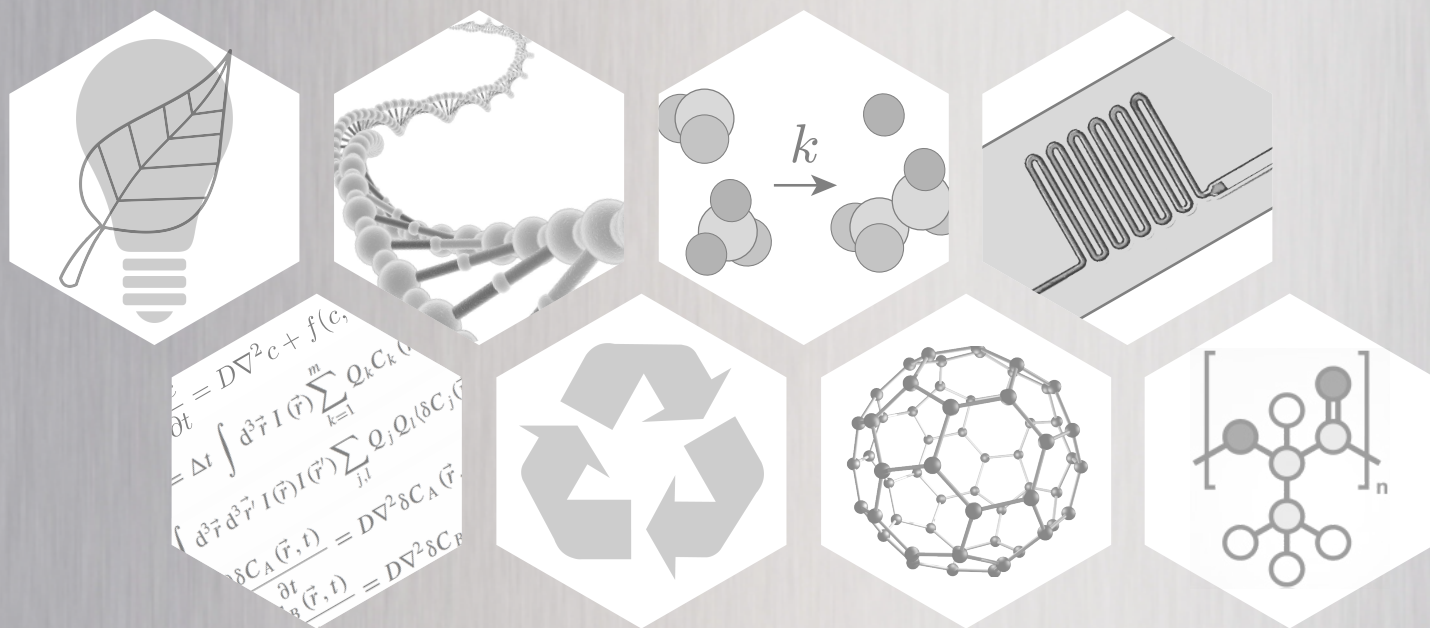


SCHOENBORN

Graduate Research Symposium



Judged competitions of formal oral and poster presentations of graduate research

Monday, January 23, 2017

8:30 AM - 5:30 PM

McKimmon Center



www.cbe.ncsu.edu/research/schoenborn/

Schoenborn 2017 Graduate Research Symposium

8:30–9:00 am Continental Breakfast / Welcome

9:00–10:20 am Oral presentations Session I

- 9:00 am **J. Zachary Mundy** *Functional Fibers via Liquid- and Vapor-Phase Deposition*
9:20 am **Russell W. Mailen** *Light Responsive, Shape Memory Polymer Sheets*
9:40 am **Joseph Lavoie** *Surface Modification of Nonwoven Substrates for Oil and Alcohol Repellency*
10:00 am **Gilbert Castillo** *Functional Silicate Coatings for Polyesters*

10:20–10:50 am Coffee Break

10:50 am–12:10 pm Oral presentations Session II

- 10:50 am **Jonathan M. Conway** *Building a better biofuels bug: Engineering plant biomass deconstruction and conversion in *Caldicellulosiruptor bescii**
11:10 am **Brittany Mertens** *Cleaning and Killing the Nano-pest: Reduction of human norovirus dissemination using surfactant-based cleaners and copper ion-based disinfectants*
11:30 am **Deepti Srivastava** *Confinement Effect on Chemical Reaction Yield and Pressure: The Nitric Oxide Dimer Reaction*
11:50 am **Sara Jo Taylor** *Gas-Phase Catalysis for Pyrolyzing Acetic Acid*

12:10–1:50 pm Lunch

- 12:40 pm **Dr. David Ollis** *Announcement of 2016 Stannett Award*
12:50 pm **Dr. Todd Skare, Praxair CTO** *Announcement of Fall 2016 Praxair Exceptional Teaching Assistant Award*
1:00 pm **Keynote Address: Dr. Elizabeth Wilder**
Senior Scientist, Procter and Gamble
Beyond Technical Mastery: The leadership skills that can make you stand out

1:50–3:30 pm Oral presentations Session III

- 1:50 pm **Paul Lemaire** *Selective Atomic Layer Etching of Oxide Films*
2:10 pm **Matthew Melillo** *PDMS: Preparation Details for Making Silicones*
2:30 pm **Daniel Armstrong** *Olefin block copolymer gels as dielectric elastomer actuators that suppress electromechanical instability*
2:50 pm **Duncan Davis** *Repeatable Reversible 3D Bilayer Shape Programming with Ablated Hinges*
3:10 pm **Tim Shay** *Towards a Wearable Biochemical Sensing Platform: Paper and Hydrogel Enabled Osmotic Sweat Pumping for Microfluidics*

3:30–5:30 pm Poster session/Mixer

Keynote Presentation

Beyond Technical Mastery: Are PhDs prepared to be leaders in industry?

Dr. Elizabeth Wilder

Senior Scientist, Procter and Gamble

Recent surveys of advanced degree holders who have gone on to industry demonstrate that while they are well-prepared technically, they are not equipped with all of the soft skills required to hit the ground running. These skills include working collaboratively, oral communication and general business acumen. Elizabeth will discuss both employer and employee perspectives on the skills they bring to the table as well as opportunity areas. She will also share her own personal experience as a new hire at Procter & Gamble which in many ways reflected these findings. She will further discuss how she took her experience as an opportunity to focus on her leadership skills and offer recommendations for the audience.



Elizabeth Wilder is a product designer at Procter & Gamble in Cincinnati, OH where she works in Global Skin Care. She holds degrees in Chemical Engineering from the University of Massachusetts and North Carolina State University. Elizabeth spent two years as a Post-Doctoral Research Associate with the Biomaterials group at the National Institute of Standards and Technology in Gaithersburg, Maryland before moving to the Cincinnati area. She lives in West Chester, OH with her husband Ian, their daughter Rachel and cat Spyder. She enjoys running, ice hockey, and spending time with her family.