# How to get there



# Venues

Symposium: seminar room 1 Max Planck Institute for Infection Biology Charitéplatz 1 Campus Charité Mitte 10117 Berlin www.mpiib-berlin.mpg.de

### Panel Discussion:

foyer Max Planck Institute for Infection Biology Charitéplatz 1 Campus Charité Mitte 10117 Berlin www.mpiib-berlin.mpg.de

The German National Academy of Sciences Leopoldina brings together the expertise of some 1,500 distinguished scientists to bear on questions of social and political relevance, publishing unbiased and timely scientific opinions. The Leopoldina represents the German scientific community in international committees and pursues the advancement of science for the benefit of humankind and for a better future.

The Academy of Science of South Africa (ASSAf) aspires to be the apex organisation for science and scholarship in South Africa, recognised and connected both nationally and internationally. Through its membership which represents the collective voice of the most active scholars in all fields of scholarly enquiry, ASSAf aims to generate evidence-based solutions to national problems.

# Registration

Participation is free of charge. For participation at the symposium and/or the panel discussion, please kindly register here: www.leopoldina.org/en/infectious-diseases

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# supported by:

Max-Planck-Institut für Infektionsbiologie

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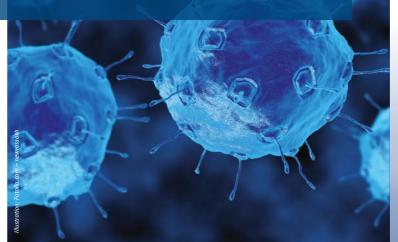


# New Research Perspectives on Infectious Diseases in Africa and Germany

Joint Symposium by the German National Academy of Sciences Leopoldina and the Academy of Science of South Africa (ASSAf)

# 24 - 25 October 2016

Max Planck Institute for Infection Biology Charitéplatz 1 | Campus Charité Mitte | 10117 Berlin



# Leopoldina-ASSAf Symposium

# "New Research Perspectives on Infectious **Diseases in Africa and Germany**"

Infectious diseases represent an ongoing and severe threat to human health and prosperity of societies. Due to emerging and modifying diseases, increasing resistances as well as global travelling, infectious diseases can only be combated by internationally coordinated and interdisciplinary approaches. The German National Academy of Sciences Leopoldina, the Academy of Science of South Africa and the Max Planck Institute for Infection Biology organize the current symposium to discuss and coordinate most recent research results in the areas of HIV, tuberculosis, neglected diseases and resistance mechanisms. The speakers are mainly young scientists from Germany, South Africa and further African countries. Moreover, during a panel discussion with representatives from science, politics and society, ethical dimensions of clinical trials will be debated. The scientific coordinators of this event are Stefan H. E. Kaufmann ML, Max Planck Institute for Infection Biology, Germany and Quarraisha Abdool Karim, Columbia University, USA, and University of KwaZulu-Natal, South Africa.

The Schering Foundation and the Robert Bosch Foundation generously support this event financially. This includes the Science & Society Session (Schering Foundation) and the overall organisation (Robert Bosch Foundation).

# Programme

# Monday, 24 October 2016

9:00 – 9:30 | Registration

### 9:30 – 9:45 | Welcome Addresses & Introduction

Stefan H. E. Kaufmann ML Max Planck Institute for Infection Biology, Germany

Quarraisha Abdool Karim Columbia University, USA, and University of KwaZulu-Natal. South Africa

# Keynote I

### 9:45 - 10:15

Emerging infections – lessons learned from recent outbreaks Marvlvn Addo University Medical Centre Hamburg-Eppendorf, Germany

# Session 1: HIV

Chair: Kerrigan McCarthy National Institute for Communicable Diseases, South Africa

### 10:15 - 10:45

Characterisation of broadly neutralizing antibody responses in HIV-1 subtype C infected children Zanele Ditse National Institute for Communicable Diseases, South Africa

### 10:45 - 11:15 | Coffee Break

### 11:15 - 11:45

Prevention of mother-to-child transmission of HIV: implementation and outcomes of Option B+ Stefanie Theuring Charité – Universitätsmedizin Berlin, Germany

### 11:45 - 12:15

Mathematical modelling of R5 and X4 HIV: from within host dynamics to the epidemiology of HIV infection Edna Chilenje Manda University of KwaZulu-Natal, South Africa

# 12.15 – 13.00 | Lunch Break

# Session 2: Novel Intervention Strategies for **Neglected Diseases**

Chair: Marylyn Addo University Medical Centre Hamburg-Eppendorf, Germany

# 13:15 - 13:45

Challenges in clinical research in Africa Meral Esen University Hospital Tübingen, Germany

# 13:45 - 14:15

An evolutionary approach to identify novel vaccine targets against Plasmodium falciparum Raymond Babila Nyasa University of Buea, Cameroon

# 14:15 - 14:45

Antimycobacterial activity of the hydroethanolic extract, partitions, fractions and compounds from Solanum torvum leaves Joseph Nguta University of Ghana, Ghana

### 14:45 - 14:50 | Group Photo

### 14:50 – 15:15 | Coffee Break

# 15:15 - 15:45

Antiprotozoal and antimalarial plants from the Ethiopian flora Mariamawit Yonathan Yeshak Addis Ababa University, Ethiopia

### 15:45 - 16:15

Antibodies in urine and potential diagnosis of Schistosoma infection

Salma Medani El Hag Medani National Center for Research, Sudan

# Wrap-Up Day 1

### 16:15 - 16:30

Quarraisha Abdool Karim Columbia University, USA, and University of KwaZulu-Natal, South Africa

Stefan H. E. Kaufmann ML Max Planck Institute for Infection Bioloav. Germany

# 16:30 - 17:00 | Break

Science & Society Session of the Schering Foundation: "Ethical Dimensions in Clinical Trials" Venue: Foyer Max Planck Institute for Infection Biology

Moderator: Stefan H. E. Kaufmann ML Max Planck Institute for Infection Biology, Germany

### 17:00 - 17:15 | Welcome Addresses & Introduction

Jörg Hacker ML President Leopoldina, Germany

Stefan H. E. Kaufmann ML Max Planck Institute for Infection Biology, Germany

#### 17:15 – 17:40 | Input Statement

#### The state of health research and financing in Sub-Saharan Africa Debrework Zewdie City University of New York, Graduate School of Public Health and Health Policy, USA

#### 17:40 – 19:00 | Panel & Plenary Discussion

Günter Nooke Personal Representative of the German Chancellor for Africa in the Federal Ministry of Economic Cooperation and Development and BMZ's Commissioner for Africa, Germany

Debrework Zewdie City University of New York, Graduate School of Public Health and Health Policy, USA

Quarraisha Abdool Karim Columbia University, USA, and University of KwaZulu-Natal, South Africa

David M. Serwadda Makerere University, Uganda

# 19:00 | Reception

# Tuesday, 25 October 2016

# Keynote II

# 9:00 - 9:30

Emerging and re-emerging infectious diseases: challenges for Africa David M. Serwadda Makerere University, Uganda

### Session 3: Resistance Mechanisms

Chair: Debrework Zewdie City University of New York, Graduate School of Public Health and Health Policy, USA

### 9:30 - 10:00

Relationship between kdr genotypes and phenotypic-resistance to pyrethroids and DDT insecticides in Anopheles aambiae Innocent Diegbe Université des Sciences, Arts et Techniques de Natitingou, Benin

### 10:00 - 10:30

Strategies for combating bacterial infections in the light of antibiotic resistance development Thomas Böttcher University of Konstanz, Germany

10:30 - 11:00 | Coffee Break

discovery Tanzania

# 12:00 - 12:30

Human latent M. tuberculosis infection drives differentiation of ESAT-6-specific CD4 T cells to a greater degree than Ag85B-specific cells Munyaradzi Musvosvi University of Cape Town, South Africa

# 14:00 - 14:30

# 15:00 - 15:30

Human immune system mouse model for tuberculosis Frida Arrey Max Planck Institute for Infection Biology, Germany

Quarraisha Abdool Karim Columbia University, USA, and University of KwaZulu-Natal, South Africa

Stefan H. E. Kaufmann ML Max Planck Institute for Infection Biology, Germany

### 11:00 - 11:30

Quantitative determinants of antibiotic resistance evolution Tobias Bollenbach Institute of Science and Technology Austria, Austria

#### 11:30 - 12:00

The power of indigenous knowledge towards antimicrobial

Never Mwambela Zekeya Nelson Mandela African Institution of Science and Technology,

Discovery and functions of small regulatory RNAs in the major human pathogens Helicobacter pylori and Campylobacter ieiuni Sandy Pernitzsch University of Würzburg, Germany

12:30 - 13:30 | Lunch Break

#### Session 4: Tuberculosis

Chair: Stefan H. E. Kaufmann ML Max Planck Institute for Infection Biology, Germany

#### 13:30 - 14:00

Needles in haystacks: the search for biomarkers of tuberculosis January Weiner

Max Planck Institute for Infection Bioloav. Germany

#### 14:30 - 15:00 | Coffee Break

Unvisited players of eicosanoid pathway in Mycobacterium tuberculosis infection: Cysteinyl leukotrienes Mumin Ozturk

University of Cape Town, South Africa

#### 15:30 - 16:00

### Wrap-Up Day 2 & Close of Symposium

### 16:00 - 16:30