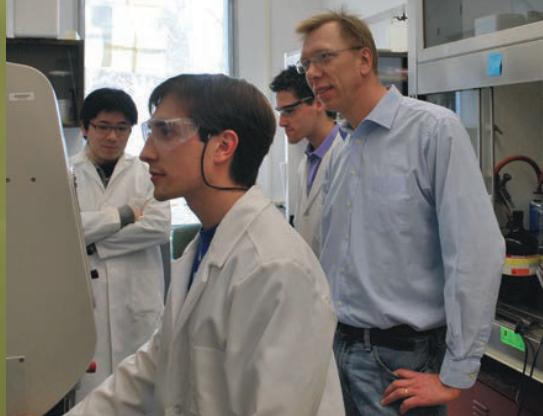


Organic Chemistry

Department of Chemistry
University of Illinois at Urbana-Champaign

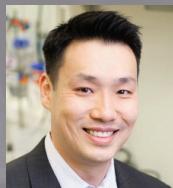
For more information, visit
chemistry.illinois.edu



Martin D. Burke

Synthesis and study of small molecules with protein-like functions; molecular prosthetics; synthesis of complex natural products; iterative cross-coupling; MIDA boronates

chemistry.illinois.edu/mdburke



Jefferson Chan

Synthesis of activity-based sensing probes for point-of-care diagnostic applications; development of chemically responsive platforms for on-demand and site-selective drug delivery; rational design of therapeutic agents for neurological disorders and cancer

chemistry.illinois.edu/jeffchan



Scott E. Denmark

The invention, development, and application of catalytic, asymmetric organic reactions; elucidation of structure-reactivity relationships employing spectroscopic, crystallographic, and computational methods; application of AI/machine learning to accelerate optimization of catalysts and reaction conditions

chemistry.illinois.edu/sdenmark



Paul J. Hergenrother

Using compounds derived from synthetic organic chemistry and natural products to explore biological systems; examples include the synthesis and evaluation of anticancer and antibacterial agents with novel modes of action

chemistry.illinois.edu/hergenro



Angad Mehta

Synthetic chemistry and synthetic biology (i) to combat emerging viral pathogens and drug-resistant bacteria; (ii) for directed endosymbiosis (an engineered, symbiotic cell within a host cell) to develop platforms for evolutionary studies and photosynthetic biosynthesis; and (iii) engineering selectivity in targeting cancer

chemistry.illinois.edu/apm8

Organic Chemistry

Other faculty with interests in Organic Chemistry

Gregory S. Girolami
Organometallic chemistry; catalysis

Mary L. Kraft (faculty affiliate)
Biomembrane surface science

Liviu M. Mirica
Transition metal-catalyzed oxidative organic transformations

Eric Oldfield
Antibiotics; anti-cancer drugs

Lisa Olshansky
Synthesis and application of switchable ligands to support dual metal ion coordination geometries

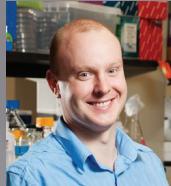
Huimin Zhao (faculty affiliate)
Natural product biosynthesis; synthetic biology



Douglas A. Mitchell

Reactivity-based natural product discovery; complex molecule structural elucidation and derivatization; structure-activity relationships and mode of action determination of biomedically important compounds

chemistry.illinois.edu/douglasm



David Sarlah

Synthesis of complex natural products and the related chemical biology; methodology development; asymmetric catalysis

chemistry.illinois.edu/sarlah



Scott K. Silverman

DNA as a catalyst

chemistry.illinois.edu/sks



Wilfred A. van der Donk

Use of synthetic organic chemistry to address biological problems; antibiotic synthesis is of particular interest

chemistry.illinois.edu/vddonk



M. Christina White

Synthesis-driven reaction discovery dedicated to the discovery and study of practical, selective catalytic reactions that streamline the synthesis and late-stage functionalization of complex molecules; examples include site-selective C—H hydroxylations and aminations and asymmetric C—H oxidations and alkylations

chemistry.illinois.edu/mcwhite7

