

# 1<sup>ST</sup> AMR COURSE a **Onehealth** challenge

## Antimicrobial Resistance Course (AMR) – A One Health Challenge 1<sup>st</sup> edition

*Co-organized by the Mérieux Foundation & the University Paris-Diderot*

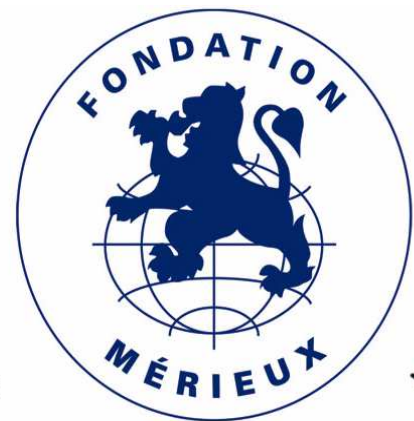
*Les Pensieres Center For Global Health  
Veyrier-du-Lac - France*

*Nov 4<sup>th</sup> to 8<sup>th</sup>, 2019*

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Antimicrobial resistance (AMR) is a growing global public health menace that threatens the preventive and therapeutic management 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 Mérieux 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 Mérieux 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

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

## Steering Committee

Antoine Andremont, Course Director, Emeritus Professor, Université Paris Diderot  
Laurence Armand, Université Paris Diderot  
Hubert Endtz, Course Co-Director, Fondation Mérieux  
Didier Dreyfuss, Université Paris Diderot  
Xavier Lescure, Université Paris Diderot  
Valentina Picot, Course Manager, Fondation Mérieux  
Etienne Ruppé, Université Paris Diderot  
Damien Roux, Université Paris Diderot  
Yasdan Yasdanpanah, Université Paris Diderot  
Cindy Grasso, Course Coordinator, Fondation Mérieux

## Faculty

In progress

# Course Programme

Day 1	Monday, November 4 <sup>th</sup> 2019	
8:30 – 9:00	Opening & welcome addresses	
	<ul style="list-style-type: none"> <li>Fondation Mérieux</li> </ul>	Hubert Endtz
	<ul style="list-style-type: none"> <li>Universite Paris Diderot</li> </ul>	Antoine Andremont
<b>Session 1</b>	The role of antibiotics & the current challenges - Improving awareness and understanding of antimicrobial resistance	
	<i>Chairs: TBC &amp; Jean-yves Madec</i>	
	<b>Session Objective:</b>	
	<ul style="list-style-type: none"> <li>To Provide an overview on the role and use of antibiotics in global health</li> </ul>	
	<b>Master Lectures</b>	
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	<b>Coffee Break</b>	
11:30 – 12:00	Underlying the genetic resistance transmission	Timothy Walsh
12:00 – 12:30	Role of the environmental resistome	Franck Aerestrup
12:30 – 12:45	<i>Discussion</i>	
12:45 – 14:00	<b>Lunch</b>	
	<b>Group work</b>	
	Group Activity Coordinator: Damien Roux	
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	<b>Welcome reception with Evening Lecture</b>	
19:30 – 19:50	Evening Lecture: An overview of the GAP (Global Action Plan)-AMR and the Countries NAP (National Action Plan)	WHO - tbc

Day 2	Tuesday, November 5 <sup>th</sup> 2019	
<b>Session 2</b>	Strengthen the knowledge and evidence through Monitoring & Surveillance	
	<i>Chairs: Valerie D'acremont &amp; Juan Carrique-Mas</i>	
	<b>Session Objective:</b> • TBD	
<b>Master Lectures</b>		
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	<b>Coffee Break</b>	
11:15 – 11:45	Limitations in data generated by surveillance systems & data sharing regional / global – Solutions	Constance Schultz
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	<b>Lunch</b>	
<b>Group work</b>		
Group Activity Coordinator: Damien Roux		
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	<b>Dinner with Evening Lecture</b>	
19:00 – 19:20	Evening Lecture: Fleming Fund – AMR activities	Charles Penn / Toby Leslie

Day 3	Wednesday, November 6 <sup>th</sup> 2019	
<b>Session 3</b>	Interventions to tackle AMR	
	<i>Chairs: Timothy Walsh &amp; Abdoul Salam Ouedraogo</i>	
	<b>Session Objective:</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	
<b>Master Lectures</b>		
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>	Didier Pitet
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	
10:30 – 10:45	<i>Discussion</i>	
10:45 – 11:15	<b>Coffee Break</b>	
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	Wantanee Kalpravidh
12:15 – 12:30	<i>Discussion</i>	
12:30 – 14:00	<b>Lunch &amp; Group Picture</b>	
<b>Group work</b>		
Group Activity Coordinator: Damien Roux		
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	<b>Dinner with Evening Lecture</b>	
19:00 – 19:20	Evening Lecture: AMR community sensibilization and Public Engagement campaigns	Jocelyne Arquembourg

Day 4	Thursday, November 7 <sup>th</sup> 2019	
<b>Session 4</b>	Optimize the use of antimicrobial medicines in human and animal health	
	<i>Chairs: Sophie Touze &amp; Xavier Lescure</i>	
	<b>Session Objective:</b>	
	<ul style="list-style-type: none"> <li>• TBD</li> </ul>	
<b>Master Lectures</b>		
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	<b>Coffee Break</b>	
11:15 – 11:45	Role of diagnostics in AMR	Catharina Boehme
11:45 – 12:15	AMR stewardship	Xavier Lescure
12:15 – 12:45	Behavioral / Social Sciences of AMR in LMICs	Rachel Tolhurst
12:45 – 13:00	<i>Discussion</i>	
13:00 – 14:00	<b>Lunch</b>	
<b>Group work</b>		
Group Activity Coordinator: Damien Roux		
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	<b>Dinner &amp; Evening Lecture</b>	
19:30 – 19:50	Evening Roundtable: AMR Industry perspective in LMICs	Jean-Pierre Paccaud Alex Van Belkum Margaux Déral



Day 5	Friday, November 8 <sup>th</sup> 2019	
<b>Session 5</b>	Policy -Regulation- Governance & the Economic case for global sustainable investment to tackle AMR	
	<i>Chairs: Jaap Wagenaar &amp; Benjamin Djoudalbaye</i>	
	<b>Session Objective:</b> 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.	
<b>Master Lectures</b>		
9:00 – 9:30	Governance need it for an implementable NAP- National Action Plan on AMR	Benjamin Djoudalbaye
9:30 – 10:00	Regulatory framework for AMR <i>(Including regulation for quality control of antimicrobials)</i>	TBD
10:00 – 10:30	How to translate WHO-CIA-list , OIE and EU prioritization and other information / data into advocacy and Policy	Peter Collignon
10:30 – 10:45	<i>Discussion</i>	
10:45 – 11:15	<b>Coffee Break</b>	
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	<b>Lunch</b>	
<b>Course Evaluation &amp; Diploma Ceremony</b>		
14:00 – 15:00	Course Evaluation	
15:00 – 16:00	Diploma Ceremony & Diplomas Group Picture	
16:00	<b>Closure of the course</b>	