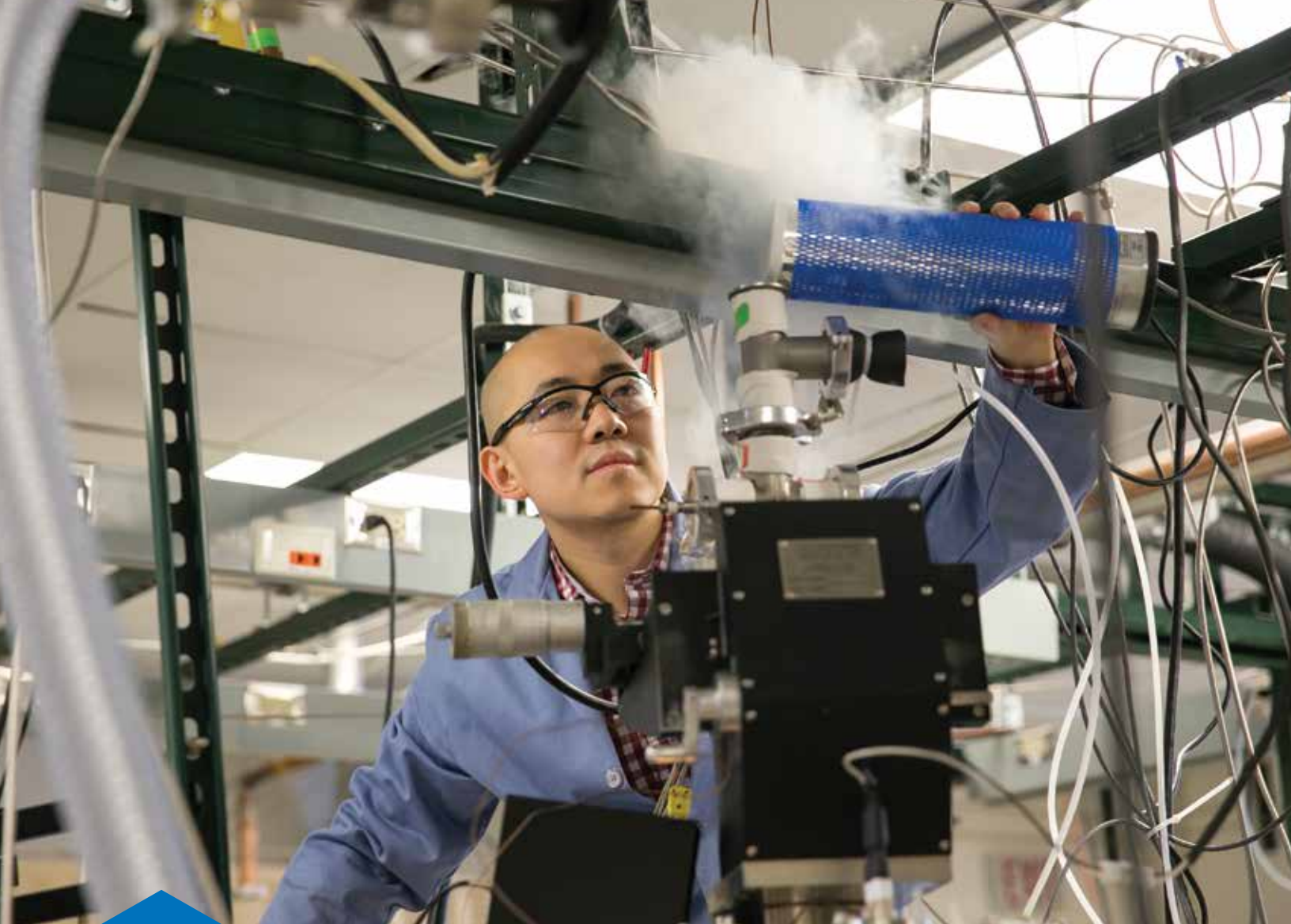


CHEMICAL & BIOMOLECULAR ENGINEERING

PhD in Chemical Engineering



I ILLINOIS



At the University of Illinois **Department of Chemical & Biomolecular Engineering**, we are tackling the world's most daunting challenges in health, energy, and the environment.

DYNAMIC, RIGOROUS RESEARCH

As a graduate student in the Department of Chemical & Biomolecular Engineering, you will be part of a creative and rigorous research enterprise. You could be involved in investigating implantable biomaterials to regenerate tendons, developing nanomaterials for energy and biotechnology, or working on greener alternatives for chemical processes, among many other exciting research projects. Our areas of research include:

Biomolecular Engineering

Synthetic Biology and Biochemical Engineering, Regenerative Medicine, Cellular and Molecular Biophysics, Bioimaging

Energy and Sustainability

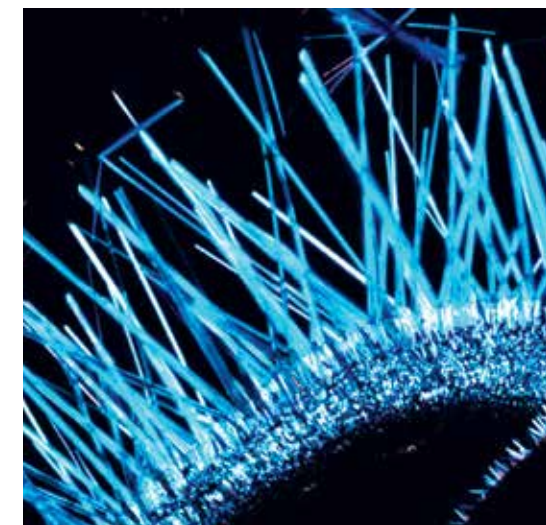
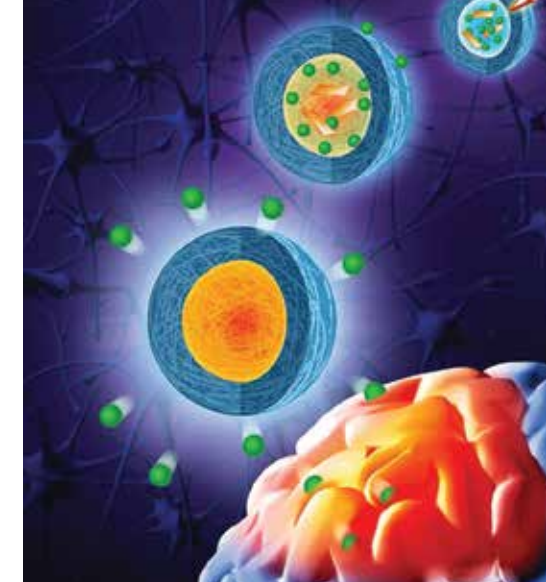
Catalytic Production of Fuels and Chemicals, Photo and Electrocatalysis, Environmental Remediation, Fuel Cells, CO₂ Utilization

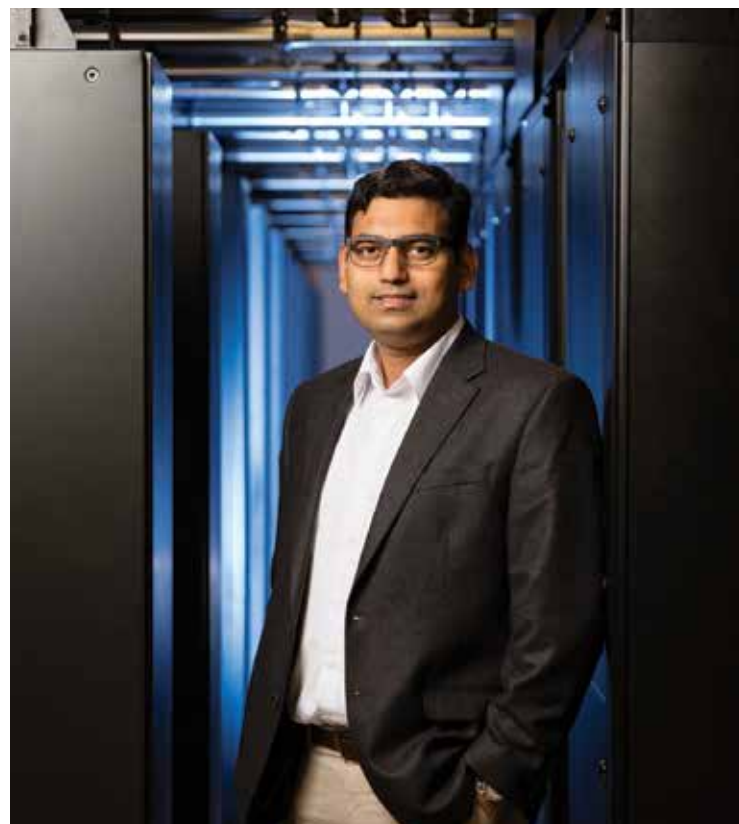
Soft Matter and Advanced Materials

Functional Materials, Polymer Physics, Self-Assembly

Computational Research

Quantum Mechanics, Molecular Simulations, Coarse-Grained Simulations, Theoretical & Computational Methods





STRONG RESEARCH FUNDING & PARTNERSHIPS

Our department is highly collaborative. Chemical & Biomolecular Engineering faculty and students are involved in numerous cross-campus collaborations and work closely with industry partners, national labs, and other universities.

MAJOR RESEARCH INITIATIVES

Center for Advanced Bioenergy and Bioproducts Innovation

CABBI is a \$125 million Department of Energy center focused on developing sustainable, cost-effective biofuels and bioproducts. Illinois leads a team of 20 institutions and more than 200 scientists and engineers.

Energy Biosciences Institute

A collaboration between Illinois, Shell, and the University of California, Berkeley, the EBI is helping the world transition into a carbon neutral future.

Dow University Partnership Initiative

This initiative involves investigations of catalysis and reaction engineering, synthesis of electronic materials, and new methods to produce soft materials.

Carl R. Woese Institute for Genomic Biology

IGB is dedicated to transformative research and technology in life sciences. It is home to 11 research themes, including Biosystems Design and Regenerative Biology & Tissue Engineering.

Beckman Institute for Advanced Science and Technology

We have a strong presence in the Molecular Design and Engineering group in the Beckman Institute, an interdisciplinary research center. Research aims to design and engineer precision materials from molecular building blocks.

National Center for Supercomputing Applications

NCSA is home to Blue Waters, one of the fastest supercomputers in the world.

Other collaborations include the Materials Research Laboratory and Holonyak Micro & Nanotechnology Laboratory.

Visit chbe.illinois.edu/research for more information.



COMMITTED TO DIVERSITY AND A SUPPORTIVE ENVIRONMENT

We seek to create a diverse group of highly-motivated graduate students. Underrepresented students are strongly encouraged to apply. The university offers several programs, including the Sloan Scholars program for doctoral students, which provides mentoring and professional development opportunities. The department also works with the Graduate College and The Grainger College of Engineering on additional initiatives.

Illinois supports a number of organizations for graduate students, including **GradSWE** (Society of Women Engineers), **NOBCChe** (National Organization for the Advancement of Black Chemists and Chemical Engineers), **SHPE** (Society of Hispanic Professional Engineers), and many others. The department's **Graduate Student Advisory Council** organizes an annual research symposium and other events. Many students are also engaged in a number of outreach activities designed to increase the diversity of students studying STEM.

For academic and career support, Chemical & Biomolecular Engineering students have access to the School of Chemical Sciences Career Center as well as resources in the Graduate College and The Grainger College of Engineering.

The campus is home to a number of cultural houses and offices which offer a variety of programs and services for a diverse student body. The McKinley Health Center and U of I Counseling Center provide physical and mental health services. Disability Resources and Education Services offers academic support and living accommodations.

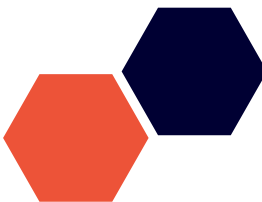


THE UNIVERSITY COMMUNITY

The Department of Chemical & Biomolecular Engineering is part of the tradition of excellence at the University of Illinois at Urbana-Champaign campus. Since its founding in 1867, the university has earned a reputation as a world-class leader in research, teaching, and public engagement. The campus is in the twin cities of Champaign and Urbana (232,000 residents in the metro area) in East Central Illinois, and is connected via interstates and rail lines to Chicago, St. Louis, and Indianapolis. Champaign-Urbana boasts a diverse and international population, vibrant arts community, sports and outdoor recreation opportunities, a thriving tech and start-up scene—all with a very low cost of living. It's also home to the University of Illinois Research Park, where companies like Abbott, Corteva, AbbVie, Yahoo!, Caterpillar, and Wolfram have established offices.

A BRIGHT FUTURE

Whether you want to work in academia or industry, Illinois will provide you with the skills and training you need for your career path. Notable alumni have become successful leaders in academia and industry. Some have become faculty members and postdocs at MIT, Caltech, University of Michigan, UPenn, and many others. Others have risen to lead companies such as 3M, AbbVie, ADM, Intel, Eli Lilly, Shell, Phillips66, and many more.



JOIN US

Because of our field's interdisciplinary nature, our department is home to students and faculty with backgrounds in chemical and biomolecular engineering as well as physics, chemistry, mechanical engineering and materials science. Many of our graduate students have undergraduate degrees outside chemical engineering. Both ChemE and non-ChemE majors are encouraged to apply.

Admission

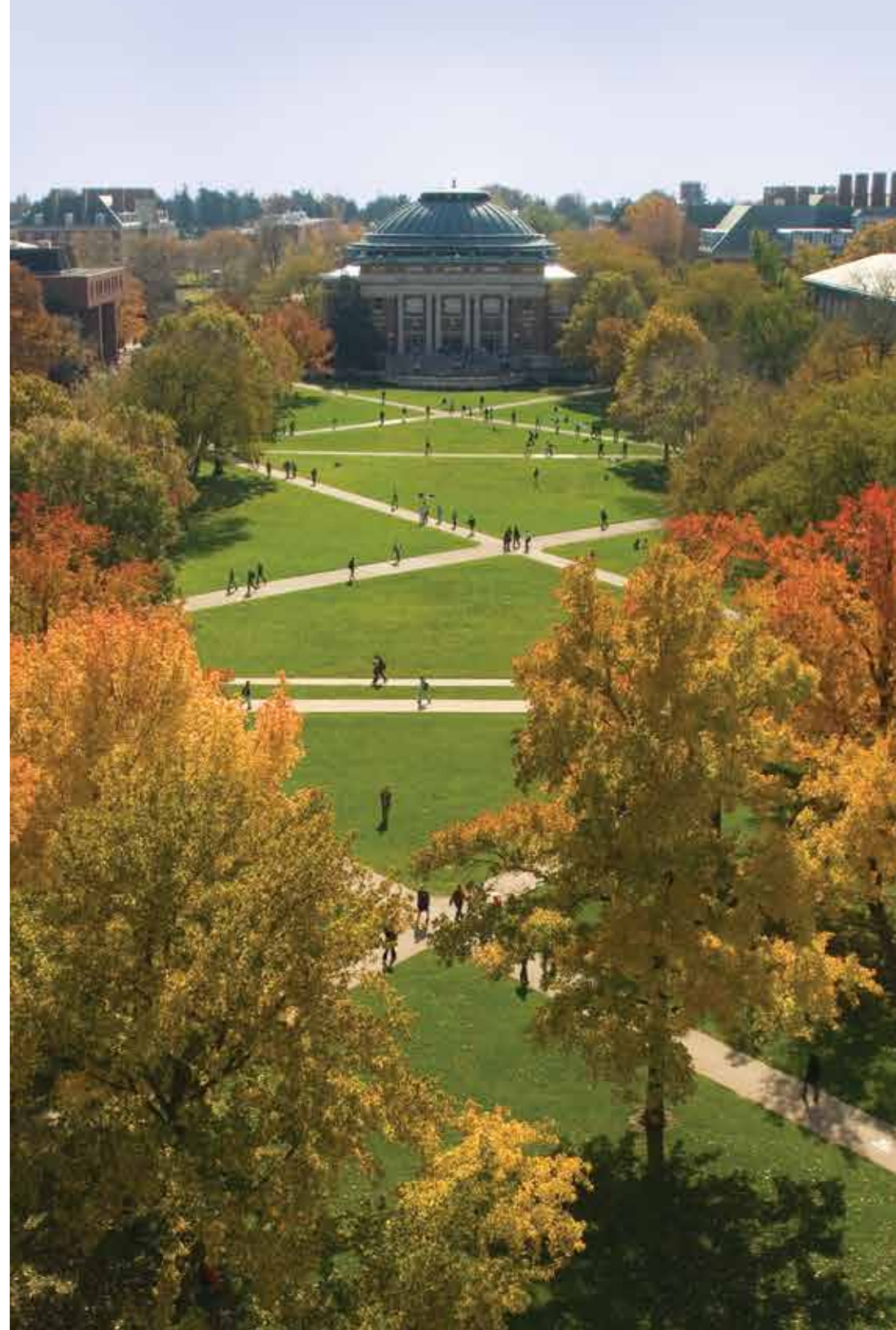
- Must have baccalaureate degree from accredited university
- Exceptional academic record
- Strong GRE test scores
- Three recommendation letters
- TOEFL/IELTS scores are required for international students

Financial support

Our graduate students receive full financial support while making satisfactory progress toward their PhD degrees. Support includes an annual stipend, in the form of research or teaching assistantships and/or fellowships, and a tuition and partial fee waiver. A wide variety of fellowships are available from the department, university, corporate partners and federal, state and private sources.

Optional master's degree

All graduate students in ChBE are admitted directly into the PhD program. The department does not have an independent MS program. However, PhD students have the option of obtaining either a course-based MS degree after fulfilling some course requirements or a thesis-based MS degree.



BY THE NUMBERS

100: Average number of ChBE PhD students

650: Average number of ChBE undergraduate students

21: Faculty members in ChBE

15% underrepresented students,
40% women — ChBE PhD students

~5 years: Average time to PhD

\$102K: Average salary for ChBE PhD graduates

\$8 million+: Annual ChBE research expenditures

\$642 million: Annual campuswide research and development expenditures

1,400: Number of student organizations on campus

232,000: Population of Champaign-Urbana Metro Area





LEARN MORE

chbe.illinois.edu/graduate-program





UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Department of Chemical & Biomolecular Engineering

GRADUATE PROGRAM OFFICE

99 Roger Adams Laboratory
600 S. Mathews Avenue
Urbana, IL 61801
(217) 333-3640

chbe.illinois.edu
chbe-gradrecruiting@illinois.edu

I ILLINOIS

Chemical & Biomolecular Engineering

SCHOOL OF CHEMICAL SCIENCES

