









# German-African Workshop Freie Universität Berlin & Kenya Medical Research Institute

### Parasite Infections in Global Health:

## Socioeconomics, Nutrition, Drug Resistance & Immunity



#### November 21 – 22, 2023

Location: Freie Universität Berlin, Veterinarium Progressum, Oertzenweg 19b, 14163 Berlin

#### **Meeting Link:**

https://fu-berlin.webex.com/fu-berlin-en/j.php?MTID=mc6a6bb0e622f16774b508b8ba6af2a9e

#### **Organizer:**

Prof. Dr. Susanne Hartmann, Institute of Immunology, Centre for Infection Medicine, Department of Veterinary Medicine, Freie Universität Berlin

#### **Contact:**

Dr. Marko Janke: marko.janke@fu-berlin.de, +49 30 838 656 06 Prof. Dr. Susanne Hartmann: susanne.hartmann@fu-berlin.de

#### **PROGRAM**

#### **Tuesday 21st of November**

### 9:15 Opening and Introduction by Dean for Research Prof. Marcus Fulde and Prof. Susanne Hartmann

#### 9:30 - 11:00 Social Determinants and Economics

Chair Susanne Hartmann

#### Dr. Doris Njomo (KEMRI-ESACIPAC, Nairobi)

Integrating Social and Behaviour Change Communication Strategies in Hygiene and Nutrition with Mass Drug Administration for Elimination of Soil-Transmitted Helminthiasis in Kenya

#### Prof. Dr. Lothar Wieler (Hasso-Plattner-Institute, Potsdam)

Human to human transmission of nontyphoidal Salmonella by asymptomatic convalescing children under five years in low-resource settings poses a risk to vulnerable household and community members

#### Dr. Francisco Pozo-Martin (Robert Koch-Institute, Berlin)

The economics of soil-transmitted helminth infection prevention and control

#### 11:00 - 11:30 *Coffee Break*

#### **11:30 – 13:00** *Tropical Diseases*

Chair Sebastian Rausch

**Prof. Dr. Frank Mockenhaupt** (Charité Berlin, Institute of International Health) *Malaria epidemiology and disease manifestation* 

#### Dr. Maurice Odiere (KEMRI-CGHR, Kisumu)

Schistosomiasis and soil-transmitted helminthiasis research and how this is shaping NTD policy

**PD Dr. Jürgen Krücken** (FU Berlin, Institute for Parasitology and Tropical Veterinary Medicine)

Tungiasis, a neglected tropical disease

#### 13:00 - 14:00 Lunch Break

#### 14:00 – 15:30 Nutrition and Infection

Chair Josephine Schlosser-Brandenburg

Prof. Dr. Jürgen Zentek (FU Berlin, Institute of Animal Nutrition)

Nutrition and gut health in monogastric animals

**Prof. Dr. Sarah Atkinson** (KEMRI-Wellcome Trust, Kilifi and Oxford University) *Nutrition and* Ascaris *infection* 

Philipp Höfler (FU Berlin, Institute of Immunology)

Ascaris infection and fibre nutrient supply in pigs

#### 15:30 - 16:00 *Coffee Break*

#### **16:00 – 18:00** *Drugs & Drug Resistance*

Chair Susanne Hartmann

**Prof. Dr. Georg von Samson-Himmelstjerna** (FU Berlin, Institute for Parasitology and Tropical Veterinary Medicine)

Anthelmintic resistance: A major health problem in animals and a considerable threat in humans

#### Dr. Hannah Behrens (Bernhard Nocht Institute, Hamburg)

Impact of different mutations on Kelch13 protein levels, artemisinin resistance and fitness cost in Plasmodium falciparum malaria parasites

Zaneta Kidiavai (FU Berlin, Institute of Immunology)

Energy metabolism of Ascaris suum larvae exposed to artemisinin and its derivatives

**Shahin Tajeri** (FU Berlin, Institute for Parasitology and Tropical Veterinary Medicine) A Theileria annulata parasite with a single mutation in cytochrome B is drug resistant

**Prof. Dr. Raffi Aroian** (University of Massachusetts, Worcester, USA)

Developing a simple-to-manufacture anthelmintic for soil-transmitted helminths

18:15 – 19:00 *Open discussion of future directions and funding option with Kenyan guests* with Pretzels and Beer

#### Wednesday, 22<sup>nd</sup> of November

#### 9:30 – 11:00 Immunity to Malaria and Helminths

Chair Susanne Hartmann

**Prof. Dr. Francis Ndung'u** (KEMRI-Wellcome Trust, Kilifi and Oxford University) *Using experimental medicine to understand immunity to malaria* 

Dr. Sebastian Rausch (FU Berlin, Institute of Immunology)

T cell responses to intestinal nematode infections

Robert Mugo (FU Berlin, Institute of Immunology)

Antibodies to Ascaris excretory/secretory products as marker for an active Ascaris infection

#### 11:00 – 11:30 *Coffee Break*

#### 11:30 - 13:00 Coinfections

Chair Sebastian Rausch

#### Dr. Erick Muok (KEMRI-CGHR, Kisumu)

Neglected Infectious Diseases (NIDs) in western Kenya: Historical studies in schistosomiasis and how that has shaped current interventions

**Dr. Josephine Schlosser-Brandenburg** (FU Berlin, Institute of Immunology)

The impact of tissue-invasive helminths on hepatic antiviral immunity

Ankur Midha (FU Berlin, Institute of Immunology)

Consequences of Ascaris-Salmonella coinfection on macrophages in pigs

#### 13:00 – 13:45 *Lunch Break*

14:00 – 14:30 Veterinary Medicine Campus Tour and visit of Institute of Immunology

from 16:00 Sightseeing Boat Tour on the river Spree with our Kenyan guests

from 18:00 Dinner: Restaurant-Café Ephraim's, Nicolaiviertel (Rathausstraße 25, 10178 Berlin)