



2009–2010 POCC Lecture Series

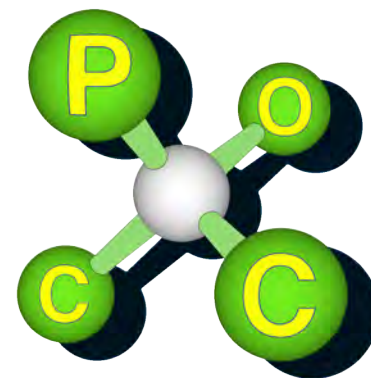
March 25, 2010, 8:00 PM

Dr. Peter R. Bernstein
AstraZeneca Pharmaceuticals

"5-HT_{1B} Ligands as Potential Agents for the Treatment of Anxiety and Depression: A story in CNS Drug Discovery"

Carolyn Hoff Lynch Lecture Hall
Chemistry Building, University of Pennsylvania

The Philadelphia
Organic Chemist's
Club



POCClub.org

Dr. Peter Bernstein completed his undergraduate studies at the University of Rochester in chemistry, and then earned his Ph.D. degree in synthetic organic chemistry under the direction of Professor Gilbert Stork at Columbia University. In 1977 he moved to University of Wisconsin, Madison where he carried out postdoctoral research in the laboratory of Professor Barry Trost, and in 1979, he joined ICI Pharmaceuticals Wilmington, DE as a Research Chemist. He has been a member of drug discovery project teams in areas of respiratory, inflammatory disease and neuroscience, has been closely associated with multiple drug candidates that have undergone clinical studies, and is one of the inventors of Accolate[®]. That was the first new approach to treating asthma, launched in >30 years. Dr. Bernstein is currently a Sr. Principal Scientist at the AstraZeneca Wilmington research site. He has co-authored over 50 publications in chemistry and drug discovery and is a co-inventor on over 60 patents.

Abstract: CNS drug discovery is particularly challenging: the blood-brain barrier inhibits access to the brain, the models linking to disease are less robust than in some other areas, and there is the additional complexity of determining the brain levels of agents [during both preclinical and clinical trials] so that one can know whether the failure to see a desired outcome is linked to failure of the hypothesis and not just failure to get your drug to the targeted site. This lecture will focus on the path and the challenges [synthetic, medicinal, and pharmacological] that were overcome in a quest to discover and develop 5-HT_{1B} ligands as potential agents for the treatment of anxiety and depression. The lecture will follow the path of multiple compounds into the clinic and show how the learning's at each stage helped to set and guide the compound criteria that the chemists needed to meet for continued progression.