Symposium 20  

**Ultrasound in Tropical Medicine**

*Supported with funding from ESAOTE S.p.A., Biosound Inc. USA, ALOKA S.p.A., SIUMB (Italian Society of Ultrasound in Medicine and Biology) and GE Healthcare Italia*

Jefferson West  
Monday, December 12  
10:15 a.m. – Noon

Ultrasound (US) is a safe, relatively inexpensive, repeatable imaging technique that can be used at the patient’s bedside. Portable scanners weighing few kilograms are commercially available and can be used for mass screenings. US is increasingly used in tropical medicine, in many instances for a wide array of applications, including screening and diagnosis, as a guide for treatment and follow-up of several parasitic diseases. This symposium is designed to review and update the expanding use of US in tropical medicine. Each speaker is a noted expert and will discuss recent advances in his/her field of application and indicate areas of controversy and future developments.

**CHAIR**  
Enrico Brunetti  
Pavia University, IRCCS S.Matteo, Pavia, Italy  
Carlo Filice  
Pavia University, IRCCS S.Matteo, Pavia, Italy

**10:15 a.m.**  
**ULTRASOUND AND EPIDEMIOLOGY OF PARASITIC DISEASES**  
Calum N. Macpherson  
St. George’s University, Grenada, Grenada

**10:40 a.m.**  
**ULTRASOUND AND SCHISTOSOMIASIS**  
Joachim Richter  
Heinrich Heine University, Duesseldorf, Germany

**11:10 a.m.**  
**ULTRASOUND AND FILARIASIS**  
Gerusa Dreyer  
NEPAF-Hospital das Clínicas-Federal University of Pernambuco, Recife, Brazil

**11:35 a.m.**  
**ULTRASOUND AND CYSTIC ECHINOCOCCOSIS IN HIGHLY ENDEMIC AREAS**  
Eberhard E. Zeyhle  
African Medical and Research Foundation (AMREF), Nairobi, Kenya

Symposium 21  

**Kinetoplast Genome Proteome**  
Georgetown  
Monday, December 12  
10:15 a.m. – Noon

The sequencing and annotation of the genomes of Trypanosoma brucei, Trypanosoma cruzi and Leishmania major has recently been completed. This symposium will focus on the major findings in this process, highlighting the unique characteristics of these genomes as well as the features that are in common between the three. Presenters will also discuss how this genome information is being used to obtain insights into parasite biology and exploited for the identification of drug and vaccine targets.

**CHAIR**  
Rick L. Tarleton  
University of Georgia, Athens, GA

**10:15 a.m.**  
**INTRODUCTION**  
Rick L. Tarleton  
University of Georgia, Athens, GA, United States

**10:20 a.m.**  
**THE TRITRYP GENOMES: NEW REVELATIONS AND TANGLED TALES**  
Najib El-Sayed  
The Institute for Genome Research, Rockville, MD, United States

**10:45 a.m.**  
**TRYPANOSOMATID MITOCHONDRIAL PROCESSES AS DRUG TARGETS**  
Ken Stuart  
Seattle Biomedical Research Institute, Seattle, WA, United States

**11:10 a.m.**  
**INSIGHT INTO TRITRYP METABOLISM, WITH SPECIAL REFERENCE TO LEISHMANIA MAJOR**  
Fred Oppérdoes  
Christian de Duve Institute of Cellular Pathology and Catholic University of Louvain, Brussels, Belgium

**11:35 a.m.**  
**INSIGHTS FROM THE TRYPANOSOMA CRUZI PROTEOME**  
Rick L. Tarleton  
University of Georgia, Athens, GA, United States
Symposium 22

Facing the Challenge: Invisible Victims, New Tools and Capacity Building in the Fight Against Malaria

Supported with funding from GlaxoSmithKline

International Ballroom East

Monday, December 12 10:15 a.m. – Noon

The Roll Back Malaria (RBM) initiative aims to halve malaria deaths by 2010. Meanwhile, the United Nations’ Millennium Development Goal is to halt and then reverse the rising incidence of the disease by 2015. But are these targets even measurable, let alone achievable? Without improved epidemiological data and properly-funded strategies to evaluate the impact of interventions such as drugs and insecticide-impregnated bednets, control efforts will fail. This symposium examines new scientific tools aiming to fill this information gap. It explores the contribution of capacity building to the provision of creditable baseline data and discusses the roles of combination drug therapy and of the Global Fund to Fight AIDS, Tuberculosis and Malaria.

CHAIR
Simon Croft
Drugs for Neglected Diseases Initiative, Geneva, Switzerland

10:15 a.m.
FINDING THE INVISIBLE VICTIMS: UNCOVERING THE HIDDEN BURDEN OF MALARIA
Fred Binka
INDEPTH Network, Accra, Ghana

10:40 a.m.
BICYCLES TO BIOCHEMISTRY: CAPACITY BUILDING IN AFRICA ENABLES COUNTRIES TO TACKLE THEIR OWN HEALTH PROBLEMS
Christopher White
African Medical and Research Foundation United Republic of Tanzania

11:10 a.m.
TOGETHER WE ARE STRONGER; ANTIMALARIAL COMBINATION THERAPY
Simon Croft
Drugs for Neglected Diseases Initiative, Geneva, Switzerland

11:35 a.m.
FOOTING THE BILL: THE GLOBAL FUND
Vinand Nantulya
The Global Fund to Fight AIDS, Tuberculosis and Malaria, Geneva, Switzerland

Symposium 23

American Committee on Arthropod-Borne Viruses (ACAV): Women in Arbovirology

International Ballroom West

Monday, December 12 10:15 a.m. – 12:45 p.m.

Female scientists have made significant contributions to science and in particular, arbovirology. This symposium will present a brief historical account of the role women have played in advancing arbovirology, followed by presentations of research by three esteemed female arbovirologists.

CHAIR
Laura D. Kramer
Wadsworth Center, New York State Department of Health, Albany, NY, United States

10:15 a.m.
ACAV BUSINESS MEETING
Laura D. Kramer
Wadsworth Center, Slingerlands, NY, United States

10:45 a.m.
A HISTORICAL PERSPECTIVE ON THE ROLE OF WOMEN IN SCIENTIFIC RESEARCH
Laura D. Kramer
Wadsworth Center, New York State Department of Health, Albany, NY, United States

11:10 a.m.
MOSQUITO DEFENSES TO INFECTION AND ARBOVIRUS RESPONSES
Carol Blair
Colorado State University, Fort Collins, CO, United States

11:35 a.m.
MULTIAGENT DNA VACCINES FOR BIODEFENSE
Connie Schmaljohn
US Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD, United States

Noon
MICROEVOLUTION AND VIRULENCE OF DENGUE VIRUSES
Rebeca Rico-Hesse
Southwest Foundation for Biomedical Research, San Antonio, TX, United States

12:25 p.m.
OUTBREAK REPORT
Laura D. Kramer
Wadsworth Center, Slingerlands, NY, United States
Mid-Day Session 24

Infectious Disease Physicians and Tropical Disease Research

Supported with funding from the Burroughs Wellcome Fund

Monroe East

Monday, December 12 12:15 – 1:15 p.m.

A discussion session on opportunities and barriers for ID physicians going into tropical disease research. This session is a complement to a preceding session featuring the Burroughs Wellcome Fund/The Ellison Medical Foundation/ASTMH infectious disease fellows.

CHAIR
Victoria McGovern
Burroughs Wellcome Fund, Research Triangle Park, NC, United States

Moderator
Myron S. Magen
Michigan State University, East Lansing, MI, United States

Meet the Professors 25

Meet the Professors B: Enigmatic and Teaching Cases

Supported with funding from GlaxoSmithKline

Lincoln West

Monday, December 12 12:15 – 1:15 p.m.

A panel of professors will each present one clinical case of a tropical disease specific to a particular region that they have found a challenge to manage or diagnose. If there is time, participants may be able to present enigmatic cases for the audience and panel to consider. An open discussion will be encouraged with audience participation.

SESSON ORGANIZER
Alan Spira
The Travel Medicine Center, Beverly Hills, CA

CHAIR
Kenneth Dardick
University of Connecticut, Storrs, CT, United States

PANELISTS
Richard Guerrant
University of Virginia, Charlottesville, VA, United States

Richard D. Pearson
University of Virginia, Charlottesville, VA, United States

Mid-Day Session 26

History of Medicine: Dengue

Jefferson West

Monday, December 12 12:15 – 1:15 p.m.

ALBERT SABIN, THE ARMED FORCES EPIDEMIOLOGY BOARD, AND EPIDEMIC DENGUE IN HAWAII: A CRASH PROGRAM TO FIND THE CAUSE OF DENGUE FEVER DURING WORLD WAR II, BASED ON NEW DATA FROM THE ALBERT B. SABIN ARCHIVES, UNIVERSITY OF CINCINNATI

David Morens
National Institutes of Health, Bethesda, MD, United States

Mid-Day Session 27

Healers Abroad — IOM Board on Global Health

International Ballroom East

Monday, December 12 12:15 – 1:15 p.m.

The Institute of Medicine (IOM) is the pre-eminent advisor to the government and nation on matters of health and health policy. This session will feature a panel discussion by senior staff and committee members regarding the current portfolio of projects in the IOM Board of Global Health with special emphasis on “Healers Abroad: Americans Responding to the Human Resource Crisis in HIV/AIDS” — a blueprint for a new, federally funded Global Health Service. Other projects to be discussed will include an evaluation of PEPFAR; an ongoing $20 million effort to strengthen African academies of science; and national and international policy initiatives related to malaria control.

CHAIR
Claire Panosian
UCLA School of Medicine, Los Angeles, CA, United States

Patrick Kelley
National Academies of Science, IOM Board on Global Health, Washington, DC, United States

12:15 p.m.

CHAIRPERSON: IOM COMMITTEE ON OPTIONS FOR OVERSEAS PLACEMENT OF US HEALTH PROFESSIONALS

Fitzhugh Mullan
Project Hope, Health Affairs, George Washington University Medical Center, Washington, DC, United States
12:30 p.m.  
COMMITTEE MEMBERS: IOM COMMITTEE ON OPTIONS FOR OVERSEAS PLACEMENT OF US HEALTH PROFESSIONALS  
Michele Barry  
Yale University School of Medicine, New Haven, CT, United States  
Richard Guerrant  
University of Virginia Medical School, Charlottesville, VA, United States  

12:45 p.m.  
SENIOR PROGRAM OFFICER: IOM REPORT ON ECONOMICS OF MALARIA DRUGS  
Hellen Gelband  
National Academy of Science/IOM Board on Global Health, Washington, DC, United States  

1 p.m.  
DIRECTOR, IOM BOARD ON GLOBAL HEALTH  
Patrick Kelley  
National Academies of Science, Washington, DC, United States  

Poster A Viewing  
Exhibit Hall  
Monday, December 12  
1:30 – 7 p.m.  

Symposium 28  

**Schistosomiasis Control in Africa**  

**Military**  
Monday, December 12  
1:30 – 3:15 p.m.  
The symposium will start with a review of the burden of morbidity due to schistosomiasis by Dr. Charles King. Since 2002, the Schistosomiasis Control Initiative has supported national schistosomiasis and intestinal helminth control programs in six African countries. SCI has also supported a program of surveillance and monitoring in all countries. The symposium will report on all aspects of the program, including a detailed account of three years of treatment and monitoring in Uganda, and GIS mapping in all six countries.  

CHAIR  
Alan Fenwick  
Imperial College, London, United Kingdom  
Narcis Kabatereine  
Ministry of Health, Kampala, Uganda  

1:30 p.m.  
A REVIEW OF DISABILITY ESTIMATES AND COST-EFFECTIVENESS FOR DIFFERENT STRATEGIES  
Charles King  
Case Western Reserve University, Cleveland, OH, United States  

1:55 p.m.  
THE PRESENT AND FUTURE STATUS OF THE NATIONAL BILHARZIA CONTROL PROGRAM OF UGANDA  
Narcis Kabatereine  
Ministry of Health, Kampala, Uganda  

2:25 p.m.  
THE APPLICATION OF GIS TO THE MAPPING OF SCHISTOSOMIASIS  
Simon Brooker  
London School of Hygiene and Tropical Medicine, London, United Kingdom  

2:50 p.m.  
SCHISTOSOMIASIS CONTROL IN AFRICA — PROGRESS AFTER 3 YEARS OF THE SCHISTOSOMIASIS CONTROL INITIATIVE  
Alan Fenwick  
Schistosomiasis Control Initiative, Imperial College, London, United Kingdom
Symposium 29

Tropical Neurology

Monroe East
Monday, December 12 1:30 – 3:15 p.m.

Tropical neurology encompasses a variety of neurologic disorders associated with infectious diseases or nutritional deficiencies. Although most such disorders were initially described in people living in developing countries, neurologists in all parts of the world are increasingly confronted with the diagnostic and therapeutic challenges associated with neurologic disorders in people who have immigrated from or traveled through developing countries. This course will review the diagnosis and management of a variety of “tropical” disorders: parasitic CNS infections, retroviral infections of the nervous system in developing countries, as well as CNS infections in international travelers.

CHAIR
Joseph R. Zunt
University of Washington, Seattle, WA, United States

1:30 p.m.
PARASITIC INFECTIONS OF THE CNS
Ana Claire Meyer
Harvard University, Boston, MA, United States

2:05 p.m.
RETROVIRAL INFECTIONS OF THE CENTRAL NERVOUS SYSTEM IN SOUTH AMERICA
Silvia M. Montano
Universidad Peruana Cayetano Heredia, Lima, Peru

2:40 p.m.
CNS INFECTIONS IN INTERNATIONAL TRAVELERS
Joseph R. Zunt
University of Washington, Seattle, WA, United States

Symposium 30

Innovative Strategies for Infectious Disease Surveillance in Developing Countries

Monroe West
Monday, December 12 1:30 – 3:15 p.m.

Epidemic prevention and control requires surveillance systems that provide timely and accurate epidemiologic data. In the developing world, infectious disease surveillance faces many challenges, such as poor communication and transportation infrastructure and inadequate diagnostic and informatics resources. This symposium describes approaches to infectious disease surveillance in developing countries that are addressing such challenges through cost-effective technological and epidemiologic innovations. Speakers representing the World Health Organization, the US Centers for Disease Control and Prevention, the US Department of Defense, and the non-profit Foundation for Innovative New Diagnostics will describe current work to illustrate general approaches applicable to other settings.

CHAIR
Jean-Paul Chretien
Department of Defense Global Emerging Infections Surveillance and Response System (DoD-GEIS), Silver Spring, MD, United States

Rana Hajjeh
Centers for Disease Control and Prevention, Atlanta, GA and US Naval Medical Research Unit-3, Cairo, Egypt

1:30 p.m.
INTRODUCTION
Jean-Paul Chretien
Walter Reed Army Institute of Research, Silver Spring, MD, United States

1:35 p.m.
THE GLOBAL POLIO LABORATORY NETWORK
Esther de Gourville
World Health Organization, Geneva, Switzerland

2 p.m.
SYNDROME-BASED SURVEILLANCE NETWORKS IN THE MIDDLE EAST AND AFRICA
Rana Hajjeh
US Centers for Disease Control and Prevention, Atlanta, GA and US Naval Medical Research Unit-3, Cairo, Egypt

2:25 p.m.
ELECTRONIC SURVEILLANCE IN PERU
Cecilia Mundaca
US Naval Medical Research Center Detachment, Lima, Peru

2:50 p.m.
DEVELOPING ACCURATE, AFFORDABLE DIAGNOSTIC TESTS FOR DEVELOPING COUNTRIES
Mark Perkins
Foundation for Innovative New Diagnostics, Geneva, Switzerland
Symposium 31

Update on Hepatitis E Virus (HEV): Global Burden of Disease and Recent Vaccine Trials with a Recombinant HEV Protein

Lincoln East

Monday, December 12  1:30 – 3:15 p.m.

Hepatitis E Virus is a water-borne hepatitis that results in large epidemics with a high degree of morbidity and mortality in developing countries. This symposium will feature updates on the burden of HEV disease in India and China. In addition, the efficacy results of the recent phase II study of the HEV recombinant protein vaccine conducted in Nepal will be presented. A summary of the human safety and immunogenicity data with this vaccine will be discussed.

CHAIR
Timothy P. Endy
Walter Reed Army Institute of Research, Silver Spring, MD, United States

Bruce Innis
GlaxoSmithKline Biologicals, King of Prussia, PA

Robert H. Purcell
National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States

1:30 p.m.
EPIDEMIOLOGY OF HEPATITIS E VIRUS DISEASE IN CHINA
Youchun Wang
National Institute for the Control of Pharmaceutical and Biological Products, Beijing, China

1:55 p.m.
EPIDEMIC AND SPORADIC HEPATITIS E IN INDIA (1955-2005)
Vidya A. Arankalle
National Institute of Virology, Pune, India

2:20 p.m.
SAFETY AND EFFICACY OF A RECOMBINANT HEPATITIS E VACCINE TRIAL CONDUCTED IN NEPAL
Mrigendra P. Shrestha, Robert M. Scott
Walter Reed Army Unit Nepal, Kathmandu, Nepal

2:55 p.m.
SUMMARY OF THE SAFETY AND IMMUNOGENICITY OF A RECOMBINANT HEPATITIS E VACCINE
Khin S. Myint
Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand

Symposium 32

Artemisinin Drugs: Past, Present, and Future

Lincoln West

Monday, December 12  1:30 – 3:15 p.m.

Twenty years ago Dr. Daniel Klayman introduced the western world to the artemisinin class of antimalarial drugs (Science, 31 May 1985). The purpose of this symposium is to honor Dr. Klayman’s contributions to antimalarial chemotherapy and to review progress in the field over the past two decades. The speakers will provide a historical review of the field, summarize recent developments, and focus on existing gaps in knowledge. John Vennerstrom will review Dr. Klayman’s early efforts to extract active constituents from the plant and the variety of medicinal chemistry approaches to discover new derivatives. Dennis Kyle will present a review of the mechanism of action studies and provide new data on possible mechanisms of recrudescence. Kyle Webster will discuss data on the safety and toxicity of the class and present a new initiative to define the toxicity profiles for each clinically used compound. Nick White will discuss the rationale underlying the principle of ACT and focus on the selection of the most optimal regimens for implementation.

CHAIR
Dennis E. Kyle
Walter Reed Army Institute of Research, Silver Spring, MD, United States

Jonathan L. Vennerstrom
University of Nebraska Medical Center, Omaha, United States

1:30 p.m.
HOW DID WE GET FROM QINGHAO TO SYNTHETIC DERIVATIVES?
Jonathan L. Vennerstrom
University of Nebraska Medical Center, Omaha, NE, United States

1:55 p.m.
DO WE REALLY KNOW HOW ARTEMISININS WORK?
Dennis E. Kyle
Walter Reed Army Institute of Research, Silver Spring, MD, United States

2:25 p.m.
ARTEMISININ TOXICITY: THE CHICKEN LITTLE SYNDROME
H. Kyle Webster
Life Sciences Consultants, Los Gatos, CA, United States

2:50 p.m.
RATIONALE AND PROSPECTS FOR ARTEMISININ COMBINATION THERAPY (ACT)
Nicholas J. White
Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand
Symposium 33

Rising to the Challenge: A Discussion of Successful Strategies for Conducting Clinical Trials in Developing Countries

Jefferson East

Monday, December 12 1:30 – 3:15 p.m.

As the pharmaceutical industry becomes more involved in developing medicines for people in resource-constrained regions, understanding the challenges associated with completing clinical trials in these regions is essential. The Institute for OneWorld Health will convene experts in clinical trials to explore how guidelines established elsewhere can be successfully translated into practice in developing countries and how to meet the challenges and needs of study participants as well as sponsors. Panelists will share their expertise and strategies for design and implementation of clinical trials, including site selection and solicitation of cooperative partnerships with the countries involved. Experts will also share insights and lessons learned from drug trials and present options for future direction.

CHAIR
Victoria Hale
Institute for OneWorld Health, San Francisco, CA, United States

Blair Palmer
Institute for OneWorld Health, San Francisco, CA, United States

1:30 p.m.
MODERATOR
Peter Smith
London School of Hygiene and Tropical Medicine; European and Developing Countries Clinical Trials Partnership; Wellcome Trust, London, United Kingdom

1:50 p.m.
PANELIST
Christian Burri
Swiss Tropical Institute, Basel, Switzerland

2:10 p.m.
PANELIST
Leigh Peterson
Family Health International, Research Triangle Park, NC, United States

2:30 p.m.
PANELIST
Ahvie Herskowitz
Institute for OneWorld Health, San Francisco, CA, United States

Scientific Session 35

Clinical Tropical Medicine I

Georgetown
Monday, December 12 1:30 – 3:15 p.m.

CHAIR
Blaise Genton
Swiss Tropical Institute, Basel, Switzerland

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

1:30 p.m.

REVIEW OF THE EPIDEMIOLOGICAL SITUATION OF YELLOW FEVER IN AFRICA
Sylvie C. Briand, Laurence A. Cibrelus, William Perea, Mike Ryan
World Health Organisation, Geneva, Switzerland

1:45 p.m.

PLASMODIUM VIVAX IS ASSOCIATED WITH SEVERE MALARIA IN PAPUA NEW GUINEAN CHILDREN
Blaise Genton1, Valerie D’Acremont1, Kerry Lorry2, Kay Baea2, John Reeder2, Ivo Mueller2
1Swiss Tropical Institute, Basel, Switzerland, 2Papua New Guinea Institute of Medical research, Goroka, Papua New Guinea

2 p.m.

YAWS OUTBREAK IN THE DEMOCRATIC REPUBLIC OF CONGO: THE RETURN OF A FORGOTTEN DISEASE
S. Gerstl1, L. Ferradini1, G. Kiwila2, M. Dhorda2, S. Lonlas2, T. N’D’Anu3, D. Lemasson2, E. Szumilin2, PJ Guerin1

2:15 p.m.

PLASMODIUM FALCIPARUM MALARIA IN AFRICAN CHILDREN: THE ROLE OF THE SIMPLIFIED MULTI-ORGAN-DYSFUNCTION SCORE AS PROGNOSTIC DISCRIMINATOR
Raimund Helbok1, Saadou Issifou2, Pierre Blaisse Matsiegui2, Peter Lackner1, Wolfgang Dent1, Erich Schmutzhard1, Peter G. Kremsner3
1Department of Neurology, University of Innsbruck, Austria, 2Albert Schweitzer Hospital, Lambaréné, Gabon, 3Department of Tropical Medicine, University of Tübingen, Germany
2:30 p.m.

**CLINICAL MANIFESTATIONS OF HUMAN MONKEYPOX INFLUENCED BY ROUTE OF INFECTION**
Mary Reynolds¹, Krista Yorita¹, Matthew Kuehnert¹, Whitni Davidson¹, Gregory Huhn², Robert Holman¹, Inger Damon¹
¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²Rush University, School of Medicine, Chicago, IL, United States

2:45 p.m.

**A SHORT COURSE OF RIFAMPIN AND/OR AZITHROMYCIN DOES NOT ERADICATE WOLBACHIA FROM ONCHOCERCA VOLVULUS IN GUATEMALA**
Josef Amann¹, Byron Arana², George Punkosdy¹, Robert Klein², Carlos Blanco², Beatriz Lopez², Carlos Mendoza², Mark Eberhard¹, Alfredo Domínguez³, James H. Maguire¹, Frank O. Richards¹
¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²Universidad del Valle, Guatemala City, Guatemala, ³Ministry of Health, Guatemala City, Guatemala, ⁴Onchocerciasis Elimination Program for the Americas (OEPA), Guatemala City, Guatemala

3 p.m.

**RANDOMIZED CONTROLLED TRIAL COMPARING ARTESUNATE/MEFLOQUINE VERSUS ARTEMETHER/LUMEFANTRINE IN TREATMENT OF UNCOMPlicated FALCIPARUM MALARIA IN MALI**
Issaka Sagara, Alassane Dicko, Abdoul B. Diallo, Modibo Coulibaly, Abdoulaye Djimde, Mamady Kone, Mahamadou A. Thera, Mahamadou S. Sissoko, Sory I. Diawara, Ogobara K. Douno
University of Bamako, Bamako, Mali

**American Committee of Medical Entomology (ACME) I: Factors Affecting the Ability of Mosquitoes to Transmit Pathogens**

*International Ballroom East*

*Monday, December 12*  
1:30 – 3:15 p.m.

The symposium will examine various factors that affect the ability of mosquitoes to transmit a pathogen. These would include “Virus factors” (viral genetics, receptor sites, interference between closely related viruses, etc.), “Vector factors” (arthropod genetics, receptors sites, etc.), “Vector factors” (population studies, field ecology, etc.), “Environmental factors” (temperature, rainfall, modifications to the environment [e.g., dam construction], etc.), “Presence of other pathogens” (interaction between microfilariae and viruses, between Plasmodium sporozoites and viruses, and between various virus), and effects of pathogen infection on the mosquito vector (reduced fitness, reduced ability to detect blood [enhancing vectorial capacity by increasing the number of hosts probed/blood meal], potentially reduced effectiveness of repellants against infected arthropods, etc.).

**Scientific Session 37**

*American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) — Molecular Parasitology I*

*Supported with funding from the Burroughs Wellcome Fund*

*International Ballroom West*

*Monday, December 12*  
1:30 – 3:15 p.m.

**CHAIR**
Daniel J. Carucci  
Foundation for the National Institutes of Health, Bethesda, MD, United States

**CHARLES B. SHOEMAKER**
Tufts Cummings School of Veterinary Medicine, North Grafton, MA, United States
1:30 p.m.  
**1100**  
**IDENTIFICATION OF THE MOVING JUNCTION COMPLEX OF THE APICOMPLEXAN PARASITE, TOXOPLASMA GONDII: A COLLABORATION BETWEEN DISTINCT SECRETORY ORGANELLES**  
David Alexander¹, Jeffrey Mital², Gary Ward², Peter Bradley¹, John Boothroyd¹  
¹Stanford University, Stanford, CA; ²University of Vermont, Burlington, VT  

1:45 p.m.  
**46**  
**NEW TOOLS FOR GENETIC ANALYSIS IN PARASITIC NEMATODES**  
Charles B. Shoemaker¹, Susan Stasiuk³, Zainab Issa², Warwick N. Grant²  
¹Tufts Cummings School of Veterinary Medicine, North Grafton, MA, United States; ²AgResearch Wallaceville Animal Research Centre, Upper Hutt, New Zealand  

2 p.m.  
**47**  
**PROMASTIGOTE SECRETORY GEL AND THE TRANSMISSION OF LEISHMANIA BY SAND FLIES**  
Paul A. Bates¹, Matthew E. Rogers¹, Andrei V. Nikolaev², Michael A. Ferguson²  
¹Liverpool School of Tropical Medicine, Liverpool, United Kingdom; ²Division of Biological Chemistry and Molecular Microbiology, Dundee, United Kingdom  

2:15 p.m.  
**1101**  
**CONDITIONAL EXPRESSION OF TGAMA1 DEMONSTRATES ITS CRITICAL ROLE IN INVASION AND WILL ENABLE DIRECT FUNCTIONAL ANALYSIS OF AMA1 PROCESSING**  
Jeffrey Mital¹, Markus Meissner², Dominique Soldati², Gary E. Ward¹  
¹University of Vermont, Burlington, VT; ²Imperial College London, London, United Kingdom  

2:30 p.m.  
**48**  
**FROM TRANSCRIPTOME TO IMMUNOME: IDENTIFICATION OF DTH INDUCING PROTEINS FROM A PHLEBOTOMUS ARIASI SALIVARY GLAND CDNA LIBRARY**  
Fabiano Oliveira, Shaden Kamhawi, Amy E. Seitz, Van My Pham, Laurent Fischer, Jerrold Ward, Jesus G. Valenzuela  
National Institutes of Health, Rockville, MD, United States

Coffee Break
Exhibit Hall
Monday, December 12 3:15 - 3:45 p.m.

**Symposium 37A**
Scaling-up Antiretroviral Therapy Use in Sub-Saharan Africa: Achievements and Challenges

Monroe East
Monday, December 12 3:45 - 5:30 p.m.

The much anticipated influx of funds and resources under the initiatives such as WHO’s 3-by-5 campaign and the Global Fund to Fight AIDS, Tuberculosis, and Malaria, the US President’s Emergency Plan for AIDS Relief, the World Bank’s Multi-Country HIV/AIDS Programme for the Africa Region and a growing number of national HIV/AIDS programmes initiatives, have led to a significant increase of HIV-infected patients being on antiretroviral therapy in Africa. This HIV/AIDS symposium will provide a progress report to include achievements and challenges of the current scaling up of HAART in Africa.

**CHAIR**
Jean Nachega  
Johns Hopkins University, Baltimore, MD, United States

**Thomas Quinn**  
Johns Hopkins University, Baltimore, United States

**Charles Gilks**  
World Health Organization, Geneva, Switzerland

3:45 p.m.
**THE EVOLVING GLOBAL EPIDEMIOLOGY OF HIV/AIDS**  
Thomas Quinn  
Johns Hopkins University, Baltimore, MD, United States
Symposium 38

The Role of Human Ecology in the Control of Tropical and Vector-borne Diseases

Monroe West

Monday, December 12 3:45 – 5:30 p.m.

This session will discuss ongoing research efforts that account for the role of human behavior and human ecology in the transmission and prevention of tropical and vector-borne diseases. Understanding the multiplicity of interactions involved in infectious disease transmission, such as the role of human behavioral factors in complex disease ecology models, is important in fostering scientifically rigorous research that can be used by the public health and infectious disease communities. Community-based field research, which focuses on applied outcomes, will be highlighted in the symposium by providing examples of successful, innovative intervention strategies that document the characteristics of the human environment most associated with disease risk.

CHAIR

Mary H. Hayden
University of Colorado, Colorado Springs, CO, United States

Emily Zielinski-Gutierrez
Centers for Disease Control and Prevention, Fort Collins, CO, United States

3:45 p.m.

LEPTOSPIROSIS IN HAWAII: A SOCIAL-ECOLOGICAL PERSPECTIVE AND THE ROLE OF LOCAL AND TRADITIONAL KNOWLEDGE IN RESEARCH AND PREVENTION

Bruce A. Wilcox
Asia-Pacific Institute for Tropical Medicine and Infectious Diseases, University of Hawaii, Honolulu, HI, United States

Symposium 39

The Globalization of Diseases of Public Health Significance

Lincoln East

Monday, December 12 3:45 – 5:30 p.m.

As a consequence of globalization and population mobility, the burden of tropical diseases is no longer confined in clinical practice nor in public health policy to endemic areas. Longstanding gaps in prevalence between affected and non-affected zones are rapidly bridged by migrants and long-staying travelers. Changes in the patterns of residence, work and travel supported by evolving late 20th Century advances in telecommunication, technology, trade and transportation have narrowed the distance between endemic and epidemic events in tropical to temperate zones. High-speed travel now allows for the greater presentation of imported disease pathology beyond traditional ports of entry, influencing both the demand need for diagnostic and clinical management capacity throughout the health care sector. This symposium will present a framework of global disease management and policy formation that describes shifts from the classical tools of disease control and clinical assessment to an approach that is as applicable to the bedside clinician, educator, as well as the international public health policy maker. Discussion will draw on existing knowledge of tropical diseases and control practices taking as examples HIV/AIDS, syphilis, SARS and the 2005 revision of the international health regulations.

CHAIR

Douglas W. MacPherson
Migration Health Consultants Inc., Cheltenham, ON, Canada

Brian D. Gushulak
Migration Health Consultants Inc., Vienna, Austria
3:45 p.m.
INTRODUCTION
Douglas W. MacPherson
Migration Health Consultants Inc., Cheltenham, ON, Canada

4:05 p.m.
MANAGING THE HEALTH OF MIGRANTS TO THE US — SHIFTING POLICIES AND PRACTICES
Martin Cetron
Centers for Disease Control, Atlanta, GA, United States

4:30 p.m.
MIGRANT HEALTH CARE IN THE US: HEALTH SCREENING, IMMUNIZATIONS, AND OTHER CHALLENGES
Elizabeth Barnett
Boston Medical Center, Boston, MA, United States

4:50 p.m.
SHIFTING THE APPROACH TO GLOBAL DISEASE THREATS AND RISKS — THE 2005 REVISIONS OF THE INTERNATIONAL HEALTH REGULATIONS AND POPULATION MOBILITY
David Heymann
World Health Organization, Geneva, Switzerland

5:15 p.m.
PANEL DISCUSSION

Symposium 40
Viral Hemorrhagic Fevers

Due to their clinical severity, person-to-person transmissibility, ability to form stable infectious aerosols, absence of licensed vaccines or anti-viral therapies, and tendency to cause outbreaks associated with high mortality and public panic, the viral hemorrhagic fevers have become a major public health concern. Recent years have seen increasing outbreaks of Ebola, Marburg, and Lassa viruses, among others. How serious is the threat of viral hemorrhagic fevers and what progress is being made to address these pathogens?

CHAIR
Daniel G. Bausch
Tulane School of Public Health and Tropical Medicine, New Orleans, LA, United States

Joel Montgomery
Centers for Disease Control and Prevention, Atlanta, GA, United States

3:45 p.m.
ANGOLA 2005: MARBURG RESURFACES
Joel M. Montgomery
Centers for Disease Control and Prevention, Atlanta, GA, United States

4:05 a.m.
FIELD DIAGNOSTICS FOR THE VIRAL HEMORRHAGIC FEVERS
Heinz Feldmann
Public Health Agency of Canada, Winnipeg, MB, Canada

4:25 p.m.
VACCINES AND THERAPEUTICS FOR THE VIRAL HEMORRHAGIC FEVERS
Thomas Geisbert
United States Army Medical Research Institute, Fort Detrick, MD, United States

4:45 p.m.
BUILDING CAPACITY FOR VHF CONTROL: THE MANO RIVER UNION LASSA FEVER NETWORK
May Chu
World Health Organization, Geneva, Switzerland

5:05 p.m.
FILOVIRUS CONNECTIONS WITH WILDLIFE AND RURAL COMMUNITIES
William Karesh
Wildlife Conservation Society, Bronx, NY, United States

Symposium 41
Ethics of International Collaborative Research

Due to their clinical severity, person-to-person transmissibility, ability to form stable infectious aerosols, absence of licensed vaccines or anti-viral therapies, and tendency to cause outbreaks associated with high mortality and public panic, the viral hemorrhagic fevers have become a major public health concern. Recent years have seen increasing outbreaks of Ebola, Marburg, and Lassa viruses, among others. How serious is the threat of viral hemorrhagic fevers and what progress is being made to address these pathogens?

CHAIR
Fernando J. Andrade-Narvaez
Universidad Autonoma de Yucatan, Merida, Merida, Merida, Mexico

Eric M. Meslin
Indiana University Center for Bioethics, Indianapolis, IN, United States
3:45 p.m.
COLLABORATIVE RESEARCH: STRATEGIES AND ETHICAL CONDUCT
Miriam F. Kelty
National Institute on Aging, National Institutes of Health, Bethesda, MD, United States

4:10 p.m.
TAILORING US REQUIREMENTS FOR RCR EDUCATION TO COLLABORATIVE RESEARCH IN LATIN AMERICA
Elizabeth Heitman
Vanderbilt University Medical Center, Nashville, TN, United States

4:40 p.m.
ARE HEALTH RESEARCH ACCOMPLISHMENT RELATED TO POPULATION REQUIREMENTS?
Angélica Ángeles Llerenas
Instituto Nacional de Salud Pública, Mexico, DF, Mexico

5:05 p.m.
ISSUES OF TRANSNATIONAL CAPACITY BUILDING IN RESEARCH ETHICS
Eric M. Meslin
Indiana University Center for Bioethics, Indianapolis, IN, United States

Symposium 42

New Fixed-Dose Artemisinin Combination Therapies to Treat Falciparum Malaria
Jefferson West
Monday, December 12 3:45 – 5:30 p.m.
Artemisinin-based therapies in free combinations have been effective in treating malaria and no known cases of resistance to artemisinin have been identified so far. Fixed-dose artemisinin combinations will increase compliance, further reduce the occurrence of resistance, and improve efficacy; and several new artemisinin fixed-dose combinations are in the pipeline. The challenge, however, lies in developing stable formulations as quickly as possible, accelerating the development and registration of the drugs, and ensuring availability and adoption.

CHAIR
Jaya Banerji
Drugs for Neglected Diseases Initiative, Geneva, Switzerland
Nick White
Wellcome Trust Mahidol University Oxford Tropical Medicine Research Programme, Bangkok, Thailand

3:45 p.m.
ARTESUNATE AMODIAQUINE
Sodiomon Sirima
Centre National de Recherche et de Formation sur le Paludisme (CNRFP), Ouagadougou, Burkina Faso

4:15 p.m.
ARTESUNATE MEFLOQUINE
Elizabeth Ashley
Shoklo Malaria Research Unit, Mae Sod, Tak, Thailand

4:40 p.m.
ARTEKIN — DIHYDROARTESININ-PIPERAQUINE
Umberto D’Alessandro
Prince Leopold Institut of Tropical Medicine, Antwerp, Belgium

5:05 p.m.
PYRONARIDINE-ARTESUNATE
Larry Fleckenstein
University of Iowa, Iowa City, IA, United States

Scientific Session 43

Clinical Tropical Medicine II
Georgetown
Monday, December 12 3:45 – 6 p.m.
CHAIR
Davidson H. Hamer
Boston University, Center for International Health and Development, Boston, MA, United States
Robert A. Gasser, Jr.
Walter Reed Army Medical Center, Washington, DC, United States

3:45 p.m.
WEB-BASED GUIDELINES FOR THE EVALUATION OF FEVER IN RETURNING TRAVELERS AND MIGRANTS
WWW.FEVERTRAVEL.CH : AN ONLINE ‘GLOBAL’ STUDY ON FEASIBILITY AND SAFETY FOR USE BY THE PRIMARY CARE PHYSICIAN
Blaise Genton1, Yolanda Mueller1, Anne-Emmanuelle Ambresin1, Bernard Burnand2, Valerie D’Acremont3
1Travel Clinic, Medical Outpatient Clinic, University of Lausanne, Lausanne, Switzerland, 2Center for Clinical Epidemiology, University of Lausanne, Lausanne, Switzerland

4 p.m.
FEASIBILITY AND ACCEPTABILITY OF USE OF COARTEM FOR EARLY APPROPRIATE HOME MANAGEMENT OF FEVERS IN CHILDREN AGED 6-59 MONTHS IN GHANA
Margaret A. Chinbuah, John O. Gyapong, Edith K. Wellington, Margaret Gyapong
Ghana Health Service, Accra, Ghana
OUTBREAK OF CYCLOSPORIASIS AT A NAVAL BASE IN ANCÓN, LIMA, PERÚ
Paola A. Torres1, Carmen C. Mundaca1, José Quispe2, Andrés G. Lescano1, David L. Blazes1
1Naval Medical Research Center Detachment, Lima, Peru, 2Centro Medico Naval, Lima, Peru

HIGH PREVALENCE OF UNTREATED TROPICAL INFECTIOUS DISEASES AMONG SUDANESE REFUGEES LIVING IN THE US
Carlos Franco-Paredes, Russell Kempker, Roberta Dismukes, Deborah Nicolls, Phyllis Kozarsky
Emory University School of Medicine, Atlanta, GA, United States

INTERMITTENT PRESCRIPTIVE THERAPY OF MALARIA WITH SP IN HIV-SEROPOSITIVE ZAMBIAN WOMEN: A PLACEBO-CONTROLLED, RANDOMIZED TRIAL
Davidson H. Hamer1, Victor Mwanakasale2, Victor Chalwe2, Lawrence Mwanayanda2, Doreen Mukwamataba2, Roma Chilengi2, M. Mukiyaki3, C. Mulele4, Davies Champo2, Modest Mulenga2, Donald M. Thea1, William B. MacLeod1, Christopher J. Gill1
1Center for International Health and Development, Boston, MA, United States, 2Tropical Diseases Research Centre, Ndola, Zambia, 3Ndola Central Hospital, Ndola, Zambia, 4Mines Hospital, Kitwe, Zambia

TYPHOID FEVER INCIDENCE IN 2 SUB-DISTRICTS OF NORTH JAKARTA, INDONESIA, THROUGH PASSIVE SURVEILLANCE
Narain H. Punjabi1, Magdarina D. Agtini2, Cyrus H. Simanjuntak1, Decy S. Subekti1, Lorenz von Seidlein3, Sri P. Pulungsih4, Ferry Wangsasaputra5, Santoso Soeroso6, Jacqueline H. Deen3, Hye Joon Lee3, Agus Suwando2, John D. Clemens3
1NAMRU-2, Jakarta, Indonesia, 2National Institutes of Health RD, Jakarta, Indonesia, 3IVI, Seoul, Republic of Korea, 4RSPISS, Jakarta, Indonesia

BURDEN OF INVASIVE DISEASE CAUSED BY HAEMOPHILUS INFLUENZAE TYPE B AND STREPTOCOCCUS PNEUMONIAE AMONG INFANTS IN BAMAKO, MALI
Samba O. Sow1, Milagritos D. Tapia2, Souleymane Diallo3, James D. Campbell2, Karen Kotloff2, Myron M. Levine2
1Center for Vaccine Development-Mali, Bamako, Mali, 2University of Maryland School of Medicine, Baltimore, MD, United States, 3Hospital Gabriel Toure, Bamako, Mali

AN OPEN, DOSE-RANGING, PHASE II TRIAL OF CHLORPROGUANIL/DAPSONE WITH THREE DOSES OF ARTESUNATE FOR THE TREATMENT OF ACUTE UNCOMPPLICATED PLASMODIUM FALCIPARUM (P.F) MALARIA
Dan Wootton1, Hyginus Opara2, Maggie Nyirenda3, Hannah Blencoe4, Maxwell Kanjala4, Ignatius Baldeh2, Mary Woessner5, Colin Neate6, Stephan Duparc6, Paula Kirby6, Paul Milligan7, Malcolm Molyneux8, Sam Dunyo9, Peter Winstanley8
1Tropical and Infectious Disease Unit, Royal Liverpool University Hospital, Liverpool, United Kingdom, 2MRC Laboratories, Fajara, Gambia, 3College of Medicine, Blantyre, Malawi, 4Malawi-Liverpool Wellcome Trust Clinical Research Programme, Blantyre, Malawi, 5GliaxSmithKline, Philadelphia, PA, United States, 6GliaxSmithKline, London, United Kingdom, 7London School of Hygiene and Tropical Medicine, London, United Kingdom, 8University of Liverpool, Liverpool, United Kingdom

A CASE REPORT OF MEFLOQUINE-INDUCED ALTERATION OF CARDIAC PACEMAKER THRESHOLDS
Neil E. Gibson
Department of National Defence, Canada, St. Albert, AB, Canada

American Committee of Medical Entomology (ACME) II: Factors Affecting the Ability of Mosquitoes to Transmit Pathogens

Symposium 44

American Committee of Medical Entomology (ACME) II: Factors Affecting the Ability of Mosquitoes to Transmit Pathogens

International Ballroom East
Monday, December 12
3:45 – 5:30 p.m.

This session is the continuation of the ACME Symposium on Factors Affecting the Ability of Mosquitoes to Transmit Pathogens and will be immediately followed by the ACME business meeting.

CHAIR
Michael J. Turell
United States Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD, United States
3:45 p.m.  
**EFFECTS OF ENVIRONMENTAL FACTORS ON THE TRANSMISSION OF VIRUSES**  
Kenneth J. Linthicum  
USDA-Center for Medical, Agricultural and Veterinary Entomology; Gainesville, FL, United States  

4:00 p.m.  
**EFFECTS OF THE PRESENCE OF OTHER PATHOGENS ON THE TRANSMISSION OF VIRUSES**  
Michael J. Turell  
United States Army Medical Research Institute of Infectious Diseases; Fort Detrick, MD, United States  

4:30 p.m.  
**EFFECTS OF PATHOGEN INFECTION AND NUTRITIONAL FACTORS ON PATHOGEN TRANSMISSION**  
Peter F. Billingsley  
School of Biological Sciences, University of Aberdeen, Aberdeen, United Kingdom  

### Scientific Session 45

**American Committee of Molecular, Cellular and Immunoparasitology (ACMCIP) — Molecular Parasitology II**  
Supported with funding from the Burroughs Wellcome Fund  
International Ballroom West  
Monday, December 12  

**3:45 p.m.**  
**EXCLUSIVE EXPRESSION OF VIRULENCE GENES BY THE MALARIA PARASITES P. FALCIPARUM IS REGULATED INDEPENDENTLY OF ANTIGEN PRODUCTION**  
Ron Dzikowski, Frank Matthias, Kirk Deitsch  
Weill Medical College of Cornell University, New York, NY  

**4:00 p.m.**  
**A WOLBACHIA ENDOSYMBIONT DNA SEQUENCE IS HORIZONTALLY TRANSFERRED TO THE NUCLEAR GENOME OF THE FILARIAL PARASITE BRUGIA MALAYI**  
Peter Fischer, Jessica Ingram, Dietrich W. Buttnner, Christel Schmetz, Barton Slatko  
1Washington University School of Medicine, St. Louis, MO, United States, 2New England Biolabs, Beverly, MA, United States, 3Bernhard Nocht Institute, Hamburg, Germany  

**4:15 p.m.**  
**ESTABLISHING RNAI TO KNOCKDOWN FREP2 EXPRESSION IN THE SNAIL, BIOMPHALARIA GLABRATA, AN INTERMEDIATE HOST FOR SCHISTOSOMA MANSONI**  
Si-Ming Zhang, Yiguo Jiang, Eric S. Loker  
University of New Mexico, Albuquerque, NM, United States  

**4:30 p.m.**  
**PLASMODIUM LIVER STAGE DEVELOPMENT DEPENDS ON RECRUITMENT OF A HOST HEPATOCYTE FACTOR**  
Ann-Kristin Mueller, Kristin Goetz, Stefan Kappe, Kai Matuschewski  
1University of Heidelberg, Heidelberg, Germany, 2Seattle Biomedical Research Institute, Seattle, WA  

**4:45 p.m.**  
**DIAGNOSING INFECTION LEVELS OF FOUR HUMAN MALARIA PARASITE SPECIES BY A PCR/LDR FLUORESCENT MICROSPHERE-BASED ASSAY**  
David T. McNamara, Laurin J. Kasehagen, Brian T. Grinberg, Jennifer Cole-Tobian, William E. Collins, Peter A. Zimmerman  
1Case Western Reserve University, Cleveland, OH, United States, 2Centers for Disease Control and Prevention, Chamblee, GA, United States  

**5:00 p.m.**  
**GENE GUN IMMUNIZATION AGAINST CIRCUMSPOROZOITE PROTEIN OF PLASMODIUM BERGHEI INDUCES PROTECTIVE IMMUNITY INDEPENDENT OF EFFECTOR T CELLS**  
Elke S. Bergmann-Leitner, Elizabeth H. Duncan, Wolfgang W. Leitner, Jackie L. Williams, Jeffrey A. Lyon  
1Walter Reed Army Institute, Silver Spring, MD, United States, 2National Institutes of Health, Bethesda, MD, United States  

**5:15 p.m.**  
**INVESTIGATING THE ROLE OF PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1 INTERACTION WITH CHONDROITIN SULFATE A IN THE PATHOGENESIS OF PLACENTAL MALARIA**  
1University of Melbourne, Victoria, Australia, 2The Walter and Eliza Hall Institute of Medical Research, Melbourne, Victoria, Australia
**Exhibit Hall Open**

*Exhibit Hall*

Monday, December 12 4:30 – 5:30 p.m.

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**Plenary Session II**

*International Ballroom Center*

Monday, December 12 6 – 6:45 p.m.

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**Fred L. Soper Lecture**

The Fred L. Soper Lecture is an honor bestowed on a distinguished scientist involved in studies related to environmental control and preventive medicine in the tropics.

**CHAIR**

Robert B. Tesh  
University of Texas Medical Branch, Galveston, TX, United States

**Q FEVER**

Didier Raoult  
Unite des Rickettsies, Marseille, France

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**Late Breakers in Basic Science/Molecular Biology**

*International Ballroom East*

Monday, December 12 7 – 9 p.m.

**CHAIR**

Rebeca Rico-Hesse  
Southwest Foundation for Biomedical Research, San Antonio, TX, United States

Stefan Kappe  
Seattle Biomedical Research Institute, Seattle, WA, United States

This session is specifically designed for brief presentations of important, new data obtained after the closing date for abstract submission.

See Late Breaker handout for presentation schedule.

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**Late Breakers in Clinical Tropical Medicine**

*International Ballroom West*

Monday, December 12 7 – 9 p.m.

**CHAIR**

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

David F. McNeeley  
Tibotec, Raritan, NJ, United States

This session is specifically designed for presentations of new data of interest to practicing clinicians, obtained after the closing date for abstract submission. Reports of clinical trials, preliminary data on new outbreaks of disease and individual case reports will be presented.

See Late Breaker handout for presentation schedule.

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**Tuesday, December 13**

**Registration**

*Concourse Foyer*

Tuesday, December 13 7 a.m. – 5 p.m.

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**Journal Editorial Board Breakfast**

*State*

Tuesday, December 13 7 – 8 a.m.

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**Clinical Group Past Presidents Breakfast**

*Chevy Chase*

Tuesday, December 13 7 – 8 a.m.

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**Poster Session A Viewing**

*Exhibit Hall*

Tuesday, December 13 7 a.m. – Noon

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**Scientific Session 46**

**Malaria — Mosquito Biology**

*Hemisphere*

Tuesday, December 13 8 – 9:30 a.m.

**CHAIR**

Jan E. Conn  
New York State Department of Health, Slingerlands, NY, United States

Mary Ann McDowell  
University of Notre Dame, Notre Dame, IN, United States

8 a.m. 62

POPULATION GENETIC STRUCTURE OF THE MALARIA VECTOR *ANOPHELES DARLINGI* USING THE NUCLEAR WHITE GENE: EVIDENCE FOR INCIPIENT SPECIATION OR CRYPTIC SPECIES?  
Lisa Mirabello, Jan Conn  
State University of New York at Albany, Albany, NY, United States

8:15 a.m. 63

AN ENTOMOPATHOGENIC FUNGUS AGAINST ADULT AFRICAN MALARIA MOSQUITOES  
Ernst-Jan Scholte1, Kija Ng’habi2, Japheth Kihonda3, Willem Takken1, Krijn Paaijmans1, Salim Abdulla2, Gerry Killeen2, Bart G.j. Knols2  
1Wageningen University, Wageningen, Netherlands, 2Ifakara Health Research and Development Centre, Ifakara, United Republic of Tanzania, 3Swiss Tropical Institute, Basel, Switzerland, 4International Atomic Energy Agency, Seibersdorf, Austria
Detailed Program

8:30 a.m.

DYNAMIC MODELING OF MALARIA TRANSMISSIONS WITH APPLICATIONS TO A STUDY SITE IN WESTERN THAILAND
Richard K. Kiang1, Farida Adimi1, Gabriela E. Zollner2, Russell E. Coleman2
1NASA Goddard Space Flight Center, Greenbelt, MD, United States, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States

8:45 a.m.

GENETIC DIFFERENTIATION BETWEEN THE BAMAKO AND SAVANNA CHROMOSOMAL FORMS OF ANOPHELES GAMBAE AS INDICATED BY AFLP ANALYSIS
Michel Slotman1, Monique Mendez1, Alessandra della Torre2, Guimogo Dolo3, Yeya Toure4, Adalgisa Caccone1
1Yale University, New Haven, CT, United States, 2Universita of Rome “La Sapienza”, Rome, Italy, 3Ecole Nationale de Medecine et de Pharmacie, Bamako, Mali, 4World Health Organization, Geneva, Switzerland

9 a.m.

GENETIC DIFFERENTIATION AND ORIGIN OF SÃO TOMÉ AND PRÍNCIPE (WEST AFRICA) ANOPHELES GAMBAE POPULATIONS
Jonathan Marshall1, J. Pinto2, J. D. Charlwood3, G. Gentile4, F. Santolamazza5, F. Simard6, A. dellaTorre6, A. Caccone1
1Yale University, New Haven, CT, United States, 2University Nova de Lisboa, Lisboa, Portugal, 3Institute for Health Research, Copenhagen, Denmark, 4University “Tor Vergata”, Rome, Italy, 5University “La Sapienza”, Rome, Italy, 6Eoce, Yaoundé, Cameroon

9:15 a.m.

THE EFFECT OF MOSQUITO SALIVA ON PLASMODIUM YOELII INFECTION
Michael J. Donovan, Deborah A. Scrafford, Mary A. McDowell
University of Notre Dame, Notre Dame, IN, United States
(ACMCIP Abstract)

Scientific Session 47

Viruses I — Hantaviruses

Military
Tuesday, December 13 8 - 9:45 a.m.
CHAIR
Brian Hjelle
University of New Mexico, Albuquerque, NM, United States

Connie Schmaljohn
USAMRIID, Fort Detrick, MD, United States

8 a.m.

A NEW PUUMALA HANTAVIRUS AS CAUSE OF AN NEPHROPATHIA EPIDEMICA OUTBREAK IN SOUTH-EAST GERMANY IN 2004
Sandra S. Essbauer1, Jonas Schmidt2, Franz C. Conraths2, Robert Friedrich2, Judith Koch3, Wolfgang Hautmann4, Martin Pfeffer1, Roman Wölfel1, Ernst J. Finke1, Gerhard Dobler1, Rainer Ulrich2
1Bundeswehr Institute of Medical Microbiology, Munich, Germany, 2Friedrich-Loeffler-Institut, Federal Research Institute for Animal Health, Institute of Epidemiology, Wusterhausen, Germany, 3Robert Koch-Institut, Berlin, Germany, 4Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit, Munich, Germany

8:15 a.m.

IMPACT OF LAND COVER CHANGE ON HANTAVIRUS ECOLOGY IN THE INTER-ATLANTIC FOREST OF PARAGUAY
Colleen B. Jonsson1, Dougas G. Goodin2, Robert D. Owen3, Yong-Kyu Chu1, David Koch1
1Southern Research Institute, Birmingham, AL, United States, 2Department of Geography, Kansas State University, Manhattan, KS, United States, 3Department of Biological Sciences, Texas Tech University, Lubbock, TX, United States

8:30 a.m.

A HOSPITAL-BASED PROSPECTIVE STUDY OF HANTAVIRUS INFECTIONS IN BANDUNG, INDONESIA
Bacht Alisjahbana1, Herman Kosasih2, Yumilia Hoo3, Mia Milanti1, Susana Widjaja2, Erlin Listiyajngish2, Djamh Ninartadi4, Charmagne G. Beckett5, Patrick J. Blair1
1Internal Medicine Department Hasan Sadikin Hospital, Bandung, Indonesia, 2US Naval Medical Research Unit 2, Jakarta, Indonesia, 3Internal Medicine Department Immanuel Hospital, Bandung, Indonesia, 4Pediatrics Department Hasan Sadikin Hospital, Bandung, Indonesia, 5Naval Medical Research Center, Silverspring, MD, United States

8:45 a.m.

THE FINDING OF PUUMALA AND SEOUL HANTAVIRUSES IN RATTUS SP, WITHIN JAVA, INDONESIA
Erlin Listijaningsih1, Gustiani Gustiani1, Herman Kosasih1, Ima N. Ibrahim2, Susana Widjaja1, Ratna Irsiana Tan3, Kevin R. Porter3, Charmagne G. Beckett3, Patrick J. Blair1
1United States Naval Medical Research Unit No. 2, Jakarta, Indonesia, 2Center for Health Ecology Research and Development, National Institutes of Health R&D, Jakarta, Indonesia, 3Viral Diseases Department Naval Medical Research Center, Silverspring, MD, United States
**A PREDICTIVE MODEL FOR IDENTIFYING PERSISTENT POPULATIONS OF PEROMYSCUS MANICULATUS INFECTED WITH SIN NOMBRE VIRUS**

Christine L. Hice¹, Timothy M. Shields², Greg E. Glass², James N. Mills³, Terry L. Yates¹

¹University of New Mexico, Albuquerque, NM, United States, ²The John Hopkins Bloomberg School of Public Health, Baltimore, MD, United States, ³Centers for Disease Control and Prevention, Atlanta, GA, United States

**INNATE IMMUNE RESPONSES TO SIN NOMBRE VIRUS COMPONENTS SUGGEST THAT ENDOTHELIAL CELLS RECOGNIZE A SPECIFIC PATHOGEN-ASSOCIATED MOLECULAR PATTERN (PAMP) IN THE VIRAL PARTICLE**

Joseph B. Prescott, Chunyan Ye, Brian Hjelle

University of New Mexico HSC, Albuquerque, NM, United States

**SHOCK IN HAMSTER MODELS OF HANHTAVIRUS INFECTION**

Matthew Campen¹, Mary Lou Milazzo², Charles Fulhorst², Frederick T. Koster³

¹Lovelace Respiratory Research Institute, Albuquerque, NM, United States, ²University of Texas Medical Branch, Galveston, TX, United States

Scientific Session 48

**Kinetoplastida I**

Monroe East

Tuesday, December 13

8 – 9:45 a.m.

**CHAIR**

Richard Titus

Colorado State University, Fort Collins, CO, United States

Charles L. Jaffe

Hebrew University-Hadassah Medical School, Jerusalem, Israel

**CHAGAS TRANSMISSION IN A PRIMATE COLONY IN LOUISIANA**

Megan Daigle¹, Frank Cogswell², Patricia L. Dorn¹

¹Loyola University New Orleans, New Orleans, LA, United States, ²Tulane National Primate Research Center, Covington, LA, United States

**ASYMPTOMATIC LEISHMANIAL INFECTION AND KALA-AZAR IN A BANGLADESHI COMMUNITY**

Caryn Bern¹, John Williamson¹, Rashidul Haque², Katie Kurkjian³, Josef Amann¹, Rajib Chowdhury², Mustakim Ali², Louise Vaz¹, Catherine Cetre-Sossah¹, Allen Hightower¹, Yukiko Wagatsuma³, Robert Breiman¹, James Maguire¹, Evan Secor¹

¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²ICDDR,B, Dhaka, Bangladesh

**THE EPIDEMIOLOGY OF THE CHAGAS DISEASE VECTOR, TRIATOMA INFESTANS, IN A PERIURBAN COMMUNITY, AREQUIPA, PERU**

Michael Z. Levy¹, Natalie Bowman², Vivian Kawai³, Lance Waller³, Eleazer Cordova³, Juan Cornejo del Carpio³, Robert Gilman³, Caryn Bern¹

¹Centers for Disease Control and Prevention, Atlanta, GA, United States, ²A.B. PRISMA, Lima, Peru, ³Emory University, Atlanta, GA, United States, ⁴San Agustín National University, Arequipa, Peru, ⁵Arequipa Regional Office of the Peruvian Ministry of Health, Arequipa, Peru

**IDENTIFICATION OF ANTIKINETOPTALIST COMPOUNDS FROM PLANTS**

Karl Werbovetz, Manar Salem, Mitali Mukherjee, Samia Zidan, Mark Bahar, Joshua Fletcher, Nasir Hassan, A. Douglas Kinghorn

Ohio State University College of Pharmacy, Columbus, OH, United States

**EFFECTIVE CLEARANCE OF LEISHMANIA MAJOR INFECTION IN SUSCEPTIBLE BALB/C MICE BY NANODISK-BOUND AMPHOTERICIN B**

Richard Titus¹, Keith Nelson¹, Jeanette Bishop¹, Robert Ryan²

¹Colorado State University, Fort Collins, CO, United States, ²Children’s Hospital Oakland Research Institute, Oakland, CA, United States
Detailed Program

9:30 a.m.

REVVERSE LINE BLOT — POLYMERASE CHAIN REACTION (RLB-PCR) FOR THE DIAGNOSIS OF OLD WORLD LEISHMANIASIS

Ester Bensoussan1, Abedelmajeed Nasereddin1, Gad Baneth2, Charles L. Jaffe1
1Hebrew University-Hadassah Medical School, Jerusalem, Israel,
2Koret School of Veterinary Medicine, Hebrew University, Rehovot, Israel

Scientific Session 49

Cestodes I

Monroe West

Tuesday, December 13 8 – 9:45 a.m.

CHAIR
A. Clinton White
Baylor College of Medicine, Houston, TX, United States

Peter Kern
University Hospital and Medical Center, University of Ulm, Ulm, Germany

8 a.m.

HUMAN ECHINOCCOCCOSIS IN NINGXIA HUI AUTONOMOUS REGION, NORTH-CENTRAL CHINA: FROM PAST TO PRESENT

Yu R. Yang1, Yu R. Yang2, Philip S. Craig3, Dominique A. Vuitton4, Patrick Giraudoux4, David Pleydell3, Tao Sun2, Malcolm Jones1, Donald P. McManus1
1Queensland Institute of Medical Research, Brisbane, Australia,
2Ningxia Medical College, Yinchuan, Ningxia Hui Autonomous Region, China, 3National Institutes of Health Echinococcosis China Work Group, Salford, United Kingdom, 4National Institutes of Health Echinococcosis China Work Group, Besancon, France

8:15 a.m.

SPATIAL AND TEMPORAL EPIDEMIOLOGY OF ECHINOCOCCUS MULTilocULARIS: RESULTS OF THE EUROPEAN PROJECT ECHINORISK

Peter Kern1, Patrick Giraudoux2, Thomas Romig3
1University of Ulm, Ulm, Germany, 2University of Franche-Comté, Ulm, France, 3University of Hohenheim, Stuttgart-Hohenheim, Germany

8:30 a.m.

CYSTIC ECHINOCCOCCOSIS (CE) IN THE HIGHLAND OF PERU: STUDY OF AGE AND GENDER EFFECT USING CHEST X-RAY, ULTRASOUND AND ENZYME-LINKED IMMUNOELECTROTRANSFER BLOT (EITB) TESTS

Cesar M. Gavidia1, Armando E. Gonzalez1, Luis Lopera1, Berenice N paint2, Eduardo Barron1, Hugo H. Garcia2, Siliva Rodriguez2, Manuela R. Verastegui1, Carmen Calderon1, Robert H. Gilman1, Jose A. Chabalgoity2
1San Marcos University, Veterinary School, Lima, Peru, 2Instituto de Ciencias Neurologicas, Santo Toribio de Mogrovejo, Lima, Peru, 3Universidad Peruana Cayetano Heredia, Lima, Peru, 4Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, United States, 5Facultad de Medicina, Universidad de la Republica, Montevideo, Uruguay

8:45 a.m.

WATCH AND WAIT AS AN ALTERNATIVE “TREATMENT” FOR ACTIVE AND TRANSITIONAL ECHINOCOCCAL CYSTS. SINGLE CENTER EXPERIENCE

Enrico Brunetti. Giuliana Trolia, Rosario Gulizia, Anna Lisa Gariachelli, Carlo Filice
University of Pavia, IRCCS S.Matteo, Pavia, Italy

9 a.m.

DIAGNOSIS AND SURGICAL TREATMENT OF CYSTIC ECHINOCCOCCOSIS IN CHILDREN IN TURKMENISTAN

Esen Saklapov1, Batyr Geldiev1, Oguljahan Babayeva1, Peter Schantz2
1Turkmen National Medical Institute, Ashgabat, Turkmenistan, 2Division of Parasitic Diseases, National Center for Infectious Diseases, Centers for Disease Control, Atlanta, GA, United States

9:15 a.m.

SEROLOGICAL DIAGNOSIS OF CYSTIC HYDATID DISEASE: COMPARISON BETWEEN ELISA USING THE SYNTHEtic P176 PEPTIDE AND WESTERN BLOT USING CYSTIC FLUID

Patricia Arias1, Milagrytos Portocarrero1, Silvia Rodriguez1, Saul Santivañez2, Manuela Verastegui1, Juan Jimenez1, Mary L. Rodriguez1, Hector H. Garcia1, Armando E. Gonzalez2, Robert H. Gilman1, Cesar M. Gavidia3, for the Cysticercosis Working Group in Peru4
1Department of Microbiology, Universidad Peruana Cayetano Heredia, Lima, Peru, 2School of Medicine, Universidad Peruana Cayetano Heredia, Lima, Peru, 3School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 4 Universidad Peruana Cayetano Heredia, Lima, Peru

(ACMCIP Abstract)
IN VITRO EFFICACY OF FLAVONOIDS AGAINST ECHINOCOCCUS MULTILOCULARIS AND ECHINOCOCCUS GANULOSUS LARVAL STAGES

Arunasalam Naguleswaran1, Martin Spicher1, Luis Ortega Mora2, Jean François Rossignol3, Andrew Hemphill1
1University of Berne, Berne, Switzerland, 2Universidad Complutense de Madrid, Madrid, Spain, 3Romark Research Laboratories, Tampa, FL, United States

IN VITRO EFFICACY OF FLAVONOIDS AGAINST ECHINOCOCCUS MULTILOCULARIS AND ECHINOCOCCUS GANULOSUS LARVAL STAGES

Arunasalam Naguleswaran1, Martin Spicher1, Luis Ortega Mora2, Jean François Rossignol3, Andrew Hemphill1
1University of Berne, Berne, Switzerland, 2Universidad Complutense de Madrid, Madrid, Spain, 3Romark Research Laboratories, Tampa, FL, United States

Scientific Session 50

Malaria — Drug Development

Lincoln East

Tuesday, December 13

8 a.m.

STRONG ANTI-LIVER STAGE ACTIVITY OF A NOVEL 4(1H)-PYRIDONE ANTIMALARIAL COMPOUND

Stéphanie Hez-Deroubaix1, Esma Bentchikou1, Catherine Blanc1, Philippe Grippon2, Jacques Belghiti3, Robert W. Sauerwein4, Catherine Bourgoin5, Inigo Angulo6, Santiago Ferrer7, Domingo Gargallo-Viola8, Pierre Drulhiel9
1Institut Pasteur - Biomedical Parasitology Unit, Paris, France, 2INSERM U522, Hôpital de Pontchaillou, Rennes, France, 3Service de Chirurgie Générale et Digestive, Hôpital Beaujon, Clichy, France, 4Department of Medical Microbiology, University of Nijmegen, Nijmegen, Netherlands, 5Institut Pasteur - Unité Postulante de Biologie et Génétique du Paludisme, Paris, France, 6GlaxoSmithKline I&D S.L. MMPD CEDD, DDW Centre, Madrid, Spain

9:45 a.m.

IN VITRO EFFICACY OF FLAVONOIDS AGAINST ECHINOCOCCUS MULTILOCULARIS AND ECHINOCOCCUS GANULOSUS LARVAL STAGES

Arunasalam Naguleswaran1, Martin Spicher1, Luis Ortega Mora2, Jean François Rossignol3, Andrew Hemphill1
1University of Berne, Berne, Switzerland, 2Universidad Complutense de Madrid, Madrid, Spain, 3Romark Research Laboratories, Tampa, FL, United States

8:30 a.m.

PHASE 1 STUDIES OF A CANDIDATE AMINOQUINOLINE ANTIMALARIAL (AQ-13) IN HUMANS

Fawaz Mzayek, Christiane Hadi, Haiyan Deng, Bekir H. Melek, Juan J. Lertora, Donald Krogstad
Tulane University, New Orleans, LA, United States

9 a.m.

TARGETING THE KAS ENZYMES OF PLASMODIUM FALCIPARUM

Sean T. Prigge1, Patricia J. Lee2, Heather Gaona2, Apurba K. Bhattacharjee2, Maroya Spalding1, Jeff Z. Lu1, Norman C. Waters2
1Johns Hopkins School of Public Health, Baltimore, MD, United States, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States

9:15 a.m.

INTRAVENOUS ARTESUNATE: A NEW PRODUCT FOR THE TREATMENT OF SEVERE AND COMPLICATED MALARIA

Peter J. Weina1, Adam Haeberle1, Michael C. Lowe1, Louis Cantilen2, Wilbur K. Milhous1
1Walter Reed Army Institute of Research, Silver Spring, MD, United States, 2Uniformed Services University of the Health Sciences, Bethesda, MD, United States

9:30 a.m.

ANTIMALARIAL AND ANTICANCER ACTIVITIES OF A NEW TRIOXANE DIMER

Gary Posner1, Kristina Borstnik2, Suji Xie3, Theresa A. Shapiro4
1Johns Hopkins University, Johns Hopkins Malaria Institute, Baltimore, MD, United States, 2Johns Hopkins University, Baltimore, MD, United States, 3Johns Hopkins School of Medicine, Baltimore, MD, United States, 4Johns Hopkins School of Medicine, Johns Hopkins Malaria Institute, Baltimore, MD, United States
**Symposium 51**

Social and Political Issues in Tropical Medicine

*Lincoln West*

Tuesday, December 13 8 – 9:45 a.m.

ASTMH members logically focus the bulk of their scientific endeavors on entities that exist in tropical or “developing” countries. In addition to classic tropical disease pathogens, residents of these countries often combat a complicated host of social and political problems, including civil strife, unstable transitions of government and extreme poverty. In order to conduct our work ethically and efficiently, we must realize that these countries represent much more than simply sources of pathogens not commonly found in the industrialized world. In fact, the prevalent health issues and socio-political environment are often inextricably linked. This session is designed to provide an open forum for presentation and discussion of pertinent social and political issues related to tropical medicine research and development.

**CHAIR**

*Frederique A. Jacquerioz*

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

*Daniel G. Bausch*

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

**8 a.m.**

**CHALLENGES TO ETHICAL INFORMED CONSENT IN DEVELOPING COUNTRIES**

*Don Krogstad*

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

**8:25 a.m.**

**A HUMAN RIGHTS APPROACH TO RESEARCH IN DEVELOPING COUNTRIES**

*Timothy Holtz*

Doctors for Global Health, Atlanta, GA, United States

**8:50 a.m.**

**WAR AND CIVILIAN HEALTH IN IRAQ: MONITORING THE EFFECTS**

*Les Roberts*

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

**9:15 a.m.**

**PUBLIC HEALTH AND SOCIAL JUSTICE IN POST-KATRINA NEW ORLEANS**

*Daniel G. Bausch*

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

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**Scientific Session 52**

Schistosomiasis I — Immunology and Molecular Biology

*Jefferson East*

Tuesday, December 13 8 – 9:45 a.m.

**CHAIR**

*Paul J. Brindley*

Tulane University, New Orleans, LA, United States

*Stephen Davies*

Uniformed Services University of the Health Sciences, Bethesda, MD, United States

**8 a.m.**

**PERIPHERAL BLOOD LEVELS OF CD3+/CD4+/CD25HI T REGULATORY CELLS IN HUMAN SCHISTOSOMIASIS MANSONI**


1University of Georgia, Athens, GA, United States, 2Kenya Medical Research Institute, Kisumu, Kenya, 3Centers for Disease Control and Prevention, Atlanta, GA, United States

(ACMCIP Abstract)

**8:15 a.m.**

**HELMINTH GLYCANS ACTIVATE SUPPRESSOR MACROPHAGES AND BIAS CD4+ T CELL RESPONSES TO TH2-TYPE**

*Donald Harn*, Olga Atochina, Luis Terrazas, Maureen Drakes, Mirjam Walker

Harvard School of Public Health, Boston, MA, United States

(ACMCIP Abstract)

**8:30 a.m.**

**THE ROLE OF T CELL ACTIVATION IN SCHISTOSOME DEVELOPMENT**

*Erika W. Lamb*, Emily T. Crow, Brian C. Schaefer, Stephen J. Davies

Uniformed Services University of the Health Sciences, Bethesda, MD, United States

(ACMCIP Abstract)

**8:45 a.m.**

**IDENTIFICATION AND ANALYSIS OF GENES INFLUENCED BY PAIRING AND SEXUAL MATURATION IN SCHISTOSOMA MANSONI**

*Jennifer M. Fitzpatrick*, Karl F. Hoffmann

University of Cambridge, Cambridge, United Kingdom
9 a.m. 100

**Schistosoma mansoni** Type II TGF-β Receptor Binds Host Ligand and Tranduces a Signal That Regulates a Target Gene in the Schistosome

Ahmed Osman, Edward G. Niles, Philip T. LoVerde

1State University of New York, Buffalo, NY, United States,
2Southwest Foundation for Biomedical Research, San Antonio, TX, United States

(ACMCIP Abstract)

9:15 a.m.

**Pattern Recognition Receptors in Biomphalaria Glabrata**, the Intermediate Host of Schistosoma mansoni

Judith Humphries, Timothy Yoshino

University of Wisconsin-Madison, Madison, WI, United States

(ACMCIP Abstract)

9:30 a.m.

**Are SERCAS the Target of Artemisinin Activity Against Schistosoma mansoni?**

Hilary P. Kruse, Fengli Liu, Craig Gatto, David L. Williams

Illinois State University, Normal, IL, United States

(ACMCIP Abstract)

### Symposium 53

**In Vivo Gene Expression Responses of Human Cells to Pathogens: A Global Experience**

Jefferson West

Tuesday, December 13

This symposium will have four representative speakers from different areas of human pathogens: RNA viruses, DNA viruses, bacteria and protozoa infections. The symposium will cover the experience studying host cell responses for different pathogens. The unique aspect of the symposium is to offer translational human research opportunities using global gene expression profiling in vivo. The symposium will show the expertise of few laboratories offering global gene expression data and discussion on in vivo human models of disease or relevant in vitro human cell models. It will be an opportunity to offer computational biology data analysis options and future strategies for data usage and hypothesis testing. The lessons learned in the past years and the future problems that need to be solved in this area of research will be among the objectives is this symposium.

**Chair**

Irene Bosch

University of Massachusetts Medical School, Worcester, MA, United States

Katherine J. Martin

University of Massachusetts Medical School, Worcester, MA, United States

8 a.m.

**In Vivo Gene Expression Responses of Human Cells to Pathogens**

Damien Chaussabel

Institute for Immunology Research, Dallas, TX, United States

8:15 a.m.

**Blood Biosignatures for Diagnosis of Infectious Diseases**

Octavio Ramilo

Children’s Medical Center of Dallas, Dallas, TX, United States

8:30 a.m.

**Mapping of Parasite Genes Responsible for Differences in Host Responses to Different Toxoplasma Strains and Identification of the Host Transcription Factors Involved**

Jeroen Saeij

Stanford University School of Medicine, Stanford, CA, United States

8:45 a.m.

**Surveying Gene Expression in Whole Blood: Host Responses and Classification of Systemic Infections. Genomewide Analysis of the Host Response to Malaria in Kenyan Children**

Stephen Popper, Michael Griffith

Stanford University, VA Palo Alto Health Care System, Palo Alto, CA, United States

9 a.m.

**A Genome-Wide Approach to Identify Active Pathways in Flavivirus Infection**

Rajas Warke, Kris Xhaja, Katherine Martin

University of Massachusetts Medical School, Worcester, MA, United States

9:15 a.m.

**Gene Expression of the Host Response to Lymphatic Filariasis**

Thomas B. Nutman

Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

9:30 a.m.

**Concluding Remarks**

Jairo Antonio Rodriguez

Grupo de Parasitología y Medicina Tropical Universidad Surcolombiana, Colombia
ANTIGENIC VARIATION IN PLASMODIUM FALCIPARUM MALARIA: VAR GENE SWITCHING IN CLONAL PLASMODIUM FALCIPARUM CULTURES SHOWS PREFERENTIAL ACTIVATION OF SUBSETS OF VAR GENES

Matthias Frank, Ron Dzikowski, Christian Epp, Kirk Deitsch
Weill Medical College of Cornell University, New York City, NY, United States

MULTIPLICITY OF MSP-1 19 VARIANTS AMONG CAMEROONIAN WOMEN DURING PREGNANCY

Georgetown University, Washington, DC, United States, Biotechnology Center, University of Yaounde I, Yaounde, Cameroon, National Institutes of Health, Bethesda, MD, United States

IDENTIFICATION OF A NOVEL PROTEIN, SAGLIN, AS A POTENTIAL SALIVARY GLAND MEDIATOR FOR PLASMODIUM SPOROZOITE

Mobolaji A. Okulate, Dário E. Kalume, Troels Kristiansen, Mrinal K. Bhattacharyya, Akhilesh Pandey, Nirbhay Kumar
University of Maryland Eastern Shore, Princess Anne, MD, United States, McKusick-Nathans Institute of Genetic Medicine and Department of Biological Chemistry, Johns Hopkins School of Medicine, Baltimore, MD, United States, Department of Molecular Microbiology and Immunology, Johns Hopkins Malaria Research Institute, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

ROLES OF 1-CYS PEROXIREDOXIN IN HEME DETOXIFICATION IN PLASMODIUM FALCIPARUM

Shin-ichiro Kawazu, Nozomu Ikenoue, Hitoshi Takemae, Kanako Komaki-Yasuda, Shigeyuki Kano
International Medical Center of Japan, Tokyo, Japan, PRESTO/Japan Science and Technology Agency, Saitama, Japan

INVESTIGATING UNIQUE FEATURES OF THE V-ATPASE OF MALARIA PARASITES

Julia K. Bolt-Ulschmidt, Kamal D. Laroiya, Joanne M. Morrisey, Lawrence W. Bergman, Akhil B. Vaidya
Drexel University College of Medicine, Philadelphia, PA, United States

RAPID AND EFFICIENT SITE-SPECIFIC INTEGRATION SYSTEM IN PLASMODIUM FALCIPARUM MEDIATED BY MYCOBACTERIOPHAGE BXB1 INTEGRASE

Department of Microbiology and Immunology, Albert Einstein College of Medicine, Bronx, NY, United States, Department of Biological Sciences and Howard Hughes Medical Institute, University of Pittsburgh, Pittsburgh, PA, United States, Department of Microbiology and Immunology and Howard Hughes Medical Institute, Albert Einstein College of Medicine, Bronx, NY, United States

A HAPLOTYPE MAP FOR PLASMODIUM FALCIPARUM

Sarah K. Volkman, Pardis C. Sabeti, Daniel L. Hartl, Bruce Birren, Eric Lander, Dyann F. Wirth
Harvard School of Public Health, Boston, MA, United States, Broad Institute/MIT, Cambridge, MA, United States, Harvard University, Cambridge, MA, United States

A HAPLOTYPE MAP FOR PLASMODIUM FALCIPARUM

Sarah K. Volkman, Pardis C. Sabeti, Daniel L. Hartl, Bruce Birren, Eric Lander, Dyann F. Wirth
Harvard School of Public Health, Boston, MA, United States, Broad Institute/MIT, Cambridge, MA, United States, Harvard University, Cambridge, MA, United States

(ACMCIP Abstract)
Symposium 55

Migration through Cells and Infectivity of Apicomplexan Parasites

Georgetown West

Tuesday, December 13 8 – 9:45 a.m.

Plasmodium sporozoites and ookinetes traverse several host cells before they transform into the next development stages. The passage through cells has been also documented in other apicomplexan parasites. In this symposium, the presentations will deal with the mechanisms used by the parasites to traverse cells, and the relevance of passage through cells for achieving productive infections. The symposium will bring together scientists interested in this intriguing topic while working with different parasite models.

CHAIR
Victor Nussenzweig
NYU School of Medicine Pathology, New York, NY, United States

David Sibley
Washington University School of Medicine, Saint Louis, MO, United States

8 a.m.
PLASMODIUM SPOROZOITE MIGRATION THROUGH CELLS AND INFECTION
Ana Rodriguez
New York University, New York, NY, United States

8:15 a.m.
MIGRATION THROUGH CELLS BY PLASMODIUM SPOROZOITES: A CLUE TO PROPHYLAXIS?
Maria Mota
Instituto de Medicina Molecular, Portugal

8:30 a.m.
HOW DO MALARIAL PARASITES ARRIVE AT AND INVADE HEPATOCYTES?
Tomoko Ishino, Yasuo Chinzei, Masao Yuda
Mie University, School of Medicine, Mie-Pref, Japan

8:45 a.m.
POTASSIUM CONCENTRATION SHIFTS ENHANCE SPOROZOITE INFECTIVITY WHILE INHIBITING THEIR MIGRATION THROUGH CELLS
Victor Nussenzweig, Sr.
NYU School of Medicine, New York, NY, United States

9 a.m.
THE REGULATION OF TOXOPLASMA MOTILITY DURING EGRESS AND INVASION
Con Beckers
University of North Carolina, Chapel Hill, NC, United States

9:15 a.m.
CONDITIONAL EXPRESSION OF MIC2 REVEALS A CENTRAL ROLE IN CELL INVASION AND HELICAL GLIDING
Vern B. Carruthers
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

9:30 a.m.
UNUSUAL ACTIN DYNAMICS CONTROL MOTILITY IN APICOMPLEXAN PARASITES
David Sibley
Washington University School of Medicine, St Louis, MO, United States

Symposium 56

Current Strategies in the Management of Leptospirosis

International Ballroom East

Tuesday, December 13 8 – 9:45 a.m.

Leptospirosis is increasingly recognized as a cause of febrile illness in all reaches of the globe. Subsequently management strategies have focused on improving the many aspects of diagnosis and clinic care. We propose to discuss epidemiology, antimicrobial therapy including in vitro and animal testing, approaches to vaccine development and diagnosis of acute leptospirosis.

CHAIR
Clinton K. Murray
Brooke Army Medical Center, Fort Sam Houston, TX, United States

Duane R. Hospenthal
Brooke Army Medical Center, Fort Sam Houston, TX, United States

8 a.m.
THE EPIDEMIOLOGY OF LEPTOSPIROSIS
Joseph Vinetz
University of California San Diego, San Diego, CA, United States

8:30 a.m.
DIAGNOSIS OF ACUTE LEPTOSPIROSIS
Albert Ko
Centro de Pesquisas Goncalo Moniz, Salvador, Brazil

8:55 a.m.
ANTIMICROBIAL AGENTS: IN VITRO AND ANIMAL MODELS
Clinton K. Murray
Brooke Army Medical Center, Fort Sam Houston, TX, United States

8:30 a.m.
VACCINE DEVELOPMENT
David Haake
University of California at Los Angeles, Los Angeles, CA, United States
Symposium 57

Enhancing ORT: Current Status and Future Directions

International Ballroom West

Tuesday, December 13 8 – 9:45 a.m.

Due to continuous efforts of global health groups, awareness of Oral Rehydration Therapy (ORT) is relatively high in most developing countries. However, compliance with this treatment falls short, likely because ORT does not reduce diarrheal output. With fatalities due to diarrheal disease occurring in the range of two million per year, there is a need to develop and implement tools that complement the use of ORT. The Institute for OneWorld Health brings together a panel of clinicians and global health experts to review the current situation and practice of ORT in developing countries, and discuss novel interventions to combat secretory diarrheal disease. In addition, these experts will share their insight on how these new strategies can be integrated into health policies that influence the current system of care.

CHAIR
Victoria Hale
Institute for OneWorld Health, San Francisco, CA, United States

Katherine Woo
Institute for OneWorld Health, San Francisco, CA, United States

MODERATOR
Pradip Bardhan
ICDDR,B, Dhaka, Bangladesh

8 a.m.

PANELIST
Patricia Paredes
US Agency for International Development (USAID), Washington, DC, United States

8:30 a.m.

PANELIST
Chuck Szymanski
Population Services International, Washington, DC, United States

8:55 a.m.

PANELIST
Mathuram Santosham
Johns Hopkins School of Public Health, Baltimore, MD, United States

Exhibit Hall Open

Exhibit Hall

Tuesday, December 13 9:30 – 10:30 a.m.

Coffee Break

Exhibit Hall

Tuesday, December 13 9:45 – 10:15 a.m.

Symposium 58

Alternative Routes for Vaccine Design Against Parasitic Diseases

Hemisphere

Tuesday, December 13 10:15 a.m.–Noon

This symposium aims to promote the incorporation of new knowledge from genomics, molecular biology and immunology in the development of more effective new vaccines against parasitic diseases. Vaccination against infectious diseases has been recognized as a cost-effective method to control infections. However, in spite of the great effort and inventiveness of several labs, the development of effective vaccines against parasitic diseases remains elusive in most of the cases. There is great hope that this situation may substantially change in the next years due to the new insights offered by the increased comprehension of the immune response and the genetic make-up of parasites and hosts. Genomic information continuously leads us to search for potential vaccine candidates, using new genomic and proteomic technology. On the other hand, vaccinologists have now recognized that the specific immunity induced by the vaccinal antigens could be improved by the antigen formulation, which also offers effective novel routes of delivery. The use of needle-free vaccination is of special interest for the design of vaccines to use in parasitic tropical diseases that most importantly affect countries of limited resources. In particular mucosal delivery could be of special relevance for those parasites that penetrate or infect at mucosal sites. Thus, in this symposium the use of new vaccine formulations that could increase vaccine efficacy, reduce the cost and refusal rates and increase their safety will be highlighted.

CHAIR
Edda L. Sciutto
Departamento de Inmunologia, Instituto de Investigaciones Biomedicas, Universidad Nacional Autonoma de Mexico (UNAM), Mexico, D. F., Mexico

Gabriela Rosas
Facultad de Medicina, Universidad Autonoma del Estado de Morelos, Cuernavaca, Mexico

10:15 a.m.

THE IMPACT OF GENOMICS ON VACCINE DESIGN

Giuseppe Del Giudice
Chiron Vaccines, Siena, Italy

10:50 a.m.

THE HOLY GRAIL: PROSPECTS FOR DEVELOPMENT OF ANTI-SCHISTOSOME VACCINES

Donald P. McManus
Molecular Parasitology Laboratory, Australian Centre for International and Tropical Health and Nutrition, The Queensland Institute of Medical Research and The University of Queensland, Brisbane, Australia
11:25 a.m.
THE MULTI-EPITOPE ANTI-CYTICERCOSIS VACCINE FROM THE LABORATORY TO THE FIELD: COST-BENEFITS OF NEW DELIVERY SYSTEMS AND ALTERNATIVE ROUTES FOR VACCINE ADMINISTRATION
Edda L. Sciutto
Departamento de Inmunologia, Instituto de Investigaciones Biomedicas, Universidad Nacional Autonoma de Mexico (UNAM), Mexico, D. F., Mexico

Symposium 59
New Insights into the Pathogenesis of Malaria Anemia
Military
Tuesday, December 13 10:15 a.m. – Noon
In 2001-2002 the National Institute of Allergy and Infectious Diseases, the National Heart, Lung and Blood Institute and the Fogarty International Center supported research and research training grants to explore the diverse mechanisms of pathogenesis implicated in severe malaria anemia in patients in endemic areas as well as monkey models of malaria. The investigators and trainees from Kenya, Thailand and Colombia will present the research results from this initiative.

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

10:15 a.m.
INTRODUCTION: MALARIAL ANEMIA — A MULTIFACTORIAL HEMOTOLOGICAL SYNDROME
Douglas J. Perkins
University of Pittsburgh, Pittsburgh, PA, United States

10:20 a.m.
ERYTHROCYTE PRODUCTION AND DESTRUCTION IN MALARIAL ANEMIA: NEW METHODS FOR MEASUREMENT
Wattana Leowattana
Mahidol University, Bangkok, Thailand

10:35 a.m.
PERSISTENT ANEMIA AFTER SUCCESSFUL TREATMENT OF ACUTE FALCIPARUM MALARIA
Srivicha Krudsood
Mahidol University, Bangkok, Thailand

10:45 a.m.
ROLE OF INNATE IMMUNITY IN REGULATING THE PATHOGENESIS OF MALARIAL ANEMIA
Gordon A. Awandare
University of Pittsburgh, Pittsburgh, PA, United States

10:55 a.m.
MECHANISMS OF MALARIAL ANEMIA: HUMAN AND PRIMATE STUDIES
Carolina Gallegos
Universidad del Valle, Cali, Colombia

11:10 a.m.
CLASS AND SUBCLASS ANTIBODY ANALYSIS OF IMMUNE COMPLEXES IN CHILDREN WITH SEVERE PLASMODIUM FALCIPARUM MALARIA
Erick Mibe
Kenya Medical Research Institute, Kenyatta University and the U.S. Army Medical Research Unit, Nairobi, Kenya

11:20 a.m.
GENETIC VARIATION AS A DETERMINANT OF MALARIAL ANEMIA SUSCEPTIBILITY
John Michael Ongocha
University of Pittsburgh, Pittsburgh, PA, United States

11:35 a.m.
STUDIES ON THE AGE DEPENDENT PREVALENCE OF THE SWAIN-LANGLEY AND MCCOY BLOOD GROUP POLYMORPHISMS OF COMPLEMENT RECEPTOR 1 IN WESTERN KENYA
Bernard Guyah
Kenya Medical Research Institute, Kenyatta University and the U.S. Army Medical Research Unit, Nairobi, Kenya

11:45 a.m.
EXPRESSION OF ERYTHROCYTE COMPLEMENT REGULATORY PROTEINS IN INDIVIDUALS WITH SICKLE CELL TRAIT AND NORMAL HEMOGLOBIN IN A MALARIA ENDEMIC AREA OF WESTERN KENYA
Walter Otieno
Kenya Medical Research Institute, Kenyatta University and the U.S. Army Medical Research Unit, Nairobi, Kenya

Scientific Session 60
Kinetoplastida II
Monroe East
Tuesday, December 13 10:15 a.m. – Noon
CHAIR
Abhay Satoskar
Ohio State University, Columbus, OH, United States

10:15 a.m.
ROLE OF INNATE IMMUNITY IN REGULATING THE PATHOGENESIS OF MALARIAL ANEMIA
Gordon A. Awandare
University of Pittsburgh, Pittsburgh, PA, United States
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Author(s)</th>
<th>Institution</th>
<th>Abstract Title</th>
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<tr>
<td>10:15 a.m.</td>
<td>110</td>
<td>THE FUNCTION OF T\textsubscript{REG} CELLS DURING TRYPANOSOMA CRUZI INFECTION</td>
<td>Maria F. Kahn, Malcolm S. Duthie, Maria White, Stuart J. Kahn</td>
<td>Infectious Disease Research Institute, Seattle, WA, United States</td>
<td>(ACMCIP Abstract)</td>
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<td>10:30 a.m.</td>
<td>111</td>
<td>ARE REGULATORY T CELLS IMPORTANT IN THE PATHOLOGY OF HUMAN VISERAL LEISHMANIASIS?</td>
<td>Susanne Nylen\textsuperscript{1}, Radeshyam Maurya\textsuperscript{2}, Liv Eidsmo\textsuperscript{3}, Shyam Sundar\textsuperscript{2}, David Sacks\textsuperscript{1}</td>
<td>National Institutes of Health, Bethesda, MD, United States, Institute of Medical Sciences, Banaras Hindu University, Institute of Medical Sciences, Banaras Hindu University, Institute of Medical Sciences, Banaras Hindu University, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India, Karolinska Institutet, Stockholm, Sweden</td>
<td>(ACMCIP Abstract)</td>
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<tr>
<td>10:45 a.m.</td>
<td>112</td>
<td>MALE SUSCEPTIBILITY TO LEISHMANIA CHAGAS/ INFECTION: THE IMMUNOCOMPROMISING EFFECT OF TESTOSTERONE</td>
<td>Alyssa M. Lovell\textsuperscript{1}, Nilda E. Rodriguez\textsuperscript{1}, Gloria R. Monteiro\textsuperscript{2}, Eliana T. Nascimento\textsuperscript{2}, Selma M. Jeronimo\textsuperscript{2}, Mary E. Wilson\textsuperscript{1}</td>
<td>University of Iowa, Iowa City, IA, United States, Federal University of Rio Grande do Norte, Natal, Brazil</td>
<td>(ACMCIP Abstract)</td>
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<tr>
<td>11 a.m.</td>
<td>113</td>
<td>REDUCED TH1 CELL DEVELOPMENT FOLLOWING INFECTION WITH LEISHMANIA MEXICANA</td>
<td>Alice Hsu, Phillip Scott</td>
<td>University of Pennsylvania, Philadelphia, PA, United States</td>
<td>(ACMCIP Abstract)</td>
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<td>11:15 a.m.</td>
<td>114</td>
<td>IL-27R (WSX-1/TCCR) GENE DEFICIENT MICE DISPLAY ENHANCED RESISTANCE TO LEISHMANIA DONOVANI INFECTION BUT DEVELOP SEVERE LIVER IMMUNOPATHOLOGY</td>
<td>Abhay Satoskar\textsuperscript{1}, Lucia Rosas\textsuperscript{1}, Joseph Barbi\textsuperscript{1}, Fred deSauvage\textsuperscript{2}, Christopher Hunter\textsuperscript{3}, Kimberly Roth\textsuperscript{1}, Anjali Satoskar\textsuperscript{1}</td>
<td>Ohio State University, Columbus, OH, United States, Genentech, San Francisco, CA, United States, University of Pennsylvania, Philadelphia, PA, United States</td>
<td>(ACMCIP Abstract)</td>
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<tr>
<td>11:30 a.m.</td>
<td>115</td>
<td>UNRAVELING THE ROLE OF THE ARGINASE OF LEISHMANIA MEXICANA DURING INFECTION IN BALB/C MICE</td>
<td>Upasna Gaur\textsuperscript{1}, Sigrid C. Roberts\textsuperscript{2}, Buddy Ullman\textsuperscript{2}, Mary E. Wilson\textsuperscript{3}</td>
<td>University of Iowa, Iowa City, IA, United States, Departments of Internal Medicine and Microbiology, University of Iowa and the VA Medical Center, Iowa City, IA, United States</td>
<td>(ACMCIP Abstract)</td>
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**Scientific Session 61**

**Cestodes II**

Monroe West  
Tuesday, December 13 10:15 a.m. - Noon

**Chair**

A. Clinton White  
Baylor College of Medicine Houston, TX, United States

**Peter Kern**  
University Hospital and Medical Center, University of Ulm, Ulm, Germany

<table>
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<th>Time</th>
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<tr>
<td>10:15 a.m.</td>
<td>116</td>
<td>ISOLATION AND CHARACTERIZATION OF EM492, A SECRETORY COMPONENT FROM ECHINOCOCCUS MULTILOCULARIS METACESTODES POTENTIALLY INVOLVED IN SUPPRESSION OF THE CELLULAR IMMUNE RESPONSE</td>
<td>Mirjam Walker, Martin Spicher, Thomas Brunner, Bruno Gottstein, Andrew Hemphill</td>
<td>University of Berne, Berne, Switzerland</td>
<td>(ACMCIP Abstract)</td>
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</table>
10:30 a.m. 117

EPILEPSY AND NEUROCYSTICERCOSIS: AN INCIDENCE STUDY IN A PERUVIAN RURAL POPULATION

Manuel V. Villaran1, Silvia M. Montano2, Christian T. Bautista3, Guillermo Gonzalez2, Luz Maria Moyano1, Silvia Rodriguez1, Armando E. Gonzalez4, Juan J. Figueroa1, Victor C. Tsang5, Robert H. Gilman6, Hector H. Garcia1

1Universidad Peruana Cayetano Heredia, Lima, Peru, 2US Naval Medical Research Center Detachment, Lima, Peru, 3US Military HIV Research Program and Henry M. Jackson Foundation, Rockville, MD, United States, 4School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 5Immunology Branch, Division of Parasitic Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, GA, United States, 6Department of International Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States

10:45 a.m. 118

QUALITATIVE STAKEHOLDER ANALYSIS TO APPRAISE THE INSTITUTIONAL CONTEXT OF THE ELIMINATION PROGRAM OF CYSTICERCOSIS IN PERU

Ursula Alarco1, Jaime R. Romero2, Armando E. González1, Hector H. García2, Robert H. Gilman3, Fernando Llanos4, Victor C. Tsang5, Cysticercosis Working Group Peru2

2School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 2Universidad Peruana Cayetano Heredia, Lima, Peru, 5Centers for Disease Control and Prevention, Atlanta, GA, United States

11 a.m. 119

NEUROCYSTICERCOSIS: ANTIGEN AND ANTIBODY DIAGNOSIS IN SERUM AND CEREBROSPINAL FLUID

Silvia Rodriguez1, Javier Pretell1, Maria Silva2, Manuel Martinez1, Armando E. Gonzalez3, Robert H. Gilman3, V.C.W. Tsang4, L.J.S. Harrison5, R.M.E. Parkhouse6, Hector H. Garcia1, for the Cysticercosis Working Group in Peru7

1Cysticercosis Unit, Instituto Especializado en Ciencias Neurologicas, Lima, Peru, 2School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 3Departamento de Microbiología, Universidad Peruana Cayetano Heredia, Lima, Peru, 4Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, United States, 5Centre for Tropical Veterinary Medicine (CTVM), University of Edinburgh, Edinburgh, United Kingdom, 6Instituto Gulbenkian de Ciencia, Oeiras, Portugal, 7Universidad Peruana Cayetano Heredia, Lima, Peru

11:15 a.m. 120

DROP IN ANTIGEN LEVELS FOLLOWING SUCCESSFUL TREATMENT OF SUBARACHNOID NEUROCYSTICERCOSIS

Humberto Zamora1, Yesenia Castillo1, Hector H. Garcia1, Javier Pretell1, Silvia Rodriguez1, Pierre Dorny2, Armando E. Gonzalez3, Robert H. Gilman1, Victor W. Tsang4, Jef Brandt2, for the Cysticercosis Working Group in Peru5

1Departamento de Microbiología, Universidad Peruana Cayetano Heredia, Lima, Peru, 2Institute for Tropical Medicine, Antwerp, Belgium, 3School of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru, 5Division of Parasitic Diseases, Center for Disease Control and Prevention, Atlanta, GA, United States, 6Universidad Peruana Cayetano Heredia, Lima, Peru

11:30 a.m. 121

BENEFICIAL USE OF METHOTREXATE IN NEUROCYSTICERCOSIS

Theodore E. Nash, Kawsar R. Talaat, Edward E. Mitre
National Institutes of Health, Bethesda, MD, United States

11:45 a.m. 122

NEWS OF PROMISING RESULTS IN THE FIELD EVALUATION OF A PHAGE RECOMBINANT VACCINE AGAINST TAENIA SOLIUM PIG CYSTICERCOSIS

Edda L. Sciutto1, Julio Morales1, Jose J. Martínez2, Andrea Toledo1, Karen Manoutcharian1, Gohar Gevorkian1, Gladis Fragosof1, Marisela Hernández1, Gonzalo Acero1, Carmen Cruz1, Jaqueline Cervantes1, Luis F. Rodarte2, Aline de Aluja2, Carlos Larraide3

1Instituto de Investigaciones Biomedicas, Mexico, D. F., Mexico, 2Facultad de Medicina Veterinaria y Zootecnia, Mexico, D. F., Mexico

Scientific Session 62

Malaria — Artemisinin Combination Therapy

Lincoln East
Tuesday, December 13 10:15 a.m. – Noon

CHAIR
Ronan Jambou
Institut Pasteur de Dakar, Dakar, Senegal

Gin Cheng
Australian Army Malaria Institute, Brisbane, Australia
10:15 a.m. 123

MECHANISMS OF P. FALCIPARUM RESISTANCE TO ARTEMISININ DERIVATIVES: ROLE OF PFMDR1 AMPLIFICATION AND EXPRESSION
Marina Chavchich1, Lucia Gerena2, Jennifer Peters1, Qin Cheng1, Dennis Kyle2
1Australian Army Malaria Institute, Enoggera, Australia, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States

10:30 a.m. 124

COMPARISON OF THE POLYMORPHISM OF PFATP6 AND PFCTP GENES IN THREE ENDEMIC COUNTRIES: CAMBODIA, FRENCH GUYANA, SENEGAL
Ronan Jambou1, Eric Legrand2, Makhtar Niang1, Nimol Kim1, Philippe Esterre2, Christianne Bouchier4, Thierry Fandeur1, Odile Pujialon4
1Institut Pasteur de Dakar, Dakar, Senegal, 2Institut Pasteur de Guyane française, Cayenne, French Guiana, 3Institut Pasteur du Cambodge, Phnom Penh, Cambodia, 4Institut Pasteur, Paris, France

10:45 a.m. 125

EFFICACY AND SAFETY OF ARTEMETHER-LUMEFANTRINE Versus AMODIAQUINE PLUS ARTESUNATE: RANDOMISED CONTROLLED TRIAL IN UGANDA
Hasifa Burkirwa1, Yeka Adoke1, Nathan Bakyaita2, Ambrose Talisuna2, Philip J. Rosenthal3, Arthur Reingold4, Fred Wabwire-Mangen5, Grant Dorsey3, Moses R. Kamya6, Sarah G. Staedke6
1Uganda Malaria Surveillance Project, Kampala, Uganda, 2Ministry of Health, Kampala, Uganda, 3University of California San Francisco, San Francisco, CA, United States, 4University of California, Berkeley, CA, United States, 5Institute of Public Health, Kampala, Uganda, 6Makerere University Medical School, Kampala, Uganda

11 a.m. 126

AZITHROMYCIN IN COMBINATION WITH ARTESUNATE OR QUININE FOR THE TREATMENT OF UNCOMPLICATED FALCIPARUM IN ADULTS: A RANDOMIZED PHASE 2 CLINICAL TRIAL IN THAILAND
Harald Noedl1, Srivicha Krussood2, Kobsiri Chalermratana2, Udomsak Silachamroon2, Sornchai Loareesuwan2, Robert S. Miller1, Mark Fukuda1, Krisada Jongsakul1, Colin Ohr3, Jacqueline Rowan3, Knirsch Charles3
1USAMC-AFRIMS, Bangkok, Thailand, 2Hospital for Tropical Diseases, Mahidol University, Bangkok, Thailand, 3Walter Reed Army Institute of Research, Washington, DC, United States, 4Anti-Infectives, Pfizer Inc, New York, NY, United States

11:15 a.m. 127

A RANDOMIZED CONTROLLED TRIAL OF AZITHROMYCIN OR ARTESUNATE ADDED TO SULFADOXINE-PYRIMETHAMINE AS INTERMITTENT PRESUMPTIVE THERAPY FOR MALARIA IN PREGNANCY
Linda Kalilani1, Innocent Mofolo2, Marjorie Chaponda3, Stephen Rogerson4, Steven R. Meshnick1
1University of North Carolina, Chapel Hill, NC, United States, 2University of Malawi, College of Medicine, Blantyre, Malawi, 3University of North Carolina Project, Lilongwe, Malawi, 4University of Melbourne, Parkville, Australia

11:30 a.m. 128

THE EFFICACY AND TOLERABILITY OF ARTESUNATE PLUS HIGH DOSE PRIMAQUINE FOR THE TREATMENT OF PLASMODIUM VIVAX MALARIA IN VIETNAM
1Australian Army Malaria Institute, Brisbane, Australia, 2Military Hospital 175, Ho Chi Minh City, Viet Nam, 3Central Military Hospital 108, Hanoi, Viet Nam, 4Military Institute of Hygiene and Epidemiology, Hanoi, Viet Nam

11:45 a.m. 129

ALTERNATIVE TREATMENT OPTIONS FOR CHLOROQUINE RESISTANT PLASMODIUM VIVAX IN PAPUA, INDONESIA
R. N. Price1, A. Ratcliff1, H. Siswantoro2, E. Kanangalem3, R. Rumaseuw4, E. P. Ebsworth4, N. Anstey1, E. Tjitra2
1Menzies School of Health Research, Darwin, Australia, 2National Institute of Health Research and Development, Jakarta, Indonesia, 3Dinas Kesehatan Kabupaten, Papua, Indonesia, 4International SOS, Timika, Indonesia
Symposium 63

Classical Genetics Meets Genomics in Malaria Research

Lincoln West

Tuesday, December 13 10:15 a.m. – Noon

Genetic mapping using crosses to generate segregating progeny populations is proving to be an entry point into the amassing genome sequence data in human and rodent malaria parasites. Phenotypes remain the fundamental currency of malaria studies. Quantitative trait loci (QTL) mapping and linkage group selection (LGS) effectively superimpose phenotypes on the genome data by pinpointing chromosomal segments that can be sifted for key coding and regulatory polymorphisms. The integration of positional information with rapidly developing genome-wide comparative sequence, transcription, and functional data is a powerful tool for discovery of genetic mechanisms underlying complex phenotypes.

CHAIR
Michael T. Ferdig
University of Notre Dame, Notre Dame, IN, United States
Akhil B. Vaidya
Drexel University College of Medicine, Philadelphia, PA, United States

10:15 a.m.

PAST, PRESENT AND FUTURE: MAKING CROSSES TO MAP DRUG RESISTANCE AND VIRULENCE PHENOTYPES IN PLASMODIUM FALCIPARUM

Thomas E. Wellems
Laboratory of Malaria and Vector Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, United States

10:45 a.m.

A FAST TRACK TO FINDING GENES FOR IMPORTANT PHENOTYPES IN MALARIA

Richard Carter
University of Edinburgh, Ashworth Laboratories, Edinburgh, United Kingdom

11:10 a.m.

SEARCHING FOR PLASMODIUM FALCIPARUM QUANTITATIVE TRAIT LOCI DETERMINING DIFFERENTIAL INFECTIVITY TO ANOPHELES MOSQUITOES

Lisa C. Ranford-Cartwright
University of Glasgow, Glasgow, United Kingdom

11:35 a.m.

INTEGRATING GENETICS AND GENOMICS TO DISSECT COMPLEX MALARIA PHENOTYPES

Pradip K. Rathod
University of Washington, Seattle, WA, United States

Scientific Session 64

Schistosomiasis II — Epidemiology I

Jefferson East

Tuesday, December 13 10:15 a.m. – Noon

CHAIR
Ronald E. Blanton
Case Western Reserve University, Cleveland, OH, United States
Jennifer F. Friedman
Brown University, Providence, RI, United States

10:15 a.m.

SCHISTOSOMA MANSONI EXACERBATES HEPATOSPLENOMEGALY IN AN AREA OF MESO-ENDEMIC MALARIA TRANSMISSION

Shona Wilson1, Mark Booth1, Birgitte J. Vennewald2, Frances M. Jones1, H. Curtis Kariuki3, Clifford Amaganga4, Hilida Kadzo5, Edmund Ireri6, Joseph K. Mwatha6, Gachuhi Kimani6, John H. Ouma7, Eric Muchiri3, David W. Dunne1
1University of Cambridge, Cambridge, United Kingdom, 2Danish Bilharziasis Laboratory, Charlottenlund, Denmark, 3Division of Vector Borne Diseases, Ministry of Health, Nairobi, Kenya, 4Kakamega Provincial Hospital, Kakamega, Kenya, 5Kenyatta National Hospital, Nairobi, Kenya, 6Kenya Medical Research Institute, Nairobi, Kenya, 7Maseno University, Kisumu, Kenya

10:30 a.m.

HUMAN SCHISTOSOMIASIS JAPONICA RESULTS IN PLACENTAL INFLAMMATION, APOPTOSIS AND POOR BIRTH OUTCOMES

Jonathan D. Kurtis1, Luz Acosta2, Daria Manalo2, Jemaima Yu2, Mary Paz Urbina2, Gretchen C. Langdon1, Surrendra Sharma1, Remigio Olveda2, Jennifer F. Friedman1
1Brown University, Providence, RI, United States, 2RITM, Manila, Philippines, 3Woman and Infants Hospital, Providence, RI, United States

10:45 a.m.

CARCINOMA OF THE BLADDER AND SCHISTOSOMA HAEMATOBIUM IN GHANA

Clive Shiff1, Jean Naples1, Robert Veltri1, Kwabena Bosompem2, Joseph Quartey4, Joseph Otchere3, Cameron Marlow1
1Johns Hopkins University, Baltimore, MD, United States, 2Noguchi Memorial Institute for Medical Research, Accra, Ghana
11 a.m.  
PROINFLAMMATORY CYTOKINES AND C-REACTIVE PROTEIN ARE ASSOCIATED WITH SCHISTOSOMA JAPONICUM-INFECTION AND UNDERNUTRITION IN CHILDREN, ADOLESCENTS AND YOUNG ADULTS  
Hannah M. Coutinho1, Tjalling Leenstra1, Luz P. Acosta2, Stephen T. McGarvey1, Mario Jiz2, Blanca Jarilla2, Gretchen C. Langdon1, Daria L. Manalo2, Remigio M. Olveda3, Jonathan D. Kurtis1, Jennifer F. Friedman1  
1International Health Institute, Brown University, Providence, RI, United States, 2Research Institute of Tropical Medicine, Manila, Philippines  
11:15 a.m.  
T HELPER 2 CYTOKINE RESPONSES PREDICT RESISTANCE TO REINFECTION WITH SCHISTOSOMA JAPONICUM AFTER PRAZIQUANTEL (PZQ) TREATMENT IN 7 — 30 YEAR-OLD INHABITANTS OF LEYTE, THE PHILIPPINES  
Tjalling Leenstra1, Luz P. Acosta2, Gretchen C. Langdon1, Hai-Wei Wu1, Julie S. Solomon1, Blanca Jarilla2, Daria L. Manalo2, Li Su1, Remigio M. Olveda2, Stephen T. McGarvey1, Jennifer F. Friedman1, Jonathan D. Kurtis1  
1Brown University, Providence, RI, United States, 2RITM, Manila, Philippines  
11:30 a.m.  
THE USE OF STOOL EGG OR POOL DNA SAMPLES FOR GENETIC EPIDEMIOLOGY STUDIES OF SCHISTOSOMA MANSONI  
Ronald E. Blanton1, Eliana A. Reis2, Fredrick W. Thiongo3, João F. Braghiroli2, Jarbas M. Santos2, Paulo S. Melo2, Isabel C. Guimarães3, Luciano K. Silva4, Mitermayer G. Reis2  
1Case University, Cleveland, OH, United States, 2Oswaldo Cruz Foundation, Salvador, Brazil, 3University of Nairobi, Nairobi, Kenya, 4Federal University of Bahia, Salvador, Brazil  
(ACMCIP Abstract)  
11:45 a.m.  
THE DISPERAL POTENTIAL OF BULINUS NASUTUS SNAILS IN COASTAL KENYA  
Julie A. Clennon1, Masemo A. Idd2, Eric Muchiri3, Charles H. King4, Uriel Kitron1  
1University of Illinois, Urbana, IL, United States, 2CWRU/DVBD/KEMRI Schistosomiasis Research Unit, Msambweni, Kenya, 3Division of Vector Borne Diseases, Ministry of Health, Nairobi, Kenya, 4Case Western Reserve University, Cleveland, OH, United States
11:30 a.m.  
**MODELING DISTRIBUTIONS OF SOIL-TRANSMITTED HELMINTH INFECTIONS ACROSS AFRICA TO TARGET CONTROL**  
Simon Brooker  
London School of Hygiene and Tropical Medicine, London, United Kingdom

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**Scientific Session 66**

**Mosquitoes — Biochemistry, Molecular Biology and Molecular Genetics I**

Georgetown East  
Tuesday, December 13  
10:15 a.m. – Noon

**CHAIR**  
Donald E. Champagne  
University of Georgia, Athens, GA, United States

Michelle Riehle  
University of Minnesota, St Paul, MN, United States

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10:15 a.m.  
**131377**  
**NATURAL GENETIC POLYMORPHISM OF THE TEP4 GENE IN THE ANOPHELES GAMBIAE POPULATION OF MALI**  
Oumou Niaré1, Abdoulaye Adamou1, Abdrahamane Fofana1, Adama Sacko1, Adama Dao1, Abdoulaye M. Touré1, Ousmane Koita2, Sékou F. Traoré1, Michelle M. Riehle3, Jiannong Xu3, Ken Vernick3  
1University of Bamako, Bamako, Mali, 2Faculty of Arts, Science and Technology, Bamako, Mali, 3University of Minnesota, St Paul, MN, United States

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10:30 a.m.  
**138**  
**GENETIC IDENTIFICATION AND SCREENING OF CANDIDATE ANOPHELES GAMBIAE GENES CONTROLLING NATURAL P. FALCIPARUM RESISTANCE**  
Michelle M. Riehle1, Oumou Niaré2, Kyriacos Markianos3, Jun Li1, Jiannong Xu1, Abdoulaye M. Touré2, Belco Podiougou2, Moctar Diallo2, Boubacar Coulibaly2, Ahmed Ouatar4, Sékou F. Traoré5, Ken Vernick1  
1University of Minnesota, St Paul, MN, United States, 2University of Bamako, Bamako, Mali, 3Fred Hutchinson Cancer Research Center, Seattle, WA, United States

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10:45 a.m.  
**140**  
**THE IMMUNOGLOBULIN SUPERFAMILY OF ANOPHELES GAMBIAE: INSIGHTS INTO NOVEL PROTEINS IMPORTANT FOR IMMUNITY**  
Lindsey S. Garver, Yuemei Dong, George Dimopoulos  
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

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11 a.m.  
**141**  
**DIFFERENTIAL GENE EXPRESSION PROFILES IN THE GASTRIC CAECA, ANTERIOR AND POSTERIOR MIDGUT OF LARVAL ANOPHELES GAMBIAE**  
Maria del Pilar Corena, Leslie VanEkeris, Carolina Ceballos, Elizabeth Jiménez, Alexandra Santoro, Paul J. Linser  
The Whitney Laboratory for Marine Bioscience, St Augustine, FL, United States

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11:15 a.m.  
**142**  
**THE IMPLICATION OF DOWN SYNDROME CELL ADHESION MOLECULE, DSCAM, IN THE MOSQUITO INNATE IMMUNITY**  
Yuemei Dong, George Dimopoulos  
Johns Hopkins University, Baltimore, MD, United States

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11:30 a.m.  
**143**  
**CONTRASTING EFFECTS OF Aedes aegypti SALIVA ON MURINE AND HUMAN IMMUNE EFFECTOR FUNCTIONS**  
Donald E. Champagne, Heather A. Wasserman  
University of Georgia, Athens, GA, United States  
(ACMCIP Abstract)
Symposium 67

Structural Basis of Antibody-Mediated Neutralization of Flaviviruses

Georgetown West
Tuesday, December 13 10:15 a.m. – Noon

Antibodies have been shown to play a critical role in protection from infection against flaviviruses. Recent molecular and crystallographic studies on the envelope protein of flaviviruses have provided new insights into the structural basis of antibody-mediated protection against flaviviruses. This symposium will review the most current models for antibody-mediated protection and the implications for the development of immunotherapeutics and safer, more effective vaccines against flaviviruses.

CHAIR
Michael S. Diamond
Washington University School of Medicine, St. Louis, MO, United States

10:15 a.m.
STRUCTURAL STUDIES OF ANTIBODY-DENGUE VIRUS AND ANTIBODY.WEST NILE VIRUS COMPLEXES
Richard Kuhn
Purdue University, West Lafayette, IN, United States

10:45 a.m.
MOLECULAR BASIS OF ANTIBODY-MEDIATED NEUTRALIZATION OF WEST NILE AND JAPANESE ENCEPHALITIS VIRUS
David Beasley
University of Texas Medical Branch, Galveston, TX, United States

11:10 a.m.
STRUCTURAL BASIS OF NEUTRALIZATION OF WEST NILE AND DENGUE VIRUSES BY MONOCLONAL ANTIBODIES
Michael S. Diamond
Washington University School of Medicine, St. Louis, MO, United States

11:35 a.m.
MOLECULAR MAPPING OF NEUTRALIZING ANTIBODIES AGAINST DENGUE VIRUS
John Roehrig
Center for Disease Control and Prevention, Fort Collins, CO, United States

Symposium 68

Tropical Medicine and the Media

International Ballroom East
Tuesday, December 13 10:15 a.m. – Noon

Popular books, newspaper and magazine articles, and television shows can have a powerful impact on public awareness of tropical diseases and global health. Original essays and reports in medical journals also influence public opinion and policy. This interactive session will feature panelists with professional experience and insights with regard to their own works of journalism or other outreach efforts related to global health. The session will conclude with a question and answer period meant to encourage further media and advocacy efforts by ASTMH members.

CHAIR
Claire Panosian
UCLA School of Medicine, Los Angeles, CA, United States

10:15 a.m.
INTRODUCTION
Claire Panosian
UCLA School of Medicine, Los Angeles, CA, United States

10:25 a.m.
FROM RESEARCHER TO POPULAR AUTHOR: THE STORY OF MOSQUITO
Andrew Spielman
Harvard School of Public Health, Boston, MA, United States

10:45 a.m.
FROM DOCTOR TO JOURNALIST
Susan Okie
Contributing Editor, New England Journal of Medicine, Washington, DC, United States

11:05 a.m.
MAKING A BBC MALARIA DOCUMENTARY: THE STORY OF FEVER ROAD
Kevin Hull
BBC/Films of Record, London, United Kingdom

11:25 a.m.
THE WGBH/NOVA GLOBAL HEALTH SERIES: WHAT HAPPENS NEXT?
Harvey Fineberg
Institute of Medicine, Washington, DC, United States

11:45 a.m.
DISCUSSION
Claire Panosian
UCLA School of Medicine, Los Angeles, CA, United States
Symposium 69

Why Current Strategies to Control Epidemic Measles Fail? A Debate for the Future

International Ballroom West

Tuesday, December 13 10:15 a.m. – Noon

Although progress has been made towards reducing measles morbidity and mortality, further action is required in endemic-epidemic contexts. Aside from the need to reinforce routine vaccination programs, a serious question emerges as to what type of action should be taken once an outbreak has begun. Current WHO recommendations suggest that outbreak response vaccination strategies may not be efficacious. This idea has recently been challenged through research into measles transmission dynamics in endemic-epidemic areas and through the demonstration of benefits from interventions, even when instituted late in the epidemic. We propose a symposium devoted to the debate about how to best control measles epidemics and how to prevent them from occurring. Our list of proposed invitees come from different perspectives and are noted experts in their respective fields.

CHAIR
Philippe J. Guerin
Epicentre, Paris, France

Rebecca F. Grais
Epicentre, Paris, France

10:15 a.m.
POLICY AND PROGRAMMATIC IMPLICATIONS OF OUTBREAK RESPONSE VACCINATION STRATEGIES
Peter Strebel
Centers for Disease Control and Prevention, Atlanta, GA, United States

10:45 a.m.
DYNAMICS, PERSISTENCE AND CONTROL OF MEASLES IN HIGH BIRTH-RATE COUNTRIES
Bryan Grenfell
Pennsylvania State University, University Park, PA, United States

11:45 a.m.
LESSONS FROM OUTBREAK RESPONSE VACCINATION CAMPAIGNS: QUESTIONING CURRENT WHO RECOMMENDATIONS
Florence Fermon
Medecins Sans Frontiers, Paris, France

11:10 a.m.
ISSUES IN MEASLES CONTROL: A CASE STUDY OF DISEASE DYNAMICS IN CAMEROON
Donald S. Burke
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States
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<td>Evidence-Based, Community-Derived Interventions for the Control of the Dengue Virus Vector <em>Aedes aegypti</em> in Managua, Nicaragua</td>
<td>Jorge Arostegui, Samantha N. Hammond, Alvaro Carcamo, Josefina M. Coloma, Angel Balmaseda, Neil Andersson, Eva Harris, CIET Dengue Group-Nicaragua</td>
<td>1CIET International, Managua, Nicaragua, 2Division of Infectious Diseases, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, 3Departamento de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua</td>
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<td>149</td>
<td>Portable, Nondestructive Measurement of Deltamethrin on Bednets Using X-Ray Fluorescence Spectrometry</td>
<td>Stephen C. Smith</td>
<td>Centers for Disease Control and Prevention, Division of Parasitic Diseases, Atlanta, GA, United States</td>
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<td>150</td>
<td>Field Evaluation of Arthropod Repellents Against Phlebotomine Sand Flies in Sinai, Egypt</td>
<td>Daniel E. Szumlas, Hanafi A. Hanafi, David J. Fryauf, Watanaporn Dheranetra, Scott W. Gordon, Moustafa Debboun</td>
<td>1U.S. Naval Medical Research Unit Number Three, Cairo, Egypt, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States</td>
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<td>1High Institute of Public Health, Alexandria, Egypt, 2Faculty of Medicine, Alexandria, Egypt</td>
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Christian Medical College, Vellore, India

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Nora M. Cardona-Castro, Miryan M. Sánchez Jiménez, Nunzia Canu, Sergio Uzzau, Salvatore Rubino
1Instituto Colombiano de Medicina Tropical - CES, Sabaneta, Antioquia, Colombia, 2Section of Clinical and Experimental Microbiology, University of Sassari, Sassari-Italia, Italy

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Emad W. Mohareb, Natalia Vynograd, Caroline Fayez, Ken Earhart
1NAMRU-3, Cairo, Egypt, 2L’viv National Medical University, L’viv, Ukraine

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1Noguchi Memorial Institute for Medical Research, Accra, Ghana, 2Water Research Institute, Council for Scientific and Industrial Research, Accra, Ghana

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1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2VA Palo Alto Health Care System, Palo Alto, CA, United States, 3Santa Clara County Health Department, Palo Alto, CA, United States

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1National Institute of Public Health, Cuernavaca, Morelos, Mexico, 2National Institute of Medical Sciences and Nutrition, Mexico, D.F., Mexico, 3Bill and Melinda Gates Foundation, Seattle, WA, United States, 4Stanford University, Palo Alto, CA, United States

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1Bacteriology and Mycobacteriology Unit, Corporación para Investigaciones Biológicas and Escuela de Ciencias de la Salud, Universidad Pontificia Bolivariana, Medellín, Antioquia, Colombia, 2Hospital Cetrángolo, Mycobacterial Regional Reference Laboratory, Buenos Aires, Argentina, 3Centro Nacional de Diagnóstico y Referencia, Departamento de Micobacterias, Ministerio de Salud de Nicaragua, Managua, Nicaragua, 4Instituto Nacional de Laboratorios de Salud INLASA, La Paz, Bolivia, 5Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional, Mexico DF., Mexico, 6Hospital Vozandes, Laboratorio de Microbiología y Tuberculosis, Quito, Ecuador, 7Instituto de Salud Pública de Chile, Sección de Micobacterias, Santiago de Chile, Chile, 8Institute of Tropical Medicine, Antwerp, Belgium
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1Thomas Jefferson University, Philadelphia, PA, United States, 2University of Pennsylvania, Philadelphia, PA, United States
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1Army Medical Surveillance Activity, Washington, DC, United States, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States

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1Department of Microbiology, Faculty of Medicine, Kuwait City, Kuwait, 2Department of Laboratories, Farwania Hospital, Kuwait City, Kuwait, 3Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, United States

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1Jahrom Medical School, Jahrom, Iran (Islamic Republic of), 2Moradi Skin Laser Clinic, Shiraz, Iran (Islamic Republic of)

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1Faculdade de Ciências Farmacêuticas-USP-RP, Ribeirão Preto, Brazil, 2Faculdade de Ciências Farmacêuticas-USP-RP, Ribeirão Preto, Brazil, 3Faculdade de Medicina de Ribeirão Preto-USP, Ribeirão Preto, Brazil

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1Ifakara Health Research and Development Centre, Dares salaam, United Republic of Tanzania, 2Centers for Disease Control and Prevention, Atlanta, GA, United States

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1Faculty of Medicine, Alexandria University, Alexandria, Egypt, 2Microbiology Department, High Institute of Public Health, Alexandria, Egypt

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1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2Ministry of Public Health and Population, Gonaives, Haiti, 3Centers for Disease Control and Prevention, Port au Prince, Haiti, 4Pan American Health Organization, Port au Prince, Haiti, 5Centers for Disease Control and Prevention, San Juan, Puerto Rico

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1Research Sciences Directorate, U.S. Naval Medical Research Unit Number Three, Cairo, Egypt, 2Faculty of Science, Helwan University, Cairo, Egypt, Cairo, Egypt, 3Egyptian Company for Chemicals and Pharmaceuticals (ADWIA), Cairo, Egypt, Cairo, Egypt

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Noguchi Memorial Institute for Medical Research, Accra, Ghana

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Kenya Medical Research Institute, Kisumu, Kenya

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1TechLab, Inc., Blacksburg, VA, United States, 2ICDDR,B, Dhaka, Bangladesh, 3University of Virginia, Charlottesville, VA, United States

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1University of California Berkeley, Berkeley, CA, United States, 2Universidad San Francisco de Quito, Quito, Ecuador, 3Trinity College, Hartford, CT, United States
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1US Naval Medical Research Center, Lima, Peru, 2Hospital 2 de Mayo, Lima, Peru, 3Hospital E. Rebagliati Martins, Lima, Peru, 4Hospital Naval, Lima, Peru, 5Naval Medical Research Center, Miami, FL, United States, 6Instituto Nacional de Salud, Lima, Peru, 7Pan American Health Organization, Washington, DC, United States

EFFECT OF A HANDWASHING PROMOTION PROGRAM IN CHINESE PRIMARY SCHOOLS

Anna Bowen1, Huilai Ma2, Jianming Ou3, Ward Billhimer4, Timothy Long4, May Zeng4, Eileen Wang4, John Painter1, Eric Mintz1, Robert M. Hoeckstra5, Stephen Luby6
1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2China Centers for Disease Control and Prevention, Beijing, China, 3Fujian Provincial Centers for Disease Control and Prevention, Fuzhou, China, 4Procter & Gamble Company, Cincinnati, OH, United States, 5Procter & Gamble Company, Guangzhou, China, 6Procter & Gamble Company, Beijing, China, 7CDDRB: Center for Health and Population Research, Dhaka, Bangladesh

THE COST-EFFECTIVENESS OF HEALTH INTERVENTIONS IN POST-CONFLICT ENVIRONMENTS: TREATMENT OF CUTANEOUS LEISHMANIASIS IN KABUL, AFGHANISTAN

Richard Reithinger1, Paul G. Coleman2
1Thermosurgery Technologies Inc, Phoenix, AZ, United States, 2London School of Hygiene and Tropical Medicine, London, United Kingdom

COST-BENEFIT OF THE DETERMINATION FOR HEPATITIS A ANTIBODIES (TOTAL ANTI-HAV) BEFORE THE PRETRAVELING VACCINATION

Lopez-Zaragoza José L, Guliás-Herrero Alfonso, Gutierrez-Ciríos Madrid Carlos, Ponce De León-Rosas Sergio, Ponce De León-Rosas Samuel
Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, México City, Mexico

PAECILOMYCES LILACINUS INFECTION IN A POST-LUNG TRANSPLANT PATIENT TAKING CAMPATH-1H

James Woodrow1, Otha Myles1, David Craft1, Christian Ockenhouse2
1Walter Reed Army Medical Center, Washington, DC, United States, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States

STIGMA IN TB AND LEPROSY CONTROL IN NIGERIA

Amobi Linus Ilika
Nnamdi Azikiwe University Teaching Hospital Nnewi Anambra State Nigeria, Nnewi, Nigeria

EVALUATION OF GIARDIA/CRYPTOSPORIDIUM CHEK, A NEW DIAGNOSTIC TEST FOR THE DETECTION OF GIARDIA AND CRYPTOSPORIDIUM IN FECES

Janice D. Hencke1, Lynne S. Garcia2, Joel F. Herbein1, Sarah Buss3, David M. Lyerly1
1TECHLAB, Inc., Blacksburg, VA, United States, 2LSG & Associates, Santa Monica, CA, United States, 3University of Virginia, Charlottesville, VA, United States

THE ASSOCIATION BETWEEN STUNTING AND CO-INFECTION WITH MODERATE AND HEAVY INTENSITY HELMINTH PARASITES IN GRADE 5 STUDENTS IN A COMMUNITY OF EXTREME POVERTY

Serene A. Joseph1, Martin Casapia2, Carmen Nunez2, Theresa W. Gyorkos1
1McGill University, Montreal, QC, Canada, 2Asociacion Civil Selva Amazonica, Iquitos, Peru

CONTROLLING A MALARIA OUTBREAK IN A TOURIST RESORT AREA IN THE DOMINICAN REPUBLIC, NOVEMBER-DECEMBER 2004

Jose Ml Puello1, David Joa1, Celia Riera2, M. James Eliades3, Phyllis E. Kozarsky4, Thomas Jelinek4, Margaret Bodie-Colins5, Phuc Nguyen-Dinh3
1Centro Nacional de Control de Enfermedades Tropicales, Santo Domingo, Dominican Republic, 2Pan American Health Organization, Santo Domingo, Dominican Republic, 3Centers for Disease Control and Prevention, Atlanta, GA, United States, 4Berlin Institute of Tropical Medicine, Berlin, Germany, 5Public Health Agency of Canada, Ottawa, ON, Canada

NEW TOOL FOR ESTIMATING EFFECTS OF INSECTICIDE TREATED BEDNET: A MULTI CHAMBER CHOICE ARENA WITH HUMAN SLEEPERS: THE “MOSQUITO HOTEL”

Fred Amimo1, Ole Skovmand2, Edward D. Walker3, Jim Miller4
1Vector Biology and Control Research Centre, Kenya Medical Research Institute, Kisumu, Kenya, 2Intelligent Insect Control, Castelnau le Lez, France, 3Michigan State University, E. Lansing, MI, United States
EFFICACY OF MILTEFOSINE (IMPAVIDO®) FOR CUTANEOUS LEISHMANIASIS IN COLOMBIA
Jaime Soto1, Julia Toledo1, Paula Soto1, Julio Padilla2, Herbert Sindermann3, Gerlind Anders3, Jurgen Engel3, Jonathan Berman4
1FADER / Cibic, Bogotá, Colombia, 2MinProtección Social, Bogotá, Colombia, 3Zentaris, AG, Frankfurt, Germany, 4ABF, Rockville, MD, United States

INCIDENCE, ETIOLOGY AND IMPACT OF TRAVELERS' DIARRHEA IN US MILITARY AND SIMILAR POPULATIONS: A SYSTEMATIC REVIEW
Mark S. Riddle1, Shannon D. Putnam2, David Tribble3, John W. Sanders1
1Naval Medical Research Unit No. 3, Cairo, Egypt, 2Naval Medical Research Unit No. 2, Jakarta, Indonesia, 3Naval Medical Research Center, Silver Spring, MD, United States

OUTBREAK OF ACUTE PNEUMONITIS WITH EOSINOPHILIA OF UNKNOWN CAUSE — MANAUS CITY, AMAZONAS STATE, BRAZIL, 2004
Rui R. Durlacher1, George S. Dimech1, Giselle H. Moraes1, Gina P. Aguiar1, Lucia A. Rocha1, Denise Mancini1, Douglas L. Hatch2
1Brazilian Ministry of Health, Brasilia, Brazil, 2Division of International Health, OGH, Centers for Disease Control and Prevention, Atlanta, GA, United States

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Tharwat F. Ismail1, Momtaz Wasfy1, Guillermo Pimentel1, Moustafa Abdel-Fadeel1, Mohamed Abdel-Maksoud1, Mahmoud E. Hatem2, Bassem Abdel-Rahman1, Rana Hajjeh1
1U.S. Naval Medical Research Unit #3, Cairo, Egypt, 2Cairo University, Cairo, Egypt

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Mariko Saito1, Shingo Inoue1, Efren M. Dimamo2, Maria T. Alera2, Atsushi Kumatori1, Kazuhiro Moji1, Ronald R. Matias3, Kouichi Morita1, Filipinas F. Natividad3, Kazunori Oishi1
1Institute of Tropical Medicine, Nagasaki University, Nagasaki-city, Japan, 2San Lazaro Hospital, Manila, Philippines, 3St. Luke's Medical Center, Quezon City, Philippines

NOVEL CHEMOTHERAPEUTIC EFFECT OF A NEW ANTIFUNGAL/BACTERIAL LOTION
Francis E. Oronsaye
University of Benin School of Medicine, Benin City, Edo State, Nigeria

RISK FACTORS FOR ACUTE TOXOPLASMA GONDII INFECTION, BRAZIL
Jeffrey L. Jones1, C. Muccioli2, R. Belfort Jr2, G. N. Holland3, J. M. Roberts1, C. Silveira4
1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2Department of Ophthalmology, Federal University of Sao Paulo, Pualista School of Medicine, Sao Paulo, Brazil, 3University of California, Los Angeles, Ocular Inflammatory Disease Center, the Jules Stein Eye Institute and the Department of Ophthalmology, UCLA School of Medicine, Los Angeles, CA, United States, 4Clinica Silveira, Erechim, Brazil

LONGITUDINAL STUDY OF URBAN MALARIA IN A COHORT OF UGANDAN CHILDREN: DESCRIPTION OF STUDY POPULATION, CENSUS, AND RECRUITMENT
Jennifer Davis1, Tamara Clark1, Denise Njama-Meya2, Talemwa Nalugwa2, Sarah Kemble1, Sarah Staedke1, Grant Dorsey1
1University of California, San Francisco, San Francisco, CA, United States, 2Makerere University, Kampala, Uganda

RELAPSING FEVER IN A RETURNING TRAVELER — A CASE OF MALARIAL COINFECTION LEADING TO RELAPSE ONE YEAR AFTER INFECTION
David Lin, David Tompkins, Eric Spitzer, Victor Jimenez
State University of New York, Stony Brook, Stony Brook, NY, United States

QUANTIFYING THE POTENTIAL BENEFITS OF EARLY OUTBREAK DETECTION ALGORITHMS FOR ROUTINELY COLLECTED NOTIFIABLE DISEASES DATA
Michelle L. Gatton1, Brian H. Kay2, Peter A. Ryan2
1University of Queensland, Herston, Australia, 2Queensland Institute of Medical Research, Herston, Australia
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1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2Medical Entomology Research and Training Unit, Guatemala City, Guatemala, 3Procter & Gamble, Cincinnati, OH, United States

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1Tulane University School of Public Health and Tropical Medicine, New Orleans, LA, United States, 2Tulane National Primate Research Center, Covington, LA, United States, 3University of Alabama at Birmingham, Birmingham, AL, United States

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1The Malaria Institute at Macha, Choma, Zambia, 2Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

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1Department of Infectious Diseases, Tropical Medicine and AIDS, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, 2Centre for Vector Biology and Control Research, Kenya Medical Research Institute, Kisumu, Kenya, 3International Health Institute and Department of Pathology and Laboratory Medicine, Brown University, Providence, RI, United States, 4Child and Reproductive Health Group, Liverpool School of Tropical Medicine, Liverpool, United Kingdom

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1DoD Global Emerging Infections Surveillance and Response System, Silver Spring, MD, United States, 2US Naval Medical Research Center Detachment, Lima, Peru, 3US Army Medical Research Unit - Kenya, Nairobi, Kenya, 4Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand, 5US Army Medical Research Institute for Infectious Diseases, Frederick, MD, United States, 6US Navy Medical Research Unit - 3, Cairo, Egypt, 7US Navy Medical Research Unit - 2, Jakarta, Indonesia, 8Uniformed Services University of the Health Sciences, Bethesda, MD, United States, 9Walter Reed Army Institute of Research, Silver Spring, MD, United States

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1DoD Global Emerging Infections Surveillance and Response System, Silver Spring, MD, United States, 2Walter Reed Army Institute of Research, Silver Spring, MD, United States

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1US Naval Medical Research Unit - 3, Cairo, Egypt, 2Virology Institute, Tashkent, Uzbekistan, Cairo, Uzbekistan, 3Samarqand Fever Hospital, Samarqand, Uzbekistan

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1Yale University, New Haven, CT, United States, 2Michigan State University, East Lansing, MI, United States, 3University of Illinois, Urbana, IL, United States, 4University of California Irvine, Irvine, CA, United States, 5Children’s Hospital Harvard University, Boston, MA, United States, 6Centers for Disease Control and Prevention-DVBID, Ft. Collins, CO, United States
Cynomolgus monkeys infected with Orientia tsutsugamushi (Karp) by intradermal inoculation develop eschar-like lesions and lymphadenopathy akin to human scrub typhus

Douglas S. Walsh1, Eduardo C. Delacruz2, Rodolfo M. Abalos2, Esterolina V. Tan2, Allen Richards3, KS Myint4
1Walter Reed Army Institute of Research, Silver Spring, MD, United States, 2Leonard Wood Memorial Center for Leprosy Research, Cebu City, Philippines, 3Naval Medical Research Center, Silver Spring, MD, United States, 4US Army Medical Component, Armed Forces Research Institute of Medical Sciences (AFRIMS), Bangkok, Thailand

Nosocomial myiasis by Sarcophaga sp (Diptera: Sarcophagidae) in a geriatric patient from Costa Rica

Ólger Calderón-Arguedas1, Adrián Avendaño1, Cynthya Vargas-Castro2
1Universidad de Costa Rica, San José, Costa Rica, 2Hospital San Rafael, Caja Costarricense de Seguro Social, Alajuela, Costa Rica

Flaviviridae — Dengue

Simultaneous immunization with Dengue-2 DNA vaccines and Dengue 2 recombinant subunit vaccines

Mayra D. Jiménez1, Irene Bosch2, Yudira Soto1, Rosa Ramírez1, Mayling Álvarez1, Melkis Alfonso1, Lisette Hermida3, Carlos Lopez3, María G. Guzmán1
1Institute of Tropical Medicine "Pedro Kouri", Havana, Cuba, 2Center for Infectious Disease and Vaccine Research, University of Massachusetts Medical School, Worcester, MA, United States, 3Center for Genetic Engineering and Biotechnology, Havana, Cuba

Dengue outbreak in health care workers during an epidemic

Vineet Gupta, Sanjeev Bhoi, Praveen Aggarwal
All India Institute of Medical Sciences, New Delhi, India

Signal–competent FC gamma Ria (CD64) increases dengue immune complex infectivity

Shanaka Rodrigo, Xia Jin, Robert C. Rose, Jacob J. Schlesinger
University of Rochester, Rochester, NY, United States

(ACMCIP Abstract)
MOLECULAR TYPING OF DENGUE VIRUS TYPE 3 DURING THE FIRST DENGUE FEVER OUTBREAK IN LIMA, PERU, 2005
Enrique Mamani¹, Omar Caceres¹, María García¹, Victoria Gutierrez¹, Cesar Cabezas¹, Eva Harris²
¹National Institute of Health - Ministry of Health of Peru, Lima, Peru, ²Division of Infectious Diseases, School of Public Health, University of California, Berkeley, CA, United States

DYNAMICS OF SEROLOGICAL RESPONSE TO DENGUE VIRUS INFECTION OVER A ONE-YEAR PERIOD IN NICARAGUAN CHILDREN
Angel Balmaseda¹, Samantha Hammond², Yolanda Tellez¹, Saira Saborío¹, Juan Carlos Mercado¹, Celia Machado¹, Juan Carlos Matute¹, Leonel Pérez¹, María Angeles Pérez², Sheyla Silva³, Crisanta Rocha³, Eva Harris²
¹Departamento de Virología, Centro Nacional de Diagnóstico y Referencia, Ministerio de Salud, Managua, Nicaragua, ²Division of Infectious Diseases, School of Public Health, University of California, Berkeley, Berkeley, CA, United States, ³Hospital Infantil Manuel Jesús de Rivera, Managua, Nicaragua

THE ROLE OF A CODING REGION RNA STRUCTURAL ELEMENT IN THE LIFECYCLE OF DENGUE VIRUS TYPE 2
Karen Clyde, Eva Harris
Division of Infectious Diseases, School of Public Health, University of California, Berkeley, Berkeley, CA, United States

MECHANISM OF NON-CANONICAL DENGUE VIRUS TRANSLATION
Dianna Edgil, Charlotta Polacek, Eva Harris
Division of Infectious Diseases, School of Public Health, University of California, Berkeley, Berkeley, CA, United States

THE FOUR DENGUE SEROTYPES: SIMILARITIES AND DIFFERENCES IN GENE EXPRESSION PATTERN
E. Mayda, D. R. Palmer, R. Hammamieh, V. Gunther, J. Bisbing, W. Sun, M. Jett, R. Das
Walter Reed Army Institute of Research, Silver Spring, MD, United States

CLIMATE AND DENGUE IN THE CARIBBEAN: REVISITING THE LINKAGES IN TRINIDAD
Joan L. Aro1, Roger S. Pulwarty2, Dave D. Chadee3
¹Science Communication Studies, Columbia, MD, United States, ²National Oceanic and Atmospheric Administration / University of Colorado, Climate Diagnostics Center, Boulder, CO, United States, ³Department of Life Sciences, University of the West Indies, St. Augustine, Trinidad and Tobago

DETECTION OF PLASMA LEAKAGE IN DENGUE INFECTED PATIENTS BY SERIAL ULTRASONOGRAPHIC STUDIES
Anon Srikiatkhamorn¹, Anchalee Krautrachue², Warangkana Ratanaprakarn², Lawan Wongtapradit², Narong Nithipanya², Siriporn Kalayanarooj², Ananda Nisalak³, Stephen J. Thomas³, Robert V. Gibbons³, Mammon P. Mammen³, Daniel H. Libraty³, Francis A. Ennis³, Alan L. Rothman³, Sharone Green³
¹Center for Infectious Disease and Vaccine Research, University of Massachusetts Medical School, Worcester, MA, United States, ²Queen Sirikit National Institute of Child Health, Bangkok, Thailand, ³Department of Virology, Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand

OUTBREAK OF DENGUE FEVER IN AL-HUDAYDAH, YEMEN, 2004 – 2005
Amgad ElKholy¹, Fawaz Shiha², Sameh Safwat¹, Abdelhakem Alkohlanli³, Sultan Al-Moktary³, Ahmed Al-Bourji³, Hashem Elziein³, Osama Ahmed², Magdi D. Saad¹, Kenneth Earhart¹, Hassan Elbushra⁴, Rana Hajjeh⁵
¹US Naval Medical Research Unit 3, Cairo, Egypt, ²World Health Organization, Eastern Mediterranean Regional Office, Sanaa, Yemen, ³National Center for Epidemiology and Diseases surveillance, Ministry of Health, Sanaa, Yemen, ⁴World Health Organization, Eastern Mediterranean Regional Office, Cairo, Egypt, ⁵US Naval Medical Research Unit 3, Cairo, Egypt; Centers for Disease Control and Prevention, Atlanta, GA, United States
DENGUE-3 IN LIMA, PERU, 2005
Vidal Felices1, Cristopher Cruz1, Victor Laguna -Torres1, Luis Beingolea2, Victor Suarez3, Luis Suarez4, G. Jave5, Gloria Chauca1, Tadeusz Kochel6, James Olson6
1U.S. Naval Medical Research Center Detachment, Lima, Peru, 2Oficina General de Epidemiologia, Lima, Peru, 3Instituto Nacional de Salud, Ministerio de Salud, Peru, 4Oficina General de Epidemiologia, Ministerio de Salud, Peru, 5Centro de Salud de Comas, Ministerio de Salud, Peru, 6U.S. Naval Medical Research Center Detachment, APO AA, United States

SPATIAL AND TEMPORAL INCIDENCE OF DENGUE VIRUS INFECTIONS IN SCHOOL-CHILDREN FROM MARACAY, VENEZUELA: 2001 – 2003
Guillermo Comach1, Gloria Sierra1, Andreina Figuera2, Diamelis Guzman1, Maritza Soler1, Carolina Guevara1, Maritza Cabello de Quintana1, Angelica Espinoza3, Zonia Rios1, Juan Perez2, MeriGregory Bracho1, Oscar Felo1, Iris Villalobos1, Nidia Sandoval1, Kevin Russell1, Tadeusz Kochel3, Patrick Blair1, James G. Olson3
1Lardidev/Biomed-Universidad de Carabobo/Corposalud Aragua, Maracay, Venezuela, 2Biomed-Universidad de Carabobo, Maracay, Venezuela, 3U.S. Naval Medical Research Center Detachment, Lima, Peru, 4Hospital Central de Maracay/Corposalud Aragua, Maracay, Venezuela, 5Center for Deployment Health Research, Naval Health Research Center, San Diego, CA, United States

SUSCEPTIBILITY TO DENGUE HEMORRHAGIC FEver in BRAZIL AND THE TYPE 1 INTERFERON PATHWAY
Luciano K. Silva1, Maria Gloria Teixera1, Andreina Figuera1, Diamelis Guzman1, Maritza Soler1, Carolina Guevara1, Maritza Cabello de Quintana1, Angelica Espinoza3, Zonia Rios1, Juan Perez2, Mercio Bracho1, Oscar Felo1, Iris Villalobos1, Nidia Sandoval1, Kevin Russell1, Tadeusz Kochel3, Patrick Blair1, James G. Olson3
1Case University, Cleveland, OH, United States, 2Institute of Health Coletiva-UFBA, Salvador-BA, Brazil, 3Oswaldo Cruz Foundation, Salvador-BA, Brazil

DENGUE OUTBREAK IN LIMA DURING A PREVENTION CAMPAIGN
Cesar Cabezas1, Lely Solari1, Elisa Solano1, Suarez Victor1, Walter Leon-Cueto1, Miguel Cobos1, Mauricio Rubin1, Cubillas Luis1, Luis Fuentes Tafur1
1National Institutes of Health Peru, Lima, Peru, 2DISA Lima Norte, Lima, Peru

THE DENGUE HEMORRHAGIC FEVER OUTBREAK IN MEDAN, NORTH SUMATRA, INDONESIA: A CASE STUDY REPORT
Jonathan Glass
US NAMRU-2, FPO, AE, United States

SERO-PREVALENCE OF JAPANESE ENCEPHALITIS VIRUS IN PIGS, DUCKS AND HORSES IN NEPAL
Ganesh Raj Pant
Central Veterinary Laboratory, Kathmandu, Nepal

DEVELOPMENT OF A QUANTITATIVE SUBTYPE-SPECIFIC TAQMAN®-MINOR GROOVE BINDER (MGB) RT-PCR ASSAYS FOR TICK-BORNE ENCEPHALITIS VIRUS
Carson Baldwin, Chris Whitehouse
USAMRIID, Frederick, MD, United States

COMPARISON OF IRON RESPONSIVE ELEMENT (IRE) AND THE HEPATITIS C VIRUS (HCV) INTERNAL RIBOSOME ENTRY SITE (IRES)-DOMAIN IV: STRUCTURE AND FUNCTION
Ebenezer Tumban, Jenna Painta, William B. Lott
New Mexico State University, Las Cruces, NM, United States
(ACMCIP Abstract)

INCREASED SEVERITY OF WEST NILE VIRUS INFECTION IN IMMUNOSUPPRESSED HAMSTERS
Rosa I. Mateo, Shu-Yuan Xiao, Hilda Guzman, Hao Lei, Amelia P. Travassos da Rosa, Robert B. Tesh
University of Texas Medical Branch, Galveston, TX, United States

THE SPATIAL AND TEMPORAL HETEROGENEITY OF WEST NILE VIRUS ACTIVITY IN MARYLAND
Michael A. Johansson1, Scott M. Shone1, Andrew S. Walsh1, Cyrus R. Lesser2, Douglas E. Norns1, Gregory E. Glass1
1Johns Hopkins School of Public Health, Baltimore, MD, United States, 2Maryland Department of Agriculture, Annapolis, MD, United States

NEUTRALIZATION OF WEST NILE VIRUS BY MONOCLONAL ANTIBODIES AND HORSE SERA
Melissa D. Sanchez1, Theodore C. Pierson1, Fabio Del Piero2, Ann H. Davidson3, Josie L. Traub-Dargatz3, Sheri L. Hanna1, James A. Hoxie4, Robert W. Doms1
1Department of Microbiology, University of Pennsylvania, Philadelphia, PA, United States, 2Department of Pathobiology-School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, United States, 3Department of Clinical Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO, United States, 4Department of Medicine, Hematology-Oncology Division, University of Pennsylvania, Philadelphia, PA, United States
CHUKAR PARTRIDGE (ALECTORIS CHUKAR) SHOW MODERATE SUSCEPTIBILITY TO WNV AND MAY PLAY A ROLE IN THE MAINTENANCE OF WNV AT ENZOOTIC SITES IN THE WESTERN U.S.

Erik K. Hofmeister1, Rob Porter2
1USGS NWHC, Madison, WI, United States, 2Wisconsin Veterinary Diagnostic Laboratory, Madison, WI, United States

SEROLOGIC EVIDENCE OF WEST NILE VIRUS IN GUATEMALAN HORSES

Maria E. Morales-Betoulle1, Herber Morales2, Bradley J. Blitvich3, Ann M. Powers4, Ann Davis5, Robert Klein6, Celia Cordón-Rosas1
1Universidad del Valle de Guatemala, Guatemala, Guatemala, 2Ministry of Agriculture and Livestock, Guatemala, Guatemala, 3Colorado State University, Fort Collins, CO, United States, 4Centers for Disease Control and Prevention, Fort Collins, CO, United States, 5United States Department of Agriculture, Guatemala, Guatemala, 6Centers for Disease Control and Prevention, Guatemala, Guatemala

PERFORMANCE OF THE DOMAIN III PROTEIN FRAGMENT OF THE ENVELOPE GLYCOPROTEIN OF WEST NILE AND ST. LOUIS ENCEPHALITIS VIRUSES AS A SERODIAGNOSTIC ANTIGEN

Ann R. Hunt, G.-J. Chang, John T. Roehrig
Centers for Disease Control and Prevention, Fort Collins, CO, United States

CHARACTERIZATION OF A SMALL PLAQUE MUTANT OF WEST NILE VIRUS ISOLATED IN NEW YORK IN 2000

Yongqing Jia, Alan P. Dupuis II, Kristen A. Bernard, Mary A. Franke, Joseph G. Maffei, Greta A. Jerzak, Elizabeth B. Kauffman, Laura D. Kramer
Wadsworth Center, New York State Department of Health, Albany, NY, United States

PEDIATRIC BEHAVIORS THAT INFLUENCE WEST NILE VIRUS INFECTION RISK

Angelle D. LaBeaud, Chris Kippes2, Jacek M. Mazurek3, Charles H. King1, Anna M. Mandalakas4
1Case Western Reserve University: Center for Global Health and Diseases, Cleveland, OH, United States, 2Cuyahoga County Board of Health, Cleveland, OH, United States, 3Centers for Disease Control, Morgantown, WV, United States, 4Case Western Reserve University: Department of Pediatrics, Cleveland, OH, United States

COMPARISON OF GENETICS-BASED HIGH-THROUGHPUT ASSAYS FOR WEST NILE VIRUS DRUG DISCOVERY

Francesc Puig-Basagoitii, Tia S. Deasi, Ping Renl, Mark Tilgnre, Pei-Yong Shil
1Wadsworth Center, New York State Department of Health, Albany, NY, United States, 2Department of Biomedical Sciences, University at Albany, State University of New York, Albany, NY, United States

COMPARISON OF INDIRECT ELISA AND PLAQUE REDUCTION NEUTRALIZATION TO MULTIPLEX MICROSPHERE IMMUNOASSAY FOR DETECTION OF ANTIBODIES TO WEST NILE VIRUS IN BLOOD OF WILD BIRDS

Susan J. Wongs1, A. P. Dupuis ll1, A. M. Kilpatrick2, P. P. Marra3, A. L. Glaser4, T. Victor1, P. Daszak5, L. D. Krameri
1Wadsworth Center NYSDOH, Albany, NY, United States, 2Cousortium for Conservation Medicine, New York, NY, United States, 3Centers for Disease Control, Morgantown, WV, United States, 4Smithsonian Environmental Research Center, Edgewater, MD, United States, 5NYS College of Veterinary Medicine, Cornell University, Ithaca, NY, United States

WEST NILE VIRUS PRODUCED IN HUMAN CELLS SELECTIVELY INFECTS CELLS EXPRESSING DC-SIGNR, BUT NOT CELLS EXPRESSING DC-SIGN

Carl W. Davisi, Hai-Yen Nguyeni, Sheri L. Hannai, Melissa D. Sánchez1, Robert W. Doms1, Theodore C. Pierson2
1University of Pennsylvania School of Medicine, Philadelphia, PA, United States, 2Laboratory of Viral Diseases, National Institutes of Health, Bethesda, MD, United States

IMPACT OF MASS DRUG ADMINISTRATION OF DIETHYLCARBAMAZINE/ALBENDAZOLE TO ELIMINATE LYMPHATIC FILARIASIS, MALINDI, KENYA

Sammy M. Njenga1, Njeri Wamae2, Charles Mwandawiro2, David Molyneux2
1Kenya Medical Research Institute, Nairobi, Kenya, 2Liverpool School of Tropical Medicine, Liverpool, United Kingdom

ACTIVITY OF THE CYCLOOCTADEPSIPEPTIDE EMODEPSIDE AGAINST ONCHOCERCA GUTTUROSA, ONCHOCERCA LIENALIS AND BRUGIA PAHANGI

Simon Townsend1, Andrew Freeman1, Angela Harris1, Achim Harder2
1Northwick Park Institute for Medical Research, Harrow, United Kingdom, 2Bayer Healthcare AG, Monheim, Germany
SAFETY AND EFFICACY OF DOXYCYCLINE FOR THE TREATMENT OF MANSONELLA PERSTANS INFECTION IN AN AREA COENDEMIC FOR WUCHERERIA BANCROFTI

Yaya I. Coulibaly1, Benoit Dembele1, Abdallah A. Diallo1, Dapa Diallo1, Mady Sissoko1, Daniel Yalcouë1, Ettie Lipner2, Michael Fay2, Ogobara Doumbo1, Thomas B. Nutman2, Sekou F. Traore3, Amy D. Sodahlon2
1University of Mali School of Medicine, Pharmacy, and Dentistry, Bamako, Mali, 2National Institutes of Health, Bethesda, MD, United States

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Kenneth N. Opara1, Olakunle B. Fagbemi1, Asuquo Ekwe2, Daniel M. Okenuh1
1University of Uyo Nigeria, Uyo, Nigeria, 2University of Ibadan Nigeria, Ibadan, Nigeria

THE IMPACT OF MASS DRUG ADMINISTRATION WITH DIETHYLCARBAMAZINE AND ALBENDAZOLE ON BANCROFTIAN FILARIASIS IN EGYPT

Khaled M. Abd Elaziz1, Maged El-Setouhy1, Hanan Helmy2, Reda M. Ramzy3, Gary J. Weil3
1Faculty of Medicine-Ain Shams University, Cairo, Egypt, 2Research and Training Center on Vector of Diseases-Ain Shams University, Cairo, Egypt, 3Washington University School of Medicine, St Louis, MO, United States

EVALUATION OF THE BRUGIARAPID™ CASSETTE

David Reeve, Wayne Melrose
James Cook University, Townsville, Australia

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Bethel K. Kwansa-Bentum1, Fred Aboagye-Antwi, Evans D. Glah, Philip Doku, Sampson Otoo, Haruna Abdul, Michael D. Wilson, Daniel A. Boakye
1Noguchi Memorial Institute for Medical Research, Accra, Ghana

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Els Mathieu1, Stephanie Richard1, David Addiss1, Yao Sodahlon2
1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2Ministry of Health, Lome, Togo

MACROPHAGE ADHERENCE TO BRUGIA PAHANGI IS MEDIATED BY ANTIGEN SPECIFIC IGM AND IGM RECEPTORS AND IS MODULATED BY TH2 CYTOKINES

Manish Ramesh, Thiruchandurai V. Rajan
UConn Health Center, Farmington, CT, United States

L3-L4 CUTICLES AND L3 EXCRETORY/SECRETORY PRODUCTS CAN PRIME MICE FOR AN ACCELERATED CLEARANCE OF BRUGIAN INFECTION

Yashodhara Dash, Thiruchandurai V. Rajan
UConn Health Center, Farmington, CT, United States

KINETICS OF GENDER-REGULATED GENE EXPRESSION IN BRUGIA MALAYI

Ben-wen Li, Amy C. Rush, Gary J. Weil
Washington University School of Medicine, St Louis, MO, United States

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Washington University School of Medicine, St Louis, MO, United States

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1DGSACS-Ministry of Health, Maracay, Venezuela, 2Universidad de Los Andes, Trujillo, Venezuela

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1Brown University, Providence, RI, United States, 2Research Institute of Tropical Medicine, Manila, Philippines
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1McGill University, Montreal, QC, Canada, 2Asociacion Civil Selva Amazonica, Iquitos, Peru, 3Universidad Peruana Cayetano Heredia, Lima, Peru

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1Faculdade de Ciências Farmacêuticas de Ribeirão Preto, Ribeirão Preto, Brazil, 2Faculdade de Medicina de Ribeirão Preto, Ribeirão Preto, Brazil, 3Universidade Estadual de Campinas, Campinas, Brazil

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1University of Honduras, Tegucigalpa, Honduras, 2U.S. Naval Medical Research Center Detachment, Lima, Peru, 3AIDS Action of Central America Project (PASCA), Guatemala, Guatemala, 4U.S. Military HIV Research Program and Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., Rockville, MD, United States, 5Military HIV Research Program and Henry M. Jackson Foundation for the Advancement of Military Medicine, Rockville, MD, United States

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Mohammad H. Motazedian, Mehdi Karamian, Sadreddin Ardehali, Mohammad Vasei
Shiraz Medicina Faculty, Shiraz, Iran (Islamic Republic of)
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1InBios International Inc, Seattle, WA, United States, 2IDRI, Seattle, WA, United States, 3LSU-ICMRT, San Jose, Costa Rica, 4American Red Cross, Rockville, MD, United States

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Shyam Sundar
Institute of Medical Sciences, Banaras Hindu University, Varanasi, India
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1Institute Of Pathology (ICMR), New Delhi, India, 2Center for Biologics Evaluation and Research, Food and Drug Administration, Bethesda, MD, United States
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Nasim Akhtar Ansari1, Venkatesh Ramesh2, Poonam Salotra1
1Institute Of Pathology (ICMR), New Delhi, India, 2Department of Dermatology, Safdarjung Hospital, New Delhi, India
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¹Department of Clinical Tropical Medicine, Faculty of Tropical Medicine, Mahidol University, Bangkok, Thailand, ²Department of Entomology, AFRIMS, Bangkok, Thailand, ³Department of Entomology, Pennsylvania State University, Philadelphia, PA, United States, ⁴Department of Pathobiology, Faculty of Science, Mahidol University, Bangkok, Thailand  
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¹The Medical Research Council Laboratories, Banjul, Gambia, ²The Medical Research Council Laboratories, Banjul, Gambia, ³Edinburgh University, Edinburgh, United Kingdom, ⁴Sultan Qaboos University, Al-Khod, Oman  
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¹Medical Research Unit of Albert Schweitzer Hospital, Lambarene, Gabon, Lambarene, Gabon, ²Department of Parasitology, Leiden University Medical Center, Leiden, The Netherlands, Leiden, Netherlands  
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