

### **Wednesday 20th October 2010**

- 17:00      **Registration**
- 18:00      **Opening Address**  
*Professor Richard Carter, The University of Edinburgh, UK*
- 18:45      **Poster viewing**
- 20:00      **End of Day 1**

### **Thursday 21st October 2010**

- 08:00      **Registration & Coffee**
- 08:30      **Keynote Address**  
Epidemiology of malaria resistance or Artemisinin: resistance or temporary tolerance  
*Carol Sibley, University of Washington, USA*

### **Session 1: Advances in understanding parasite biology and host-parasite interactions that are relevant to disease and treatment**

**Chair:** *Kieran Kirk, The Australian National University, Australia*

- 09:00      Invasion and modification of the host erythrocyte  
*Brendan Crabb, Burnet Institute, Australia*
- 09:20      Stepwise dissection of *Plasmodium falciparum* merozoite invasion of the human erythrocyte  
*Jake Baum, Walter and Eliza Hall Institute, Australia*
- 09:35      Liver stage malaria  
*Maria M. Mota, Institute of Molecular Medicine, Portugal*
- 09:55      Transporters of parasites as drug targets: tempting but underexploited  
*Henry Staines, St George's University of London, UK*
- 10:15      Polyamine uptake in the malaria parasite, *Plasmodium falciparum*, is dependent on the parasite's membrane potential  
*Braam Louw, University of Pretoria, South Africa*
- 10:30      A comprehensive survey of protein palmitoylation in late blood-stage *Plasmodium falciparum*  
*Matthew L. Jones, Wellcome Trust Sanger Institute, UK*
- 10:45      **Coffee Break**

### **Session 2: Assimilating genome-wide analyses of parasites to provide new tools for vaccines and drug discovery projects, as well as understanding the mechanisms of resistance**

**Chair:** *Stephen Ward, Liverpool School of Tropical Medicine, UK*

- 11:15      Metabolomics approaches to understanding host parasite interaction  
*Kellen Olszewski, Princeton University, USA*
- 11:35      Systematic gene knockout in *P. berghei* for analysis gene functions. Current status, how to extrapolate to human parasites.

*Olliver Billker, The Wellcome Trust Sanger Institute, UK*

- 11:55 Understanding Plasmodium sexual stage and zygote development and their translation  
*Andy Waters, University of Glasgow UK*
- 12:15 Investigating transcriptional regulation of *Plasmodium falciparum* upon drug perturbation  
*Tharina van Brummelen, CSIR, South Africa*
- 12:30 Ancient out-of-Africa migration of *Plasmodium falciparum* along with modern humans  
*Kazuyuki Tanabe, Osaka University, Japan*
- 12:45 A library of functional recombinant Plasmodium falciparum merozoite surface proteins  
*Cecile Wright-Crosnier, Wellcome Trust Sanger Institute*
- 13:00 **Lunch**

**Session 3: Vector biology: New approaches to vector control of plasmodium parasites**

**Chair:** *Hilary Hurd, Keele University, School of Life Sciences*

- 14:00 Push-pull strategies for vector control  
*Willem Takken, Wageningen University, Netherlands*
- 14:20 Studies on the breeding swarms of *Anopheles gambiae* complex in malaria control perspective  
*Benoît S. Assogba, Benin*
- 14:35 Larval time-to-hatch and insecticide resistance in the major malaria vector *Anopheles gambiae* from Ghana  
*Basil Brooke, National Institute for Communicable Diseases, Johannesburg*
- 14:50 Characterization and comparative sequence analyzes of GABA receptor gene in Asian main malaria mosquito, *Anopheles stephensi*  
*Navid Dinparast Djadid, Pasteur Institute of Iran, Iran*
- 15:05 Sugar-fermenting yeast as an organic source of carbon dioxide to attract the malaria mosquito *Anopheles gambiae* s.s.  
*Renate Smallegange, Wageningen University, The Netherlands*
- 15:20 Intra-host dynamics of mixed species malaria parasite infections in mice and mosquitoes  
*Richard Culleton, Nagasaki University, Japan*
- 15:35 The role of LCCL proteins in malaria transmission  
*Sadia Saeed, London School of Hygiene & Tropical Medicine, UK*
- 15:50 **Coffee Break**

**Session 4: Emerging parasites: Recently discovered knowlesi in humans that is providing new insights into pathophysiology of malarial infections**

**Chair:** *David Sullivan, Johns Hopkins University, USA*

- 16:05 Insights from monkey malaria that can change thinking about human infections  
*Janet Cox-Singh, St George's University of London, UK*
- 16:25 *P. ovale*  
*Colin Sutherland, London School of Hygiene & Tropical Medicine, UK*
- 16:55 *P. vivax*: The Duffy dogma revisited  
*Peter Zimmerman, Case Western Reserve University, USA*

- 17:15      Adaptation of in vitro cytoadherence assay to *Plasmodium knowlesi* field isolates  
*Farrah A Fatih, St George's University of London, UK*
- 17:30      Origin of the human malaria parasite *Plasmodium falciparum* in gorillas  
*Julian C Rayner, Wellcome Trust Sanger Institute, UK*
- 17:45      Wild chimpanzees are infected with homologous types of human malaria  
*Marco Kaiser, Robert Koch-Institute, Germany*
- 18:00      **Poster Viewing**
- 19:00      **End of Day 2**
- 19:30      **Coaches depart for dinner**
- 20:00      **Conference Dinner at Dynamic Earth**

### **Friday 22nd October 2010**

#### **Session 5: Revisiting the sequestration and cytokine/mediator models for pathogenesis** **Chair: Sanjeev Krishna, St George's University of London, UK**

- 08:30      **Coffee**
- 09:00      Var2CSA binding  
*Ali Salanti, University of Copenhagen, Denmark*
- 09:20      Retinopathy and microcirculation in adult severe malaria  
*Richard J Maude, Mahidol -Oxford Tropical Medicine Research Unit, Thailand*
- 09:40      Variant surface antigens in cerebral malaria: distinct from others and similar to each other?  
*Agnès Aubouy, Institut de Recherche pour le Développement (IRD), France*
- 09:55      Transfer of 4-hydroxynonenal, a inhibitory hemozoin (HZ) product, from HZ or HZ-laden phagocytes to developing human erythroid cells. A model for erythropoiesis inhibition in malaria anemia  
*Paolo Arese, University of Torino Medical School, Italy*
- 10:10      Molecular Epidemiology of Force of Infection in malaria  
*Ingrid Felger, Swiss Tropical and Public Health Institute, Switzerland*
- 10:25      Immunopathology and Dexamethasone Therapy in a new Model for Malaria-Associated Acute Respiratory Distress Syndrome  
*Philippe E. Van den Steen, University of Leuven, Belgium*
- 10:40      **Coffee**

#### **Session 6: Drug discovery - renewed vision and role in malaria control and elimination** **Chair: Henri Vial, CNRS University of Montpellier**

- 11:10      **Keynote Address**  
New drug treatments in the portfolio  
*Tim Wells, Medicines for Malaria Venture (MMV), Switzerland*
- 11:40      Basic biology  
*Stephen Ward, Liverpool School of Tropical Medicine, UK*

- 12:00 Refreshed approaches to the therapy of malaria – the case of natural medicine  
*Hagai Ginsburg, The Hebrew University of Jerusalem, Israel*
- 12:20 Progress in the development of Reversed Chloroquine molecules as antimalarial therapy  
*David H. Peyton, Portland State University, USA*
- 12:35 Identification and characterization of novel *Plasmodium falciparum* cyclophilins and their roles in the antimalarial actions of cyclosporin A and derivatives  
*Angus Bell, Trinity College Dublin, Ireland*
- 12:50 Development of a Novel Drug for Uncomplicated Malaria Targeting the Mitochondrial NADH: Quinone Oxidoreductase  
*Giancarlo Biagini, Liverpool School of Tropical Medicine, UK*
- 13:05 Antimalarial activity of ulein and a proof of its action on the *Plasmodium falciparum* digestive vacuole  
*Alaide Braga, Universidade Federal de Minas Gerais, Brazil*
- 13:25 Identification of genetic markers of resistance to Artemisinin Combination Therapy in the rodent model *Plasmodium chabaudi*  
*Louise Rodrigues, Instituto Instituto de Higiene e Medicina Tropical Universidade Nova de Lisboa, Portugal*
- 13:40 **Lunch**

### **Session 7: Immunology and vaccine development**

**Chair:** *Alister Craig, Liverpool School of Tropical Medicine UK*

- 14:25 Sanaria malaria extraction through vaccination  
*Dr. Peter Billingsley, Sanaria, USA*
- 14:45 Viral vectored transmission blocking vaccines against *Plasmodium falciparum*  
*Melissa Kapulu, University of Oxford, UK*
- 15:00 Impact of protective haemoglobins C and S on *P. falciparum* malaria transmission in endemic area  
*Louis-Clément Gouagna, Institut de Recherche pour le Développement, France*
- 15:15 Complete abrogation of sporozoite-induced sterile immunity by blood stage parasites of homologous and heterologous malaria species  
*Megumi Inoue, Nagasaki University, Japan*
- 15:30 Predicted impact of mosquito-stage transmission-blocking vaccines using an ensemble of microsimulations  
*Aurelio Di Pasquale, Swiss Tropical and Public Health Institute, Switzerland*
- 15:45 A micro-bead device to explore *Plasmodium falciparum*-infected, spherocytic or aged red blood cells prone to mechanical retention by spleen endothelial slits  
*Innocent Safeukui, Institut Pasteur, France*
- 16:00 **Coffee**

**Session 8: Disease Control: Vector control options are constantly evolving, whether by pesticide, sterile insect technique or biological control. What else is on the horizon?**

**Chair:** *Marcel Hommel, University of Liverpool, Editor-in-Chief, Malaria Journal, UK*

- 16:25      The elimination roadmap  
*Marcel Tanner, Swiss Tropical and Public Health Institute, Switzerland*
- 16:45      Integrated vector management (IVM): from concept to practice  
*Henk van den Berg, Laboratory of Entomology, Wageningen University, The Netherlands*
- 17:05      Modeling the effects of vector control interventions in reducing malaria transmission, morbidity and mortality  
*Konstantina Boutsika, Swiss Tropical & Public Health Institute, Switzerland*
- 17:20      Controlling malaria in Niger with bednets: how to take the Big Picture?  
*Jean-Bernard Duchemin, Institut Pasteur, France*
- 17:35      Household size explains successful malaria eradication  
*Lena Hulden, University of Helsinki, Finland*
- 17:40      What has been the contribution of the first Global Fund grant (2003-2006) to malaria control and health system strengthening in Timor-Leste?  
*Joao S Martins, University of New South Wales, Australia*
- 17:55      **Closing remarks**
- 18:05      **Close of Day 3**