

1ST AMR COURSE a **Onehealth** challenge

Antimicrobial Resistance Course (AMR) – A One Health Challenge 1st edition

*Co-organized by the Mérieux Foundation & the University Paris-Diderot
Les Pensieres Center For Global Health
Veyrier-du-Lac - France*

Nov 4th to 8th, 2019

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Antimicrobial resistance (AMR) is a growing global public health menace that threatens the prevention and treatment of bacterial diseases. The AMR-Global Action Plan (GAP) by WHO (World Health Organization) and One Health global strategy consider fostering awareness and understanding on antimicrobial resistance to be a priority and essential for the adoption, deployment and implementation of country AMR-National Action Plans (AMR-NAPs). To support this critical effort, the Mériex Foundation and the University Paris-Diderot (UPD) have joined their expertise and capacities to support the AMR-GAP by designing a course to address concretely – from plan to action – the five objectives of the AMR-WHO-GAP. Together, the Mériex Foundation and UPD propose a residential intensive training course on AMR in a One Health perspective, principally targeting audiences from low- and middle-income countries.

The course advocates for the value of the One Health approach to fight against AMR, and builds capacity for critical decision-making in the developing world through education, partnerships and networks.

The program is based on the five WHO-AMR-GAP objectives (one objective per day):

- **Day 1:** The role of antibiotics and the current challenges – improving awareness and understanding of antimicrobial resistance
- **Day 2:** Strengthening knowledge and evidence through monitoring & surveillance
- **Day 3:** Interventions to tackle AMR
- **Day 4:** Optimizing the use of antimicrobial medicines in human and animal health
- **Day 5:** Policy-regulation-governance and the economic case for global sustainable investment to tackle AMR

International Scientific Committee

(ALPHABETIC ORDER)

Antoine Andremont	Course Director, Emeritus Professor, Université Paris Diderot	France
Laurence Armand	Université Paris Diderot	France
Juan Carrique-Mas	Oxford University	UK
Didier Dreyfuss	Université Paris Diderot	France
Hubert Endtz	Course Co-Director, Fondation Mérieux	France
Xavier Lescure	Université Paris Diderot	France
Valentina Picot	Course Manager, Fondation Mérieux	France
Damien Roux	Université Paris Diderot	France
Etienne Ruppé	Université Paris Diderot	France
Constance Schultsz	University of Amsterdam's Faculty of Medicine	The Netherlands
Sophie Touze	Vetagrosup	France
Yasdan Yasdanpanah	Université Paris Diderot	France
Jaap Wagenaar	Utrecht University	The Netherlands
Timothy Walsh	Cardiff University	UK

Steering Committee

(ALPHABETIC ORDER)

Antoine Andremont	Course Director, Emeritus Professor, Université Paris Diderot	France
Laurence Armand	Université Paris Diderot	France
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Damien Roux	Université Paris Diderot	France
Etienne Ruppé	Université Paris Diderot	France
Yasdan Yasdanpanah	Université Paris Diderot	France
Cindy Grasso	Course Coordinator, Fondation Mérieux	France

Faculty & Chair

(ALPHABETIC ORDER)

Jocelyne Arquembourg	Université Sorbonne Nouvelle	France
Hanan Balkhy	World Health Organization (WHO)	Switzerland
Juan Carrique-Mas	Oxford University	UK
Alessandro Cassini	World Health Organization (WHO)	Switzerland
Peter Collignon	ACT Health	Australia
Valérie D'Acremont	Centre Universitaire de Médecine Générale et Santé Publique	Switzerland
Benjamin Djoudalbaye	Africa Centres for Disease Control and Prevention	Ethiopia
Jorge Pinto Ferreira	World Organisation for Animal Health (WHO)	France
Cecilia Ferreryra	FINN	Switzerland
Nicholas Jackson	Sanofi Pasteur	France
Olga Jonas	Harvard global health institute	USA
Elizabeth Klemm	Wellcome trust	UK
Helen Lambert	Bristol University	UK
Xavier Lescure	Université Paris Diderot	France
Jean-Christophe Lucet	Assistance Hopitaux Publique de Paris (APHP)	France
Juan Lubroth	The Food and Agriculture Organization of the United Nations (FAO)	Italy
Jean Yves Madec	ANSES	France
Laura Marin	Joint Programming Initiative on Antimicrobial Resistance (JPIAMR)	Sweden
Yuki Minato	World Health Organization (WHO)	Switzerland
Patrick Munk	Technical University of Denmark	Denmark
Abdoul Salam Ouedraogo	Hôpital Universitaire de Bobo Dioulasso	Burkina Faso
Jean-Pierre Paccaud	Global Antibiotic R&D Partnership	Switzerland
Charles Penn	Department of Health	UK
Carmen Pessoa	World Health Organization (WHO)	Switzerland
Damien Roux	Université Paris Diderot	France
Etienne Ruppe	Université Paris Diderot	France
Jonathan Rushton	University of Liverpool	UK
Heike Schmitt	Utrecht University	The Netherlands
Constance Schultsz	University of Amsterdam's Faculty of Medicine	The Netherlands
David Speksnijder	Utrecht University	The Netherlands
Sophie Touze	Vetagrosup	France
Alex Van Belkum	BioMérieux	France
Jaap Wagenaar	Utrecht University	The Netherlands
Timothy Walsh	Cardiff University	UK

Course Programme

Day 1	Monday, November 4 th 2019	
8:30 – 9:00	Opening & welcome addresses	
	<ul style="list-style-type: none"> Fondation Mérieux 	Hubert Endtz
	<ul style="list-style-type: none"> Universite Paris Diderot 	Antoine Andremont
Session 1	The role of antibiotics & the current challenges - Improving awareness and understanding of antimicrobial resistance	
	<i>Chairs: Carmen Pessoa & Jean-yves Madec</i>	
	Session Objective:	
	<ul style="list-style-type: none"> To Provide an overview on the role and use of antibiotics in global health 	
	Master Lectures	
9:00 – 9:45	Keynote lecture: past and present situation of AMR & future challenges	Hanan Balkhy
9:45 – 10:15	The onehealth perspective on AMR	Peter Collignon
10:15 – 10:45	Impact of AMR in human and animal health, and the environment	Alessandro Cassini
10:45 – 11:00	<i>Discussion</i>	
11:00 – 11:30	Coffee Break	
11:30 – 12:00	Underlying the genetic resistance transmission	Timothy Walsh
12:00 – 12:30	Role of the environmental resistome	Patrick Munk
12:30 – 12:45	<i>Discussion</i>	
12:45 – 14:00	Lunch	
	Group work	
	Group Activity Coordinator: Damien Roux & Valentina Picot	
14:00 – 17:00	Group work: Debate (group work activities will be further specified in upcoming versions of the course programme)	Facilitator: TBD Reporteur: TBD
19:00	Welcome reception with Evening Lecture	
19:30 – 19:50	Evening Lecture: An overview of the GAP (Global Action Plan)-AMR and the Countries NAP (National Action Plan)	Carmen Pessoa

Day 2	Tuesday, November 5 th 2019	
Session 2	Strengthen the knowledge and evidence through Monitoring & Surveillance	
	<i>Chairs: Valerie D'acremont & Juan Carrique-Mas</i>	
	Session Objective: • TBD	
Master Lectures		
9:00 – 9:30	Surveillance in Humans for AMU, AMR (including GLASS)	Carmen Pessoa
9:30 – 10:00	Surveillance in animals for AMU, AMR including surveillance of AMR in food-borne pathogens	Jaap Wagenaar
10:00 – 10:30	Metrics of antimicrobial use in humans and animals, including the case of the EU monitoring system	Juan Carrique-Mas
10:30 – 10:45	<i>Discussion</i>	
10:45 – 11:15	Coffee Break	
11:15 – 11:45	Limitations in data generated by surveillance systems & data sharing regional / global – Solutions	Constance Schultsz
11:45 – 12:15	How to use monitoring and surveillance to improve care	Damien Roux
12:15 – 12:30	<i>Discussion</i>	
12:30 – 14:00	Lunch	
Group work		
Group Activity Coordinator: Damien Roux & Valentina Picot		
14:00 – 17:00	Group work: Steps in developing/enhancing a national surveillance system (group work activities will be further specified in upcoming versions of the course programme)	Facilitator: TBD Reporteur: TBD
19:00	Dinner with Evening Lecture	
19:00 – 19:20	Evening Lecture: Fleming Fund – AMR activities	Charles Penn

Day 3	Wednesday, November 6 th 2019	
Session 3	Interventions to tackle AMR	
	<i>Chairs: Timothy Walsh & Abdoul Salam Ouedraogo</i>	
	Session Objective: <ul style="list-style-type: none"> To understand the role of better hygiene and infection prevention measures and other critical interventions as essential to limit the development and spread of antimicrobial-resistant infections and multidrug-resistant bacteria. 	
Master Lectures		
9:00 – 9:30	Infection, prevention and control (IPC) and WASH Interventions at hospital Inpatient level. <i>(Reducing the incidence of infection through IPC and effective sanitation, hygiene and other preventive measures)</i>	Jean-Christophe Lucet
9:30 – 10:00	Infection, prevention and control (IPC) and WASH Interventions at hospital outpatient & community level. <i>(Reducing the incidence of infection through IPC and effective sanitation, hygiene and other preventive measures)</i>	Valerie D'acremont
10:00 – 10:30	AMR interventions at the environment level	Heike Schmitt
10:30 – 10:45	<i>Discussion</i>	
10:45 – 11:15	Coffee Break	
11:15 – 11:45	AMR interventions at the animal production level – veterinary <i>(residues in products of animal origin / levels of medicated feed, etc)</i>	Jorge Pinto Ferreira
11:45 – 12:15	AMR interventions at the food production level for human and animals - agriculture	Juan Lubroth
12:15 – 12:30	<i>Discussion</i>	
12:30 – 14:00	Lunch & Group Picture	
Group work		
Group Activity Coordinator: Damien Roux & Valentina Picot		
14:00 – 17:00	Group work: : Infection prevention and control core components for national and local IPC programs (group work activities will be further specified in upcoming versions of the course programme)	Facilitator: TBD Reporteur: TBD
19:00	Dinner with Evening Lecture	
19:00 – 19:20	Evening Lecture: AMR community sensibilization and Public Engagement campaigns	Jocelyne Arquembourg

Day 4	Thursday, November 7 th 2019	
Session 4	Optimize the use of antimicrobial medicines in human and animal health	
	<i>Chairs: Sophie Touze & Xavier Lescure</i>	
	Session Objective: • TBD	
Master Lectures		
9:00 – 9:30	Role of the microbiotas and impact of antibiotics	Etienne Ruppe
9:30 – 10:00	Antibiotic stewardship in veterinary medicine	David Speksnijder
10:00 – 10:30	Infection prevention measures – The role of vaccines	Elizabeth Klemm
10:30 – 10:45	<i>Discussion</i>	
10:45 – 11:15	Coffee Break	
11:15 – 11:45	Role of diagnostics in AMR	Cecilia Ferreryra
11:45 – 12:15	AMR stewardship	Xavier Lescure
12:15 – 12:45	Behavioral / Social Sciences of AMR in LMICs	Helen Lambert
12:45 – 13:00	<i>Discussion</i>	
13:00 – 14:00	Lunch	
Group work		
Group Activity Coordinator: Damien Roux & Valentina Picot		
14:00 – 17:00	Group work: Case studies (group work activities will be further specified in upcoming versions of the course programme)	Facilitator: TBD Reporteur: TBD
19:00	Dinner & Evening Lecture	
19:30 – 19:50	Evening Roundtable: AMR Industry perspective in LMICs	Jean-Pierre Paccaud Alex Van Belkum Nicholas Jackson

Day 5	Friday, November 8 th 2019	
Session 5	Policy -Regulation- Governance & the Economic case for global sustainable investment to tackle AMR	
	<i>Chairs: Jaap Wagenaar & Benjamin Djoudalbaye</i>	
	Session Objective: To recognize that a through economic impact assessments is needed in health and broader socioeconomic burden of antimicrobial resistance, including the investment in the development of new antimicrobial medicines, as well as in diagnostic tools and vaccines, to build our case.	
	Master Lectures	
9:00 – 9:30	Governance need it for an implementable NAP- National Action Plan on AMR	Benjamin Djoudalbaye
9:30 – 10:00	How to translate WHO-CIA-list , OIE and EU prioritization and other information / data into advocacy and Policy	Jean-Yves Madec
10:00 – 10:45	Roundtable on the various lists of antibiotics currently available	Jean-Yves Madec Peter Collignon Jorge Pinto Ferreira Yuki Minato
10:45 – 11:15	Coffee Break	
11:15 – 11:45	EU Policy and regulation on AMR	Laura Marin
11:45 – 12:15	Economics of AMU in animal production	Jonathan Rushton
12:15 – 12:45	AMR in LMICs a complex economic business model?	Olga Jonas
12:45 – 13:00	<i>Discussion</i>	
13:00 – 14:00	Lunch	
	Course Evaluation & Diploma Ceremony	
14:00 – 15:00	Course Evaluation	
15:00 – 16:00	Diploma Ceremony & Diplomas Group Picture	
16:00	Closure of the course	