

2023-2024 POCC Lecture Series

The POCC Industrial Award Lecture:

March 21, 2024, 7:30 PM

Prof. Alexander Grenning

University of Minnesota

Malononitrile: A Love Story & Exploring an Alternate
Universe of Axially Chiral Natural Products
IN PERSON @:

Carolyn Hoff Lynch 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: Presented will be two short stories pertaining to our group's research and how it may impact small molecule discovery. The first story will describe the synthetic value of malononitrile to pharmaceutical development with particular focus on alkylidenemalononitrile building blocks and Cope rearrangements of 3,3-dicyano-1,5-dienes. The second story will describe the conceptualization, a case study, and broad potential impacts of synthesizing and studying axially chiral analogs of point chiral natural products.

Bio: Alex is from the northern suburbs of Chicago. He received his B.A. degree from Lake Forest College under the research supervision of Dr. William B. Martin in 2007. He received his Ph.D. in Chemistry in 2012 from the University of Kansas under the guidance of Prof. Jon A. Tunge where he developed various decarboxylative and deacylative allylation reactions. In 2012, he moved to Boston University to work with Prof. John A. Porco on complex molecule synthesis, most notably the development of new routes to polyprenylatedacylphloroglucinol (PPAP) natural products and analogs. Alex's independent career began in the summer of 2014 when he joined the faculty in the Department of Chemistry at the University of Florida in Gainesville. Alex was promoted to Associate Professor in 2021. In January 2024, he transitioned to an Associate Professor Position at the University of Minnesota in Minneapolis.

Alex's research goals are to advance the field of organic chemistry through research, education, and outreach. His group strives for an exciting and inclusive learning and research experience. Research interests currently include the development of chemical methods, strategies, and concepts that capitalize on simplicity for making complex molecules. Outreach efforts are also very important to Alex. He has been actively involved with the FloHet conference, the Organic Reactions and Processes GRC, and the ACS Division of Organic Chemistry. A unifying goal of these community building initiatives is to provide a platform and showcase a diversity of research and researchers in the field of organic chemistry.

In addition to his lifelong passion studying and promoting organic chemistry, Alex also enjoys the finer things in life: time with family, outdoor activities, camping, cooking, billiards, foosball, rock n' roll and record collecting, and most recently, curling.