

**ANTIMICROBIAL RESISTANCE Foundations Course**

Tuesdays and Thursdays at Noon-1:15 PM

Zoom link:  
[Click here](#) or  
use QR code

Week	Topic	Faculty 2024	Objective	Dates 2024
1	AMR and the environment	Ashok Chopra	Summarize the main influence of AMR in the environment (including hospital) in relation to dissemination of AMR determinants and their effect on human health.	Tues., October 1
1	Genomics and AMR	Blake Hanson	Provide overview of current genomic tools used to study dissemination and spread of AMR organisms	Thurs., October 3
2	AMR: a global public health threat	Cesar Arias	Provide an overview of main AMR problems and their impact on clinical practice	Tues., October 8
2	Mechanisms of AMR I: macrolides, lincosamides, tetracyclines, oxazolidinones, aminoglycosides, quinolones	Yousif Shamoo	Antibiotic mechanism of action and resistance; implications for research and therapy	Thurs., October 10
3	NO CLASS ID Week			Tues., October 15
3	NO CLASS ID Week			Thurs., October 17
4	Mechanisms of AMR II: $\beta$ -lactams, fosfomycin, glycopeptides & derivatives, daptomycin and polymyxins	Timothy Palzkill	Antibiotic mechanism of action and resistance; implications for research and therapy	Tues., October 22
4	<i>C. difficile</i> and AMR	Charles Darkoh	Examine current concepts related to pathogenesis of <i>C. difficile</i> infections, therapeutic approaches, and AMR emergence.	Thurs., October 24
5	Antifungal resistance	Michael Lorenz	Review major mechanisms of fungal resistance and their clinical impact	Tues., October 29
5	Microbiome and AMR	Samuel Shelburne	Discuss the important interactions of antibiotics with the microbiome and the evolution of AMR organisms	Thurs., October 31
6	Drug discovery, non-traditional antibiotics	Julian Hurdle	Discuss non-traditional antibiotic approaches to combat antibiotic-resistant bacteria.	Tues., Nov. 5
6	Antibiotic stewardship, infection control and AMR	Edward Septimus	Review most effective approaches for infection control and antibiotic stewardship in the context of emergent resistance in hospital pathogens.	Thurs., Nov 7
7	New diagnostic approaches in clinical microbiology for AMR diagnosis	Micah Bhatti	Discuss new emerging technologies for identification and diagnosis of multidrug-resistant organisms	Tues., Nov. 12
7	Pharmacokinetics/pharmacodynamics of AMR	Cecilia Truc Tran	Review relevant concepts of PK/PD and their influence on development and prevention of resistance	Thurs., Nov 14

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