



Pathogens' Survival Strategies

from fundamentals to field

ITM 54th International
Colloquium
3 – 5 December 2012
Antwerp, Belgium



PROGRAMME

With the support of
THE BELGIAN
DEVELOPMENT COOPERATION



Conference locations:

Institute of Tropical Medicine, Campus Rochus

1. Entry, Sint-Rochusstraat 43, 2000 Antwerpen
2. Registration and information desk
3. IT-corner
4. Oral sessions in **Aula Janssens (1st floor)**
5. Poster sessions in rooms **North and South**
6. Lunch, coffee breaks and closing reception in the **Forum**

Palace at the Meir

Walking dinner

Conference Programme

Monday, 3rd of December

- 8:00 - 8:30 **Registration + Coffee**
- 8:30 - 9:00 Conference Opening
Prof. Dr. Bruno Gryseels, Director of the Institute of Tropical Medicine
Jean-Claude Dujardin, Head of the Department of Biomedical Sciences
- 9:00 - 12:30 **Theme 1 Pathogen survival in vertebrate hosts**
Chair: Bouke De Jong
- 9:00 – 9:30 Mechanisms of immune evasion and persistence by *Mycobacterium tuberculosis*
Joel D. Ernst
University of New York
U.S.A.
- 9:30 – 10:00 Host cell interactions and viruses:
HIV immune escape and genetic diversity
Coumba Toure Kane
CHU Le Dantec Dakar
Senegal
- 10:00 - 10:30 **Coffee break**
- 10:30 – 11:00 Molecular dialogue between African trypanosomes and humans
Etienne Pays
Université Libre de Bruxelles
Belgium
- 11:00 – 11:30 The enigma of transmission of *M. Ulcerans*
Dissou Affolabi University of Abomey-Calavi
Benin
- 11:30 – 12:00 Survival strategy of human retroviruses: small differences, big effects
Tine Verdonck Institute of Tropical Medicine
Belgium
- 12:00 – 12:30 Discussion and conclusions of Theme 1
- 12:30 - 13:15 **Networking lunch**
- 13:15 - 14:00 **Poster session**
Poster owners will be standing by their poster between 13:30 – 14:00

- 14:00 - 17:00 **Theme 2 Adaptation of the vertebrate host to pathogens**
Chair: Luc Kestens
- 14:00 – 14:30 The TB paradox: dynamic and functional
immune responses do not equal protection
Jayne Sutherland
Medical Research Council Unit
The Gambia
- 14:30 – 15:00 Perspectives on a “functional cure” for HIV infection
Guido Vanham
Institute of Tropical Medicine
Belgium
- 15:00 – 15:30 Induction of inflammation as a response to trypanosome infections:
consequences for parasitemia control, susceptibility for secondary
infections and pathology
Stefan Magez
Vrije Universiteit Brussel
Belgium
- 15:30 - 16:00 **Coffee break**
- 16:00 – 16:30 Human genetic polymorphisms and susceptibility to malaria
Anna Rosanas Urgell
Institute of Tropical Medicine
Belgium
- 16:30 – 17:00 KIR/HLA: human natural selection in the face of the HIV epidemic
Wim Jennes
Institute of Tropical Medicine
Belgium
- 17:00 - 17:30 Discussion and conclusions of Theme 2

Tuesday, 4th of December

- 8:00 - 8:30 **Morning Coffee**
- 8:30 - 12:00 **Theme 3 Drug Resistance**
Chair: Jean-Claude Dujardin
- 8:30 – 9:00 The evolution of multidrug-resistant tuberculosis
Sébastien Gagneux
Swiss Tropical and Public Health Institute & University of Basel
Switzerland
- 9:00 – 9:30 Resistance induction as a tool to study compound-pathogen
interactions
Kevin Ariën
Institute of Tropical Medicine
Belgium
- 9:30 – 10:00 Antimicrobial resistance: engineering strategies
Coralith Garcia
Institute of Tropical Medicine Alexander von Humboldt-UPCH
Peru
- 10:00 - 10:30 Coffee break**
- 10:30 – 11:00 *P. falciparum* artemisinin resistance: a quiescent strategy?
Didier Ménard
Pasteur Institute
Cambodia
- 11:00 – 11:30 Drug resistance in Leishmania: lessons for adaptation
Jean-Claude Dujardin
Institute of Tropical Medicine
Belgium
- 11:30 – 12:00 Discussion and conclusions of Theme 3
- 12:00 - 13:00 Networking lunch**
- 13:00 - 14:00 Poster session
Poster owners will be standing by their poster between 13:30 – 14:00

- 14:00 - 17:00 **Theme 4 Adaptation of pathogens to invertebrate hosts**
Chair: Jan Van den Abbeele
- 14:00 – 14:30 Compatibility polymorphism in snail/schistosome interactions:
an example of molecular co-evolution
Benjamin Gourbal Perpignan University
France
- 14:30 – 15:00 Determinants of vector competence
of sand flies for *Leishmania* parasites.
Shaden Kamhawi
National Institutes of Health
USA
- 15:00 – 15:30 Trypanosome-tsetse interactions: the hazardous journey
Isabel Roditi
University of Bern
Switzerland
- 15:30 - 16:00 **Coffee break**
- 16:00 – 16:30 What makes a mosquito a vector?
Didier Fontenille
Montpellier University
France
- 16:30 – 17:00 Modification of the vector feeding
physiology as a pathogen's survival strategy
Guy Caljon
Institute of Tropical Medicine
Belgium
- 17:00 - 17:30 Discussion and conclusions of Theme 4
- 19:00 - 23:00 Guided tour and **Walking Dinner**
Palace at the Meir

Wednesday , 5th of December

8:00 - 8:30

Morning Coffee

Theme 5

Interaction between pathogens

Chair: Tine Huyse

8:30 – 9:00

Interactions among co-infecting parasites and the stability of parasite communities to drug-based intervention
Sarah Knowles
Imperial College London
U.K.

9:00 – 9:30

HIV, Schistosomes and Plasmodium co-infections: Recent research advances and implications in the age of control
Pauline NM Mwinzi
Kenya Medical Research Institute
Kenya

9:30 – 10:00

Human Immunodeficiency Virus-Pathogen interactions and the Immune Restoration Syndrome
William Worodria
Infectious Disease Institute
Uganda

10:00 - 10:30

Coffee break

10:30 – 11:00

A tale of a virus and of a parasite
Nicolas Fasel
University of Lausanne
Switzerland

11:00 – 11:30

The impact of vaccination on the nasopharyngeal microbiome and co-colonization in infants
Brenda Anna Kwambana
Medical Research Council Unit
The Gambia

11:30 – 12:00

Discussion and conclusions of Theme 5

12:00 - 13:00

Lunch

Theme 6 Transmission dynamics in the evolutionary survival of pathogens

Chair: Guido Vanham

- 13:00 – 13:30 Cross-species transmission of simian retroviruses and new human diseases in Africa
Martine Peeters
Institut de Recherche pour le Développement
France
- 13:30 – 14:00 Persistence of pathogens
Martin Eichner
University of Tübingen
Germany”
- 14:00 – 14:30 *Plasmodium falciparum* in South America:
Origin and adaptation strategies for survival
Dionicia Gamboa Vilela
Institute of Tropical Medicine Alexander von Humboldt-UPCH
Peru
- 14:30 - 15:00 **Coffee break**
- 15:00 – 15:30 Transmission dynamics and colonization history of schistosomes
Tine Huyse
Institute of Tropical Medicine
Belgium
- 15:30 – 16:00 Residual Malaria transmission, an increasing challenge
Lies Durnez
Institute of Tropical Medicine
Belgium
- 16:00 – 16:30 Discussion and conclusions of Theme 6
- 16:30 – 17:00 **Closing presentation**

Introduction by Marc Coosemans
Institute of Tropical Medicine, Belgium

Presentation by Madeleine Thomson:
Pathogen survival: new knowledge
needed in an era of global climatic change
Institutional Research Institute for Climate and Society
Columbia University, USA
- 17:00 - 17:30 **Conference conclusions & best poster award**
Jean-Claude Dujardin
Institute of Tropical Medicine
- 17:30 – 19:00 **Closing reception**