



MIT ChemE

**TEN
TALKS**



**An Undergraduate
Seminar Series**

PROFESSOR KATIE GALLOWAY

**October 21st, 2026
12-1 pm, 66-360**



←
Lunch will be served,
so please RSVP by 10/16

Control Freaks: Engineering Cells to Make Programmable Medicines

What if we could program a cell as predictably as we control a chemical reactor? Our lab combines chemical engineering, synthetic biology, and stem cell biology to build genetic control systems that regulate when, where, and how strongly therapeutic genes operate—and even guide skin or stem cells to become neurons. This talk will show how familiar engineering ideas such as feedback, dynamics, optimization, and scale-up are helping transform living cells into safer, more reliable gene and cell therapies.

this event is for undergraduate students only