

International AMR symposium Tackling antibacterial and antifungal resistant infections from disease to innovative therapies

Bran . One

December 9-10th, 2024 Institut Pasteur, Paris, France – Duclaux Amphitheatre

SCIENTIFIC & ORGANIZATION COMMITTEE

Paola B. Arimondo Institut Pasteur-CNRS, France Laurence Armand-Lefèvre Hôpital Bichat, France Emilie Boutet Institut Pasteur, France Iuliana Ene Institut Pasteur, France Philippe Glaser Institut Pasteur, France Rolf Müller HIPS/HZI, Germany Christopher Schofield University of Oxford, United Kingdom Athanasios Typas EMBL, Germany

INTRODUCTION & AIMS

In the frame of the <u>AMR research priority</u> at the Institut Pasteur, we are organizing together with the UPC Institut Hors-Murs Microb'UP <u>a symposium on AntiMicrobial Resistance</u> on December 9-10th, 2024 at the Pasteur Campus in Paris. During this meeting we aim to reposition the disease as the focal point to improve treatments of bacterial and fungal infections in a context of high antimicrobial resistance.

This one and a half day meeting will be organized around 4 sessions:

- Treatment escape and AMR in patients and animals
- Mechanisms of resistance and treatment escape
- Chemistry for new treatments
- · Natural products and novel therapeutic strategies

The event will bridge biology, biotechnology, clinical studies, veterinary research and chemistry. We envision in addition to the presentations ample time for discussions, as well as short talks selected from submitted abstracts and poster presentations.

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Institut Microb'UP





	Day 1 (afternoon) December 9 th , 2024
1.15 pm	Doors opening for the arrival of attendees
2:00 pm	Introduction by Christophe d'Enfert (Scientific Director, Institut Pasteur)
2:10 pm	Session 1 – Treatment escape and AMR in patients and animals
	Chairs : Sarah Dellière & Philippe Glaser
2.10-2.40	Laurence Armand-Lefèvre – Hôpital Bichat, France "Antimicrobial resistance realities in French hospitals and low- and middle- income countries"
2.40-3.10	Thomas Van Boeckel – University of Zürich, Switzerland "Global mapping of antimicrobial resistance in animals"
3.10-3.30	Thomas Maguire – Airfinity, United Kingdom "Simple models can be used to assess the impact of antibiotic consumption on antimicrobial resistance in critical priority bacteria and the potential role of interventions in its reduction"
3.30-3.50	Juliette Guitard – Hôpital Saint-Antoine, France "New insights into the echinocandin resistance in Candida spp"
3.50 pm	Coffee break
	Chairs : Laurence Armand-Lefèvre & Thomas Van Boeckel
4.20-4.50	Sarah Dellière – Hôpital Saint Louis / Institut Pasteur, France « Antifungal resistance in human pathogenic fungi: a growing threat"
4.50-5.10	Lionel Rigottier-Gois – INRAE, France "Accelerate gut microbiota recovery to enhance resistance to colonisation against vancomycin-resistant Enterococci"
5.10-5.25	Marie Desnos-Ollivier – Institut Pasteur, France "Yeast resistance in France from surveillance national programs"
5.25-5.40	Short-talks selected from posters Farras Daffa Imtiyaz – Université de Poitiers, France Armelle Leslie Megueya – Institut Pasteur du Cameroun, Cameroon Camille Schneider – Institut Pasteur, France

5.45 pm – 7.30 pm Wine & Cheese











Day 2 (Full day) December 10th, 2024

9 am Ses	sion 2 - Mechanisms of resistance and treatment escape
	Chairs : Marion Flipo & Christopher Schofield
9.00-9.30	Iuliana Ene – Institut Pasteur, France "Beyond Drug Resistance: Alternative Drug Responses in Candida albicans"
9.30-10.00	Athanasios Typas – EMBL, Germany "Strategies to control, delay or revert AMR"
10.00-10.20	Zeynep Baharoglu – IBPC and Institut Pasteur, France "Uridine potentiates aminoglycoside lethality through activation of sugar transporters"
10.20-10.30	Marie Royer – Institut Pasteur, France "Mecillinam resistome in Klebsiella pneumoniae: how resistance to a one-target antibio depends upon different stress responses"
10.30-10.40	Erik Maikranz – Institut Pasteur, France "Measuring single-cell antibiotic susceptibility in droplets"
10.40-10.50	Short-talks selected from posters Julie Plouhinec – Université de Caen, France Elena Capuzzo – Institut Pasteur, France
10:50 am	Coffee break
11:20 am	Session 3 - Chemistry for new treatments
	Chairs : Iuliana V. Ene & Rolf Müller
11.20-11.50	Christopher Schofield – University of Oxford, United Kingdom « Natural Product Inspired Antibiotics »
11.50-12.20	Marion Flipo – Institut Pasteur de Lille, France (speaker Société Chimie Thérapeutique « Novel efflux pump inhibitors: tackling antimicrobial resistance in Enterobacterales »
12.20-12.40	Anna Hirsch – Helmholtz Institute for Pharmaceutical Research Saarland, Germany <i>"Tackling underexplored drug targets as a pathway to antibiotics with a novel mode of action"</i>
12.40-1.00	
12.40-1.00	Kevin Cariou – Chimie ParisTech, France "Organometallic Derivatization of Drugs for Promising Antifungal Treatments"

1:15 pm

Lunch break & Poster session







SFM.







2:45 pm

Session 4 - Natural products and novel therapeutic strategies

Chairs : Paola B. Arimondo & Athanasios Typas

2.45-3.15	Rolf Müller – Helmholtz Institute for Pharmaceutical Research Saarland, Germany <i>"Approaches Towards Innovative Anti-Infectives From Microbes"</i>
3.15-3.30	Alexander Titz - Helmholtz Institute for Pharmaceutical Research Saarland, Germany <i>"Antibiofilm & Antivirulence Therapeutics: antagonising lectins of P. aeruginosa"</i>
3.30-3.45	Eric Faudry – IBS / CEA-CNRS-UGA, France "Neutralizing human monoclonal antibodies that target the PcrV component of the Type III Secretion System of Pseudomonas aeruginosa act through distinct mechanisms"
3.45-4.15	David Bikard – Institut Pasteur / Eligo Bioscience, France <i>"In situ targeted mutagenesis of gut bacteria with base editors"</i>
4.15-4.35	Vincent Libis – Learning Planet Institute / Inserm-Université Paris Cité, France <i>"Scalable discovery of novel antibiotics through synthetic biology"</i>
4.35-4.55	Solène Ecomard & Jérémy Seurat – Institut Pasteur / ENS, France « Macrophage-induced reduction of bacteriophage density limits the efficacy of in vivo pulmonary phage therapy »
4:55 pm	Conclusion & Awards ceremony for the best posters

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