

Fourth annual meeting of the NAMUR RESEARCH POLE IN INFECTIOLOGY

The logo for NaRePI (Namur Research Pole in Infectiology) features the text 'NaRePI' in a black sans-serif font. The 'Re' is in a smaller size, and the 'PI' is in a larger size. To the right of the text is a green circular graphic composed of several smaller green circles of varying sizes, resembling a molecular structure or a cluster of cells.

Namur Research Pole in Infectiology

Escaping bugs, the role of basic research

Invited speakers

Prof. Christoph DEHIO

Biozentrum, University of Basel

Prof. Coralie FUMEAUX

Institute of Microbiology, Lausanne University Hospital

Prof. Piet MAES

Rega Institute for Medical Research, KU Leuven

Prof. Alba SILIPO

Department of Chemical Sciences, University of
Naples Federico II

Prof. Thomas VAN BOECKEL

Institute for Environmental Decisions, ETH Zurich

May 17, 2022

University of Namur,
Auditorium Pedro Arrupe PA02

Program & registration:

www.narilis.be/events/narepi-2022

Participation is free, but
registration is mandatory

Call for abstracts is still open (for posters only)

Best communications
will be awarded!



PROGRAM

09:00 *Welcome Coffee*

09:45 Introduction

09:55 **Structure-function analysis of cyclic-beta-glucan synthesis and export in the alpha-proteobacteria**

Prof. Christoph DEHIO, Biozentrum, University of Basel, Switzerland

10:35 **Identification of mutational processes that drive the evolution of human viruses**

Florian POULAIN, Integrated Veterinary Research Unit (URVI), NARILIS, UNamur

10:50 **Filoviruses: Correlates of protection and development of countermeasures**

Prof. Piet MAES, Zoonotic infectious diseases unit, Rega institute, KU Leuven, Belgium

11:30 **Poster flash talks**

12:00 *Lunch and poster session*

13:30 **Mapping antimicrobial resistance rates in low- and middle-income countries**

Prof. Thomas VAN BOECKEL, Institute for Environmental Decisions, ETH Zurich, Switzerland

14:10 **Scarless excision of an insertion sequence restores capsule production and virulence in *Acinetobacter baumannii***

Clémence WHITEWAY, Microbial Resistance and Drug Discovery, VIB-VUB Center for Structural Biology; Structural Biology Brussels, VUB, Belgium.

14:25 **Interactions between Influenza A virus NS1 and the Human ubiquitin-proteasome system**

Laurie-Anne LAMOTTE, Cell Biology laboratory, Research Institute for Biosciences, Research Institute for Health Sciences and Technology, UMONS, Belgium

14:40 **Beta-lactamase induction and cell wall metabolism in *Pseudomonas aeruginosa***

Prof. Coralie FUMEAUX, Institute of Microbiology, Lausanne University Hospital (CHUV), Switzerland

15:20 *Coffee break*

15:50 **BNIP3L-dependent mitophagy induced by *Brucella abortus* in host cells is required for bacterial egress**

Jérémy VERBEKE, Research Unit in Cell Biology (URBC) / Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

16:05 ***In vivo* characterization of *A. baumannii* lung infection in mice**

Emeline BARBIEUX, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

16:20 **Metabolic Glycoengineering : A strategy to label bacterial cell wall with synthetic analogues of D-mannose**

Marine LACRITICK, Laboratory of Bio-Organic Chemistry (CBO), NARILIS, UNamur, Belgium

16:35 **Unveiling the puzzle of microbial glycans: tell me your function and I'll tell your structure**

Prof. Alba SILIPO, Department of Chemical Sciences, University of Naples Federico II, Italy

17:15 Closing remarks and awards

POSTER SESSION

1

Targeting multidrug-resistant *A. baumannii* to develop next-generation antibiotics

Anke BREINE, Microbial Resistance and Drug Discovery, VIB-VUB Center for Structural Biology; Structural Biology Brussels, VUB, Belgium

2

Caseous Lymphadenitis visceral form in Sardi ovine in Settât province, Morocco

Nora EL KHALFAOUI, NARILIS, UNamur; Production System Unit, Institut National de Recherche Agronomique Settât, Morocco

3

Ultrastructure of SARS-CovCoV-2-infected neuron- and glia-like cells: from anchorage to apparent mode of egress of virions

Jacques GILLOTEAUX, Research Unit in Molecular Physiology (URPhyM), NARILIS, UNamur, Belgium; Department of Anatomical Sciences, St George's University School of Medicine, KB Taylor Global Scholar's Program, Newcastle upon Tyne, UK

4

Envelope stress response in *Brucella abortus*

Adélie LANNOY, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

5

When biosecurity failure is the cause of a major epidemic

Suzanne LORET, Biosafety officer, UNamur, Belgium

6

Integrated analysis of cytokine profiles in malaria patients discloses selective upregulation of TGF- β 1, TGF β 3 and IL-9 in mild clinical presentation

Ella Larissa NDORICYIMPAYE, de Duve Institute, UCLouvain, Belgium; Biomedical Laboratory Sciences, University of Rwanda, Rwanda

7

In silico quantitative assessment of insertion sequences in the WHO priority pathogen *Acinetobacter baumannii*

Kristina NEPOROVA, Microbial Resistance and Drug Discovery, VIB-VUB Center for Structural Biology; Structural Biology Brussels, VUB, Belgium

8

Modulation of cancer immunosurveillance by *Plasmodium yoeli* 265 BY

Pyone SOE, de Duve Institute, UCLouvain, Belgium

9

The FtsEX-EnvC-AmiC complex plays a major role in cell separation of *Flavobacterium johnsoniae*

Alicia EGEA WEISS, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

10

Histidine metabolism and metal homeostasis in *Brucella abortus*

Charline FOCANT, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

POSTER SESSION

11

Investigation of surface-exposed lipoprotein transport in Bacteroidetes

Katsuya FUCHINO, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

12

Characterization of the Translocation Assembly Module (TAM) in Bacteroidetes

Fabio GIOVANNERCOLE, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

13

Characterization of the molecular role of PcoB in copper efflux in *Caulobacter crescentus*

Amira KHOCHTALI, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

14

Characterization of envelope stress responses in Bacteroidetes

Gwennaëlle LOUIS, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

15

Characterization of the functional interplay between the (p)ppGpp alarmone and alternative sigma factors in *Caulobacter crescentus*

Aishwarya SAXENA, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

16

LPS synthesis and traffic in the envelope of the pathogen *Brucella abortus*

Caroline SERVAIS, Research Unit in Biology of Microorganisms (URBM), NARILIS, UNamur, Belgium

17

Ribosomal stalk protein RPLP0 interacts with IAV NS1 and PA-X are essential host factor for virus replication

Vicharnee PHUENGPORNSAWAN, Cell Biology laboratory, Research Institute for Biosciences, Research Institute for Health Sciences and Technology, UMon, Belgium