



Cornell Center for Antimicrobial Resistance Research & Education

Inaugural Symposium 2023

Wednesday, March 22nd | 12:30 pm – 6:00 pm | Uris Auditorium

Welcome and Introductions, Uris Auditorium, 12:30 pm

Session 1: Back to basics — Understanding the ‘M’ of AMR, 12:35 – 2:30 pm

The lipid II cycle as a target for antibiotics

John Helmann, Professor, Department of Microbiology, College of Agriculture and Life Sciences

Outer membrane modifications promote high-level beta lactam tolerance in Gram-negative pathogens

Tobias Dörr, Associate Professor, Department of Microbiology, College of Agriculture and Life Sciences

Stalling the ribosome to speed up the search for new antibiotics

Heather Feaga, Assistant Professor, Department of Microbiology, College of Agriculture and Life Sciences

Mycobacterial mediators of intrinsic antibiotic resistance and tolerance

Sabine Ehrt, Professor, Department of Microbiology & Immunology, Weill Cornell Medicine

Session 1 Keynote, 2:30-3:30 pm

Optogenetic feedback control of gene expression and antibiotic resistance in single cells

Mary Dunlop, Associate Professor, College of Engineering, Boston University

Introduction of the Center for Antimicrobial Resistance Research & Education, 3:30 – 4:30 pm

Co-Directors Craig Altier and Kyu Rhee

Poster Session with Refreshments, Griffis Faculty Club, 4:30 – 6:00 pm

(beer/wine and light snacks)

Dinner at The Alvin Public House, 406 E 64th St, 6:30 pm



Cornell Center for Antimicrobial Resistance Research & Education

Inaugural Symposium 2023

Thursday, March 23rd | 8:30 am – 4:45 pm | Uris Auditorium

Breakfast, Bentley Hotel 500 E 62nd St, 7:30 am

(All symposium attendees are welcome to the hotel breakfast)

Welcome, Uris Auditorium, 8:30 am

Session 2 Keynote, 8:35 – 9:30 am

From molecular mechanisms to policy: antibiotic resistance in Neisseria gonorrhoeae

Yonatan Grad, Melvin J. and Geraldine L. Glimcher Associate Professor of Immunology and Infectious Diseases, Department of Immunology and Infectious Diseases, T.H. Chan School of Public Health, Harvard University

Session 2: Taking stock and sizing up the One Health ecology of AMR, 9:30 – 11:55 pm

Antimicrobial resistance detection in clinical microbiology

Lars Westblade, Associate Professor, Pathology and Laboratory Medicine and Department of Medicine, Division of Infectious Diseases; Director of Clinical Microbiology, New York-Presbyterian Hospital- Weill Cornell Medicine

Antimicrobial resistance in foodborne pathogens: Salmonella and beyond

Martin Wiedmann, Gellert Family Professor, Department of Food Science, College of Agriculture and Life Sciences

Deciphering the extent to which clinically relevant AMR genes transfer within the gut microbiome

Ilana Brito, Associate Professor, Mong Family Sesquicentennial Faculty Fellow in Biomedical Engineering, Meinig School of Biomedical Engineering

Antimicrobial use in animal agriculture through a One Health lens: How much is used and can we use less?

Renata Ivanek, Professor, Department of Population Medicine and Diagnostic Sciences, College of Veterinary Medicine

Session 2 continued, 9:30 – 11:55 pm

Insight from the social and behavioral sciences on AMR: Communication, context and motivation

Amelia Greiner Safi, Professor of Practice, Department of Public and Ecosystem Health,
College of Veterinary Medicine

Group Photo, Uris Auditorium, 11:55 – 12:00 pm

Lunch with Working Groups, Griffis Faculty Club, 12:00 – 1:00 pm

WG1 Collaborative Opportunities for Novel Therapy Development

WG2 Collaborative Opportunities in Pathology, Pharmacy and the Clinical Environment

WG3 Epidemiology, Public Health, and Stewardship

Session 3: Taking the ‘R’ out of AMR: Innovative ways to target resistant pathogens, 1:00 – 3:30 pm

Novel approaches to targeting animal to human transmission of foodborne pathogens

Craig Altier, Professor of Population Medicine and Diagnostic Sciences,
College of Veterinary Medicine

Scalable fluidic tools for addressing antimicrobial resistance

Nate Cira, Assistant Professor, Meinig School of Biomedical Engineering

Studying susceptibility to overcome resistance: Riffing off rifampicin

Kyu Rhee, Professor of Medicine, Weill Cornell Medical College

Fluid dynamics-based approaches to microbial infection and decontamination

Sunny Jung, Professor, Department of Biological and Environmental Engineering,
College of Agriculture and Life Sciences

New Frontiers in CRISPR-Cas, beyond RNA-guided nucleases

Ailong Ke, Robert J. Appel Professor, Department of Molecular Biology and Genetics,
College of Agriculture and Life Sciences

Session 3 Keynote, 3:30 – 4:30 pm

AMR from a scientific perspective: Selected topics

Carl Nathan, R.A. Rees Pritchett Professor of Microbiology, Weill Cornell Medicine

Summary and Concluding Remarks, 4:30 – 4:45 pm

Bus departure for Ithaca, 5:00 pm

Boxed meals for traveling guests