

The 2017 Abbott
Chemistry Lectures
April 6 & 7, 2017

Given by

Dr. Jonathan V. Sweedler *James*

R. Eiszner Family Endowed Chair in Chemistry

University of Illinois at Urbana-Champaign

Thursday, April 6, 7:00 PM

Abbott Hall Room 101

“From corals to humans, the common chemicals connecting our brains.”

Friday, April 7, 12:00 PM

Abbott Hall Room 138

“New Tools for Single Cell Chemical Characterization of the Brain.”



Jonathan Sweedler received his Ph.D. in Chemistry from the University of Arizona in 1988, spent several years at Stanford before moving to the University of Illinois at Urbana-Champaign in 1991 where he has been ever since. At Illinois, he is currently the James R. Eiszner Family Endowed Chair in Chemistry, Director of the School of Chemical Science, and affiliated with the Institute of Genomic Biology and the Beckman Institute for Advanced Science and Technology. His research interests focus on developing new approaches for assaying small volume samples, and in applying these methods to study novel interactions between cells. These analytical approaches include capillary separations, micro and nanofluidics, miniaturized separations, mass spectrometry and NMR. He has used these tools to characterize small molecules and peptides in a range of animal models across the metazoan and in

samples as small as individual cells and cellular domains. Recent work includes the development of a series of high throughput mass spectrometry approaches for characterizing tens of thousands of individual cells. Sweedler, with large international teams of biologists and technologists, has performed comprehensive interrogation of the genome, transcriptome and peptidome in a range of animal models to uncover signaling peptides and pathways involved in wide range of functions and behaviors.

Sweedler has published more than 400 manuscripts and presented 480 invited lectures. He has received numerous awards including the American Chemical Society (ACS) Analytical Division Arthur Findeis Award, the Benedetti-Pichler Award in Microanalysis, the Gill Prize in Neuroscience, the Instrumentation Award from the Analytical Division of the ACS, the Pittsburgh Analytical Chemistry Award, the ACS Award in Analytical Chemistry and the ANACHEM Award. He is a fellow of both the American Association for the Advancement of Science and the American Chemical Society. He is currently the Editor-in-Chief for *Analytical Chemistry*.

George A. Abbott, 1874-1973



Dr. George Alonzo Abbott, Professor Emeritus at the University of North Dakota, had a long and fruitful career of service to the State of North Dakota and the science of Chemistry. He was born July 7, 1874, in Alma, Illinois. Dr. Abbott received both the B.S. and M.A. pro merito from DePauw University. From 1896 until 1904 he taught chemistry in high schools in Evansville, Indiana; Duluth, Minnesota; and Indianapolis, Indiana. In 1903, through a contact with Professor Talbot, he received the Austen Research Fellowship at Massachusetts Institute of Technology. Under the guidance of A. A. Noyes, Professor of Physical Chemistry at M.I.T., he received the Ph.D. in 1908. In this first class of doctorates in chemistry were such notables as Edward Washburn, Charles Kraus and Richard Tolman. Dr. Abbott joined the chemistry staff of the North Dakota Agricultural College (North Dakota State University) in 1909. In

1910 he was appointed Professor and Chairman of the Department of Chemistry at the University of North Dakota. His devotion to teaching and the application of chemistry for the betterment of North Dakota was one of his outstanding contributions. His interests in quality water and in natural products such as lignite, for which North Dakota is recognized, gave him national recognition. For half a century he was the only toxicologist in a wide area of the upper midwest. He found time to do a weekly radio program "Science from the Sidelines" which was broadcast for over twenty years. Professor Abbott was a founder and charter member of the North Dakota Academy of Science. He was a member of the Red River Valley Section of the American Chemical Society, a Fellow of the American Institute of Chemists, member of Sigma Xi, and a charter member of the University of North Dakota Phi Beta Kappa chapter. Dr. Abbott retired from administration in 1948 and from teaching in 1952. He continued toxicological work until 1970.

The George A. Abbott Lectureship was established by gifts from the University of North Dakota Alumni.

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