Is the Classroom Lecture Becoming Extinct or Simply Evolving?

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In the age of online learning, what is the future of the college classroom? Will students be watching taped lectures from their dorm room beds? Will residential campuses even exist in the future?

Professor Drennan has been creating and assessing resources for the large classroom lecture at the Massachusetts Institute of Technology for the past 10 years, and her findings suggest that many of the cons of the big lecture can be addressed through small innovations. In this talk, she will present data showing that the big classroom lecture format retains value in this online world; that the traditional lecture can be evolved to create a positive learning environment for a diverse group of students.

These data will be presented in person. Come join us for a lively discussion of the future of education.

Catherine L. Drennan is a professor of chemistry and biology at the Massachusetts Institute of Technology, and a professor and investigator with the Howard Hughes Medical Institute.

Professor Drennan's educational initiatives include creating free resources for educators that help students recognize the underlying chemical principles in biology and medicine, and that train graduate student teaching assistants and mentors to be effective teacher-scholars.

The Drennan lab combines X-ray crystallography and electron microscopy with other techniques from biochemistry and biophysics to understand enzyme mechanisms—an approach called structural metalloenzymology. The primary targets of that research are enzymes containing metals or metallocofactors. These metalloenzymes use the enhanced reactivity of transition metals to catalyze challenging chemical reactions including radical-based chemistry and manipulation of organometallic bonds. The lab is also interested in metalloproteins that sense changes in the cellular environment and act as gene regulators.

Her awards include the Howard Hughes Medical Institute Investigator, Howard Hughes Medical Institute Professor, Everett Moore Baker Memorial Award for Excellence in Undergraduate Teaching, Harold E. Edgerton Faculty Achievement Award, Dean's Educational and Student Advising Award, Alfred P Sloan Fellow, American Society of Biochemistry and Molecular Biology (ASBMB)—Schering–Plough Research Institute Scientific Achievement Award, Presidential Early Career Award for Scientists and Engineers, Searle Scholar, Cecil and Ida Green Career Development Chair, and Surdna Foundation Research Award.