

# School and Workshop on Plasmids as Vehicles of Antimicrobial Resistance Spread

**24 February - 6 March 2020**  
**Trieste, Italy**



MRC Centre for Global Infectious Disease Analysis

Imperial College London

Further information:  
<http://indico.ictp.it/event/9022/>  
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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 eco-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.

The Workshop will be preceded by a one-week introductory School on bacterial evolution, population genetics and epidemiology. The School introduces general concepts in those disciplines and focuses on their applications to AMR and plasmids. State-of-the-art methods used in genetic research on plasmids will be covered.

## Invited Speakers:

Stephanie Bedhomme, CEFE/CNRS, Montpellier  
Sebastian Bonhoeffer, ETH Zurich  
Alessandra Carattoli, Sapienza University, Rome  
Trinad Chakraborty, JLU Gießen  
Teresa Coque, Hospital Universitario Ramón y Cajal  
Marco Cosentino Lagomarsino, IFOM and Milan U.  
Alejandro Couce, Imperial College London  
Arjan de Visser, Wageningen University  
Luca Ferretti, Big Data Institute, Oxford  
Jacopo Grilli, ICTP  
Lars Hansen, University of Copenhagen  
Michael Lässig, University of Cologne  
Bruce Levin, Emory University  
James McInerney, University of Nottingham  
Itzik Mizrahi, Ben-Gurion University  
Romualdo Pastor-Satorras, UPC BarcelonaTech  
Luca Peliti, S. Marinella Research Institute, Italy  
Chiara Poletto, INSERM - Sorbonne University  
Adam Roberts, LSTM, Liverpool  
Alvaro San Millan, IRYCIS, Madrid  
Kornelia Smalla, Julius Kühn-Institut, Braunschweig  
Willem Van Schaik, University of Birmingham  
Rob Willems, UMC Utrecht

## Organising Committee:

Fernando De La Cruz, Universidad de Cantabria & IBBTEC  
Alice Ledda, Imperial College London  
Richard Neher, Biozentrum - University of Basel  
Matteo Marsili, ICTP Local Organiser

## How to apply:

Online application:  
<http://indico.ictp.it/event/9022/>

Female scientists are encouraged to apply.

We are committed to supporting attendance of delegates with young children who would otherwise be unable to attend. Please contact [a.ledda@imperial.ac.uk](mailto:a.ledda@imperial.ac.uk) if you are in this position and you would like to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.



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