



2016-2017 POCC Lecture Series

January 26, 2017, 8:00 PM

The GSK Lecture at POCC

Prof. Karl A. Scheidt

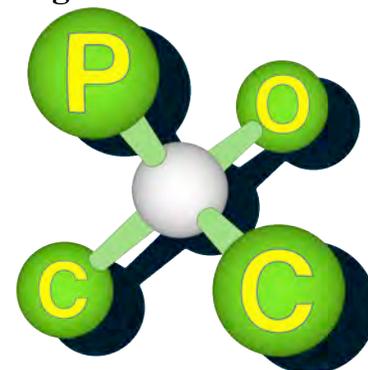
Northwestern University

Cooperative Catalysis Strategies for Medically Relevant Synthesis

Carolyn Hoff Lynch Lecture Hall

Chemistry Building, University of Pennsylvania

The Philadelphia
Organic Chemist's Club



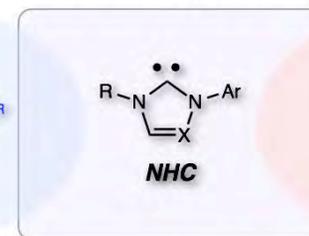
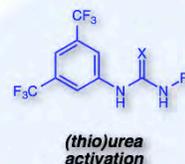
POCClub.org

To join us for dinner before the lecture please contact POCC's secretary Thomas Razler (thomas.razler@bms.com) at least one week ahead of time.

Karl's early interest in science was encouraged by his father, a prominent inorganic chemistry professor. He received his undergraduate degree from Notre Dame in 1994 while working in the laboratory of Professor Marvin J. Miller. Karl then earned his Ph.D. from Indiana University with William Roush and was a National Institutes of Health Postdoctoral Fellow with David Evans at Harvard University exploring new strategies for Lewis acid catalysis. Karl's independent research program leverages the areas of catalysis, chemical synthesis and bioorganic chemistry for translational research. His laboratory has pioneered the development of cooperative catalysis and is an expert in the synthesis and application of bioactive small molecules towards clinical endpoints. He is currently a Professor in the Departments of Chemistry and Pharmacology, an American Cancer Society Research Scholar, the recipient of an NSF CAREER Award, and a Fellow of the AAAS, the Sloan Foundation, and the Royal Society of Chemistry. He is currently the director of NU's Center for Molecular Innovation and Drug Discovery, a regular consultant for pharmaceutical companies, and is also the cofounder of two biotech startup companies in the oncology space.

Abstract: N-heterocyclic carbenes (NHCs) have tremendous versatility as ligands for transition metals and as highly selective organocatalysts. Our research program has pioneered the development of NHCs as unique Lewis base catalysts for stereoselective C–C and C–N bond forming processes involving unique homoenolate and enolate reactivity. These new metal-free, catalytic reactions provide immense opportunities for development and application in target synthesis. This presentation will describe our recent discoveries in the area of cooperative catalysis and the applications to the synthesis of medically relevant natural products.

Cooperative Organocatalysis



innovative chemical reactivity • new reaction development
enabling strategies for synthesis