

Water Research Webinar Series

A bimonthly webinar series focused on EPA's water research

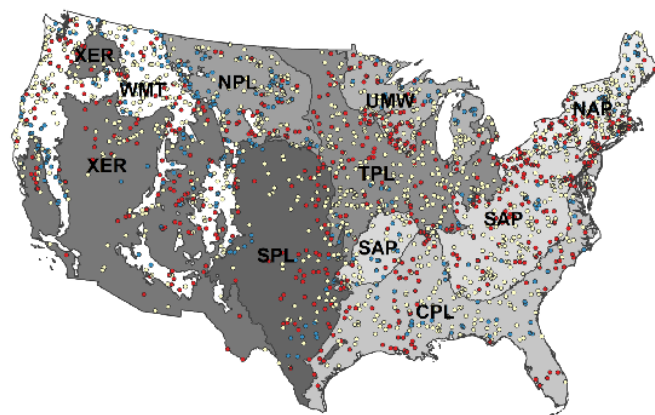
Geospatial Patterns of Antimicrobial Resistance Genes in U.S. Rivers and Streams

Wednesday, September 18, 2019 from 2:00 to 3:00 pm ET

Registration: <https://attendee.gotowebinar.com/register/2999680327342569985>

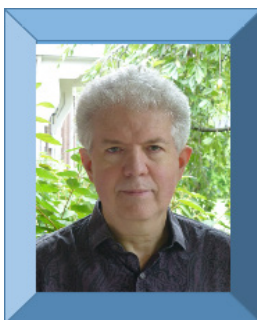
A certificate of
attendance will be
provided for attending
this webinar

The overuse of antimicrobials poses a serious threat to public health by promoting the development of antimicrobial resistance in humans, animals, and the environment. According to a report by the Centers for Disease Control and Prevention (CDC)*, two million individuals are infected with antimicrobial resistant bacteria each year in the U.S., resulting in 23,000 deaths; however, little is known regarding the role the environment plays in the transmission of these microorganisms. Environmental exposure risks are likely to be greater in water bodies receiving discharge from human sewage systems and animal feed operations than in relatively pristine aquatic environments.



This webinar will present the use of a stratified, probabilistic survey—[National Rivers and Streams Assessment \(NRSA\)](#)—to determine the national geospatial patterns of several antimicrobial resistance genes present in U.S. waters. NRSA is part of the National Aquatic Resource Surveys (NARS), which are collaborative programs between EPA, states, and tribes designed to assess the quality of the nation's coastal waters, lakes and reservoirs, rivers and streams, and wetlands using a statistical survey design.

Presented by



Scott Keely, Ph.D. (Contact: keely.scott@epa.gov)

Dr. Scott Keely is a microbiologist with EPA's Office of Research and Development. His primary research involves bioinformatic analysis of next-generation nucleic acid sequences from environmental and gut microbiomes and human microbial pathogens, such as *Giardia*, *Cryptosporidium*, and respiratory/enteric viruses. In addition to NARS, Scott's research also includes the development of novel indicators for treatment efficacy in water reuse. Scott received his Ph.D. in molecular genetics from the University of Cincinnati, College of Medicine.

*CDC Report: [Antibiotic Resistance Threats in the United States](#), 2013