



Environmental Science Graduate Program Student Seminar Series

Antibiotic Resistance in the Environment

● Molly Mills

Cunz 330 | 11 - 2 - 18 | 3:00 - 4:00 pm



Abstract:

Antibiotics have revolutionized healthcare and agriculture. Unfortunately, after decades of misuse and overuse there has been a rapid increase in resistance genes in bacteria. The ease at which bacteria can exchange genetic material, coupled with the complexity of antimicrobial resistance (AMR) mechanisms are why this issue is a major public health concern that will not be going anywhere anytime soon. Although, historically, AMR research and cases have been focused in hospital settings, there is growing evidence that the environment can act as a reservoir

for AMR genes. This presentation will give some background to the possible and known environmental matrices that can be capable of disseminating AMR. Finally, a previous study in the lab of Dr. Jiyoung Lee will be discussed. This study, set in rural villages in China, assessed the implications of waste-fed waters in aquaculture. Overall contamination sources, pathogen presence, antibiotic resistance, and bacterial communities of the water were analyzed.

