2025-2026 POCC Lecture Series

Allan Day Award Lecture:

November 20, 2025, 7:30 PM

Prof. Scott Miller

Yale University

Asymmetric Catalysis at the Interface of Enzymes and Small Molecules

IN PERSON @:

CHEM 102 Lecture Hall

Chemistry Building, University of Pennsylvania

6:30 Reception in the Nobel Hall

Food and drinks to be provided!

The Philadelphia Organic Chemist's Club

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Abstract: Peptide-based catalysis is now an established paradigm for developing a wide range of enantioselective and site-selective catalytic processes. Predicated on the broad principle of multifunctional catalysis, these systems proceed through transition states wherein sets of formed and partially formed chemical bonds are surrounded by an accumulation of noncovalent interactions. What factors contribute to the realization of high-selectivity scenarios? Where are we along the design versus screening continuum as we confront new reactions for the first time? Have general principles emerged, or are we mostly striving to clutter up the transition states with interactions with the expectation, or hope, that degeneracy of energies is unlikely? Are analogies to enzymes well-founded? This lecture will endeavor to address these questions.

Bio: Scott was born and raised in Buffalo, NY. He received his B.A. (1989), M.A. (1989) and Ph.D. (1994) from Harvard University, where he worked with David Evans as a National Science Foundation Predoctoral Fellow. Subsequently, he traveled to the California Institute of Technology where he was a National Science Foundation Postdoctoral Fellow with Robert Grubbs until 1996. For the following decade, he was a member of the faculty at Boston College, until joining the faculty at Yale University in 2006. In 2008, he was appointed as the Irénée du Pont Professor of Chemistry, and in 2023 as a Sterling Professor of Chemistry. (For more info: https://millerlab.yale.edu/scott-j-miller).