

PROGRAM

11 March, Day 1

11:00 -12:00 **Registration and Mounting of Posters**

12:00 -13:00 **Lunch**

13:00 -13:15 **Welcome (Alison Holmes, Erik Kristiansson)**

13:15-14:40

Session 1-Data-Driven Insights into Infection Biology

Chair: Erik Kristiansson, Chalmers University of Technology, Sweden

Resolving microbial genomes in complex communities at the single-cell level

Laura Carroll, Umeå University, Sweden

Towards large-scale proactive surveillance of AMR

Johan Bengtsson-Palme, Chalmers University of Technology, Sweden

Characterising insights in infection biology through the use of routine clinical datasets in healthcare

Damien Ming, Fleming Initiative, UK

Machine learning identifies genetic and ecological determinants of antibiotic resistance gene dissemination

David Lund, Chalmers University of Technology, Sweden

14:40 -15:10 **Coffee break**

15:10-16:35

Session 2: Applications of Diagnostic and Surveillance Data

Chair: Alison Holmes, Imperial College London, UK

Title: TBD

David Aanensen, University of Oxford, UK

Title: TBD

Suzanne Ruhe-van der Werff, Karolinska Institutet, Sweden

Building the economic case for diagnostics to address AMR

Nina Zhu, Imperial College London, UK

Phenotypic Antibiotic Susceptibility Testing at the limit of one bacterial cell

David Fange, Uppsala University, Sweden

16:40 -17:30 Group discussions.

17:30 -18:00 Summary of group discussion

18:00 - 19:00 Poster sessions, with refreshments

12 March, Day 2

09:00-10:25

Session 3: Novel Data Approaches for Diagnostics and Patient Level Care

Chair: Johan Elf, Uppsala University

Image analysis and machine learning for live single cell classification and phenotyping

Carolina Wählby, Uppsala University, Sweden

Low cost biosensors for patient level diagnostics

Sanjiv Sharma, University of Liverpool, UK

Machine-learning for prediction of antimicrobial resistance from genomics data

Christian Giske, Karolinska Institutet, Sweden

Title: TBD

Mauricio Barahona, Imperial College London, UK

10:30 –11:00 Coffee break

11:00-12:40

Session 4: Research Translation and Implementation of AI in Healthcare

Chair: Jesus Rodriguez-Manzano, Imperial College London, UK

Pathways towards translation of AI research to impact. The Uganda experience.

Daudi Jjingo, Makerere University, Kampala, Uganda

AI-driven diagnostic support for antibiotic-resistant infections

Anna Johnning, Chalmers University of Technology, Sweden

Title: TBD

Nick Moser, Google DeepMind, hosted at Fleming Initiative and Imperial College London, UK

12:25 -12:40

Closing remarks

(Alison Holmes, Erik Kristiansson)

12:45-

Lunch and departure