THIRTEENTH ANNUAL CHEMICAL ENGINEERING AND MATERIALS SCIENCE RESEARCH FORUM
May 12, 2016, Huntington Club, Spartan Stadium Tower

8:30 Registration and coffee
9:00 Opening Remarks - Donald Morelli
   Chairperson
   Chemical Engineering and Materials Science
9:15 Matthew Neurock
   Shell Professor, Chemical Engineering and Materials Science
   University of Minnesota
   Computational Catalyst Design
10:00 Scott Calabrese Barton
   Associate Professor, MSU ChEMS
   Enhancing Intermediate Transport in Multistep Reactions
10:30 Break

Morning Breakout Sessions
Track 1: Biotechnology and Biomedical Engineering
10:45 Emily Wrenbeck (Advisor: Tim Whitehead)
   Comprehensive sequence determinants to substrate specificity for an enzyme
11:05 Daniel Vocelle (Advisor: Patrick Walton)
   Nanoparticles for siRNA Therapeutic Delivery

Track 2: Energy and Sustainability --- Materials
10:45 Peggy Young (Advisor: Richard Lunt)
   NIR-Absorbing Organic Salts for Tunable Photovoltaic Applications
11:05 Hao Yuan (Advisor: Robert Ofoli)
   Electrocatalytic water splitting to produce hydrogen fuel
11:30 Poster Session I
12:15 Lunch

1:30 Deborah Mielewski
   Senior Technical Leader on Materials Sustainability
   Ford’s Research and Innovation Center
   Greening the Blue Oval: Research and Development of Sustainable Materials at Ford
2:15 Andre Y. Lee
   Associate Professor, MSU ChEMS
   Novel Chemical Modifier for Aluminum-Silicon Casting Alloys
2:45 Poster Session II
3:15 Break

Afternoon Breakout Sessions
Track 1: Energy and Sustainability --- Biotechnology
3:30 Saisi Xue (Advisor: Bruce Dale)
   Advanced Immunological Methods for Comprehensive Analysis of Recalcitrant Cell Wall Components in AFEX Pretreated Corn Stover
3:50 Jing Yu (Advisor: iLsoon Lee)
   Porous Polyelectrolyte Multilayers for Controlled Release of Anti-biofilm Compounds

Track 2: Materials and Nanotechnology
3:30 Nick Kamar (Advisor: Lawrence Drzal)
   Nanoscale Toughening of CF-Epoxy Polymer Composites using Triblock Copolymers
3:50 David Vogelsang (Advisor: Andre Lee)
   Separation of cis/trans double-decker silsesquioxanes by liquid chromatography
4:15 Mixer and Light Refreshments
5:00 Meeting Adjourned