INDUSTRY ⇌ ACADEMIA
SINCE 1945

80th Anniversary Symposium

University of Pennsylvania

May 21st 2026

About POCC

POCC's mission was always about building a community, fostering communication between scientists, and above all else, bringing people together to talk about chemistry. Established in 1945, POCC began as an informal student and faculty run organization that sought to bring together chemists in the Philadelphia area to share their findings. In those days, many speakers were local, and participation from industrial scientists was less common. "Philadelphia in 1949 was very different than today; it was very difficult to share information. We wanted an organization that would provide some unity for chemists in the area," said Madeleine Joullie, a champion of women in the chemical sciences, and notable Professor emeritus at Penn. Indeed, this sentiment is echoed by University of Delaware's Professor emeritus Doug Taber. "POCC has always been a time to get to know the people behind the science, and beyond just the publications. It was, and is, a way to get to know your chemical neighbors". During the 1950s and through the 1970s, POCC---championed by Allan Day, Madeliene Joullie, and Amos Smith---expanded from a local organization to a regional one as its reputation became nationally known. Industry became more involved in the organization and would also donate, allowing POCC to bring speakers from outside the area. Just south of Philly in Wilmington, the Wilmington Organic Chemist Club (WOCC) was following a similar model, imbued with interactions from the duPont chemical company. Because of their shared mission, the two organizations combined every-other year for the great POCC-WOCC symposium; this was made even easier after the completion of the I-95 in 1982. During the 1980s, speakers like Paul Greico, John Stille, Clayton Heathcock, Gilbert Stork, Bob Boeckman, Ed Vedejs, Paul Wender, Dennis Curran, and Paul Schleyer would frequently appear to give talks. After some time, the two organization effectively merged to become a regional club simply known as POCC. Throughout the 1990s, into the 2000s and beyond, there was an increase in participation from local industry (pharmaceuticals, agrochemicals, etc.) allowing the organization to grow further. By that time, the organization had an executive board and took the form of what it now is today: a joint venture between industrial and academic researchers to host speakers and give back to the community. And, for as different as chemistry and Philadelphia is today when compared to 1945, the core mission of POCC still remains: bringing the community together to share good science, and to get to know each other!

Learn more at https://www.pocclub.org/

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Christopher Kelly

Principal Scientist,
Discovery Process Chemistry
Johnson and Johnson
2025-2026 POCC Chair

Welcome to POCC's 80th Anniversary Symposium!

A native New Yorker, Chris's interest in synthesis was sparked during his undergraduate studies at Stonehill College. At Stonehill, Chris worked under Prof. Leon Tilley and completed a targeted synthesis of 1-(trifluoromethyl)bicyclo[1.1.0]butane. Chris moved to UCONN in 2010 to perform his doctoral work under Prof. Nicholas Leadbeater. At UCONN, he worked in the areas of organofluorine chemistry and sustainable oxidative processes. In 2015, he continued his training under Prof. Gary Molander at the University of Pennsylvania as an NIH Postdoctoral Fellow. At Penn, Chris's research utilized photoredox catalysis to enable C–C bond construction. He regularly attended POCC seminars and appreciated how it influenced his own development. After a short stint (2018-2019) in academia as an Assistant Professor at Virginia Commonwealth University, he joined JnJ's Discovery Process Research team to tackle problems relating to human health. However, because of his passion for teaching, Chris also serves as the lecturer for CHEM 746, a graduate-level organic chemistry course at Penn, since Fall 2020. He has served on the POCC eBoard since 2019 as it's webmaster, and is the current chair.

Dear Attendee,

On behalf of the POCC organization, I would like to welcome you warmly to today's very special symposium. We are delighted that you could join us to celebrate 80 years (!) of bringing great seminars to the greater Philadelphia community. At the outset of the 2025-2026 cycle, I wanted to ensure this year was special and that it brought the community closer together. We launched new initiatives like the POCC travel award and on-site membership drives while also keeping true to our traditions. We had multiple high-profile awards, a jam-packed poster session, and a season that was filled with great memories. As chair, I wanted to end the season on a high note and do something POCC has not done in many years: a symposium. Many folks within and outside the POCC organization worked together diligently to put together today's symposium, and we are thankful for their efforts. In addition, we were fortunate as an organization to have the financial backing of many sponsors. Without all this support, the 80th Anniversary Symposium would not have been possible. I truly hope you enjoy today's symposium and leave the event with an expanded network, new ideas to try in the laboratory, and memories of a fun night of great lectures. Here's to an additional 80 years (and more) of seminars in the city of brotherly love.

Sincerely,
Chris

Symposium Agenda

Afternoon Session

3:00 – 4:00 PM	**Guest Arrival and Check-in** *Light Refreshments Served, Swag Provided to Attendees*
4:00 – 4:15 PM	**Opening Remarks by the Chair, Introduction of Speakers** ***Dr. Christopher Kelly**, Johnson and Johnson*
4:15– 5:00 PM	**Early Career Investigator Award Lecture** *Chemical and Biocatalytic Synthesis of Natural Products* ***Prof. Chi Ting**, Brandeis University*
5:00 – 5:30 PM	**POCC Travel Award Lecture** *Mechanistic Investigations of Cobalt Phthalocyanine in the Nickel-Catalyzed Atroposelective Reductive Synthesis of 2,2'-Bisphosphobiarenes* ***Catherine Mudd,** University of Delaware*

Reception

5:30 – 6:30 PM	**Symposium Reception** *Catering from Bon Appetit and Pizza from Zesto*

Evening Session

6:30 – 6:35 PM	**Evening Remarks by the Chair, Introduction of Industrial Keynote Lecturer** ***Dr. Christopher Kelly**, Johnson and Johnson*
6:35 – 7:25 PM	**Industrial Keynote Lecture** *Synthesis Innovation in Drug Discovery* ***Dr. Eric Voight**, AbbVie*
7:25 – 7:30 PM	**Introduction of Academic Keynote Lecturer** ***Prof. Christopher Beaudry**, Temple*
7:30 – 8:30 PM	**Academic Keynote Lecture** *Uncovering Cooperative Pathways in Asymmetric Catalysis* ***Prof. Eric Jacobsen**, Harvard University*
8:30 – 8:50 PM	**Questions and Closing Remarks by the Chair** ***Dr. Christopher Kelly**, Johnson and Johnson &* ***Prof. Christopher Beaudry**, Temple University*

Early Career Award Lecturer

Chi Ting

Assistant Professor of Chemistry, Brandeis University

University of Illinois, Urbana-Champaign (B.S., 2012)

University of California, Berkeley (Ph.D. 2017)
with Professor Thomas J. Maimone

NIH Postdoctoral Fellow,
University of Illinois, Urbana-Champaign (2017-2020)
with Professor Wilfred A. van der Donk

Chi received his B.S. degree in chemistry at the University of Illinois at Urbana−Champaign, where he worked under the direction of Prof. Steven Zimmerman. In 2012, he began doctoral studies at the University of California, Berkeley working with Prof. Tom Maimone. For his Ph.D., Chi completed the total syntheses of aryltetralin lignans and complex meroterpenes. At Berkeley, Chi was the recipient of a NSF predoctoral fellowship and the Bristol-Myers Squibb graduate fellowship. In 2017, he returned to the University of Illinois for postdoctoral studies in biochemistry. In the van der Donk lab, he studied the biosynthesis of amino acid-derived natural products as a NIH postdoctoral fellow. In 2020, Chi started his independent career at Brandeis University as an assistant professor of chemistry where his program focuses on the total synthesis and chemoenzymatic synthesis of natural products. He is a recipient of the NSF CAREER award and the Thieme Chemistry Award.

Chemical and Biocatalytic Synthesis of Natural Products

In this presentation, several chemical and biocatalytic syntheses of amino acid-derived natural products will be discussed. Ribosomally synthesized and post-translationally modified peptides (RiPPs) are a growing class of natural products, many of which possess antimicrobial activity. Sactipeptides are one subclass of RiPPs that are defined by thioaminoketal functional groups. In this presentation, thioaminoketals are assembled through the Markovnikov hydrothiolation of dehydroamino acids using a dithiophosphoric acid catalyst. This method results in the formation of the thioaminoketal directly from peptides containing dehydroamino acids and overrides the inherent reactivity of thiols to undergo conjugate addition. Despite their therapeutic potential, many sactipeptides are stereochemically undefined, preventing their further development into antibiotics. Enteropeptin A is an antimicrobial sactipeptide with a highly unusual thioaminoketal embedded in a thiomorpholine ring. The synthesis of enteropeptin A and its diastereomer enabled the structural elucidation and the determination of the stereochemical configuration of enteropeptin A. In the synthesis, the Markovnikov hydrothiolation reaction was applied in a stereoselective cyclization to form the thiomorpholine ring. These results form a foundation and potential guidelines for the development of stereoselective peptide cyclization.

In the second part of the presentation, a chemoenzymatic synthesis of 13-oxoverruculogen, an anticancer endoperoxide, is achieved using enzymatic C-H peroxidation and transition metal catalyzed C-C bond activation reactions. Biocatalysis is an emerging area of research which incorporates the use of enzymatic reactions to streamline complex molecule synthesis. Central to the synthesis involves the use of a non-heme iron alpha-ketoglutarate dependent enzyme for C-H oxidation and eight-membered endoperoxide formation. Moreover, the use of a substrate analog for enzymatic endoperoxidation proved essential to accomplish the synthesis of 13-oxoverruculogen.

POCC Travel Award Lecturer

Catherine Mudd

Graduate Student, University of Delaware

Loyola University Chicago (B.S., 2023)

University of Delaware (Ph.D. 2023-Present)
with Professor Donald Watson

Originally from Portland Oregon, Catherine Mudd graduated summa cum laude with a degree in biochemistry from Loyola University Chicago. While at Loyola she worked for Dr. Jim Devery studying the mechanism of carbonyl-olefin metathesis. She started at the University of Delaware (UD) in fall of 2023, joining the lab of Dr. Don Watson. In 2024, she joined the Chemistry-Biology Interface (CBI) program at UD as a CBI fellow. Her work focuses on understanding the mechanism of nickel-catalyzed atroposelective reductive couplings and using that knowledge to develop novel routes to access complex tetra-substituted biarenes.

Mechanistic Investigations of Cobalt Phthalocyanine in the Nickel-Catalyzed Atroposelective Reductive Synthesis of 2,2'-Bisphosphobiarenes

Recently, our lab disclosed one of the first general atroposelective reductive homocoupling of aryl halides to provide highly enantioenriched chiral biarenes. Interestingly, both yield and enantioselectivity in the reaction were found to be reliant on the additive cobalt phthalocyanine (CoPc). Ongoing mechanistic studies has focused on understanding the role of CoPc; however, the insolubility of CoPc has served as a barrier to an in-depth examination, making development of an organic-soluble CoPc derivative essential for these investigations. I have synthesized a large, bulky derivative of CoPc, CoPc(O-aryl)8, and found it to be both active in the reaction and several orders of magnitude more soluble across a variety of organic solvents when compared to CoPc. I will describe this compound and preliminary studies into its role in reductive biaryl bisphosphine formation.

Industrial Keynote Lecture

Eric Voight

Sr Research Fellow, AbbVie

University of MN-Twin Cities (B.S., 1999)

University of Wisconsin-Madison (Ph.D. 2004)
with Professor Steve Burke

Eric Voight is a Senior Research Fellow in AbbVie Global Medicinal Chemistry where he leads the Centralized Organic Synthesis group and serves as a Parkinson's Disease Project Director. He and his team have contributed to over 35 clinical candidates across immunology, oncology, cystic fibrosis, virology, and neuroscience, including VYALEVTM for advanced Parkinson's Disease which was approved by the U.S. FDA in 2024. Eric is a coauthor of > 50 publications and book chapters, coinventor on > 25 patents, champions industry-academic collaborations in synthesis, serves on the steering committee for the Catalysis Innovation Consortium, and served as chair of the 2024 Heterocyclic Compounds Gordon Research Conference. Before his current role, Eric was a medicinal chemistry lead in Neuroscience-Pain and spent four years as a process chemist at Merck and GSK. He received his bachelor's degree at the University of Minnesota – Twin Cities and his Ph.D. at the University of Wisconsin – Madison with Professor Steve Burke.

Synthesis Innovation in Drug Discovery

Excellence in synthetic organic chemistry plays an increasingly important role in drug discovery efforts as small molecule targets become more complex along with accelerated project timelines. AbbVie's discovery synthesis groups have addressed this need by bridging the gap between discovery and process chemistry, providing new scaffolds and methods to accelerate structure-activity relationship studies, rapidly scaling lead compounds, and collaborating internally and externally across many diverse projects. Case studies from immunology, oncology, virology, cystic fibrosis, and neuroscience projects will showcase the impact of this approach, with asymmetric synthesis and academic collaboration as common themes. Finally, the synthesis-driven discovery of VYALEVTM/PRODUODOPA® for advanced Parkinson's Disease will be described.

Academic Keynote Lecture

Eric Jacobsen

Sheldon Emery Professor of Chemistry, Harvard University

New York University (B.S., 1982)

University of California, Berkeley (Ph.D. 1986)
with Professor Robert Bergman

NIH Postdoctoral Fellow,
MIT (1986-1988)
with Professor K. Barry Sharpless

Eric Jacobsen was born in New York City of Cuban parents and was raised in lower Manhattan and Queens. He graduated from New York University in 1982 with a B.S. in Chemistry. At NYU he was introduced to research by Yorke Rhodes. His Ph.D. work was done at U.C. Berkeley in the area of mechanistic organometallic chemistry under the direction of Robert Bergman. In 1986, he returned to the East Coast of the U.S. for an NIH postdoctoral fellowship with Barry Sharpless at MIT, where he participated in the early development of the asymmetric dihydroxylation reaction. In 1988, he began his independent career at the University of Illinois. He moved to Harvard University as full professor in the summer of 1993. He was named the Sheldon Emory Professor of Organic Chemistry in 2001, and served as Chair of the Department of Chemistry and Chemical Biology between 2010 and 2015. In 2024 Eric became Associate Editor for *JACS*.

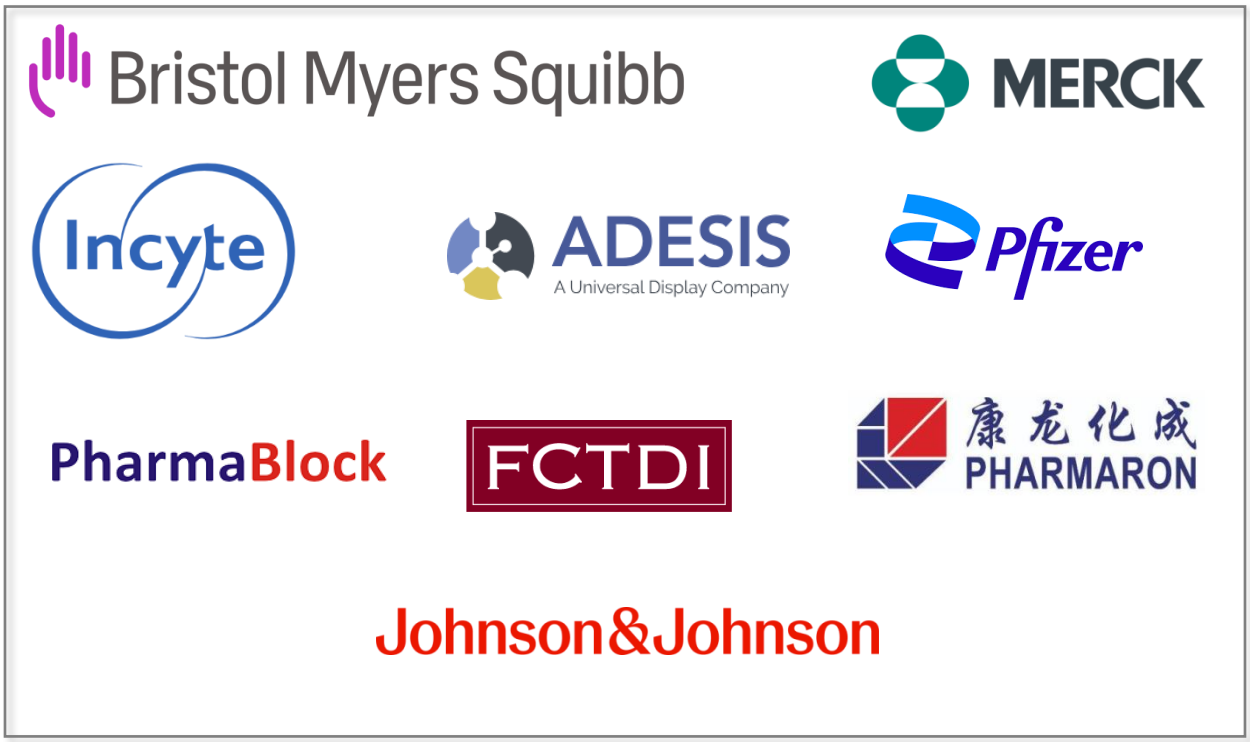
The Jacobsen research group is dedicated to discovering selective catalytic reactions, and to applying state-of-the art mechanistic and computational techniques to the analysis of those reactions. Several of the catalysts developed in his labs have found widespread application in industry and academia. These include metal-salen complexes for asymmetric epoxidation, conjugate additions, and hydrolytic kinetic resolution of epoxides; chromium-Schiff base complexes for a wide range of enantioselective pericyclic reactions; and organic hydrogen-bond-donor catalysts for activation of neutral and ionic electrophiles. The Jacobsen group's mechanistic analyses of these systems have helped uncover general principles for catalyst design, including electronic tuning of selectivity, cooperative homo- and hetero-bimetallic catalysis, privileged catalysis, hydrogen-bond donor asymmetric catalysis, and anion-binding catalysis. The recognitions Eric has received include the Arthur C. Cope Medal and Roger Adams Award of the American Chemical Society, the Welch Prize, the Tetrahedron Prize, the Chirality Medal, and elections to the U.S. National Academy of Sciences and the American Academy of Arts and Sciences.

Uncovering Cooperative Pathways in Asymmetric Catalysis

In the course of my group's efforts to discover new asymmetric catalytic reactions, we have had occasion to perform deep mechanistic analyses of the catalysts we have discovered. In this lecture, I will describe how strategic application of mechanistic principles has allowed us to apply hypothesis-driven design to achieve cooperativity in selective catalysis. I will also relate different instances where kinetic analyses led to unexpected insights into catalytic mechanisms and ultimately led us to improved or completely new catalytic systems. The common feature of each of these systems was ultimately found to be the operation of unanticipated homo-cooperative mechanisms. The lecture will conclude with a discussion of our recent efforts to identify cooperative pathways through mechanistically agnostic approaches.

Sponsors for Today's Event

In addition, we would like to acknowledge all the sponsors we've had over the 2025-2026 cycle that have enabled us to make our 80th year one for the record books:



Become a POCC Member!

In addition to our generous sponsorships, we rely on member dues to support our seminar series. These funds are used to pay for refreshments as well as speaker lodging and travel (and poster awards, swag, etc.). As a member of POCC, you support Philadelphia's rich chemistry traditions. You can join using a debit or credit card or send in a check. An acknowledgement and receipt will be sent by email.

One-year Membership
(NEW RATE FOR 2025-2026: $25 + $1 transaction fee for Regular Members, $15 + $1 transaction fee for Students)

New for 2025-2026: *Pay via Heartland:* We recently switched from PayPal to an online payment service that makes becoming a member even easier! Visit https://securepayment.link/pocclub/ to sign up:

After paying for your membership, please also send an e-mail containing the following:

– Your Name
– Your Organization (Company/School)
– Your mailing address
– Your Email address

To Secretary Rob Dyer (secretary.pocc@gmail.com)

To pay by check, please mail a check to our treasurer at the below address:

POCC
c/o Joseph M. Karpinski
Eastern University - Chemistry
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Meet the 2025-2026 eBoard!

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Reach out to Christopher Kelly (ckelly5@its.jnj.com) or Christopher Beaudry (beaudry@temple.edu)