

## TITLE OF TALK

### Solving Antibiotic Resistance

#### Panel Discussion

January 12, 2022, 12 - 1 pm EST

#### Zoom



Kim Lewis, PhD  
Department of Biology  
College of Science



Eddie Geisinger, MD, PhD  
Department of Biology  
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#### PANELISTS:

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Department of Biology  
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Eddie Geisinger, MD, PhD  
Department of Biology  
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It's hard to imagine a world without powerful antibiotics to combat infection or to make life-saving medical interventions like surgery and cancer treatment possible. This amazing scientific discovery has changed our lives in countless ways. But, the long-term overuse and misuse of antibiotics has contributed to an alarming rise in antibiotic resistance, which threatens the health of our global ecosystem.

Join **Kim Lewis**, university distinguished professor of biology and director of the Antimicrobial Discovery Center, and **Eddie Geisinger**, assistant professor of biology, to discuss how scientists are working to discover new antibiotics and seeking novel ways to treat and eradicate some of our most aggressive infectious diseases. You'll also learn about groundbreaking inventions and unique research strategies that have contributed to sophisticated advances in drug development for infectious disease.



The conversation will explore specific disease challenges and introduce exciting breakthroughs in the development of novel treatment therapies:

- The mysteries of Lyme disease, its long-term impact, and (finally) finding some answers
- The dangers of antibiotic-resistant, hospital-acquired infections and how to stop them
- How a little chunk of plastic and some dirt led to the discovery of new antibiotics



## RESEARCH IN THE DEPARTMENT OF BIOLOGY

- More than 25 labs and research groups span the realm of biological sciences to drive advances in medicine and healthcare, biotechnology, education, and public policy. Our core research strengths include: cellular and developmental biology, molecular microbiology, mitochondrial genetics, biomechanics of human movement, regenerative and stem cell biology, and healthy aging.
- **The Antimicrobial Discovery Center translates** basic discoveries into novel antimicrobial therapies to combat biowarfare and conventional pathogen threats. The rise of multidrug-resistant pathogens and the threat of genetically engineered bioweapons represent an urgent need for antimicrobial therapies.

## THE NORTHEASTERN COLLEGE OF SCIENCE

Northeastern University is an R1 research university with 37 research institutes and centers, and hundreds of labs and faculty researchers working toward solutions to the global challenges of health, security, and sustainability. Research in the College of Science addresses the greatest problems of our planet and beyond. The college is home to six departments, 15 research institutions and centers, and more than 150 research labs and groups. With a funding portfolio of more than \$87M, our research is supported by the National Institutes of Health, the National Science Foundation, and a varied host of government, scientific, and private institutions.

## PARTNERSHIP OPPORTUNITIES

*The College of Science research centers and institutes are home to the most exciting, groundbreaking efforts in discovery. Opportunities to support research in the college include:*

- **INVEST in Faculty:** The college seeks funding to recruit promising PhDs directly into tenure-track positions. Through this innovative plan, the college will build a more equitable faculty by identifying the most talented PhDs early in their careers and nurturing them appropriately with mentorship and research support.
- **Graduate Fellowships:** The college's new Connected PhD degree opens an extraordinary array of career options. Students carry out groundbreaking, cross-disciplinary research and connect with outside work experience to set up their next steps. The College of Science seeks fellowship funding to support the strategic thinkers who will populate this exciting new program.
- **Undergraduate Research:** The college is committed to providing its undergraduate students with a Northeastern research opportunity. Support will create additional opportunities for students to work alongside faculty and graduate student mentors, and gain valuable experience in fundamental and applied fields across the college.
- **Summer Research Program:** The new College of Science Summer Research Program will bring a diverse set of top undergraduates to Northeastern, where they will partake in valuable research, professional, and entrepreneurship training. Support will enable the college to place promising students in faculty research groups and area companies.