Ades awarded C.I. Noll Award for Excellence in Teaching

Sarah Ades, associate professor of biochemistry and molecular biology at Penn State University, has been honored with the 2015 C.I. Noll Award for Excellence in Teaching by the Eberly College of Science Alumni Society. Instituted in 1972 and named in honor of Clarence I. Noll, dean of the college from 1965 to 1971, the award is the highest honor for undergraduate teaching in the college. Students, faculty members, and alumni nominate outstanding faculty members who best exemplify the key characteristics of a Penn State educator, and a committee of students selects the award winners from the group of nominees.

Ades is being honored for her collaboration with fellow awardee Kenneth Keiler, professor of biochemistry and molecular biology, on the development, implementation, and assessment of two courses: one titled Introduction to Microbiology and the other titled Antibiotics: Development and Resistance. Ades and Keiler transformed the introductory microbiology course by challenging students to formulate questions of their own and design experiments to find answers to these questions. In their revamped course on antibiotics, Ades and Keiler help students to perform individual research projects and lead weekly seminars that cover skills that are necessary for careers in science, such as how to present research results, how to read scientific papers, and how public policy impacts science.

Research in the Ades laboratory focuses on understanding how information about changes in the environment, such as the presence of antibiotics, is transmitted from the outer cell compartment of a bacterial cell to components within the cell so that the bacteria can respond to these changes. She has developed methods to identify small molecules that can interrupt the cellular-signaling pathways that transmit this information. These molecules will be important compounds for the development of new kinds of antibiotics and can be used as tools for basic research.

In 2013, Ades was a winner of the GlaxoSmithKline PLC (GSK) Discovery Fast Track Challenge, a competition designed to accelerate the translation of academic research into novel medical therapies.
Ades earned a doctoral degree in biology at the Massachusetts Institute of Technology in 1995 and a bachelor's degree in molecular biophysics and biochemistry at Yale University in 1988. Prior to joining the Penn State faculty in June of 2002, she was a postdoctoral fellow in the department of stomatology at the University of California at San Francisco from 1997 to 2002 and at the Institut de Biologie Moleculaire et Cellulaire in Strasbourg, France, from 1995 to 1997.