

1154-92-2505 **Anne E. Yust*** (yusta@newschool.edu), 65 W. 11th St., New York, NY 10011, and **David S. Smyth**. *Simulating Antibiotic Resistance in the Computer and Biology Labs: Ideas for Undergraduate Research.*

Antibiotic resistance is a capacious and global problem, considered to be one of the most important public health threats of the 21st century. In this talk, we aim to outline ideas for mathematics and computer science faculty to work in conjunction with biology faculty to provide a multidisciplinary approach to undergraduate research projects. We will introduce integrated computer simulation and laboratory-based course modules designed for student exploration within the curriculum, as well as independent co-curricular research projects that will deepen student understanding of antibiotic resistance and its effect on planetary health. Prerequisite knowledge for the proposed projects and activities ranges so that the biological concepts, epidemiological problems, and social justice issues of antibiotic resistance can be accessible to and pondered by all undergraduate students. (Received September 17, 2019)