

Chemical Engineering

Session **E**

Room: 269 Lauritsen

10:30 - 10:50 AM	Maryan Y. Malkosh <i>John Stauffer SURF Fellow</i>	Vision-guided precision targeting for spatially controlled biolistic corneal delivery	Julia A. Kornfield <i>Warren and Katharine Schlinger Professor of Chemical Engineering</i> Dennis L. Ko <i>Executive Director, Rosen Center; Staff Scientist in Chemical Engineering</i>
10:50 - 11:10 AM	Ismail B. Orak	Optimization of next generation lithium ion batteries with silicon graphite carbon nanotube composite as active material	Sibani L. Biswal <i>Assistant Professor, Department of Chemical and Biomolecular Engineering, Rice University</i> Kewei Wu <i>Graduate Student in Chemical Engineering, Rice University</i> Ratnika Gupta <i>Graduate Student in Chemical and Biomolecular Engineering, Rice University</i> Michael A. Vicic <i>Teaching Professor of Chemical Engineering</i>
11:10 - 11:30 AM	Tiffany T. Tu <i>John Stauffer SURF Fellow</i>	Optimizing <i>Azotobacter vinelandii</i> as a hydroponic biofertilizer	Gözde S. Demirer <i>Clare Booth Luce Assistant Professor of Chemical Engineering</i> Chiara Berruto <i>Graduate Student in Biology</i>
11:30 - 11:50 AM	Shrila Esturi <i>Samuel and Berta Spalter SURF Fellow</i>	Decoding the lanthanome: Medium-throughput characterization of protein affinity and selectivity towards lanthanides	Ariel Furst <i>Associate Professor of Chemical Engineering, Massachusetts Institute of Technology</i> Farid F. Khoury <i>Postdoctoral Fellow in Chemical Engineering, Massachusetts Institute of Technology</i> Cooper Tezak <i>Postdoctoral Fellow in Chemical Engineering, Massachusetts Institute of Technology</i> William M. Clemons <i>Arthur and Marian Hanisch Memorial Professor of Biochemistry</i>

11:50 AM - 1:00 PM	LUNCH		
1:00 - 1:20 PM	OPEN		
1:20 - 1:40 PM	Noor E. Ibrahim	Nanobody-mediated stabilization of human effectors enables antigen-dependent cell selection	Katie Galloway <i>Associate Professor of Chemical Engineering, Massachusetts Institute of Technology</i> Rob B. Phillips <i>Fred and Nancy Morris Professor of Biophysics, Biology, and Physics</i>
1:40 - 2:00 PM	Neev Mangal	Expanding the antigen repertoire and characterizing localization dependence of programmable nanobody circuits for selection	Katie Galloway <i>Associate Professor of Chemical Engineering, Massachusetts Institute of Technology</i> Mary Ehmann <i>Graduate Student in Chemical Engineering, Massachusetts Institute of Technology</i> Rustem F. Ismagilov <i>Ethel Wilson Bowles and Robert Bowles Professor of Chemistry and Chemical Engineering; Merkin Institute Professor</i>
2:00 - 2:20 PM	Easan S. Hamkins <i>Professor Fredrick H. Shair SURF Fellow</i>	Engineering truly tiny, genetically encodable, acoustic actuators in mammalian cells	Mikhail G. Shapiro <i>Max Delbrück Professor of Chemical Engineering and Medical Engineering; Investigator, Howard Hughes Medical Institute</i> Anthony Phung <i>Graduate Student in Bioengineering</i>
2:20 - 2:30 PM	BREAK		
2:30 - 2:50 PM	Amelia Saffron	Engineering carotenoid production in <i>Yarrowia lipolytica</i>	Gregory Stephanopoulos <i>Professor of Chemical Engineering, Massachusetts Institute of Technology</i> Michael J. Ream <i>Postdoctoral Associate in Chemical Engineering, Massachusetts Institute of Technology</i> Rustem F. Ismagilov <i>Ethel Wilson Bowles and Robert Bowles Professor of Chemistry and Chemical Engineering; Merkin Institute Professor</i>

2:50 - 3:10 PM	Varun E. Rodrigues <i>John and Barbara Gee SURF Fellow</i>	Limitations of EC-labeled contrastive learning for reaction-enzyme retrieval	Frances H. Arnold <i>Linus Pauling Professor of Chemical Engineering, Bioengineering, and Biochemistry</i> Sonia Yuan <i>Graduate Student in Biochemistry and Molecular Biophysics</i>
3:10 - 3:30 PM	Riya Gupta <i>Warren and Katharine Schlinger SURF Fellow</i>	An automated approach to uniform latex film formation on former	Julia A. Kornfield <i>Warren and Katharine Schlinger Professor of Chemical Engineering</i> Siddharth Premnath <i>Graduate Student in Chemical Engineering</i> Florence Müller <i>Postdoctoral Scholar Fellowship Trainee in Chemical Engineering</i>
3:30 - 3:50 PM	Zoe R. Chou <i>Peter A. Lindstrom, Jr., SURF Fellow</i>	Mechanical and rheological characterization of guayule latex systems	Julia A. Kornfield <i>Warren and Katharine Schlinger Professor of Chemical Engineering</i> Siddharth Premnath <i>Graduate Student in Chemical Engineering</i>
3:50 - 4:10 PM	Myu Kim <i>DaRin Butz SURF Fellow</i>	Development of a biomimetic intervertebral disc implant using digital light processing 3D printing and wet-spinning	Julia R. Greer <i>Ruben F. and Donna Mettler Professor of Materials Science, Mechanics, and Medical Engineering</i> Julia A. Kornfield <i>Warren and Katharine Schlinger Professor of Chemical Engineering</i> Caroline Dial <i>Graduate Student in Medical Engineering</i> Jingtong Zhao <i>Graduate Student in Medical Engineering</i>