

Malaria Control: From the Bench to the Field Course Agenda
Oswaldo Cruz Foundation (Fiocruz) | Porto Velho, Brazil
November 16-21, 2014

Co-Organizers: Marcia Castro, Ricardo Gazzinelli, and Matthias Marti
Harvard School of Public Health and Oswaldo Cruz Foundation

Workshop

Sunday, November 16, 2014

18:00-19:30

Opening Session

Marcia Castro, Ricardo Gazzinelli, Carla Fernandes, and Matthias Marti

18:30-19:30

Opening Lecture

Genetic Studies of Plasmodium Parasites

Thomas Wellems, Chief, Laboratory of Malaria and Vector Research (LMVR) and Chief, Malaria Genetics Section, LMVR, National Institute of Allergy and Infectious Diseases

19:30-21:30

Group Dinner

Monday, November 17, 2014

Session Chair – Matthias Marti

9:00-10:00

Innate immunity in mosquitos

Innate Immune Defenses in Model Insects and Vectors

Neal Silverman, Professor of Medicine in the Division of Infectious Diseases, University of Massachusetts Medical School

Anopheles aquasalis Immune Response to P. vivax

Yara Traub-Cseko, Senior Investigator, Instituto Oswaldo Cruz

10:00-10:30

Coffee Break

10:30-12:00

Parasite Biology

Erythrocyte Invasion by Plasmodium Parasites

Manoj Duraisingh, John LaPorte Given Professor of Immunology and Infectious Diseases, Harvard School of Public Health

Protein Export in P. falciparum

Kasturi Haldar, Rev. Julius Nieuwland, C.S.C. Professor of Biological Sciences and James C. Parsons and Carrie Ann Quinn Director of the Center for Rare and Neglected Diseases, University of Notre Dame

Biology of Malaria Transmission

Matthias Marti, Associate Professor of Immunology and Infectious Diseases, Harvard School of Public Health

12:00-14:00

Lunch

14:00-15:00

Innate immunity in malaria patients

Innate Sensors for Plasmodium DNA

Doug Golenbock, Professor of Medicine and Infectious Diseases, University of Massachusetts Medical School

Monocyte Subsets in P. vivax Malaria

Lis Antonelli, Associate Investigator, Fundação Oswaldo Cruz

15:00-15:30

Coffee Break

15:30-17:00

Pathogenesis

Severe Cases of P. vivax Malaria

Marcus Lacerda, Professor of Infectious Diseases, University of the Amazonas State

Cytoadherence of P. vivax Infected Reticulocytes

Fabio Costa, Associate Professor, Universidade de Campinas

Bacterial Super-infection in Malaria

Ricardo Gazzinelli, Senior Investigator, Centro de Pesquisas René Rachou, Fundação Oswaldo Cruz

Tuesday, November 18, 2014

Session Chair – Marcia Castro

9:00-13:00

Chemotherapy and Vaccine Approaches

Natural Products as Anti-malarial Drugs

Antoniana Krettli, Senior Investigator, Fundação Oswaldo Cruz

Cofactor Metabolism as a Drug Target in Malaria

Carsten Wrenger, Associate Professor, Universidade de São Paulo

Malaria Vaccine: Types and Current Candidates

Sócrates Herrera, Director, Latin American Center for Malaria Research and Control, Caucaseco Scientific Research Center

10:30-11:00

Coffee Break

10:30-11:30

Ecology and Vector Control

Mating and Reproduction in Malaria Vector

Flaminia Catteruccia, Associate Professor of Immunology and Infectious Diseases, Harvard School of Public Health

Control of Vector Borne Diseases

Ricardo Lourenço-de-Oliveira, Senior Investigator, Instituto Oswaldo Cruz

11:30-13:45

Lunch

- 13:45-14:45** **Keynote Address**
Epidemiology and Control of Malaria in the Amazon
Luiz Hildebrando Pereira da Silva, Scientific Director, Instituto de Pesquisa em Patologias Tropicais
- 14:45-16:15** **Ecology, Epidemiology and Malaria Control**
Malaria Control in Brazil: Perspectives of Eliminating P. Falciparum
Pedro Luiz Tauil, Professor in the Graduate Program on Tropical Medicine of the Medical School, Universidade Federal de Brasília
- Malaria and its Control in Diverse Ecosystems: Case Studies in the Brazilian Amazon and Urban Tanzania*
Marcia Castro, Associate Professor of Demography, Harvard School of Public Health
- 16:15-16:45** **Coffee Break**
- 16:45-17:45** **Closing Lecture**
Genetic Diversity of P. vivax and Malaria in Brazil
Marcelo Urbano, Professor of Parasitology and Chair of the Department of Parasitology, Universidade de São Paulo
- 18:00** **Adjourn**

Field/Lab Activities and Oriented Discussions

Wednesday, November 19, 2014

- 8:30-10:00** **Lecture and discussion on malaria transmission**
Flaminia Catteruccia, Matthias Marti, Neal Silverman, and Alexandre Almeida e Silva.
- 10:00-13:00** Visit to the transmission areas at the river shore (riverine communities)
- 15:00-18:00** **Lab work:** Capture mosquitos in the field and perform DNA extraction and Real-time PCR for *P. vivax*.

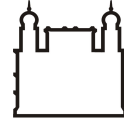
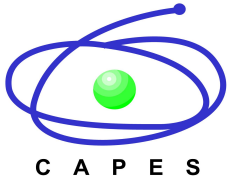
Thursday, November 20, 2014

- 8:30-10:00** **Lecture and discussion on clinical immunology of malaria**
Caroline Junqueira, Dhelio Pereira, Lis Antonelli, Douglas Golenbock, and Ricardo Gazzinelli
- 10:00-11:30** Visit to the hospital
- 13:00-18:00** **Lab work:** Collect blood from patients, isolate peripheral blood mononuclear cells and perform FACS analysis.

Friday, November 21, 2014

- 8:30-10:00** **Lecture and discussion on epidemiology and malaria control**
Marcelo Urbano, Tony Katsuragawa, and Marcia Castro
- 10:00-14:00** Field visit: areas of transmission around the construction area of Santo Antônio dam
- 15:00-17:00** **Discussion**

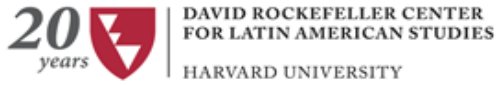
Malaria Control: From the Bench to the Field Course Sponsors



Ministério da Saúde

FIOCRUZ

Fundação Oswaldo Cruz



HARVARD
SCHOOL OF PUBLIC HEALTH

Powerful ideas for a healthier world