

# Malaria: New Approaches to Understanding Host-Parasite Interactions

(Joint with "Molecular Targets for Control of Vector-Borne Diseases: Bridging Lab and Field Research")

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Scientific Organizers: Patrick E. Duffy and Jean Langhorne

## PROGRAM FACULTY & TALKS

**Nick M. Anstey**, Menzies School of Health Research, Australia  
*Disease due to *P. vivax**

**Paolo Arese**, University of Torino Medical School, Italy  
*Parasite Molecules and their Effects on Immune Cells*

**Philip Bejon**, University of Oxford, UK

*Immunity Induced by a Partially Protective Vaccine*

**James Brewer**, University of Strathclyde, UK  
*Visualizing Parasite-Immune Cell Interactions*

**Pierre Buffet**, Institut Pasteur, France  
*Parasite Dynamics in the Spleen*

**Nick Crispe**, Seattle Biomedical Research Institute, USA  
*Immune Responses in the Liver*

**Peter D. Crompton**, National Institutes of Health, USA  
*Title to be Determined*

**Johanna P. Daily**, Harvard School of Public Health, USA  
*Transcriptome of Parasites in vivo*

**Patrick E. Duffy**, Seattle Biomedical Research Institute, USA  
*Malaria Disease and the Placenta*

**Kate A. Fitzgerald**, University of Massachusetts Medical School, USA  
*The Inflammasome in Immunity and Disease*

**Michael F. Good\***, Queensland Institute of Medical Research, Australia  
*Malaria Vaccines: Lessons from Immune Escape Instruct New Strategies*

**John T. Harty**, University of Iowa, USA  
*Quantifying a Protective Immune Response*

**Lars Hviid**, University of Copenhagen, Denmark  
*The Human Response to Variant Antigens*

**Urszula Krzych**, Walter Reed Army Institute of Research, USA  
*Immunity Induced by Wild-Type and Attenuated Sporozoites*

**Jean Langhorne**, National Institute for Medical Research, UK  
*Kinetics of the Immune Response in Mice: Relevance for Human Malaria?*

**Robert Ménard**, Institut Pasteur, France  
*The Initial Stages of Plasmodium Infection*

**Maria M. Mota**, University of Lisbon, Portugal  
*Host-Parasite Interactions in the Liver*

**Richard Pleass**, University of Nottingham, UK  
*Engineering Antibodies and Fc-Receptors for Novel Malaria Vaccines*

**Peter R. Preiser**, Nanyang Technological University, Singapore  
*The Role of the Pir Gene Family in Plasmodium*

**Bali Pulendran**, Emory University, USA  
*Predicting Protective Immune Responses to Vaccines*

**Laurent Renia**, Singapore Immunology Network, Singapore  
*Acquired Immunity and Immunological Memory*

**Eleanor M. Riley**, London School of Hygiene and Tropical Medicine, UK  
*Naturally Acquired Protective Immunity*

**Robert Sauerwein**, Radboud University, The Netherlands  
*Complete Immunity after Limited Exposure to *P. falciparum* in a Controlled Setting*

**Robert A. Seder**, NIAID, National Institutes of Health, USA  
*Eliciting a Protective Immune Response*

**Joseph D. Smith**, Seattle Biomedical Research Institute, USA  
*Structure-Function of DBL Domains and Vaccine Designs*

**Takafumi Tsuboi**, Ehime University, Japan  
*Sexual Stage Parasites and Transmission-Blocking Antibodies*

**Gareth Turner**, Oxford University, UK  
*The Pathology of Human Malaria*

**Dyann F. Wirth**, Harvard University, USA  
*Genetic Diversity in Plasmodia*

**Fidel Zavala**, Johns Hopkins Bloomberg School of Public Health, USA  
*Acquisition of Preerythrocytic Immunity*

\*Keynote speaker. Program subject to change. Current as of November 9, 2009.



Malaria has entered a new era — a partially effective vaccine may be licensed in the not-too-distant future, and the genomes of host, parasite and vector are now widely available. Major advances have been made in understanding basic parasite cell biology and fundamental immunology, using rapidly evolving molecular genetic technologies for both host and parasite. Systems biology approaches also offer a new paradigm for interrogating complex host responses to a complex pathogen. Future progress will require greater integration of these technologies to elucidate parasite cell biology, host-parasite interactions and the specific mechanisms that confer protection in our model systems and in nature. This symposium will bring together these new fields to examine those aspects of host and Plasmodium biology important for understanding immunity and pathogenesis.

## PROGRAM PLENARY SESSIONS & WORKSHOPS:

- Parasite Interactions with the Immune System
- Recognizing Protective Immunity
- Local Milieu for Host-Parasite Interactions
- Parasite Invasion and Arrest
- Malarial Disease: Contribution of Host Response
- Workshop
- Systems Biology of the Immune Response
- Multigene Families: Role in Immunity and Pathology
- Inducing Optimal Protective Responses with Vaccines

## DEADLINES:

Global Health Travel Award: November 10, 2009

Abstract & Scholarship: December 11, 2009

Late-Breaking Abstract: January 6, 2010

Early Registration: February 11, 2010

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