

Analytical Chemistry Seminar
Wednesday, October 14, 2015, 4:00pm (coffee and cookies at 3:50pm)
Leigh Hall 207

"Metabolomics: opportunities and issues"

Dr. Chris Beecher

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Southeast Center for Integrated Metabolomics (SECIM)

Candidate for a Joint Appointment in Chemistry

Biosketch

Dr. Beecher holds a B.A. in Anthropology (New York University), an M.S. in Biology (New York University), and a Ph.D. in Pharmaceutical Sciences/Natural products Chemistry (University of Connecticut). He began his research into the high-throughput chemical characterization of complex mixtures while on the faculty of the University of Illinois, College of Pharmacy (1985) where he held the position of Associate Professor. In 1997 he was invited to continue this research in the laboratories of Bristol-Myers Squibb, and Ancile Pharmaceuticals. His focus shifted from secondary metabolism to primary metabolism with the establishment of the first Metabolomics platform in America at Paradigm Genetics in 2000. In 2003 he was the Technical Founder of Metabolon in RTP, NC. In 2007 he returned to academia as a Professor in the Department of Pathology at the University of Michigan Medical School where he established the UM Metabolomics Center (one of six NIH funded metabolomics centers). In 2010 he founded IROA Technologies. In 2014 he joined the University of Florida as Associate Director of SECIM (another of the six NIH funded metabolomics centers). He holds many patents and publications in the areas of Metabolomics and Natural Products chemistry.



Dr. Beecher is a chemist with specialty knowledge of natural products chemistry, biochemistry and the chemical characterization of complex mixtures. He was the editor of the NAPRALERT database from 1990 to 1998, Editor-in-Chief of the International Journal of Pharmacognosy, and served as a founding member of the Functional Foods Program of the University of Illinois.

Abstract

Metabolomics is legitimately able to claim it is the oldest of the omics sciences, the newest of the omics sciences, and the future of human healthcare. This seminar will view metabolomics from a broad perspective and discuss its realistic potential, and the areas that either provide new opportunity or need improvement. Discussions of the discovery of sarcosine as a biomarker and IROA as an improved protocol will be used to illustrate both the opportunities, and the issues.