



POCC Seminar

Date and Time: January, 25th 2007, 8:00 p.m.

Speaker: Dr. Michael Kress, Cephalon

Title: *Development of Scalable Routes to Armodafinil*

Room: Carolyn Hoff Lynch Lecture Hall, University of Pennsylvania

Dr. Michael Kress received his B.S. degree from the Pennsylvania State University where he completed undergraduate research with Roy Olofson on the synthesis and reactivity of haloformates. Upon graduation Mike joined the laboratory of Professor Yoshito Kishi at Harvard, where his research focused on the total synthesis of members of the taxane diterpenoid family and the development of synthetic methodology. Upon receiving his Ph.D. Mike accepted a position in the Process Research group at Merck where he rose to the position of Director. In February of 2006, Dr. Kress left Merck to accept his current position where he leads the Worldwide Chemical Process Research and Development group at Cephalon.

Abstract: Armodafinil is the (*R*) enantiomer of modafinil, a novel treatment for excessive daytime sleepiness resulting from disease states such as narcolepsy. The rapid development timelines required for this chiral drug substance resulted in a multifaceted effort in order to supply early clinical requirements, and bridge the supply chain to an efficient commercialization route. To this end, a number of preparative methods were successfully employed, and will be reviewed; ultimately culminating in the development of a highly efficient asymmetric oxidation of a prochiral dialkyl sulfide.