</sup>, Francesco Commandatore<sup>2</sup>, Guido Favia<sup>1</sup> <sup>1</sup>University of Camerino, Camerino, Italy, <sup>2</sup>University of Milan, Milan, Italy

# Mosquitoes - Molecular Biology, Population Genetics and Genomics

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#### BIOMARKERS FOR MOSQUITO AGE GRADING AND PARITY STATUS OF ANOPHELES DIRUS

Sirasate Bantuchai

Mahidol University, Ratchathewi, Thailand

#### MEMBRIN GENE IDENTIFICATION AND JH PRODUCTION AND MATING EFFICIENCY IN ADULT MALE CULEX PIPIENS MOSQUITOES

Tatyana Martynova, Cheolho Sim Baylor University, Waco, TX, United States

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#### A RAPID, COST-EFFECTIVE, COLORIMETRIC LAMP ASSAY (CLASS) FOR DETECTING INVASIVE MALARIA VECTOR, ANOPHELES STEPHENSI

Cristina S. Rafferty<sup>1</sup>, Gloria Raise<sup>1</sup>, JeNiyah Scaife<sup>1</sup>, Bernard Abongo<sup>2</sup>, Seline Omondi<sup>2</sup>, Sylvia Milanoi<sup>2</sup>, Margaret Muchoki<sup>2</sup>, Brenda Muchoki<sup>2</sup>, Eric Ochomo<sup>2</sup>, Sarah Zohdy<sup>1</sup> <sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>KEMRI, Kisumu, Kenya

# 6227

# EFFECTS OF TEMPERATURE ON AEDES HEAT SHOCK PROTEIN EXPRESSION

Rachel Fay<sup>1</sup>, Lisa Couper<sup>2</sup>, Erin Mordecai<sup>1</sup>

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# CHARACTERIZATION OF AEDES AEGYPTI INFECTION WITH THE NATURALLY ATTENUATED DENV-2D30-7169 VIRUS

Sreynik Nhek<sup>1</sup>, Sreyneang Phoch<sup>1</sup>, Mengheng Oum<sup>1</sup>, Somnang Man<sup>1</sup>, Sophana Chea<sup>1</sup>, Lyhourng Long<sup>1</sup>, Sreyngim Lay<sup>1</sup>, Piseth Ly<sup>1</sup>, Octavio AC Talyuli<sup>2</sup>, Chanthap Lon<sup>1</sup>, Sokchea Lay<sup>3</sup>, William Stone<sup>2</sup>, Isabelle Conclois<sup>4</sup>, Dorothée Misse<sup>4</sup>, Stephen Whitehead<sup>2</sup>, Jessica E. Manning<sup>1</sup>, Tineke Cantaert<sup>3</sup>, Christina Yek<sup>2</sup>, Fabiano Oliveira<sup>2</sup>

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# 6229

#### OPEN QUESTIONS IN ANOPHELES DOSAGE COMPENSATION Niklas Klauss, Michael B. Wells

Idaho College of Osteopathic Medicine, Meridian, ID, United States

# 6230

#### NATURALLY OCCURRING RECESSIVE LETHAL ALLELES (RLAS) AND SEX-RATIO DISTORTION IN THE YELLOW FEVER MOSQUITO, AEDES AEGYPTI

Abdulhadi Kobiowu, Atashi Sharma, Melanie Hempel, Zhijian Tu Virginia Tech, Blacksburg, VA, United States

# 6231

#### REDUCED GENETIC DIVERSITY OF KEY FERTILITY AND VECTOR COMPETENCY RELATED GENES IN ANOPHELES GAMBIAE S.L. ACROSS SUB SAHARAN AFRICA (SSA)

Fatoumata Seck<sup>1</sup>, Mouhamadou Fadel Diop<sup>1</sup>, Karim Mané<sup>1</sup>, Amadou Diallo<sup>2</sup>, Idrissa Dieng<sup>2</sup>, Moussa Namountougou<sup>3</sup>, Abdoulaye Diabaté<sup>4</sup>, Umberto D'Alessandro<sup>1</sup>, Alfred Amambua-Ngwa<sup>1</sup>, Alistair Miles<sup>5</sup>, Ibrahima Dia<sup>2</sup>, Benoit Sessinou Assogba<sup>1</sup> <sup>1</sup>Medical Research Council Unit The Gambia at the London School of Hygiene & Tropical Medicine, Banjul, Gambia, <sup>2</sup>Institut Pasteur de Dakar, Dakar, Senegal, <sup>3</sup>Université Nazi Boni, Bobo-Dioulasso, Burkina Faso, Bobodioulasso, Burkina Faso, <sup>4</sup>Institut de Recherche en Sciences de la Santé, Bobodioulasso, Burkina Faso, <sup>5</sup>Wellcome Sanger Institute, Hinxton, United Kingdom

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#### SPATIALLY-EXPLICIT SAMPLING OF AN. GAMBIAE S.L REVEALS FINE-SCALE POPULATION STRUCTURE AND MECHANISMS OF INSECTICIDE RESISTANCE

Sanjay Curtis Nagi<sup>1</sup>, Nicholas-Ato Egyir<sup>2</sup>, John Essandoh<sup>3</sup>, Eric Lucas<sup>1</sup>, Kwame Desewu<sup>4</sup>, Alex Egyir-Yawson<sup>2</sup>, David Weetman<sup>1</sup>, Luigi Sedda<sup>5</sup>, Martin J. Donnelly<sup>1</sup> <sup>1</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>2</sup>Department of Biomedical Sciences, University of Cape Coast, Cape Coast, Ghana, Cape Coast, Ghana, <sup>3</sup>Department of Biomedical Sciences, University of Cape Coast, Cape Coast, Ghana., Cape Coast, United Kingdom, <sup>4</sup>AngloGold Ashanti Malaria Control, Ashanti, Ghana, <sup>5</sup>University of Lancaster, Lancaster, United Kingdom

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#### MITOCHONDRIAL SEQUENCES OF HAEMAOGOGUS MOSQUITOES FROM TRINIDAD REVEAL PHYLOGEOGRAPHIC RELATIONSHIPS WITH SPECIES ENDEMIC TO THE AMAZON

**Renee L.M.N. Ali**<sup>1</sup>, Satish Singh<sup>2</sup>, Yoosook Lee<sup>3</sup>, David W. Severson<sup>4</sup>, Adesh Ramsubhag<sup>2</sup>, Douglas E. Norris<sup>1</sup>

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### 6234

#### CHANGES IN ANOPHELES STEPHENSI DIVERSITY IN MAJOR HUB OF GENOMIC CONNECTIVITY IN ETHIOPIA

Elizabeth Waymire<sup>1</sup>, Dejene Getachew<sup>2</sup>, Isuru Gunarathna<sup>1</sup>, Sarah Zohdy<sup>3</sup>, Jeanne N. Samake<sup>3</sup>, Tamar E. Carter<sup>1</sup>

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# 6235

#### WHOLE GENOME SEQUENCE DATA REVEALS SELECTIVE SWEEP SIGNALS AROUND MAJOR INSECTICIDE RESISTANCE LOCI IN ANOPHELES FUNESTUS POPULATIONS FROM UGANDA

Lilian Namuli Kayondo<sup>1</sup>, Sanjay C. Nagi<sup>1</sup>, Joaniter I. Nakabirwa<sup>2</sup>, Jonathan Kayondo<sup>3</sup>, Samuel L. Nsobya<sup>2</sup>, Mara K N Lawniczak<sup>4</sup>, Moses Kamya<sup>2</sup>, Martin J. Donnelly<sup>1</sup> <sup>1</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom, <sup>2</sup>Infectious Diseases Research Collaboration, Kampala, Uganda, <sup>3</sup>4Department of Entomology, Uganda Virus Research Institute, Entebbe, Uganda, <sup>4</sup>Wellcome Sanger Institute, Hinxton, United Kingdom

# Viruses - Emerging Viral Diseases

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# CONTINUOUS VITAL SIGN MONITORING OF INDIVIDUALS WITH ACUTE LASSA FEVER USING WEARABLE BIOSENSOR DEVICES

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#### STANDARDIZED BRIGHTON COLLABORATION CASE DEFINITIONS AND COMPANION GUIDES ON ADVERSE EVENTS OF SPECIAL INTEREST FOR HARMONIZED SAFETY MONITORING OF LASSA FEVER VACCINES

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### 6238

#### SEROLOGIC EVIDENCE OF DENGUE AND CHIKUNGUNYA AMONG PATIENTS WITH ACUTE FEBRILE ILLNESS IN GHANA 2016 -2018

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# **6239**

#### MAPPING THE GLOBAL BURDEN OF CHIKUNGUNYA

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#### 6240

# NOVEL RT-QPCR ASSAY FOR THE DETECTION AND QUANTIFICATION OF GROUP C ORTHOBUNYAVIRUS

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# **6241**

# USE OF A NEW WORLD HANTAVIRUS RT-QPCR ASSAY TO DETECT MULTIPLE HANTAVIRUS IN HUMAN AND RODENT SAMPLES IN THE AMERICAS

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## **6242**

#### SEROPREVALENCE OF LASSA AND OTHER EMERGING AND RE-EMERGING VIRUSES CIRCULATING IN HUMANS AND ANIMALS (DOGS AND RODENTS) IN LIBERIA

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### **6243**

# EVIDENCE OF CO-TRANSMISSION OF ZIKA VIRUS DURING THE 2023 DENGUE OUTBREAK IN BANGLADESH

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# 6244

#### ASSOCIATION BETWEEN ANGIOTENSIN-CONVERTING ENZYME 2 SINGLE-NUCLEOTIDE POLYMORPHISMS AND RISK OF SARS-COV-2 INFECTION IN A GHANAIAN POPULATION

Alexander Owusu Boakye<sup>1</sup>, Anthony Afum-Adjei Awuah<sup>1</sup>, Christian Obirikorang<sup>2</sup>, Evans Asamoah Adu<sup>2</sup>, Doris Winter<sup>3</sup>, Eva Lorenz<sup>3</sup>, Nicole Gilberger<sup>3</sup>, John Amuasi<sup>1</sup>

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#### 6245

# CRYPTIC CIRCULATION, PERSISTENCE, AND POSITIVE SELECTION OF YELLOW FEVER VIRUS IN COLOMBIA

Lester J. Perez<sup>1</sup>, Laura S. Perez-Restrepo<sup>2</sup>, Karl Ciuoderis<sup>2</sup>, Jaime Usuga<sup>2</sup>, Isabel Moreno<sup>2</sup>, Vanessa Vargas<sup>2</sup>, Angela J. Arévalo-Arbelaez<sup>2</sup>, Michael G. Berg<sup>1</sup>, Gavin A. Cloherty<sup>1</sup>, Juan Pablo Hernández-Ortiz<sup>3</sup>, Jorge E. Osorio<sup>4</sup> <sup>1</sup>Abbott Laboratories, Abbott Park, IL, United States, <sup>2</sup>GHI One Health Colombia, Universidad

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#### 6246

#### PERFORMANCE OF THE NG-TEST® IGG/IGM COVID-19 RAPID TEST FOR THE DIAGNOSIS OF SARSCOV2 INFECTION AMONGST HEALTHCARE WORKERS IN BAMAKO, MALI

Karamoko TANGARA<sup>1</sup>, Mathias KAMATE<sup>1</sup>, Merepen dite Agnes GUINDO<sup>1</sup>, Drissa KONATE<sup>1</sup>, Bourama TRAORE<sup>2</sup>, Fousseyni KANE<sup>2</sup>, Housseini DOLO<sup>1</sup>, Salimata KANTE<sup>1</sup>, Abdouramane TRAORE<sup>1</sup>, Bourama KEITA<sup>1</sup>, Issoufi Y MAIGA<sup>1</sup>, Seydou DOUMBIA<sup>3</sup>, Saidou BALAM<sup>1</sup>, Mahamadou DIAKITE<sup>3</sup>

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#### DETECTION OF NEUTRALIZING ANTIBODIES AGAINST ARBOVIRUSES FROM LIVER HOMOGENATES

Thais Alkifeles Costa<sup>1</sup>, Matheus Soares Arruda<sup>1</sup>, Gabriela Fernanda Garcia Oliveira<sup>1</sup>, Erik V. Reis<sup>1</sup>, Anna Catarina D.S. Guimarães<sup>1</sup>, Gabriel Dias Moreira<sup>1</sup>, Nidia E.C Arias<sup>1</sup>, Marina do Vale Beirão<sup>1</sup>, Nikos Vasilakis<sup>2</sup>, Kathy A. Hankey<sup>3</sup>, **Betania P. Drumond**<sup>1</sup> <sup>1</sup>Federal University of Minas Gerais, Belo Horizonte, Brazil, <sup>2</sup>University of Texas - Medical Branch, Galveston, TX, United States, <sup>3</sup>New Mexico State University, Las Cruces, NM, United States

#### 6248

#### A HIGH-THROUGHPUT LIVE-IMAGE REPORTER FLAVIVIRUS NEUTRALIZATION ASSAY PLATFORM FOR SEROSURVEILLANCE AND VACCINE EVALUATION

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# 6249

#### PREDICTING THE IMPACT OF A POTENTIAL CHIKUNGUNYA OUTBREAK IN MIAMI AND THE IMPACT OF A CHIKUNGUNYA VACCINE

Adrianne M. de Roo<sup>1</sup>, Bert Sloof<sup>2</sup>, Martijn Boer<sup>2</sup>, Gerard T. Vondeling<sup>1</sup> <sup>1</sup>Valneva Austria GmbH, Vienna, Austria, <sup>2</sup>Asc Academics, Groningen, Netherlands

# 6250

#### CHIKUNGUNYA INFECTION IN PERUVIAN PATIENTS WITH ACUTE FEBRILE ILLNESS: PREVALENCE AND CLINICAL CHARACTERISTICS

**Miguel A. Aguilar-Luis**<sup>1</sup>, Hugh Watson<sup>2</sup>, Carlos Holguin<sup>3</sup>, Yordi Tarazona-Castro<sup>4</sup>, Brenda Tapia<sup>3</sup>, Wilmer Silva-Caso<sup>1</sup>, Juana del Valle Mendoza<sup>5</sup>

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#### A COMPARISON OF THREE DIAGNOSTIC TESTS TO DETECT HUMAN PAPILLOMAVIRUS (HPV) IN ASYMPTOMATIC WOMEN'S ENDOCERVICAL SAMPLES FROM 2022 TO 2023 IN A NORTHERN PERUVIAN REGION

Deysi Aguilar-Luis<sup>1</sup>, Juana del Valle-Mendoza<sup>1</sup>, Lorena Becerra Goicochea<sup>2</sup>, Jorge Bazan-Mayra<sup>3</sup>, Hans Huayta Campos<sup>2</sup>, Jhony Barrantes Herrera<sup>2</sup>, **Miguel A. Aguilar-**Luis<sup>1</sup>

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# **Viruses - Epidemiology**

# 6252

#### PREVALENCE OF HEPATITIS D VIRUS INFECTION AND ASSOCIATED FACTORS AMONG HEPATITIS B VIRUS PATIENTS FROM SELECTED HOSPITALS IN ACCRA

MIRIAM ESHUN<sup>1</sup>, Joseph H. K Bonney<sup>2</sup>, Francis Anto<sup>3</sup>

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### 6253

#### ACCURACY OF PHYSICIANS' CLINICAL DIAGNOSIS OF DENGUE AMONG PATIENTS PRESENTING TO EMERGENCY ROOMS – PUERTO RICO, 2012-2022

Joshua M. Wong<sup>1</sup>, Zachary J. Madewell<sup>1</sup>, Alfonso Hernandez-Romieu<sup>2</sup>, Janice Perez-Padilla<sup>1</sup>, Liliana Sánchez-González<sup>1</sup>, Diego Sainz<sup>3</sup>, Jorge Bertran<sup>3</sup>, Jorge Munoz<sup>1</sup>, Vanessa Rivera-Amill<sup>4</sup>, Gabriela Paz-Bailey<sup>1</sup>, Laura E. Adams<sup>1</sup>

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# 6254

#### GENETIC CHARACTERIZATION OF INFLUENZA AND SARS-COV-2 IN DOD BENEFICIARIES DURING THE 2023-2024 SEASON

William Gruner, Anthony Fries, Deanna Muehleman, Jimmaline Hardy, Jennifer Meyer, Kelsey Lanter, Padraic Fanning, James Hanson, Peter Wasik, Elizabeth Macias

DCPH-Dayton, Wright-Patterson AFB, OH, United States

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#### RECONCILING HETEROGENEOUS DENGUE VIRUS INFECTION RISK ESTIMATES FROM DIFFERENT STUDY DESIGNS

Angkana T. Huang<sup>1</sup>, Darunee Buddhari<sup>2</sup>, Surachai Kaewhiran<sup>3</sup>, Sopon lamsirithaworn<sup>3</sup>, Direk Khampaen<sup>3</sup>, Aaron Farmer<sup>2</sup>, Stefan Fernandez<sup>2</sup>, Stephen J. Thomas<sup>4</sup>, Isabel Rodriguez Barraquer<sup>5</sup>, Taweewun Hunsawong<sup>2</sup>, Anon Srikiatkhachorn<sup>2</sup>, Gabriel Ribeiro dos Santos<sup>1</sup>, Megan O'Driscoll<sup>1</sup>, Marco Hamins-Puertolas<sup>5</sup>, Timothy Endy<sup>6</sup>, Alan L. Rothman<sup>7</sup>, Derek A. T. Cummings<sup>8</sup>, Kathryn Anderson<sup>4</sup>, Henrik Salje<sup>1</sup> <sup>1</sup>University of Cambridge, Cambridge, United Kingdom, <sup>2</sup>Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, <sup>3</sup>Ministry of Public Health, Nonthaburi, Thailand, <sup>4</sup>State University of New York Upstate Medical University, Syracuse, NY, United States, <sup>5</sup>University of California, San Francisco, San Francisco, CA, United States, <sup>6</sup>Coalition for Epidemic Preparedness Innovations, Washington, DC, DC, United States, <sup>7</sup>University of Rhode Island, Kingston, RI, United States, <sup>8</sup>University of Florida, Gainesville, FL, United States

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#### EXPANSION FACTOR ESTIMATES OF DENGUE UNDERREPORTING IN ENDEMIC COUNTRIES: A SYSTEMATIC REVIEW

Justin J. O'Hagan<sup>1</sup>, Eleanor Lucas<sup>2</sup>, Nikolina Boskovic<sup>3</sup>, Rosybel Drury<sup>4</sup>, Morgan A. Marks<sup>1</sup>, Beth Lesher<sup>2</sup>

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# 6257

# HIGH PREVALENCE OF HEPATITIS B VIRUS AMONG PREGNANCY WOMEN IN GUINEA

MAMADY CISSE<sup>1</sup>, Timothe GUILAVOGUI<sup>1</sup>, NENE OUMOU DIALLO<sup>1</sup>, Abdoulaye Toure<sup>2</sup>, MAMOUDOU CONDE<sup>1</sup>, YOUSSOU KOITA<sup>1</sup>, LAYE KABA<sup>1</sup>, MOUSTAPHA GROVOGUI<sup>1</sup>, ALIMOU CAMARA<sup>1</sup>, NOUMOUKE KABA<sup>1</sup>, NOEL TAMBADA GUILAVOGUI<sup>1</sup> <sup>1</sup>Ministère de la Santé et de l'Hygiène Publique, CONAKRY, Guinea, <sup>2</sup>Université Gamal Abdel Nasser CONAKRY, CONAKRY, Guinea

#### 6258

#### INFORMING AN INVESTMENT CASE FOR JAPANESE ENCEPHALITIS VACCINE INTRODUCTION IN BANGLADESH

Mariana Perez Duque<sup>1</sup>, Abu M. Naser<sup>2</sup>, Gabriel Ribeiro dos Santos<sup>1</sup>, Megan O'Driscoll<sup>1</sup>, Kishor K. Paul<sup>2</sup>, Mahmudur Rahman<sup>3</sup>, Mohammad Shafiul Alam<sup>2</sup>, Hasan Mohammad Al-Amin<sup>2</sup>, Mohammed Z. Rahman<sup>2</sup>, Mohammad E. Hossain<sup>2</sup>, Repon C. Paul<sup>4</sup>, Stephen P. Luby<sup>5</sup>, Simon Cauchemez<sup>6</sup>, Jessica Vanhomwegen<sup>7</sup>, Emily S. Gurley<sup>8</sup>, Henrik Salje<sup>1</sup> <sup>1</sup>Pathogen Dynamics Unit, Department of Genetics, University of Cambridge, Cambridge, United Kingdom, <sup>2</sup>International Centre for Diarrheal Diseases Research, Bangladesh (icdd;b), Dhaka, Bangladesh, <sup>3</sup>Institute for Epidemiology, Disease Control and Research (IEDCR), Dhaka, Bangladesh, <sup>4</sup>Centre for Big Data Research in Health, University of New South Wales, Sydney, Australia, <sup>5</sup>Division of Infectious Diseases and Geographic Medicine, Stanford University, Palo Alto, CA, United States, <sup>6</sup>Mathematical Modelling of Infectious Diseases Unit, Institut Pasteur, Paris, France, <sup>8</sup>Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

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# DENGUE IN AMAZONAS: UNDERSTANDING SPATIOTEMPORAL DYNAMICS AND SEROTYPE CIRCULATION

Fátima Burgos<sup>1</sup>, Milagros Saavedra-Samillán<sup>1</sup>, Lourdes Ramírez-Orrego<sup>1</sup>, Jesús Rascón<sup>2</sup>, Luis M. Rojas<sup>3</sup>, Pershing Bustamante-Chauca<sup>3</sup>, Stella M. Chenet<sup>1</sup> <sup>1</sup>Instituto de Investigación de Enfermedades Tropicales, Universidad Nacional Toribio Rodríguez de Mendoza de Amazonas (UNTRM), Chachapoyas, Peru, <sup>2</sup>Instituto de Investigación para el Desarrollo Sustentable de Ceja de Selva (INDES-CES), Universidad Nacional Toribio Rodríguez de Mendoza de Amazonas (UNTRM), Chachapoyas, Peru, <sup>3</sup>Dirección Regional de Salud de Amazonas (DIRESA), Chachapoyas, Peru

### **6260**

NEURODEVELOPMENTAL OUTCOMES IN CHILDREN WITH AND WITHOUT ZIKA, DENGUE, AND OTHER FLAVIVIRUS EXPOSURE, ZIKA EN EMBARAZADAS Y NIÑOS (ZEN) COHORT, COLOMBIA

#### Hanvit Oh

CDC, Atlanta, GA, United States

# 6261

# QUANTIFYING THE IMPACT OF MASS DOG VACCINATION ON PUBLIC HEALTH OUTCOMES IN TANZANIA

Eleanor Rees<sup>1</sup>, Kennedy Lushasi<sup>2</sup>, Elaine A. Ferguson<sup>1</sup>, Ahmed Lugelo<sup>2</sup>, Anna Czupryna<sup>1</sup>, Danni Anderson<sup>1</sup>, Machunde Bigambo<sup>3</sup>, Joel Changalucha<sup>2</sup>, Lwitiko Sikana<sup>2</sup>, Felix Lankester<sup>4</sup>, Katie Hampson<sup>1</sup>

<sup>1</sup>University of Glasgow, Glasgow, United Kingdom, <sup>2</sup>Ifakara Health Institute, Ifakara, United Republic of Tanzania, <sup>3</sup>Global Animal Health Tanzania, Arusha, United Republic of Tanzania, <sup>4</sup>Washington State University, Pullman, WA, United States

#### CHARACTERIZING DENGUE SEROPREVALENCE AND HETEROGENEITIES IN TRANSMISSION INTENSITY IN GHANA

Anthony Afum-Adjei Awuah<sup>1</sup>, Anna Vicco<sup>2</sup>, Evans Adu Asamoah<sup>1</sup>, Eric Ebenezer Boham<sup>1</sup>, Hakim Alani<sup>1</sup>, Akua Pomaah Wiredu<sup>1</sup>, Louis Adu-Amoah<sup>1</sup>, Belen Pedrique<sup>3</sup>, Martine Guillerm<sup>3</sup>, Christian Obirikorang<sup>1</sup>, Shubham Shrivastava<sup>4</sup>, Nicole S. Struck<sup>5</sup>, Isabela Ribeiro<sup>3</sup>, John H. Amuasi<sup>1</sup>, Ilaria Dorigatti<sup>2</sup>

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#### 6263

#### LESSONS LEARNED FROM GEOGRAPHIC INFORMATION SYSTEMS FOR INFECTIOUS DISEASES RESEARCH AND SURVEILLANCE

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# THE IMPACTS OF COVID-19 ON THE TREND OF MEASLES OUTBREAK IN NIGERIA

Promise Ayooluwa Ajala, Ayooluwa Oluwaseun Ajayi, Funmilayo Grace Adelakun, Favour Mofiyinfoluwa Abiona, Oluwatomisin Oluwadamilola Olawoye College of Medicine, University of Ibadan, Ibadan, Nigeria

# 6265

#### PREVALENCE OF PREVIOUS DENGUE INFECTION AMONG SCHOOL CHILDREN IN GRADES 3-10- AMERICAN SAMOA, SEPTEMBER-OCTOBER 2023

Sandra Kiplagat<sup>1</sup>, Noelle Tavale<sup>2</sup>, Adam Konrote<sup>2</sup>, Astrid M. Johansson<sup>2</sup>, Angelynn Papu<sup>2</sup>, Joshua M. Wong<sup>1</sup>, Janice Perez-Padilla<sup>1</sup>, Forrest K. Jones<sup>1</sup>, Hans Desale<sup>1</sup>, Annette F. Ilimaleota<sup>2</sup>, Jacki M. Tulafono<sup>2</sup>, Mark Delorey<sup>3</sup>, Emma Jones<sup>3</sup>, Emi Chutaro<sup>4</sup>, Janet Camacho<sup>4</sup>, Freddy Medina<sup>1</sup>, Rafael Tosado-Acevedo<sup>1</sup>, Jorge L. Munoz-Jordan<sup>1</sup>, Gabriela Paz-Bailey<sup>1</sup>, Laura E. Adams<sup>1</sup>, Motusa T. Nua<sup>2</sup>, Scott Anesi<sup>2</sup> <sup>1</sup>Centers for Disease Control and Prevention, San Juan, PR, United States, <sup>2</sup>American

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# **6266**

# INTERACTIONS AMONG ACUTE RESPIRATORY VIRUSES IN PUERTO RICO, 2013-2023

Zachary J. Madewell<sup>1</sup>, Joshua M. Wong<sup>1</sup>, Vanessa Rivera-Amill<sup>2</sup>, Gabriela Paz-Bailey<sup>1</sup>, Laura E. Adams<sup>1</sup>, Yang Yang<sup>3</sup>

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#### HUMAN SEROPREVALENCE OF ANTIBODIES TO FILOVIRUSES CAUSING OUTBREAKS IN SUB-SAHARAN AFRICA: A SYSTEMATIC REVIEW AND META-ANALYSIS

Christopher S. Semancik<sup>1</sup>, Christopher Cooper<sup>2</sup>, Thomas S. Postler<sup>2</sup>, Matt Price<sup>1</sup>, Heejin Yun<sup>3</sup>, Marija Zaric<sup>3</sup>, Monica Kuteesa<sup>1</sup>, Nina Malkevich<sup>1</sup>, Andrew Kilianski<sup>1</sup>, Swati B. Gupta<sup>1</sup>, Suzanna C. Francis<sup>1</sup>

<sup>1</sup>International AIDS Vaccine Initiative, New York, NY, United States, <sup>2</sup>International AIDS Vaccine Initiative, Vaccine Design and Development Laboratory, Brooklyn, NY, United States, <sup>3</sup>IAVI Human Immunology Laboratory, Imperial College London, London, United Kingdom

# **6268**

#### **OUTBREAK OF MONKEYPOX IN BENIDORM, ALICANTE (SPAIN)**

javier Ena, Francisco Pasquau, Carmen Martinez-Peinado, Concepción Amador, Jose Vicente Pascual Martinez

Hospital Marina Baixa, VILLAJOYOSA, Spain

#### 6269

#### SPATIO-TEMPORAL DISTRIBUTION OF CRIMEAN CONGO HEMORRHAGIC FEVER AND ITS RELATIONSHIP WITH CLIMATE FACTORS IN PAKISTAN: A DECADE-LONG EXPERIENCE FROM TERTIARY CARE LABORATORY NETWORK

**Muhammad Abbas Abid**, Joveria Farooqi, Rabiya Owais, Ayesha Sadiqa, Najia Ghanchi, Humaira Shafaq, Erum Khan *Aga Khan University, Karachi, Pakistan* 

#### 6270

# SPATIAL DRIVERS OF DENGUE TRANSMISSION INTENSITY IN COASTAL ECUADOR, 2015-2016

Phong Hong<sup>1</sup>, Savannah Colston<sup>1</sup>, Veronica Berrocal<sup>2</sup>, Leah C. Katzelnick<sup>3</sup>, Varsovia Cevallos<sup>4</sup>, Josefina Coloma<sup>5</sup>, Joseph N.S. Eisenberg<sup>1</sup>

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# 6271

#### THE BURDEN OF DENGUE IN LATIN AMERICA AND ASIA: EPIDEMIOLOGICAL DATA OVER 57 MONTHS OF FOLLOW-UP IN A PHASE 3 TRIAL

Randee Kastner<sup>1</sup>, Eduardo López-Medina<sup>2</sup>, Chukiat Sirivichayakul<sup>3</sup>, Shibadas Biswal<sup>4</sup>, Ian Escudero<sup>4</sup>, Nicolas Folschweiller<sup>1</sup>, Nicholas Roubinis<sup>1</sup>, Vianney Tricou<sup>1</sup>, Suely Tuboi<sup>5</sup>, John Weil<sup>1</sup>

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## **6272**

#### SEROPREVALENCE AND SEROINCIDENCE OF LASV INFECTION IN A POPULATION-BASED COHORT STUDY IN SIERRA LEONE (IAVI X100)

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# Viruses - Evolution and Genomic Epidemiology

### 6273

# CHARACTERIZING THE INTRA-HOST PLAQUE VARIANTS AND GROWTH KINETICS OF GLOBAL ZIKA VIRUS STRAINS

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# 6274

# MAPPING RESPIRATORY VIRUS EVOLUTION AND OUTBREAKS IN CAMBODIA USING PATHOGEN GENOMICS

Sreyngim Lay<sup>1</sup>, Mengheng Oum<sup>1</sup>, Jessalyn Sebastian<sup>2</sup>, Lyhourng Long<sup>1</sup>, Sophana Chea<sup>1</sup>, Piseth Ly<sup>1</sup>, Sokna Ly<sup>1</sup>, Ratanak Sath<sup>1</sup>, Savuth Chin<sup>3</sup>, Darapheak Chau<sup>3</sup>, Heng Seng<sup>3</sup>, Sovann Ly<sup>3</sup>, Daniel M. Parker<sup>2</sup>, Volodymyr M. Minin<sup>2</sup>, Jessica E. Manning<sup>4</sup>, Chanthap Lon<sup>1</sup>, **Christina Yek**<sup>4</sup>

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# 6275

#### ANALYSIS OF SARS COV2 VARIANTS IN WASTEWATER OF THE METROPOLITAN DISTRICT OF QUITO USING A PASSIVE SAMPLING 3D PRINTED DEVICE

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# 6276

# DENGUE VIRUS SEROTYPE 3 ORIGINS AND GENETIC DYNAMICS, JAMAICA

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# 6277

#### RECOVERY OF COMPLETE GENOME SEQUENCES OF CRIMEAN-CONGO HAEMORRHAGIC FEVER VIRUS THROUGH TARGETED NEXT-GENERATION SEQUENCING APPROACHES: A COMPARATIVE STUDY BETWEEN MULTIPLEX TILING PCR AND PROBE HYBRIDIZATION CAPTURE

Jake D'Addiego<sup>1</sup>, Sonal Shah<sup>2</sup>, Nazif Elaldi<sup>3</sup>, Baris Yildiz<sup>3</sup>, Ayse Nur Pektas<sup>3</sup>, Binnur Bagci<sup>3</sup>, Tuba Nur Tasseten<sup>3</sup>, Zati Vatansever<sup>3</sup>, David Allen<sup>2</sup>, Roger Hewson<sup>1</sup> <sup>1</sup>UK Health Security Agency, Salisbury, United Kingdom, <sup>2</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>3</sup>Sivas Cumhuriyet University, Sivas, Turkey

# 6278

#### MULTIPLE GENOTYPES AND CLADES OF DENGUE VIRUS IDENTIFIED DURING 2022 AND 2023 IN CENTRAL NEPAL

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# 6279

#### PHYLOGENETIC ANALYSIS OF CRIMEAN CONGO HEMORRHAGIC FEVER VIRUS STRAINS CIRCULATING IN PAKISTAN DURING 2022-2023

Sabiha Yousuf, Aisha Ishauqe, Yusra Rehman, Erum Khan, Kehkashan Imtiaz, Najia Ghanchi

The Aga Khan University, Karachi, Pakistan

# 6280

# WEST NILE VIRUS INFECTIOUS UNITS CONTAIN MULTIPLE VIRUS PARTICLES

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# **6281**

# GENOMIC CHARACTERIZATION OF DENGUE VIRUS CIRCULATION IN ETHIOPIA

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# **6282**

#### MOLECULAR CHARACTERIZATION OF SARS-COV-2 VARIANTS IN PATIENTS LIVING IN DIFFERENT PROVINCES OF BURKINA FASO

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### 6283

# ELUCIDATING THE MOLECULAR EPIDEMIOLOGY OF WEST NILE VIRUS (WNV) IN SOUTHERN NEVADA

Austin J. Tang<sup>1</sup>, Will Bendik<sup>2</sup>, Karen L. Figueroa Chilito<sup>1</sup>, Zoee Sanchez<sup>1</sup>, Miklo Acala<sup>1</sup>, Katharine Major<sup>1</sup>, Richard M. Oxborough<sup>1</sup>, Chad L. Cross<sup>1</sup>, Vivek Raman<sup>2</sup>, Louisa A. Messenger<sup>1</sup>

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# **6284**

#### ROTAVIRUS AND STRAIN DIVERSITY: DISENTANGLING THE REASSORTMENT RATES OF PAIRWISE SEGMENT COMBINATIONS

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# 6285

# CLINICAL AND GENOMIC CHARACTERIZATION OF DENGUE VIRUS OUTBREAK IN MALI

John Collins<sup>1</sup>, Fousseyni Kane<sup>2</sup>, J. Kenneth Wickiser<sup>1</sup> <sup>1</sup>Columbia University Mailman SPH, New York, NY, United States, <sup>2</sup>University Clinical Research Center (UCRC), Bamako, Mali

# 6286

#### DENV DETECTION AND GENOMIC ANALYSIS IN A HIGH JUNGLE REGION OF NORTHERN PERU IN 2020 AND 2023

Yordi Tarazona-Castro<sup>1</sup>, **Miguel A. Aguilar-Luis**<sup>1</sup>, Wilmer Silva-Caso<sup>1</sup>, Victor Zavaleta Gavidea<sup>2</sup>, Ronald Aquino-Ortega<sup>1</sup>, Hugh Watson<sup>3</sup>, Eliezer Bonifacio-Vélez de Villa<sup>1</sup>, Luis J. del Valle<sup>4</sup>, Jorge Bazán Mayra<sup>2</sup>, Juana del Valle-Mendoza<sup>1</sup>

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#### DETECTION AND WHOLE GENOMIC CHARACTERIZATION OF TWO UNUSUAL REASSORTANT DS-1-LIKE ROTAVIRUS A STRAINS CO-CIRCULATING IN BOLIVIA IN 2023

Alejandra Gabriela Torrez Mamani, Belén Claudia Choque Pardo, Cinthia Copeticona Callejas, Sonia Guadalupe Jiménez Pacohuanca, Lucia Isabel Mendieta Elena, Sergio Gutiérrez Cortez, Carla Calderón Toledo, Volga Íñiguez Rojas Molecular Biology and Biotechnology Institute, La Paz, Plurinational State of Bolivia

#### **6288**

#### ASSESSMENT OF SARS-COV-2 GENOMIC SURVEILLANCE IN THE DEMOCRATIC REPUBLIC OF CONGO, CHALLENGES AND PERSPECTIVES

Nelson Kashali<sup>1</sup>, Prince Akili<sup>1</sup>, Chloé Musuamba<sup>1</sup>, Rilia Ola<sup>1</sup>, Gradi Luakanda<sup>1</sup>, Emmanuel Lokilo<sup>1</sup>, Raphael Lumembe<sup>2</sup>, Princesse Paku<sup>1</sup>, Elzedek Mabika<sup>1</sup>, Gabriel Kabamba<sup>2</sup>, Francisca Muyembe<sup>1</sup>, Jean Claude Makangara<sup>2</sup>, Adrienne Amuri<sup>1</sup>, Eddy Kinganda<sup>2</sup>, Edith Nkwembe<sup>1</sup>, Steve Ahuka<sup>1</sup>, Jean-Jacques Muyembe<sup>1</sup>, Placide Mbala<sup>1</sup> <sup>1</sup>National Institute for Biomedical Research, KINSHASA, Democratic Republic of the Congo, <sup>2</sup>Microbiology Department, Cliniques Universitaires de Kinshasa, University of Kinshasa, KINSHASA, Democratic Republic of the Congo

# **Viruses - Immunology**

#### 6289

#### ENHANCED IFN-F, BUT NOT IL-2, RESPONSE TO MYCOBACTERIUM TUBERCULOSIS ANTIGENS IN HIV/LATENT TB CO-INFECTED PATIENTS ON LONG-TERM HAART

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#### **6290**

#### COMPUTATIONAL STRUCTURE-BASED DESIGN OF THE SPIKE RBD IMPROVES SARS-COV-2 VACCINES

Thayne Henderson Dickey, Zhantong Wang, Rui Ma, Wai-Kwan Tang, Sachy Orr-Gonzalez, Tarik Ouahes, Palak Patel, Holly McAleese, Brandi Richardson, Brett Eaton, Michael Murphy, Jennifer L. Kwan, Nichole D. Salinas, Baoshan Zhang, Li Ou, Qi Qiu, Lingshu Wang, Tatsiana Bylund, Wing-Pui Kong, Wei Shi, Yaroslav Tsybovsky, Lingyuan Wu, Qiong Zhou, Ridhi Chaudhary, Misook Choe, Mohammed El Anbari, Adam S. Olia, Reda Rawi, I-Ting Teng, Danyi Wang, Shuishu Wang, Michael R. Holbrook, Lynn E. Lambert, Tongqing Zhou, Peter D. Kwong, Niraj H. Tolia National Institutes of Health, Bethesda, MD, United States

# 6291

#### CORRELATION BETWEEN CLINICAL BIOMARKERS AND LUNG PATHOLOGY OVER THE COURSE OF ACUTE COVID-19

Joao Luiz Silva-Filho<sup>1</sup>, Vanessa Herder<sup>1</sup>, Matthew P. Gibbins<sup>1</sup>, Monique Freire dos Reis<sup>2</sup>, Gisely Cardoso Melo<sup>3</sup>, Michael J. Haley<sup>4</sup>, Carla Cristina Judice<sup>5</sup>, Fernando Fonseca Almeida Val<sup>3</sup>, Mayla Borba<sup>2</sup>, Tatyana Almeida Tavella<sup>5</sup>, Vanderson de Sousa Sampaio<sup>6</sup>, Charalampos Attipa<sup>1</sup>, Fiona McMonagle<sup>1</sup>, Derek Wright<sup>1</sup>, Marcus Vinicius Guimaraes de Lacerda<sup>3</sup>, Fabio Trindade Maranhão Costa<sup>5</sup>, Kevin N. Couper<sup>4</sup>, Wuelton Marcelo Monteiro<sup>3</sup>, Luiz Carlos de Lima Ferreira<sup>3</sup>, Christopher Alan Moxon<sup>1</sup>, Massimo Palmarini<sup>1</sup>, Matthias Marti<sup>1</sup>

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### **6292**

#### DISENTANGLING DIFFERENCES IN DENGUE VIRUS INFECTION RISK ACROSS SEX IN A LONGITUDINAL COHORT IN KAMPHAENG PHET, THAILAND

**Marco Hamins-Puertolas**<sup>1</sup>, Darunee Buddhari<sup>2</sup>, Henrik Salje<sup>3</sup>, Derek A.T. Cummings<sup>4</sup>, Stefan Fernandez<sup>2</sup>, Aaron Farmer<sup>2</sup>, Surachai Kaewhiran<sup>5</sup>, Direk Khampaen<sup>5</sup>, Anon

Srikiatkhachorn<sup>2</sup>, Sopon lamsirithaworn<sup>5</sup>, Adam Waickman<sup>6</sup>, Stephen J. Thomas<sup>6</sup>, Timothy Endy<sup>7</sup>, Alan L. Rothman<sup>8</sup>, Isabel Rodriguez-Barraquer<sup>1</sup>, Kathryn B. Anderson<sup>6</sup> <sup>1</sup>University California San Francisco, San Francisco, CA, United States, <sup>2</sup>Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, <sup>3</sup>University of Cambridge, Cambridge, United Kingdom, <sup>4</sup>University of Florida, Florida, FL, United States, <sup>5</sup>Ministry of Public Health, Nonthaburi, Thailand, <sup>6</sup>State University of New York Upstate Medical University, Syracuse, NY, United States, <sup>8</sup>Coalition for Epidemic Preparedness Innovations, Washington D.C., DC, United States, <sup>8</sup>University of Rhode Island, Kingston, RI, United States

# **6293**

#### VACCINE-INDUCED T CELL RESPONSES CONTROL FLAVIVIRAL CHALLENGE INFECTION WITHOUT NEUTRALIZING ANTIBODIES

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#### 6294

#### DELETIONS IN THE 3' UNTRANSLATED REGION COMPROMISED TRANSLATION INITIATION TO ATTENUATE A DENGUE VIRUS 3 VACCINE STRAIN

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#### 6295

#### CROSS-NEUTRALIZING ANTIBODY RESPONSES ELICITED BY THE CHIKUNGUNYA VACCINE VLA1553

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#### 6296

# DENGUE NS1 ANTIBODIES ARE ASSOCIATED WITH CLEARANCE OF VIRAL NS1

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#### 6297

#### CHARTING THE IMPACT OF MATERNAL ANTIBODIES AND EXPOSURES ON SAPOVIRUS IMMUNITY IN EARLY CHILDHOOD FROM A NICARAGUAN BIRTH COHORT

Sylvia I. Becker-Dreps<sup>1</sup>, Michael Mallory<sup>1</sup>, Fredman Gonzalez<sup>1</sup>, Yaoska Reyes<sup>1</sup>, Nadja A. Vielot<sup>1</sup>, Boyd L. Yount<sup>1</sup>, Kaitlyn Cross<sup>1</sup>, Christian Toval-Ruiz<sup>1</sup>, Lester Gutierrez<sup>2</sup>, Jan Vinje<sup>3</sup>, Ralph Baric<sup>1</sup>, Lisa Lindesmith<sup>1</sup>, Filemon Bucardo<sup>1</sup>

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#### SIGNALING CIRCUITS INVOLVED IN THE SELECTION OF HIGH-AFFINITY ANTIGEN-SPECIFIC B CELLS IN THE GERMINAL CENTER

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# 6299

#### PRIMARY ZIKA VIRUS INFECTION INCREASES HETEROTYPIC DENGUE VIRUS SERUM NEUTRALIZATION UPON SECONDARY DENV-3 INFECTION IN RHESUS MACAQUES

Jenna M. DeLuca<sup>1</sup>, Matthias Lingemann<sup>1</sup>, Hunter J. Ries<sup>2</sup>, Chelsea M. Crooks<sup>2</sup>, Giacomo Sidoti-Migliore<sup>1</sup>, Taylor J. McGee<sup>1</sup>, David Castañeda<sup>3</sup>, Ellie K. Bohm<sup>3</sup>, Julia C. Pritchard<sup>4</sup>, Stephen S. Whitehead<sup>5</sup>, Matthew T. Aliota<sup>3</sup>, Thomas C. Friedrich<sup>2</sup>, Mattia Bonsignori<sup>6</sup> <sup>1</sup>Translational Immunobiology Unit, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, <sup>2</sup>University of Wisconsin-Madison, Department of Pathobiological Sciences, Madison, WI, United States, <sup>3</sup>University of Minnesota, Twin Cities, Department of Veterinary and Biomedical Sciences, Saint Paul, MN, United States, <sup>4</sup>University of Minnesota, Twin Cities, Department of Veterinary and Biomedical Sciences, Saint Paul, MD, United States, <sup>5</sup>Arbovirus Vaccine Research Section, Laboratory of Viral Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States, <sup>6</sup>National Institutes of Health, Bethesda, MD, United States

#### 6300

#### LIFESTYLE SCORES ARE ASSOCIATED WITH CELLULAR IMMUNE PROFILES IN HEALTHY TANZANIAN ADULTS

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# 6301

#### APPLYING A ELECTROCHEMILUMINESCENCE MULTIPLEX SEROLOGIC ASSAY TO DETECT AND DIFFERENTIATE ZIKA AND DENGUE VIRUS EXPOSURES DURING LONG-TERM FOLLOW UP OF A COMMUNITY COHORT IN BRAZIL

Nivison Ruy R. Nery Jr<sup>1</sup>, Joseph Lu<sup>2</sup>, Cate Muenker<sup>3</sup>, Pablo Aguilar<sup>1</sup>, Mariam O. Fofana<sup>3</sup>, Jaqueline S. Cruz<sup>1</sup>, Daiana de Oliveira<sup>1</sup>, Stephen J. Thomas<sup>2</sup>, Federico Costa<sup>4</sup>, Mitermayer G. Reis<sup>1</sup>, Derek A.T. Cummings<sup>5</sup>, Adam Waickman<sup>2</sup>, Albert I Ko<sup>6</sup> <sup>1</sup>Goncalo Moniz Institute, Salvador, Brazil, <sup>2</sup>Institute for Global Health, State University of New York, New York, NY, United States, <sup>3</sup>Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, CT, United States, <sup>4</sup>Institute of Collective Health, Federal University of Bahia, Salvador, Brazil, <sup>5</sup>Department of Biology, University of Florida, Gainesville, FL, United States, <sup>6</sup>Department of Epidemiology of Microbial Diseases, Yale School of Public Health, NEW HAVEN, CT, United States

# 6302

#### UNDERSTANDING IMMUNITY TO MPOX AND SMALLPOX VACCINATION TO INFORM ON SEROSURVEILLANCE, DIAGNOSTIC DEVELOPMENT, AND NEXT-GENERATION VACCINES

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# 6303

#### ROBUST T CELL RESPONSES IN ADULT MICE PROVIDE INSIGHTS INTO PROTECTION AGAINST LA CROSSE VIRUS ENCEPHALITIS

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# 6304

# ZIKA VIRUS DNA VACCINES INCORPORATING DISULFIDE-BOND STABILIZATION OF ENVELOPE PROTEIN DIMERS

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# 6305

INVESTIGATING THE ROLE OF VACCINE INDUCED HUMORAL IMMUNE RESPONSES IN PROTECTION AGAINST MARBURG VIRUS AND SUDAN VIRUS DISEASES

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Trov Odo

University of Hawaii, Honolulu, HI, United States

# 6306

#### FLAVIVIRUS TOOLS FOR VACCINE RESEARCH

Edgar Davidson, Lewis J. Stafford, Allison Sheetz, Christina Go, Chida Sulli, Jennifer Pfaff-Kilgore, Nathan A. Krump, Benjamin J. Doranz Integral Molecular, Inc., Philadelphia, PA, United States

# Viruses - Pathogenesis and Animal Models

# 6307

#### THE ANGIOPOIETIN-TIE-2 AXIS IN CHILDREN AND YOUNG ADULTS WITH DENGUE VIRUS INFECTION IN THE PHILIPPINES

Hridesh Mishra<sup>1</sup>, Michelle C. Ngai<sup>1</sup>, Valerie M. Crowley<sup>1</sup>, Vanessa Tran<sup>2</sup>, Maria Salome Siose Painaga<sup>3</sup>, James Yared Gaite<sup>3</sup>, Patrick Hamilton<sup>4</sup>, Kevin C. Kain<sup>1</sup>, **Michael T. Hawkes**<sup>5</sup>

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# 6308

#### IDENTIFICATION OF THE FLAVIVIRUS CONSERVED E-L295 RESIDUE AS A TARGET FOR THE RATIONAL DESIGN OF CANDIDATE WEST NILE LIVE-ATTENUATED VACCINES

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# IL-1B MEDIATES POWASSAN VIRUS INFECTION AND ESTABLISHMENT AT THE SKIN INTERFACE

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#### SUSCEPTIBILITY AND TRANSMISSION POTENTIAL OF ECTOTHERMS AND HOUSE SPARROWS TO JAPANESE ENCEPHALITIS VIRUS (JEV)

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# EVALUATION OF 41 BIOMARKERS FOR PREDICTION OF MORE SEVERE DENGUE OUTCOMES

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#### NEUTROPHIL MEDIATORS LINKED TO TIGHT JUNCTION DISRUPTION AND INCREASED INTESTINAL PERMEABILITY IN SEVERE DENGUE

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### DIFFERENTIAL EFFECT OF MOSQUITO SALIVA FROM DISTINCT SPECIES ON HUMAN DERMAL ENDOTHELIAL CELL FUNCTION *IN VITRO* AND WEST NILE VIRUS PATHOGENESIS *IN VIVO*

Imke Visser<sup>1</sup>, Eleanor M. Marshall<sup>1</sup>, Charlotte Linthout<sup>2</sup>, Constantianus J.M. Koenraadt<sup>2</sup>, Melanie Rissmann<sup>1</sup>, Marion P.G. Koopmans<sup>1</sup>, Barry Rockx<sup>1</sup>

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#### DETECTION OF WEST NILE VIRUS IN FORMALIN-FIXED, PARAFFIN-EMBEDDED TISSUES FROM FATAL CASES BY USING RT-PCR AND *IN SITU* HYBRIDIZATION: INSIGHTS INTO PATHOGENESIS

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# EXPLORING THE ROLE OF HOST GLYCOSAMINOGLYCANS ON FLAVIVIRUS NS1-MEDIATED ENDOTHELIAL DYSFUNCTION

E. Vanessa Jimenez Posada<sup>1</sup>, Julianna L. Follmar<sup>2</sup>, Francielle T. Gomes de Sousa<sup>1</sup>, Scott Espich<sup>1</sup>, Nicholas Lo<sup>1</sup>, Robert Beatty<sup>1</sup>, Scott B. Biering<sup>1</sup>, Kamil Godula<sup>2</sup>, Eva Harris<sup>1</sup> <sup>1</sup>Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>2</sup>Department of Chemistry and Biochemistry and Glycobiology Research and Training Center, University of California, San Diego, CA, United States

# 6316

#### HETEROLOGOUS PROTECTION OF RECENT O'NYONG-NYONG VIRUS STRAIN UVRI0804 BY AN INACTIVATED CHIKUNGUNYA VIRUS VACCINE

Whitney Weber<sup>1</sup>, Zachary J. Streblow<sup>1</sup>, Michael Denton<sup>1</sup>, Takeshi Andoh<sup>1</sup>, Craig Kreklywich<sup>1</sup>, Hans-Peter Raue<sup>1</sup>, Gauthami Sulgey<sup>1</sup>, Magdalene Streblow<sup>1</sup>, Mark Heise<sup>2</sup>, Mark K. Slifka<sup>1</sup>, **Daniel N. Streblow<sup>1</sup>** 

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#### 6317

# GENETIC ANCESTRY-ASSOCIATED DIFFERENCES IN DENGUE VIRUS INFECTION OF PRIMARY HUMAN SKIN CELLS

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#### ARBOVIRUS DISEASE PATHOGENESIS IN OBESE AND TYPE-II DIABETIC-LIKE MICE

Natalia Ingrid O. Silva<sup>1</sup>, Sasha R. Azar<sup>2</sup>, Vidyleison N. Camargos<sup>1</sup>, Rafael K. Campos<sup>3</sup>, Rumei Yun<sup>3</sup>, Jiehua Zhou<sup>1</sup>, Alice F. Versiani<sup>1</sup>, Shannan L. Rossi<sup>3</sup>, Nikos Vasilakis<sup>1</sup> <sup>1</sup>University of Texas Medical Branch, Department of Pathology, Galveston, TX, United States, <sup>2</sup>Center for Tissue Engineering, Department of Surgery, Houston Methodist Research Institute, Houston, TX, United States, <sup>3</sup>University of Texas Medical Branch, Department of Microbiology and Immunology, Galveston, TX, United States

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#### PRM AND E SEQUENCE VARIATION ALTERS THE STRUCTURE ENSEMBLE OF ZIKV TO INFLUENCE ANTIBODY EPITOPE ACCESSIBILITY

Marisa E. McGrath<sup>1</sup>, Elizabeth Bardwil-Lugones<sup>1</sup>, Jessica L. Guyette<sup>1</sup>, Kimberly A. Dowd<sup>1</sup>, Katherine E. Burgomaster<sup>1</sup>, David N. Gordon<sup>1</sup>, Patrick Dolan<sup>2</sup>, Theodore C. Pierson<sup>1</sup> <sup>1</sup>National Institutes of Health, Vaccine Research Center, Bethesda, MD, United States, <sup>2</sup>National Institutes of Health, Laboratory of Viral Diseases, Bethesda, MD, United States

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#### BEYOND THE ROOST: EXPLORING THE IMPACTS OF A MODIFIED DIET ON MERS-COV INFECTION IN THE JAMAICAN FRUIT BAT (ARTIBEUS JAMAICENSIS)

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#### INVESTIGATION OF VIRUS-HOST INTERACTIONS IN SEVERE FEVER WITH THROMBOCYTOPENIA SYNDROME VIRUS INFECTION USING A TRANSCRIPTOMICS APPROACH

Lei Wen<sup>1</sup>, Hin Chu<sup>1</sup>, Shuofeng Yuan<sup>1</sup>, Feifei Yin<sup>2</sup>, **Jasper Chan<sup>1</sup>** <sup>1</sup>The University of Hong Kong, Hong Kong, Hong Kong, <sup>2</sup>Hainan Medical University, Haikou, China

### **6322**

MYELOID CELL REPLICATION PHENOTYPES UNDERLIE EPIZOOTIC POTENTIAL OF ALPHAVIRUSES

#### Jennifer Lynn Hyde

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# Malaria - Antimalarial Resistance and Chemotherapy

### **6323**

THERAPEUTIC EFFICACY OF ARTEMETHER LUMEFANTRINE PLUS SINGLE DOSE PRIMAQUINE FOR THE TREATMENT OF UNCOMPLICATED *PLASMODIUM FALCIPARUM* MALARIA IN IRRIGATED AGRO INDUSTRIAL METAHARA SUGAR FACTORY, CENTRAL ETHIOPIA

#### Henok Hailgiorgis Mekonnen

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#### LOW LEVEL OF ANTIMALARIAL DRUG RESISTANCE IN 2014-15: INTEGRATION OF PRIMAQUINE INTO INDIA'S ANTIMALARIAL DRUG POLICY 2013

Shrikant Nema<sup>1</sup>, Nazia Ali<sup>2</sup>, Kristan A. Schneider<sup>3</sup>, Sri Krishna<sup>2</sup>, Anil Kumar Verma<sup>2</sup>, Aparup Das<sup>2</sup>, Praveen Kumar Bharti<sup>1</sup>

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# 6325

# MOLECULAR SURVEILLANCE OF *PLASMODIUM* FALCIPARUM DRUG RESISTANCE MARKERS IN GHANA

Mona-Liza E. Sakyi<sup>1</sup>, Osumanu Ahmed<sup>1</sup>, Ignatus N. Dorvi<sup>1</sup>, Joyce M. Ngoi<sup>1</sup>, Kukua Thompson<sup>1</sup>, Samirah Saiid<sup>1</sup>, Isaiah Debrah<sup>1</sup>, Enock K. Amoako<sup>1</sup>, Collins M. Morang'a<sup>1</sup>, Sonia Goncalves<sup>2</sup>, Alexandria Harrott<sup>2</sup>, Cristina Ariani<sup>2</sup>, Yaw Aniweh<sup>1</sup>, Gordon A. Awandare<sup>1</sup>, Dominic P. Kwiatkowski<sup>2</sup>, William L. Hamilton<sup>2</sup>, Lucas N. Amenga-Etego<sup>1</sup> <sup>1</sup>West Africa Centre for Cell Biology of Infectious Pathogens, Accra, Ghana, <sup>2</sup>Wellcome Sanger Institute, Hinxton, United Kingdom

# 6326

#### INVESTIGATING THE PRESENCE OF FALSIFIED AND POOR QUALITY FIXED-DOSE COMBINATION ARTEMETHER-LUMEFANTRINE PHARMACEUTICAL DOSAGE FORMS IN KUMASI, GHANA

Simon Nyarko<sup>1</sup>, Kwabena Ofori-Kwakye<sup>1</sup>, Raphael Johnson<sup>1</sup>, Noble Kwuntworbe<sup>1</sup>, Denis Dekugmen Yar<sup>2</sup>

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# **6327**

RECRUDESCENCE OF *PLASMODIUM FALCIPARUM* AFTER QUININE THERAPY: A CASE REPORT

Jenni Shannin Gaw Alip, Ralph Aniceto Divine Word Hospital, Tacloban, Philippines

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#### FIRST EVALUATION OF MOLECULAR AND PATHOGEN GENOMIC IMPACT ON *P. FALCIPARUM* POPULATION FOLLOWING SEASONAL MASS DRUG ADMINISTRATION WITH DIHYDROARTEMISININ-PIPERAQUINE IN A HIGH TRANSMISSION HIGHLY SEASONAL SETTING IN WEST AFRICA

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#### PHENOTYPIC ASSESSMENT OF MOLECULAR MARKERS ASSOCIATED WITH SULFADOXINE-PYRIMETHAMINE RESISTANCE IN SENEGAL

Katelyn Vendrely Brenneman<sup>1</sup>, Mamy Yaye Die Ndiaye<sup>2</sup>, Wesley Wong<sup>1</sup>, Stephen Schaffner<sup>3</sup>, Imran Ullah<sup>1</sup>, Abdoulaye Tine<sup>2</sup>, Mouhamad Sy<sup>2</sup>, Tolla Ndiaye<sup>2</sup>, Amy Gaye<sup>2</sup>, Mame Fama Ndiaye<sup>2</sup>, Mariama Toure<sup>2</sup>, Nogaye Gadiaga<sup>2</sup>, Aita Sene<sup>2</sup>, Awa Bineta Deme<sup>2</sup>, Baba Dieye<sup>2</sup>, Mamadou Samb Yade<sup>2</sup>, Khadim Diongue<sup>2</sup>, Younouss Diedhiou<sup>2</sup>, Fatou Ba Fall<sup>4</sup>, Doudou Sene<sup>4</sup>, Medoune Ndiop<sup>4</sup>, Ibrahima Diallo<sup>4</sup>, Mame Cheikh Seck<sup>2</sup>, Aida Sadikh Badiane<sup>2</sup>, Jules François Gomis<sup>2</sup>, Mouhamadou Ndiaye<sup>2</sup>, Mamadou Alpha Diallo<sup>2</sup>, Ibrahima Mbaye Ndiaye<sup>2</sup>, Bronwyn MacInnis<sup>3</sup>, Dyann F. Wirth<sup>1</sup>, Daouda Ndiaye<sup>2</sup>, Sarah Volkman<sup>1</sup>

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# KNOWLEDGE OF ANTIMALARIALS BY PATIENT LEAVING HEALTH FACILITIES IN THE DEMOCRATIC REPUBLIC OF CONGO

THERESE MALELUKA MPIEMPIE NGAMASATA, Tarcisse kapene KILARA, Mireille Amba NGALE, Laurène MESIA, Percy VELELA, Raissa SONGO, Emmanuella MUHIMA, Gauthier MESIA KAHUNU, Pierre Michel Nsengi NTAMABYALIRO University of Kinshasa, Kinshasa, Democratic Republic of the Congo

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EFFICACY AND SAFETY OF ARTEMETHER-LUMEFANTRINE FOR THE TREATMENT OF UNCOMPLICATED *PLASMODIUM FALCIPARUM* MALARIA AMONG CHILDREN UNDER FIVE IN BENIN, 2022

Irene Cavros<sup>1</sup>, Augustin Kpemasse<sup>2</sup>, Alexis Sacca Yarou Maye<sup>2</sup>, Ramani Saliou<sup>3</sup>, Sakariahou Kpanou<sup>2</sup>, William Houndjo<sup>2</sup>, Julien Aïssan<sup>2</sup>, Cyriaque Dossou Affoukou<sup>2</sup>, Davy Yamonmi<sup>3</sup>, Marcel Affoukou<sup>3</sup>, Alla Zlochevska<sup>3</sup>, Mamadou A. Diallo<sup>4</sup>, Awa B. Deme<sup>4</sup>, Bassirou Ngom<sup>4</sup>, Aita Sene<sup>4</sup>, Djiby Sow<sup>4</sup>, Daouda Ndiaye<sup>4</sup>, Patrick Condo<sup>5</sup>, Virgile Gnanguenon<sup>6</sup>, Ahmed Saadani Hassani<sup>7</sup>, Aurore Ogouyemi Hounto<sup>2</sup> <sup>1</sup>President's Malaria Initiative, Malaria Branch, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>National Malaria Control Program, Benin Ministry of Health, Cotonou, Benin, <sup>3</sup>Benin Ministry of Health, Cotonou, Benin, <sup>4</sup>International Research and Training Center on Applied Genomics for Health Surveillance, Dakar, Senegal, <sup>5</sup>U.S. President's Malaria Initiative, U.S. Agency for International Development, Kampala, Uganda, <sup>6</sup>U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Dakar, Senegal

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#### MONITORING INTERMITTENT PREVENTIVE TREATMENT ON PREGNANT WOMEN EFFICACY THROUGH ANTENATALS CLINICS IN SENEGAL

Marie Pierre Diouf<sup>1</sup>, Mary Aigbiremo OBOH<sup>2</sup>, Isaac Akhénaton MANGA<sup>3</sup>, Safietou KANDE<sup>1</sup>, Aminata Cole LO<sup>1</sup>, Amadou Seck<sup>1</sup>, Fatou FAAL<sup>4</sup>, Babacar FAYE<sup>3</sup>, Paul MILIGAN<sup>5</sup>, Corinne MERLE<sup>6</sup>, Alfred Amambua-Ngwa<sup>4</sup>, Jean-Louis Abdourahim NDIAYE<sup>1</sup> <sup>1</sup>UFR Santé, Université Iba Der Thiam, Thies, Senegal, <sup>2</sup>Rochester Institute of Technology, Rochester, New York, NY, United States, <sup>3</sup>Service Parasitologie Mycologie, Cheikh Anta Diop University, Dakar, Senegal, <sup>4</sup>Medical Research Council Unit, London School of Hygiene & Tropical Medicine, Serekunda, Gambia, <sup>5</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>6</sup>World Health Organization Tropical Disease Research, Geneva, Switzerland

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#### MOLECULAR SURVEILLANCE OF ARTEMISININ-RESISTANT *PLASMODIUM FALCIPARUM* PARASITES IN MINING AREAS OF THE RORAIMA INDIGENOUS TERRITORY IN BRAZIL

Jacqueline de Aguiar-Barros<sup>1</sup>, Fabiana Granja<sup>2</sup>, Rebecca de Abreu-Fernandes<sup>3</sup>, Lucas Tavares de Queiroz<sup>3</sup>, Daniel da Silva e Silva<sup>2</sup>, Arthur Camurça Citó<sup>4</sup>, Natália Ketrin Almeida-de-Oliveira Mocelin<sup>3</sup>, Cláudio Tadeu Daniel-Ribeiro<sup>3</sup>, **Maria de Fatima FERREIRA-DA-CRUZ**<sup>3</sup>

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#### *IN VITRO* SENSITIVITY TO ANTIMALARIALS AND GENETIC MARKERS OF RESISTANCE OF KENYAN *PLASMODIUM FALCIPARUM*

Ben Chitama<sup>1</sup>, Shinya Miyazaki<sup>1</sup>, Peterson Gitonga Mathenge<sup>2</sup>, Osamu Kaneko<sup>1</sup> <sup>1</sup>Nagasaki institute of tropical medicine, Nagasaki, Japan, <sup>2</sup>Dana Farber cancer institute, Department of cancer immunology and virology, Harvard medical school, Boston, MA, United States

#### QUALITY OF MALARIA TREATMENT AND COUNSELING FOR CHILDREN YOUNGER THAN FIVE YEARS IN OUTPATIENT DEPARTMENTS IN TANZANIA, 2020-2023

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# 6336

#### ASSESSING ANTIMALARIAL *EX-VIVO* DRUG EFFICACY IN WEST AND CENTRAL AFRICA FROM IMPORTED *PLASMODIUM FALCIPARUM* MALARIA CASES IN FRANCE BETWEEN 2016 AND 2023: A GENOTYPE-PHENOTYPE ASSOCIATION STUDY

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#### IRRESISTIBLE B-CARBOLINE DERIVATIVE ACTIVE AGAINST PROLIFERATING AND QUIESCENT RING STAGES OF ARTEMISININ-RESISTANT *PLASMODIUM FALCIPARUM*

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# ARTEMISININ RESISTANCE MUTATIONS IN *PFCORONIN* IMPEDE HEMOGLOBIN UPTAKE

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#### INTERVENTION STRATEGIES FOR ENHANCING PRIMAQUINE ADHERENCE ON *PLASMODIUM VIVAX* MALARIA: RESULTS FROM A CLUSTER RANDOMIZED CONTROLLED TRIAL IN MYANMAR

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# PREVALENCE OF DRUG RESISTANCE MOLECULAR MARKERS IN *P. VIVAX* CLINICAL ISOLATES FROM SOUTHERN PAKISTAN

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#### OPTIMIZING NOVEL CLASS OF ANTIMALARIAL DRUG AND PYRONARIDINE COMBINATION TO GUIDE CLINICAL DOSING AND PREVENT DRUG RESISTANCE

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PREVALENCE OF HAPLOTYPES ASSOCIATED WITH RESISTANCE OF *PLASMODIUM FALCIPARUM* TO DIHYDROARTEMISININ-PIPERAQUINE, SULFADOXINE-PYRIMETHAMINE AND AMODIAQUINE DURING SEASONAL MALARIA CHEMO-PREVENTION CAMPAIGNS AMONG CHILDREN AGED 6-15 YEARS IN MALI

Karim Traore<sup>1</sup>, Ali Thera<sup>1</sup>, Guillaume Bonnot<sup>2</sup>, Drissa Coulibaly<sup>1</sup>, Abdoulaye K. Kone<sup>1</sup>, Fayçal Maiga<sup>1</sup>, Anne-Lise Bienvenu<sup>2</sup>, Stephane Picot<sup>2</sup>, Mahamadou Ali Thera<sup>1</sup> <sup>1</sup>Malaria Research and Training Center, Bamako, Mali, <sup>2</sup>Univ Lyon, Malaria Research Unit, UMR 5246 CNRS-INSA-CPE-University Lyon1, Lyon, France

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#### EFFICACY AND SAFETY OF ARTESUNATE-AMODIAQUINE (ASAQ) AND ARTEMETHER-LUMEFANTRINE (AL) FOR THE TREATMENT OF UNCOMPLICATED *PLASMODIUM FALCIPARUM* MALARIA IN TWO COUNTIES IN LIBERIA, 2022-2023

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# Malaria - Diagnosis - Challenges and Innovations

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#### WIDESPREAD *PFHRP2/3* DELETIONS AND HRP2-BASED FALSE-NEGATIVE RESULTS IN SOUTHERN ETHIOPIA

Bacha Mekonen Tafa<sup>1</sup>, Lemu Golassa<sup>2</sup>, Sisay Dugassa<sup>2</sup>, Sindew Mekasha Feleke<sup>1</sup> <sup>1</sup>Ethiopian Public Health Institute, Addis Ababa, Ethiopia, <sup>2</sup>Addis Ababa University, Akililu Lemma Institute of Pathobiology, Addis Ababa, Ethiopia

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#### PREVALENCE OF AND CHALLENGES IN DIAGNOSING SUBCLINICAL PLASMODIUM FALCIPARUM INFECTIONS: IMPLICATIONS FOR MALARIA CONTROL AND ELIMINATION IN GHANA

Abdul-Hakim Mutala<sup>1</sup>, Kingsley Badu<sup>1</sup>, Cristian Koepfoli<sup>2</sup>, Stephen Opoku Afriyie<sup>3</sup>, Abraham Badu-Tawiah<sup>4</sup>

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# REMOSCOPE: A LABEL-FREE IMAGING CYTOMETER FOR MALARIA DIAGNOSTICS

Paul M. Lebel<sup>1</sup>, Chris Charlton<sup>1</sup>, Ilakkiyan Jeyakumar<sup>1</sup>, Michelle W.L. Khoo<sup>1</sup>, Aditi Saxena<sup>1</sup>, Axel Jacobsen<sup>1</sup>, James Emorut<sup>2</sup>, Emily Huynh<sup>3</sup>, William Wu<sup>4</sup>, Greg Courville<sup>1</sup>, Pei-Chuan Fu<sup>5</sup>, Robert Puccinelli<sup>6</sup>, Peter Olwoch<sup>2</sup>, Grant Dorsey<sup>7</sup>, Philip J. Rosenthal<sup>7</sup>, Rafael Gomez-Sjoberg<sup>1</sup>, Joseph DeRisi<sup>1</sup>

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#### COMPARATIVE STUDIES OF MALARIA PARASITE NONINVASIVE AND INVASIVE DIAGNOSTIC TESTS AMONG PREGNANT WOMEN IN NIGERIA

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#### COMPARISON OF PREVALENCE ESTIMATES OF PFHRP2 AND PFHRP3 DELETIONS IN PLASMODIUM FALCIPARUM DETERMINED BY CONVENTIONAL PCR AND MULTIPLEX QPCR AND IMPLICATIONS FOR SURVEILLANCE AND MONITORING

Michelle L. Gatton<sup>1</sup>, David Smith<sup>2</sup>, Cielo Pasay<sup>2</sup>, Karen Anderson<sup>2</sup>, Selam Mihreteab<sup>3</sup>, Hugo O. Valdivia<sup>4</sup>, Juan F. Sanchez<sup>4</sup>, Khalid B. Beshir<sup>5</sup>, Jane Cunningham<sup>6</sup>, **Qin Cheng**<sup>7</sup> <sup>1</sup>Queensland University of Technology, Brisbane, Australia, <sup>2</sup>QIMR Berghofer Medical Research Institute, Brisbane, Australia, <sup>3</sup>Ministry of Health, Asmara, Eritrea, <sup>4</sup>U.S. Naval Medical Research Unit SOUTH, Lima, Peru, <sup>5</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>6</sup>World Health Organization, Geneva, Switzerland, <sup>7</sup>Australian Defence Force Malaria and Infectious Disease Institute, Brisbane, Australia

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#### ACUTE UNDIFFERENTIATED FEBRILE ILLNESSES SURVEILLANCE IN TWO MILITARY HEALTH FACILITIES IN ABUJA, NIGERIA

Hanan El Mohammady<sup>1</sup>, Rania Nada<sup>1</sup>, Isabelle Nakhla<sup>1</sup>, Mary Adenuga<sup>2</sup>, Inalegwu Ochai<sup>2</sup>, Feyisayo Jegede<sup>2</sup>, Ojor Ayemoba<sup>3</sup>

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#### PLASMODIUM FALCIPARUM HISTIDINE RICH PROTEIN 2/3 DELETIONS AND REPEAT MOTIFS IN INDIA: CHALLENGES IN RDT-BASED MALARIA DIAGNOSIS

Praveen Kumar Bharti<sup>1</sup>, Shrikant Nema<sup>1</sup>, Sri Krishna<sup>2</sup>, Anil Kumar Verma<sup>2</sup> <sup>1</sup>ICMR-National Institute of Malaria Research, New Delhi, India, <sup>2</sup>ICMR-National Institute of Research in Tribal Health, Jabalpur, India

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#### UNCOVERING TREATMENT GAPS: A CLOSER LOOK AT MALARIA CASE MANAGEMENT IN A DISTRICT REFERRAL HOSPITAL IN GHANA, 2023

Joel Jeffrey Idun-Acquah<sup>1</sup>, Afia Frimpomaa Asare Marfo<sup>2</sup>

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# COST-EFFECTIVENESS COMPARISON OF MALARIA DIAGNOSIS SCENARIOS WITH SYSMEX XN-31 IN A NON-ENDEMIC AREA

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#### IDENTIFYING SUBGROUPS WITH DECREASED PERFORMANCE CHARACTERISTICS OF MALARIA RAPID DIAGNOSTIC TESTS

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#### FALSE NEGATIVE MALARIA RAPID DIAGNOSTIC TESTS ON A LACTATE DEHYDROGENASE-BASED KIT AMID INCREASING PLASMODIUM OVALE PREVALENCE IN KENYA

Raphael Okoth<sup>1</sup>, Catherine Muriuki<sup>1</sup>, Alfred Odindo<sup>1</sup>, Benjamin Opot<sup>1</sup>, Dennis Juma<sup>1</sup>, Jackline Juma<sup>1</sup>, Agnes Cheruiyot<sup>1</sup>, Redemptah Yeda<sup>1</sup>, Edwin Mwakio<sup>1</sup>, Maurine Mwalo<sup>1</sup>, Risper Maisiba<sup>1</sup>, Farid Abdi<sup>1</sup>, Timothy Egbo<sup>2</sup>, Hoseah M. Akala<sup>1</sup> <sup>1</sup>Department of Emerging and Infectious Diseases (DEID), Walter Reed Army Institute of Research-Africa (WRAIR-Africa), Kenya Medical Research Institute (KEMRI) / Walter Reed Project, Kisumu, Kenya, <sup>2</sup>Walter Reed Army Institute of Research-Africa (WRAIR-Africa), Kisumu Kenya

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#### UNUSUAL PRESENTATION OF MALARIA IN A PEDIATRIC PATIENT DELAYING DIAGNOSIS

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# Malaria - Drug Development and Clinical Trials

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#### A PHASE 1B STUDY TO CHARACTERIZE THE SAFETY AND PHARMACOKINETIC/PHARMACODYNAMIC RELATIONSHIP OF MMV367 (GSK701) IN ADULT PARTICIPANTS EXPERIMENTALLY INFECTED WITH BLOOD- STAGE *PLASMODIUM FALCIPARUM*

Bridget E. Barber<sup>1</sup>, Robin Denhardt Eriksson<sup>2</sup>, Etienne Guirou<sup>2</sup>, Julia Flynn<sup>2</sup>, Nischal Sahai<sup>3</sup>, Chris Muller<sup>3</sup>, Indika Leelasena<sup>3</sup>, Ivan Lim<sup>3</sup>, Carla Evangelista<sup>3</sup>, Sue Mathison<sup>3</sup>, Stacey Llewellyn<sup>1</sup>, Rebecca Webster<sup>1</sup>, Adam J. Potter<sup>1</sup>, Michael W. Marx<sup>4</sup>, Francisco-Javier Gamo<sup>5</sup>, Rachel A. Gibson<sup>6</sup>, Raman Sharma<sup>7</sup>, Laura M. Sanz<sup>5</sup>, Anthony Cahn<sup>6</sup>, Benoit Bestgen<sup>2</sup>, Stephan Chalon<sup>2</sup>

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#### DOSE-OPTIMIZATION OF THE FIXED-DOSE TRIPLE COMBINATION ANTIMALARIAL THERAPY ARTEMETHER-LUMEFANTRINE-AMODIAQUINE

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# PRE-REFERRAL RECTAL ARTESUNATE IN CHILDREN WITH SEVERE MALARIA: ANY BENEFIT?

Ayorinde Adehin<sup>1</sup>, Marie A. Onyamboko<sup>2</sup>, Caterina Fanello<sup>1</sup>, Nicholas PJ. Day<sup>1</sup>, Nicholas J. White<sup>1</sup>, **Richard M. Hoglund<sup>1</sup>**, Joel Tarning<sup>1</sup>

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#### THE EFFECT OF SINGLE LOW-DOSE PRIMAQUINE TREATMENT FOR UNCOMPLICATED *PLASMODIUM FALCIPARUM* MALARIA ON HEMOGLOBIN LEVELS IN ETHIOPIA: A LONGITUDINAL COHORT STUDY

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#### REPEAT IVERMECTIN MASS DRUG ADMINISTRATIONS FOR MALARIA CONTROL II (RIMDAMAL II): PRIMARY OUTCOME

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#### ASSESSMENT OF THE ANTIPLASMODIAL EFFECTS < TOXICITY STUDY OF ENDOPHYTES FUNGI EXTRACT ISOLATED FROM ALSTONIA BOONEI DE WILD

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#### IDENTIFICATION OF INHIBITORS OF MOSQUITO STAGES OF PLASMODIUM FALCIPARUM DEVELOPMENT USING AN IN VITRO CULTURE SYSTEM

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#### ACCELERATING ANTIMALARIAL DRUG DISCOVERY WITH A HIGH-THROUGHPUT SCREENING FOR FAST-KILLING COMPOUNDS

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#### HIGH THROUGHPUT SCREENING IDENTIFIES COMPOUNDS WITH NANOMOLAR ANTIPLASMODIAL ACTIVITY AGAINST THE ASEXUAL STAGE PARASITES

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# NOVEL DRUG DISCOVERY FOR PLASMODIUM FALCIPARUM MALARIA

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#### DIHYDROARTEMISININ-PIPERAQUINE AS AN ALTERNATIVE TO SULFADOXINE-PYRIMETHAMINE FOR INTERMITTENT PREVENTIVE TREATMENT IN PREGNANCY: A META-ANALYSIS OF MATERNAL, BIRTH, AND INFANT OUTCOMES

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# Malaria - Elimination

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#### SAFETY AND FEASIBILITY OF INTEGRATING MASS DRUG ADMINISTRATION FOR HELMINTH CONTROL WITH SEASONAL MALARIA CHEMOPREVENTION IN SENEGALESE CHILDREN: A RANDOMIZED CONTROLLED, OBSERVER-BLIND TRIAL

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#### DEVELOPMENT AND PRE-TEST OF A RISK BENEFIT ASSESSMENT TOOL TO SUPPORT PROGRAMMATIC DECISION-MAKING REGARDING *PLASMODIUM VIVAX* RADICAL CURE TREATMENT OPTIONS IN LATIN AMERICA AND THE CARIBBEAN

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#### MALARIA HEALTHCARE SYSTEM OF PAKISTAN AMIDST CLIMATE CRISES: A SWOT ANALYSIS

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# A SCOPING REVIEW OF PATIENT ADHERENCE TO ANTIMALARIAL DRUGS

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NORMALIZED COMPONENTS OF HEALTH SYSTEMS STRENGTHENING IN DELIVERING MALARIA TREATMENT SERVICES: A 3-YEAR IMPLEMENTATION STUDY

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**Kyaw Myint Tun**<sup>1</sup>, Khin Mon Mon<sup>1</sup>, Hnin Su Su Khin<sup>1</sup>, Theodora Meerkerk<sup>1</sup>, Nu Nu Khin<sup>2</sup>, Gunawardena Dissanayake<sup>3</sup>, Jimee Hwang<sup>4</sup>, Saw Naung Naung<sup>1</sup>, Khant Maung Maung<sup>1</sup>, Ersin Topcuoglu<sup>5</sup>, Danielle Awabdeh<sup>5</sup>

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#### USING A MULTI-PRONGED APPROACH TO TARGETING *PLASMODIUM VIVAX (PV*)TO SHARPLY REDUCE INCIDENCE

Sokomar Nguon<sup>1</sup>, Samphornarann Top<sup>1</sup>, Jeanne Rideout<sup>1</sup>, Polo Chin<sup>1</sup>, Phally Chhun<sup>1</sup>, Say Mang<sup>1</sup>, Rida Slot<sup>2</sup>, Tyson Volkman<sup>2</sup>, Ly Po<sup>3</sup>, Siv Sovannaroth<sup>3</sup>, Dysoley Lek<sup>3</sup>, Tha Meas<sup>3</sup>, Virak Khieu<sup>3</sup>, Huy Rekol<sup>3</sup>, Dy Khoy<sup>4</sup>, Ke Kimmen<sup>5</sup>

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Cassio Peterka<sup>1</sup>, Marcela Dourado<sup>2</sup>, Djane Baia<sup>3</sup>, Pablo Fontoura<sup>2</sup>

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Pablo Secato Fontoura<sup>1</sup>, Renata Castro Barros<sup>1</sup>, Grace Godim Mafra<sup>2</sup>, Marcela Lima Dourado<sup>1</sup>, Cassio Roberto Leonel Peterka<sup>3</sup>, Alexander Vargas<sup>1</sup>, Cláudia Souza Ferreira Martins<sup>2</sup>

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Anna T. Nguyen<sup>1</sup>, Arusha Patil<sup>1</sup>, Davis Mumbengegwi<sup>2</sup>, Michelle S. Hsiang<sup>3</sup>, Jade Benjamin-Chung<sup>1</sup>

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Sovannaroth Siv<sup>1</sup>, Rafael Jairah Jr. Matoy<sup>2</sup>, Alexa M. Kugler<sup>2</sup>, Elijah Filip<sup>2</sup>, Bunmeng Chhun<sup>2</sup>, Rekol Huy<sup>1</sup>

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Miriam Aguti<sup>1</sup>, Abel Kakuru<sup>1</sup>, Jimmy Kizza<sup>1</sup>, Blake Shaw<sup>2</sup>, Harriet Adrama<sup>1</sup>, Peter Olwoch<sup>1</sup>, Moses Kamya<sup>1</sup>, Grant Dorsey<sup>3</sup>, Prasanna Jagannathan<sup>2</sup>, Haley Hedline<sup>2</sup>, Joaniter Nankabirwa<sup>1</sup>

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Maame Akua Korsah, Stuart T. Johnston, Kathryn E. Tiedje, Karen P. Day, Jennifer A. Flegg, Camelia R. Walker

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INDOOR RESIDUAL SPRAYING IN SOURCE DISTRICTS IN SOUTHERN MOZAMBIQUE INFLUENCES CROSS-BORDER MALARIA TRANSMISSION IN KWAZULU-NATAL, SOUTH AFRICA

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Zerihun Zewde<sup>1</sup>, Demeke Daka<sup>2</sup>, Teklu Wegayehu<sup>1</sup>, Bernt Lindtjørn<sup>1</sup>, **Fekadu Masseb**o<sup>1</sup> <sup>1</sup>Arba Minch University, Arba Minch, Ethiopia, <sup>2</sup>Madda Walabu University, Robe, Ethiopia

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#### AN UPDATE OF THE EPIDEMIOLOGICAL PARAMETERS OF MALARIA IN SCHOOL AGE CHILDREN IN KOLLE, A RURAL SETTING, MALI

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## 6401

#### PSYCHOSOCIAL FACTORS ASSOCIATED WITH CARE SEEKING FOR MALARIA AMONG CAREGIVERS OF FEBRILE CHILDREN UNDER FIVE IN LIBERIA, 2021

Victor S. Koko<sup>1</sup>, Eric Gaye<sup>2</sup>, Jamesetta Smith<sup>2</sup>, Gontopoe Omedo Nuahn<sup>2</sup>, Trokon Washington<sup>1</sup>, Odell Wannie Kumeh<sup>1</sup>, Saratu Olabode-Ojo<sup>2</sup>

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# 6402

#### ANALYSIS OF MALARIA PREVALENCE AND HEALTH SERVICES IN A GOLD MINING SITE IN WESTERN ETHIOPIA: A MIXED METHODS RESEARCH STUDY

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# 6403

#### HOUSEHOLD STORM DAMAGE LIMITS ACCESS TO AND USE OF INSECTICIDE TREATED BEDNETS IN MOZAMBIQUE

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#### 6404

#### PLASMODIUM VIVAX OUTBREAK AMONG INDIGENOUS COMMUNITIES IN PLAYA PATAXTTE, IZABAL, GUATEMALA: THE IMPORTANCE OF LOCALIZATION AND RESPONSE

Cecilia Barrientos<sup>1</sup>, **Leopoldo Villegas**<sup>2</sup>, Ericka Lopez<sup>3</sup>, Erick Ramos<sup>1</sup>, Deysi Lucero<sup>1</sup>, Evelio Saquil<sup>1</sup>, Manuel Barrientos<sup>1</sup>, Maritza May<sup>1</sup>, Cecilia Tiul<sup>1</sup>, Elsa Coc<sup>1</sup>, Maria Coy<sup>1</sup>, Margarita Li<sup>1</sup>, Maria Ico<sup>1</sup>, Wilmer Augurcia<sup>1</sup>, Victor Oxom<sup>1</sup>, Israel Ico<sup>1</sup>, Isaias Coc<sup>1</sup>, Elias Be<sup>1</sup>, Marvin Rodriguez<sup>1</sup>, Jorge Sacul<sup>1</sup>, Cesar Tiul<sup>1</sup>, Benjamin Yaxcal<sup>4</sup>, Alvaro Choj<sup>4</sup>, Romulo Chub<sup>4</sup>, Pedro Tut<sup>4</sup>, Marcos Marquin<sup>1</sup>, Xiomara Bol<sup>4</sup>, Madelin Arriza<sup>1</sup>, Hector Soriano<sup>5</sup>, Maura Herrera<sup>5</sup>, Erik K<sup>5</sup>, Karina A<sup>5</sup>, Mayra Arana<sup>6</sup>, Arly Obando<sup>6</sup>, Augusto Zamora<sup>6</sup>, Carlos Blanco<sup>7</sup>, Erik Castillo<sup>8</sup>, Jaime Juarez<sup>9</sup>, Luis Marroquin<sup>10</sup>, Zoraida Morales<sup>11</sup> <sup>1</sup>Distrito Municipal de Salud El Estor, El Estor, Guatemala, <sup>2</sup>InterAmerican Development Bank, Washington DC, DC, United States, <sup>3</sup>Distritito Municipal de Salud El Estor, El Estor, Guatemala, <sup>4</sup>Puesto de Salud Playa Pataxte, Playa Pataxte, Guatemala, <sup>6</sup>DDRISS Izabal, Izabal, Guatemala, <sup>6</sup>DDRISS Peten Sur Occidente, Peten Sur Occidente, Guatemala, <sup>7</sup>Sub-Programa de Malaria, Guatemala City, Guatemala, <sup>8</sup>CHAI, El Estor, Guatemala, <sup>9</sup>InterAmerican Development Bank, Guatemala city, Guatemala, <sup>10</sup>InterAmerican Development Bank, Guatemala City, Guatemala, <sup>11</sup>Sub-Programa Malaria, Guatemala city, Guatemala

## 6405

PREDICTING MALARIA-SPECIFIC HEALTHCARE ACCESS AND UTILIZATION IN THE DEMOCRATIC REPUBLIC OF THE CONGO (DRC): A SYNTHESIS OF GEOSPATIAL, TREATMENT-SEEKING, AND PROVIDER-BASED DETERMINANTS

Alyssa J. Young<sup>1</sup>, Ewan Cameron<sup>2</sup>, Johanna Karemere Nzgire<sup>3</sup>, Julie Hernandez<sup>1</sup>, Joshua Yukich<sup>1</sup>, Thomas P. Eisele<sup>1</sup>, Ruth Ashton<sup>1</sup>

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### 6406

#### LONGITUDINAL ANALYSIS OF THE INFANT GUT MICROBIOTA REVEALS EARLY LIFE PREDICTORS OF MALARIA SUSCEPTIBILITY

Christopher L. Dutton<sup>1</sup>, Felicien M. Maisha<sup>2</sup>, Madison A. Follis<sup>1</sup>, Connie J. Mulligan<sup>1</sup>, **Julie M. Moore**<sup>1</sup>

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#### 6407

#### PEAK PARASITEMIA AND CLINICAL FEATURES OF EXPERIMENTAL BLOOD STAGE MALARIA INFECTION

Louise Marquart-Wilson<sup>1</sup>, Efrosinia Krejany<sup>2</sup>, Ria Woo<sup>3</sup>, John Woodford<sup>3</sup>, Rebecca Webster<sup>3</sup>, Stephan Chalon<sup>4</sup>, Jörg J. Möhrle<sup>4</sup>, Bridget Barber<sup>3</sup>, **James S. McCarthy**<sup>2</sup> <sup>1</sup>University of Queensland, Brisbane, Australia, <sup>2</sup>University of Melbourne, Melbourne, Australia, <sup>3</sup>QIMR Berghofer, Brisbane, Australia, <sup>4</sup>Medicines for Malaria Venture, Geneva, Switzerland

### **6408**

COMPARISON OF THE PERFORMANCE OF ARIMA TIME SERIES MODELS AND FB-PROPHET IN THE PREDICTION OF MALARIA INCIDENCE IN UGANDA AT THE NATIONAL AND SUBNATIONAL LEVEL

Benjamin P. Fuller<sup>1</sup>, Herbert Kirya Isabirye<sup>2</sup>, Richard Ssekitoleko<sup>3</sup>, Margaret R. Lawrence<sup>4</sup>, Christopher C. Moore<sup>1</sup>

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### 6409

MODELLING P. VIVAX AND P. FALCIPARUM CO-INFECTIONS WITH HETEROGENEITY IN MOSQUITO BITING EXPOSURE

Mathilde Grimée, Aimee Taylor, Michael White Institut Pasteur, Paris, France

### 6410

#### AN INVESTIGATION OF A *PLASMODIUM FALCIPARUM* ODYSSEAN MALARIA CASE IN AN INFORMAL SETTLEMENT, GAUTENG, SOUTH AFRICA, JANUARY 2024

Shanal Nair<sup>1</sup>, Charlotte Sriruttan-Nel<sup>1</sup>, **Maxwell Mabona**<sup>1</sup>, Ntobeko Zondi<sup>1</sup>, Noluvuyo Mqulo<sup>2</sup>, Sibongile Mngomezulu<sup>2</sup>, Basil Brooke<sup>1</sup>

<sup>1</sup>National Institute For Communicable Diseases, Johannesburg, South Africa, <sup>2</sup>Communicable Disease Control, Tshwane District, Pretoria, South Africa

# MALARIA OUTBREAK INVESTIGATION IN MARSABIT COUNTY, KENYA - MARCH 2024

Peter Wachira Muguku<sup>1</sup>, Megumi Itoh<sup>2</sup>, James Sang<sup>3</sup>, Martha Adhi<sup>4</sup>, Emmanuel Sigei<sup>1</sup>, Lydiah Khalayi<sup>1</sup>, Ahmed Abade<sup>1</sup>, Fredrick Odhiambo<sup>1</sup>

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# 6412

#### MODELING RECURRENT MALARIA EPISODES OF MALARIA USING MARKOV MULTIPLE-STATE MODELS: A CASE STUDY FOR DANGASSA, MALI

Fousseyni Kane<sup>1</sup>, Mahamoudou Toure<sup>1</sup>, Nafomon Sogoba<sup>2</sup>, Moussa Keita<sup>2</sup>, Daouda Sanogo<sup>1</sup>, Sory Ibrahim Diawara<sup>2</sup>, Drissa Konate<sup>1</sup>, Soumba Keita<sup>1</sup>, Alyssa Barry<sup>3</sup>, Jeffey G. Shaffer<sup>4</sup>, Mahamadou Diakite<sup>1</sup>, Seydou Doumbia<sup>1</sup>

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# 6413

# EFFECT OF RAINFALL AND TEMPERATURE ANOMALIES ON MALARIA INCIDENCE IN THE DEMOCRATIC REPUBLIC OF THE CONGO

Donal Bisanzio<sup>1</sup>, Carrie Ngongo<sup>2</sup>, Brian Hutchinson<sup>2</sup>, Karl Angendu Baki<sup>3</sup>, Pierre Akilimali<sup>3</sup>

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# Malaria - Genetics, Genomics and Evolution

# 6414

GENETIC DIVERSITY OF *PLASMODIUM VIVAX* DUFFY BINDING PROTEIN IN ETHIOPIA AND COMPARISON WITH OTHER GEOGRAPHICAL ISOLATES

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Ethiopian Public Health Institute, Addis Ababa, Ethiopia

#### (ACMCIP Abstract)

# 6415

# POPULATION GENOMICS OF *PLASMODIUM MALARIAE* FROM FOUR AFRICAN COUNTRIES

Zachary R. Popkin-Hall<sup>1</sup>, Kelly Carey-Ewend<sup>1</sup>, Eniyou C. Oriero<sup>2</sup>, Misago D. Seth<sup>3</sup>, Melchior M. Kashamuka<sup>4</sup>, Billy Ngasala<sup>5</sup>, Innocent M. Ali<sup>6</sup>, Eric S. Mukomena<sup>7</sup>, Celine I. Mandara<sup>3</sup>, Rachel Sendor<sup>1</sup>, Alfred Simkin<sup>8</sup>, Alfred Amambua-Ngwa<sup>2</sup>, Antoinette Tshefu<sup>4</sup>, Abebe A. Fola<sup>8</sup>, Jeffrey A. Bailey<sup>8</sup>, Deus S. Ishengoma<sup>3</sup>, Jonathan B. Parr<sup>1</sup>, Jessica T. Lin<sup>1</sup>, Jonathan J. Juliano<sup>1</sup>

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#### (ACMCIP Abstract)

# 6416

#### GENE EXPRESSION NETWORKS IN STAGE-CONTROLLED *PLASMODIUM VIVAX* INFECTIONS FROM NORTHERN THAILAND: A WEIGHTED GENE CO-EXPRESSION NETWORK ANALYSIS (WGCNA)

Graham Ellis<sup>1</sup>, Francis C. Motta<sup>2</sup>, Suwanna Chaorattanakawee<sup>3</sup>, Nichaphat Uthaimongkol<sup>3</sup>, Worachet Kuntawunginn<sup>3</sup>, Chadin Thongpiam<sup>3</sup>, Chatchadaporn Thamnurak<sup>3</sup>, Montri Arsanok<sup>3</sup>, Mariusz Wojnarski<sup>1</sup>, Pattaraporn Vanchayangkul<sup>3</sup>, Nonlawat Boonyalai<sup>3</sup>, Philip L. Smith<sup>4</sup>, Michele D. Spring<sup>5</sup>, Krisada Jongsakul<sup>3</sup>, Ilin Chuang<sup>6</sup>, Sidhartha Chaudhury<sup>3</sup>, Jeffrey Livezey<sup>3</sup>, Steven B. Haase<sup>7</sup> <sup>1</sup>Walter Reed National Military Medical Center, Bethesda, MD, United States, <sup>2</sup>Florida Atlantic University, Boca Raton, FL, United States, <sup>3</sup>US-Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, <sup>4</sup>U.S. Military HIV Research Program Walter Reed Army Institute of Research, Bethesda, MD, United States, <sup>5</sup>SUNY Upstate Medical University, Syracuse, NY, United States, <sup>6</sup>US Naval Medical Research Center-Asia, Singapore, Singapore, <sup>7</sup>Duke University, Durham, NC, United States

#### (ACMCIP Abstract)

# 6417

#### USE OF GENETIC METRICS TO CHARACTERIZE MALARIA TRANSMISSION PATTERNS AND DISTINGUISH COTRANSMISSION FROM SUPERINFECTION IN BURKINA FASO

ISSIAKA SOULAMA<sup>1</sup>, Emilie Badoum<sup>2</sup>, Daouda Ouattara<sup>3</sup>, Amidou Diarra<sup>3</sup>, Wesley Wong<sup>4</sup>, Maurice Ouattara<sup>3</sup>, Shao Kairon<sup>4</sup>, Anna Burkhard<sup>4</sup>, Amidou Ouédraogo<sup>3</sup>, Jean Sawadogo<sup>3</sup>, Issa Nebié Ouédraogo<sup>3</sup>, Alphonse Ouédraogo<sup>3</sup>, Daouda Ndiaye<sup>5</sup>, Sarah K. Volkman<sup>4</sup>, Alfred B. Tiono<sup>3</sup>, Dyann F. Wirth<sup>4</sup>, Sodiomon B. Sirima<sup>3</sup>

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#### (ACMCIP Abstract)

# 6418

GENOME-WIDE ASSOCIATION STUDY OF GLOBAL PLASMODIUM VIVAX POPULATIONS PROVIDES INSIGHTS INTO THE EVOLUTION OF DRUG RESISTANCE

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#### (ACMCIP Abstract)

# 6419

#### IMPACT OF SICKLE CELL GENOTYPES ON PEDIATRIC MALARIA OUTCOMES IN A HOLOENDEMIC *PLASMODIUM FALCIPARUM* TRANSMISSION REGION: INSIGHTS FROM A LONGITUDINAL STUDY

Nikita Jaiswal<sup>1</sup>, Clinton Onyango<sup>2</sup>, Qiuying Cheng<sup>3</sup>, Ivy Hurwitz<sup>3</sup>, Perez Olewe<sup>4</sup>, Samuel Anyona<sup>2</sup>, Evans Raballah<sup>5</sup>, Collins Ouma<sup>2</sup>, Kristan Schneider<sup>3</sup>, Douglas J. Perkins<sup>3</sup> <sup>1</sup>University of New Mexico School of Medicine, Albuquerque, NM, United States, <sup>2</sup>Maseno University, Maseno, Kenya, <sup>3</sup>University of New Mexico Health Sciences Center, Albuquerque, NM, United States, <sup>4</sup>University of New Mexico-Kenya Global Health Programs, Kisumu and Siaya, Kenya, <sup>5</sup>Masinde Muliro University of Science and Technology, Kakamega, Kenya

(ACMCIP Abstract)

# EVALUATING HOW THE MEANING OF IDENTICAL BY DESCENT VARIES WITH MUTATION AND RECOMBINATION RATES

Janeesh K. Bansal<sup>1</sup>, Meng-Chun Chang<sup>2</sup>, Robert Verity<sup>3</sup>, Richard A. Nichols<sup>1</sup>, John Wakeley<sup>4</sup>, Hsiao-Han Chang<sup>2</sup>

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#### (ACMCIP Abstract)

#### 6421

#### DYSREGULATION OF VASO-OCCLUSIVE AND VASOCONSTRICTIVE MOLECULAR PATHWAYS IN PEDIATRIC PATIENTS WITH SICKLE CELL ANEMIA AND SEVERE MALARIA ANEMIA

Shamim W. Osata<sup>1</sup>, Sharley W. Wasena<sup>2</sup>, Qiuying Cheng<sup>3</sup>, Evans Raballah<sup>4</sup>, Ivy Hurwitz<sup>3</sup>, Clinton O. Onyango<sup>2</sup>, Philip D. Seidenberg<sup>3</sup>, Benjamin H. McMahon<sup>5</sup>, Kristan A. Schneider<sup>6</sup>, Collins Ouma<sup>7</sup>, Samuel B. Anyona<sup>7</sup>, Douglas J. Perkins<sup>3</sup> <sup>1</sup>University of New Mexico-Kenya Global Health Programs, Kisumu and Siaya, Kenya, <sup>2</sup>Department of Biomedical Sciences and Technology, School of Public Health and Community Development, Maseno University, Maseno, Kenya, <sup>3</sup>Department of Internal Medicine, Center for Global Health, University of New Mexico, Albuquerque, NM, United States, <sup>4</sup>Department of Medical Laboratory Sciences, School of Public Health, Biomedical Sciences and Technology, Masinde Muliro University of Science and Technology, Kakamega, Kenya, <sup>5</sup>Theoretical Biology and Biophysics Group, Theoretical Division, Los Alamos National Laboratory, Los Alamos, NM, United States, <sup>6</sup>Department Applied Computer and Bio-Sciences, University of Applied Sciences Mittweida, Mittweida, Germany, <sup>7</sup>Department of Medical Biochemistry, School of Medicine, Maseno University, Maseno, Kenya

#### (ACMCIP Abstract)

# 6422

#### DECLINING POLYMORPHISM OF THE C-TERMINUS MEROZOITE SURFACE PROTEIN 1 AMIDST INCREASED *PLASMODIUM KNOWLESI* TRANSMISSION IN THAILAND

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#### (ACMCIP Abstract)

#### 6423

#### PREDICTING THE FUNCTIONAL IMPACT OF STRUCTURAL VARIATION AT A *PLASMODIUM FALCIPARUM* SICKLE-ASSOCIATED LOCUS

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#### (ACMCIP Abstract)

# 6424

#### DEVELOPMENT OF *PLASMODIUM FALCIPARUM* WHOLE GENOME SEQUENCING WORKFLOW USING OXFORD NANOPORE SEQUENCING TECHNOLOGY TO SUPPORT MALARIA MOLECULAR SURVEILLANCE IN TANZANIA

Catherine Bakari<sup>1</sup>, Aurel Holzschuh<sup>2</sup>, Pierre Schneeberger<sup>2</sup>, Celine I. Mandara<sup>1</sup>, Jeffrey A. Bailey<sup>3</sup>, Jonathan J. Juliano<sup>4</sup>, Pascal Mäser<sup>2</sup>, Deus S. Ishengoma<sup>1</sup>, Christian Nsanzabana<sup>2</sup>

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#### (ACMCIP Abstract)

#### 6425

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#### SURVEILLING PLASMODIUM FALCIPARUM AT FIRST ANTENATAL CARE VISITS THROUGH GENOMICS IN MOZAMBIQUE

**Glória Matambisso**<sup>1</sup>, Clemente Silva<sup>1</sup>, Dário Tembisse<sup>1</sup>, Simone Boene<sup>1</sup>, Paulino da Costa da Costa<sup>1</sup>, Henriques Mbeve<sup>1</sup>, Nelo Ndimande<sup>1</sup>, Eduard Rovira-Vallbona<sup>2</sup>, Nanna Brokhattingen<sup>3</sup>, Andrés Aranda-Díaz Aranda-Díaz<sup>4</sup>, Bryan Greenhouse<sup>4</sup>, Neide Canana<sup>5</sup>, Bernadete Rafael<sup>6</sup>, Sónia Enosse<sup>5</sup>, Maria Rodriques<sup>5</sup>, Baltazar Candrinho<sup>7</sup>, Francisco Saúte<sup>1</sup>, Alfredo Mayor<sup>8</sup>

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#### (ACMCIP Abstract)

#### 6426

ANALYTICAL VALIDATION OF A CAPILLARY ELECTROPHORESIS METHOD TO GENOTYPE *P. FALCIPARUM* GENES *MSP1*, *MSP2*, AND THE NEUTRAL MICROSATELLITE MARKER *POLY-A* 

**Culzean Kennedy**<sup>1</sup>, Breanna Horton<sup>1</sup>, Zhiyong Zhou<sup>2</sup>, Samaly Souza<sup>2</sup>, Dragan Ljolje<sup>2</sup>, Ira Goldman<sup>2</sup>, Jessica McCaffery<sup>2</sup>, Rispah Abdallah<sup>1</sup>, Amy Kong<sup>2</sup>, Stephen Lindstrom<sup>2</sup>, Molly M. Freeman<sup>2</sup>

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### (ACMCIP Abstract)

# 6427

#### SURVEILLANCE OF *PFHRP2* GENE DELETIONS AND ASSESSMENT OF FALSE NEGATIVE RDT OUTCOMES FOR MALARIA DIAGNOSTICS IN SENEGAL

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#### (ACMCIP Abstract)

### **6428**

# GENOMIC EPIDEMIOLOGY OF MALARIA IN ZANZIBAR: DEFINING THE ROLE OF IMPORTATION AND LOCAL TRANSMISSION

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#### (ACMCIP Abstract)

# EVALUATION OF THE *MSP1*, *MSP2*, AND *POLY-A* METHOD FOR DISTINGUISHING NEW INFECTIONS FROM RECRUDESCENCE

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#### (ACMCIP Abstract)

# Malaria - Immunology

#### 6430

### SEROLOGICAL BIOMARKERS FOR DETECTION OF ASYMPTOMATIC *PLASMODIUM VIVAX*-INFECTED INDIVIDUALS IN THE PERUVIAN AMAZON

Alonso Cruz-Echevarría<sup>1</sup>, Elizabeth Villasis<sup>1</sup>, Rhea Longley<sup>2</sup>, Ramin Mazhari<sup>2</sup>, Ivo Mueller<sup>2</sup>, D. Herbert Opi<sup>3</sup>, James Beeson<sup>3</sup>, Joseph Vinetz<sup>4</sup>, Dionicia Gamboa<sup>5</sup>, Katherine Torres<sup>1</sup>

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#### (ACMCIP Abstract)

#### 6431

#### INVESTIGATING THE ROLE OF NON-VAR2CSA SPECIFIC ANTIBODIES IN PROTECTION FROM PLACENTAL MALARIA

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### (ACMCIP Abstract)

#### 6432

# EVALUATE THE ROLE OF CYTOKINES AND CHEMOKINES IN THE DEVELOPMENT OF COMPLICATIONS IN MALARIA CAUSED BY *P. VIVAX*

Catalina Tovar Acero<sup>1</sup>, Javier Ramírez-Montoya<sup>2</sup>, María Camila Velasco<sup>3</sup>, Paula Avilés-Vergara<sup>1</sup>, Dina Ricardo-Caldera<sup>1</sup>, Juan Rivera-Correa<sup>4</sup>, Ana Rodríguez<sup>5</sup>, María Fernanda Yasnot-Acosta<sup>3</sup>

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#### (ACMCIP Abstract)

# 6433

#### IGG ANTIBODY-MEDIATED COMPLEMENT FIXATION AND ACTIVITY AND ITS ASSOCIATIONS WITH PROTECTION AGAINST SEVERE MALARIA

Jennifer Suurbaar<sup>1</sup>, Nicaise T. G Ndam<sup>2</sup>, Kwadwo A. Kusi<sup>3</sup>, Micheal F. Ofori<sup>3</sup>, Anja R. T Jensen<sup>4</sup>

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(ACMCIP Abstract)

### 6434

# MOSQUITO-PLASMODIUM IGG ANTIBODIES AND CLINICAL PRESENTATION OF MALARIA IN COLOMBIA

Julio A. Ventocilla<sup>1</sup>, Gissella M. Vasquez<sup>2</sup>, Hugo O. Valdivia<sup>2</sup>, Alyssa Schwinn<sup>3</sup>, Zoe Jacobs<sup>3</sup>, Alberto Tobon<sup>4</sup>, Danielle Pannebaker<sup>2</sup>, Berlin Londono-Renteria<sup>3</sup> <sup>1</sup>Vysnova Partners Inc., Lima, Peru, <sup>2</sup>U.S. Naval Medical Research Unit SOUTH, Lima, Peru, <sup>3</sup>Tulane University, New Orleans, LA, United States, <sup>4</sup>Antioquia University, Medellin, Colombia

#### (ACMCIP Abstract)

# 6435

### ASSOCIATION OF NOVEL IGG3 ALLELE WITH MALARIA IN CHILDREN FROM SEPIK REGION OF PAPUA NEW GUINEA

Maria Saeed<sup>1</sup>, Elizabeth H. Aitken<sup>2</sup>, Myo Naung<sup>3</sup>, Caitlin Bourke<sup>3</sup>, Rhea Longley<sup>3</sup>, Amy W. Chung<sup>4</sup>, Timon Damelang<sup>4</sup>, Benson Kiniboro<sup>5</sup>, D. Herbert Opi<sup>6</sup>, James G. Beeson<sup>7</sup>, Ivo Mueller<sup>8</sup>, Stephen J. Rogerson<sup>9</sup>

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#### (ACMCIP Abstract)

### 6436

#### MATURATION AND DIVERSIFICATION OF THE B AND T CELL RECEPTOR REPERTOIRES OVER 9 YEARS OF REPEATED MALARIA INFECTIONS

Helen George<sup>1</sup>, Heike Baum<sup>2</sup>, Stephan Lorenzen<sup>3</sup>, Aissata Ongoiba<sup>4</sup>, Safiatou Doumbo<sup>4</sup>, Didier Doumtabe<sup>4</sup>, Shanping Li<sup>5</sup>, Maren Sandkuhl<sup>6</sup>, Thomas Jacobs<sup>1</sup>, Kassoum Kayentao<sup>4</sup>, Boubacar Traore<sup>4</sup>, Peter D. Crompton<sup>7</sup>, Martin Davey<sup>8</sup>, Dániel Cadar<sup>2</sup>, Maria Mackroth<sup>6</sup>, Christine S. Hopp<sup>1</sup>

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#### (ACMCIP Abstract)

# THE CD4<sup>+</sup>T CELL MEMORY IN *PLASMODIUM FALCIPARUM* MALARIA

Marie-Theres Thieme<sup>1</sup>, Johannes Brandi<sup>2</sup>, Maren Sandkuhl<sup>1</sup>, Thomas Jacobs<sup>2</sup>, Maria Sophia Mackroth<sup>1</sup>

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(ACMCIP Abstract)

## 6438

#### INFLUENCE OF CYTOKINE RATIO (IL-10: TNF- ALPHA) ON ANAEMIA STATUS OF MALARIOUS CHILDREN IN SOUTH EASTERN NIGERIA

Chinyere IHUARULAM Okoro<sup>1</sup>, Oluchi Ijeoma Okoro<sup>2</sup>, Kingsley Excell Dunga<sup>3</sup>, Easter Godwin Nwokah<sup>4</sup>

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#### (ACMCIP Abstract)

### 6439

#### FICOLIN-1 IN PAEDIATRIC *PLASMODIUM FALCIPARUM* MALARIA AND ITS POSSIBLE ROLE IN PARASITE CLEARANCE AND ANAEMIA

Di Zheng<sup>1</sup>, Natalie Ferrington<sup>1</sup>, Dilini Rathnayake<sup>1</sup>, Agersew Alemu<sup>1</sup>, Visopo Harawa<sup>2</sup>, Emily Karahalios<sup>3</sup>, Wina Hasang<sup>1</sup>, Evelyne Gout<sup>4</sup>, Nicole Thielens<sup>4</sup>, Karl Seydel<sup>5</sup>, Terrie Taylor<sup>5</sup>, Wilson Mandala<sup>6</sup>, Stephen Rogerson<sup>1</sup>, **Elizabeth Aitken**<sup>1</sup>, Louise Randall<sup>1</sup> 'Peter Doherty Institute of Infection and Immunity, Melbourne, Australia, <sup>2</sup>Kamuzu Univeristy of Health Sciences, Blantyre, Malawi, <sup>3</sup>University of Melbourne, Melbourne, Australia, <sup>4</sup>University of Grenoble Alpes, Grenoble, France, <sup>5</sup>Blantyre Malaria Project, Blantyre, Malawi, <sup>6</sup>Kamuzu University of Health Sciences, Blantyre, Malawi

#### (ACMCIP Abstract)

#### 6440

#### ASSESSMENT FOR NEUTROPHIL EXTRACELLULAR TRAPS MARKERS IN *PLASMODIUM FALCIPARUM* MALARIA INFECTED PREGNANT WOMEN IN A HIGH MALARIA BURDEN REGION

Rebecca Chukwuanukwu<sup>1</sup>, Chioma Agu<sup>1</sup>, Alfred Ehiaghe<sup>1</sup>, Dorothy Ezeagwuna<sup>2</sup>, Gerald Udigwe<sup>3</sup>, Martin Herrmann<sup>4</sup>

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#### (ACMCIP Abstract)

### 6441

#### MEMORY CD8<sup>+</sup> T-CELLS SPECIFIC FOR CIRCUMSPOROZOITE PROTEIN EPITOPE SEQUENCE YLNKIQNSL RECOGNIZE AND KILL *PLASMODIUM FALCIPARUM* MALARIA INFECTED HEPATOCYTES

**Roos van Schuijlenburg**<sup>1</sup>, Beatrice Winkel<sup>1</sup>, Sascha Bezemer<sup>1</sup>, Severine C. Chevalley-Maurel<sup>1</sup>, Jeroen C. Sijtsma<sup>1</sup>, Krista E. Meijgaarden<sup>1</sup>, Els Baalbergen<sup>1</sup>, Fiona Geurten<sup>1</sup>, Felix M. Behr<sup>2</sup>, Giampietro Corradin<sup>3</sup>, Ramon Arens<sup>2</sup>, Blandine Franke-Fayard<sup>1</sup>, Meta Roestenberg<sup>1</sup>

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#### (ACMCIP Abstract)

#### 6442

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# BONE VOYAGE: HOW *PLASMODIUM* INFECTION DISRUPTS THE PLASMA CELL MICROENVIRONMENT IN THE BONE MARROW

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(ACMCIP Abstract)

# 6443

#### NOVEL ASSAY TO ASSESS THE SEROLOGICAL EQUIVALENCE OF VACCINE-INDUCED RESPONSES TO CRITICAL MONOCLONAL ANTIBODIES

Jessica S. Bolton<sup>1</sup>, Randall S. MacGill<sup>2</sup>, Emily Locke<sup>2</sup>, Elke S. Bergmann-Leitner<sup>1</sup> <sup>1</sup>Biologics Research & Development Branch, Walter Reed Army Institute of Research, Silver Spring, MD, United States, <sup>2</sup>Center for Vaccine Innovation and Access, PATH, Washington, DC, United States

### (ACMCIP Abstract)

# Malaria - Parasite Transmission Biology

#### 6444

BURKHOLDERIA GLADIOLI'S PRODUCTION OF ARSINOTHRICIN TO LIMIT TRANSMISSIBILITY OF P.F. WHEN INTRODUCED INTO THE AG. MIDGUT

Ajay Bhatia, Tina Goble

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#### 6445

# THE LSHTM HUMAN MALARIA TRANSMISSION FACILITY: AN OPEN FACILITY FOR EXPERIMENTAL TRANSMISSION STUDIES OF *PLASMODIUM* PARASITES

Mojca Kristan, Harry Pollard, Lindsay Stewart, Luke Brandner-Garrod, Mufuliat T. Famodimu, Penny Sparkes, Eduardo Alves, Gisela Henriques, Chris J. Drakeley, Christiaan van Ooij, Michael Delves, Colin J. Sutherland London School of Hygiene & Tropical Medicine, London, United Kingdom

#### 6447

# ASSESSING THE IMPACT OF DRUG RESISTANCE ON MALARIA TRANSMISSION

Margarida Ruivo<sup>1</sup>, Ines Marreiros<sup>1</sup>, Ana Belen Garcia<sup>1</sup>, Malhar Krushu<sup>2</sup>, Selina Bopp<sup>2</sup>, David Calvo<sup>1</sup>, Lorena Cortes<sup>1</sup>, Carmen Cuevas<sup>1</sup>, Helena Garuti<sup>1</sup>, Jose Luis Llergo<sup>1</sup>, Noemi Magan<sup>1</sup>, Sara Viera-Morilla<sup>1</sup>, Dyann Wirth<sup>3</sup>, **Maria Jose Lafuente-Monasterio**<sup>1</sup>, Amanda Lukens<sup>3</sup>

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#### 6448

#### EXPERIMENTAL INFESTATION OF ANOPHELES GAMBIAE WITH PLASMODIUM OVALE ISOLATES FROM PATIENTS WITH UNCOMPLICATED MALARIA

Fatoumata I. BALLO, Laurent Dembélé, Dinkorma Ouologuem, Karim Sawadogo, Mohamed Touré, Yacouba N. Barré, Siaka M. Goïta, Alpha Seydou Yaro, Abdoulaye Djimdé

Malaria Research and Training Center, Bamako, Mali

#### 6449

#### PRELIMINARY CHARACTERIZATION OF *PLASMODIUM FALCIPARUM* SPLICING FACTOR 3A SUBUNIT 2 (SF3A2) GENE IN GAMETOCYTE DEVELOPMENT

Olatunbosun Olabanji Aringbangba, Camilla V. Pires, Prem Prakash, Shulin Xu, Min Zhang, Chengqi Wang, John Adams

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#### MALARIA RISK STRATIFICATION: A CRITICAL TOOL FOR MALARIA CONTROL AND ELIMINATION IN HIGH BURDEN COUNTRY, CASE OF MALI

Mady Cissoko<sup>1</sup>, Mahamadou Magassa<sup>1</sup>, Assitan Dembélé<sup>1</sup>, Seybou Coulibaly<sup>1</sup>, Ibrahim A. Cissé<sup>1</sup>, Daouda S. Samaké<sup>1</sup>, Chaka Sanogo<sup>1</sup>, Vincent Sanogo<sup>1</sup>, Aissata Koné<sup>1</sup>, Mamady Koné<sup>2</sup>, Sylla Thiam<sup>3</sup>, Seydou Fomba<sup>1</sup>, Issaka Sagara<sup>2</sup>

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# 6451

#### ASSESSMENT OF MOSQUITO FEEDING ASSAYS TO MEASURE ENDPOINTS IN CHILDREN FOR FUTURE TRANSMISSION BLOCKING TRIALS

Daman Sylla<sup>1</sup>, Adama Sacko<sup>1</sup>, Heather Goodman<sup>2</sup>, Mahamadoun H. Maiga<sup>1</sup>, Abdrahamane Fofana<sup>1</sup>, Boubacar Coulibaly<sup>1</sup>, Moussa Diallo<sup>1</sup>, Sale Sidibe<sup>1</sup>, Yacouba Diarra<sup>1</sup>, Amadou Berthe<sup>1</sup>, Mohamed L. Diarra<sup>1</sup>, Moridie Sidibe<sup>1</sup>, Salifou Kone<sup>1</sup>, Sekou Goita<sup>1</sup>, Adama Coulibaly<sup>1</sup>, Mariam Doumbia<sup>1</sup>, Amadou Guindo<sup>1</sup>, Ousmane Sacko<sup>1</sup>, Yacouba Dembele<sup>1</sup>, Amadou S. Traore<sup>1</sup>, Issaka Sagara<sup>1</sup>, Sara A. Healy<sup>2</sup>, Alpha S. Yaro<sup>1</sup>, Patrick E. Duffy<sup>2</sup>, Jen C. Hume<sup>2</sup>

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# **Malaria - Prevention**

### 6452

#### COMMUNITY ACCEPTABILITY OF ATTRACTIVE TARGETED SUGAR BAITS IN A CLUSTER RANDOMIZED CONTROLLED TRIAL IN WESTERN KENYA

**Caroline Ogwang**<sup>1</sup>, Teresa Bange<sup>1</sup>, Omollo Mevis<sup>1</sup>, Dominic Ouma<sup>1</sup>, Brian Seda<sup>1</sup>, Julia M. Janssen<sup>2</sup>, Jonathan S. Schultz<sup>3</sup>, Julie R. Gutman<sup>2</sup>, Aaron M. Samuels<sup>3</sup>, Simon Kariuki<sup>1</sup>, Feiko ter Kuile<sup>1</sup>, Sarah G. Staedke<sup>4</sup>, George Okello<sup>4</sup>

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# 6453

# A SYSTEMATIC REVIEW OF THE COST OF DELIVERING SEASONAL MALARIA CHEMOPREVENTION

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# 6454

#### EQUITY IN ACCESS TO IPTP3+ AMONG WOMEN WHO ATTENDED ANC4 IN 12 SUB-SAHARAN COUNTRIES, BEFORE AND AFTER WHO RECOMMENDATION CHANGES

Ashley Malpass<sup>1</sup>, Susan Youll<sup>1</sup>, Ashley Garley<sup>1</sup>, Cameron Taylor<sup>2</sup> <sup>1</sup>U.S. President's Malaria Initiative, Washington, DC, United States, <sup>2</sup>The DHS Program, ICF, Rockville, MD, United States

# 6455

#### COMMUNITY-BASED STRATEGIES TO INCREASE UPTAKE OF INTERMITTENT PREVENTIVE TREATMENT IN PREGNANCY WITH SULFADOXINE-PYRIMETHAMINE IN SUB-SAHARAN AFRICA: A SYSTEMATIC REVIEW, META-ANALYSIS, META-ETHNOGRAPHY, AND ECONOMIC ASSESSMENT

Kadiatou Koita<sup>1</sup>, Kassoum Kayentao<sup>2</sup>, Eve Worrall<sup>1</sup>, Anna Maria Van Eijk<sup>1</sup>, Jenny Hill<sup>1</sup> <sup>1</sup>Liverpool School of Tropical Medicale, Liverpool, United Kingdom, <sup>2</sup>Malaria Research and Training Center, University of Sciences, Techniques, and Technologies of Bamako, Bamako, Mali

#### ASSESSMENT OF EPIDEMIOLOGIC IMPACT ON MALARIA FOLLOWING DRONE-BASED LARVICIDING WITH BACILLUS THURIGIENSIS ISRAELENSIS IN TWO DISTRICTS OF MADAGASCAR, 2022

Anna B. Bowen<sup>1</sup>, Sarah Zohdy<sup>2</sup>, Jean-Desire Rakotoson<sup>3</sup>, Laurent Kapesa<sup>4</sup>, Solofo Razakamiadana<sup>5</sup>, Omega Raobela<sup>6</sup>

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# 6457

#### THE EFFECT OF INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY (IPTP) ON THE MATERNAL INTESTINAL MICROBIOME AND ITS RELATIONSHIP WITH FETAL GROWTH

Patricia J. Hunter<sup>1</sup>, Dagmar G. Alber<sup>1</sup>, Jemima A. Hair<sup>1</sup>, Lily Gates<sup>1</sup>, Godwin Tembo<sup>2</sup>, Crispin Mukerebe<sup>3</sup>, Mwayiwawo Madanitsa<sup>4</sup>, Hellen C. Barsosio<sup>5</sup>, Daniel T. Minja<sup>6</sup>, John P. Lusingu<sup>6</sup>, Eric D. Onyango<sup>5</sup>, Jenny Hill<sup>7</sup>, James Dodd<sup>7</sup>, Ulla Ashorn<sup>8</sup>, Julie R. Gutman<sup>9</sup>, Nigel Klein<sup>1</sup>, Feiko O. ter Kuile<sup>5</sup>, Raymund M. Chico<sup>10</sup>

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# 6458

#### ANTIPLASMODIAL AND INSECTICIDAL ACTIVITIES OF THIRD GENERATION IVERMECTIN HYBRIDS

Diana Fontinha<sup>1</sup>, Parth Juneja<sup>2</sup>, Sofia Santana<sup>1</sup>, Catarina Rôla<sup>1</sup>, Carla Bastos Oliveira<sup>1</sup>, Miguel Prudêncio<sup>1</sup>, Kamaljit Singh<sup>2</sup>

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# 6459

#### ASSESSING THE 2023 SCHOOL-BASED INSECTICIDE-TREATED NET DISTRIBUTION IN KONO DISTRICT, SIERRA LEONE

Keith Esch<sup>1</sup>, Prince Owusu<sup>2</sup>, Frederick Yamba<sup>3</sup>, Raymond Sudoi<sup>4</sup>, Malia Skjefte<sup>5</sup>, Musa Sillah-Kanu<sup>3</sup>, Jenny Carlson<sup>6</sup>, Temitayo Labor<sup>7</sup>, Kevin Opondo<sup>8</sup>, Djenam Jacob<sup>9</sup>, Charlene Youssef<sup>10</sup>, Prince Nallo<sup>10</sup>, Elisabeth Tyler<sup>1</sup>, Stephen Poyer<sup>11</sup>

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#### KNOWLEDGE, ATTITUDES, PRACTICES AND SATISFACTION OF DIGITAL PAYMENT BY OPERATORS OF THE INDOOR SPRAYING CAMPAIGN AGAINST MALARIA IN THE HEALTH DISTRICT OF KOUMPENTOUM (SENEGAL)

El Hadji Cheikh Abdoulaye DIOP

District sanitaire de Tambacounda, Tambacounda, Senegal

#### LEVERAGING COMMUNITY HEALTH WORKERS TO SUSTAIN UNIVERSAL BED NET COVERAGE IN RURAL UGANDA: A PILOT FEASIBILITY STUDY

Annika K. Gunderson<sup>1</sup>, Rapheal Mbusa<sup>2</sup>, Emmanuel Baguma<sup>2</sup>, Emmanuel Ayebare<sup>2</sup>, John Barber<sup>1</sup>, Moses Ntaro<sup>2</sup>, Edgar M. Mulogo<sup>2</sup>, Ross M. Boyce<sup>1</sup> <sup>1</sup>University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, <sup>2</sup>Mbarara University of Science & Technology, Mbarara, Uganda

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Mponeja Gitanya<sup>1</sup>, Samuel Lazaro<sup>1</sup>, Charles Dismasi<sup>1</sup>, Hannah Koenker<sup>2</sup>, Matt Worges<sup>3</sup>, Benjamin Kamala<sup>4</sup>, Ruth Msolla<sup>4</sup>, Naomi Serbantez<sup>5</sup>, Israel P. Nyarubeli<sup>6</sup>, Heavenlight A. Paulo<sup>6</sup>, William Kisinza<sup>7</sup>, Johnson Matowo<sup>8</sup>

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#### COMBINING SEASONAL MALARIA CHEMOPREVENTION WITH A MULTI-STAGE PRODUCT FOR MALARIA PREVENTION: A MATHEMATICAL MODELLING STUDY

Lydia Braunack-Mayer<sup>1</sup>, Josephine Malinga<sup>2</sup>, Narimane Nekkab<sup>1</sup>, Sherrie L. Kelly<sup>1</sup>, Melissa A. Penny<sup>2</sup>

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#### IDENTIFICATION AND MAPPING AREAS WITH AN INCREASED RISK O MALARIA TRANSMISSION AMONG HARD-TO-REACH HIGH-RISK GROUPS IN RWANDA

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Benjamin Kamala<sup>1</sup>, Peter Gitanya<sup>2</sup>, Naomi Serbantez<sup>3</sup>, Lulu Msangi<sup>3</sup>, Dismass Charles Mwalimu<sup>2</sup>, Samuel Lazaro Nhiga<sup>2</sup>, David Dadi<sup>1</sup>, Dana Loll<sup>4</sup>, Ruth Msolla<sup>1</sup> <sup>1</sup>PMI Tanzania Vector Control Project, Johns Hopkins Centre for Communication Programs, Dar es Salaam, United Republic of Tanzania, <sup>2</sup>Tanzania National Malaria Control Program, Ministry of Health, Dodoma, United Republic of Tanzania, <sup>3</sup>U.S. President's Malaria Initiative, US Agency for International Development, Dar es Salaam, United Republic of Tanzania, <sup>4</sup>PMI Tanzania Vector Control Project, Johns Hopkins Centre for Communication Programs, Baltimore, MD, United States

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#### PREGNANCY DESIRES AND MALARIA PREVENTION IN SUB-SAHARAN AFRICA

#### Bolanle Olapeju<sup>1</sup>, Michael Bride<sup>2</sup>

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#### ASSESSING MISSED OPPORTUNITIES IN ROUTINE LONG-LASTING INSECTICIDE-TREATED NETS DISTRIBUTION AMONG PREGNANT WOMEN ATTENDING PUBLIC HEALTH FACILITIES IN TARGETED COUNTIES IN KENYA

Robert M. Mwaganu<sup>1</sup>, Fredrick O. Odhiambo<sup>2</sup>, Emma Nyandigisi<sup>1</sup>, Beatrice K. Machini<sup>1</sup>, James N. Kiarie<sup>1</sup>

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**Datolo Kone**<sup>1</sup>, Elizabeth Fitch<sup>2</sup>, Richard Reithinger<sup>3</sup>, Aguima Tankoano<sup>1</sup>, Mohamed Keita Sitan<sup>1</sup>, Lamine Bangoura<sup>4</sup>, Eliane Mbounga<sup>4</sup>, Alioune Camara<sup>5</sup>, Sylvestre Sandouno<sup>1</sup>, Souleymane Berete<sup>1</sup>, Diallo Abdoulaye<sup>6</sup>

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#### CHALLENGES IN ESTIMATING COVERAGE INDICATORS FOR PERENNIAL MALARIA CHEMOPREVENTION (PMC) WHEN COMBINING STANDARD ROLLOUT PLUS CATCH-UP APPROACHES: LESSONS LEARNED FROM PILOT IMPLEMENTATION IN DEMOCRATIC REPUBLIC OF CONGO (DRC)

Aline Maliwani<sup>1</sup>, Mvuama Mazangama<sup>2</sup>, Nono Koka<sup>3</sup>, Packy Mukanya<sup>1</sup>, Gloire Mbaka Onya<sup>2</sup>, Rova Ratsimandisa<sup>2</sup>, Michael Hainsworth<sup>4</sup>, Arantxa Roca Feltrer<sup>5</sup>, Caterina Guinovart<sup>6</sup>, Eric Mukomena<sup>1</sup>, Henry Ntuku<sup>7</sup>

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#### QUALITY AND PERFORMANCE OF COMMUNITY-OWNED RESOURCE PERSONS FOR MALARIA COMMUNITY CASE MANAGEMENT (MCCM) IN HARD-TO-REACH COMMUNITIES IN TANZANIA, 2023

Kanuth Dimoso<sup>1</sup>, Abdallah Lusasi<sup>2</sup>, Jacquiline Tungaraza<sup>1</sup>, Francis Levira<sup>1</sup>, Sarah-Blythe Ballard<sup>3</sup>, Albert Ikonje<sup>4</sup>, Lulu Msangi<sup>4</sup>, Naomi Serbantez<sup>4</sup>, Chonge Kitojo<sup>4</sup>, Patrick Gulinja<sup>1</sup>, Mwaka Kakolwa<sup>1</sup>, Dunstan Bishanga<sup>1</sup>

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# THE ECONOMIC BENEFITS OF INDOOR RESIDUAL SPRAYING IN RWAMAGANA DISTRICT, EASTERN PROVINCE, RWANDA

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#### ASSESSING PATTERNS IN BEDNET USE USING ACCELEROMETER-BASED MONITORING IN COTE D'IVOIRE

Paul Krezanoski<sup>1</sup>, Soro Dramane<sup>2</sup>, Laurence Yao<sup>2</sup>, Benjamin Koudou<sup>2</sup> <sup>1</sup>University of California, San Francisco, San Francisco, CA, United States, <sup>2</sup>Centre Suisse de Recherches Scientifiques in Côte d'Ivoire, Abidjan, Côte D'Ivoire

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#### ANALYZING THE IMPACT OF MALARIA PREVENTIVE INTERVENTION ON MALARIA TEST POSITIVITY RATES: A FOUR YEAR STUDY IN ADAMAWA STATE NIGERIA

Chinedu J. Chukwu<sup>1</sup>, **Victoria C. Erinle**<sup>1</sup>, Bravo B. Otohabru<sup>1</sup>, Jerry Agulehi<sup>1</sup>, Isaac Adejo<sup>1</sup>, Thomas A. Hall<sup>2</sup>, Sonachi S. Ezeiru<sup>3</sup>, Emmanuel U. Obi<sup>3</sup>, Orezi S. Adhekoyibo<sup>3</sup>, Frank Oronsaye<sup>3</sup>, Nnenna N. Ogbulafor<sup>4</sup>, Chukwu Okoronkwo<sup>4</sup>, Fatima B. Ali<sup>4</sup>, Mary E. Esema<sup>4</sup>, Godwin N. Ntadom<sup>4</sup>, James Ssekitooleko<sup>5</sup>

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#### RECONSIDERING INDOOR RESIDUAL SPRAYING COVERAGE TARGETS: LEVERAGING HIGH-RESOLUTION OBSERVATIONAL DATA FROM BIOKO ISLAND TO ESTIMATE THE DOSE-RESPONSE CURVE

David S. Sanders<sup>1</sup>, Carlos A. Guerra<sup>2</sup>, Liberato Motobe Vaz<sup>1</sup>, Lucas Ondo Nze<sup>1</sup>, Jeremias Nzamio Mba Eyono<sup>1</sup>, Restituto Mba Nguema Avue<sup>1</sup>, Teresa Ayingono Ondo Mfumu<sup>1</sup>, Wonder P. Phiri<sup>1</sup>, David L. Smith<sup>3</sup>, Guillermo A. Garcia<sup>2</sup>

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#### SEASONAL MALARIA CHEMOPREVENTION COVERAGE SURVEY STRATEGIES TO SUSTAIN HIGH COVERAGE THROUGHOUT CAMPAIGN ARE NEEDED BENIN 2023

SAKARIAHOU KPANOU<sup>1</sup>, William Hindéwé Houndjo<sup>1</sup>, Cyriaque Dossou Affoukou<sup>1</sup>, Julien Codjo Aissan<sup>1</sup>, Achille Achille Batonon<sup>1</sup>, Virgile Gnanguenon<sup>2</sup>, Raoul Chaffa Raoul Oloukoi<sup>2</sup>, Djebo Goumanon<sup>3</sup>, John Bernon<sup>2</sup>, Catherine Dentinger<sup>4</sup>

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#### ENHANCING OFFLINE DATA COLLECTION SYSTEMS THROUGH HYBRID DATA MANAGEMENT: INSIGHTS FROM THE BOHEMIA CLINICAL TRIAL

Vegovito Antonio Mario Vegove<sup>1</sup>, Eldo Elobolobo<sup>2</sup>, Isaiah Omondi<sup>3</sup>, Jamal Salim<sup>3</sup>, Shadrack Karisa<sup>3</sup>, Esther Yaa<sup>3</sup>, Paula Ruiz-Castillo<sup>1</sup>, Mercy Kariuki<sup>3</sup>, Patricia Nicolas<sup>1</sup>, Mary Mael<sup>1</sup>, Francisco Saute<sup>2</sup>, Regina Rabinovich<sup>1</sup>, Carlos Chaccour<sup>1</sup>, Marta Maia<sup>3</sup> <sup>1</sup>ISGLOBAL, Barcelona, Spain, <sup>2</sup>CISM, Manhica, Mozambique, <sup>3</sup>Kemri, Kwale, Kenya

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#### EVALUATING A PROGRAMMATIC MALARIA MASS DRUG ADMINISTRATION IN MOZAMBIQUE: MIXED-METHODS ANALYSIS OF OPERATIONAL PERFORMANCE

Laura de la Fuente<sup>1</sup>, Maria Tusell<sup>1</sup>, Jacopo Vecchio<sup>1</sup>, Amâncio Nhangave<sup>2</sup>, Khalid Bapú<sup>3</sup>, Christina Riley<sup>4</sup>, Mercia Dimene<sup>5</sup>, Samira Sibindy<sup>5</sup>, Baltazar Candrinho<sup>5</sup>, Pedro Aide<sup>3</sup>, Caterina Guinovart<sup>1</sup>

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# Malaria – Surveillance and Data Utilization

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#### GENETIC LINKAGE OF DRUG RESISTANCE GENOTYPES TO CONTINENTS USING *PFS47* AND *PFCPMP* FOR TRAVEL-ASSOCIATED *PLASMODIUM FALCIPARUM* MALARIA CASES WITH AN UNREPORTED TRAVEL HISTORY (USA, 2018-2021)

Edwin Pierre-Louis<sup>1</sup>, Julia Kelley<sup>2</sup>, Dhruviben Patel<sup>3</sup>, Dragan Ljolje<sup>2</sup>, Christina Carlson<sup>2</sup>, Eldin Talundzic<sup>4</sup>, David Jacobson<sup>2</sup>, Joel Barratt<sup>2</sup>

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EFFECTS OF FACILITY BASED MALARIA SURVEILLANCE MONITORING AND EVALUATION MENTORSHIP MODEL ON DATA QUALITY IN KAKAMEGA COUNTY, KENYA

Faustinah Lukelesia Sakari

County Government of Kakamega, Kakamega, Kenya

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#### ANTI-MALARIAL DRUG RESISTANCE INTELLIGENT ADAPTIVE GEOSPATIAL SURVEILLANCE SYSTEM

**Dr. Apoorv Gupta**<sup>1</sup>, Lucinda E. Harrison<sup>2</sup>, Minu Nain<sup>1</sup>, Sauman Singh Phulgenda<sup>3</sup>, Rutuja Chhajed<sup>3</sup>, Manju Rahi<sup>4</sup>, Philippe Guerin<sup>3</sup>, Mehul Dhorda<sup>3</sup>, Jennifer A. Flegg<sup>2</sup>, Praveen K. Bharti<sup>1</sup>

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Joseph T. Hicks<sup>1</sup>, Frank Chacky<sup>2</sup>, Sijenunu Aaron<sup>2</sup>, Samwel L. Nhiga<sup>2</sup>, Julie R. Gutman<sup>3</sup>, Patrick GT Walker<sup>1</sup>

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#### FALSE ALARM ON A MALARIA "OUTBREAK" LINKED TO IRREGULARITIES IN MALARIA DIAGNOSTIC SUPPLY: A CALL TO STRENGTHEN SUPPLY CHAIN MANAGEMENT – SIERRA LEONE, MAY-AUGUST 2023

Timothy N. DeVita<sup>1</sup>, Aminata Kabia<sup>2</sup>, James A.M. Khobi<sup>2</sup>, Mugagga Malimbo<sup>3</sup>, Samba Kamara<sup>4</sup>, Bridget Magoba<sup>2</sup>, Gebrekrstos Gebru<sup>2</sup>, Anna Jammeh<sup>2</sup>, John Painter<sup>1</sup>, Thomas Ansumana<sup>5</sup>, Musa Sillah-Kanu<sup>5</sup>, David Schnabel<sup>6</sup>

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# QUALITY OF MALARIA ROUTINE SURVEILLANCE DATA IN GHANA, 2023

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National Malaria Elimination Programme, Accra, Ghana

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#### TOWARD ZERO MALARIA IN THE DOMINICAN REPUBLIC: INTEGRATING IMPORTED INFECTIONS INTO SURVEILLANCE STRATEGIES

Luca Nelli<sup>1</sup>, Keyla Keyla Ureña<sup>2</sup>, Juan Mena Lapaix<sup>3</sup>, Jose L. Cruz Raposo<sup>2</sup>, Miguel De la Cruz Marrero<sup>2</sup>, Luccène Désir<sup>4</sup>, Greg Noland<sup>4</sup>, Jason Matthiopoulos<sup>1</sup>, Karen Hamre<sup>4</sup>, Gilian Stresman<sup>5</sup>

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# ASSESSMENT OF THE MALARIA SURVEILLANCE SYSTEM IN ELIMINATION-TARGETED NORTH BANK REGIONS, THE GAMBIA

Momodou Kalleh<sup>1</sup>, Ousman Njie<sup>2</sup>, Adama Jagne Sonko<sup>3</sup>, Yankuba Fabureh<sup>1</sup>, Balla Gibba<sup>1</sup>, Arantxa Feltrer<sup>4</sup>, Smita Das<sup>5</sup>

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#### PREGNANT WOMEN AS A SENTINEL POPULATION FOR GENETIC SURVEILLANCE OF MALARIA IN THE DEMOCRATIC REPUBLIC OF CONGO

Varanya Wasakul<sup>1</sup>, Marie Onyamboko<sup>2</sup>, Sarah Benie Bakomba<sup>2</sup>, Daddy Kalala Kayembe<sup>2</sup>, Bejos Kifakiou Nzambiwishe<sup>2</sup>, Pascal Epe Ekombolo<sup>2</sup>, Benjamen Basara Badjanga<sup>2</sup>, Jean-Robert Moke Mayindombe<sup>2</sup>, Jephte Ndundu Ngavuka<sup>2</sup>, Eleonor Drury<sup>3</sup>, Cristina Ariani<sup>3</sup>, Sonia Goncalves<sup>3</sup>, Naomi Waithira<sup>1</sup>, Vanapol Chamsukhee<sup>1</sup>, Tess Verschuuren<sup>1</sup>, Sue J. Lee<sup>1</sup>, Olivo Miotto<sup>4</sup>, Caterina Fanello<sup>4</sup>

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#### IMPROVING THE APPROACH TO MONITOR AND REPORT ON COVERAGE OF MALARIA INTERMITTENT PREVENTIVE TREATMENT IN PREGNANCY: TIME FOR A RETHINK

Donal Bisanzio<sup>1</sup>, Raquel González<sup>2</sup>, Cristina Enguita<sup>2</sup>, Clara Menedez<sup>2</sup>, **Richard Reithinger**<sup>1</sup>

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#### MALARIA EPIDEMICS IN LOW AND VERY LOW BURDEN AREAS OF TANZANIA AND ALERT THRESHOLD SENSITIVITY FOR DISTRICT-LEVEL EPIDEMIC DETECTION, 2022-2023

Francis Levira<sup>1</sup>, Frank Chacky<sup>2</sup>, Dunstan Bishanga<sup>1</sup>, Joseph J. Joseph<sup>1</sup>, Kanuth Dimoso<sup>1</sup>, Sarah-Blythe Ballard<sup>3</sup>, Albert Ikonje<sup>4</sup>, Naomi Serbantez<sup>4</sup>, Lulu Msangi<sup>4</sup>, Chonge Kitojo<sup>4</sup>, Samwel Lazaro<sup>5</sup>, Mwaka Kakolwa<sup>1</sup>

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#### MALARIA SURVEILLANCE DATA ANALYSIS, GA EAST MUNICIPALITY, GHANA, 2023

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#### QUANTIFYING THE SUITABILITY OF WATERSHED-BASED AREAL UNITS FOR MALARIA MODELING IN THE PERUVIAN AMAZON REGION

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#### CONSISTENT POST MARKETING SURVEILLANCE ASSURES QUALITY OF ANTIMALARIAL MEDICINES IN KENYA

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#### IMPROVEMENTS IN INTERMITTENT PREVENTIVE TREATMENT FOR MALARIA IN PREGNANCY (IPTP) STOCK AND COVERAGE INDICATORS FOLLOWING DECENTRALIZATION OF SULFADOXINE-PYRIMETHAMINE (SP) PROCUREMENTS, TANZANIA, 2020-2023

**Mwaka Kakolwa**<sup>1</sup>, Francis Levira<sup>1</sup>, Frank Chacky<sup>2</sup>, Kanuth Dimoso<sup>1</sup>, Sara-Blythe Ballard<sup>3</sup>, Albert Ikonje<sup>4</sup>, Lulu Msangi<sup>4</sup>, Naomi Serbantez<sup>4</sup>, Chonge Kitojo<sup>4</sup>, Samwel Lazaro<sup>5</sup>, Dunstan Bishanga<sup>1</sup>

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#### TRENDS OF MALARIA BURDEN IN KENYA: MAPPING INCIDENCE TO TARGET INTERVENTIONS, 2019-2023

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FINANCIAL AND ECONOMIC COSTS OF CARE FOR FEBRILE ILLNESS IN A MALARIA ENDEMIC REGION OF WESTERN KENYA - FINDINGS FROM A CROSS-SECTIONAL COMMUNITY SURVEY, 2022 - 2023

Victoria Seffren<sup>1</sup>, Walter Ochieng<sup>1</sup>, Oliver Towett<sup>2</sup>, Brian Seda<sup>2</sup>, Laura C. Steinhardt<sup>1</sup>, Daniel P. McDermott<sup>3</sup>, Feiko ter Kuile<sup>3</sup>, Simon Kariuki<sup>2</sup>, Julie R. Gutman<sup>1</sup> <sup>1</sup>US Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>Kenya Medical Research Institute, Kisumu, Kenya, <sup>3</sup>Liverpool School of Tropical Medicine, Liverpool, United

Kingdom

#### EXTERNAL VALIDITY OF BED NET INDICATOR ESTIMATES FROM RANDOM DIGIT DIAL MOBILE PHONE SURVEYS CONDUCTED IN TANZANIA

**Matt Worges**<sup>1</sup>, Ruth Ashton<sup>2</sup>, Janna Wisniewski<sup>2</sup>, Paul Hutchinson<sup>2</sup>, Hannah Koenker<sup>3</sup>, Tory Taylor<sup>4</sup>, Hannah Metcalfe<sup>5</sup>, Ester Elisaria<sup>6</sup>, Josh Yukich<sup>2</sup>

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#### SITUATIONAL ANALYSIS OF THE TOWNSHIP-LEVEL MALARIA SURVEILLANCE SYSTEM IN RAKHINE STATE AND TANINTHARYI REGION OF MYANMAR

Han Lin Aung<sup>1</sup>, Soe Htike<sup>1</sup>, Day Naing Aung<sup>1</sup>, Wah Wah Thaw<sup>1</sup>, Abigail Minor<sup>2</sup>, Nu Nu Khin<sup>3</sup>, Gunawardena Dissanayake<sup>4</sup>, Alexandra Wharton-Smith<sup>4</sup>, Zwe Thihaa Kyaw<sup>5</sup>, Kyi Tun Lwin<sup>5</sup>, Khin Zarli Aye<sup>1</sup>

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#### EVALUATING THE PERFORMANCE OF THE ECDS-MMS IN VIETNAM: A TAILORED MALARIA SURVEILLANCE ASSESSMENT STUDY

**Cảnh Đình Hoàng**<sup>1</sup>, Minh Binh Doan<sup>1</sup>, Thang Duc Ngo<sup>1</sup>, Thắng Xuân Nguyễn<sup>1</sup>, Toan Huu Trinh<sup>1</sup>, Vu Quang Tran<sup>1</sup>, Joshua Gwinn<sup>2</sup>, Dung Viet Ta<sup>2</sup>, Duong Thuy Vu<sup>2</sup>, Thao Thi Phuong Ho<sup>2</sup>, Rafael Jairah Jr Matoy<sup>3</sup>, Elijah Filip<sup>3</sup>, Hoang Van Ho<sup>1</sup>

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#### HEALTH FACILITY LED DATA UTILIZATION TO SUPPORT IMPROVED COMMODITY AVAILABILITY AND SERVICE DELIVERY IN RESPONSE TO MALARIA EPIDEMICS IN BUKEDI REGION, UGANDA

Jimmy Opigo<sup>1</sup>, Mathius Kasule<sup>1</sup>, Ronald Kimuli<sup>1</sup>, Myers Lugemwa<sup>1</sup>, Juliet Nakiganda<sup>2</sup>, Natalie Priestley<sup>2</sup>, Meley Woldeghebriel<sup>2</sup>, Maria Kibirige Nakubulwa<sup>2</sup>, Sylvia Nanfuka Kirumira<sup>2</sup>, Lorraine Kabunga<sup>2</sup>, Fredrick Luwaga<sup>2</sup>, Joy Batusa<sup>2</sup>

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#### PERSPECTIVES OF KEY STAKEHOLDERS ON THE USE OF INFRARED SPECTROSCOPY FOR MALARIA SURVEILLANCE

Naomi Humphrey Urio<sup>1</sup>, Doreen Siria<sup>1</sup>, Jacqueline Mgaya<sup>1</sup>, Halfan Ngowo<sup>1</sup>, Francesco Baldini<sup>2</sup>, Fredros Okumu<sup>1</sup>

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# ACCURACY OF REPORTING OF MALARIA RAPID DIAGNOSTIC TESTS IN UGANDA

Nelson Ssewante<sup>1</sup>, Jane Namuganga<sup>1</sup>, Anne R. Katahoire<sup>1</sup>, Jenipher Musoke<sup>1</sup>, Noel Mutesi<sup>1</sup>, Michael Humes<sup>2</sup>, Kevin Griffith<sup>2</sup>, Saadjo Sow<sup>3</sup>, John Aponte<sup>3</sup>, Emily Hilton<sup>3</sup>, Natalie Galles<sup>3</sup>, Radina Soebiyanto<sup>2</sup>, Shawna Cooper<sup>4</sup>, Bosco Agaba<sup>5</sup>, Jimmy Opigo<sup>5</sup>, Kim Lindblade<sup>3</sup>, Arthur Mpimbaza<sup>1</sup>

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#### SETTING UP A SUSTAINABLE ACTIVE SURVEILLANCE SYSTEM IN SOUTHERN ANGOLA: PROGRESS TOWARDS MALARIA ELIMINATION IN THE SOUTHERN AFRICA REGION

Fernanda Guimarães<sup>1</sup>, Mário Hossi<sup>1</sup>, André Domingos<sup>2</sup>, José Franco Martins<sup>3</sup>, Paulo Máquina<sup>4</sup>, Manuel Lando<sup>5</sup>, Sérgio Lopes<sup>6</sup>, **Teresa Nobrega**<sup>7</sup>, Ana Direito<sup>7</sup> <sup>1</sup>National Malaria Control Programme, Ministry of Health, Luanda, Angola, <sup>2</sup>Provincial Public Health Department, Ondjiva, Angola, <sup>3</sup>National Malaria Control Program, Ministry of Health, Luanda, Angola, <sup>4</sup>SADC Elimination 8, Luanda, Angola, <sup>6</sup>The Mentor Initiative, Ondjiva, Angola, <sup>6</sup>The Mentor Initiative, Haywards Heath, United Kingdom, <sup>7</sup>The Mentor Initiative, Luanda, Angola

## Malaria - Vaccines and Immunotherapeutics

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# INTRODUCTION OF THE RTS,S MALARIA VACCINE IN BURKINA FASO: RESULTS FROM THE FIRST SUPPORTIVE SUPERVISION

René Didace BAKOUAN<sup>1</sup>, Christelle Nomwendé Néya/Ouédraogo<sup>1</sup>, Mninmalo Ines Evelyne DA<sup>2</sup>

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#### 6503

### PFS230D1 24- AND 60-COPY SINGLE COMPONENT MALARIA TRANSMISSION BLOCKING NANOPARTICLE VACCINES ELICIT A POTENT AND DURABLE RESPONSE UPON VACCINATION

Nichole D. Salinas, Rui Ma, Thayne H. Dickey, Holly McAleese, Tarik Ouahes, Kazutoyo Miura, Carole A. Long, Lynn E. Lambert, Niraj H. Tolia National Institutes of Health, Bethesda, MD, United States

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#### SINGLE IMMUNIZATION WITH GENETICALLY ATTENUATED *PLASMODIUM FALCIPARUM ΔΜΕΙ2* (GA2) SPOROZOITES INDUCES HIGH LEVEL PROTECTION AGAINST A CONTROLLED HUMAN MALARIA INFECTION

Geert V.T. Roozen, Roos van Schuijlenburg, Annefleur D.O. Hensen, Jan Pieter R. Koopman, Olivia A.C. Lamers, Fiona J.A. Geurten, Jeroen C. Sijtsma, Els Baalbergen, Jacqueline J. Janse, Séverine C. Chevalley-Maurel, Chanel M. Naar, Sascha Bezemer, Hans Kroeze, Huybert J.F. van de Stadt, Abraham de Visser, Pauline Meij, Mara S. Tihaya, Emil D. Colstrup, Eva Iliopoulou, Helena M. de Bes-Roeleveld, Els Wessels, M.Y. Eileen C. van der Stoep, Chris J. Janse, Rajagopal A. Murugan, Blandine Franke-Fayard, Meta Roestenberg

Leiden University Medical Center, Leiden, Netherlands

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#### CHARACTERIZING THE SEROLOGICAL IGG REPERTOIRE OF TANZANIAN CHILDREN VACCINATED WITH NOVEL MALARIA BLOOD-STAGE CANDIDATE RH5.1/MATRIX-M ADJUVANT

Jeffrey Marchioni<sup>1</sup>, Kirsty McHugh<sup>2</sup>, Allison Seeger<sup>1</sup>, Cassandra Rigby<sup>2</sup>, Doris Quinkert<sup>2</sup>, Ana Rodrigues<sup>2</sup>, Randall S. MacGill<sup>3</sup>, George Georgiou<sup>1</sup>, Simon J. Draper<sup>2</sup>, Jason J. Lavinder<sup>1</sup>

<sup>1</sup>The University of Texas at Austin, Austin, TX, United States, <sup>2</sup>Oxford University, Oxford, United Kingdom, <sup>3</sup>Center for Vaccine Innovation and Access, PATH, Washington, DC, United States

# VALIDATION OF CIRCULAR RNA VACCINE PLATFORM FOR MALARIA TRANSMISSION BLOCKING VACCINE

Nawapol Kunkeaw<sup>1</sup>, Thitipa Thosapornvichai<sup>2</sup>, Suradej Hongeng<sup>3</sup>, Eizo Takashima<sup>4</sup>, Takafumi Tsuboi<sup>4</sup>, Patompon Wongtrakoongate<sup>5</sup>, Wang Nguitragool<sup>6</sup>, Jetsumon Sattabongkot<sup>1</sup>

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#### A WHOLE ORGANISM *PLASMODIUM VIVAX* BLOOD STAGE VACCINE PARTIALLY PROTECTS AOTUS MONKEYS AGAINST A HOMOLOGOUS EXPERIMENTAL INFECTION

Nicanor Obaldia<sup>1</sup>, Marlon Nunez<sup>1</sup>, Ariel Magallon<sup>1</sup>, Santiago Montilla<sup>1</sup>, Joao Luiz Da Silva Filho<sup>2</sup>, Kanjee Usheer<sup>3</sup>, Matthias Marti<sup>4</sup>, Manoj Duraisingh<sup>3</sup>

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#### ACCEPTABILITY AND FEASIBILITY OF ADMINISTERING RTS,S/ AS01 MALARIA VACCINE TO SCHOOL-AGED CHILDREN IN SOUTHERN MALAWI

Blessings N. Kaunda-Khangamwa<sup>1</sup>, Linda A. Nyondo Mipando<sup>2</sup>, Christopher C. Stanley<sup>1</sup>, Mark L. Wilson<sup>3</sup>, Terrie Taylor<sup>4</sup>, Tabither Kaunda<sup>1</sup>, Lauren M. Cohee<sup>5</sup>, Clarissa Valim<sup>6</sup>, Don P. Mathanga<sup>1</sup>

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#### *IN-SILICO* ANALYSIS OF *PLASMODIUM FALCIPARUM* SURFACE PROTEINS AND MONOCLONAL ANTIBODIES TO DESIGN MALARIA VACCINE

Fatoumata Gnine FOFANA<sup>1</sup>, Mamadou WELE<sup>1</sup>, Olaposi Idowu OMOTUYI<sup>2</sup>, Seydou Doumbia<sup>3</sup>, Mahamadou DIAKITE<sup>4</sup>

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#### ASSESSMENT OF PARENTAL/CAREGIVER PERCEPTION AND ACCEPTANCE OF THE MALARIA VACCINE IN A CONFLICT-AFFECTED REGION IN CAMEROON

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#### PHASE 1A CLINICAL TRIAL OF SAFETY AND IMMUNOGENICITY OF RH5.1 AND R78C WITH MATRIX-M<sup>™</sup> ADJUVANT IN UK ADULTS - A NOVEL COMBINATION VACCINE CANDIDATE AGAINST THE *P. FALCIPARUM* BLOOD-STAGE RCR INVASION COMPLEX

Jo Salkeld<sup>1</sup>, Dimitra Pipini<sup>1</sup>, Andrew DS Duncan<sup>1</sup>, Melanie Etti<sup>1</sup>, Megan Baker<sup>1</sup>, Nicola Greenwood<sup>1</sup>, Barnabas G. Williams<sup>1</sup>, Lloyd DW King<sup>1</sup>, Ababacar Diouf<sup>2</sup>, Cassandra A. Rigby<sup>1</sup>, Doris Quinkert<sup>1</sup>, Cecilia Carnrot<sup>3</sup>, Alison M. Lawrie<sup>1</sup>, Katherine Skinner<sup>1</sup>, Rachel E. Cowan<sup>1</sup>, Jee-Sun Cho<sup>1</sup>, Carole A. Long<sup>2</sup>, Carolyn M. Nielsen<sup>1</sup>, Kazutoyo Miura<sup>2</sup>, Sarah E. Silk<sup>1</sup>, Simon J. Draper<sup>1</sup>, Angela M. Minassian<sup>1</sup>

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#### PRE-CLINICAL AND CLINICAL EFFICACY OF ATTENUATED AND KILLED WHOLE PARASITE MALARIA BLOOD STAGE VACCINES TO LIMIT DISEASE

Danielle I. Stanisic<sup>1</sup>, Winter A. Okoth<sup>1</sup>, Takashima Eizo<sup>2</sup>, Tsuboi Takafumi<sup>2</sup>, Mei-Fong Ho<sup>1</sup>, Kylie Alcorn<sup>3</sup>, James Beeson<sup>4</sup>, Moses Lee<sup>5</sup>, Terry Spithill<sup>6</sup>, James Fink<sup>3</sup>, Kim-Lee Sim<sup>7</sup>, Steve Hoffman<sup>7</sup>, John Gerrard<sup>3</sup>, **Michael F. Good**<sup>1</sup>

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#### *IN SILICO* EVALUATION OF PREDICTED *PLASMODIUM FALCIPARUM* EPITOPES IN LEADING VACCINE CANDIDATE ANTIGENS

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## IMV: INNOVATIONS IN MALARIA VACCINE DEVELOPMENT PROGRAM

Evangelos Simeonidis<sup>1</sup>, Ashley Birkett<sup>1</sup>, Simon J. Draper<sup>2</sup>, Jenifer Haner<sup>1</sup>, Jessica Harkhani<sup>1</sup>, Linda Hoang<sup>1</sup>, Kerry Laurino<sup>3</sup>, Emily Locke<sup>3</sup>, Randall S. MacGill<sup>3</sup>, Robin Miller<sup>4</sup>, Lorraine Soisson<sup>4</sup>, Tara Tagmyer<sup>3</sup>, Yimin Wu<sup>3</sup>, Susan Youll<sup>4</sup>

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#### HEALTH SYSTEMS CAPACITY STRENGTHENING FOR MENINGITIS SURVEILLANCE AND SAFETY SIGNALS MONITORING: LESSONS FROM THE RTSS/AS01 MALARIA VACCINE PILOT EVALUATION IN GHANA

Samuel Ekow Bernard Harrison<sup>1</sup>, Thomas Gyan<sup>1</sup>, Eliezer Odei-Lartey<sup>1</sup>, Justice Sylverkin<sup>2</sup>, Dennis Adu-Gyasi<sup>1</sup>, Nana Buabeng Yiadom<sup>3</sup>, Albert Dornudo-Agordo<sup>3</sup>, Lawrence Osei-Tutu<sup>2</sup>, Tsiri Agbenyega<sup>3</sup>, Daniel Ansong<sup>2</sup>, Kwaku Poku-Asante<sup>1</sup> <sup>1</sup>/kintampo Health Research Centre, Ghana Health Service, Kintampo, Ghana, <sup>2</sup>Kwame Nkrumah University of Science and Technology (KNUST), School of Medical Sciences, Kumasi, Kumasi, Ghana, <sup>3</sup>Agogo Malaria Research Centre, Agogo Presbyterian Hospital, P.O. Box 27 Agogo, Ghana, Agogo, Ghana

#### CHARACTERIZATION OF THE IMMUNE RESPONSES INDUCED BY THE *PLASMODIUM FALCIPARUM* BLOOD-STAGE VACCINE CANDIDATE, RH5.1/MATRIX M<sup>™</sup>, IN A PHASE IIB TRIAL IN BURKINABE 5-17MONTH OLDS

Sarah E. Silk<sup>1</sup>, Dimitra Pipini<sup>1</sup>, Ousmane Traoré<sup>2</sup>, Magloire Natama<sup>2</sup>, Jo Salkeld<sup>1</sup>, Athanase Somé<sup>2</sup>, Seyi Soremekun<sup>3</sup>, Ababacar Diouf<sup>4</sup>, Toussaint Rouamba<sup>2</sup>, Florence Ouedraogo<sup>2</sup>, Salou Diallo<sup>2</sup>, Massa dit Achille Bonko<sup>2</sup>, Hermann Sorgho<sup>2</sup>, Umesh Shaligram<sup>5</sup>, Jee-Sun Cho<sup>1</sup>, Alison M. Lawrie<sup>1</sup>, Katherine Skinner<sup>1</sup>, Rachel Roberts<sup>1</sup>, Carolyn M. Nielsen<sup>1</sup>, John Bradley<sup>3</sup>, Carole A. Long<sup>4</sup>, Kazutoyo Miura<sup>4</sup>, Simon J. Draper<sup>1</sup>, Angela M. Minassian<sup>1</sup>, Halidou Tinto<sup>2</sup>

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## **6517**

#### CREATING SUPERIOR PFSPZ VACCINES FOR MALARIA BY GENETICALLY CROSSING WEST AND EAST AFRICAN *PLASMODIUM FALCIPARUM* TO PRODUCE PFSPZ WITH GREATER ANTIGENIC DIVERSITY AND POTENCY

**B. Kim Lee Sim**<sup>1</sup>, Lucia Pazzagli<sup>2</sup>, Bethany Jenkins<sup>1</sup>, Ankit Dwivedi<sup>3</sup>, Asha Patil<sup>1</sup>, Yonas Abebe<sup>1</sup>, Ehud Inbar<sup>1</sup>, Manuel Llinas<sup>4</sup>, Stephen L. Hoffman<sup>1</sup>, Joana Carneiro da Silva<sup>3</sup>, Ashley M. Vaughan<sup>2</sup>

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## 6518

#### IMPLEMENTATION COSTS OF A SCHOOL-BASED RTS,S/AS01 MALARIA VACCINATION PROGRAM IN MALAWI

Jobiba Chinkhumba<sup>1</sup>, Saviour Mphande<sup>1</sup>, Tabitha Kaunda<sup>1</sup>, Christopher Stanley<sup>1</sup>, Harrison Msuku<sup>1</sup>, Clarissa Valim<sup>2</sup>, Terrie Taylor<sup>3</sup>, Don Mathanga<sup>1</sup> <sup>1</sup>Kamuzu University of Health Sciences, Blantyre, Malawi, <sup>2</sup>Department of Global Health, Boston University School of Public Health, Boston, MA, United States, <sup>3</sup>College of Osteopathic Medicine, Michigan State University, Ann Arbor, MI, United States

#### 6519

#### RHESUS MODELS FOR PRE-ERYTHROCYTIC STAGE SPOROZOITE VACCINES AGAINST MALARIA

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#### PFSPZ VACCINE ELICITS PFCSP ANTIBODIES THAT CROSS-REACT WITH OTHER *P. FALCIPARUM* PROTEINS AND CORRELATE WITH PROTECTION FROM MALARIA

Andrea A. Berry<sup>1</sup>, Olukemi O. Ifeonu<sup>1</sup>, DeAnna J. Friedman-Klabanoff<sup>1</sup>, Jozelyn Pablo<sup>2</sup>, Andy Teng<sup>2</sup>, Adam D. Shandling<sup>1</sup>, Sumana Chakravarty<sup>3</sup>, Richard S. Pinapati<sup>4</sup>, Jigar J. Patel<sup>4</sup>, John C. Tan<sup>4</sup>, Xiaowu Liang<sup>2</sup>, Philip L. Felgner<sup>5</sup>, Mark A. Travassos<sup>1</sup>, Matthew B. Laurens<sup>1</sup>, Christopher V. Plowe<sup>1</sup>, Shannon Takala Harrison<sup>1</sup>, Azza H. Idris<sup>6</sup>, Robert A. Seder<sup>6</sup>, Stephen L. Hoffman<sup>1</sup>, Kirsten E. Lyke<sup>1</sup>, Joseph J. Campo<sup>2</sup>

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## **Bacteriology - Enteric Infections**

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RESULTS FROM A PHASE III STUDY TO ASSESS THE SAFETY, IMMUNE RESPONSE, AND LOT-TO-LOT CONSISTENCY OF EUTCV SINGLE-DOSE AND MULTI-DOSE FORMULATION COMPARED TO THE COMPARATOR VACCINE TYPBAR-TCV® IN HEALTHY AFRICAN ADULTS AND YOUNG CHILDREN 6 MONTHS TO 45 YEARS OF AGE

Birahim Pierre Ndiaye<sup>1</sup>, Lucy Koech<sup>2</sup>, Ndeye Sakha Bob<sup>3</sup>, Niles Eaton<sup>4</sup>, Winnie Keter<sup>2</sup>, Siry Diye<sup>1</sup>, Badara Cissé<sup>1</sup>, Vajra Allan<sup>4</sup>, Yeong Ok Baik<sup>5</sup>, Chankyu Lee<sup>5</sup>, Howard Her<sup>5</sup>, Sookyung Kim<sup>5</sup>, Young Jin Choi<sup>5</sup>, Moussa Dia<sup>6</sup>, Emily Locke<sup>7</sup>, Gamou Fall<sup>6</sup>, John J. Aponte<sup>8</sup>, **Patricia Njuguna**<sup>9</sup>

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MOLECULAR CHARACTERIZATION OF MULTIDRUG RESISTANCE *E.COLI* RECOVERED FROM DIARRHEAGENIC CHILDREN UNDER FIVE YEARS FROM MUKURU INFORMAL SETTLEMENT, NAIROBI, KENYA, BASED ON WGS ANALYSIS

Susan W. Kiiru, Purity Kasiano, John Mwaniki, Samuel Kariuki Kenya Medical Research Institute, Nairobi, Kenya

#### 6523

# ASSOCIATION OF GUT REDOX POTENTIAL WITH SEVERE ACUTE MALNUTRITION AND STUNTING IN HOSPITALIZED CHILDREN

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GENOTYPIC DIVERSITY AND ANTIMICROBIAL RESISTANCE DETERMINANTS IN SALMONELLA TYPHI ISOLATED FROM CHILDREN LIVING IN INFORMAL SETTLEMENTS IN NAIROBI, KENYA

Susan K. Kavai<sup>1</sup>, Julius Oyugi<sup>2</sup>, Cecilia M. Mbae<sup>1</sup>, Sylvia Omulo<sup>2</sup>, Samuel M. Kariuki<sup>1</sup> <sup>1</sup>Kenya Medical Research Institute, Nairobi, Kenya, <sup>2</sup>University of Nairobi, Nairobi, Kenya

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#### SEROCONVERSION AND KINETICS OF VIBRIOCIDAL ANTIBODIES DURING THE FIRST 90 DAYS OF RE-VACCINATION WITH ORAL CHOLERA VACCINE IN AN ENDEMIC POPULATION

Caroline C. Chisenga<sup>1</sup>, Bernard Phiri<sup>1</sup>, Harriet Ngombe<sup>1</sup>, Mutinta Muchimba<sup>1</sup>, Kalo musukuma Chifulo<sup>1</sup>, Suwilanji Silwamba<sup>1</sup>, Natasha Makabilo Laban<sup>1</sup>, Charlie Luchen<sup>1</sup>, Fraser Liswaniso<sup>1</sup>, Kennedy Chibesa<sup>1</sup>, Cynthia Mubanga<sup>1</sup>, Kapambwe Mwape<sup>1</sup>, Michelo Simuyandi<sup>1</sup>, Adam Cunningham<sup>2</sup>, David Sack<sup>3</sup>, Samuel Bosomprah<sup>1</sup> <sup>1</sup>Centre for Infectious Disease Research in Zambia, Lusaka, Zambia, <sup>2</sup>Institute of Immunology and Immunotherapy, University of Birmingham, Edgbaston, Birmingham, B15 2TT, Birmingham, United Kingdom, <sup>3</sup>Johns Hopkins University, Baltimore, MD, United States

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#### ETIOLOGY OF DIARRHEAL DISEASE CAUSING SEVERE DEHYDRATION IN INFANTS AND YOUNG CHILDREN RESIDING IN LOW AND MIDDLE INCOME COUNTRIES

Anna Jones<sup>1</sup>, Sharia M. Ahmed<sup>1</sup>, Ashraful I. Khan<sup>2</sup>, Karen L. Kotloff<sup>3</sup>, James A. Platts-Mills<sup>4</sup>, Eric F. Nelson<sup>5</sup>, Daniel T. Leung<sup>1</sup>

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#### ANTIRADICAL SCAVENGING AND UREASE INHIBITION POTENTIALS OF *DICTYOPHLEBA SETOSA* (APOCYNACEAE) AND ISOLATION OF ITS CHEMICAL CONSTITUENTS TOWARDS MANAGEMENT OF GASTRIC AND PEPTIC ULCERS CAUSED BY *HELICOBACTER PYLORI* ACTIVITIES

AKUMA MICHAEL NDE<sup>1</sup>, Pantaleon Ambassa<sup>1</sup>, Bathelemy Ngameni<sup>1</sup>, Mehmet Emin Duru<sup>2</sup>

<sup>1</sup>University of Yaounde 1, Yaoundé, Cameroon, <sup>2</sup>Mugla Sitki Kocman University, Yaoundé, Turkey

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#### PREVENTION AND MANAGEMENT OF TRAVELERS' DIARRHEA IN AN INTERNATIONAL WORKER IN GLOBAL OIL AND GAS COMPANY

Candace McAlester, Susan Ngunjiri, Joyce Ighedosa, Elijah Akpomrughe, Jas Dadhra, Patricia Sviech, Valeria Gomez *ExxonMobil Corp, Spring, TX, United States* 

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#### THE VALIDATION OF A LOW COST STOOL SPECIMEN PRESERVATION METHOD, COMPARING TIME AND TEMPERATURE STORAGE CONDITIONS

Amanda K. Debes<sup>1</sup>, Jamie Perin<sup>1</sup>, Jie Liu<sup>2</sup>, Wensheng Luo<sup>1</sup>, David A. Sack<sup>1</sup>, Nicola Page<sup>3</sup>, Camille Williams<sup>1</sup>

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#### ANTIMICROBIAL RESISTANCE AND INTESTINAL SHEDDING OF NONTYPHOIDAL SALMONELLA AMONG CHILDREN UNDER FIVE YEARS AND CARRIAGE IN ASYMPTOMATIC HOSTS IN KENYA

Kelvin Kimutai Kering<sup>1</sup>, Celestine Wairimu<sup>1</sup>, Georgina Odityo<sup>1</sup>, Kariuki Njaanake<sup>2</sup>, Marianne Mureithi<sup>2</sup>, Cecilia Mbae<sup>1</sup>, Samuel Kariuki<sup>1</sup>

<sup>1</sup>Kenya Medical Research Institute, Nairobi, Kenya, <sup>2</sup>University of Nairobi, Nairobi, Kenya

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#### THE ROLE OF FERMENTED PICKLE CONSUMPTION ON THE GUT MICROBIOME OF WOMEN OF REPRODUCTIVE AGE IN RURAL PAKISTAN

Sumbal Hafeez Haris, Najeeha Iqbal, Aqsa Khalid, Juanid Iqbal, Sheraz Ahmed, Furqan Kabir, Syed Asad Ali

Aga Khan University, Karachi, Pakistan

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Alex Ondeng Awuor<sup>1</sup>, **Alex Ondeng Awuor**<sup>1</sup>, Richard O. Omore<sup>1</sup>, Billy Ogwel<sup>1</sup>, Patricia B. B. Pavlinac<sup>2</sup>, Hannah E. Atlas<sup>3</sup>, Sharon M. Tennant<sup>4</sup>, Karen Kotloff<sup>5</sup>, John B. Ochieng<sup>1</sup>, Sean R. R. Galagan<sup>6</sup>

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Fahad Khokhar<sup>1</sup>, Vignesh Shetty<sup>2</sup>, Madhumathi Irulappan<sup>3</sup>, Dhivya Murugan<sup>3</sup>, Agila Pragasam<sup>3</sup>, Jobin J. John<sup>3</sup>, Balaji Veeraraghavan<sup>3</sup>, Xiaoliang Ba<sup>1</sup>, Ankur Mutreja<sup>1</sup>, Hilary MacQueen<sup>4</sup>, Sushila Rigas<sup>4</sup>, Kate S. Baker<sup>1</sup>, Mark Holmes<sup>1</sup>

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#### ANTIBACTERIAL ACTIVITY OF CORRYOCACTUS BREVISTYLUS (SANKY) METHANOL EXTRACT AGAINST STAPHYLOCOCCUS AUREUS AND ENTEROCOCCUS FAECALIS

Ronald Aquino-Ortega<sup>1</sup>, Hugo Carrillo-Ng<sup>1</sup>, Luz M. Paucar-Menacho<sup>2</sup>, Miguel A. Aguilar-Luis<sup>1</sup>, Wilmer Silva-Caso<sup>1</sup>, Juana del Valle-Mendoza<sup>3</sup>

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**Bo Lyu**, Qisheng Song University of Missouri, Columbia, MO, United States

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Irshad M. Sulaiman, Nancy Miranda, Steven Simpson, Kevin Karem U. S. Food and Drug Administration, Atlanta, GA, United States

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#### BURDEN OF MYCOBACTERIUM TUBERCULOSIS DRUG RESISTANT AMONG PRESUMPTIVE PULMONARY AND EXTRAPULMONARY TUBERCULOSIS PATIENTS AT AMBO GENERAL HOSPITAL WEST ETHIOPIA

Berhanu Seboka Adugna<sup>1</sup>, Tasisa melka gutema<sup>2</sup>

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### 6540

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Chika M. Ezenwa

IMO STATE UNIVERSITY OWERRI, Owerri, Nigeria

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Jesus D. Rojas<sup>1</sup>, Enrique Canal<sup>2</sup>, Manuela Bernal<sup>2</sup>, Tyler D. Moeller<sup>2</sup>, Paul Rios<sup>2</sup> <sup>1</sup>Vysnova Partners LLC, Alexandria, VA, United States, <sup>2</sup>U.S Naval Medical Research Unit SOUTH, Callao, Peru

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#### RICKETTSIOSES AMONG HOSPITALIZED ACUTE FEBRILE ILLNESS ADMISSIONS, WESTERN AND CENTRAL PROVINCES, SRI LANKA

Hua-Wei Chen<sup>1</sup>, Neesha Rockwood<sup>2</sup>, Kalpa Kariyawasam<sup>2</sup>, Senevirathne Mudiyanselage Priyantha Senevirathne<sup>2</sup>, Enoka Corea<sup>3</sup>, Sarah Jenkins<sup>1</sup>, Allen Richards<sup>1</sup>

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#### IDENTIFICATION & ANTIMICROBIAL SUSCEPTIBILITY OF MILK PATHOGENS ISOLATED FROM MASTITIS INFECTED COW MILK IN ADO EKITI

Ayodele Oluwayemisi Ogunlade<sup>1</sup>, Oluwatoyin Modupe Aladejana<sup>2</sup>

<sup>1</sup>The Federal Polytechnic, Ado-Ekiti, Nigeria, <sup>2</sup>Redeemer's University, Ede, Nigeria

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#### PREVALENCE AND RISK FACTORS FOR COLONIZATION DURING THE FIRST THREE MONTHS OF LIFE WITH THREE CRITICAL ANTIBIOTIC-RESISTANT PATHOGENS IN LOW- AND MIDDLE-INCOME COUNTRIES: A SYSTEMATIC REVIEW, META-ANALYSIS, AND META-REGRESSION STUDY

Anne-Lise Beaumont<sup>1</sup>, Elsa Kermovant-Duchemin<sup>2</sup>, Sébastien Breurec<sup>3</sup>, Bich-Tram Huynh<sup>1</sup>

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# INVESTIGATING THE ANTIPHAGE DEFENSE SYSTEMS IN STAPHYLOCOCCAL PHAGE SATELLITE

Adaeze Doris Ojiogu

University of Glasgow, Glasgow, United Kingdom

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#### IMPROVING SYPHILIS MOLECULAR DIAGNOSTICS: GENOME MINING-BASED IDENTIFICATION OF IDENTICAL MULTI-REPEAT SEQUENCES (IMRS) IN *TREPONEMA PALLIDUM* GENOME

**Clement Shiluli**<sup>1</sup>, Shwetha Kamath<sup>2</sup>, Bernard N. Kanoi<sup>1</sup>, Rachael Kimani<sup>1</sup>, Michael Maina<sup>1</sup>, Harrison Waweru<sup>1</sup>, Moses Kamita<sup>1</sup>, Ibrahim Ndirangu<sup>1</sup>, Hussein M. Abkallo<sup>3</sup>, Bernard Oduor<sup>3</sup>, Nicole Pamme<sup>4</sup>, Joshua Dupaty<sup>5</sup>, Catherine M. Klapperich<sup>5</sup>, Srinivasa Raju Lolabattu<sup>6</sup>, Jesse Gitaka<sup>1</sup>

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#### COMPARISON OF COMMERCIAL KITS FOR DNA EXTRACTION AND PRE-TREATMENTS OF SPUTUM SAMPLES FROM PATIENTS WITH TUBERCULOSIS FOR SEQUENCING

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# SEROPREVALENCE OF LEPTOSPIROSIS IN HORSE KEEPERS IN A REGION OF THE COLOMBIAN CARIBBEAN

Virginia C. Rodríguez-Rodríguez, Andrea C. Osorio-Vargas, Ana M. Castro-Cordero, Omar Y. Ceballos-Atencia, Jose M. Rosero-Mercado, Alfonso Calderón-Rangel Universidad de Córdoba, Monteria, Colombia

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Zoha Mian

University of Louisville, Louisville, KY, United States

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#### ANTIBIOTIC PRESCRIBING PATTERNS AT OUTPATIENT CLINICS IN WESTERN AND COASTAL KENYA

Melanie Kiener<sup>1</sup>, Caroline Ichura<sup>1</sup>, Bryson A. Ndenga<sup>2</sup>, Francis M. Mutuku<sup>3</sup>, Christabel A. Winter<sup>2</sup>, Victoria Okuta<sup>4</sup>, Laura Mwambingu<sup>2</sup>, Kevin Ogamba<sup>2</sup>, Karren N. Shaita<sup>2</sup>, Charles Ronga<sup>2</sup>, Philip Chebii<sup>5</sup>, Jael Amugongo<sup>3</sup>, Said Malumbo<sup>5</sup>, Omar Godana<sup>5</sup>, Zainab Jembe<sup>6</sup>, Charles Ng'ang'a<sup>5</sup>, Mwangosho Mazera<sup>5</sup>, A. Desiree LaBeaud<sup>1</sup>

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#### SEVERE INFECTION AMONG YOUNG INFANTS IN DHAKA, BANGLADESH: EFFECT OF CASE DEFINITION ON INCIDENCE ESTIMATES

Alastair Fung<sup>1</sup>, Cole Heasley<sup>1</sup>, Lisa G. Pell<sup>1</sup>, Diego G. Bassani<sup>1</sup>, Prakesh S. Shah<sup>2</sup>, Shaun K. Morris<sup>1</sup>, Davidson H. Hamer<sup>3</sup>, Mohammad Shahidul Islam<sup>4</sup>, Abdullah Mahmud<sup>5</sup>, Eleanor Pullenayegum<sup>1</sup>, Samir K. Saha<sup>4</sup>, Rashidul Haque<sup>6</sup>, Iqbal Hossain<sup>6</sup>, Chun-Yuan Chen<sup>1</sup>, Abby Emdin<sup>7</sup>, Karen M. O'Callaghan<sup>8</sup>, Miranda G. Loutet<sup>1</sup>, Shamima Sultana<sup>6</sup>, S. M. Masum Billah<sup>6</sup>, S. M. Abdul Gaffar<sup>6</sup>, Enamul Karim<sup>6</sup>, Sharika Sayed<sup>6</sup>, Shafiqul A. Sarker<sup>6</sup>, Daniel E. Roth<sup>1</sup>

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#### CLINICAL PRESENTATION AND MANAGEMENT OF ECHINOCOCCUS INFECTION: A CASE REPORT

Sangeeta Nair-Collins, Julio Mendez, Juan Cardenas, Jane Hata, Diana Villegas Mayo Clinic Jax, Jacksonville, FL, United States

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#### ACTIVE MELIOIDOSIS SURVEILLANCE AMONG HOSPITALIZED PATIENTS WITH DIABETES MELLITUS IN BANGLADESH, JUNE 2021-MARCH 2024

Sukanta Chowdhury<sup>1</sup>, Lovely Barai<sup>2</sup>, Muhammad Abdur Rahim<sup>2</sup>, Mindy Elrod<sup>3</sup>, Maria Negron<sup>3</sup>, Zach Weiner<sup>3</sup>, Samira Rahat Afroze<sup>2</sup>, Caroline Schrodt<sup>3</sup>, Farhana Afroz<sup>2</sup>, Julia K. Petras<sup>3</sup>, Muhammad Belal Hossain<sup>1</sup>, Ayesha Jamal Ananna<sup>1</sup>, Mahmudur Rahman<sup>1</sup>, Mohammed Ziaur Rahman<sup>1</sup>, Jay Gee<sup>3</sup>, William A. Bower<sup>3</sup>

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#### TROPICAL SPASTIC PARAPARESIS AND ADULT T CELL LEUKEMIA-LYMPHOMA CO-PRESENTATION IN AN HTLV-1 PATIENT

Malika Madhava<sup>1</sup>, Jorge C. F. Nakazaki<sup>2</sup>, Martin Montes<sup>2</sup>

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#### 6555

# PARASITES IN HISTOPATHOLOGY: A TEACHING HOSPITAL EXPERIENCE

Delphine Nyirahabimana<sup>1</sup>, Alvaro Laga Canales<sup>2</sup>, Thomas Habanabakize<sup>1</sup>, Delphine Uwamariya<sup>3</sup>, Emmanuel Bizimana<sup>4</sup>

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#### FREQUENCY OF FEVER AMONG CHILDREN AGED 0 TO 15 AT BAMAKO COMMUNE IV DISTRICT HOSPITAL IN 2023, MALI

Bourama KEITA, Naman KEITA, Salif Coulibaly, Drissa Konaté, Karim Traoré, Mariam Goita, Abdouramane Traoré, Rouhoulahi Bah, Korotoumou Mallé, Korotoumou Mallé, karamoko Tangara, Salimata Kanté, Sidi Bane, Ibrahim Sanogo, Sory Diawara, Seidina Diakité, Abdoul Razakou Dicko, Mahamadou Diakité USTTB, Bamako, Mali

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#### DEVELOPMENT OF FUNCTIONAL BOWEL DISORDERS AFTER TRAVEL IN DEPARTMENT OF DEFENSE BENEFICIARIES

Tahaniyat Lalani<sup>1</sup>, Adam Maier<sup>2</sup>, Claire Kuo<sup>1</sup>, Derek Larson<sup>2</sup>, David Tribble<sup>1</sup> <sup>1</sup>Infectious Disease Clinical Research Program, Bethesda, MD, United States, <sup>2</sup>Navy Medicine Readiness and Training Command, San Diego, San Diego, CA, United States

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#### EVALUATING THE IMPACT OF A LAO LANGUAGE MOBILE PHONE APPLICATION ON ADHERENCE TO ANTIMICROBIAL PRESCRIBING GUIDELINES IN LAO PDR

Vilada Chansamouth<sup>1</sup>, Danoy Chommanam<sup>1</sup>, Mayfong Mayxay<sup>2</sup>, Sue Lee<sup>3</sup>, Pimnara Peerawaranum<sup>3</sup>, Mavuto Mukaka<sup>3</sup>, Manivanh Vongsouvath<sup>1</sup>, Susath Vongphachanh<sup>4</sup>, Sommay Keomany<sup>5</sup>, Khamla Silavanh<sup>6</sup>, Nunthakone Sihapanya<sup>7</sup>, Phouvieng Duangmala<sup>8</sup>, Khamsai Detleuxay<sup>9</sup>, Valy Keoluangkhot<sup>10</sup>, Sommana Rattana<sup>9</sup>, Nick Day<sup>3</sup>, H. Rogier van Doorn<sup>11</sup>, Paul Turner<sup>12</sup>, Paul Newton<sup>13</sup>, Elizabeth Ashley<sup>1</sup>

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#### VACCINE-INDUCED ANTIBODY LEVELS IN A PEDIATRIC POPULATION WITH WIDESPREAD ANTIBIOTIC USE

Sarah B. Kohl<sup>1</sup>, Dorothy Dickson<sup>2</sup>, Masud Alam<sup>3</sup>, E. Ross Colgate<sup>2</sup>, William A. Petri, Jr.<sup>4</sup>, Rashidul Haque<sup>3</sup>, Fiona van der Klis<sup>5</sup>, Beth D. Kirkpatrick<sup>2</sup>, Benjamin Lee<sup>2</sup> <sup>1</sup>University of Vermont Larner College of Medicine, Burlington, VT, United States, <sup>2</sup>Larner College of Medicine, Translational Global Infectious Disease Research Center, Burlington, VT, United States, <sup>3</sup>International Centre for Diarrhoeal Disease Research, Civision of Infectious Disease, Parasitology and Emerging Infections Laboratory, Dhaka, Bangladesh, <sup>4</sup>UVA School of Medicine, Division of Infectious Diseases & International Health, Charlottesville, VA, United States, <sup>5</sup>Netherlands National Institute for Public Health and the Environment, Bilthoven, Netherlands

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#### DISCORDANT DATING OF PREGNANCY BY LAST MENSTRUAL PERIOD VERSUS ULTRASOUND AND ASSOCIATED BIRTH OUTCOMES IN RURAL UGANDA

Jimmy Kizza<sup>1</sup>, Anju Ranjit<sup>2</sup>, Abel Kakuru<sup>1</sup>, Miriam Nakalembe<sup>3</sup>, Tonny Rachkara<sup>1</sup>, Miriam Aguti<sup>1</sup>, Timothy Ssemukuye<sup>1</sup>, James Bwire<sup>1</sup>, Tamara D. Clark<sup>2</sup>, Philip J. Rosenthal<sup>2</sup>, Prasanna Jagannathan<sup>4</sup>, Michele E. Roh<sup>5</sup>, Moses R. Kamya<sup>6</sup>, Grant Dorsey<sup>2</sup>, Stephanie Gaw<sup>2</sup>

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#### CLINICAL PRESENTATION, TREATMENT, AND OUTCOMES OF NEUROCYSTICERCOSIS AT AN ACADEMIC MEDICAL CENTER IN THE STATE OF FLORIDA, USA

Waverly Leonard<sup>1</sup>, Maggie Zawoy<sup>1</sup>, Norman Beatty<sup>2</sup>

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#### IMPACT OF SULFADOXINE-PYRIMETHAMINE FOR MALARIA PREVENTION IN PREGNANCY ON THE RISK OF REPRODUCTIVE TRACT INFECTIONS: A RANDOMIZED CLINICAL TRIAL

Harriet Ochokoru Adrama, Abel Kakuru, Jimmy Kizza, Mirriam Aguti Infectious Diseases Research Collaboration (IDRC) Uganda, Kampala, Uganda

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#### EPIDEMIOLOGY, CLINICAL PRESENTATION, AND MANAGEMENT OF SNAKEBITES IN GHANA: INSIGHTS FROM A RETROSPECTIVE STUDY AT A DISTRICT-LEVEL HOSPITAL

Melvin K. Agbogbatey<sup>1</sup>, Benno Kreuels<sup>2</sup>, Kwaku I. Duah<sup>1</sup>, Leslie M. Aglanu<sup>1</sup>, Jacqueline G. Asibey<sup>3</sup>, Jade Rae<sup>2</sup>, Jurgen May<sup>2</sup>, John H. Amuasi<sup>1</sup>

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# MPOX INFECTION IN A POSTPARTUM PATIENT: A CASE REPORT FROM GHANA

Gordon Kwasi Ampomah Amoh<sup>1</sup>, Beatrice S. Omidiji<sup>2</sup>, Joyce O. Inoni<sup>1</sup>, Priscilla N. E. W. Vandyck-Sev<sup>1</sup>

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Nginache Nampota-Nkomba<sup>1</sup>, Osward M. Nyirenda<sup>2</sup>, Victoria Mapemba<sup>2</sup>, Priyanka D. Patel<sup>3</sup>, Happy C. Banda<sup>3</sup>, Felistas Mwakiseghile<sup>3</sup>, Theresa Misiri<sup>3</sup>, Richard Wachepa<sup>3</sup>, John Ndaferankhande<sup>3</sup>, Bright Lipenga<sup>3</sup>, Robert S. Heyderman<sup>4</sup>, Marcela Pasetti<sup>1</sup>, Leslie P. Jamka<sup>1</sup>, Shrimati Datta<sup>1</sup>, Melita A. Gordon<sup>3</sup>, Matthew B. Laurens<sup>1</sup>, Kathleen M. Neuzil<sup>1</sup> <sup>1</sup>University of Maryland School of Medicine, Baltimore, MD, United States, <sup>2</sup>Blantyre Malaria Project, Blantyre, Malawi, <sup>3</sup>Malawi Liverpool Wellcome Programme, Blantyre, Malawi, <sup>4</sup>University College London, London, United Kingdom

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Nancy Piper Jenks<sup>1</sup>, Quratulain Zeeshan<sup>1</sup>, Vasanthi Arumugan<sup>1</sup>, Aarathi Nagaraja<sup>1</sup>, Iris Arzu<sup>1</sup>, Sristi Shrestha<sup>1</sup>, Christina Coyle<sup>2</sup>

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**Carla Johnson**<sup>1</sup>, Brenda Karumbo<sup>1</sup>, Dagmara McGuinness<sup>1</sup>, Yoana Doncheva<sup>1</sup>, Andrew Cameron<sup>1</sup>, Kevin Couper<sup>2</sup>, Peter Bankhead<sup>3</sup>, Nigel Jamieson<sup>1</sup>, Christopher Moxon<sup>1</sup> <sup>1</sup>University of Glasgow, Glasgow, United Kingdom, <sup>2</sup>University of Manchester, Manchester, United Kingdom, <sup>3</sup>University of Edinburgh, Edinburgh, United Kingdom

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Molly B. Klarman<sup>1</sup>, Xiaofei Chi<sup>1</sup>, Youseline Cajusma<sup>1</sup>, Katelyn E. Flaherty<sup>1</sup>, Jude Ronald Beausejour<sup>1</sup>, Lerby Exantus<sup>2</sup>, Valery M. Beau de Rochars<sup>1</sup>, Torben K. Becker<sup>1</sup>, Chantale Baril<sup>2</sup>, Matthew J. Gurka<sup>3</sup>, Eric J. Nelson<sup>1</sup>

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Anyela Lozano-Parra<sup>1</sup>, Víctor Herrera<sup>2</sup>, Elsa Marina Rojas<sup>3</sup>, Carlos Andrés Calderón<sup>3</sup>, Reynaldo Badillo<sup>4</sup>, Rosa Margarita Gélvez Ramírez<sup>3</sup>, María Isabel Estupiñán Cárdenas<sup>3</sup>, José Fernando Lozano<sup>3</sup>, Luis Ángel Villar<sup>5</sup>

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Brice Armel Nembot Fogang<sup>1</sup>, Linda Batsa Debrah<sup>1</sup>, Michael Owusu<sup>2</sup>, Adjobimey Tomabu<sup>3</sup>, Achim Hoerauf<sup>3</sup>, Alexander Yaw debrah<sup>4</sup>

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Sanjai Nagendra<sup>1</sup>, Anastasia Furtak<sup>2</sup>, Farrrukh Azmi<sup>1</sup>, Ketan Patel<sup>1</sup> <sup>1</sup>Labcorp, Burlington, NC, United States, <sup>2</sup>Baptist Medical Center, Nalerigu, Ghana

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#### NOT ALL SEVERE MALARIA CASES ARE SEVERE: IS IT TIME TO REDEFINE SEVERITY CRITERIA FOR MALARIA IN NON-ENDEMIC REGIONS

LEIRE BALERDI SARASOLA<sup>1</sup>, MUÑOZ JOSE<sup>1</sup>, PEDRO FLEITAS<sup>2</sup>, NATALIA RODRIGUEZ-VALERO<sup>1</sup>, ALEX ALMUEDO-RIERA<sup>1</sup>, ALBA ANTEQUERA<sup>1</sup>, CARME SUBIRA<sup>1</sup>, IGNACIO GRAFIA<sup>1</sup>, MARIA ORTIZ-FERNANDEZ<sup>1</sup>, TERESA DE ALBA<sup>1</sup>, MIRIAM MARTINEZ-ALVAREZ<sup>1</sup>, MARIA EUGENIA VALLS<sup>1</sup>, CLAUDIO PAROLO<sup>3</sup>, PEDRO CASTRO<sup>1</sup>, DANIEL CAMPRUBÍ-FERRER<sup>1</sup>

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#### FIELD EVALUATION OF A NOVEL SEMI-QUANTITATIVE POINT-OF-CARE DIAGNOSTIC FOR G6PD DEFICIENCY IN INDONESIA

Arkasha Sadhewa<sup>1</sup>, Lydia V. Panggalo<sup>2</sup>, Illene Nanine<sup>2</sup>, Ric N. Price<sup>1</sup>, Kamala Thriemer<sup>1</sup>, Ari W. Satyagraha<sup>3</sup>, Benedikt Ley<sup>1</sup>

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Pedro Marcal<sup>1</sup>, Anushka Saha<sup>1</sup>, Trirupa Chakraborty<sup>2</sup>, Priyamvada Guha Roy<sup>2</sup>, Jishnu Das<sup>2</sup>, Lorena Oliveira<sup>3</sup>, Joaquim P. Brito-de-Sousa<sup>4</sup>, Olindo A. Martins-Filho<sup>4</sup>, Lucia A.O Fraga<sup>5</sup>, Jessica K. Fairley<sup>6</sup>, Aniruddh Sarkar<sup>1</sup>

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André Domche<sup>1</sup>, Linda Djune-Yemeli<sup>1</sup>, Hugues C. Nana-Djeunga<sup>2</sup>, Flobert Njiokou<sup>1</sup>, Flobert Njiokou<sup>1</sup>, Joseph Kamgno<sup>2</sup>

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Federico Giovanni Gobbi<sup>1</sup>, Bayode Adegbite<sup>2</sup>, Fabrice M'Baidiguim<sup>2</sup>, Anita Lumeka<sup>2</sup>, Andrea Obele Ndong<sup>2</sup>, Cristina Mazzi<sup>1</sup>, Jean Ronald Edoa<sup>2</sup>, Yabo Honkpehedji<sup>2</sup>, Jeannot Zinsou<sup>2</sup>, Jean Claude Dejon-Agobé<sup>2</sup>, Zoleko-Manego Rella<sup>2</sup>, Michael Ramharter<sup>2</sup>, Ayola Akim Adegnika<sup>2</sup>, Francesca Tamarozzi<sup>1</sup>

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#### ELIMINATION GOALS FOR ONCHOCERCIASIS CAN BE PROGRESSED FASTER BY INCORPORATING TREATMENT WITH REPURPOSED DRUGS THAT TARGET VARIOUS STAGES OF FILARIAL WORMS

Sara Lustigman<sup>1</sup>, James W. Janetka<sup>2</sup>, Denis Voronin<sup>3</sup>, Judy A. Sakanari<sup>4</sup>, Makedonka Mitreva<sup>5</sup>

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#### EVALUATION OF A NOVEL BIPLEX RAPID DIAGNOSTIC TEST FOR ANTIBODY RESPONSES TO *LOA LOA* AND *ONCHOCERCA VOLVULUS* INFECTIONS

Jeremy T. Campillo<sup>1</sup>, Marco Biamonte<sup>2</sup>, Marlhand C. Hemilembolo<sup>3</sup>, Francois Missamou<sup>3</sup>, Michel Boussinesq<sup>4</sup>, Sebastien D S Pion<sup>4</sup>, Cédric B. Chesnais<sup>4</sup> <sup>1</sup>Inserm, Montpellier, France, <sup>2</sup>Drugs & Diagnostics for Tropical Diseases, San Diego, CA, United States, <sup>3</sup>Programme National de Lutte contre l'Onchocercose, Brazzaville, Republic of the Congo, <sup>4</sup>Institut de recherche pour le développement, Montpellier, France

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#### RANDOMIZED, DOUBLE-BLIND TRIAL EVALUATING THE SAFETY AND EFFICACY OF A 3- OR 5-DAY COURSE OF LEVAMISOLE (2.5 MG/KG) IN SUBJECTS WITH *LOA LOA* MICROFILARAEMIA

Jérémy T. Campillo<sup>1</sup>, Cédric B. Chesnais<sup>2</sup>, Bachiratou Sahm<sup>2</sup>, Marlhand C. Hemilembolo<sup>3</sup>, Sébastien D S Pion<sup>2</sup>, Francois Missamou<sup>3</sup>, Michel Boussinesq<sup>2</sup>

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PROVIDING EVIDENCE ON THE STATUS OF TRANSMISSION OF ONCHOCERCIASIS IN 5 COUNTIES IN LIBERIA

Sonnie Ziama Gbewo Ministry of Health, Paynesville, Liberia

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#### DEVELOPMENT OF A SIMPLE AND SENSITIVE SPLINTR LIGASE MEDIATED MICRORNA DETECTION METHOD FOR FILARIAL MIR71 AND BANTAM

Zhiru Li, Katell Kunin, Amit Sinha, Larry A. McReynolds, Clotilde K.S. Carlow New England Biolabs, Ipswich, MA, United States

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#### PERFORMANCE OF ELISAS BASED ON CHIMERIC PROTEINS TO DETECT ANTIBODY TO ONCHOCERCA VOLVULUS INFECTION

Sylvia Ossai<sup>1</sup>, Yong Wang<sup>1</sup>, Kimberly Y. Won<sup>1</sup>, Kathy Kamath<sup>2</sup>, Jack Reifert<sup>2</sup>, William E. Secor<sup>1</sup>, Sukwan Handali<sup>1</sup>

<sup>1</sup>Centers for disease control and Prevention, Atlanta, GA, United States, <sup>2</sup>Seraimmune, Goleta, CA, United States

## DEVELOPMENT OF A NEW RAPID DIAGNOSTIC TEST TO SUPPORT ONCHOCERCIASIS ELIMINATION

Marion Darnaud<sup>1</sup>, Karen Louis<sup>1</sup>, Marie Koenig<sup>1</sup>, Viet-Dung Tran<sup>1</sup>, Charlotte Mignon<sup>1</sup>, Stéphanie Donnat<sup>1</sup>, Romain Clément<sup>1</sup>, Sasisekhar Bennuru<sup>2</sup>, Thomas Nutman<sup>2</sup>, Jacob Souopgui<sup>3</sup>, Robert Colebunders<sup>4</sup>, Linda Djune-Yemeli<sup>5</sup>, Hugues C. Nana-Djeunga<sup>5</sup>, Joseph Kamgno<sup>5</sup>, Dziedzom K. de Souza<sup>6</sup>, Bruno P. Mmbando<sup>7</sup>, Michelle Chavez<sup>8</sup>, Bret Sheffield<sup>8</sup>

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#### MAMMALIAN EXPRESSED OV16 ELISA PERFORMANCE ON GHANA PROGRAM SAMPLES IN COMPARISON TO ELUTED DRIED BLOOD SPOT ON OV16 RAPID DIAGNOSTIC TEST

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# WHO LABORATORY CAPACITY REVIEW TOOL FOR ONCHOCERCIASIS

Stephen Lindstrom<sup>1</sup>, Vanessa Scholtens<sup>2</sup>, William E. Secor<sup>1</sup>, Jessica E. Prince-Guerra<sup>1</sup>, Patrick Lammie<sup>2</sup>, Sammy M. Njenga<sup>3</sup>, Camilla L. Ducker<sup>3</sup>, Maria Rebollo Polo<sup>3</sup> <sup>1</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>2</sup>The Task Force for Global Health, Atlanta, GA, United States, <sup>3</sup>World Health Organization, Geneva, Switzerland

## 6588

#### SAFETY OF A SINGLE DOSE OF MOXIDECTIN AND OF IVERMECTIN: FIRST RESULTS OF A LARGE STUDY IN INDIVIDUALS LIVING IN AN ONCHOCERCIASIS ENDEMIC AREA OF THE DEMOCRATIC REPUBLIC OF CONGO AND IN AN ONCHOCERCIASIS-LYMPHATIC FILARIASIS CO-ENDEMIC AREA IN CÔTE D'IVOIRE

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## FEASIBILITY OF A NOVEL ONCHOCERCIASIS RAPID DIAGNOSTIC TEST IN MARIDI, SOUTH SUDAN

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## 6590

#### A ROBOTIC AI MICROSCOPE FOR AUTONOMOUS FILARIASIS QUANTIFICATION BASED ON SMARTPHONES AND OPTICAL MICROSCOPY

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#### 6591

# PREGNANCY, ONCHOCERCA VOLVULUS INFECTION AND IVERMECTIN USE: A CROSS-SECTIONAL STUDY

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## 6592

#### PRE-CLINICAL DEVELOPMENT OF THE ANTI-WOLBACHIAL DRUG CORALLOPYRONIN A TO TREAT FILARIASES: END RUN TO PHASE 1 TRIAL

Kenneth Pfarr<sup>1</sup>, Andrea Schiefer<sup>1</sup>, Katharina Rox<sup>2</sup>, Frederic Risch<sup>1</sup>, William Shafer<sup>3</sup>, Jennifer Edwards<sup>4</sup>, Magnus Unemo<sup>5</sup>, Gabriele Bierbaum<sup>1</sup>, Stefan Kehraus<sup>6</sup>, Miriam Grosse<sup>2</sup>, Rolf Müller<sup>7</sup>, Tanja Schneider<sup>6</sup>, Thomas Hesterkamp<sup>8</sup>, Marc Stadler<sup>2</sup>, Marc P. Hübner<sup>1</sup>, Karl G. Wagner<sup>6</sup>, Achim Hoerauf<sup>1</sup>

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## Helminths – Nematodes – Intestinal Nematodes

### 6593

#### PERFORMANCE OF QUANTITATIVE PCR FOR THE DETECTION OF SOIL-TRANSMITTED HELMINTHS IN COMPARISON TO KATO-KATZ PRECEDING AND FOLLOWING COMMUNITY-WIDE MASS DRUG ADMINISTRATION IN TAMIL NADU, INDIA

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#### (ACMCIP Abstract)

#### 6594

#### STATUS OF SOIL TRANSMITTED HELMINTHIASIS AND THEIR RISK-FACTORS AMONG SCHOOL PUPILS AND NOMADIC -FULANIS IN SELECTED COMMUNITIES IN OSUN-STATE, SOUTHWEST, NIGERIA

Akinlabi Mohammed Rufai Osun State University, Osogbo, Nigeria

#### (ACMCIP Abstract)

#### 6595

#### EVALUATION OF STRONGYLOIDES STERCORALIS SS-IR RECOMBINANT ANTIGEN FOR DIAGNOSTIC AND SURVEILLANCE USING A BEAD-BASED IMMUNOASSAY

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#### (ACMCIP Abstract)

#### 6596

## EUKARYOTIC ENTERIC PATHOGENS RELATIONSHIP WITH THE GUT FUNGAL COMMUNITY IN MALIAN CHILDREN

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#### (ACMCIP Abstract)

#### 6597

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#### PHARMACOPHORE APPROACH TO THE PREDICTION OF ACTIVATORS OF DAF-12 RECEPTOR TO DEACTIVATE AUTO-INFECTION LIFE CYCLE STAGE OF STRONGYLOIDES STERCORALIS

Erica A. Akanko<sup>1</sup>, Desmond O. Amoah<sup>1</sup>, Michael Cappello<sup>2</sup>, Samuel K. Kwofie<sup>3</sup>, Michael D. Wilson<sup>1</sup>

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### (ACMCIP Abstract)

#### 6598

#### EFFECT OF KNOWLEDGE, AWARENESS AND PARTICIPATION ON SUSTAINED REDUCTION OF SOIL-TRANSMITTED HELMINTH INFECTIONS AMONG SCHOOL-AGE CHILDREN IN RIVERS STATE NIGERIA

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

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#### (ACMCIP Abstract)

#### 6599

#### A TWO-PRONGED BIG DATA APPROACH TO CRITICALLY ANALYZE STRONGYLOIDES STERCORALIS INFECTIONS AMONG RURAL, IMPOVERISHED SOUTH CAROLINA RESIDENTS

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#### (ACMCIP Abstract)

#### 6600

#### APPLICATION OF QPCR TO DETERMINE COMMUNITY PREVALENCE OF STRONGYLOIDES STERCORALIS IN SOUTHERN INDIA

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### (ACMCIP Abstract)

## 6601

#### IMPACT OF PREVENTIVE CHEMOTHERAPY ON THE STATUS OF SOIL-TRANSMITTED HELMINTHIASIS ACROSS THREE IMPLEMENTATION UNITS IN ONDO STATE, NIGERIA

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#### (ACMCIP Abstract)

#### RESISTANCE OF SOIL TRANSMITTED HELMINTHS TO SINGLE DOSE ALBENDAZOLE AND RESULTS OF COMBINED THERAPY WITH ALBENDAZOLE AND IVERMECTIN IN CHILDREN AGED 2 TO 11 YEARS IN THE PERUVIAN AMAZON

Paul Francis Garcia Bardales<sup>1</sup>, Greisi Curico Huanci<sup>2</sup>, Tackeshy N. Pinedo Vazquez<sup>1</sup>, Wagner V. Shapiama Lopez<sup>1</sup>, Maribel Paredes Olortegui<sup>1</sup>, Francesa Schiaffino<sup>3</sup>, Pablo Penataro Yori<sup>4</sup>, Josh M. Colston<sup>4</sup>, Thomas G. Flynn<sup>4</sup>, Graciela R. Meza Sánchez<sup>2</sup>, Hermann F. Silva Delgado<sup>5</sup>, Richard A. Oberhelman<sup>6</sup>, Margaret N. Kosek<sup>7</sup> 'Asosciacion Benefica Prisma, Iquitos, Peru, <sup>2</sup>Universidad Nacional de la Amazonia Peruana, Iquitos, Peru, <sup>3</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>4</sup>University of Virginia, Charlottesville, VA, United States, <sup>5</sup>Universidad Nacional de la Amazonia Peruana UNAP, Iquitos, Peru, <sup>6</sup>Tulane University, New Orleans, LA, United States, <sup>7</sup>Universidad Nacional de la Amazonia Peruana, Charlottesville, VA, United States

#### (ACMCIP Abstract)

#### 6603

#### IDENTIFICATION OF NOVEL BIOMARKERS FOR SEROSURVEILLANCE OF HUMAN HOOKWORM INFECTIONS

Santosh George<sup>1</sup>, Hetali Shah<sup>1</sup>, Vashti Irani<sup>1</sup>, Lisa Marie Harrison<sup>2</sup>, Michael D. Wilson<sup>3</sup>, Michael Cappello<sup>4</sup>, Andrew Levin<sup>1</sup>

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#### (ACMCIP Abstract)

## 6604

#### SOIL-TRANSMITTED HELMINTHS (STHS) IDENTIFIED IN ENVIRONMENTAL SAMPLES (SOIL AND FECAL MATTER) COLLECTED FROM SOME PRIMARY SCHOOLS IN GHANA

Lordina Nkansah-Gyan, Papa Kofi Amissah-Reynolds, Victor Agyei, Opoku Gyamfi, Philip Ofori Asante, Edward Ankapong, Frank Essem, Kofi Agyapong Addo Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development, Kumasi, Ghana

(ACMCIP Abstract)

## 6605

#### SEROPREVALENCE AND ASSOCIATED FACTORS OF STRONGYLOIDES STERCORALIS INFECTION AMONG AT-RISK POPULATION IN NORTHERN TAIWAN

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#### (ACMCIP Abstract)

#### 6606

#### HIGH PREVALENCE OF INTESTINAL PARASITES AMONG ADULTS LIVING IN 36 VILLAGES IN NORTHERN GABON AND RELATIONSHIP WITH BODY MASS INDEX : CROSS-SECTIONAL STUDY

Noé Patrick M'Bondoukwé<sup>1</sup>, Luccheri Ndong Akomezoghe<sup>1</sup>, Jacques Mari Ndong Ngomo<sup>2</sup>, Roger Haldry Sibi Matotou<sup>1</sup>, Mérédith Flore Ada Mengome<sup>1</sup>, Valentin Migueba<sup>1</sup>, Bridy Chelsy Moutombi Ditombi<sup>1</sup>, Coella Joyce Mihindou<sup>1</sup>, PHYLECOG PARCAM team<sup>1</sup>, Denise Patricia Mawili Mboumba<sup>1</sup>, Marielle Karine Bouyou Akotet<sup>1</sup>

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#### (ACMCIP Abstract)

## 6607

#### THE OCCURRENCE OF CROSS-HOST SOIL TRANSMITTED HELMINTH (ASCARIS, TRICHURIS AND ANCYLOSTOMA SPP.) INFECTIONS IN HUMANS AND DOMESTIC/LIVESTOCK ANIMALS: A SYSTEMATIC REVIEW

Uniqueky Gratis Mawrie<sup>1</sup>, Riviarynthia Kharkongor<sup>2</sup>, Rajiv Sarkar<sup>2</sup>, Rachel Pullan<sup>1</sup> <sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Indian Institute of Public Health, Shillong, Meghalaya, India

#### (ACMCIP Abstract)

## 6608

#### ENVIRONMENTAL SURVEILLANCE TOOLS FOR MONITORING COMMUNITY-LEVEL SOIL-TRANSMITTED HELMINTH PREVALENCE

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(ACMCIP Abstract)

## 6609

TARGET MOLECULES OF BACILLUS THURINGIENSIS CRYSTAL PROTEINS AND ANTHELMINTHIC COMPOUNDS IN C. ELEGANS

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(ACMCIP Abstract)

## 6610

CHARACTERIZING GENETIC DIVERSITY AND POPULATION STRUCTURE OF HUMAN HOOKWORMS USING WHOLE GENOME DATA FROM ACCESSIBLE SAMPLE TYPES

Kaylee S. Herzog<sup>1</sup>, Lisa M. Harrison<sup>2</sup>, Michael D. Wilson<sup>3</sup>, Michael Cappello<sup>2</sup>, Joseph R. Fauver<sup>1</sup>

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## (ACMCIP Abstract)

## 6611

#### PREVALENCE AND RISK FACTORS OF SOIL-TRANSMITTED HELMINTH INFECTIONS AMONG SCHOOL CHILDREN IN BIOKO NORTE PROVINCE, EQUATORIAL GUINEA

Alejandro Lopelo Bolopa<sup>1</sup>, Elizabeth Nyakarungu<sup>1</sup>, Cristina Nka Eskolete<sup>1</sup>, Vicente Urbano Nsue<sup>2</sup>, Micaela Mbomio<sup>1</sup>, Wonder P. Phiri<sup>3</sup>, Carlos A. Guerra<sup>4</sup>, Guillermo A. García<sup>4</sup>, Claudia A. Daubenberger<sup>5</sup>, Florentino Abaga Ondo<sup>2</sup>

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#### (ACMCIP Abstract)

#### INOCULUM DEPENDENT ANEMIA AND HUMORAL IMMUNE RESPONSES IN HAMSTERS INFECTED WITH A FIELD-ADAPTED STRAIN OF NECATOR AMERICANUS

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#### (ACMCIP Abstract)

#### 6613

#### **GUT DYSBIOSIS IN MATERNAL HELMINTH INFECTION**

Meagan A. Barry<sup>1</sup>, Jordan Lawson<sup>1</sup>, Joselynn R. Wallace<sup>1</sup>, Veronica Tallo<sup>2</sup>, Marianne J. Sagliba<sup>2</sup>, Amabelle J. Amoylen<sup>2</sup>, Jennifer F. Friedman<sup>1</sup>, Jeffrey A. Bailey<sup>1</sup>, Ashok Ragavendran<sup>1</sup>, Emily A. McDonald<sup>1</sup>

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#### (ACMCIP Abstract)

### 6614

#### DISENTANGLING THE COVARYING EFFECTS OF MOTOR DEVELOPMENT AND WEANING FROM BREAST MILK ON INTESTINAL PARASITE INFECTIONS AMONG CHILDREN AGED 0-2 YEARS IN NORTHERN COASTAL ECUADOR

Jesse D. Contreras<sup>1</sup>, Manuel Calvopiña<sup>2</sup>, Caitlin Hemlock<sup>3</sup>, William Cevallos<sup>2</sup>, Gwenyth O. Lee<sup>4</sup>, Karen Levy<sup>3</sup>, Joseph N.S. Eisenberg<sup>1</sup>

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(ACMCIP Abstract)

## **HIV and Tropical Co-Infections**

#### 6615

#### HIV MORTALITY TRENDS AMONG THE UNITED STATES POPULATION, FROM 1999-2023: A CDC WONDER DATABASE STUDY

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#### T CELL RECEPTOR REPERTOIRE ANALYSIS REVEALS A DISTINCT PHENOTYPE OF *MYCOBACTERIUM TUBERCULOSIS* (MTB) SPECIFIC T CELL FUNCTION IN PEOPLE LIVING WITH HIV (PLHIV)

Elizabeth Tchaiwe Chimbayo<sup>1</sup>, Jimmy Banda<sup>1</sup>, Steven Mitini Nkhoma<sup>1</sup>, David Mhango<sup>1</sup>, Anstead Kamkwatira<sup>1</sup>, Paul Garside<sup>2</sup>, James Brewer<sup>2</sup>, Henry Mwandumba<sup>1</sup> <sup>1</sup>Malawi Liverpool Wellcome Programme, Blantyre, Malawi, <sup>2</sup>University of Glasgow, Glasgow, United Kingdom

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#### THE PREVALENCE OF CRYPTOCOCCAL ANTIGENEMIA AMONG PATIENTS WITH ADVANCED HIV DISEASES IN SOUTHWEST AND NORTHCENTRAL NIGERIA

JUSTIN ONYEBUCHI NWOFE, Mary Onyenike, Adeola Awolola, Olabamiji Osho, Patrick Okonkwo, Daniel Offie, Emmanuel Ojo, Femi Emmanuel Owolagba, Eke Ofuche, Jay Samuels

APIN Public Health Initiatives, Abuja, Nigeria

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#### THREE NOVEL EPIGENETIC-MODIFYING COMPOUNDS IDENTIFIED AS HIV LATENCY-REVERSING AGENTS IN GHANA

Christopher Zaab-Yen Abana<sup>1</sup>, Anthony Twumasi Boateng<sup>1</sup>, Araba Abaidoo-Myles<sup>1</sup>, James Odame Aboagye<sup>1</sup>, Kolin M. Clark<sup>2</sup>, Liang Shan<sup>2</sup>, Helena Lamptey<sup>3</sup>, Osbourne Quaye<sup>4</sup>, Evelyn Yayra Bonney<sup>1</sup>, George Boateng Kyei<sup>1</sup>

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HIV SCREENING ON NEUROSURGICAL PATIENTS IN SRI LANKA; INSIGHT TOWARDS WHEN TO DO IT

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#### IMPACT OF MHV-68'S HEPATOTROPISM ON A SUBSEQUENT LIVER INFECTION BY MALARIA PARASITES

Andreia F. Mósca<sup>1</sup>, Beatriz Cancio<sup>1</sup>, Viriato M'Bana<sup>2</sup>, Ana Fraga<sup>1</sup>, Helena Nunes-Cabaco<sup>1</sup>, Pedro Simas<sup>3</sup>, **Miguel Prudencio**<sup>1</sup>

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#### RESPIRATORY VIRUSES AND BACTERIA CARRIAGE AMONG PEOPLE LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS IN ACCRA, GHANA

Lawrencia Ami Emefa Ativi<sup>1</sup>, Mildred Adusei-Poku<sup>1</sup>, Beverly Egyir<sup>2</sup> <sup>1</sup>University of Ghana, ACCRA, Ghana, <sup>2</sup>Noguchi Memorial Institute for Medical Research, ACCRA, Ghana

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#### PLACENTAL AND CONGENITAL MALARIA IN HIV POSITIVE PREGNANT WOMEN AND HIV EXPOSED NEONATES IN ABUJA NIGERIA

Chinyere Nneka Ukaga<sup>1</sup>, Treasure Njideka Njokuobi<sup>2</sup>, Ann Ijeoma Ogomaka<sup>2</sup>, Chika Maureen Ezenwa<sup>2</sup>

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#### THE IMPACT OF HEPATITIS B CO-INFECTION ON T-CELL RESPONSES IN VIROLOGICALLY SUPPRESSED HUMAN IMMUNODEFICIENCY VIRUS PATIENTS ON ANTIRETROVIRAL THERAPY IN GHANA

Helena Lamptey<sup>1</sup>, **Abigail N A Pobee**<sup>1</sup>, James O. Aboagye<sup>1</sup>, Anthony T. Boateng<sup>1</sup>, Christopher Z-Y Abana<sup>1</sup>, Kwadwo Asamoah Kusi<sup>1</sup>, Evelyn Y. Bonney<sup>1</sup>, George B. Kyei<sup>2</sup> <sup>1</sup>Noguchi Memorial Institute for Medical Research, Legon, Accra, Ghana, <sup>2</sup>Department of Medicine, Washington University School of Medicine in St Louis, St. Louis, MO, United States

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EXPLORING HISTOPLASMOSIS IN NON-ENDEMIC AREAS: COMPARATIVE ANALYSIS OF CLINICAL FEATURES, RISK FACTORS, AND OUTCOME OF HISTOPLASMOSIS IN HIV-POSITIVE AND HIV-NEGATIVE COHORTS IN WESTERN INDIA

Akshatha Ravindra<sup>1</sup>, Deepak Kumar<sup>1</sup>, Santhanam Naguthevar<sup>1</sup>, Abhishek G P<sup>2</sup>, Gopal Krishana Bohra<sup>1</sup>

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#### UNVEILING THE NEXUS: PREVALENCE AND ATTRIBUTES OF TUBERCULOSIS POSITIVITY AMONG PEOPLE LIVING WITH HIV IN BANGLADESH

Farzana Zaman

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#### AGEING AND FRIALTY: THE CASE OF HIV-POSITIVE AND HIV-NEGATIVE INDIVIDUALS IN ASUTIFI-SOUTH DISTRICT AND TECHIAMAN MUNICIPALITY IN AHAFO AND BONO REGIONS OF GHANA

Paul Ntiamoah<sup>1</sup>, Max E. Ananni-Akollor<sup>1</sup>, Dennis Adu-Gyasi<sup>2</sup>, Magaret T. Frempong<sup>1</sup>, Mohamed Mutocheluh<sup>3</sup>, PatricK W. Narkwa<sup>3</sup>, Samuel K. Aordzo<sup>1</sup>

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# TATTOOING, CHRONIC DIARRHEA AND ANEMIA - A CLINICAL TRIAD OF HIV INFECTION

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#### OPTIMIZING SEROLOGICAL DIAGNOSIS OF TOXOPLASMOSIS: HETEROLOGOUS EXPRESSION OF GRA1 PROTEIN OF T. GONDII IN E. COLI AS A KEY ANTIGEN IN CHRONIC INFECTION

Briguitte Fiorella Rivera<sup>1</sup>, Stefany Quiñones<sup>1</sup>, Luis Canales<sup>1</sup>, Alonso Flores<sup>1</sup>, Kevin Obando<sup>1</sup>, Jimena Raez<sup>1</sup>, Seichi Mochizuki<sup>1</sup>, Fabrizio Vasquez<sup>1</sup>, Robert Gilman<sup>2</sup>, Mirko Zimic<sup>1</sup>, Maritza Calderon<sup>1</sup>, Patricia Sheen<sup>1</sup>

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#### DETERMINANTS OF HEALTH AFFECTING THE CARE CASCADE OF VULNERABLE PEOPLE LIVING WITH HIV IN SENEGAL

Yasmine M. Elmi<sup>1</sup>, Mohamed N'dongo Sangaré<sup>2</sup>, Louise Fortes<sup>3</sup>, Diadie Saer<sup>3</sup>, Fatimata Wone<sup>3</sup>, Mabel Carabali<sup>1</sup>

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# UNVEILING A BROADER STI SPECTRUM: THE ADVANTAGES OF MULTIPLEX PCR FOR TRANSGENDER WOMEN'S HEALTH

**Alvaro Jose Martinez Valencia**<sup>1</sup>, Jose David Ramírez Ayala<sup>1</sup>, Jonny Garcia-Luna<sup>1</sup>, Sebastian Silva-Pena<sup>1</sup>, Juan Hurtado<sup>1</sup>, Laura Aguirre-Martinez<sup>1</sup>, Adrian Smith<sup>2</sup>, Justin Radolf<sup>3</sup>, Juan Salazar<sup>3</sup>

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#### NEURODEVELOPMENTAL OUTCOMES IN UGANDAN PERINATALLY-INFECTED CHILDREN WITH HIV AT PRESCHOOL AGE WHO ARE NOT IMMUNE-COMPROMISED

**Jenus Shrestha**<sup>1</sup>, Michael J. Boivin<sup>1</sup>, Itziar M. Familiar-Lopez<sup>1</sup>, Joseph Wong<sup>2</sup> <sup>1</sup>*Michigan State University, East Lansing, MI, United States, <sup>2</sup>University of California - San Francisco, San Francisco, CA, United States* 

## 6632

#### INTEGRATING SMOKING CESSATION INTO HIV CARE SETTINGS: A SYSTEMATIC REVIEW OF THE EVIDENCE BASE ON INTERVENTION EFFECTIVENESS AND COST-EFFECTIVENESS

Van M. Nguyen<sup>1</sup>, Thanh Hoang<sup>1</sup>, Yesim Tozan<sup>2</sup>, Mikael Svensson<sup>1</sup>, Minh V. Hoang<sup>3</sup>, Nawi Ng<sup>1</sup>

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#### COST ANALYSIS OF SMOKING CESSATION INTERVENTIONS FOR SMOKERS WITH HIV IN HIV OUTPATIENT CLINIC SETTINGS IN VIETNAM

Van M. Nguyen<sup>1</sup>, Donna Shelley<sup>2</sup>, Nam Nguyen<sup>3</sup>, Nawi Ng<sup>1</sup>, Mikael Svensson<sup>1</sup>, Minh V. Hoang<sup>4</sup>, Yesim Tozan<sup>5</sup>

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#### 6634

#### LEPROSY, PARASITIC CO-INFECTION, AND FOOD INSECURITY: A CROSS-SECTIONAL STUDY IN MINAS GERAIS, BRAZIL

Alia R. Bly<sup>1</sup>, Heloine M. Leite<sup>2</sup>, Pedro H.F. Marçal<sup>3</sup>, Dirce R. de Oliveira<sup>2</sup>, Maisa Pereira Vieira<sup>2</sup>, Audra Bass<sup>4</sup>, Marcos D.S. Pinheiro<sup>2</sup>, Erica B.M. Silva<sup>2</sup>, Julie A. Clennon<sup>5</sup>, Thomas R. Ziegler<sup>5</sup>, Jeffrey M. Collins<sup>4</sup>, Lance A. Waller<sup>7</sup>, José A. Ferreira<sup>8</sup>, Lucia A.O. Fraga<sup>2</sup>, Jessica K. Fairley<sup>4</sup>

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#### CO-INFECTION DYNAMICS: PREVALENCE AND DEMOGRAPHIC INSIGHTS OF HEPATITIS B AND C AMONG HIV PATIENTS

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## Kinetoplastida and Other Protozoa -Diagnosis and New Detection Tools (Including *Leishmania* and Trypanosomes)

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#### DEVELOPMENT OF A CHAGAS DISEASE SEROLOGIC SCREENING PROGRAM WITHIN AN ACADEMIC PUBLIC SAFETYNET HOSPITAL IN CALIFORNIA

Emily A. Kelly, Carina Marquez, Jonathan D. Davis, Rachel Alfaro Leone, Caryn Bern, Jeffrey D. Whitman

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#### PRELIMINARY VALIDATION OF ACANTHAMOEBA PCR IN A UK PARASITOLOGY REFERENCE LABORATORY

**Owain Donnelly**<sup>1</sup>, Melanie Turner<sup>2</sup>, Laura Nabarro<sup>1</sup>, Spencer Polley<sup>2</sup> <sup>1</sup>Hospital for Tropical Diseases, University College London Hospitals (UCLH) NHS Foundation Trust, London, United Kingdom, <sup>2</sup>Department of Clinical Parasitology, Health Services Laboratories, London, United Kingdom

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#### EVALUATION OF ANTIGENIC REGIONS OF GRA7 FOR THE DIFFERENTIAL DIAGNOSIS OF ACUTE AND CHRONIC PHASES OF TOXOPLASMOSIS

**Valeria Velasquez H**<sup>1</sup>, Sebastian Rodriguez G<sup>1</sup>, Luis Canales G<sup>1</sup>, Fabrizio Vazquez<sup>2</sup>, Robert H. Gilman<sup>3</sup>, Mirko Zimic<sup>1</sup>, Maritza Calderón<sup>2</sup>, Patricia Sheen<sup>1</sup>

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## FIRST DOCUMENTED DETECTION OF *TRYPANOSOMA CRUZI* IN PARATRIATOMA HIRSUTA

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#### EXPLOITING THE HUMAN AND ANIMAL HOST INTERACTION WITH TRYPANOSOMA BRUCEI GAMBIENSE FOR RAPID DIAGNOSTIC TEST DEVELOPMENT

Jones A. Amponsah<sup>1</sup>, Gloria Ivy Mensah<sup>2</sup>, Benjamin Amoani<sup>1</sup>, Irene Ayi<sup>2</sup>, Kennedy Kwasi Addo<sup>2</sup>, Kwadwo Asamoah Kusi<sup>2</sup>, Daniel Haydon<sup>3</sup>, Patient Pati Pyana<sup>4</sup>

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#### EVALUATION OF THE ELISA TECHNIQUE USING SAG1 AND TOTAL ANTIGEN TO DETECT IGG ANTIBODIES AGAINST TOXOPLASMA GONDII IN HEALTHY AND HIGH-RISK HUMAN SERUMS

Camila A. Gutierrez Cobos<sup>1</sup>, Edith S. Málaga Machaca<sup>2</sup>, Gabriel A. Soto Soto<sup>1</sup>, Carol A. Sánchez Chicana<sup>1</sup>, Maritza M. Calderón Sánchez<sup>2</sup>, Juan A. Jiménez Chunga<sup>1</sup> <sup>1</sup>Universidad Mayor de San Marcos, Lima, Peru, <sup>2</sup>Universidad Peruana Cayetano Heredia, Lima, Peru

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#### PROLIFERATING PARASITES- INCREASES IN THE IDENTIFICATION OF CUTANEOUS LEISHMANIASIS CASES IN NEW YORK STATE

Brooke Clemons<sup>1</sup>, Kimberly Mergen<sup>1</sup>, Alissa Collins<sup>1</sup>, Allen Teal<sup>1</sup>, Greicy Zayas<sup>2</sup>, Susan Madison-Antenucci<sup>1</sup>

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#### EVALUATING THE KNOWLEDGE, ATTITUDES, AND PRACTICES OF CHAGAS DISEASE AMONG HEALTH PROFESSIONALS IN SOUTH FLORIDA, USA

## Chanakya R. Bhosale<sup>1</sup>, Ambika Kapil<sup>1</sup>, Thomas Matthews<sup>1</sup>, Angeline Triyono<sup>1</sup>, Santiago Ortiz<sup>1</sup>, Anna K. Potter<sup>2</sup>

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# APPLICATION OF RKMP11 BASED ELISA FOR DIAGNOSIS OF CUTANEOUS LEISHMANIASIS CAUSED BY *L. DONOVANI*

Sachee Bhanu Piyasiri, Nilakshi Samaranayake, Rajika Dewasurendra, Charani Karunathilake, Ganga Rajapakse, Sanath Senanayake, Nadira D. Karunaweera Faculty of Medicine, University of Colombo, Colombo, Sri Lanka

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#### IDENTIFICATION OF ANTIBODY BIOMARKERS TO DIFFERENTIATE POST KALA AZAR DERMAL LEISHMANIASIS FROM LEPROSY

Maurice T. Royal, Kimberly Y. Won, William E. Secor, Sukwan E. Handali Center for Disease Control, Atlanta, GA, United States

#### 6646

#### COMPARATIVE EVALUATION OF 4 MOLECULAR DIAGNOSTIC TESTS FOR THE DETECTION AND IDENTIFICATION OF CUTANEOUS *LEISHMANIA* PARASITES

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#### PHAGE DISPLAY IMMUNOPRECIPITATION SEQUENCING (PHIP-SEQ) FOR THE IDENTIFICATION OF *TRYPANOSOMA CRUZIANTIGENS* WITH DIAGNOSTIC POTENTIAL

Ryan J. Marczak, Hannah Kortbawi, Stathis D. Gennetas, Caryn Bern, Joseph L. DeRisi, Jeffrey D. Whitman

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#### PRODUCTION AND EVALUATION OF LB6H RECOMBINANT ANTIGEN PRODUCED IN BRAZIL TO DIAGNOSE AMERICAN TEGUMENTARY LEISHMANIASIS

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#### EVALUATION OF THE CROSS-REACTIVITY OF THE RK28 ANTIGEN USED IN THE SEROLOGICAL DIAGNOSIS OF HUMAN VISCERAL LEISHMANIASIS

Bruna R. Dos Santos<sup>1</sup>, Ruth T. Valencia-Portillo<sup>1</sup>, Silvia M. Di Santi<sup>2</sup>, Hiro Goto<sup>1</sup>, Maria Carmen A. Sanchez<sup>1</sup>

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#### VALIDATION OF A WHOLE BLOOD *TRYPANOSOMA CRUZI* QUANTITATIVE RT-PCR ASSAY ACROSS A RELEVANT RANGE OF PARASITEMIA

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# THE RELATION BETWEEN RECOMBINANT PROTEIN GRA1 AND SEVERITY INDICATORS IN PATIENTS WITH TOXOPLASMOSIS AND HIV/AIDS CO-INFECTION

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## DEVELOPMENT OF ISOTHERMAL AND CRISPR-BASED DIAGNOSTICS FOR THE DETECTION OF *BABESIA* PARASITES

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#### TOXOPLASMA GONDII IN TERTIARY HOSPITAL, EASTERN SAUDI ARABIA: ROLE OF SEROLOGY AND MOLECULAR DIAGNOSIS AND INSIGHT INTO PREDICTIVE RISK FACTORS

Qasim AlKhaleefah<sup>1</sup>, Obeid E. Obeid<sup>1</sup>, Nourah Al Qahtani<sup>2</sup>, Salma Al Jaroodi<sup>1</sup>, **Ayman A. El-Badry**<sup>3</sup>

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#### CHARACTERIZATION OF LEISHMANIASIS IN THE TOURIST CORRIDOR OF THE AMAZONAS REGION, PERU

Sonia Huyhua<sup>1</sup>, Marianella Villegas-Pingo<sup>2</sup>, Kevin Rivera<sup>3</sup>, Lizandro Gonzales<sup>4</sup>, Hugo Valdivia<sup>5</sup>, Stella M. Chenet<sup>6</sup>

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## Kinetoplastida and Other Protozoa -Genomics, Proteomics and Metabolomics, Molecular Therapeutic Targets (Including *Leishmania* and Trypanosomes)

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#### ASSOCIATION BETWEEN IMMUNE PROFILE AND CHAGAS DISEASE PROGRESSION IN NATURALLY INFECTED RHESUS MACAQUES

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#### (ACMCIP Abstract)

## 6656

MOLECULAR EPIDEMIOLOGY OF TRYPANOSOMA CRUZI IN EL SALVADOR ELUCIDATED BY MULTI-LOCUS SEQUENCE TYPING USING THIRTEEN HOUSE-KEEPING GENES.

Yuko Nitahara<sup>1</sup>, Marvin S. Rodríguez<sup>2</sup>, Yu Nakagama<sup>1</sup>, Katherine Candray<sup>1</sup>, Junko Shimada<sup>3</sup>, Yasutoshi Kido<sup>1</sup>

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#### (ACMCIP Abstract)

## 6657

#### CO-INFECTIONS OF *LEISHMANIA DONOVANI* AND *LEISHMANIA MAJOR* IN BLOOD OF PATIENTS WITH VISCERAL LEISHMANIASIS FROM GARISSA COUNTY, NORTHERN KENYA

Vane Kwamboka Omwenga<sup>1</sup>, Cyrus Ayieko<sup>2</sup>, Kimita Gathii<sup>3</sup>, Clement Masakhwe<sup>3</sup>, John Waitumbi<sup>3</sup>

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(ACMCIP Abstract)

## 6658

#### EVIDENCE FOR VERTICAL TRANSMISSION OF GENETICALLY DIVERSE *TYRPANOSOMA CRUZI* IN A NATURAL RODENT RESERVOIR POPULATION

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#### (ACMCIP Abstract)

# GENOME ANALYSIS OF *T. CRUZI* FIELD ISOLATES OFFERS THE OPPORTUNITY TO STUDY THE EFFECT OF INFECTION CONTEXT ON PARASITE GENETIC DIVERSITY

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#### (ACMCIP Abstract)

## Measures for Control and Elimination of Neglected Tropical Diseases (NTDs)

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#### ACCEPTABILITY AND IMPACT OF THE MAGIC GLASSES LOWER MEKONG, A CARTOON-BASED EDUCATION PACKAGE TARGETING SOIL-TRANSMITTED HELMINTHS AND OPISTHORCHIASIS VIVERRINI IN THE LOWER MEKONG BASIN Suji Yoo O'Connor

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#### USING PHOTOVOICE AS A COMMUNITY BASED PARTICIPATORY RESEARCH TOOL FOR CHANGING SANITATION AND HYGIENE BEHAVIOURS IN TAABO, COTE D'IVOIRE

Véronique Koffi<sup>1</sup>, Roland Bini<sup>2</sup>, Clémence ESSE<sup>2</sup>, Gilbert Fokou<sup>1</sup>, Piet Vaneeuwijk<sup>3</sup> <sup>1</sup>Centre Suisse de Recherches Scientifiques en Côte d'Ivoire, Abidjan, Côte D'Ivoire, <sup>2</sup>Université Félix Houphouët Boigny, Abidjan, Côte D'Ivoire, <sup>3</sup>Institute of Social Anthropology, Abidjan, Côte D'Ivoire

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#### IMPACT OF COMMUNITY PARTICIPATORY APPROACHES IN ENHANCING ACCESS TO MASS DRUG ADMINISTRATION FOR TRACHOMA IN A PASTORAL CONFLICT AREA OF KENYA

Paul M. Gichuki<sup>1</sup>, Bridget W. Kimani<sup>1</sup>, Tabitha Kanyui<sup>1</sup>, Collins O. Okoyo<sup>1</sup>, Titus Watitu<sup>2</sup>, Wycliff P. Omondi<sup>2</sup>, Doris W. Njomo<sup>1</sup>

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#### SUPPORTING LYMPHATIC FILARIASIS MORBIDITY MANAGEMENT AND DISABILITY PREVENTION (MMDP) ACTIVITIES IN WEST AFRICA: CASE STUDY FROM NIGERIA AND SIERRA LEONE

Moses Oluwaseun Aderogba, Louise K. Makau-Barasa END Fund, New York, NY, United States

## 6664

#### ASSESSING THE CAPACITY OF HEALTH FACILITIES TO DIAGNOSE, TREAT, AND MANAGE VISCERAL LEISHMANIASIS: EVIDENCE FROM TIATY, BARINGO COUNTY, KENYA

Leah A. Oruko<sup>1</sup>, Saraina C. Ulysse<sup>1</sup>, Mwatela Kitondo<sup>2</sup>, Hellen Nyakundi<sup>2</sup>, Richard Wamai<sup>3</sup>, Elizabeth Chebet<sup>4</sup>, Jane Sarich<sup>5</sup>

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#### ASSESSING COMMUNITY DRUG DISTRIBUTORS PERFORMANCE IN GHANA; A GENDER BASED APPROACH

 $\label{eq:charles Brown-Davies^1, DIANA STUKEL^2, Irene Dzathor^1, Emmanuel Nyarko^3, Ernest Mensah^3, Maureen Headland^4$ 

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#### 6666

### MIXED INFECTIONS OF SOIL TRANSMITTED HELMINTHS & SCHISTOSOMA MANSONI AMONG SCHOOL GOING CHILDREN IN KAKAMEGA COUNTY, KENYA

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#### RISK FACTORS AND ULTRASOUND ASPECTS ASSOCIATED WITH UROGENITAL SCHISTOSOMIASIS AMONG PRIMARY SCHOOL CHILDREN IN MALI WEST AFRICA

Bakary Sidibé<sup>1</sup>, Privat Agniwo<sup>1</sup>, Safiatou N. Doumbo<sup>1</sup>, Assitan Diakité<sup>1</sup>, Hassim Guindo<sup>1</sup>, Moudachirou Ibikounlé<sup>2</sup>, Abdoulaye Dabo<sup>1</sup>, Jerome Boissier<sup>3</sup>, Jerome Boissier<sup>3</sup>, Boris Savassi<sup>3</sup>

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#### 6668

#### TREATMENT COVERAGE ACHIEVED UNDER TWO ENHANCED MASS DRUG ADMINISTRATION REGIMENS FOR TRACHOMA IN THE REPUBLIC OF SOUTH SUDAN: ENHANCING THE A IN SAFE (ETAS) TRIAL RESULTS

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#### 6669

#### EFFECTIVENESS OF COMMUNITY HEALTH EDUCATION ON VISCERAL LEISHMANIASIS IN IMPROVING KNOWLEDGE, PRACTICE AND HEALTH SEEKING BEHAVIOR IN TIATY, KENYA

Saraina C. Ulysse<sup>1</sup>, Richard G. Wamai<sup>2</sup>, Mwatela Kintondo<sup>3</sup>, Hellen Nyakundi<sup>3</sup>, Leah Oruko<sup>1</sup>, Elizabeth Chebet<sup>4</sup>, Elijah Plilan<sup>5</sup>, Miriam Lotodo<sup>5</sup>

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#### 6670

#### SOCIO-ECONOMIC PROFILE OF NEVER TREATED INDIVIDUALS DURING MASS DRUG ADMINISTRATION TARGETING ONCHOCERCIASIS IN HARD-TO-REACH AREAS OF MALI: A CROSS-SECTIONAL STUDY

Yaya Ibrahim Coulibaly<sup>1</sup>, Abdoul Fatao Diabate<sup>2</sup>, Moussa Sangare<sup>3</sup>, Sekou Oumarou Thera<sup>2</sup>, Diadje Tanapo<sup>2</sup>, Mahamoud Mahamadou Koureichi<sup>2</sup>, Siaka Yamoussa Coulibaly<sup>2</sup>, Salif Seriba Doumbia<sup>2</sup>, Housseini Dolo<sup>2</sup>, Yacouba Sangare<sup>4</sup>, Dukharmel Nazaire<sup>5</sup>, Thomas B Nutman<sup>6</sup>, Alison Krentel<sup>7</sup>

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## 6671

#### SOCIO-ECONOMIC IMPACT OF 24-MONTH LYMPHEDEMA MANAGEMENT IN AFFECTED PERSONS IN MALI: CROSS-SECTIONAL STUDY

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## 6672

#### SUSTAINABILITY OF LYMPHEDEMA HYGIENE-BASED SELF-CARE WITHIN LEDOXY PATIENTS MORE THAN TWO YEARS AFTER THE CLINICAL TRIAL IN RURAL AREAS, MALI: A CROSS-SECTIONAL STUDY

Abdoul Fatao Diabate<sup>1</sup>, Yaya Ibrahim Coulibaly<sup>2</sup>, Moussa Sangare<sup>3</sup>, Diadje Tanapo<sup>1</sup>, Aashka Sood<sup>4</sup>, Sekou Oumarou Thera<sup>1</sup>, Housseini Dolo<sup>1</sup>, Fatoumata Traore<sup>1</sup>, Binta Sall<sup>1</sup>, Michel Emmanuel Coulibaly<sup>1</sup>, Lamine Soumaoro<sup>1</sup>, Siaka Yamoussa Coulibaly<sup>1</sup>, Salif Seriba Doumbia<sup>1</sup>, Abdallah Amadou Diallo<sup>1</sup>, Mariana Stephens<sup>5</sup>, Fodie Maguiraga<sup>5</sup>, Anne Heggen<sup>6</sup>, Jamie Tallant<sup>6</sup>, Jayla Norman<sup>7</sup>, Charles Mackenzie<sup>8</sup>, Joseph P. Shott<sup>9</sup>, Ute Klarmann-Schulz<sup>10</sup>, Achim Hoerauf<sup>11</sup>, John Horton<sup>12</sup>, Sarah Sullivan<sup>5</sup>, Eric A. Ottesen<sup>13</sup>, Alison Krentel<sup>14</sup>, Thomas B. Nutman<sup>15</sup>

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#### MONITORING THE IMPACT OF COMMUNITY-BASED DEWORMING ON SCHISTOSOMIASIS AND SOIL-TRANSMITTED HELMINTHIASIS AMONG SCHOOL-AGE CHILDREN IN WESTERN KENYA: MIDTERM RESULLTS

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#### ASSESSMENT OF KNOWLEDGE, ATTITUDES, PRACTICES AND FACTORS CONTRIBUTING TOWARDS ONGOING TRACHOMA TRANSMISSION AND MASS DRUG ADMINISTRATION (MDA) COVERAGE IN UGANDA

Joyce Achan<sup>1</sup>, Edwin Mayoki<sup>1</sup>, Rapheal Opon<sup>2</sup>, Stephen Begumisa<sup>1</sup>, Stella Agunyo<sup>1</sup>, Sharone Backers<sup>1</sup>, Alex Rutagwabeyi<sup>1</sup>, Charles Kissa<sup>3</sup>, Elizabeth Sutherland<sup>4</sup>, Danielle Epps<sup>4</sup>, Kathryn Crowley<sup>5</sup>, Meagan Meekins<sup>4</sup>, Jessica Douglas<sup>4</sup>, Stephen Otim<sup>6</sup>, James Lemukol<sup>6</sup>, Denis Olaka<sup>7</sup>, Peter Lokwang<sup>7</sup>, Alfred Mubangizi<sup>3</sup>, Jeremiah Ngondi<sup>8</sup> <sup>1</sup>RTI International, Kampala, Uganda, <sup>3</sup>Ministry of Health NTD Programme, Kampala, Uganda, <sup>3</sup>Ministry of Health, NTD Programme, Kampala, Uganda, <sup>4</sup>RTI International, Durham, NC, United States, <sup>5</sup>RTI International, Washington, DC, United States, <sup>6</sup>Moroto District Local Government, Moroto, Uganda, <sup>7</sup>Nabilatuk District Local Government, Nabilatuk, Uganda, <sup>8</sup>RTI International, Cambridge, United Kingdom

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#### TREATMENT COVERAGE FOLLOWING AN ENHANCED MASS DRUG ADMINISTRATION STRATEGY FOR TRACHOMA IN AMHARA REGION, ETHIOPIA: THE CHILD MDA PILOT STUDY

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SAMPLING AND SITE SELECTION STRATEGIES FOR LYMPHATIC FILARIASIS TRANSMISSION ASSESSMENT SURVEYS IN AREAS WITH HIGH SECURITY CHALLENGES: THE BURKINA FASO EXPERIENCE

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# THE CONTROL AND ELIMINATION OF NEGLECTED TROPICAL DISEASES IN MALI: A SUCCESS STORY

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## PRE-STOP OV MDA IN 32 FIRST-LINE VILLAGES IN FOUR OPERATIONAL TRANSMISSION ZONES IN GUINEA

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#### A FOLLOW-UP STUDY IN 2024: SCHISTOSOMIASIS IMPACT ASSESSMENT IN EIGHT DISTRICTS FOLLOWING A DECADE OF MASS DRUG ADMINISTRATION

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#### FIX-DOSING IVERMECTIN REGIMENS IN MASS DRUG ADMINISTRATION ACTIVITIES. IS IT TIME TO LEAVE THE DOSING POLE BEHIND?

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#### 6681

# SOIL-TRANSMITTED HELMINTH TRANSMISSION DYNAMICS AND OPTIMAL CONTROL

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## **6682**

#### STRENGTHENING TRACHOMA CONTROL PROGRAMS THROUGH THE INTEGRATION OF LATERAL FLOW ASSAYS (LFA) FOR SEROLOGICAL MONITORING: A DISTRICT-LEVEL STUDY FROM AMHARA, ETHIOPIA

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**Eungi Yang**<sup>1</sup>, Vasanta Chivukula<sup>1</sup>, Will Overholt<sup>1</sup>, Jonas Winchell<sup>2</sup>, Maureen Diaz<sup>2</sup> <sup>1</sup>Centers for Disease Control and Prevention/ ASRT, Atlanta, GA, United States, <sup>2</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States

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Alexandra Do<sup>1</sup>, Clinton Onyango<sup>2</sup>, Shawn Fernandez<sup>1</sup>, Mark Unruh<sup>1</sup>, Kristan Schneider<sup>1</sup>, Douglas J. Perkins<sup>1</sup>, Ivy Hurwitz<sup>3</sup>

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Jose Barragan<sup>1</sup>, Diana Padilla<sup>1</sup>, Jorge Cervantes<sup>2</sup>

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Haileab Fekadu Wolde<sup>1</sup>, Archie C A Clements<sup>2</sup>, Temesgen Yihunie Akalu<sup>1</sup>, Kefyalew Addis Alene

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Koba Privat AGNIWO<sup>1</sup>, Ulrich Fabien Prodjinotho<sup>2</sup>, Bakary Sidibé<sup>1</sup>, Rabiatou Diarra<sup>1</sup>, Abdoulaye Dabo<sup>1</sup>, Clarissa Prazeres da Costa<sup>3</sup>, Niaré Safiatou Doumbo Niare<sup>1</sup>, Laurent Dembele<sup>1</sup>

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Phyllis Munyiva Isaiah<sup>1</sup>, Doris Osei Afriyie<sup>1</sup>, Mary Maghanga<sup>2</sup>, Donna Obare Ogeto<sup>3</sup>, Mary Amuyunzu Nyamongo<sup>2</sup>, Peter Steinmann<sup>1</sup>

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#### LIVER ULTRASOUND FINDINGS BEFORE AND AFTER PRAZIQUANTEL TREATMENT IN UGANDAN PRESCHOOL AGE CHILDREN FROM THE PRAZIQUANTEL IN PRESCHOOLERS (PIP) TRIAL

Sophie Pach<sup>1</sup>, Emily Webb<sup>1</sup>, Andrew Edielu<sup>1</sup>, Roy Nagawa<sup>2</sup>, Victor Anguajibi<sup>3</sup>, Simon Mpooya<sup>4</sup>, Hannah Wu<sup>5</sup>, Susannah Colt<sup>5</sup>, Patrice Mawa<sup>1</sup>, Joachim Richter<sup>6</sup>, Jennifer Friedman<sup>5</sup>, Amaya L. Bustinduy<sup>1</sup>

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Joshua M. Chevalier<sup>1</sup>, Kyra H. Grantz<sup>2</sup>, Sarah Girdwood<sup>2</sup>, Thierry Ramos<sup>2</sup>, Brooke E. Nichols<sup>2</sup>. Shaukat Khan<sup>2</sup>. Sarah Hingel<sup>2</sup>

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#### ASSESSMENT OF ALBENDAZOLE SUSCEPTIBILITY IN FASCIOLA HEPATICA EGGS FROM ENDEMIC REGIONS OF THE PERUVIAN HIGHLANDS

César A. Murga-Moreno<sup>1</sup>, Dayana M. Terrones-Cerna<sup>1</sup>, David Ruiz-Pérez<sup>1</sup>, Luis I. Alvarez<sup>2</sup>, Laura Ceballos<sup>2</sup>, Miguel M. Cabada<sup>3</sup>, Martha V. Fernandez-Baca<sup>4</sup>, César E. Vila-Anticona<sup>5</sup>, Ana M. Fernández-Sánchez<sup>1</sup>, Rodrigo A. Ore<sup>4</sup>, Cristian Hobán<sup>1</sup>, Pedro Ortiz<sup>1</sup> <sup>1</sup>Universidad Nacional de Cajamarca, Cajamarca, Peru, <sup>2</sup>Universidad Nacional del Centro de la Provincia de Buenos Aires, Tandil, Argentina, <sup>3</sup>University of Texas Medical Branch, Galveston, TX, United States, <sup>4</sup>Universidad Peruana Cayetano Heredia, Cusco, Peru, <sup>5</sup>Servicio Nacional de Sanidad Agraria, Junín, Peru

## 6722

SYNTHESIS AND ANTISCHISTOSOMAL STRUCTURE-ACTIVITY **RELATIONSHIP PROFILING OF N-PYRIDAZIN-3-YLBENZAMIDES** 

Harrison Banda, Peter Cheuka, Evelyn Funjika University of Zambia, Lusaka, Zambia

#### 6723

#### DETECTION OF SCHISTOSOMA HAEMATOBIUM CELL-FREE DNA IN URINE SAMPLES STORED ON FILTER PAPERS TO IMPROVE THE DIAGNOSTIC OF URINARY SCHISTOSOMIASIS

Estelle Mezajou Mewamba, Darelle Bethanie Motia, Rachel Morgane Banga Diengue, Loic Edmond Tekeu Mengoue, Rostand Joel Tatang Atiokeng, Arnol Auvaker Zebaze Tiofack, Pythagore Soubgwi Fogue, Gustave Simo

University of Dschang, Dschang, Cameroon

#### 6724

#### FACTORS INFLUENCING THE RESOLUTION OF FEMALE GENITAL SCHISTOSOMIASIS: A LONGITUDINAL STUDY FROM RURAL MADAGASCAR

Valentina Marchese<sup>1</sup>, Jean-Marc Kutz<sup>1</sup>, Pia Rausche<sup>1</sup>, Tahinamandranto Rasamoelina<sup>2</sup>, Sonya Ratefiarisoa<sup>3</sup>, Ravo Razafindrakoto<sup>2</sup>, Myriam Lassmann<sup>1</sup>, Fiona Franz<sup>1</sup>, Elly Daus<sup>1</sup>, Olivette Totofotsy<sup>3</sup>, Alexina Olivasoa Zafinimampera<sup>3</sup>, André Brito<sup>1</sup>, Philipp Klein<sup>1</sup>, Anna Jaeger<sup>1</sup>, Rivo Solotiana Rakotomalala<sup>3</sup>, Zoly Rakotomalala<sup>3</sup>, Bodo Sahondra Randrianasolo<sup>4</sup>, Irina Kislaya<sup>1</sup>, Eva Lorenz<sup>1</sup>, Jürgen May<sup>1</sup>, Raphael Rakotozandrindrainy<sup>5</sup>, Dewi Ismajani Puradiredja<sup>1</sup>, Monika Hamp<sup>6</sup>, Tarik Gheit<sup>7</sup>, Rivo Andry Rakotoarivelo<sup>8</sup>, Daniela Eusco<sup>1</sup>

<sup>1</sup>Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, <sup>2</sup>Centre d'Infectiologie Charles Mérieux, Antananarivo, Madagascar, <sup>3</sup>Centre Hospitalier Universitaire Androva, Mahajanga, Madagascar, <sup>4</sup>Association K'OLO VANONA, Antananarivo, Madagascar, <sup>5</sup>University of Antananarivo, Antananarivo, Madagascar, <sup>6</sup>Köln-Hohenlind Hospital, Cologne, Germany, <sup>7</sup>International Agency for Research on Cancer, Lyon, France, <sup>8</sup>University of Fianarantsoa, Fianarantsoa, Madagascar

## 6725

ACCURATE DETECTION OF FEMALE GENITAL SCHISTOSOMIASIS - A NEGLECTED GYNECOLOGICAL TROPICAL DISEASE

Nilanjan Lodh, Lilianna Buss Marquette University, Milwaukee, WI, United States

## 6726

**DEVELOPING A SIMPLE POINT-OF-CARE LATERAL FLOW** ASSAY FOR DETECTION OF F. HEPATICA DNA IN CLINICAL AND ENVIRONMENTAL SAMPLES

Alejandro Castellanos-Gonzalez

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

#### ENHANCING DETECTION AND MONITORING OF SCHISTOSOMIASIS USING FLOW, A URINE-BASED ANALYTE PRE-CONCENTRATION TECHNOLOGY

Brianna Mullins<sup>1</sup>, Cody Carrell<sup>1</sup>, Danielle de Jong<sup>2</sup>, Jane K. Maganga<sup>3</sup>, Loyce Mhango<sup>3</sup>, Peter *Shigella*<sup>3</sup>, Philbert Kashangaki<sup>3</sup>, Raymond Kirigiti<sup>4</sup>, Madalyn Gill<sup>1</sup>, Ryan Shogren<sup>1</sup>, John M. Changalucha<sup>3</sup>, Govert J. van Dam<sup>2</sup>, Jennifer A. Downs<sup>5</sup>, Paul L.A.M Corstjens<sup>2</sup>, Jay W. Warrick<sup>1</sup>

<sup>1</sup>Salus Discovery, Madison, WI, United States, <sup>2</sup>Leiden University Medical Center, Leiden, Netherlands, <sup>3</sup>Mwanza Intervention Trials Unit/National Institute for Medical Research, Mwanza, United Republic of Tanzania, <sup>4</sup>Nkoma Health Center, Simiyu Region, United Republic of Tanzania, <sup>5</sup>(i) Center for Global Health, Department of Medicine, Weill Cornell Medicine (New York); (ii) Department of Medicine, Weill Bugando School of Medicine (Mwanza); (iii) Mwanza Intervention Trials Unit/National Institute for Medical Research (Mwanza), New York, NY, United States

## Schistosomiasis and Other Trematodes – Epidemiology and Control

## **6728**

RISK FACTORS FOR SCHISTOSOMIASIS CURE FAILURE/ REINFECTION AMONG PRE-SCHOOL-AGED CHILDREN 12 MONTHS AFTER TREATMENT IN UGANDA

Racheal Nakyesige

MRC/UVRI and LSHTM Uganda Research Unit, Entebbe, Uganda

## 6729

#### INVESTIGATING THE PREVALENCE, INTENSITY, AND CONTRIBUTING FACTORS OF SCHISTOSOMA MANSONI INFECTION IN ALMATA DISTRICT, TIGRAY, NORTHERN ETHIOPIA

Gessessew Bugssa Hailu<sup>1</sup>, Nega Berhe Belay<sup>2</sup>, Prof. Tilahun Tekelehaymanot<sup>2</sup> <sup>1</sup>Department of Medical Parasitology and Entomology, Biomedical Sciences Division, College of Health Sciences, Mekelle University, Mekelle, Ethiopia, <sup>2</sup>Aklilu Lemma Institute of Pathobiology, Addis Ababa University, Addis Ababa, Ethiopia

## 6730

# NOVEL INTERVENTION STRATEGIES FOR SCHISTOSOMIASIS ELIMINATION

Lydia Trippler<sup>1</sup>, Said Mohammed Ali<sup>2</sup>, Naomi Chi Ndum<sup>1</sup>, Jan Hattendorf<sup>1</sup>, Saleh Juma<sup>3</sup>, Shaali Makame Ame<sup>4</sup>, Fatma Kabole<sup>4</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, Pemba, United Republic of Tanzania, <sup>3</sup>Zanzibar Ministry of Health, Pemba, United Republic of Tanzania, <sup>4</sup>Zanzibar Ministry of Health, Unguja, United Republic of Tanzania

## 6731

# SOCIO-ENVIRONMENTAL FACTORS AFFECTING THE RISK OF HUMAN FASCIOLIASIS IN CENTRAL VIETNAM

Yi-Chen Wang<sup>1</sup>, Thi Lien Hanh Nguyen<sup>2</sup>, Hong Quang Huynh<sup>2</sup>, Yiding Ran<sup>1</sup> <sup>1</sup>National University of Singapore, Singapore, Singapore, <sup>2</sup>Institute of Malariology, Parasitology and Entomology Quy Nhon, Quy Nhon, Vietnam

## 6732

# DIET OF SCHISTOSOME VECTORS INFLUENCES INFECTION OUTCOMES

Joshua T. Trapp<sup>1</sup>, Wesley Yu<sup>1</sup>, Johannie Spaan<sup>1</sup>, Tom Pennance<sup>1</sup>, Fredrick Rawago<sup>2</sup>, George Ogara<sup>2</sup>, Maurice Odiere<sup>2</sup>, Michelle Steinauer<sup>1</sup>

<sup>1</sup>Western University of Health Sciences, Department of Basic Medical Sciences, Lebanon, OR, United States, <sup>2</sup>Kenya Medical Research Institute, Centre for Global Health Research, Kisumu, Kenya

#### 6733

#### FACTORS ASSOCIATED WITH NATURAL INFECTION BY FASCIOLA HEPATICA IN THE MAIN DAIRY BASIN OF CAJAMARCA IN NORTHERN PERU

Cristian Hoban<sup>1</sup>, César A. Murga-Moreno<sup>1</sup>, Dayana M. Terrones-Cerna<sup>1</sup>, David Ruiz-Pérez<sup>1</sup>, Ana M. Fernández-Sánchez<sup>1</sup>, Jhover Díaz<sup>1</sup>, Sandra Quispe<sup>1</sup>, Miguel M. Cabada<sup>2</sup>, **Pedro Ortiz**<sup>1</sup>

<sup>1</sup>Universidad Nacional de Cajamarca, Cajamarca, Peru, <sup>2</sup>University of Texas Medical Branch, Galveston, TX, United States

#### 6734

ENVIRONMENTAL DNA OF SCHISTOSOME PARASITES REVEALS POSSIBILITY OF WIDENING THE SNAIL VECTOR SPECTRUM IN ENDEMIC AREAS UNDER CLIMATE CHANGE CONDITIONS IN NIGERIA

Chiaka I. Anumudu<sup>1</sup>, Attah A. Amos<sup>1</sup>, Cephas A. Akpabio<sup>1</sup>, Pearl U. Ofoegbu<sup>2</sup> <sup>1</sup>Cellular Parsitology Programme, Department of Zoology, University of Ibadan, Ibadan, Nigeria, <sup>2</sup>Federal University of Technology Owerri, Owerri, Nigeria

#### 6735

#### SUITABLE COMMUNICATION STRATEGIES PRIOR TO THE INTRODUCTION OF A NOVEL PEDIATRIC TREATMENT OPTION < SCHISTOSOMIASIS IN KENYA

Janet Mbinya Masaku<sup>1</sup>, John M. Gachohi<sup>2</sup>, Alice Sinkeet<sup>3</sup>, Mary Maghanga<sup>3</sup>, Florence Wakesho<sup>4</sup>, Wyckliff Omondi<sup>4</sup>, Jennifer Burrill<sup>5</sup>, Ashley Preston<sup>5</sup>, Lisa Sophie Reigl<sup>6</sup>, Isabelle L. Lange<sup>6</sup>, Andrea S. Winkler<sup>6</sup>, Sammy M. Njenga<sup>1</sup>, Mary Amuyunzu Nyamongo<sup>3</sup> <sup>1</sup>Kenya Medical Research Institute (KEMRI), Nairobi, Kenya, <sup>2</sup>Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi, Kenya, <sup>3</sup>African Institute for Health and Development (AIHD), Nairobi, Kenya, <sup>4</sup>Ministry of Health Kenya, <sup>5</sup>Univision of Vector Borne Diseases and Neglected Tropical Diseases (DVBD/NTDs), Nairobi, Kenya, <sup>6</sup>Unlimit Health, London, United Kingdom, <sup>6</sup>Technical University of Munich (TUM), Munich, Germany

## 6736

#### ENDEMIC COUNTRY LABORATORY QUALIFICATION OF SCHISTOSOMA HAEMATOBIUM ANTIBODY BIOMARKERS IN KENYA

Maria Ulke Colman<sup>1</sup>, Isaac Onkanga<sup>2</sup>, Joshua Kivuthi<sup>2</sup>, Maurice Royal<sup>1</sup>, Yong Wang<sup>1</sup>, Sylvia Ossai<sup>1</sup>, Machi Shiiba<sup>3</sup>, Kimberly M. Won<sup>1</sup>, Maurice Odiere<sup>2</sup>, Sukwan Handali<sup>1</sup>, William E. Secor<sup>1</sup>

<sup>1</sup>CDC, Atlanta, GA, United States, <sup>2</sup>Kenya Medical Research Institute (KEMRI), Kisumu, Kenya, <sup>3</sup>Emory School of Public Health, Atlanta, GA, United States

## 6737

#### ETIOLOGY OF ANEMIA IN THE CONTEXT OF S. MANSONI INFECTION AMONG PRE-SCHOOL AGED CHILDREN FROM LAKE ALBERT, UGANDA

Alexandra Burgess<sup>1</sup>, **Susannah Colt**<sup>1</sup>, Andrew Edielu<sup>2</sup>, Hannah Wu<sup>1</sup>, Patrice Mawa<sup>3</sup>, Rachael Nakyesige<sup>3</sup>, Gloria Kakoba Ayebazibwe<sup>3</sup>, Kanika Men<sup>1</sup>, Emily Webb<sup>2</sup>, Amaya Bustinduy<sup>2</sup>, Jennifer Friedman<sup>1</sup>

<sup>1</sup>Center for International Health Research, RI Hospital and Alpert Medical School of Brown University, Providence, RI, United States, <sup>2</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>3</sup>Medical Research Council-London School of Hygiene & Tropical Medicine Research Unit, Entebbe, Uganda

## Water, Sanitation, Hygiene and Environmental Health

## 6738

#### TCBS POSITIVE VIBRIO SPECIES IN WATER SAMPLES OF PRE-URBAN AND PERI-URBAN MAPUTO, MOZAMBIQUE

Matthew Cappiello<sup>1</sup>, Henrique Velasco<sup>2</sup>, Inacio Mandomando<sup>3</sup>, Sanjay Mehta<sup>4</sup> <sup>1</sup>Loma Linda University Medical Center, Loma Linda, CA, United States, <sup>2</sup>Instituto Comercial de Maputo, Maputo, Mozambique, <sup>3</sup>Centro de Investigação em Saúde de Manhiça, Maputo, Mozambique, <sup>4</sup>University of California San Diego, La Jolla, CA, United States

#### 6739

#### WATER QUALITY AND OCCURRENCE OF ENTERIC BACTERIA AND VIRUSES IN ASIPA RIVER, OYO STATE, WESTERN NIGERIA

Olatunji Matthew Kolawole<sup>1</sup>, Oluwasanmi A. Adeyemi<sup>2</sup>, Modupe O. Jimoh<sup>3</sup> <sup>1</sup>University of Ilorin, Ilorin, Kwara state, Nigeria, <sup>2</sup>Ajayi Crowther University,, Oyo, Oyo state, Nigeria, <sup>3</sup>University of Warwick,, Conventry,, United Kingdom

## 6740

#### LATRINE AVAILABILITY AND UTILIZATION ASSESSMENT IN PRIMARY SCHOOLS OF MERHABETE, ETHIOPIA: A MIXED METHOD STUDY

Awraris Hailu Bilchut<sup>1</sup>, Esmael Habtamu Ali<sup>2</sup>, Nigus Taddese<sup>1</sup>, Melese Kitu<sup>2</sup>, Fikreab Kebede<sup>3</sup>, Ian Fetterman<sup>4</sup>, Hadley Burroughs<sup>4</sup>, Catherine E. Oldenburg<sup>4</sup>, Thomas M. Lietman<sup>4</sup>

<sup>1</sup>Debre Berhan University, Debre Berhan, Ethiopia, <sup>2</sup>Eyu-Ethiopia, Bahir Dar, Ethiopia, <sup>3</sup>Federal Ministry of Health, Disease Prevention and Control, Addis Ababa, Ethiopia, <sup>4</sup>F.I. Proctor Foundation, University of California, San Francisco, San Francisco, CA, United States

## 6741

#### INTERACTIONS BETWEEN WATER, SANITATION, AND HYGIENE (WASH) AND MOSQUITO DYNAMICS IN WESTERN KENYA: IMPLICATIONS FOR DIARRHEAL AND MALARIA DISEASES

Noriko Tamari<sup>1</sup>, Maurice Agawo<sup>2</sup>, Heidi E. Brown<sup>1</sup>, Luigi Sedda<sup>3</sup>, Gary L. Christopherson<sup>1</sup>, Katherine D. Ellingson<sup>1</sup>, Stephen Munga<sup>4</sup>, Kacey C. Ernst<sup>1</sup>

<sup>1</sup>University of Arizona, Tucson, AZ, United States, <sup>2</sup>Maseno University, Kisumu,

Kenya, <sup>3</sup>Lancaster University, Lancaster, United Kingdom, <sup>4</sup>Kenya Medical Research Institute (KEMRI), Kisumu, Kenya

## 6742

# HOUSEHOLD RISK FACTORS ASSOCIATED WITH HOSPITALIZED DIARRHEAL PATIENTS IN ULAANBAATAR, MONGOLIA

Amber N. Barnes<sup>1</sup>, Uyanga Baasandavga<sup>2</sup>, Anu Davaasuren<sup>2</sup>, Battsetseg Gonchigoo<sup>2</sup>, Greg C. Gray<sup>3</sup>

<sup>1</sup>University of North Florida, Jacksonville, FL, United States, <sup>2</sup>Institute of Veterinary Medicine, Ulaanbaatar, Mongolia, <sup>3</sup>Division of Infectious Diseases, School of Medicine, University of Texas Medical Branch, Galveston, TX, United States

#### 6743

# MERCURY LEVELS IN HAIR OF PREGNANT WOMEN IN TUMBES, PERU: A CROSS-SECTIONAL STUDY

Sofia I. Chapela-Lara<sup>1</sup>, Olivia Arar<sup>1</sup>, Lauralee Fernandez<sup>1</sup>, Denys Villareal-Palacios<sup>2</sup>, Percy Vilchez-Barreto<sup>2</sup>, Ricardo Gamboa-Moran<sup>2</sup>, Sarah E. Rothenberg<sup>3</sup>, William K. Pan<sup>4</sup>, Seth E. O'Neal<sup>1</sup>

<sup>1</sup>Oregon Health and Science University - Portland State University, School of Public Health, Portland, OR, United States, <sup>2</sup>Centro de Salud Global - Tumbes, Tumbes, Peru, <sup>3</sup>Oregon State University, College of Health, Corvallis, OR, United States, <sup>4</sup>Duke University Global Health Institute and Nicholas School of Environment, Durham, NC, United States

## 6744

#### A MECHANISTIC MODELING APPROACH TO ASSESSING THE SENSITIVITY OF OUTCOMES OF WATER, SANITATION, AND HYGIENE INTERVENTIONS TO LOCAL CONTEXTS AND INTERVENTION FACTORS

Andrew F. Brouwer<sup>1</sup>, Alicia NM Kraay<sup>2</sup>, Mondal H. Zahid<sup>1</sup>, Marisa C. Eisenberg<sup>1</sup>, Matthew C. Freeman<sup>3</sup>, Joseph NS Eisenberg<sup>1</sup>

<sup>1</sup>University of Michigan, Ann Arbor, MI, United States, <sup>2</sup>Bill & Melinda Gates Foundation, Seattle, WA, United States, <sup>3</sup>Emory University, Atlanta, GA, United States

### 6745

#### EXPLORING PERCEPTIONS AND UNDERSTANDING OF ORAL HEALTH: A STUDY ON ORAL GINGIVITIS AMONG UNDERGRADUATE STUDENTS IN IBADAN

Olufemi Adebayo Adedokun<sup>1</sup>, Kazeem Olabamiji Balogun<sup>2</sup>, Damilola Opeyemi Olatunji<sup>2</sup>, Moses Akinjide Afolabi<sup>2</sup>, Mosunmola Olufunke Adedokun<sup>3</sup>, Caroline Chidinma Nwoko<sup>4</sup> <sup>1</sup>University of Ibadan Research Foundation, Ibadan, Nigeria, <sup>2</sup>Adekunle Ajasin University Akungba Akoko, Ondo, Nigeria, <sup>3</sup>University of Ibadan, Ibadan, Nigeria, <sup>4</sup>Adekunle Ajasin University Akungba Akoko, Ibadan, Nigeria

### 6746

#### USE OF THE HOUSEHOLD WATER INSECURITY ACCESS SCALE TO EVALUATE RURAL WATER DELIVERY IN SMALL COMMUNITIES

**Gwenyth ). Lee**<sup>1</sup>, Gustavo Huera<sup>2</sup>, Andrea Sosa<sup>3</sup>, Samuel B. Schlesinger<sup>4</sup> <sup>1</sup>Rutgers, The State University of New Jersey, New Brunswick, NJ, United States, <sup>2</sup>Fundación ALTROPICO, Quito, Ecuador, <sup>3</sup>University of Michigan, Ann Arbor, MI, United States, <sup>4</sup>Green Empowerment, Portland, OR, United States

#### 6747

## MENSTRUAL MATERIAL DISPOSAL PRACTICES WITHIN THE GHANAIAN SOCIOCULTURAL CONTEXT: A QUALITATIVE STUDY

Sitsofe Gbogbo<sup>1</sup>, Israel Wurusah<sup>1</sup>, Emmanuel Gbogbo<sup>1</sup>, Wisdom Axame<sup>1</sup>, Priscilla Klutse<sup>1</sup>, Robert Dowou<sup>1</sup>, Paramount E. Nelson<sup>1</sup>, Ishmael Boateng<sup>1</sup>, Sarah O. Mantey<sup>1</sup>, Nuworza Kugbey<sup>2</sup>, Victor C. Doku<sup>3</sup>, Frank E. Baiden<sup>1</sup>, Fred N. Binka<sup>1</sup> <sup>1</sup>University of Health and Allied Sciences, Ho, Ghana, <sup>2</sup>University of Environment and Sustainable Development, Somanya, Ghana, <sup>3</sup>King's College London, London, United Kingdom

## 6748

# ISOTHERMAL AMPLIFICATION AND COLORIMETRIC DETECTION OF *VIBRIOVCHOLERAE* IN ENVIRONMENTAL MATRICES

Michelande Adolphe

Méditerranée Infection (IHU)/ Aix-Marseille Université, Marseille, France

## 6749

#### INDICATORS OF DRINKING WATER ACCESS AND ESCHERICHIA COLI CONCENTRATION IN HOUSEHOLD DRINKING WATER IN MADAGASCAR

Amanda Seyler<sup>1</sup>, Fabiola Aparicio-Ting<sup>2</sup>, John D. McLennan<sup>3</sup> <sup>1</sup>Department of Anthropology and Archaeology, University of Calgary, Calgary, AB, Canada, <sup>2</sup>Department of Community Health Sciences, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada, <sup>3</sup>Departments of Psychiatry and Community Health Sciences, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada

## 6750

#### EVALUATION OF THE ANTIBACTERIAL SUSCEPTIBILITY PATTERN OF VIBRIO SPECIES ISOLATED FROM PERIWINKLES AND AQUATIC SNAILS SOLD AT UMUAGWO MARKET IN IMO STATE, NIGERIA

Ogechi Innocentia Nwachukwu, Chinyere Ukaga, Chika Maureen Ezenwa, Treasure Niidieka Nioku-Obi

Imo State University, Owerri, Imo State, Nigeria, Owerri, Nigeria

#### SOCIOECONOMIC AND COMMUNITY DRIVERS OF SAFE HOUSEHOLD WATER AND SANITATION: A MIXED METHODS ANALYSIS IN NORTHERN ECUADOR

Molly K. Miller-Petrie<sup>1</sup>, Nicolette A. Zhou<sup>2</sup>, Kelsey J. Jesser<sup>2</sup>, Caitlin Hemlock<sup>2</sup>, Christine S. Fagnant-Sperati<sup>2</sup>, William Cevallos<sup>3</sup>, Gabriel Trueba<sup>4</sup>, Gwenyth O. Lee<sup>5</sup>, Joseph N.S. Eisenberg<sup>6</sup>, Karen Levy<sup>2</sup>

<sup>1</sup>Department of Epidemiology, Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, WA, United States, <sup>2</sup>Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, WA, United States, <sup>3</sup>Centro de Biomedicina, Universidad Central del Ecuador, Quito, Ecuador, <sup>4</sup>Instituto de Microbiologia, Universidad San Francisco de Quito, Quito, Ecuador, <sup>5</sup>Rutgers Global Health Institute, Rutgers University, New Brunswick, NJ, United States, <sup>6</sup>Department of Epidemiology, University of Michigan, Ann Arbor, MI, United States

## LIVE EDU-CATION Symposium 29

# The Power of Partnership: The Role of the U.S. Government in Advancing Global Health

Convention Center – Hall I-2 (1st Floor) Thursday, November 14, 12:15 p.m. - 1:30 p.m.

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

In an era of unprecedented global health challenges, the synergy between government initiatives and international collaborations is pivotal to driving forward innovative research and sustainable solutions. This session will focus on the US government as the largest funder and implementer of global health programs and explore how strategic partnerships between the US government and global health organizations are transforming research landscapes and addressing critical health issues worldwide.

Join us as we delve into the multifaceted roles of the US Federal agencies in shaping and supporting global health research from basic science through operational and implementation research to scaled program delivery. Our distinguished panel of experts will highlight key programs and funding mechanisms that have catalyzed groundbreaking research, improved health outcomes, and strengthened health systems across regions. This will also include discussion one how academia, non-governmental organizations, private sector partners, and international bodies connect with their mission.

This session is designed as a high-level overview for researchers and health professionals who may not directly collaborate with US agencies but who would like to gain a better understanding of how various US Federal agencies support global health. Participants will gain valuable insights into how collective efforts and strategic partnerships can accelerate progress and address the most pressing health challenges facing our world today.

#### <u>CHAIR</u>

Jamie Bay Nishi American Society of Tropical Medicine and Hygiene, Arlington, VA, United States

David Hamer Boston University, Boston, MA, United States

#### 12:15 p.m. WELCOME, INTRODUCTIONS AND OVERVIEWS OF EACH AGENCY

Jamie Bay Nishi

American Society of Tropical Medicine and Hygiene, Arlington, VA, United States

#### 12:55 p.m. FACILITATED Q&A

David Hamer Boston University, Boston, MA, United States

#### PANELISTS

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

Lee Hall National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

Peter H. Kilmarx Fogarty International Center, National Institutes of Health, Bethesda, MD, United States

Kayla F. Laserson Centers for Disease Control and Prevention, Atlanta, GA, United States Amy Lin ARPANET-H Innovation Network, Advanced Research Projects Agency for Health, Bethesda, MD, United States

Nelson Michael Walter Reed Army Institute of Research, Silver Spring, MD, United States David Walton

President's Malaria Initiative, Washington, DC, United States

## 1:15 p.m.

OPEN Q&A AND WRAP-UP David Hamer

Boston University, Boston, MA, United States

## Late-Breaker Abstract Session 30

## Late-Breakers in Basic Science

Convention Center - Room 383/384/385 (3rd Floor) Thursday, November 14, 12:15 p.m. - 1:30 p.m.

This session is specifically designed for brief presentations of new data obtained after the closing date for abstract submission. See the Meeting App or Late-Breaker Abstract Presentation Schedule booklet (available online) for the presentation schedule.

## <u>CHAIR</u>

Wei-Kung Wang

John A. Burns School of Medicine, University of Hawaii at Manoa, Honolulu, HI, United States

Yai Justin Doritchamou National Institute of Allergy and Infectious Disease, Bethesda, MD, United States

## **Meet the Professors Session 31**

## Meet the Professors: Trainee Case Competition

Convention Center - Room 388/389 (3rd Floor) Thursday, November 14, 12:15 p.m. – 1:30 p.m.

Meet the Professors sessions are valuable learning experiences for trainees and practicing clinicians to hear about clinical reasoning.

This session will feature unique clinical cases of tropical diseases presented by clinical trainees that have been evaluated, diagnosed and treated by the trainee under faculty supervision at their training facility. The cases will be presented as "unknowns" and a panel will discuss the cases with the audience, including their differential diagnoses and approaches to diagnosis and treatment.

## SESSION ORGANIZER

Jill Weatherhead National School of Tropical Medicine, Baylor College of Medicine, Houston, TX, United States

## PANELISTS

Rachel Martin-Blais Nationwide Children's Hospital, Columbus, OH, United States

Henry Wu The Emory Clinic, Emory University, Atlanta, GA, United States

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

## PRESENTATION #1

Clive Martin Rodrigues Kings College Hospital NHS Foundation Trust, London, United Kingdom

#### **PRESENTATION #2**

Gabriela Garrido-Pinzás Instituto de Medicina Tropical Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru

## **PRESENTATION #3**

Wilson Goh National University Health System (NUHS, Singapore), Singapore

## Lunch with the American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) Councilors

Convention Center - Room 397 (3rd Floor) Thursday, November 14, 12:15 p.m. - 1:30 p.m.

We have reserved the room for attendees to stop by and chat with members of the parasitology subgroup, ACMCIP. Bring your own lunch and network with your fellow parasitologists!

## American Committee of Medical Entomology (ACME) Trainee Networking Lunch

Convention Center - Room 398 (3rd Floor) Thursday, November 14, 12:15 p.m. - 1:30 p.m.

These lunch table meetings, organized by the ACME subgroup of ASTMH, aims to provide students and postdoctoral fellows an opportunity to interact with established medical entomologists to discuss job opportunities, related scientific work and receive valuable career guidance and direction.

## Ben Kean Fellowship Committee Meeting

Hilton - Marlborough A (2nd Floor) Thursday, November 14, 12:15 p.m. - 1:30 p.m.

## **Digital Education Committee Meeting**

Hilton - Ascot (3rd Floor) Thursday, November 14, 12:15 p.m. - 1:30 p.m.

## **Membership Committee Meeting**

Hilton - Norwich (3rd Floor) Thursday, November 14, 12:15 p.m. - 1:30 p.m.



## Plenary Session II: Charles Franklin Craig Lecture

Convention Center - Hall I-2 (1st Floor) Thursday, November 14, 1:45 p.m. - 2:30 p.m.

## <u>CHAIR</u>

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



The Charles Franklin Craig Lecture is an honor bestowed on a distinguished worker in the field of tropical medicine. Charles Franklin Craig (1872-1950) received his MD from Yale University and entered the Army Medical Corps in 1898, as a pathologist and bacteriologist. After holding a variety of far-flung assignments early in his career, in 1909 he began a long association

with the Army Medical School in Washington DC, rising to become Professor and Commandant of the School. He wrote ten books on malaria, parasitology and infectious diseases, and he discovered and described *Plasmodium* ovale. In 1931 he retired from the Army to become Professor of Tropical Medicine and head of the Department at Tulane School of Medicine. He was President of the American Society of Tropical Medicine (1915), Editor-in-Chief of the *American Journal of Tropical Medicine* (1927-1946) and Editor of the *Journal of the National Malaria Society* (1942-1944).

#### 1:45 p.m. INTRODUCTION

## Albert I. Ko

Yale School of Public Health, New Haven, CT, United States

#### 2 p.m. PIONEERING RESEARCH AND CONTROL OF EMERGING INFECTIOUS DISEASES IN THE DEMOCRATIC REPUBLIC OF THE CONGO: LESSONS I'VE LEARNED FROM EBOLA AND MPOX SINCE 1976



## Jean-Jacques Muyembe Tamfum, MD, PhD

*General Director National Institute of Biomedical Research Kinshasa, Democratic Republic of the Congo* 

Photo courtesy Institut de France

Dr. Jean-Jacques Muyembe Tamfum is the Director General of the DRC's National Institute of Biomedical Research in Kinshasa,

full Professor of Microbiology at the University of Kinshasa Medical School and the inaugural president of the Congolese Academy of Science. He has received several honors including lifetime achievement awards from the African Union/Africa CDC and the International Symposium on Filoviruses. He is laureate of Mérieux Foundation and Hideo Noguchi Africa Prizes.

Recently he received an honorary Doctor of Science degree from Harvard and the University of Montpellier (France).

Dr. Muyembe is a Congolese Virologist who leads public health emergency responses to emerging and re-emerging infectious diseases in the Democratic Republic of the Congo. He is most widely known for his seminal work on Ebola virus disease, generating the foundation of our understanding of epidemiology, clinical manifestations and response strategies against Ebola outbreaks.

He is globally recognized leader in the fight against Ebola and is a key figure in the World Health Organization efforts to combat infectious diseases. He is co-discoverer of the Ebola virus in 1976 and co-inventor of the monoclonal antibody "?mAb114", approved by FDA as an Ebola treatment under the name "Ebanga" in December 2020.

## **Poster Session A Viewing**

Convention Center - Hall I-1 (1st Floor) Thursday, November 14, 1:45 p.m. - 3 p.m.

## **Exhibit Hall Open**

Convention Center - Hall J (1st Floor) Thursday, November 14, 2:15 p.m. - 3:15 p.m.

## **Coffee Break**

*Convention Center - Hall J (1st Floor)* Thursday, November 14, 2:30 p.m. - 3 p.m.

## **Poster Session A Dismantle**

*Convention Center - Hall I-1 (1st Floor)* **Thursday, November 14, 3 p.m. - 5:15 p.m.** 

## -(((O)))-LIVE Symposium 33

## Malaria Vector Genomics Surveillance in Africa: A Pan-African-Led Initiative to Deliver an Accessible Data Platform for Research and Public Health

Convention Center - Hall I-2 (1st Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

In sub-Saharan Africa (SSA), the Anopheles vectors of malaria are undergoing rapid genetic and evolutionary changes due to high selection pressure from persistent use of conventional insecticides in the main insecticidal interventions. As new classes of insecticides with new modes of action are introduced into the pipeline, the mosquitoes will only get more adaptive. A clear understanding of the genomic alterations leading to molecular, ecological, and evolutionary changes in the Anopheles genomes is essential to monitor the adaptation of Anopheles vectors to control initiatives. This will enable the initiation of effective insecticide resistance management strategies and guarantee the continued efficacy of conventional and novel vector control products. Over the past six years since 2018, the Pan-African Mosquito Control Association (PAMCA) has partnered with Malaria Genomic Epidemiology (MalariaGEN) group at Wellcome Sanger Institute, UK, and G-AVENIR (Genomics of African Vectors for NMCP Management of Insecticide Resistance) led by KEMRI (Kenya) and TIDRC/UAC (Benin) to support multi-country studies on Anopheles genomic surveillance in malaria-endemic SSA countries. These projects are led by partner SSA institutions and Principal Investigators working in partnership with their NMCPs. The goal of the projects was to collect, collate, and curate essential genomic data on Anopheles genetic diversity, population structure, evolutionary traits and the intersections of these factors with better understanding and management of malaria epidemiology in the continent. This symposium will present key progress milestones in the implementation of the genomics surveillance program with specific updates on building the vector genomics surveillance community network, output of the training initiatives undertaken under this program, advocacy and engagement initiatives with the country NMCPs, and progress with the establishment of the hardware high-performance infrastructure to support bioinformatics analysis across the continent. The symposium will present data from a selection of genomics surveillance studies from this program and how these data are informing malaria vector control policy and operational guidelines changes. #Genomics; #MolecularBiology; #Genetics

## <u>CHAIR</u>

Elijah Juma Pan-African Mosquito Control Association (PAMCA), Nairobi, Kenya Alistair Miles

Wellcome Sanger Institute, Cambridgeshire, United Kingdom

3 p.m. INTRODUCTION

#### 3:10 p.m.

#### GENOMIC SURVEILLANCE OF ANOPHELES ARABIENSIS IN THE GAMBIA REVEALS EVIDENCE OF INCREASED INSECTICIDE RESISTANCE IN COASTAL POPULATIONS

Fatoumata Seck African Centre of Excellence in Biotechnological Innovations, Banjul, Gambia

#### 3:35 p.m.

#### FIRST REPORT OF ANOPHELES COLUZZII IN KENYA AND COMPARISON OF GENETIC STRUCTURE AND INSECTICIDE RESISTANCE PROFILES WITH CONSPECIFIC POPULATIONS IN WEST AND CENTRAL AFRICA

Luna Kamau Kenya Medical Research Institute (KEMRI), Nairobi, Kenya

#### 3:50 p.m.

#### TAXONOMY, POPULATION STRUCTURE, AND RESISTANCE PROFILES OF ANOPHELES GAMBIAE COMPLEX MOSQUITOES IN TANZANIA

Sophia Mwinyi Ifakara Health Institute, Ifakara, United Republic of Tanzania

#### 4:05 p.m.

## GENOMIC SURVEILLANCE OF ANOPHELES GAMBIAE S.L IN MALI

Assétou Diarra Malaria Research and Training Center, Bamako, Mali

#### 4:20 p.m.

#### DISCOVERY OF KNOCK-DOWN RESISTANCE IN THE MAJOR MALARIA VECTOR ANOPHELES FUNESTUS REVEALS THE LEGACY OF PERSISTENT DDT POLLUTION.

Joel Odero

Ifakara Health Institute & University of Glasgow, Ifakara & Edinburgh, United Republic of Tanzania

## **Scientific Session 34**

## Filariasis - Epidemiology and Control

## Convention Center - Room 343/344 (3rd Floor)

Thursday, November 14, 3 p.m. - 4:45 p.m.

## #onchocerciasis #loiasis #MDA #hygiene #filariasis

#### **CHAIR**

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

Philip Budge Washington University School of Medicine, St. Louis, MO, United States

#### 3 p.m.

## 6752

#### MOXIDECTIN PLUS ALBENDAZOLE FOR LYMPHATIC FILARIASIS: EFFECTS THROUGH 36 MONTHS POST-TREATMENT

Benjamin Koudou<sup>1</sup>, Catherine Bjerum<sup>2</sup>, Allassane Outtara<sup>1</sup>, Paskal Toki Gabo<sup>3</sup>, Charles Goss<sup>4</sup>, Daphne Lew<sup>4</sup>, Christopher King<sup>2</sup>, Peter Fischer<sup>4</sup>, Gary Weil<sup>4</sup>, Philip Budge<sup>5</sup> <sup>1</sup>Centre Suisse de Recherches Scientifiques en Côte d'Ivoire, Abidjan, Côte D'Ivoire, <sup>2</sup>Case Western Reserve University, Cleveland, OH, United States, <sup>3</sup>Centre Hospitalier Régional d'Agboville, Agboville, Côte D'Ivoire, <sup>4</sup>Washington University in St. Louis, St. Louis, MO, United States, <sup>5</sup>Washington University School of Medicine, St. Louis, MO, United States

#### (ACMCIP Abstract)

### 3:15 p.m.



#### STRINGENT APPLICATION OF THE ESSENTIAL PACKAGE OF CARE WITH OR WITHOUT ADDITIONAL TREATMENT WITH DOXYCYCLINE IN PATIENTS WITH ADVANCED STAGES (4 - 6) OF FILARIAL LYMPHEDEMA

**Ute Klarmann-Schulz**<sup>1</sup>, Sarah M. Sullivan<sup>2</sup>, Yaya I. Coulibaly<sup>3</sup>, Alexander Y. Debrah<sup>4</sup>, Thishan C. Yahathugoda<sup>5</sup>, Akili Kalinga<sup>6</sup>, Suma Krishnasastry<sup>7</sup>, Jennifer Nadal<sup>8</sup>, Charles Mackenzie<sup>2</sup>, John Horton<sup>9</sup>, Eric Ottesen<sup>2</sup>, Achim Hoerauf<sup>1</sup>

<sup>1</sup>Institute for Medical Microbiology, Immunology and Parasitology (IMMIP), University Hospital Bonn, Bonn, Germany, <sup>2</sup>Neglected Tropical Diseases Support Center, Task Force for Global Health, Atlanta, GA, United States, <sup>3</sup>International Center for Excellence in Research, Bamako, Mali, <sup>4</sup>Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR), Faculty of Allied Health Sciences, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana, <sup>5</sup>Filariasis Research Training and Service Unit, Department of Parasitology, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka, <sup>6</sup>National Institute for Medical Research (NIMR), Dar es Salaam, United Republic of Tanzania, <sup>7</sup>Filariasis Research center, Govt. T. D. Medical College, Alappuzha, Kerala, India, <sup>8</sup>Institute for Medical Biometry, Informatics and Epidemiology (IMBIE), University Hospital Bonn, Bonn, Germany, <sup>9</sup>Tropical Projects, Hitchin, United Kingdom

## (ACMCIP Abstract)

3:30 p.m. 6754

#### EVIDENCE OF RENEWED ONCHOCERCIASIS TRANSMISSION IN THE METEMA SUB-FOCUS AFTER TREATMENTS STOPPED IN 2017

Yewondwossen Bitew<sup>1</sup>, Emily Griswold<sup>2</sup>, Jenna E. Coalson<sup>2</sup>, Aderajew Mohammed<sup>1</sup>, Mitiku Adugna<sup>3</sup>, Fetene Mihretu<sup>3</sup>, Kadu Meribo<sup>4</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>, Gedefaw Ayenew<sup>3</sup>, Yihenew Wubet<sup>3</sup>, Anley Haile<sup>1</sup>, Fikre Seife<sup>4</sup>, Zerihun Tadesse<sup>1</sup>, Frank O. Richards<sup>2</sup>, Gregory S. Noland<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>The Carter Center, Bahir Dar, Ethiopia, <sup>4</sup>Federal Ministry of Health, Addis Ababa, Ethiopia

## 3:45 p.m.

ASSOCIATION BETWEEN ANATOMICAL HYPOSPLENISM AND LOA LOA MICROFILAREMIA IN A RURAL AREA OF THE REPUBLIC OF CONGO: A POPULATION-BASED CROSS-SECTIONAL STUDY (THE MORLO PROJECT)

6755

Cédric B. Chesnais<sup>1</sup>, Valentin Dupasquier<sup>2</sup>, Elodie Lebredonchel<sup>3</sup>, Sébastien D. S. Pion<sup>1</sup>, Charlotte Boullé<sup>1</sup>, Ludovic G. Rancé<sup>2</sup>, Marlhand Hemilembolo<sup>4</sup>, Michel Boussinesq<sup>1</sup>, Jeremy T. Campillo<sup>5</sup>, Francois Missamou<sup>6</sup>

<sup>1</sup>Institut de Recherche pour le Développement, Montpellier, France, <sup>2</sup>Montpellier University Hospital, Montpellier, France, <sup>3</sup>Hôpital Bichat-Claude Bernard, Paris, France, <sup>4</sup>Programme National de Lutte contre l'Onchocercose, Brazzaville, Republic of the Congo, <sup>5</sup>Inserm, Montpellier, France, <sup>6</sup>Programme National de Lutte contre l'Onchocercose, Br, Republic of the Congo

## 4 p.m.

#### 6756

#### IMPACT OF TRIPLE-DRUG MASS DRUG ADMINISTRATION ON THE SEROPREVALENCE OF ANTIBODIES TO LYMPHATIC FILARIASIS IN SAMOA

Harriet Lawford<sup>1</sup>, Helen Mayfield<sup>1</sup>, Filipina Amosa-Lei Sam<sup>2</sup>, Satu Viali<sup>2</sup>, Tito Kamu<sup>3</sup>, Robert Thomsen<sup>4</sup>, Colleen Lau<sup>1</sup>

<sup>1</sup>UQ Centre for Clinical Research, The University of Queensland, Brisbane, Australia, <sup>2</sup>National University of Samoa, Apia, Samoa, <sup>3</sup>Tupua Tamasese Meaole Hospital, Apia, Samoa, <sup>4</sup>Ministry of Health, Apia, Samoa

#### EVALUATION OF THE EFFECT OF ONE ROUND OF MASS DRUG ADMINISTRATION WITH IDA ON HUMAN *BRUGIA MALAYI* INFECTIONS IN BELITUNG DISTRICT, INDONESIA

Taniawati Supali<sup>1</sup>, Yenny Djuardi<sup>1</sup>, Sudirman Surdirman<sup>1</sup>, Elisa Iskandar<sup>1</sup>, Rahmat Alfian<sup>1</sup>, Yossi Destani<sup>1</sup>, Emanuele Giorgi<sup>2</sup>, Peter U. Fischer<sup>3</sup>

<sup>1</sup>Department of Parasitology, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia, <sup>2</sup>Faculty of Health and Medicine, Lancaster University, Lancaster, United Kingdom, <sup>3</sup>Division of Infectious Diseases, Washington University School of Medicine, Saint Louis, MO, United States

#### 4:30 p.m.

#### 6758

#### INVESTIGATION OF POTENTIAL ONCHOCERCIASIS HOTSPOTS IN PARTS OF ENUGU SOUTHEAST NIGERIA THAT ARE UNDER POST TREATMENT SURVEILLANCE

Adamu Sallau<sup>1</sup>, Jenna E. Coalson<sup>2</sup>, Lazarus Nweke<sup>1</sup>, Emmanuel Miri<sup>1</sup>, Emmanuel Emukah<sup>1</sup>, Cephas Ityonzughul<sup>1</sup>, Lindsay Rakers<sup>2</sup>, Emily Griswold<sup>2</sup>, Solomon Adelamo<sup>1</sup>, Samuel Ifeanychukwu<sup>1</sup>, Ifeoma Otiji<sup>9</sup>, Ebere Ogbodo<sup>3</sup>, Andrew Obasi<sup>1</sup>, Egeonu Attamah-Isiani<sup>1</sup>, Chukwuemeka Makata<sup>4</sup>, Fatai Oyediran<sup>4</sup>, Bertram E.B. Nwoke<sup>5</sup>, Frank O. Richards<sup>2</sup>, Gregory S. Noland<sup>2</sup>

<sup>1</sup>The Carter Center, Jos, Nigeria, <sup>2</sup>The Carter Center, Atlanta, GA, United States, <sup>3</sup>State Ministry of Health, Enugu, Nigeria, <sup>4</sup>Federal Ministry of Health, Abuja, Nigeria, <sup>5</sup>Imo State University, Owerri, Nigeria

## **Scientific Session 35**

# Water, Sanitation, Hygiene and Environmental Health (WaSH-E): Interventions

Convention Center - Room 345 (3rd Floor)

Thursday, November 14, 3 p.m. - 4:45 p.m.

### #Epidemiology #InfectiousDisease #Prevention #FieldStudies

#### <u>CHAIR</u>

Laura Braun London School of Hygiene & Tropical Medicine, London, United Kingdom

Jade Benjamin-Chung Stanford University, Stanford, CA, United States

#### 3 p.m.

## 6759

#### MITIGATING COLONIZATION WITH CARBAPENEM-RESISTANT ORGANISMS AMONG NEONATAL INTENSIVE CARE UNIT ADMISSIONS: EVALUATING THE EFFECTIVENESS OF INFECTION CONTROL INTERVENTIONS

Fahmida Chowdhury<sup>1</sup>, Gazi Md. Salahuddin Mamun<sup>1</sup>, Sanzida Khan<sup>1</sup>, Syeda Mah-E-Muneer<sup>1</sup>, Aminul Islam<sup>1</sup>, Dilruba Ahmed<sup>1</sup>, Debashis Sen<sup>1</sup>, Md. Golam Dostogir Harun<sup>1</sup>, Lisa P Oakley<sup>2</sup>, Gemma Parra<sup>2</sup>, Ashley Styczynski<sup>2</sup>

<sup>1</sup>icddr,b, Dhaka, Bangladesh, <sup>2</sup>Centers for Disease Control and Prevention (US-CDC), Atlanta, GA, United States

#### 3:15 p.m.

## 6760

#### URBAN SANITATION UPGRADES IN MAPUTO, MOZAMBIQUE ASSOCIATED WITH REDUCED DETECTION OF ENTERIC PATHOGENS IN FECAL SLUDGES

Gouthami Rao<sup>1</sup>, Márcia Chiluvane<sup>2</sup>, Yarrow Linden<sup>1</sup>, Jack Dalton<sup>1</sup>, Drew Capone<sup>3</sup>, Amanda Lai<sup>1</sup>, David Holcomb<sup>1</sup>, Erin Kowalsky<sup>1</sup>, Elly Mataveia<sup>2</sup>, Victória Cumbane<sup>2</sup>, Vanessa Monteiro<sup>2</sup>, Edna Viegas<sup>2</sup>, Joe Brown<sup>1</sup>

<sup>1</sup>University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, <sup>2</sup>Instituto Nacional de Saúde, Maputo, Mozambique, <sup>3</sup>Indiana University, Bloomington, IN, United States

## 3:30 p.m.

### 6761

in

#### EFFECTS OF HOUSEHOLD CONCRETE FLOORS ON MATERNAL AND CHILD HEALTH (CRADLE TRIAL): A RANDOMIZED CONTROLLED TRIAL

FARJANA JAHAN<sup>1</sup>, Mahbubur Rahman<sup>1</sup>, Suhi Hanif<sup>2</sup>, Afsana Yeamin<sup>1</sup>, Abul Kasham Shoab<sup>1</sup>, Zahid Hayat Mahmud<sup>3</sup>, Fahmida Tofail<sup>4</sup>, Rashidul Haque<sup>5</sup>, Ayse Ercumen<sup>6</sup>, Jade Benjamin-Chung<sup>2</sup>

<sup>1</sup>Environmental Health and WASH, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Dhaka, Bangladesh, <sup>2</sup>Department of Epidemiology & Population Health, Stanford University, California, CA, United States, <sup>3</sup>Laboratory of Environmental Health, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Dhaka, Bangladesh, <sup>4</sup>Nutrition Research Division, International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>5</sup>Infectious Diseases Division, International Centre for Diarrhoeal Disease Research, Bangladesh, <sup>6</sup>Department of Forestry and Environmental Resources, North Carolina State University, Raleigh, NC, United States

## 3:45 p.m.

#### EFFECTS OF A WATER, SANITATION, AND HYGIENE PROGRAM ON DIARRHEA AND CHILD GROWTH IN THE DEMOCRATIC REPUBLIC OF THE CONGO: A CLUSTER-RANDOMIZED CONTROLLED TRIAL OF THE PREVENTATIVE-INTERVENTION-FOR-CHOLERA-FOR-7-DAYS (PICHA7) PROGRAM

6762

Christine Marie George<sup>1</sup>, Presence Sanvura<sup>2</sup>, Jean-Claude Bisimwa<sup>2</sup>, Kelly Endres<sup>1</sup>, Alves Namunesha<sup>2</sup>, Willy Felicien<sup>2</sup>, Jamie Perin<sup>1</sup>, David Sack<sup>1</sup>, Camille Williams<sup>1</sup>, Raissa Boroto<sup>2</sup>, Gisèle Nsimire<sup>2</sup>, Feza Rugusha<sup>2</sup>, Freddy Endeleya<sup>2</sup>, Pacifique Kitumaini<sup>2</sup>, Claude Lunyelunye<sup>2</sup>, Emmanuel Buhendwa<sup>2</sup>, Brigitte Munyerenkana<sup>2</sup>, Jessy Timsifu<sup>2</sup>, Pascal Kitumanini<sup>2</sup>, Blessing Muderhwa Banywesize<sup>2</sup>, Justin Bengehya<sup>3</sup>, Ghislain Maheshe<sup>2</sup>, Cirhuza Cikomola<sup>2</sup>, Alain Mwishingo<sup>2</sup>, Lucien Bisimwa<sup>2</sup>

<sup>1</sup>Johns Hopkins School of Public Health, Baltimore, MD, United States, <sup>2</sup>Université Catholique de Bukavu, Bukavu, Democratic Republic of the Congo, <sup>3</sup>Division Provinciale de la Santé Sud Kivu, Ministère de la Santé, Bukavu, Democratic Republic of the Congo

## 4 p.m.

## 6763

#### REDUCED EXPOSURE TO ENTERIC PATHOGENS IN CHILDREN LIVING FROM BIRTH IN HOUSEHOLDS SERVED BY SANITATION UPGRADES IN URBAN MAPUTO, MOZAMBIQUE

Erin Kowalsky<sup>1</sup>, Márcia Chiluvane<sup>2</sup>, David Holcomb<sup>1</sup>, Vanessa Monteiro<sup>2</sup>, Victória Cumbane<sup>2</sup>, Elly Mataveia<sup>2</sup>, Toheedat Bakare<sup>1</sup>, Drew Capone<sup>3</sup>, Gouthami Rao<sup>1</sup>, Sindhuja Damodaran<sup>1</sup>, Samuel Pomper<sup>1</sup>, Oliver Cumming<sup>4</sup>, Edna Viegas<sup>2</sup>, Joe Brown<sup>1</sup> <sup>1</sup>University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, <sup>2</sup>Instituto Nacional de Saúde, Mozambique, Maputo, Mozambique, <sup>3</sup>Indiana University, Bloomington, IN, United States, <sup>4</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom

## 4:15 p.m.

6764

#### A CLUSTER RANDOMIZED CONTROLLED TRIAL FOR THE EFFECT OF A WATER, SANITATION AND HYGIENE KIT COMBINED WITH STANDARD OUTPATIENT TREATMENT ON DRINKING WATER QUALITY IN NORTHERN SENEGAL

Laura Braun<sup>1</sup>, Serigne Niang<sup>2</sup>, Djiby N'diaye<sup>2</sup>, Joseph Wells<sup>1</sup>, Matar Ba<sup>2</sup>, Clara Macleod<sup>1</sup>, Albert E. Cabo<sup>2</sup>, Yahya Gnokane<sup>2</sup>, Francoise Siroma<sup>3</sup>, Jean Lapegue<sup>2</sup>, Moustapha Seye<sup>4</sup>, Antonio Vargas<sup>5</sup>, Alexandre Devort<sup>2</sup>, Dleynaba N'diaye<sup>6</sup>, Oliver Cumming<sup>1</sup> <sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Action Against Hunger, Dakar, Senegal, <sup>3</sup>Action against Hunger, Dakar, Senegal, <sup>4</sup>LARTES, Dakar, Senegal, <sup>5</sup>Action Against Hunger, Madrid, Spain, <sup>6</sup>Action Against Hunger, Paris, France

#### 4:30 p.m.

## 6765

# DRINKING WATER QUALITY AND ACCESS IMPACTS ON INFANT GUT MICROBIOME COMPOSITION IN MOZAMBICAN INFANTS

**Courtney Victor**<sup>1</sup>, Konstantinos T. Konstantinidis<sup>2</sup>, Sandy McGunegill<sup>1</sup>, Rassul Nalá<sup>3</sup>, Jedidiah S. Snyder<sup>1</sup>, Matthew C. Freeman<sup>1</sup>, Karen Levy<sup>4</sup>

<sup>1</sup>Emory University, Atlanta, GA, United States, <sup>2</sup>Georgia Institute of Technology, Atlanta, GA, United States, <sup>3</sup>Ministry of Health (Instituto Nacional de Saúde), Marracuene, Mozambique, <sup>4</sup>University of Washington, Seattle, WA, United States

## Symposium 36

American Committee on Clinical Tropical Medicine and Travelers' Health (Clinical Group - ACCTMTH) Symposium I: Vincenzo Marcolongo Lecture: Schistosomiasis: Insights into Immunology and Treatment from Human Challenge Studies

Convention Center - Room 352 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

## Supported with funding from the International Association for Medical Assistance to Travellers (IAMAT)

This session features the Vincenzo Marcolongo Lecture, which honors

Medical Assistance to Travelers in 1960. Dr. Marcolongo's lifelong

work was devoted to the medical

Marcolongo worked tirelessly to

needs of travelers. Through IAMAT and numerous publications, Dr.

inform travelers of health risks and

Dr. Vincenzo Marcolongo, the

International Association for

founder of IAMAT - the



Vincenzo Marcolongo

raise awareness of travelers' health. His foresight, compassion and generosity continue to serve as inspiration for IAMAT's work. To quote Dr. Vincenzo Marcolongo, "Distinguished physicians and respected medical institutions, with a sense of solidarity which makes them like one family, are now working in harmony to assist the traveler who may require medical assistance on his journey... The need for peace and understanding between the peoples of the world has never been as great as now. Peace can come only with understanding, and travel is an important means of acquiring it."

Schistosomiasis is an acute and chronic parasitic disease caused by blood flukes (trematode worms) of the genus Schistosoma. Schistosomiasis transmission occurs in 78 countries, latest estimates revealed at least 251.4 million people requiring preventive treatment in 2021. In addition, female genital schistosomiasis is an emerging disease with considerable morbidity in low and middle income countries. Control of schistosomiasis depends on a single drug, praziquantel, with variable cure rates, high reinfection rates, and risk of drug resistance. A vaccine could transform schistosomiasis control efforts. Recent developments in understanding of parasite biology and host immune response as well as controlled human schistosoma infection models are advancing efforts in vaccine development. Dr. Meta Roestenberg will deliver the Marcolongo Lecture and provide an update on the latest insights into Schistosomiasis immunology and treatment based on the human challenge work and reflect on its implications for schistosome control strategies. #ClinicalResearch #Immunology #Vaccinology

## <u>CHAIR</u>

Kyle Petersen Uniformed Services University, Bethesda, MD, United States

## 3 p.m.

#### INTRODUCTION TO VINCENZO MARCOLONGO LECTURE Kyle Petersen

Uniformed Services University, Bethesda, MD, United States

#### 3:10 p.m.

#### VINCENZO MARCOLONGO LECTURE: SCHISTOSOMIASIS: INSIGHTS INTO IMMUNOLOGY AND TREATMENT FROM HUMAN CHALLENGE STUDIES



#### Meta Roestenberg, MD

Professor, Human Models for Vaccine Development Universiteit Leiden Leiden, The Netherlands

Meta Roestenberg is an infectious diseases clinician heading the Controlled Human Infection Center at Leiden University Medical Center in the Netherlands. She leads a group of translational researchers in answering key questions related to host-pathogen interaction by making use of controlled human infection models. Her research group was the first to establish a controlled human infection model using single-sex schistosomes and the first to establish a controlled human infection model for hookworm using higher doses of larvae, enhancing the power of experimental hookworm infections. Moreover, the team pioneered the clinical testing of a genetically attenuated sporozoite vaccine against malaria by intravenous administration and demonstrated the exceptional potency of late-arresting genetically attenuated malaria parasite vaccines. Recognizing the ethical complexity of such healthy volunteer studies, the group is active in establishing ethical frameworks for such challenge trials, contributing to generating guidelines and leading discussions.

## 3:55 p.m.

#### ACCTMTH ANNUAL BUSINESS MEETING Kyle Petersen

Uniformed Services University, Bethesda, MD, United States

#### 4:25 p.m. NETWORKING RECEPTION

## Scientific Session 37

## American Committee of Molecular Cellular and Immunoparasitology (ACMCIP): Molecular Approaches to Parasite Infection, Growth and Development

Convention Center - Room 353 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

#### Supported with funding from the Burroughs Wellcome Fund

#### #MolecularBiology #CellBiology #InfectiousDisease #Pathogenesis

#### <u>CHAIR</u>

Scott E. Lindner Pennsylvania State University, University Park, PA, United States

Hang Thi Thu Nguyen Yale University, New Haven, CT, United States

#### 3 p.m.

### 8433

#### A SPECIALIZED RIBOSOME PROMOTES HOST-TO-VECTOR TRANSMISSION IN THE HUMAN MALARIA PARASITE

Tiziano Vignolini, Justine Couble, Grégory Doré, Sebastian Baumgarten Pasteur Institute, Paris, France

#### 3:15 p.m.

## 8434

#### HIDE AND GO SEQ: CAPTURING THE ANTIBODY-VSG ARMS RACE DURING TRYPANOSOMA BRUCEI INFECTION

Lulu M. Singer<sup>1</sup>, Jaime E. So<sup>2</sup>, Alexander K. Beaver<sup>2</sup>, Monica R. Mugnier<sup>1</sup> <sup>1</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, <sup>2</sup>Johns Hopkins University School of Medicine, Baltimore, MD, United States

#### 3:30 p.m.

#### 6766

#### GENOME-WIDE ASSOCIATION STUDY OF AN AFRICAN SNAIL VECTOR OF SCHISTOSOMIASIS IDENTIFIES GENES ASSOCIATED WITH RESISTANCE TO INFECTION BY SCHISTOSOMA MANSONI

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

<sup>1</sup>Western University of Health Sciences, Lebanon, OR, United States, <sup>2</sup>Harvard T.H. Chan School of Public Health, Boston, MA, United States, <sup>3</sup>Centre for Global Health Research, Kenya Medical Research Institute, Kisumu, Kenya, <sup>4</sup>Centre for Biotechnology Research and Development, Kenya Medical Research Institute, Nairobi, Kenya, <sup>5</sup>University of New Mexico, Albuquerque, NM, United States

#### (ACMCIP Abstract)

#### 3:45 p.m.

#### 6767

#### GENERATING THE GENERATOR: A GIANT COMPLEX ESSENTIAL FOR MITOCHONDRIAL BIOGENESIS IN *PLASMODIUM FALCIPARUM*

#### Ijeoma Okoye, Ian Lamb, Swati Dass, Joanne M. Morrisey, Michael W. Mather, Akhil B. Vaidya

Drexel University College of Medicine, Philadelphia, PA, United States

#### (ACMCIP Abstract)

4 p.m.

## 6768

#### A DRUGGABLE AGC KINASE CLRK MEDIATES TEMPORAL REGULATION OF CYCLIC NUCLEOTIDE SIGNALING AND CONTROLS PARASITE EGRESS AND INVASION

Deepti Sarkar, Ravi Kumar Narayanasamy, Luciana Ribeiro Dinis, Abhai Tripathi, Isabelle Coppens, Prakash Srinivasan

Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, United States

#### (ACMCIP Abstract)

4:15 p.m.

6769

#### INCREASED DUFFY BINDING PROTEIN 1 EXPRESSION CORRELATES WITH *PLASMODIUM CYNOMOLGI* GROWTH IN CONTINUOUS CULTURE

Wayne Cheng<sup>1</sup>, Magdalena Argomaniz<sup>1</sup>, Caitlin C. Cooper<sup>1</sup>, Amadis Vivas<sup>1</sup>, Saniya Sabnis<sup>1</sup>, Sarah G. Roberson<sup>1</sup>, Celia L. Saney<sup>1</sup>, Mary R. Galinski<sup>2</sup>, Steven P. Maher<sup>1</sup>, Dennis E. Kyle<sup>1</sup>, Chester J. Jovner<sup>1</sup>

<sup>1</sup>University of Georgia, Athens, GA, United States, <sup>2</sup>Emory University, Atlanta, GA, United States

#### (ACMCIP Abstract)

## 4:30 p.m.

#### TISSUE COLONIZATION AND INFECTION ESTABLISHMENT OF TRYPANOSOMA BRUCEI BRUCEI AT THE BITE SITE

Hang Thi Thu Nguyen, Daniel Bruzzese, Erick Awuoche, Brian Weiss, Serap Aksoy Yale university, New Haven, CT, United States

6770

#### (ACMCIP Abstract)

## Symposium 38

## American Committee on Arthropod-Borne and Zoonotic Viruses (ACAV) Symposium I: Historical and Future Perspectives on Yellow Fever Virus

Convention Center - Room 354/355 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

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

Yellow fever virus (YFV) is an epidemic-prone arbovirus spread by various mosquito genera in the subtropics and tropics of South America and Africa. This event aims to bring together accomplished scientists engaged in YFV research for a discussion of the YFV history, current perspectives, and therapeutic development. #TranslationalScience #EmergingDiseaseThreats #Pathogenesis #Epidemiology #Evolution

#### <u>CHAIR</u>

Mauricio Noguiera Faculdade de Medicina de Sao Jose do Rio Preto, Sao Jose do Rio Preto, Brazil

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

#### 3 p.m. INTRODUCTION

#### 3:10 p.m. HISTORY OF YFV

Tom Monath Crozet BioPharma LLC, Devens, MD, United States

#### 3:30 p.m. YFV TREATMENTS - A FOCUS ON MONOCLONALS

Esper G. Kallas University of Sao Paulo, School of Medicine, Sao Paulo, Brazil

### 3:55 p.m.

## YFV IN SOUTH AMERICA

Marta Giovanetti Laboratorio de Flavivirus, Fundacao Oswaldo Cruz, Rio de Janerio, Brazil

## 4:20 p.m.

## YFV IN NEW ORLEANS

Robert F. Garry Tulane University, New Orleans, LA, United States

## Symposium 39

## **One Health Action for All: Assessment and Evaluation**

## Convention Center - Room 356 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

The globe faces a prominent and urgent public health threat at the human-animal-environment interface, particularly concerning the emergence of diseases such as avian influenza, severe acute respiratory syndrome (SARS-CoV-1), and COVID-19. This highlights a vulnerability exacerbated by dense human populations and increased human-animal interactions. Adding to these concerns, challenges with antimicrobial resistance and food security issues have been exacerbated by the interaction of diverse ecological landscape and social-economic patterns. The significance of adopting a One Health approach to address these challenges is well-recognized. However, there are persistent challenges in implementing One Health at the national and sub-national levels, and this imposes an urgent need for executive assessments to guide One Health actions. Recognizing this critical gap, a number of research teams, are leading innovative expirations in developing tools and measurements for One Health assessment and evaluation. For example, the team from School of Global Health, Chinese Center for Tropical Diseases Research, Shanghai Jiao Tong University School of Medicine, with the support of the Bill & Melinda Gates Foundation, lead the establishment of the global One Health index (GOHI) and One Health Action Commission (OHAC). The discussion on the assessment and evaluation of One Health holds significant values. The performance evaluation of One Health helps countries understand their own shortcomings and gaps in One Health development. This facilitates the implementation of One Health approaches and the determination of priority areas for international aid related to One Health, thereby promoting the achievement of the Sustainable Development Goals. Meanwhile, the assessments lay the foundations for the incubation of One Health pilot projects and help to design prototypes tailoring into local scenarios. This symposium serves a catalytic role in improving exchanges benefiting various audience in assessment and evaluation on One Health implementation in LMICs, with following specific objectives: (i) it promotes dissemination of innovative techniques and research breakthroughs of One Health assessment and evaluation, thereby driving the advancement

of relevant methodologies and tools; (ii) it encourages the discussion on the gaps in One Health practices and the priorities for One Health assessment and evaluation, particularly in areas such as infectious disease control and prevention, emergency response, and antimicrobial resistance monitoring; (iii) it deepens the understanding of the essence of One Health assessment and evaluation, and promotes its application in decision-making related to health issues. #Elimination #EmergingDiseaseThreats #Epidemiology #FieldStudies #InfectiousDisease

## <u>CHAIR</u>

## Xiaonong Zhou

School of Global Health, Chinese Center for Tropical Diseases Research, Shanghai Jiao Tong University School of Medicine, Shanghai, China

#### 3 p.m. INTRODUCTION

#### 3:05 p.m. THE PROGRESS OF CHINA IN PROMOTING ONE HEALTH APPROACH

Xiaonong Zhou

National Institute of Parasitic Diseases at Chinese Center for Disease Control and Prevention, Shanghai, China

## 3:30 p.m.

#### TRIPLE-CRISES-INDUCED FOOD INSECURITY: SYSTEMATIC UNDERSTANDING AND RESILIENCE BUILDING APPROACHES IN AFRICA

Tambo Ernest

University of Global Health Equity, Kigali, Rwanda

### 3:55 p.m.

#### DETERMINANTS FOR THE RISK OF MALARIA INFECTIONS AMONG CHILDREN IN REFUGEE SETTLEMENTS IN UGANDA Song Liang

University of Massachusetts Amherst, Amherst, United States

#### 4:20 p.m.

## HOW FAR HAS THE GLOBE GONE IN ACHIEVING ONE HEALTH: EVIDENCE FROM GLOBAL ONE HEALTH INDEX (GOHI)

Xiaoxi Zhang

School of Global Health, Chinese Center for Tropical Diseases Research, School of Medicine, Shanghai Jiao Tong University, Shanghai, China



## Hansen's Disease (Leprosy) in the United States: Local Lessons and Global Implications

Convention Center - Room 357 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

Hansen's disease, or leprosy, is a disease documented since ancient times. However, we are still struggling on our way towards elimination of this persistent and disabling disease, with more than 200,000 new cases reported every year to WHO. Several crucial characteristics of this disease are posing a challenge to reaching the goal of transmission interruption and elimination, including the long incubation time, diagnostic difficulties, our inability to predict who is at risk, and unavailability of *in vitro*  culturing. Furthermore, stigma and discrimination are longstanding barriers to early detection of leprosy and disability prevention. Needless to say that social exclusion contributes to the decrease in quality of life of those affected by the disease. In the United States (US), while leprosy is often considered to be eliminated, in reality, there are still 150 to 200 new cases reported yearly to the CDC or the National Hansen's Disease (Leprosy) Program. Cases arise not only among migrants but also within domestic populations, possibly contracting the disease from animal reservoirs, particularly armadillos. This potential zoonotic transmission could complicate global disease control efforts. Louisiana, host to this year's ASTMH, is a home to Carville where it was the only national leprosarium in the continental United States (1894-2005). Renowned for the discovery of promin (later dapsone), the first leprosy drug, Carville's legacy continues as the National Hansen's Disease Museum and as the National Hansen's Disease Program in Baton Rouge. The latter's Laboratory Research Branch holds the world's sole armadillo-based leprosy model and a diverse array of research initiatives. In this symposium, we aim to elucidate the global and US leprosy statuses, disease control efforts, and targets. Pioneering work at the National Hansen's Disease Program will be presented. Furthermore, no discussion on leprosy would be complete without addressing the stigma associated with the disease. A second-generation family member of a Carville survivor will share her experience that have separated her from her parents and offer insights into how the residents forged their own world behind a barbed wire fence. To achieve the targets as outlined in the NTD Roadmap 2021-2030, Louisiana and US experiences warrant revisitation. With stagnant global case figures over the past two decades, a paradigm shift in leprosy control is imperative. Our focus should extend beyond countries where the disease is identified to be endemic. Given globalization and the zoonotic nature of leprosy, cases emerge regardless of geographical boundaries. We anticipate our symposium will shed a light on this facet of leprosy and contribute to the global fight against the disease. #Elimination #Epidemiology #HostResponse #PopulationSurveillance #SocialScience

#### <u>CHAIR</u>

Rie R. Yotsu Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States

Barbara M. Stryjewska National Hansen's Disease Program, Baton Rouge, LA, United States

#### 3 p.m. INTRODUCTION

#### 3:10 p.m.

GLOBAL EPIDEMIOLOGY OF HANSEN'S DISEASE (LEPROSY) AND ROADMAP TO 2030

Subbanna Jonnalagada World Health Organization - Global Leprosy Programme, New Delhi, India

## 3:25 p.m.

#### EPIDEMIOLOGY OF HANSEN'S DISEASE IN THE UNITED STATES Caroline A. Schrodt

CDC, Bacterial Special Pathogens Branch, Division of High-Consequence Pathogens & Pathology, Atlanta, GA, United States

#### 3:40 p.m.

# TREATMENT FOR HANSEN'S DISEASE AND ITS IMMUNOLOGICAL COMPLICATIONS

Barbara M. Stryjewska National Hansen's Disease Program, Baton Rouge, LA, United States

#### 3:55 p.m.

### EVALUATING NEW THERAPEUTIC AND PROPHYLACTIC COMPOUNDS & REGIMENS AGAINST MYCOBACTERIUM LEPRAE INFECTION

Ramanuj Lahiri National Hansen's Disease Program, Baton Rouge, LA, United States

#### 4:10 p.m.

#### HANSEN'S DISEASE, THE SEPARATING SICKNESS: LIVED EXPERIENCE FROM CARVILLE, LOUISIANA

Anne Harmon Brett Friends of the Carville Historic District, Vacherie, LA, United States

#### 4:25 p.m.

### HANSEN'S DISEASE (LEPROSY), THE SEPARATING SICKNESS: LIVED EXPERIENCE FROM CARVILLE, LOUISIANA

Claire Manes Friends of Carville Historic District, Lafayette, LA, United States

#### 4:35 p.m.

#### CAN WE ELIMINATE HANSEN'S DISEASE (LEPROSY)? - FROM LOCAL TO GLOBAL PERSPECTIVE

Rie Yotsu Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States

## Scientific Session 41

## Global Health: Community Health, NTDs and NCDs

Convention Center - Room 383/384/385 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

### #Elimination #Epidemiology #FieldStudies #InfectiousDisease

#### <u>CHAIR</u>

Grace Murilla Yale University and Trypanosomiasis Res Ctr-KARI, Nairobi, Kenya

Karla Estudillo Fuentes Emory University, Atlanta, GA, United States

## 3 p.m.

## 6771

# **BROKERED DESIGN:** COMMUNITY-DRIVEN LEARNING FOR MALARIA ELIMINATION IN THE DOMINICAN REPUBLIC

Karla Estudillo Fuentes<sup>1</sup>, Luccene Desir<sup>2</sup>, Victoria Krauss<sup>2</sup>, Gregory Noland<sup>2</sup>, Karen Hamre<sup>2</sup>, Nicole Michelen Strofer<sup>3</sup>, Domingo Cabral<sup>4</sup>, Jose Luis Cruz Raposo<sup>5</sup>, James Lavery<sup>1</sup>

<sup>1</sup>Human Engagement Learning Platform, Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA, United States, <sup>2</sup>The Carter Center, Atlanta, GA, United States, <sup>3</sup>Malaria and Neglected Tropical Diseases Program, Clinton Health Access Initiative, Santo Domingo, Dominican Republic, Santo Domingo, Dominican Republic, <sup>4</sup>Centro de Prevención y Control de Enfermedades Transmitidas por Vectores y Zoonosis, Ministerio de Salud y Asistencia Social, Santo Domingo, Dominican Republic, <sup>6</sup>Centro de Prevención y Control de Enfermedades Transmitidas por Vectores y Zoonosis, Ministerio de Salud y Asistencia Social, Dominican Republic, Santo Domingo, Dominican Republic

#### ASSOCIATION OF BLOOD PRESSURE AND ANTHROPOMETRIC INDICATORS WITH GENE VARIANTS IN ADULTS IN THE KASSENA NANKANA MUNICIPAL AND KASSENA NANKANA WEST DISTRICT OF GHANA

Joseph Alale Aweeya<sup>1</sup>, Godfred Agongo<sup>2</sup>, Patrick O. Ansah<sup>1</sup>, Lord Gowans<sup>3</sup> <sup>1</sup>Navrongo Health Research Centre, Navrongo, Ghana, <sup>2</sup>C. K. Tedam University of Technology and Applied Sciences, Navrongo, Ghana, <sup>3</sup>Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

## **Scientific Session 42**

## Global Health: Global Health Security, Emerging Infectious Diseases and Pandemic Preparedness

Convention Center - Room 388/389 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

This session does not carry CME credit.

### #InfectiousDisease #EmergingDiseaseThreats #Diagnostics #Prevention #Modeling

#### <u>CHAIR</u>

Miguel Reina Ortiz Indiana University Fairbanks School of Public Health, Indianapolis, IN, United States

Claire Quiner

RTI International, Research Triangle Park, NC, United States

3 p.m.

## 6778

#### USE OF A ONE HEALTH APPROACH TO DETECT EIGHT NOVEL HIGH RISK PATHOGENS IN ACUTE FEBRILE PATIENTS IN NIGERIA

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

<sup>1</sup>RTI International, Research Triangle Park, NC, United States, <sup>2</sup>APIN Public Health Initiatives, Abuja, Nigeria, <sup>3</sup>Irrua Specialist Teaching Hospital, Irrua, Nigeria, <sup>4</sup>University of Abuja Teaching Hospital, Abuja, Nigeria

## 3:15 p.m.

# PATHOGEN ANALYSIS NETWORK FOR DETECTING MICROBES IN REAL-TIME (PANDEMIC)

6779

Jessica D. Wiley<sup>1</sup>, Ryan C. Chapman<sup>1</sup>, Karla Prieto<sup>1</sup>, **Michael R. Wiley**<sup>2</sup> <sup>1</sup>PraesensBIO, LLC, Omaha, NE, United States, <sup>2</sup>University of Nebraska Medical Center, Omaha, NE, United States

## 3:30 p.m.

#### SPATIAL VARIATION IN ENVIRONMENTAL AND SOCIODEMOGRAPHIC DRIVERS OF LEPTOSPIROSIS IN THE DOMINICAN REPUBLIC USING A GEOGRAPHICALLY WEIGHTED REGRESSION

6780

Beatris M. Martin<sup>1</sup>, Benn Sartorius<sup>1</sup>, Helen Mayfield<sup>1</sup>, Angela Cadavid Restrepo<sup>2</sup>, Cecilia J. Then Paulino<sup>3</sup>, Marie C. Etienne<sup>3</sup>, Ronald Skewes-Ramm<sup>3</sup>, Eric J. Nilles<sup>4</sup>, Colleen L. Lau<sup>1</sup>

<sup>1</sup>Centre fo Clinical Research, Faculty of Medicine, The University of Queensland, Brisbane, Australia, <sup>2</sup>School of Public Health, Faculty of Medicine, The University of Queensland, Brisbane, Australia, <sup>3</sup>Ministerio de Salud, Republica Dominicana, Santo Domingo, Dominican Republic, <sup>4</sup>Brigham and Womens Hospital, Harvard Medical School, Boston, MA, United States

## 3:45 p.m.

#### UTILIZATION OF NEAR REAL-TIME ENVIRONMENTAL DATA FOR AN 'EARLY WARNING SYSTEM' TO INCREASE PUBLIC PREPAREDNESS OF THE SEASONALITY AND SPREAD OF LYME DISEASE IN THE UNITED STATES

6781

Patrick H. Kelly<sup>1</sup>, Sarah Willis<sup>1</sup>, James H. Stark<sup>1</sup>, Agustín Estrada-Peña<sup>2</sup> <sup>1</sup>Pfizer, New York City, NY, United States, <sup>2</sup>Ministry of Health, Madrid, Spain

## 6772

#### ACCELERATING PROGRESS TOWARDS THE ELIMINATION OF MALARIA AND OTHER VBDS: ENGAGING WOMEN IN VECTOR CONTROL, THE PAMCA EXPERIENCE

Damaris Matoke-Muhia, Jessy Goupeyou-Youmsi, Rosalia Joseph, Christina Sudi, Emma Orefuwa

Pan Africa Mosquito Control Association, Nairobi, Kenya

#### 3:30 p.m.

## 6773

ADDRESSING HEALTH DISPARITIES AMONG TRANSGENDER WOMEN IN THE MIDDLE EAST: APPLYING THE ADAPT-ITT MODEL TO REFINE AND ENHANCE A COMMUNITY-BASED HIV INTERVENTION

Sasha Abdallah Fahme<sup>1</sup>, Rachel Kaplan<sup>2</sup>, Leah Zraika<sup>3</sup>, Parya Saberi<sup>2</sup> <sup>1</sup>Weill Cornell Medicine, New York, NY, United States, <sup>2</sup>University of California San Francisco, San Francisco, CA, United States, <sup>3</sup>Helem Lebanon, Beirut, Lebanon

#### 3:45 p.m.

## 6774

#### TOWARDS INCLUSIVE HEALTHCARE: UNDERSTANDING CAREGIVER PERCEPTION ON THE USE OF A DIGITAL TOOL BY CLINICIANS TO MANAGE SICK CHILDREN IN PRIMARY HEALTHCARE SETTINGS OF TANZANIA: A MIXED METHOD STUDY

Geofrey I. Ashery<sup>1</sup>, Ibrahim E. Mtebene<sup>1</sup>, Alexandra V. Kulinkina<sup>2</sup>, Godfrey A. Kavishe<sup>3</sup>, Rainer Tan<sup>4</sup>, Chacha D. Mangu<sup>5</sup>, Lameck L. Luwanda<sup>1</sup>, Peter Agrea<sup>5</sup>, Nyanda E. Ntinginya<sup>6</sup>, Honorati M. Masanja<sup>1</sup>, Valérie D'Acremont<sup>4</sup>, Sabine Renggli<sup>1</sup> 'Ifakara Health Institute, Dar es Salaam, United Republic of Tanzania, <sup>2</sup>Swiss Tropical and Public Health Institute, Basel, Switzerland, <sup>3</sup>National Institute of Medical Research, MMRC, Mbeya, United Republic of Tanzania, <sup>4</sup>University of Lausanne, Lausanne, Switzerland, <sup>5</sup>National Institute for Medical Research, MMRC, Mbeya, United Republic of Tanzania, <sup>6</sup>National Institute for Medical Research, Mbeya, United Republic of

6775

DECOMPOSITION ANALYSIS OF CHANGE IN THE BURDEN OF

Ewerton Cousin, Cathleen Keller, Joanna Whisnant, Stephanie R. M. Zimsen, Taren Gorman, Olivia Nesbit, Lydia Plante, Michael Celone, Quince Hara, Jonathan F.

Institute for Health Metrics and Evaluation, University of Washington, Seattle, WA, United

6776

SPATIAL ACCESS TO HEALTH SERVICES IN THE TRI-BORDER

<sup>1</sup>Instituto Gulich, Cordoba, Argentina, <sup>2</sup>Fundacion Mundo Sano, Buenos Aires, Argentina

Carla Rodriguez Gonzalez<sup>1</sup>, Susana Ávila<sup>2</sup>, Mariana Fernández<sup>2</sup>, Favio Crudo<sup>2</sup>, Veronica

**REGION OF ARGENTINA, BOLIVIA, AND PARAGUAY** 

**NEGLECTED TROPICAL DISEASES, 1990-2021** 

#### 4 p.m.

Mosser

States

4:15 p.m.

Andreo<sup>1</sup>, Maria Victoria Periago<sup>2</sup>

#### 4 p.m.

### **6782**

#### COUNTRIES' PROGRESS TOWARDS GLOBAL HEALTH SECURITY (GHS) INCREASED HEALTH SYSTEMS RESILIENCE DURING THE CORONAVIRUS DISEASE-19 (COVID-19) PANDEMIC: A DIFFERENCE-IN-DIFFERENCE STUDY OF 191 COUNTRIES

Tyler Y. Headley<sup>1</sup>, Sooyoung Kim<sup>2</sup>, Yesim Tozan<sup>3</sup>

<sup>1</sup>New York University Abu Dhabi, Abu Dhabi, United Arab Emirates, <sup>2</sup>New York University School of Global Public Health, Department of Public Health Policy and Management, New York, NY, United States, <sup>3</sup>New York University School of Global Public Health, Department of Global and Environmental Health, New York, NY, United States

#### 4:15 p.m.

#### 6783

#### DISTRICT READINESS TO RESPOND TO INFECTIOUS DISEASE PUBLIC HEALTH EMERGENCIES ACCORDING TO THE 7-1-7 TIMELINESS METRICS IN EASTERN UGANDA

Richard Ssekitoleko<sup>1</sup>, Herbert Isabirye<sup>2</sup>, Benjamin Fuller<sup>3</sup>, Margaret R Lawrence<sup>3</sup>, Solome Okware<sup>1</sup>, Annet Alenyo<sup>1</sup>, Immaculate Atuhaire<sup>1</sup>, Andrew Bakainaga<sup>1</sup>, Elizabeth Mgamb<sup>1</sup>, Yonas Tegegn Woldemariam<sup>1</sup>, Christopher C. Moore<sup>3</sup>

<sup>1</sup>World Health Organization, Kampala, Uganda, <sup>2</sup>Infectious Disease Institute and the National Public Health Emergency Operations Center, Kampala, Uganda, <sup>3</sup>University Of Virginia, Charlottesville, VA, United States

## 4:30 p.m. Lightning Talks

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

#### 6930

#### LESSONS FROM COVID-19 VACCINATION IMPLEMENTATION IN 52 AFRICAN COUNTRIES: IMPLICATIONS FOR FUTURE PANDEMIC PREPAREDNESS

**Muhammed Olanrewaju Afolabi**<sup>1</sup>, Oghenebrume Wariri<sup>2</sup>, Christinah Mukandavire<sup>1</sup>, Yauba Saidu<sup>3</sup>, Emmanuel A. Okpo<sup>4</sup>, Olalekan Uthman<sup>5</sup>, Beate Kampmann<sup>1</sup> <sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>MRC Unit The Gambia at the London School of Hygiene & Tropical Medicine, Banjul, Gambia, <sup>3</sup>Clinton Health Access Initiative, Yaounde, Cameroon, <sup>4</sup>UK Health Security Agency, Newcastle, United Kingdom, <sup>5</sup>University of Warwick Medical School, Coventry, United Kingdom

#### 6932

#### RAPID RESPONSE MOBILE SUITCASE LABORATORY AS A TOOL FOR COMBATING INFECTIOUS DISEASE OUTBREAKS

Paula Emily Schweizer<sup>1</sup>, Rea Maja Kobialka<sup>1</sup>, Arianna Ceruti<sup>1</sup>, Prakash Ghosh<sup>1</sup>, Martin Faye<sup>2</sup>, Oumar Faye<sup>2</sup>, Andy Mahine Diouf<sup>2</sup>, Soa Fy Andriamandimby<sup>3</sup>, Dinesh Mondal<sup>4</sup>, Sarah Schurig<sup>1</sup>, Manfred Weidmann<sup>5</sup>, Julius Boniface Okuni<sup>6</sup>, Kamal H Eltom<sup>7</sup>, Sheila Makiala-Mandanda<sup>8</sup>, Mitali Chatterjee<sup>9</sup>, Michael Frimpong<sup>10</sup>, Ndongo Dia<sup>2</sup>, George Olusegun Ademowo<sup>11</sup>, Mohamed A. Shalaby<sup>12</sup>, Uwe Truyen<sup>1</sup>, Ahmed Abd El Wahed<sup>1</sup> Institute of Animal Hygiene and Veterinary Public Health, Leipzig University, Leipzig, Germany, <sup>2</sup>Virology Department, Institut Pasteur de Dakar, Dakar, Senegal, <sup>3</sup>Virology Unit, Institut Pasteur de Madagascar, Madagascar, Madagascar, <sup>4</sup>Nutrition Research Division, International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Dhaka, Bangladesh, <sup>5</sup>Institute of Microbiology and Virology, Medizinische Hochschule Brandenburg Theodor Fontane, Neuruppin, Germany, <sup>6</sup>College of Veterinary Medicine, Animal Resources and Biosecurity, Makerere University, Kampala, Uganda, <sup>7</sup>Department of Animal Health and Safety of Animal Products, Institute for Studies and Promotion of Animal Exports, University of Khartoum, Khartoum, Sudan, 8Department of Virology at the Institut National de Recherche Biomédicale (INRB); Faculty of Medicine, University of Kinshasa, Kinshasa, Democratic Republic of the Congo, 9Department of Pharmacology, Institute of Postgraduate Medical Education and Research, Kolkata, India, <sup>10</sup>Kumasi Centre for Collaborative Research in Tropical Medicine (KCCR), Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, 11Institute for Advanced Medical Research and Training (IAMRAT), College of Medicine, University of Ibadan, Ibadan, Nigeria, 12Department of Virology, Faculty of Veterinary Medicine, Cairo University, Cairo, Egypt

#### 7677

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

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

<sup>1</sup>Federal Medical Centre Umuahia, Abia, Nigeria, <sup>2</sup>International Centre for Applied Mathematical Modelling and Data Analytics, Federal University Oye, Ekiti, Nigeria, <sup>3</sup>National Malaria Elimination Programme, Abuja, Nigeria, <sup>4</sup>Central Washington College, Enugu, Nigeria, <sup>5</sup>Pan African University Institute for Basic Sciences Technology and Innovation, Nairobi, Kenya, <sup>6</sup>Nnamdi Azikiwe University Teaching Hospital, Nnewi, Nigeria

#### 6885

#### SYNDEMIC MODELLING: A NOVEL MATHEMATICAL MODELLING FRAMEWORK FOR SIMULATING MULTIPLE PATHOGENS DYNAMICS IN CONTEXT

Caroline Franco<sup>1</sup>, Lisa J. White<sup>2</sup>, Sheetal Silal<sup>3</sup>

<sup>1</sup>University of Aberdeen, Aberdeen, United Kingdom, <sup>2</sup>University of Oxford, Oxford, United Kingdom, <sup>3</sup>University of Cape Town, Cape Town, South Africa

## **6933**

#### ADAPTING RAPID LABORATORY BIORISK SELF-ASSESSMENTS TO BETTER INCORPORATE CYBER-BIOSECURITY RISKS

Ming Yang Ong<sup>1</sup>, Emilie Ryan-Castillo<sup>1</sup>, Lauren Miller<sup>1</sup>, Brian Samuelson<sup>1</sup>, Claire Standley<sup>1</sup>, Kaitlin Sandhaus<sup>2</sup>, Kevin Omondi<sup>3</sup>, Tura Galgado<sup>3</sup> <sup>1</sup>Georgetown University Center for Health Science and Security, Washington D.C., DC, United States, <sup>2</sup>Global Implementation Solutions, Chicago, IL, United States, <sup>3</sup>Global Implementation Solutions, Nairobi, Kenya

## Scientific Session 43

## Malaria: Antimalarial Resistance and Chemotherapy

Convention Center - Room 391/392 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

# #Resistance #PopulationSurveillance #Elimination #Genomics #Therapeutics

CHAIR David Serre

University of Maryland School of Medicine, Baltimore, MD, United States

#### Ethan Booth

Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

## 3 p.m.

#### 6784

#### A SUBSET OF CAMBODIAN *PLASMODIUM VIVAX* PARASITES TREATED WITH ARTESUNATE DISPLAY SLOW CLEARANCE AND A DELAYED AND UNIQUE GENE EXPRESSION RESPONSE

Kieran Tebben<sup>1</sup>, Virak Eng<sup>2</sup>, David Serre<sup>1</sup>, Jean Popovici<sup>2</sup>

<sup>1</sup>University of Maryland School of Medicine, Baltimore, MD, United States, <sup>2</sup>Institut Pasteur du Cambodge, Phnom Penh, Cambodia

#### 3:15 p.m.

## 6785

#### EVALUATION OF AN IMPROVED SYBR GREEN I ASSAY FOR SURVEILLANCE OF ANTIMALARIAL RESISTANCE IN EX **VIVO AND CULTURED ISOLATES**

Agnes C. Cheruiyot, Redemptah Yeda, Farid Abdi, Dennis Juma, Benjamin.Opot@ usamru-k.org Opot, Raphael Okoth, Jackline Juma, Risper Maisiba, Maurine Mwalo, Edwin Mwakio, Timothy E. Egbo, Hosea Akala Kenya Medical Research Institute/ USAMRU-A, Kisumu, Kenya

#### 3:30 p.m.

### 6786

#### **EMERGING BIOLOGICAL THREATS TO MALARIA CONTROL IN** UGANDA: EVIDENCE OF VALIDATED MARKERS OF PARTIAL **ARTEMISININ RESISTANCE AND PFHRP2/3 DELETIONS IN A** HIGH TRANSMISSION SETTING

Dr. Bosco B. Agaba<sup>1</sup>, Trevor Jye<sup>2</sup>, David Smith<sup>3</sup>, Prof. Antonio Martin<sup>4</sup>, Associate Prof. Beshir Khalid<sup>5</sup>, Prof. Moses R. Kamya<sup>6</sup>, Prof. Pontiano Kaleebu<sup>7</sup>, Prof. Piot Peter<sup>4</sup>, Prof. Oin Cheng<sup>8</sup>

<sup>1</sup>Malaria Control Division/London School of Hygiene & Tropical Medicine/Peter Piot Fellow for Global Health Innovation: Epidemic Preparedness & Response/Mbarara University of Science and Technology, kampala, Uganda, <sup>2</sup>QIMR Berghofer Medical Research Institute, Brisbane, Australia, 35Australian Defence Force Malaria and Infectious Disease Institute, Australia, Brisbane, Australia, <sup>4</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>5</sup>London School of Hygiene & Tropical Medicine, London, Australia, 6Infectious Diseases Research Collaboration, kampala, Uganda, 7London School of Hygiene & Tropical Medicine/Uganda Virus Research Institute, Entebbe, Uganda, 8Australian Defence Force Malaria and Infectious Disease Institute, Australia, Brisbane, Australia

#### 3:45 p.m.

## 6787

#### **ARTESUNATE-PYRONARIDINE IS EFFICACIOUS FOR** THE TREATMENT OF UNCOMPLICATED PLASMODIUM VIVAX INFECTIONS AND BLOCKS TRANSMISSION MORE THAN **CHLOROQUINE IN ETHIOPIA**

Migbaru Keffale Bezabih<sup>1</sup>, Sinknesh Wolde<sup>1</sup>, Misganaw Misganaw<sup>1</sup>, Hiwot Teka<sup>2</sup>, Bereket Hailegiorgis<sup>3</sup>, Natnael Lemessa<sup>1</sup>, Legesse Alamerie Ejigu<sup>1</sup>, Samuel Girma<sup>2</sup>, Mekonnen Tadesse<sup>3</sup>, Fikregabrail Aberra Kassa<sup>1</sup>, Mikiyas Gebremichael<sup>1</sup>, Wakweya Chali<sup>1</sup>, Amanuel Shimelash<sup>1</sup>, Melat Abdo<sup>1</sup>, Addisu Gizat<sup>1</sup>, Getinet Habtamu<sup>1</sup>, Gudisa Assefa Bayissa<sup>4</sup>, Teun Bousema<sup>5</sup>, Fitsum G. Tadesse<sup>6</sup>

<sup>1</sup>Armauer Hansen Research Institute (AHRI), Addis Ababa, Ethiopia, <sup>2</sup>U.S. President's Malaria Initiative, USAID, Addis Ababa, Ethiopia, <sup>3</sup>ICAP at Columbia University, Addis Ababa, Ethiopia, <sup>4</sup>Ministry of Health, Addis Ababa, Ethiopia, <sup>5</sup>Armauer Hansen Research Institute (AHRI), Nijmegen, Netherlands, <sup>6</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom

#### 4 p.m.

#### 6788

#### INTERACTIVE GENETIC EPIDEMIOLOGY TOOLS FOR SURVEILLANCE OF DRUG-RESISTANT MALARIA PARASITE STRAINS

Ethan James Booth, Varanya Wasakul, Tess Verschuuren, Olivo Miotto Mahidol-Oxford Tropical Medicine Research Unit, Bangkok, Thailand

#### 4:15 p.m.

### 6789

#### PARTNERSHIP FOR ANTIMALARIAL RESISTANCE MONITORING IN AFRICA (PARMA) HUBS: LOCALIZATION AND CAPACITY STRENGTHENING FOR AFRICAN RESEARCHERS BY AFRICAN RESEARCHERS

Awa Deme<sup>1</sup>, Irene Cavros<sup>2</sup>, Mamadou A. Diallo<sup>1</sup>, Mouhamad Sy<sup>1</sup>, Bassirou Ngom<sup>1</sup>, Amy Gaye<sup>1</sup>, Aita Sene<sup>1</sup>, Djiby Sow<sup>1</sup>, Tolla Ndiaye<sup>1</sup>, Ibrahima M. Ndiaye<sup>1</sup>, Daba Zoumarou<sup>1</sup>, Jessica McCaffery<sup>3</sup>, Marko Bajic<sup>3</sup>, Cassandra Webster<sup>4</sup>, Jehan Ahmed<sup>5</sup>, Daouda Ndiaye<sup>1</sup> <sup>1</sup>International Research Training Center on Genomics and Health Surveillance (CIGASS), Dakar, Senegal, <sup>2</sup>U.S. President's Malaria Initiative, Malaria Branch, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>3</sup>U.S. President's Malaria

Initiative. Laboratory Science and Diagnostics Branch. U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>4</sup>CDC Foundation, Atlanta, GA, United States, <sup>5</sup>PATH, Washington, DC, United States

## 4:30 p.m. Lightning Talks

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

## 7911

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

Sunil K. Narwal<sup>1</sup>, John M. Bennett<sup>2</sup>, Krittikorn Kumpornsin<sup>3</sup>, John Okombo<sup>1</sup>, Tomas Yeo<sup>1</sup>, Case McNamara<sup>3</sup>, Matthew Bogyo<sup>2</sup>, David A. Fidock<sup>4</sup>

<sup>1</sup>Department of Microbiology and Immunology, Columbia University Irving Medical Center, NewYork, NY, United States, <sup>2</sup>Department of Chemistry, Stanford University, Stanford, CA, United States, 3 Calibr at Scripps Research Institute, La Jolla, CA, CA, United States, <sup>4</sup>Department of Microbiology and Immunology, Columbia University Irving Medical Center, New York, NY, United States

## 7918

PROFILING OF DRUG RESPONSES AND ANTIMALARIAL DRUG **RESISTANCE MARKERS IN P. FALCIPARUM CLONES FROM A GHANAIAN DHA-SELECTED CLINICAL ISOLATE** 

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

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

## 7146

### A DOUBLE THREAT TO ACT EFFICACY IN AFRICA: REDUCED SUSCEPTIBILITY OF PLASMODIUM FALCIPARUM TO BOTH ARTEMISININ AND LUMEFANTRINE

Colin J. Sutherland, Sade Pratt, Donelly A. van Schalkwyk London School of Hygiene & Tropical Medicine, London, United Kingdom

## 7147

#### COMBINATION OF REDOX MODIFIERS WITH ARTEMISININ **RESULTS IN INCREASED PARASITE SUSCEPTIBILITY TO** ARTEMISININS

Annie Roys<sup>1</sup>, Ghizal Siddiqui<sup>1</sup>, Carlo Giannangelo<sup>1</sup>, Darren Creek<sup>1</sup>, Natalie Counihan<sup>2</sup> <sup>1</sup>Monash institute of pharmaceutical science, Melbourne, Australia, <sup>2</sup>Deakin University, Geelong, Australia

## 7898

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

Ndey Fatou Drammeh, Fatoumatta Bojang, Nora Nganyewo, Aminata Seedy Jawara, Simon Correa, Eniyou Cheryll Oriero, Alfred Amambua-Ngwa Medical Research Council Unit The Gambia at London School of Hygiene & Tropical

Medicine, Banjul, Gambia

## **Scientific Session 44**

#### Malaria: Genetics, Genomics and Evolution

Convention Center - Room 393/394 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

### #Genetics #Evolution #Modeling #PopulationSurveillance #Genomics

#### **CHAIR**

Angela M. Early Broad Institute of MIT and Harvard, Cambridge, MA, United States

Alfred Amambua-Ngwa

Medical Research Council Unit The Gambia at London School of Hygiene & Tropical Medicine, Banjul, Gambia

#### 3 p.m.

## 6790

#### NEW INSIGHTS ON SELECTION OF MALARIA PARASITES REVEALED BY GENOMES OF OLDEST ARCHIVED *PLASMODIUM FALCIPARUM* POPULATION SAMPLES

Alfred Amambua-Ngwa<sup>1</sup>, Mouhamadou Fadel Diop<sup>1</sup>, Christopher J. Drakeley<sup>2</sup>, Umberto D'Alessandro<sup>1</sup>, Dominic Kwiatkowski<sup>3</sup>, David J. Conway<sup>2</sup>

<sup>1</sup>Medical Research Council Unit The Gambia at London school of Hygiene and Tropical Medicine, Banjul, Gambia, <sup>2</sup>London school of Hygiene and Tropical Medicine, London, United Kingdom, <sup>3</sup>MRC Centre for Genomics and Global Health, Big Data Institute, Oxford University, Oxford, United Kingdom

#### (ACMCIP Abstract)

#### 3:15 p.m.

#### 6791

#### A COMPLEX *PLASMODIUM FALCIPARUM* CRYPTOTYPE CIRCULATING AT LOW FREQUENCY ACROSS THE AFRICAN CONTINENT

Olivo Miotto<sup>1</sup>, Alfred Amambua-Ngwa<sup>2</sup>, Lucas N. Amenga-Etego<sup>3</sup>, Muzamil M. Abdel Hamid<sup>4</sup>, Ishag Adam<sup>5</sup>, Enoch Aninagyei<sup>6</sup>, Tobias Apinjoh<sup>7</sup>, Gordon A. Awandare<sup>3</sup>, Philip Bejon<sup>8</sup>, Gwladys Bertin<sup>9</sup>, Marielle Bouyou-Akotet<sup>10</sup>, Claessens Antoine<sup>11</sup>, David J. Conway<sup>12</sup>, Umberto D'Alessandro<sup>2</sup>, Mahamadou Diakite<sup>13</sup>, Abdoulaye Djimdé<sup>13</sup>, Arjen M. Dondorp<sup>14</sup>, Patrick Duffy<sup>15</sup>, Rick M. Fairhurst<sup>15</sup>, Caterina I. Fanello<sup>14</sup>, Anita Ghansah<sup>16</sup>, Deus S. Ishengoma<sup>17</sup>, Mara Lawniczak<sup>18</sup>, Oumou Maïga-Ascofaré<sup>19</sup>, Sarah Auburn<sup>20</sup>, Anna Rosanas-Urgell<sup>21</sup>, Varanya Wasakul<sup>14</sup>, Nina FD White<sup>18</sup>, Alexandria Harrott<sup>18</sup>, Jacob Almagro-Garcia<sup>18</sup>, Richard D. Pearson<sup>18</sup>, Sonia Goncalves<sup>18</sup>, Cristina Ariani<sup>18</sup>, Zbynek Bozdech<sup>22</sup>, William Hamilton<sup>18</sup>, Victoria Simpson<sup>18</sup>, Dominic Kwiatkowski<sup>23</sup> <sup>1</sup>University of Oxford, Bangkok, Thailand, <sup>2</sup>Medical Research Council Unit The Gambia at LSHTM, Banjul, Gambia, West African Centre for Cell Biology of Infectious Pathogens (WACCBIP), University of Ghana, Accra, Ghana, <sup>4</sup>Institute of Endemic Diseases, University of Khartoum, Khartoum, Sudan, 5 Department of Obstetrics and Gynecology, Unaizah College of Medicine and Medical Sciences, Qassim University, Unaizah, Saudi Arabia, 6Department of Biomedical Sciences of School of Basic and Biomedical Sciences, University of Health and Allied Science, Ho, Ghana, 7Department of Biochemistry and Molecular Biology, University of Buea, Buea, Cameroon, <sup>8</sup>KEMRI Wellcome Trust Research Programme, Kilifi, Kenya, <sup>9</sup>Institute of Research for Development (IRD), Paris, France, 10 Faculty of Medicine, University of Health Sciences, Libreville, Gabon, 11LPHI, MIVEGEC, INSERM, CNRS, IRD, University of Montpellier, Montpellier, France, 12London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>13</sup>Malaria Research and Training Centre, University of Science, Techniques and Technologies of Bamako, Bamako, Mali, 14 Mahidol-Oxford Tropical Medicine Research Unit, Mahidol University, Bangkok, Thailand, <sup>15</sup>National Institute of Allergy and Infectious Diseases, National Institutes of Health, Rockville, MD, United States, <sup>16</sup>Noguchi Memorial Institute for Medical Research (NMIMR), Accra, Ghana, 17 National Institute for Medical Research (NIMR), Dar Es Salaam, United Republic of Tanzania, 18Wellcome Sanger Institute, Hinxton, United Kingdom, <sup>19</sup>Bernhard Nocht Institute for Topical Medicine (BNITM), Hamburg, Germany, 20 Menzies School of Health Research, Charles Darwin University, Darwin, Australia, <sup>21</sup>Institute of Tropical Medicine Antwerp, Antwerp, Belgium, <sup>22</sup>School of Biological Sciences, Nanyang Technological University, Singapore, Singapore, 23Big Data Institute, Oxford University, Oxford, United Kingdom

(ACMCIP Abstract)

#### 3:30 p.m.

#### 6792

in

Tube

#### UNDERSTANDING GENETIC AND TRANSCRIPTIONAL COMPLEXITY IN MALARIA: INSIGHTS FROM SINGLE-CELL RNA-SEQUENCING IN MALI

Sunil Kumar Dogga<sup>1</sup>, Jesse Rop<sup>1</sup>, Seri Kitada<sup>1</sup>, Yomna Gohar<sup>2</sup>, Antoine Dara<sup>3</sup>, Dinkorma Ouologuem<sup>3</sup>, Fatalmoudu Tandina<sup>3</sup>, Sekou Sissoko<sup>3</sup>, Arthur Talman<sup>4</sup>, Abdoulaye Djimdé<sup>3</sup>, Mara Lawniczak<sup>1</sup>

<sup>1</sup>Wellcome Sanger Institute, Hinxton, United Kingdom, <sup>2</sup>Institute of Medical Microbiology and Hospital Hygiene, Heidelberg, Germany, <sup>3</sup>University of Science, Techniques and Technologies of Bamako, Bamako, Mali, <sup>4</sup>MIVEGEC, University of Montpellier, IRD, CNRS, Montpellier, France

#### (ACMCIP Abstract)

3:45 p.m.

#### 6793

GENETIC VARIATIONS IN *P. FALCIPARUM* INVASION LIGANDS AND THEIR COGNATE HUMAN RECEPTOR VARIANTS IN MALARIA CASES FROM THE GAMBIA

Nora Nghochuzie Nganyewo<sup>1</sup>, Martha Anita Martha<sup>1</sup>, Mouhamadou Fadel Diop<sup>1</sup>, Eniyou C. Oriero<sup>1</sup>, Lucas N. Amenga-Etego<sup>2</sup>, Alfred Amambua-Ngwa<sup>1</sup>

<sup>1</sup>Medical Research Council Unit The Gambia at London School of Hygiene & Tropical Medicine, Banjul, Gambia, <sup>2</sup>West African Centre for Cell Biology and Infectious Pathogens, Accra, Ghana

#### (ACMCIP Abstract)

4 p.m.

#### 6794

#### DEFINING IMMUNE ESCAPE POLYMORPHISMS IN PLASMODIUM VIVAX: INSIGHTS FROM THE ANALYSIS OF ALLELIC TURNOVER OF 16 ANTIGENS IN A LONGITUDINAL COHORT OF PAPUA NEW GUINEAN CHILDREN

Alison Paolo Namuco Bareng<sup>1</sup>, Myo Naung<sup>1</sup>, Zahra Razook<sup>1</sup>, Alicia Arnott<sup>2</sup>, Enmoore Lin<sup>3</sup>, Benson Kiniboro<sup>3</sup>, Moses Laman<sup>3</sup>, Leanne Robinson<sup>4</sup>, Ivo Mueller<sup>2</sup>, Alyssa Barry<sup>1</sup> <sup>1</sup>Deakin University, Victoria, Australia, <sup>2</sup>Walter and Eliza Hall Institute, Victoria, Australia, <sup>3</sup>Papua New Guinea Institute of Medical Research, Madang, Papua New Guinea. <sup>4</sup>Burnet Institute. Victoria. Australia

(ACMCIP Abstract)

4:15 p.m.

#### SOFTWARE TO ESTIMATE THE PROBABILITY THAT A RECURRENT MALARIA INFECTION IS A REINFECTION, RECRUDESCENCE OR RELAPSE

Aimee R. Taylor<sup>1</sup>, Yong See Foo<sup>2</sup>, Michael T. White<sup>1</sup> <sup>1</sup>Institut Pasteur, Université Paris Cité, Paris, France, <sup>2</sup>The University of Melbourne, Parkville, Melbourne, Australia

6795

(ACMCIP Abstract)

## 4:30 p.m.

GENETIC REGULATION OF *PLASMODIUM* FALCIPARUM OXIDATIVE STRESS RESPONSES

Camilla V. Pires<sup>1</sup>, Jenna Oberstaller<sup>1</sup>, Min Zhang<sup>1</sup>, Chengqi Wang<sup>1</sup>, Thomas Otto<sup>2</sup>, Julian Rayner<sup>3</sup>, John Adams<sup>1</sup>

6796

<sup>1</sup>University of South Florida, Tampa, FL, United States, <sup>2</sup>University of Glasgow, Glasgow, United Kingdom, <sup>3</sup>University of Cambridge, Cambridge, United Kingdom

(ACMCIP Abstract)

# Malaria: Elimination

Convention Center - Room 395/396 (3rd Floor) Thursday, November 14, 3 p.m. - 4:45 p.m.

## **#Resistance #InfectiousDisease #Elimination #Modeling #Diagnostics**

#### **CHAIR**

Aissatou Diawara

Global Institute for Disease Elimination (GLIDE), Abu Dhabi, United Arab Emirates

Truphena Onyango KEMRI-Wellcome Trust Research Programme, Kilifi, Kenya

#### 3 p.m.

# 6797

#### ASSESSMENT OF STRATEGIES USED IN THE MALARIA ELIMINATION DEMONSTRATION PROJECT (MEDP) FOR THE REDUCTION OF MALARIA IN A TRIBAL DISTRICT OF MADHYA PRADESH, INDIA

Harsh Rajvanshi<sup>1</sup>, Farzana Islam<sup>2</sup>, Altaf Lal<sup>1</sup>

<sup>1</sup>Foundation for Disease Elimination and Control of India, Mumbai, India, <sup>2</sup>Jamia Hamdard University, New Delhi, India

#### 3:15 p.m.

## 6798

#### ADVANCING MALARIA ELIMINATION ASSESSMENT IN LORETO, PERU THROUGH THE FREEDOM FROM INFECTION MODEL

Jorge Ruiz-Cabrejos<sup>1</sup>, Luca Nelli<sup>2</sup>, Bryan Fernandez-Camacho<sup>1</sup>, Brian Peña-Calero<sup>1</sup>, Jose Luis Barboza<sup>1</sup>, Luciana Bartolini-Arana<sup>1</sup>, Hugo Rodriguez-Ferrucci<sup>3</sup>, Veronica E. Soto-Calle<sup>4</sup>, Isabel Byrne<sup>5</sup>, Monica Hill<sup>5</sup>, Lynn Grignard<sup>5</sup>, Kevin Tetteh<sup>5</sup>, Alejandro Llanos-Cuentas<sup>6</sup>, Chris Drakeley<sup>6</sup>, Gillian Stresman<sup>5</sup>, Gabriel Carrasco-Escobar<sup>1</sup> <sup>1</sup>Health Innovation Laboratory, Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>School of Biodiversity, One Health and Veterinary Medicine. University of Glasgow, Glasgow, United Kingdom, <sup>3</sup>Universidad Nacional de la Amazonía Peruana, Iquitos, Peru, <sup>4</sup>Dirección de Prevención y Control de Enfermedades Metaxénicas y Zoonosis, Ministerio de Salud, Lima, Peru, <sup>5</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>6</sup>Institute of Tropical Medicine Alexander von Humboldt, Universidad Peruana Cayetano Heredia, Lima, Peru

### 3:30 p.m.

# 6799

#### COMMUNITY EXPERIENCES AND PERCEPTIONS OF THE BOHEMIA TRIAL OF IVERMECTIN MASS DRUG ADMINISTRATION: A LONGITUDINAL QUALITATIVE STUDY IN KWALE COUNTY. KENYA

Truphena N. Onyango, Khadija Nuru, Karisa Kazungu, Winnie Wangari, Caroline Jones

KEMRI-Wellcome Trust Research Programme, Kilifi, Kenya

# 3:45 p.m.

## 6800

#### REACTIVE CASE DETECTION IN ZANZIBAR, A MALARIA ELIMINATION-TARGETED SETTING EXPERIENCING MALARIA UPSURGES IN 2023

Michael Gulaka<sup>1</sup>, Abdulhamid Ramadhan<sup>2</sup>, Mohamed Ali Kitwasi<sup>2</sup>, Stella Makwaruzi<sup>1</sup>, Saidi Mgata<sup>1</sup>, Geofrey Makenga<sup>1</sup>, Nicodemus Govella<sup>1</sup>, Marguerite M. Clougherty<sup>3</sup>, Roly Gosling<sup>3</sup>, Shija J. Shija<sup>2</sup>, Albert Ikonje<sup>4</sup>, Sarah-Blythe Ballard<sup>5</sup>, Naomi Serbantez<sup>4</sup>, Sigsibert Mkude<sup>1</sup>

<sup>1</sup>Population Services International (PSI), Dar es Salaam, United Republic of Tanzania, <sup>2</sup>Zanzibar Malaria Elimination Program, Ministry of Health, Zanzibar, United Republic of Tanzania, <sup>3</sup>Population Services International (PSI), Washington DC, WA, United States, <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>U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Dar es Salaam, United Republic of Tanzania

# 4 p.m.

# 6801

#### RE-EMERGENCE OF *PLASMODIUM* VIVAX MALARIA CASES IN BORDER AREAS OF MYANMAR AND STRATEGIC EFFORTS TO INTEGRATE NEW TOOLS AT NATIONAL LEVEL FOR ELIMINATION OF *PLASMODIUM* VIVAX MALARIA FROM 2021 TO 2023

**Zwe Thihaa Kyaw**, Wah Wah Thaw, Kyi Tun Lwin, Soe Htike, Day Naing Aung, Han Lin Aung, Khin Zarli Aye *PATH, Yangon, Myanmar* 

# 4:15 p.m.

# 6802

# OPTIMIZING LAST-MILE DELIVERY THROUGH THE INTEGRATION OF MALARIA COMMODITIES DISTRIBUTION IN MALAWI

Fikadu Batu<sup>1</sup>, Daniel Taddesse Taddesse<sup>1</sup>, Lumbani Munthali<sup>2</sup>, Lumbani Makwakwa<sup>3</sup>, Denver Raisi<sup>1</sup>, Elias Mwalabu<sup>1</sup>, Charles Nzawa<sup>1</sup>

<sup>1</sup>USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project, Lilongwe, Malawi, <sup>2</sup>Ministry of Health-NMCP, Lilongwe, Malawi, <sup>3</sup>USAID, Lilongwe, Malawi

# 4:30 p.m. Lightning Talks

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

#### 7934

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

Daouda SANOGO<sup>1</sup>, Mahamoudou Toure<sup>2</sup>, Moussa Keita<sup>3</sup>, Fousseyni Kane<sup>1</sup>, Soumba Keita<sup>1</sup>, Cheick Oumar Doumbia<sup>1</sup>, Hamady Coulibaly<sup>1</sup>, Mountaga Diallo<sup>1</sup>, Mahamadou Diakite<sup>3</sup>, Nafomon Sogoba<sup>4</sup>, Seydou Doumbia<sup>5</sup>

<sup>1</sup>University Clinical Research Center(UCRC), Bamako, Mali, <sup>2</sup>University of Sciences, Tech and Techniques of Bamako (USTTB)/University Clinical Research Center(UCRC), Bamako, Mali, <sup>3</sup>University of Sciences, Tech and Technologies of Bamako(USTTB)/University Clinical Research Center(UCRC), Bamako, Mali, <sup>4</sup>University of Sciences, Tech and Technologies of Bamako (USTTB)/University Clinical Research Center(UCRC), Bamako, Mali, <sup>5</sup>University of Sciences, Tech and Technologies of Bamako (USTTB)/University Clinical Research Center(UCRC), Bamako, Mali, Bamako, Mali

## 7944

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

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

<sup>1</sup>Lusaka Apex Medical University, Lusaka, Zambia, <sup>2</sup>Tropical Diseases Research Centre, Ndola, Zambia, <sup>3</sup>Johns Hopkins School of Public Health, Baltimore, MD, United States, <sup>4</sup>–, Baltimore, MD, United States

#### 7938

#### ACHIEVING ZERO INDIGENOUS MALARIA CASES, SUB-NATIONAL MALARIA ELIMINATION VERIFICATION IN KING CETSHWAYO DISTRICT, SOUTH AFRICA. A FIRST IN SUB-SAHARAN AFRICA

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

<sup>1</sup>National Department of Health, pretoria, South Africa, <sup>2</sup>Clinton Health Access Initiative, Richards Bay, South Africa, <sup>3</sup>Malaria Program, KwaZulu natal Provincial Department of Health, Jozini, South Africa, <sup>4</sup>Humana People to People, pretoria, South Africa

# 7205

#### INTEGRATING ACTIVE SURVEILLANCE AND ENTOMOLOGY FELLOWSHIP FOR SUSTAINABLE MALARIA CONTROL AND ELIMINATION IN SOUTHERN ANGOLA

André Domingos<sup>1</sup>, Generoso Wangama<sup>2</sup>, José Franco Martins<sup>3</sup>, Cani Pedro Jorge<sup>3</sup>, Luzala Garcia<sup>3</sup>, Fernanda Guimarães<sup>3</sup>, Paulo Máquina<sup>4</sup>, Manuel Lando<sup>5</sup>, Ana Direito<sup>6</sup>, Xavier Badia<sup>7</sup>, Gonçalo Alves<sup>7</sup>, **Teresa Nobrega**<sup>6</sup>

<sup>1</sup>Provincial Public Health Department, Ondjiva, Angola, <sup>2</sup>SADC E8 fellowship, Cuangar, Angola, <sup>3</sup>National Malaria Control Programme, Ministry of Health, Luanda, Angola, <sup>4</sup>SADC Elimination 8, Luanda, Angola, <sup>5</sup>The Mentor Initiative, Ondjiva, Angola, <sup>6</sup>The Mentor Initiative, Luanda, Angola, <sup>7</sup>The Mentor Initiative, Haywards Heath, United Kingdom

# 7194

#### IMPROVING INTEGRATED COMMUNITY CASE MANAGEMENT (ICCM) BY COMMUNITY HEALTH WORKERS - AN EXAMPLE OF MALARIA MANAGEMENT IN NCHELENGE DISTRICT, ZAMBIA

Gift Hapenga  $^{\rm 1},$  Chilowekwa Shike  $^{\rm 1},$  Tawonga Manda  $^{\rm 1},$  Jennifer Somtore  $^{\rm 2},$  Rabson Zyambo  $^{\rm 3},$  Tamara Ngona  $^{\rm 4}$ 

<sup>1</sup>USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project, Lusaka, Zambia, <sup>2</sup>U.S. President's Malaria Initiative (PMI), Lusaka, Zambia, <sup>3</sup>USAID, Lusaka, Zambia, <sup>4</sup>Ministry of Health-NMEC, Lusaka, Zambia

### Break

Thursday, November 14, 4:45 p.m. - 5:15 p.m.



# Infectious Diseases Surveillance and Modeling in LMICs: From Data Collection to Forecasting

## *Convention Center - Hall I-2 (1st Floor)* Thursday, November 14, 5:15 p.m. - 7 p.m.

The COVID-19 pandemic, Ebola, cholera, and endemic diseases rising to epidemic levels have burdened existing public health infrastructure and surveillance systems globally. Resource scarcity and limited clinical reporting compounds these public health challenges in low- and middle-income countries. To confront these challenges, public health personnel within LMICs have made significant innovations, including enhancement of clinical data collection, surveillance systems, response infrastructure, and forecasting future outbreaks. This symposium presents five unique perspectives from LMICs on three continents, with examples of public health officials and NGOs who have partnered to improve public health in the face of multiple outbreaks. Each speaker outlines innovations in surveillance, response, or forecasting capabilities in resource-limited settings. The ability to track, respond, and forecast outbreaks hinges upon the accuracy of the data collected. Implementing technologies such as DHIS2 has augmented this effort, but the challenges of onground implementation are significant. Carol Kyozira, the Principal Biostatistician for the Ugandan Ministry of Health, will outline the challenges and, ultimately, the success of implementing a nationwide health data collection system in the face of multiple disease outbreaks, including Ebola, cholera, and COVID-19. Dr. Isobel Blake will present research on the value of sewage surveillance in Bangladesh for COVID-19 monitoring. Results from this surveillance system were shared with the National COVID-19 task force every week via a real-time dashboard, enhancing

response throughout Bangladesh. Dr. John Giles will discuss the development of a stochastic spatial model of Cholera transmission in Sub-Saharan Africa using incidence data collected as part of a national-level surveillance program. The model leverages multiple data streams to produce short-term district-level predictions of Cholera incidence with implications for the recent 2023-24 Cholera outbreak and future public health responses. Paul Garcia will outline a novel approach to rapid pathogen identification during the early stages of an outbreak and how his team has coupled this technology with notification and implementation of rapid response capabilities in Peru. Finally, we highlight advances in response and forecasting. The Uganda Ministry of Health has constructed a national network of Emergency Operations Centers, which uses real-time forecasting data to predict and rapidly respond to outbreaks. Dr. Richard Ssekitoleko of WHO-Uganda and Mr. Herbert Isabirye of the Ugandan Ministry of Health will outline the creation of the EOCs in Uganda during Ebola and COVID-19 outbreaks and how forecasting has augmented response efforts. #Modeling #Epidemiology #InfectiousDisease #PopulationSurveillance

#### <u>CHAIR</u>

Mami Taniuchi

University of Virginia, Charlottesville, VA, United States

Ben Fuller University of Virginia, Charlottesville, VA, United States

#### 5:15 p.m. INTRODUCTION

### 5:25 p.m.

#### ESTABLISHMENT OF DHIS2 AS A TOOL FOR DISEASE SURVEILLANCE THROUGHOUT UGANDA Carol Kyozira

Uganda Ministry of Health, Kampala, Uganda

#### 5:40 p.m.

#### WASTEWATER SURVEILLANCE FOR SARS-COV-2 AND OTHER PATHOGENS FOR PUBLIC HEALTH IMPACT: BANGLADESH EXPERIENCE

Isobel Blake Imperial College London, London, United Kingdom

## 5:55 p.m.

# A SURVEILLANCE AND RESPONSE SYSTEM FOR ACUTE FEBRILE ILLNESS IN THE PERUVIAN AMAZON

Paul Garcia

Asociación Benefica PRISMA, Iquito, Loreto, Peru

#### 6:10 p.m.

### A STOCHASTIC SPATIAL MODEL OF CHOLERA TRANSMISSION IN SUB-SAHARAN AFRICA AS PART OF A NATIONAL-LEVEL SURVEILLANCE PROGRAM

John Giles

The Bill & Melinda Gates Foundation, Institute for Disease Modeling, Seattle, WA, United States

#### 6:25 p.m.

# THE ESTABLISHMENT OF A NATIONAL EMERGENCY RESPONSE NETWORK TO FORECAST AND COMBAT PATHOGENS OF INTEREST IN UGANDA

**Richard Ssekitoleko** 

WHO-Uganda, Uganda Ministry of Health, Kampala, Uganda

#### 6:40 p.m. THE ESTABLISHMENT OF A NATIONAL EMERGENCY RESPONSE NETWORK TO FORECAST AND COMBAT PATHOGENS OF INTEREST IN UGANDA

Herbert Isabirye Uganda National Public Health Emergency Operations Center, Kampala, Uganda

# Symposium 47

# A Tribute to Carlos (Kent) Campbell: Global Leader in the Fight Against Malaria

Convention Center - Room 343/344 (3rd Floor)

Thursday, November 14, 5:15 p.m. - 7 p.m

# THIS SESSION DOES NOT CARRY CME CREDIT.

Carlos (Kent) Campbell, MD, MPH, FASTMH, ASTMH President (2007), Councilor (1990-1994) and recipient of the Society's Joseph Augustin Le Prince Medal (2012) passed away in Tucson, Arizona, on February 20, 2024, at age 80. Known to many for his kind, charismatic demeanor, visionary thinking, and good-natured sense of humor expressed in his southern drawl, Kent was a global leader in the fight against malaria who had a profound impact on efforts to control and eliminate the disease. This tribute symposium will track his remarkable life and career from his pre-CDC life in eastern Tennessee and at Haverford, Duke and Harvard through his start at the Centers for Disease Control as an EIS Officer in 1972, his start in malaria in El Salvador (1973-1976) followed by his leadership as Malaria Branch Chief (through 1993), his move to Arizona to develop and serve as interim Dean of the University of Arizona College of Public Health (1995-2002) and his return to malaria-specific work with UNICEF and then the Bill and Melinda Gates Foundation where he worked to co-develop the MACEPA Program and the Center of Excellence for Malaria at PATH (2003-2014) and establish collaborations with many African malaria-endemic countries and the global malaria community. As Kent noted in 2014, "Building a set of systems changes forever the potential of African communities: that's what's kept me in this business. When I started, malaria was merely a biological entity people studied in the lab, and I've seen a rapid shift during my career." The symposium will focus on his everevolving work and the qualities and reach of his mentorship over 40+ years. We will be joined by Kent's immediate family and many of his collaborating colleagues.

Reception to follow.

#InfectiousDisease #Elimination

## <u>CHAIR</u>

Stephen L. Hoffman Sanaria, Rockville, MD, United States

Regina Rabinovich ISGlobal, Barcelona, Spain

# 5:15 p.m. INTRODUCTION

# 5:30 p.m. FAMILY LIFE

Kristine Campbell University of Utah Medical Center, Salt Lake City, UT, United States

Patrick Campbell St Jude Children's Research Hospital, Memphis, TN, United States

# 5:35 p.m.

# KENT'S WEST AFRICAN ADVENTURE WITH LASSA

Thomas P. Monath Quigley Biopharma LLC, Bolton, MA, United States

# 5:45 p.m.

# EL SALVADOR

David Brandling Bennett Medical Epidemiologist, Retired, Seattle, WA, United States

# 5:55 p.m.

#### CDC MALARIA BRANCH CHIEF Altaf A. Lal

Sun Pharmaceuticals Industries Limited, Atlanta, GA, United States

Bernard Nahlen University of Notre Dame, Eck Institute for Global Health, South Bend, IN, United States Eve Lackritz

Center for Infectious Disease Research and Policy (CIDRAP), University of Minnesota, Minneapolis, MN, United States

# 6:15 p.m.

# BUILDING THE UNIVERSITY OF ARIZONA'S SCHOOL OF PUBLIC HEALTH

Imam Hakim The University of Arizona School of Public Health, Tuscon, AZ, United States

# 6:25 p.m. UNICEF TO GATES TO MACEPA

Richard Steketee Medical Epidemiologist, Retired, Bethesda, MD, United States Kafula Silumbe

Monitoring and Evaluation, MACEPA/PATH, Lusaka, Zambia

Busiku Hamainza Zambia Ministry of Health, Lusaka, Zambia

Kammerle Schneider PATH, Seattle, WA, United States

# 6:45 p.m.

# CLOSING REMARKS FROM FAMILY

Kristine Campbell University of Utah Medical Center, Salt Lake City, UT, United States

Patrick Campbell St Jude Children's Research Hospital, Memphis, TN, United States

# 6:55 p.m. REMARKS FROM AUDIENCE AND CLOSING

# Water, Sanitation, Hygiene and Environmental Health (WaSH-E): Outcomes

Convention Center - Room 345 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

# #Epidemiology #MolecularBiology #InfectiousDisease

#### **CHAIR**

Christine Marie George Johns Hopkins Bloomberg School of Public Hlth, Maryland, MD, United States

Isaac Chun Hai Fung Georgia Southern University, Statesboro, GA, United Sta

## 5:15 p.m.

# 6803

#### EXAMINATION OF PATHOGENS AND FECAL MARKERS IN THE ENVIRONMENT DUE TO INADEQUATE SANITATION SERVICES IN THE ALABAMA BLACK BELT.

Olivia A. Harmon, Megan Lott, Joe Brown The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States

5:30 p.m.

## 6804

## FECAL EXPOSURE PATHWAYS FOR CHILDREN IN LOW-INCOME, UNPLANNED COMMUNITIES OF URBAN MAPUTO, MOZAMBIQUE USING A QUANTITATIVE MICROBIAL RISK ASSESSMENT FRAMEWORK (QMRA)

Julia Silva Sobolik<sup>1</sup>, Elly Mataveia<sup>2</sup>, Mahira Amade<sup>2</sup>, Cynthia Silva<sup>2</sup>, Liliana Dengo-Baloi<sup>1</sup>, Laura Braun<sup>1</sup>, Oliver Cumming<sup>1</sup>, Edna Viegas<sup>2</sup>, Jackie Knee<sup>1</sup>

<sup>1</sup>LSHTM, London, United Kingdom, <sup>2</sup>Centro de Investigação e Treino em Saúde da Polana Caniço (CISPOC), Maputo, Mozambique

#### 5:45 p.m.

# 6805

#### UNDERSTANDING ANTIBIOTIC RESISTANCE, VIRULENCE, AND BIOFILM FORMATION IN ACINETOBACTER BAUMANNII: INSIGHTS FROM GORANCHATBARI SUB-CATCHMENT, DHAKA CITY

Mohammad Rafiqul Islam, Mohammad Atique Ul Alam, Md. Sakib Hossain, Amanta Rahman, Ashrin Haque, Md. Foysal Abedin, Md. Hajbiur Rahman, Md. Shafiqul Islam, Zahid Hayat Mahmud *icddr,b, Dhaka, Bangladesh* 

6 p.m.

# 6806

#### ENVIRONMENTAL EXPOSURES ASSOCIATED WITH ENTERIC PATHOGEN CARRIAGE IN CHILDREN AGED 6 MONTHS IN NORTHERN ECUADOR

Kelsey J. Jesser<sup>1</sup>, Nicolette A. Zhou<sup>2</sup>, Caitlin Hemlock<sup>1</sup>, Molly K. Miller-Petrie<sup>1</sup>, Christine S. Fagnant-Sperati<sup>1</sup>, April Ballard<sup>3</sup>, Paige Witucki<sup>4</sup>, Andrea Sosa-Moreno<sup>4</sup>, Gabriel Trueba<sup>5</sup>, William Cevallos<sup>6</sup>, Gwenyth O. Lee<sup>7</sup>, Joseph N.S. Eisenberg<sup>4</sup>, Karen Levy<sup>1</sup> <sup>1</sup>University of Washington, Seattle, WA, United States, <sup>2</sup>University of Washington, SEATTLE, WA, United States, <sup>3</sup>Georgia State University, Atlanta, GA, United States, <sup>4</sup>University of Michigan, Ann Arbor, MI, United States, <sup>5</sup>Universidad San Francisco de Quito, Quito, Ecuador, <sup>6</sup>Universidad Central del Ecuador, Quito, Ecuador, <sup>7</sup>Rutgers University, New Brunswick, NJ, United States 6:15 p.m.

# 6807

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#### SOIL-BORNE EXPOSURE TO ANTIMICROBIAL RESISTANT E. COLI AND SOIL-TRANSMITTED HELMINTHS THROUGH SOIL FLOORS IN RURAL BANGLADESH

Ayse Ercumen<sup>1</sup>, Md. Sakib Hossain<sup>2</sup>, Tahani Tabassum<sup>2</sup>, Ashrin Haque<sup>2</sup>, Amanta Rahman<sup>2</sup>, Md. Hajbiur Rahman<sup>2</sup>, Claire Anderson<sup>3</sup>, Sumaiya Tazin<sup>1</sup>, Suhi Hanif<sup>3</sup>, Md. Rana Miah<sup>2</sup>, Afsana Yeamin<sup>2</sup>, Farjana Jahan<sup>2</sup>, Abul Kasham Shoab<sup>2</sup>, Zahid Hayat Mahmud<sup>2</sup>, Mahbubur Rahman<sup>2</sup>, **Jade Benjamin-Chung**<sup>3</sup> <sup>1</sup>North Carolina State University, Raleigh, NC, United States, <sup>2</sup>icddr,b, Dhaka, Bangladesh, <sup>3</sup>Stanford University, Stanford, CA, United States

# 6:30 p.m.

6808

ASSOCIATION OF WATER, SANITATION AND HYGIENE (WASH) AND ANIMAL OWNERSHIP TO RELAPSE TO ACUTE MALNUTRITION (AM) FOLLOWING RECOVERY FROM SEVERE ACUTE MALNUTRITION (SAM) AMONG CHILDREN 6-59 MONTHS IN MALI, SOUTH SUDAN AND SOMALIA: A PROSPECTIVE COHORT STUDY

Lauren Eleanor D'Mello-Guyett<sup>1</sup>, Sarah King<sup>2</sup>, Sherifath Mama Chabi<sup>3</sup>, Feysal A. Mohamud<sup>4</sup>, Nancy Lamaka<sup>5</sup>, John Agong<sup>5</sup>, Malyun Mohamed<sup>4</sup>, Karim Kone<sup>3</sup>, Karin Gallandat<sup>1</sup>, Mesfin Gose<sup>5</sup>, Mohamed S. Omar<sup>4</sup>, Magloire Bunkembo<sup>3</sup>, Indi Trehan<sup>6</sup>, Anastasia Marshak<sup>7</sup>, Khamisa Ayoub<sup>8</sup>, Ahmed H. Olad<sup>9</sup>, Bagayogo Aliou<sup>10</sup>, Heather Stobaugh<sup>11</sup>, Oliver Cumming<sup>1</sup>

<sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>3</sup>Action Against Hunger, Bamako, Mali, <sup>4</sup>Action Against Hunger, Mogadishu, Somalia, <sup>5</sup>Action Against Hunger, Juba, South Sudan, <sup>6</sup>University of Washington, Seattle, WA, United States, <sup>7</sup>Tufts University, Boston, MA, United States, <sup>8</sup>Ministry of Health for the Republic of South Sudan, Juba, South Sudan, <sup>9</sup>Federal Ministry of Health for the Federal Republic of Somalia, Mogadishu, Somalia, <sup>10</sup>Ministry of Health and Social Development for the Republic of Mali, Bamako, Mali, <sup>11</sup>Action Against Hunger, Washington DC, DC, United States

# 6:45 p.m.

6809

COMMUNITY PERCEPTIONS OF OPEN DEFECATION AND SCHISTOSOMIASIS CONTROL: LESSONS LEARNED FROM A RAPID ETHNOGRAPHIC ASSESSMENT STUDY IN THREE ENDEMIC LAKESHORE COMMUNITIES IN MAYUGE, UGANDA

Lucy Pickering<sup>1</sup>, Edith Nalwadda<sup>2</sup>, Lazaaro Mujumbusi<sup>3</sup>, Agnes Ssali<sup>3</sup>, Janet Seeley<sup>3</sup>, Poppy H L Lamberton<sup>1</sup>

<sup>1</sup>University of Glasgow, Glasgow, United Kingdom, <sup>2</sup>Independent Researcher, Entebbe, Uganda, <sup>3</sup>MRC/UVRI & LSHTM Uganda Research Unit, Entebbe, Uganda



# American Committee on Clinical Tropical Medicine and Travelers' Health (Clinical Group - ACCTMTH) Symposium II: What's New with Vaccines for Tropical and Travel Medicine?

Convention Center - Room 352 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

In the last few years there have been exciting new developments in vaccines to prevent infectious diseases in people traveling to, working, or residing in areas endemic for diseases transmitted by insect or animal bites. This symposium explores the clinical use of vaccines that are in advanced clinical trials, that are recently approved, or that have new dosing recommendations. This symposium will specifically discuss vaccination for Chikungunya, Tick-Borne Encephalitis and Rabies. #Vaccinology #Prevention #InfectiousDisease

### **CHAIR**

Kyle Petersen Uniformed Services University, Bethesda, MD, United States

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

#### 5:15 p.m. INTRODUCTION

Kyle Petersen Uniformed Services University, Bethesda, MD, United States

# 5:35 p.m.

# CHIKUNGUNYA VACCINES: CURRENT STATUS AND CONSIDERATIONS FOR USE

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

# 6 p.m.

#### TOWARDS SHORTER RABIES PREP REGIMENS IN TRAVELERS Patrick Soentjens Institute of Tropical Medicine, Antwerp, Belgium

# 6:25 p.m.

TBE, AN UNDERESTIMATED RISK FOR TRAVELERS TO EUROPE? FROM EPIDEMIOLOGY TO VACCINATION PROGRAMS.

Ursula Widermann-Schmidt Medical University of Vienna, Vienna, Austria

# **Scientific Session 50**

# American Committee of Molecular Cellular and Immunoparasitology (ACMCIP): Parasite - Host Microenvironments

Convention Center - Room 353 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

# Supported with funding from the Burroughs Wellcome Fund

# #HostResponse #Pathogenesis #InfectiousDisease #CellBiology #Immunology

#### <u>CHAIR</u>

Selina Bopp Harvard T.H. Chan School of Public Health, Boston, MA, United States

Joao Luiz Silva-Filho Wellcome Centre for Integrative Parasitology, University of Glasgow, Glasgow, United Kingdom

# 5:15 p.m.

# 8435

## ESTABLISHMENT OF A LABORATORY SYSTEM TO INTERROGATE TRYPANOSOMA CRUZI DEVELOPMENT WITHIN THE KISSING BUG VECTOR RHODNIUS PROLIXUS

**Ruby Harrison**<sup>1</sup>, Kevin J. Vogel<sup>2</sup>, Drew Etheridge<sup>1</sup> <sup>1</sup>University of Georgia Center for Tropical and Emerging Global Diseases, Athens, GA, United States, <sup>2</sup>University of Georgia Department of Entomology, Athens, GA, United States

# 5:30 p.m.

# 8436

# CIRCADIAN RHYTHMS MEDIATE MALARIA TRANSMISSION POTENTIAL

Inês Bento<sup>1</sup>, Brianna Parrington<sup>2</sup>, **Rushlenne Pascual**<sup>2</sup>, Alexander Goldberg<sup>2</sup>, Eileen Wang<sup>3</sup>, Hani Liu<sup>2</sup>, Mira Zelle<sup>2</sup>, Joseph Takahashi<sup>4</sup>, Joshua Elias<sup>3</sup>, Maria Mota<sup>1</sup>, Filipa Rijo-Ferreira<sup>5</sup>

<sup>1</sup>Instituto de Medicina Molecular, João Lobo Antunes, Faculdade de Medicina Universidade de Lisboa, Lisbon, Portugal, <sup>2</sup>Berkeley Public Health, Molecular and Cell Biology Department, University of California, Berkeley, Berkeley, CA, United States, <sup>3</sup>Chan Zuckerberg Biohub – San Francisco, San Francisco, CA, United States, <sup>4</sup>Department of Neuroscience, Peter O'Donnell Jr. Brain Institute, University of Texas Southwestern Medical Center, Howard Hughes Medical Institute, Dallas, TX, United States, <sup>5</sup>Berkeley Public Health, Molecular and Cell Biology Department, University of California, Berkeley, Chan Zuckerberg Biohub – San Francisco, Berkeley, CA, United States

6810

# 5:45 p.m.

#### HOST GASTRIC CORPUS MICROENVIRONMENT FACILITATES ASCARIS SUUM LARVAL HATCHING AND INFECTION IN A MURINE MODEL

Yifan Wu<sup>1</sup>, Grace Adeniyi-Ipadeola<sup>1</sup>, Mahliyah Adkins-Threats<sup>1</sup>, Matthew Seasock<sup>1</sup>, Charlie Suarez-Reyes<sup>1</sup>, Ricardo Fujiwara<sup>2</sup>, Maria E. Bottazzi<sup>1</sup>, Lizhen Song<sup>1</sup>, Jason C. Mills<sup>1</sup>, Jill E. Weatherhead<sup>1</sup>

<sup>1</sup>Bayl<sup>o</sup>r College of Medicine, Houston, TX, United States, <sup>2</sup>Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

# (ACMCIP Abstract)

# 6 p.m.



#### COMPREHENSIVE SINGLE CELL RNA SEQUENCING UNVEILS THE TRANSCRIPTIONAL DYNAMICS OF *PLASMODIUM VIVAX* HYPNOZOITE FORMATION

Gigliola Zanghi<sup>1</sup>, Lindsay V. Clark<sup>1</sup>, Nastaran Rezakhani<sup>1</sup>, Wanlapa Roobsoong<sup>2</sup>, Jetsumon Sattabongkot<sup>3</sup>, Sumana Chakravarty<sup>4</sup>, Stephen L. Hoffman<sup>4</sup>, B. Kim Lee Sim<sup>4</sup>, Stefan H.I. Kappe<sup>1</sup>, Ashley M. Vaughan<sup>1</sup>

<sup>1</sup>Seattle Children's, Seattle, WA, United States, <sup>2</sup>Mahidol Vivax Research Unit, Faculty of Tropical Medicine, Bangkok, Thailand, <sup>3</sup>Mahidol Vivax Research Unit, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand, <sup>4</sup>Sanaria Inc., Rockville, MD, United States

# (ACMCIP Abstract)

6:15 p.m.

6812

#### *P. VIVAX*-INDUCED BM ALTERATIONS PERSIST LONG AFTER ACUTE PHASE OF INFECTION

Joao Luiz Silva-Filho<sup>1</sup>, Jessica RS Alves<sup>2</sup>, Anne CG Almeida<sup>3</sup>, Erich De Paula<sup>2</sup>, Stefanie Lopes<sup>4</sup>, Kevin Couper<sup>5</sup>, Thomas Otto<sup>1</sup>, Gisely Mello<sup>6</sup>, Wuelton Monteiro<sup>3</sup>, Marcus Lacerda<sup>3</sup>, Fabio TM Costa<sup>2</sup>, Matthias Marti<sup>1</sup>

<sup>1</sup>University of Glasgow, Glasgow, United Kingdom, <sup>2</sup>University of Campinas, Campinas, Brazil, <sup>3</sup>Tropical Medicine Foundation Dr. Heitor Vieira Dourado, Manaus, Brazil, <sup>4</sup>Fiocruz, Manaus, Brazil, <sup>5</sup>University of Manchester, Manchester, United Kingdom, <sup>6</sup>Tropical Medicine Foundation Dr. Heitor Vieira DouradoUniversity of Glasgow, Manaus, Brazil

# (ACMCIP Abstract)

6:30 p.m.

# 6813

#### A HUMAN PLURIPOTENT STEM CELL DERIVED MODEL OF THE NEUROVASCULAR UNIT COMPRISED OF BRAIN MICROVASCULAR ENDOTHELIAL CELLS, ASTROCYTES, AND NEURONS IN CEREBRAL MALARIA

Adnan Gopinadhan<sup>1</sup>, Finley Andrew<sup>1</sup>, Rylee Anderson<sup>2</sup>, Alejandro Soto<sup>1</sup>, Jason M. Hughes<sup>2</sup>, Andrea L. Conroy<sup>1</sup>, Chandy John<sup>1</sup>, Scott G. Canfield<sup>2</sup>, Dibyadyuti Datta<sup>1</sup> <sup>1</sup>Indiana University, Indianapolis, IN, United States, <sup>2</sup>Indiana University, Terre Haute, IN, United States

# (ACMCIP Abstract)

#### 6:45 p.m.

# 6814

# DIETARY EFFECTS ON THE COURSE OF VISCERAL LEISHMANIASIS IN A MOUSE MODEL

Natalie Jarvis, Grace Gutzman, Yani Chen, Bayan Zhanbolat, Patrick Nuro-Gyina, Jacilara Conceicao, Mary Wilson *University of Iowa, Iowa City, IA, United States* 

(ACMCIP Abstract)

# Symposium 51

# American Committee on Arthropod-Borne and Zoonotic Viruses (ACAV) Symposium II: Annual Business Meeting

Convention Center - Room 354/355 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

ACAV provides a forum for exchanging information among people interested in arbovirus research and research in diseases caused by high consequence viral pathogens. This session will include the ACAV business meeting, award presentations, research presentations by ACAV award recipients, and outbreak reports. These presenters will describe their research on arbovirology and emerging viral diseases. #EmergingDiseaseThreats #Prevention #Vaccinology #InfectiousDisease #Trainee

#### <u>CHAIR</u>

Mauricio Noguiera Faculdade de Medicina de Sao Jose do Rio Preto, Sao Jose do Rio Preto, Brazil

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

#### 5:15 p.m. INTRODUCTION

#### 5:25 p.m.

# ACAV AWARDS AND BUSINESS MEETING

Mauricio Noguiera Faculdade de Medicina de Sao Jose do Rio Preto, Sao Jose do Rio Preto, Brazil

#### 5:45 p.m. CHIKUNGUNYA VIRUS OUTBREAK REPORT

William Marciel de Souza University of Texas Medical Branch, Galveston, TX, United States

## 6 p.m.

# CREID/CREATE-NEO OUTBREAK REPORT

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

## 6:15 p.m. SCHERER/HARDY AWARD PRESENTATION

Mauricio Noguiera Faculdade de Medicina de Sao Jose do Rio Preto, Sao Jose do Rio Preto, Brazil

#### 6:30 p.m. NETWORKING RECEPTION

Symposium 52

# Setting the Research Agenda for Integrating One Health and Hygiene: A Delphi Method Synthesis of Expert Opinion

# Convention Center - Room 356 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

The UNEP One Health Joint Plan of Action underscores that the lack of One Health and Water, Sanitation and Hygiene (WASH) integration contributes to health problems for people, animals and their shared environment. Developing a roadmap for effective integration of hygiene and One Health necessitates consultations with experts from across these domains to identify gaps and priorities for research and practice. The objective of this symposium is to develop a research agenda for integrating One Health and hygiene by building on two previous events at WASH-focused conferences in 2023 (UNC Water & Health, Global Hygiene Summit), where WASH researchers, policymakers and funders were consulted to generate an initial list of gaps and priorities, stakeholders and thematic areas for effective integration. ASTMH provides an opportunity to continue this effort by 1) presenting preliminary findings to a broader interdisciplinary audience of experts in epidemiology, public health, animal health, One Health and WASH and 2) consulting with these experts to identify priorities within and across disciplines. The symposium will employ the Delphi method to harness the collective expertise of conference attendees, engaging participants in a collaborative process to identify and rank gaps and priorities for integrating One Health and hygiene and build a research agenda consensus. The symposium will be organized into three parts: 1. Introductory presentations : First, speakers will give an overview of the multiple domains of hygiene, their relevance to One Health and the rationale for their integration. This will be followed by a summary of findings from the UNC Water & Health and Global Hygiene Summit events, including WASH-experts' opinions on opportunities, challenges and key stakeholders for One Health and hygiene integration for five thematic areas: research gaps, research methodology, intervention development, evaluation of interventions and programs and translation of research to practice. 2. Live discussion and voting: For each thematic area, symposium participants will complete a questionnaire via QR code to rank items on the initial working list of key gaps, priorities and stakeholders derived from the 2023 events. Participants will respond to questions at the same time and voting results will be shown graphically in real-time with time allocated for reaction, discussion and debate after each set of results are presented. Participants will then be asked to vote in a second round to provide an opportunity for consensus building. 3. Summary and closing: The chairs will summarize voting results and main discussion points to highlight where consensus was/ was not reached. A final open-floor discussion of findings will follow. #Prevention #InfectiousDisease #Epidemiology

## <u>CHAIR</u>

**Flizabeth Thomas** 

Max T. Eyre London School of Tropical Medicine, London, United Kingdom

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

# 5:15 p.m. INTRODUCTION

#### 5:25 p.m. INTEGRATING HYGIENE INTO ONE HEALTH Kelly Baker

University of Iowa College of Public Health, Iowa City, IA, United States

## 5:40 p.m.

## RESEARCH AND LEARNING PRIORITIES FOR INTEGRATING HYGIENE AND ONE HEALTH: AN OVERVIEW OF PRELIMINARY FINDINGS

Fanta Gutema University of Iowa College of Public Health, Iowa City, IA, United States

# 5:55 p.m.

LIVE DISCUSSION AND VOTING Max T. Evre

London School of Tropical Medicine, London, United Kingdom

# 6:10 p.m. SUMMARY & CLOSING

Elizabeth Thomas Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

# Symposium 53

# End-to-End Development of a Lassa Fever Vaccine Program

# Convention Center - Room 357 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

Lassa fever (LF) is a serious viral hemorrhagic disease endemic to West Africa caused by zoonotic Lassa virus (LASV), a member of the arenavirus family, transmitted from rodents to humans. Though seasonal in nature, LF cases are reported year-round in some countries, and endemicity is likely to strengthen in west, central, and eastern Africa in the future. Case fatality rates are as high as 15-20%, and there is currently no licensed vaccine against LF. Therefore, the development of an effective and safe vaccine against LF is a high priority. IAVI, a nonprofit vaccine development and global health organization with over 25 years of experience conducting research, capacity building, and community engagement, including in West Africa, has a portfolio of vesicular stomatitis virus (VSV)-based vaccine candidates targeting several emerging infectious diseases (EIDs) including LF caused by LASV. IAVI's VSV construct is based on the same technology utilized in Merck's licensed ERVEBO® vaccine against Ebola Zaire. Based on highly promising preclinical data, IAVI has fully engaged in end-to-end product development with VSV-LASV, initiating a Phase I study at sites in the US and Liberia in June 2023, with enrollment in a Phase IIa trial to begin in early 2024. IAVI's model for innovative partnerships, involving alignment with organizations that have similar missions to our own, sets a precedent for other vaccine developers in the EID space. This symposium is chaired by representatives from partners engaged in end-to-end LF vaccine development (Liberian government, Walter Reed Army Institute of Research, and IAVI) and featuring a diverse array of speakers to facilitate in-depth review and discussion of epidemiological, preclinical, and clinical considerations involved in

establishing IAVI's VSV-LASV program. Speaker presentations will include: (1) Results from an acute Lassa Fever study and evolving molecular virology of Lassa (HJF 032) (Redeemer's University, Nigeria), (2) Overview of Lassa epidemiology studies supporting trial development (CEPI-ENABLE), (3) Preclinical data supporting the VSV-LASV program (IAVI), (4) Results from IAVI C102 Phase 1 trial with VSV-LASV in US and Liberian cohorts (PREVAIL), and (5) Challenges in end-to-end vaccine development for Lassa fever (IAVI). This session will provide a robust overview of endto-end product development for a critical LF vaccine and outline a partnership-based model that future vaccine developers may draw upon in establishing novel programs. #ClinicalResearch #EmergingDiseaseThreats #Epidemiology #InfectiousDisease #Vaccinology

# <u>CHAIR</u>

Swati Gupta IAVI, New York, NY, United States

Melanie McCauley Henry Jackson Foundation, Bethesda, MD, United States

Bernice Dahn University of Liberia, Monrovia, Liberia

# 5:15 p.m. INTRODUCTION

# **5:30 p.m.** RESULTS FROM AN ACUTE LASSA FEVER STUDY AND EVOLVING MOLECULAR VIROLOGY OF LASSA (HJF 032)

Christian Happi Redeemer's University, Ede, Osun State, Nigeria

# 5:45 p.m.

# OVERVIEW OF LASSA EPIDEMIOLOGY STUDIES SUPPORTING TRIAL DEVELOPMENT

Henshaw Mandi CEPI, Oslo, Norway

# 6 p.m.

# PRECLINICAL DATA SUPPORTING THE VSV-LASV PROGRAM

Christopher Cooper IAVI, New York City, NY, United States

# 6:15 p.m.

# RESULTS FROM IAVI C102 PHASE 1 TRIAL WITH VSV-LASV IN US AND LIBERIAN COHORTS

Mark Kieh

Partnership for Research on Ebola Virus in Liberia (PREVAIL), Monrovia, Liberia

# 6:30 p.m.

# CHALLENGES IN END-TO-END VACCINE DEVELOPMENT FOR LASSA FEVER

Johan Vekemans IAVI, New York City, NY, United States

# Global Health: Research, Training, Policy and Decolonization

Convention Center - Room 383/384/385 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

#### THIS SESSION DOES NOT CARRY CME CREDIT.

#### #Trainee #EarlyCareer #MNCH #InfectiousDisease

#### **CHAIR**

Andres G. Lescano Universidad Peruana Cayetano Heredia, Lima, Peru

Kassahun Alemu Gelaye HeSET Maternal and Child Health Research Program, Addis Ababa, Ethiopia

#### 5:15 p.m.

# 6815

# PERSPECTIVES ON EQUITABLE PARTNERSHIPS IN GLOBAL HEALTH

Senait Kebede, Mischka Garel, Michael Chung, Rebecca Martin Emory Global Health Institute, Emory University, Atlanta, GA, United States

#### 5:30 p.m.

# 6816

# INNOVATION FOR NEGLECTED DISEASES: TWO DECADES OF PROGRESS AND GAPS IN NEW DRUG APPROVALS

**Paul G. Ashigbie**<sup>1</sup>, Rajiv Shah<sup>2</sup>, Jonathan M. Spector<sup>1</sup>, Thierry T. Diagana<sup>3</sup> <sup>1</sup>Global Health, Biomedical Research, Novartis, Cambridge, MA, United States, <sup>2</sup>Global Health and Sustainability, Novartis, Basel, Switzerland, <sup>3</sup>Global Health, Biomedical Research, Novartis, Emeryville, CA, United States

#### 5:45 p.m.

# 6817

#### BUILDING CAPACITY FOR MATERNAL, NEWBORN & CHILD HEALTH RESEARCH IN LOW-INCOME COUNTRY SETTINGS: A RESEARCH FELLOWSHIP EXPERIENCE IN ETHIOPIA

Kassahun Alemu Gelaye<sup>1</sup>, Lisanu Taddesse<sup>1</sup>, Clara Pons-Duran<sup>2</sup>, Clara Pons-Duran<sup>2</sup>, Bezawit Mesfin Hunegnaw<sup>3</sup>, Robera Olana Fite<sup>1</sup>, Abebe Belayneh Bekele<sup>1</sup>, Frederick GB Goddard<sup>4</sup>, Assaye K. Nigussie<sup>5</sup>, Yifru Berhan<sup>6</sup>, Delayehu Bekele<sup>6</sup>, Theodros Getachew<sup>7</sup>, Ebba Abate<sup>8</sup>, Grace J. Chan<sup>9</sup>

<sup>1</sup>HeSET Maternal and Child Health Research Program, Addis Ababa, Ethiopia, <sup>2</sup>Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA, Harvard School of Public Health, MA, United States, <sup>3</sup>Department of Pediatric and Child Health, Saint Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, Addis Ababa, Ethiopia, <sup>4</sup>Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA, Addis Ababa, MA, United States, <sup>5</sup>College of Medicine and Health Sciences, Bahir Dar University, Bahir Dar, Ethiopia, <sup>6</sup>Department of Obstetrics and Gynecology, Saint Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, Addis Ababa, Ethiopia, <sup>7</sup>Health System and Reproductive Health Research Directorate, Ethiopian Public Health Institute, Addis Ababa, Ethiopia, Addis Ababa, Ethiopia, <sup>8</sup>Director General, Ethiopian Public Health Institute, Addis Ababa, Ethiopia, Addis Ababa, Ethiopia, <sup>9</sup>Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA, Boston, MA, United States

# 6 p.m.

## 6818

# EAST AND SOUTHERN AFRICAN CONSORTIUM FOR OUTBREAK EPIDEMIOLOGY TRAINING (ENTRANT)

Emily Webb<sup>1</sup>, Nega Assefa<sup>2</sup>, John Changalucha<sup>3</sup>, Maryirene Ibeto<sup>1</sup>, Joseph Jarvis<sup>1</sup>, Achilles Kiwanuka<sup>4</sup>, Madisa Mine<sup>5</sup>, Julius Oyugi<sup>6</sup>, Kwame Shanaube<sup>7</sup> <sup>1</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>2</sup>Haramaya University, Haramaya, Ethiopia, <sup>3</sup>Mwanza Interventions Trials Unit, Mwanza, United Republic of Tanzania, <sup>4</sup>MRC/UVRI and LSHTM Uganda Research Unit, Entebbe, Uganda, <sup>5</sup>National Health Laboratories, Gaborone, Botswana, <sup>6</sup>University of Nairobi, Nairobi, Kenya, <sup>7</sup>Zambart, Lusaka, Zambia

## 6:15 p.m.

#### 6819

### WHO ANC POLICY AND SKILLED BIRTH ATTENDANCE IN SUB-SAHARAN AFRICA

Michael Bride<sup>1</sup>, Bolanle Olapeju<sup>2</sup>

<sup>1</sup>Johns Hopkins University Center for Communication Programs, Baltimore, MD, United States, <sup>2</sup>Uniformed Services University of the Health Sciences, Bethesda, MD, United States

# 6:30 p.m.

#### ENHANCING THE QUALITY OF COMMUNITY HEALTH SERVICES IN MADAGASCAR: A MIXED METHODS EVALUATION OF A CHV PEER SUPERVISION MODEL IN FOUR REGIONS

**6820** 

Kanto Jude Ramanamahefa<sup>1</sup>, **Samantha Herrera**<sup>2</sup>, Tsinjo Fehizoro Razafindratsinana<sup>1</sup>, Anna Bowen<sup>3</sup>, Erica Berlin<sup>4</sup>, Andry Rabemanantsoa<sup>1</sup>, Hery Suzanette Gnetsa<sup>5</sup>, Jose Clement Randrianarisoa<sup>6</sup>, Jayne Webster<sup>7</sup>, Jessie Hamon<sup>7</sup>, Cara Smith Gueye<sup>8</sup> <sup>1</sup>Population Services International, Antananarivo, Madagascar, <sup>2</sup>U.S. President's Malaria Initiative Insights, Washington, DC, United States, <sup>3</sup>U.S. President's Malaria Initiative, U.S. Centers for Disease Control and Prevention, Antananarivo, Madagascar, <sup>4</sup>Population Services International, Washington, DC, United States, <sup>5</sup>Community Health Service, Ministry of Public Health, Antananarivo, Madagascar, <sup>6</sup>National Malaria Control Program, Antananarivo, Madagascar, <sup>7</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom, <sup>®</sup>University of California, San Francisco Malaria Elimination Initiative, San Francisco, CA, United States

# 6:45 p.m.

6821

#### AI IN GLOBAL HEALTH: CHALLENGES AND OPPORTUNITIES

Naomi Waithira<sup>1</sup>, Mavuto Mukaka<sup>1</sup>, Evelyne Kestelyn<sup>2</sup>, Keitcheya Chotthanawathit<sup>1</sup>, Anne Osterreider<sup>3</sup>, Trudie Lang<sup>3</sup>, Phaik Yeong Cheah<sup>1</sup> <sup>1</sup>MORU Tropical Health Network, Bangkok, Thailand, <sup>2</sup>Oxford Clinical Research Unit, Ho Chi Minh City, Vietnam, <sup>3</sup>University of Oxford, Oxford, United Kingdom

# Scientific Session 55

# Global Health: Maternal, Newborn and Child Health

Convention Center - Room 388/389 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

## #MNCH #Immunology #ChildHealth

CHAIR

Mamadou Otto Diallo Centers for Disease Control and Prevention, Atlanta, GA, United States Sophia T. Tan

Stanford University, Palo Alto, CA, United States

# 5:15 p.m.

6822

#### CLINICODEMOGRAPHIC PROFILE AND SURVIVAL PROSPECTS OF WOMEN WITH PERIPARTUM CARDIOMYOPATHY IN TANZANIA: A PROSPECTIVE COHORT STUDY.

Pedro Kisali Pallangyo, Zabella Mkojera, Makrina Komba, Peter R. Kisenge Jakaya Kikwete Cardiac Institute, Dar es Salaam, United Republic of Tanzania

#### 6823

#### BURDEN, DISTRIBUTION, TIMING AND CAUSES OF STILLBIRTH AND NEONATAL MORTALITIES IN A HEALTH AND DEMOGRAPHIC SURVEILLANCE SYSTEM (HDSS) IN KAREMO AND MANYATTA IN WESTERN KENYA, 2018-2023

George Aol Otieno<sup>1</sup>, Richard O. Onyando<sup>1</sup>, Godfrey M. Bigogo<sup>1</sup>, Joyce Were<sup>1</sup>, Beth A. Odhiambo<sup>1</sup>, Stephen O. Munga<sup>1</sup>, Beth T. Barr<sup>2</sup>, Nehemia O. Abongo<sup>1</sup>, Brian Genga<sup>1</sup>, Jonathan A. Muir<sup>1</sup>, Victor Akelo<sup>3</sup>, Aggrey Igunza<sup>1</sup>, Thomas Misore<sup>1</sup> <sup>1</sup>kenya Medical Research Institute, Kisumu, Kenya, <sup>2</sup>nyanja Health Research Institute, Salima,

Malawi, <sup>3</sup>liverpool School Of Tropical Medicine, Kisumu, Kenya

#### 5:45 p.m.

#### 6824

#### VACCINATION COVERAGE AND TIMELINESS AMONG INFANTS IN **ETHIOPIA**

Clara Pons-Duran<sup>1</sup>, Bezawit Mesfin Hunegnaw<sup>2</sup>, Chalachew Bekele<sup>2</sup>, Kassahun Alemu<sup>1</sup>, Raffi Pontes<sup>3</sup>, Fiseha Tadesse<sup>4</sup>, Melkamu Ayalew<sup>5</sup>, Abraham Alebie<sup>2</sup>, Lisanu Taddesse<sup>1</sup>, Delayehu Bekele<sup>2</sup>, Sebastien Haneuse<sup>3</sup>, Grace J. Chan<sup>3</sup>

<sup>1</sup>HaSET Maternal and Child Health Research Program, Addis Ababa, Ethiopia, <sup>2</sup>St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, <sup>3</sup>Harvard T.H. Chan School of Public Health, Boston, MA, United States, <sup>4</sup>Debre Birhan Hospital, Debre Birhan,

Ethiopia, <sup>5</sup>Federal Ministry of Health, Addis Ababa, Ethiopia

# 6 p.m.

# 6825

### UNDERSTANDING IMPACT OF DOMESTIC VIOLENCE ON PERINATAL DEATH IN RURAL BANGLADESH; FINDINGS FROM CHILD HEALTH AND MORTALITY PREVENTION SURVEILLANCE. BANGLADESH

Mohammad Zahid Hossain<sup>1</sup>, Afsana Afrin<sup>1</sup>, Shahana Parveen<sup>1</sup>, Daliya Yeasmin<sup>1</sup>, Afruna Rahman<sup>1</sup>, Shams El Arifeen<sup>1</sup>, Emily Susan Gurley<sup>2</sup>

icddr,b, Dhaka, Bangladesh, <sup>2</sup>John Hopkins University, Baltimore, MD, United States

#### 6:15 p.m.

# 6826

#### MASS AZITHROMYCIN DISTRIBUTION AND CAUSE-SPECIFIC **MORTALITY AMONG CHILDREN AGED 1-59 MONTHS IN BURKINA FASO**

Ali Sie<sup>1</sup>, Mamadou Ouattara<sup>1</sup>, Mamadou Bountogo<sup>1</sup>, Boubacar Coulibaly<sup>1</sup>, Valentin Boudo<sup>1</sup>, Thierry Ouedraogo<sup>1</sup>, Elisabeth Gebreegziabher<sup>2</sup>, Huivu Hu<sup>2</sup>, Elodie Lebas<sup>2</sup>, Benjamin F. Arnold<sup>2</sup>, Thomas M. Lietman<sup>2</sup>, Catherine Oldenburg<sup>2</sup> <sup>1</sup>Centre de Recherche en Santé de Nouna, Nouna, Burkina Faso, <sup>2</sup>University of California, San

Francisco, San Francisco, CA, United States

#### 6:30 p.m.

# 6827

#### **CLUSTER VARIATION IN UNDER-FIVE MORTALITY IN A** PROACTIVE CASE DETECTION INTERVENTION BY COMMUNITY HEALTH WORKERS IN MALI: ANALYSIS OF THE PROCCM TRIAL

Emily Treleaven<sup>1</sup>, Amadou Beydi Cisse<sup>2</sup>, Oumar Tolo<sup>2</sup>, Noumoutie Sanogo<sup>2</sup>, Kalo Dao<sup>2</sup>, Djoume Diakite<sup>2</sup>, Ari Johnson<sup>3</sup>, Kassoum Kayentao<sup>4</sup>

<sup>1</sup>University of Michigan, Ann Arbor, MI, United States, <sup>2</sup>Muso, Bamako, Mali, <sup>3</sup>Muso, San Francisco, CA, United States, <sup>4</sup>Malaria Research & Training Center, Bamako, Mali

# 6:45 p.m. LIGHTNING TALKS

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

# 7696

#### CORRELATES OF INTESTINAL FATTY ACID BINDING PROTEIN, A MARKER OF INTESTINAL INJURY, IN A COHORT OF KENYAN **CHILDREN UNDER 5 BEING DISCHARGED FROM HOSPITALS** FOR NON-TRAUMATIC CAUSES

Olivia N. McCollum<sup>1</sup>, Kevin Kariuki<sup>2</sup>, Elise Kang<sup>3</sup>, Morgan Litchford<sup>3</sup>, Doreen Rwigi<sup>1</sup>, Kirkby Tickell<sup>1</sup>, Joyce Otieno<sup>2</sup>, Benson Singa<sup>2</sup>, Mame M. Diakhate<sup>1</sup>, Dara Lehman<sup>3</sup>, Judd L. Walson<sup>1</sup>, Jennifer A. Slyker<sup>1</sup>, Patricia B. Pavlinac<sup>1</sup>

<sup>1</sup>University of Washington-Seattle, Seattle, WA, United States, <sup>2</sup>Kenya Medical Research Institute (KEMRI), Nairobi, Kenya, <sup>3</sup>Fred Hutch Cancer Center, Seattle, WA, United States

#### 6904

#### ASSOCIATIONS BETWEEN IMMUNE STATUS AND CHILD DEVELOPMENT IN RURAL BANGLADESH

Sophia T. Tan<sup>1</sup>, Andrew N. Mertens<sup>2</sup>, Md. Ziaur Rahman<sup>3</sup>, Fahmida Tofail Tofail<sup>4</sup>, Helen O. Pitchik<sup>2</sup>, Da Kyung Jung<sup>2</sup>, Caitlin Hemlock<sup>5</sup>, Benjamin F. Arnold<sup>6</sup>, Lisa Hester<sup>7</sup>, Mohammed Rabiul Karim<sup>4</sup>, Sunny Shahriar<sup>4</sup>, Shahjahan Ali<sup>8</sup>, Abul K. Shoab<sup>4</sup>, Md. Saheen Hossen<sup>4</sup>, Palash Mutsuddi<sup>4</sup>, Syeda L. Famida<sup>4</sup>, Salma Akther<sup>4</sup>, Mahbubur Rahman<sup>4</sup>, Leanne Unicomb<sup>4</sup>, Patricia Kariger<sup>2</sup>, Alan E. Hubbard<sup>2</sup>, Christine P. Stewart<sup>9</sup>, John M. Colford Jr.<sup>2</sup>, Stephen P. Luby<sup>1</sup>, Firdaus S. Dhabhar<sup>10</sup>, Lia C. H. Fernald<sup>2</sup>, Audrie I in<sup>3</sup>

<sup>1</sup>Division of Infectious Diseases and Geographic Medicine, Stanford University, Palo Alto, CA, United States, 2School of Public Health, University of California, Berkeley, Berkeley, CA, United States, <sup>3</sup>Department of Microbiology and Environmental Toxicology, University of California, Santa Cruz, Santa Cruz, CA, United States, <sup>4</sup>International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, 5School of Public Health, University of Washington, Seattle, WA, United States, <sup>6</sup>Francis I. Proctor Foundation, University of California, San Francisco, San Francisco, CA, United States, 7Department of Medicine, University of Maryland, Baltimore, MD, United States, 8 Colorado School of Public Health, University of Colorado, Denver, CO, United States, 9Institute for Global Nutrition, University of California, Davis, Davis, CA, United States, 10University of Miami, Miami, FL, United States

#### 6946

#### IMPACTS OF BAD OBSTETRIC HISTORY ON ANTENATAL CARE UPTAKE IN SUBSEQUENT PREGNANCIES: INSIGHTS FROM CHAMPS BANGLADESH

Maria Rahman Mim<sup>1</sup>, Rajib Biswas<sup>1</sup>, Shovo Debnath<sup>1</sup>, Taukir Tanjim<sup>1</sup>, Emily S. Gurley<sup>2</sup>, Kazi Munisul Islam<sup>1</sup>, Qazi Sadeq-ur Rahman<sup>1</sup>, Md. Abdus Salam<sup>1</sup>, Md. Atique Iqbal Chowdhury<sup>1</sup>, Sanwarul Bari<sup>1</sup>, Shams El Arifeen<sup>1</sup>, Mohammad Zahid Hossain<sup>1</sup> <sup>1</sup>International Centre for Diarrhoeal Disease Research, Bangladesh, Dhaka, Bangladesh, <sup>2</sup>John Hopkins University, Baltimore, MD, United States

# 6902

#### REASONS FOR NON-PARTICIPATION IN AZITHROMYCIN MASS DRUG ADMINISTRATION TO REDUCE MORTALITY AMONG CHILDREN 1-11 MONTHS OLD IN NIGER: A CROSS-SECTIONAL **COVERAGE EVALUATION SURVEY**

Carolyn Brandt<sup>1</sup>, Ahmed M. Arzika<sup>2</sup>, Ramatou Maliki<sup>2</sup>, Alio Karamba<sup>2</sup>, Nasser Galo<sup>2</sup>, Naser Harouna<sup>2</sup>, Diallo Beidi<sup>2</sup>, Elodie Lebas<sup>1</sup>, Brittany Peterson<sup>1</sup>, Benjamin F. Arnold<sup>1</sup>, Thomas M. Lietman<sup>1</sup>, Kieran S. O'Brien<sup>1</sup>

<sup>1</sup>Francis I. Proctor Foundation, University of California, San Francisco, San Francisco, CA, United States, <sup>2</sup>Centre de Recherche et Interventions en Santé Publique, Birni N'Gaoure, Niger

## 6937

#### A SURVIVOR CASE OF NEONATAL TETANUS: CASE DESCRIPTION AND SURVEILLANCE SYSTEM EVALUATION IN THE URBAN HEALTH DISTRICT OF EBOLOWA, CAMEROON, **MARCH 2023**

Ngotty Essebe Ruth-Aimée<sup>1</sup>, Signe Banjamin<sup>2</sup>, Atouba Benjamin<sup>3</sup>, Anya Priscilla<sup>4</sup>, Mendjime Patricia⁵

<sup>1</sup>Cameroon Field Epidemiology Training Program, Ministry of Public Health, Regional Delagation for the West, Bafoussam, Cameroon, <sup>2</sup>Ministry of Public Health, Regional Delegation for the South, Ebolowa, Cameroon, 3 Ministry of Public Health, Regional Delagation for the South, Ebolowa, Cameroon, 4 Department for the Control of Disease Epidemics and Pandemics; Cameroon Field Epidemiology Training Program, Yaounde, Cameroon, <sup>5</sup>Department for the Control of Disease Epidemics and Pandemics; Cameroon Field Epidemiology Training Program,, Yaounde, Cameroon

## Malaria: Drug Development and Clinical Trials

Convention Center - Room 391/392 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

This session does not carry CME credit.

# #Therapeutics #Resistance #Prevention #TranslationalScience #Elimination

**CHAIR** 

Bridget Barber QIMR Berghofer Medical Research Institute, Brisbane, Australia

David Saunders US Army, Rockville, MD, United States

### 5:15 p.m.

#### 6828

#### COMBINATION OF A REDUCTASE INHIBITOR WITH PRIMAQUINE PREVENTS HEMOLYSIS OF G6PD DEFICIENT RBCS

Ariel M. Hay<sup>1</sup>, Paul Buehler<sup>2</sup>, Joseph Kao<sup>2</sup>, Derek R. Lamb<sup>2</sup>, Robert Commons<sup>3</sup>, Eric A. Legenzov<sup>2</sup>, Mitasha S. Palha<sup>2</sup>, **James C. Zimring**<sup>1</sup> <sup>1</sup>University of Virginia, Charlottesville, VA, United States, <sup>2</sup>University of Maryland, Baltimore,

MD, United States, <sup>3</sup>Menzies School of Health Research, Darwin, Australia

### 5:30 p.m.

## 6829

### RUXOLITINIB AS AN ADJUNCTIVE TREATMENT TO REDUCE INFLAMMATORY RESPONSES IN MALARIA: A RANDOMIZED PLACEBO CONTROLLED TRIAL IN VOLUNTEERS EXPERIMENTALLY INFECTED WITH *P. FALCIPARUM*

Bridget E. Barber<sup>1</sup>, Rebecca Webster<sup>1</sup>, Nischal Sahai<sup>2</sup>, Indika Leelasena<sup>2</sup>, Eniko Ujvary<sup>2</sup>, Sue Mathison<sup>2</sup>, Luzia Bukali<sup>1</sup>, Damian Oyong<sup>3</sup>, Fabian de Labastida Rivera<sup>1</sup>, Jessica Engel<sup>1</sup>, Dean W. Andrew<sup>1</sup>, Megan S. Soon<sup>1</sup>, Nicholas L. Dooley<sup>3</sup>, Jessica R. Loughland<sup>1</sup>, Jeremy Gower<sup>1</sup>, Jenny Peters<sup>1</sup>, Ria Woo<sup>1</sup>, Adam Potter<sup>1</sup>, Stacey Llewellyn<sup>1</sup>, Fiona Amante<sup>1</sup>, Teija Frame<sup>1</sup>, Julianne Hamelink<sup>1</sup>, Mayimuna Nalubega<sup>1</sup>, Reena Mukhiya<sup>3</sup>, James S. McCarthy<sup>4</sup>, Christian Engwerda<sup>1</sup>, Michelle J. Boyle<sup>3</sup>

<sup>1</sup>QIMR Berghofer Medical Research Institute, Brisbane, Australia, <sup>2</sup>University of Sunshine Coast, Brisbane, Australia, <sup>3</sup>Burnet Institute, Brisbane, Australia, <sup>4</sup>University of Melbourne, Melbourne, Australia

#### 5:45 p.m.

# 6830

#### IMPROVING ANTIMALARIAL DRUG EFFICACY ASSESSMENT: COMPARATIVE ANALYSIS OF LENGTH POLYMORPHIC MARKERS AND CLASSIFICATION ALGORITHMS IN TWO PHASE II CLINICAL TRIALS

Daniela Montero Salas<sup>1</sup>, Monica Golumbeanu<sup>1</sup>, Sara L. Cantoreggi<sup>1</sup>, Celine Risterucci<sup>2</sup>, Cornelis Winnips<sup>2</sup>, Christian Nsanzabana<sup>1</sup>

<sup>1</sup>Swiss Tropical and Public Health Institute, Allschwil, Switzerland, <sup>2</sup>Novartis Pharma, Basel, Switzerland

#### 6 p.m.

#### 6831

#### FUNGAL DERIVED DEOXAPHOMINES TARGET *PLASMODIUM FALCIPARUM* SEGREGATION THROUGH INHIBITION OF PFACTIN1

Sarah Jiang<sup>1</sup>, Jin Woo Lee<sup>2</sup>, Jennifer Collins<sup>3</sup>, Samuel Schaefer<sup>1</sup>, Daisy Chen<sup>1</sup>, Flore Nardella<sup>3</sup>, Karen Wendt<sup>4</sup>, Thilini Peramuna<sup>4</sup>, Raphaella Paes<sup>3</sup>, Greg Durst<sup>5</sup>, Kirsten Hanson<sup>6</sup>, Debopam Chakrabarti<sup>3</sup>, Robert Cichewicz<sup>4</sup>, Elizabeth Winzeler<sup>1</sup> <sup>1</sup>UCSD, San Diego, CA, United States, <sup>2</sup>Duksung Women's University, Seoul, Republic of Korea, <sup>3</sup>University of Central Florida, Orlando, FL, United States, <sup>4</sup>University of Oklahoma, Norman, OK, United States, <sup>5</sup>Lgenia Inc, Fortville, IN, United States, <sup>6</sup>University of Texas at San Antonio, San Antonio, TX, United States

#### 6832

#### PLASMODIUM FALCIPARUM FIELD ISOLATES TO GUIDE CLINICALLY RELEVANT DOSE RATIOS FOR CABAMIQUINE: PYRONARIDINE COMBINATION USING TRANSLATIONAL MODELING

Mohamed MAIGA<sup>1</sup>, Sebastian G. Wicha<sup>2</sup>, Perrine Courlet<sup>3</sup>, Abdoulaye Djimdé<sup>1</sup>, Thomas Spangenberg<sup>4</sup>, Laurent Dembélé<sup>1</sup>, Claudia Demarta-Gatsi<sup>4</sup>

<sup>1</sup>Université des Sciences des Techniques et des Technologies de Bamako (USTTB), Bamako, Mali, <sup>2</sup>Universität Hamburg, Hamburg, Germany, <sup>3</sup>Merck Institute for Pharmacometrics, Ares Trading S.A., Lausanne, Switzerland, an affiliate of Merck KGaA, Darmstadt, Germany, <sup>4</sup>Global Health Institute of Merck, Ares Trading SA, Eysins, Switzerland, an affiliate of Merck KGaA, Darmstadt, Germany

# 6:30 p.m.

#### 6833

#### DIHYDROARTEMISININ-PIPERAQUINE PLUS SULFADOXINE-PYRIMETHAMINE FOR INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANT WOMEN: A DOUBLE-BLINDED RANDOMIZED CONTROLLED TRIAL

Abel Kakuru<sup>1</sup>, Jimmy Kizza<sup>1</sup>, Miriam Aguti<sup>1</sup>, Harriet Adrama<sup>1</sup>, John Ategeka<sup>1</sup>, Peter Olwoch<sup>1</sup>, Miriam Nakalembe<sup>2</sup>, Joaniter Nankabirwa<sup>1</sup>, Bishop Opira<sup>1</sup>, Timothy Ssemukuye<sup>1</sup>, Nida Ozarslan<sup>3</sup>, Anju Ranjit<sup>3</sup>, Erin Dela Cruz<sup>3</sup>, Stephanie Gaw<sup>3</sup>, Tamara D. Clark<sup>3</sup>, Michelle E. Roh<sup>3</sup>, Prasanna Jagannathan<sup>4</sup>, Philip J. Rosenthal<sup>3</sup>, Moses R. Kamya<sup>2</sup>, Grant Dorsey<sup>3</sup>

<sup>1</sup>Infectious Diseases Research Collaboration, Kampala, Uganda, <sup>2</sup>Makerere University College of Health Sciences, Kampala, Uganda, <sup>3</sup>University of California, San Francisco, San Francisco, CA, United States, <sup>4</sup>Stanford University, San Francisco, CA, United States

# 6:45 p.m.

## 6834

#### EFFECT OF INTERMITTENT PREVENTIVE TREATMENT OF MALARIA IN PREGNANCY ON VAGINAL MICROBIOTA, HOST IMMUNE RESPONSE AND PREGNANCY OUTCOMES: A CASE-CONTROL STUDY FROM THE ASPIRE TRIAL IN ZAMBIA

Tanweer Beleil<sup>1</sup>, Marwah Bagabas<sup>1</sup>, Patricia Hunter<sup>2</sup>, Sherrianne Ng<sup>1</sup>, Jemima Hair<sup>2</sup>, Gonçalo Correia<sup>1</sup>, Yun S. Lee<sup>1</sup>, Enesia B. Chaponda<sup>3</sup>, Ephraim Chikwanda<sup>4</sup>, Mike Chaponda<sup>4</sup>, Nigel Klein<sup>2</sup>, Lynne Sykes<sup>1</sup>, Jane Bruce<sup>5</sup>, Ludovica Ghilardi<sup>5</sup>, Philippe Mayaud<sup>5</sup>, Daniel Chandramohan<sup>5</sup>, Phillip R. Bennett<sup>1</sup>, R Matthew Chico<sup>5</sup>, David A. MacIntyre<sup>1</sup>

<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>University College London, London, United Kingdom, <sup>3</sup>University of Zambia, Lusaka, Zambia, <sup>4</sup>Tropical Diseases Research Centre, Ndola, Zambia, <sup>5</sup>London School of Hygiene & Tropical Medicine, London, United Kingdom

# Symposium 57

# Building Out Malaria: Housing Modification for Malaria Prevention

Convention Center - Room 393/394 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

Scale-up of proven, WHO-recommended malaria control interventions has not been sufficient to control malaria in Uganda and other countries, emphasizing the need to explore innovative approaches. Housing modification, a promising strategy and once a key pillar of malaria control, remains underutilized in most endemic areas, including sub-Saharan Africa where up to 80% of malaria transmission occurs indoors at night. Simple changes to prevent house entry by mosquitoes can reduce malaria, making housing modification an innovative and promising strategy to address the need for long-term, sustainable interventions. Evidence that housing structural design can provide protection from malaria is limited but encouraging. To explore housing modification as a malaria control intervention, a recent cluster-

randomized trial evaluated two innovative housing modifications developed through community-driven design: house screening and Eave Tubes. Both are new, long term, sustainable interventions; Eave Tubes are also an innovative insecticide resistance mitigation tool. The symposium will provide an overview of housing characteristics in Uganda and house-related behaviors associated with risk of malaria from several studies. New evidence from the Housing Modification trial in Uganda will focus on epidemiological and entomological effectiveness, and acceptability of housing modification. Feasibility and cost-effectiveness presentations will elucidate housing modification cost drivers, willingness to pay, equity, and potential scale up pathways through public and private market venues, as well as policy considerations. The symposium will conclude with a panel discussion on the challenges and promise of housing modification, discussing approaches to multisectoral engagement for scale up and adaptation with a longterm view on malaria control. #ClinicalResearch #Epidemiology **#**Prevention

#### <u>CHAIR</u>

Samuel Gonahasa Infectious Diseases Research Collaboration (IDRC), Kampala, Uganda

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

## 5:15 p.m. INTRODUCTION

#### 5:25 p.m.

HOUSING CHARACTERISTICS AND THEIR ASSOCIATION WITH RISK OF MALARIA IN UGANDA

Joaniter Nankabirwa Makarere University Kampala, Kampala, Uganda

#### 5:45 p.m.

IMPACT OF HOUSING MODIFICATION ON MALARIA BURDEN AND ENTOMOLOGICAL OUTCOMES: MAIN RESULTS OF THE CLUSTER RANDOMIZED TRIAL IN UGANDA

Nelli Westercamp Centers for Diseases Control and Prevention, Atlanta, GA, United States

#### 6:05 p.m.

# FEASIBILITY AND COSTING OF IMPLEMENTING HOUSING MODIFICATION FOR MALARIA CONTROL

Katherine Snyman London School of Hygiene & Tropical Medicine, London, United Kingdom

#### 6:25 p.m.

#### HOUSING CONTEXT, POLICY AND SCALE UP CONSIDERATIONS FOR HOUSING MODIFICATION AS MALARIA PREVENTION METHOD: FROM GRASSROOT UPTAKE TO FUNDER-DRIVEN IMPLEMENTATION

Samuel Gonahasa

Infectious Diseases Research Collaboration, Kampala, Uganda

# Scientific Session 58

# Cestodes

Convention Center - Room 395/396 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

# #ClinicalResearch #Epidemiology #Diagnostics #InfectiousDisease

**CHAIR** 

Eva Clark Baylor College of Medicine, Houston, TX, United States

Elise M. O'Connell NIH, Bethesda, MD, United States

# 5:15 p.m.

#### SEROPREVALENCE OF *TAENIA SOLIUM* ANTIBODIES AND ASSOCIATED RISK FACTORS AMONG CHILDREN 0-14 YEARS IN NIGERIA

6835

Jennifer Akamboe<sup>1</sup>, Samuel A. Oyebanjo<sup>2</sup>, Mary L. Kamb<sup>1</sup>, Andrew Hill<sup>1</sup>, Nishanth Parameswaran<sup>1</sup>, Nnaemeka C. Iriemenam<sup>3</sup>, Gretchen Cooley<sup>1</sup>, Nwachukwu E. William<sup>4</sup>, Nwando Mba<sup>4</sup>, McPaul I. J. Okoye<sup>3</sup>, Jeffrey W. Priest<sup>5</sup>, Diana L. Martin<sup>1</sup>, Paul Cantey<sup>1</sup>, Chikwe Ihekweazu<sup>4</sup>

<sup>1</sup>Division of Parasitic Diseases and Malaria, U.S. Centers for Disease Control and Malaria, Atlanta, GA, United States, <sup>2</sup>Institute of Human Virology, Abuja, FCT, Nigeria, <sup>3</sup>Division of Global HIV & TB, U.S. Centers for Disease Control and Prevention, Abuja, FCT, Nigeria, <sup>4</sup>Nigeria Centre for Disease Control and Prevention, Abuja, FCT, Nigeria, <sup>5</sup>Division of Foodborne, Waterborne and Environmental Diseases, U.S. Centers for Disease Control and Prevention, Atlanta, GA, United States

### (ACMCIP Abstract)

# 5:30 p.m.

6836

#### PULMONARY CYSTIC ECHINOCOCCOSIS TREATMENT OUTCOMES AMONG 280 PATIENTS AT TWO TERTIARY CARE CENTERS IN CUSCO, PERU

Roberto Pineda-Reyes<sup>1</sup>, Maria L. Morales<sup>2</sup>, Karen Mozo<sup>2</sup>, Maria A. Caravedo<sup>3</sup>, Angel Gamarra<sup>4</sup>, Ramiro Hermoza<sup>4</sup>, Rocio Cuaresma<sup>4</sup>, Miguel M. Cabada<sup>3</sup> <sup>1</sup>Swiss Tropical and Public Health Institute, Allschwil, Switzerland, <sup>2</sup>Cusco Branch - Alexander von Humboldt Tropical Medicine Institute/Universidad Peruana Cayetano Heredia, Cusco, Peru, <sup>3</sup>Infectious Disease Division, University of Texas Medical Branch, Galveston, TX, United States, <sup>4</sup>Department of Surgery, Hospital Regional del Cusco, Cusco, Peru

# (ACMCIP Abstract)

# 5:45 p.m.

TAENIA SOLIUM FATTY ACID BINDING PROTEIN 1 INDUCES SUPPRESSES TLR4 SIGNALING AND DOWNREGULATE IRE-1A IN A PPAR-G DEPENDENT MANNER

Amit Prasad, Suraj S. Rawat Indian Institute of Technology Mandi, mandi, India

#### (ACMCIP Abstract)

## 6 p.m.

6838

HIGH PREVALENCE AND HOUSEHOLD CLUSTERING OF LIVER CYSTIC ECHINOCOCCOSIS IN A RURAL COMMUNITY IN THE CENTRAL ANDES OF PERU: A POPULATION - BASED SURVEY

Saul J. Santivanez<sup>1</sup>, Percy Soto-Becerra<sup>1</sup>, Raul Enriquez<sup>1</sup>, Luis Tello<sup>1</sup>, Oswaldo G.E. Espinoza-Hurtado<sup>1</sup>, Andreas Neumayr<sup>2</sup>, Hector H. Garcia<sup>3</sup> <sup>1</sup>Universidad Continental, Huancayo, Peru, <sup>2</sup>Swiss Tropical and Public Health Institute, Basel,

Switzerland, <sup>3</sup>Center for Global Health, Universidad Peruana Cayetano Heredia, Lima, Peru

(ACMCIP Abstract)



# 6839

#### DIAGNOSTIC PERFORMANCE OF A MULTIANTIGEN PRINT IMMUNOASSAY (MAPIA) FOR ANTIBODY DETECTION IN HUMAN NEUROCYSTICERCOSIS

Luz M. Toribio Salazar<sup>1</sup>, Carolina Guzman<sup>1</sup>, Herbert Saavedra<sup>2</sup>, Isidro Gonzales<sup>1</sup>, Javier A. Bustos<sup>1</sup>, Sukwan Handali<sup>3</sup>, Hector Garcia<sup>1</sup>

<sup>1</sup>UNIVERSIDAD PERUANA CAYETANO HEREDIA, Lima, Peru, <sup>2</sup>Instituto Nacional de Ciencias Neurologicas, Lima, Peru, <sup>3</sup>Division of Parasitic Diseases, Coordinating Center for Infectious Diseases, Centers for Disease Control and Prevention USA, Atlanta, GA, United States

#### (ACMCIP Abstract)

#### 6:30 p.m.

#### 6840

# COMPARISON OF THE ANTIBODY DYNAMICS IN TWO MODELS OF EXPERIMENTAL PIG CYSTICERCOSIS USING A MULTIPLEX BEAD ASSAY (MBA)

Luz M. Toribio Salazar<sup>1</sup>, Sukwan Handali<sup>2</sup>, Gianfranco Arroyo<sup>1</sup>, Javier A. Bustos<sup>1</sup>, Hector Garcia<sup>1</sup>

<sup>1</sup>UNIVERSIDAD PERUANA CAYETANO HEREDIA, Lima, Peru, <sup>2</sup>Centers for Disease Control and Prevention, Atlanta, GA, Atlanta, GA, United States

#### (ACMCIP Abstract)

#### 6:45 p.m.

# **6841**

#### CHARACTERIZATION OF THE ACUTE NEUROINFLAMMATORY RESPONSE INDUCED BY ANTIPARASITIC TREATMENT IN THE CAROTID PORCINE MODEL OF NEUROCYSTICERCOSIS

Gianfranco Arroyo<sup>1</sup>, Lizzie Tello-Ccente<sup>1</sup>, Rosa Diaz-Gongora<sup>1</sup>, Yessenia Salas<sup>1</sup>, Miguel A. Orrego-Solano<sup>1</sup>, Javier A. Bustos<sup>1</sup>, Manuela R Verastegui<sup>1</sup>, Robert H Gilman<sup>2</sup>, Hector H. Garcia<sup>1</sup>

<sup>1</sup>Universidad Peruana Cayetano Heredia, Lima, Peru, <sup>2</sup>Johns Hopkins University, Baltimore, MD, United States

(ACMCIP Abstract)

# **Special Session 59**

# Ponder to Probe: A Climate-Health Networking Event

Convention Center - Room 398 (3rd Floor) Thursday, November 14, 5:15 p.m. - 7 p.m.

The ASTMH Committee on Global Health (ACGH) invites you to join us for an informal discussion on how climate change affects global health. Chat with experts who are working in the field and ask them how climate change affects their work, what we can do to better incorporate climate change into our work, and what we can do to help mitigate the problem.

<u>CHAIR</u>

James Colborn Clinton Health Access Initiative, Inc., Evergreen, CO, United States

# Break

Thursday, November 14, 7 p.m. - 7:30 p.m.

# **Special Session 60**

# **Clinical Pub Trivia Night**

# Hilton - Churchill A1 (2nd Floor) Thursday, November 14, 7:30 p.m. – 9:15 p.m.

Come join us for a fun-filled collegial competition, sponsored by the ASTMH Clinical Group. This is a chance to meet others interested in clinical tropical medicine, show your knowledge, learn some new fun facts, and enjoy free snacks. Don't worry if you are new to trop med. Teams will be a mix of people with different levels of experience, and you won't be asked to answer any question alone. The winning team takes home prizes and bragging rights.

# <u>CHAIR</u>

Jill Weatherhead Baylor College of Medicine, Houston, TX, United States.

# **Sponsored Symposium**

# The Rising Tide: Dengue Fever and Climate Change

# Sponsored by Abbott

Convention Center - Room 354/355 (3rd Floor) Thursday, November 14, 7:30 p.m. – 9:15 p.m.

See page 51 for information.

# **Sponsored Symposium**

One Health: From Plagues and Pestilence to Pesticides, Pharmaceuticals and Public Health

# Sponsored by Bayer U.S. Crop Science

Convention Center - Room 383/384/385 (3rd Floor) Thursday, November 14, 7:30 p.m. – 9:15 p.m.

See page 51 for information.