

## Chemical and Biological Engineering

### FROM THE CHAIR / Fall 2025

Dear colleagues,

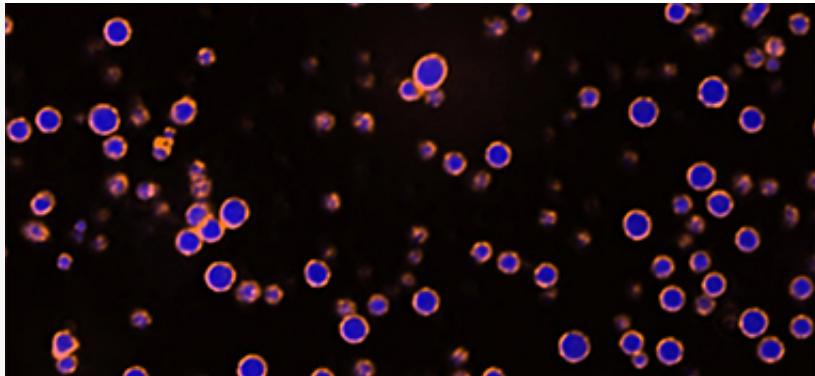
I'm pleased to share some recent highlights from the Northwestern University Department of Chemical and Biological Engineering with you. Like many of your programs, we've been navigating exciting opportunities and challenges — expanding research directions, supporting student innovation and leadership, evolving program offerings, and building stronger partnerships across disciplines.

This newsletter offers a glimpse of our work and the people who make it possible, and I hope it also sparks ideas and conversations we can continue to share across our institutions. I look forward to learning from your experiences as we work together to advance engineering education and research.



**Justin Notestein**

Professor and Chair  
Department of Chemical and Biological Engineering  
McCormick School of Engineering



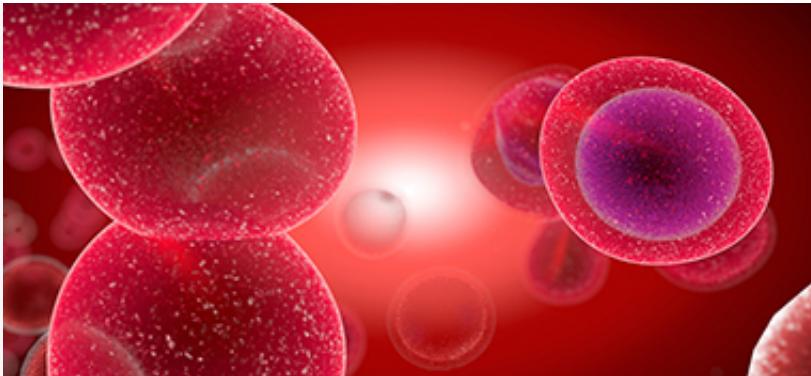
## Cell Feature Implicated in Cancer Forms Differently than Previously Thought

A team with Professor **Krishna Shrinivas** discovered how a landmark found in the nucleus of cells in many organ systems forms through a different mechanism than the well-established view, a revelation that one day may aid in the design of new cancer drugs.



## No-Sort Plastic Recycling Is Near

A new catalyst developed by Professor **Tobin Marks** could make mixed plastic recycling a reality.



## Building “Smart” Cell Sensors for Safer, More Precise Cancer Therapies

New synthetic biosensors developed by Professor **Josh Leonard** give immune cells the ability to read their environment and act only when needed.



## A Faster Way to Innovate Materials

Professors **Jeffrey Richards** and **Jeffrey Lopez** embrace concurrent materials design to improve sustainability in manufacturing and battery design.



## Mallik Shares Lessons That Shaped His Innovation

During his June 16 speech at the 2025 PhD Hooding and Master's Recognition Ceremony, **Ameet Mallik** ('94, MS '95) credited lifelong learning, purpose, relationships, and balance as keys to his success. [VIDEO](#)

## Department News

Professor **Sam Kriegman** received a **Faculty Early Career Development Program award** from the US National Science Foundation, the foundation's most prestigious honor for junior faculty members.

Professor **Joshua Leonard** was [inducted into the 2025 class](#) of American Institute for Medical and Biological Engineering Fellows.

Professor **Jeffrey Lopez** is [one of five recipients](#) of a 2025-26 Electrochemical Society Toyota Young Investigator Fellowship for innovative projects in green energy technology.

Professor **Julius Lucks** was named the Margery Claire Carlson Professor of Chemical and Biological Engineering.

Professor **Linsey Seitz** was [selected as one of the 19](#) Camille Dreyfus Teacher-Scholars for 2025.

Professor **Dayne Swearer** was [named one of \*Chemical and Engineering News'\* "Talented Twelve."](#)

Professor **Danielle Tullman-Ercek** was named the James N. and Nancy J. Farley Professor in Manufacturing and Entrepreneurship.

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## Video: Shaping the Future of Society and Health

Northwestern Engineering's Department of Chemical and Biological Engineering is driving innovation across fields that are essential to society and wellbeing, including decarbonization, biomanufacturing, clean water technologies, advanced materials, and human health.

By collaborating across disciplines, looking at our work holistically, and partnering with leading institutions and industry, our researchers and students address many global challenges.

[Watch the video »](#)



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