

Workshop on Plasmids as Vehicles of Antimicrobial Resistance Spread



21 - 25 March 2022
An ICTP Virtual Meeting
Trieste, Italy

Further information:
<http://indico.ictp.it/event/9875/>
smr3761@ictp.it

Antimicrobial Resistance (AMR) represents a major challenge to public health worldwide. Mobile elements such as plasmids play a crucial role in Horizontal Gene Transfer (HGT) and AMR spread. Understanding plasmid evolution and mobility is fundamental to unravel the population genetics of plasmid-encoded genes, especially antibiotic genes.

The combination of breakthroughs in sequencing and computational approaches has led to a new vision of the evolutionary processes involved in HGT dynamics of pathogens. The Workshop will focus on modelling efforts to integrate genomic, experimental and computational results, to build a unified framework to tackle the expansion of plasmid borne AMR. Special focus will be put in the discussion on methods to go beyond point mutation- and tree- based phylogenetics in cases such as plasmids where HGT is the main evolutionary mechanism.

The Workshop is aimed both at researchers working on plasmids and modellers with no previous experience on plasmids and/or AMR. Introductory lectures on bacterial evolution, population genetics and epidemiology and their applications to AMR and plasmids will be provided on the website.

Applicants are encouraged to submit abstracts for a contributed talk. A number of short oral presentation slots will be available for some of them upon selection.

Directors:

A. LEDDA, Imperial College London, MRC GIDA and UKHSA, UK
F. DE LA CRUZ, University of Cantabria, Spain
I. ZAMIN, EBI Cambridge, UK
N. CROUCHER, Imperial College London, UK
R. NEHER, University of Basel, Switzerland
M. MARSILI, ICTP, Italy

Local Organiser:

M. MARSILI, ICTP, Trieste

Speakers:

J. ALDERLIESTEN, Utrecht University, Netherlands
S. BEDHOMME, CEFE/CNRS, France
M. BROCKHURST, University of Manchester, UK
M. COSENTINO LAGOMARSINO, IFOM and University of Milan, Italy
A. COUCE IGLESIAS, CBGP - Madrid, Spain
T. DAGAN, Christian-Albrechts University of Kiel, Germany
T. DIMITRIU, University of Exeter, UK
S. DUXBURY, University of Warwick, UK
J. P. HALL, University of Liverpool, UK
J. HAWKEY, Monash University, Australia
J. HUISMAN, ETH Zurich, Switzerland
E. JAUNEIKAITE, Imperial College London, UK
O. KOSTERLIZ, University of Washington, USA
J. KRUG, University of Cologne, Germany
S. LEHTINEN, ETH Zurich, Switzerland
W. MATLOCK, University of Oxford, UK
J.O. MCINERNEY, University of Nottingham, UK
M. MOLARI, University of Basel, Switzerland
R. MORAN, University of Birmingham, UK
C. POLETO, INSERM - Sorbonne University, France
A. ROBERTS, Liverpool School of Tropical Medicine, UK
A. SAN MILLAN, IRYCIS, Spain
L. SHAW, University of Oxford, UK
K. SMALLA, Julius Kühn-Institut (JKI), Germany
W. VAN SCHAİK, University of Birmingham, UK

How to apply:

Online application:
<http://indico.ictp.it/event/9875/>

Female scientists are encouraged to apply.

Registration:

There is no registration fee.

