Lectures at the Leading Edge enhance our culture of excellence by providing a rich view of the broad landscape and far-reaching horizons of chemical engineering and applied chemistry education and research.

All lectures are held on a Wednesdays at 12:00 pm in Wallberg WB116, 200 College Street, with the exception of Monday, 12 November which will be held in Bahen BA1160, 40 George Street at 5:00pm.

The lectures are free, no rsvp is required, and everyone is welcome to attend!

2018 - 2019 Lectures at the Leading Edge

**Irving O. Shoichet Distinguished Lecture**
Giving New Life to Materials for Energy, the Environment, and Medicine
Angela Belcher, *Massachusetts Institute of Technology*
Wed, Oct 17, 2018 | 12:00 pm - 1:00 pm | WB116

**2018-19 AEESP Distinguished Lecture**
*Co-hosted with CivMin, and Departments at Ryerson, and York*
Can Engineering Controls Shape the Drinking Water Microbiome and Reduce the Risk of Opportunistic Infections?
Lutgarde Raskin, *University of Michigan*
Mon, Nov 12, 2018 | 5:00 pm - 6:00 pm | Bahen Centre BA1160

**Closed-loop Discovery of Materials: Robotics, Artificial Intelligence and Predictive Methods for the Design of Active Organic Materials**
Alán Aspuru-Guzik, *University of Toronto*
Wed, Nov 21, 2018 | 12:00 pm - 1:00 pm | WB116

**Mammalian Synthetic Biology: Foundation and Therapeutic Applications**
Ron Weiss, *Massachusetts Institute of Technology*
Wed, Dec 5, 2018 | 12:00 pm - 1:00 pm | WB116
Reaction Mechanisms and Structure Sensitivity for Heterogeneous Catalyst Discovery from First-Principles
Manos Mavrikakis, University of Wisconsin - Madison
Wed, Jan 16, 2019 | 12:00 pm - 1:00 pm | WB116

Co-hosted with the Institute for Water Innovation (IWI)

Thermodynamics and Transport in Desalination Systems Engineering
John Lienhard, Massachusetts Institute of Technology
Wed, Jan 23, 2019 | 12:00 pm - 1:00 pm | WB116

Co-hosted with the Institute for Transdisciplinary Engineering Education and Practice (ISTEP)

Going Beyond the Fads and Jargon: What Does Research Tell Us About Teaching for High Quality Learning in Science and Engineering?
Jennifer Case, Virginia Tech
Wed, Mar 6, 2019 | 12:00 pm - 1:00 pm | WB116

Co-hosted with Ontario Centre for the Characterisation of Advanced Materials (OCCAM)

Metabolic Imaging at the Single-cell Scale: Recent Advances and Future Challenges in Mass Spectrometry Imaging
Ian Gilmore, National Physical Laboratory, UK
Wed, Mar 20, 2019 | 12:00 pm - 1:00 pm | WB116

Microbial Electrosynthesis for a Carbon-neutral Energy and Chemicals Economy
Alfred Spormann, Stanford
Wed, Mar 27, 2019 | 12:00 pm - 1:00 pm | WB116