

# 2010 Schoenborn Graduate Research Symposium

Continental Breakfast 8:00 – 8:30 AM

Oral Presentations 8:30 – 10:10 AM

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- Arjun Krishnan**  
8:30 AM *New Technological Applications of and Fundamental Insights into Thermoplastic Elastomer Gels*
- Ali Evren Ozcam** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/3.png>)  
8:55 AM *Development of universal coatings based on functional silicones*
- Josh Manasco**  
9:20 AM *Electrospinning of Novel Nanofiber Systems*
- Arif Gozen**  
9:45 AM *Lateral structuring and stability phenomena induced by block copolymers and core-shell nanoparticles at immiscible polymer/polymer interfaces*

**COFFEE BREAK 10:10 – 10:30 AM**

Oral Presentations 10:30 AM – 2:15 PM

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## Biotechnology

- Wenjun Li**  
10:30 AM *Inferring Fuel-Rich Toluene Flame Chemistry from Photo-Ionization MBMS Analysis and Modeling*
- Salomon Turgman Cohen** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/1.png>)  
10:55 AM *The effects of reaction geometry and confinement on controlled radical polymerization reactions*
- Jeremy Immer** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/3.png>)  
11:20 AM *Hydrocarbon Biofuels from Triglycerides: Pd-Catalyzed Decarboxylation of Free Fatty Acids*

## Lunch 11:45 – 1 PM

**Charlotte Cooper**

1:00 PM

*Managing Environmental Stress: Functional Genomic Analysis of a New Paradigm for Post-transcriptional Regulation in Prokaryotes*

1:25 PM

**Nimish Gera** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/2.png>)*Hyperthermophilic Protein Scaffolds for Engineering Biomolecular Recognition***Derrick Lewis**

1:50 PM

*Biomass to bioenergy: Functional genomic analysis of plant biomass degradation by members of the *Caldicellulosiruptor* genus*

## COFFEE 2:15 – 2:30 PM

## Poster Session 3:00 – 4:30 PM

**Bo Gong**

Molecular layer deposition of Alucone films by using trimethyl aluminium and glycidol

**Ju-Hee So**

Reversibly Deformable and Mechanically Tunable Fluidic Antennas

**Chris Bonino**

Alginate-Based Nanofibers via Electrospinning For Use as Tissue Engineering Scaffolds

**Ravish Malik**

Phase Separation Dynamics of Incompatible Homopolymer Blends in the Presence of HAMS Compatibilizer: a Monte Carlo Simulation

**Haiyan Liu**

Surface modified nonwoven membrane for bioseparations

**Kiran K Goli**

Functional Coating Based on Adsorption-Denaturation of Proteins

**Hyung-Jun Koo** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/1.png>)

New Types of Electronic and Photovoltaic Devices Based on Aqueous Soft Matter

**Pruthesh H. Vargantwar** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/3.png>)

Bending polymers on command?

**A. Burak Uçar** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/3.png>).

Multifunctional Microfluidic Materials: Photocurable Microfluidic Endoskeleton & 'Chameleon' Materials

**Christina Tang**

Single-step Immobilization of High Temperature Biocatalysts on Nanofibrous Supports by Reactive Electrospinning

**Erich Bain**

Microscale Patterning and Mechanistic Control in Surface-Grafted Polymerization

**Qian Zhou**

Phase behavior, Thermal stability, and Conductivity of Ionic Liquid-LiTFSI (IM<sub>10R</sub>TFSI and PY<sub>1R</sub>TFSI) Mixtures

**Andrew Loeb**

Reversible and irreversible capacity of anodes for Li-ion batteries made from carbonized polyacrylonitrile or polyimide nanofibers

**Kate Brown**

Cellulose dissolution in ionic liquids: the link between ion structure and solubility

**Jeff Ford**

Catalytic Deoxygenation of Fatty Acids

**Zhuo Liu**

Affinity purification of human immunoglobulins A, G and M by hexamer peptide ligand

**Jessica Jenkins**

Ultrathin Biocomposite Coatings from Particle and Live Cell Blends by Convective-Sedimentation Assembly

**Mahmud Hussain** (<https://www.cbe.ncsu.edu/wp-content/uploads/2016/07/2.png>).

Engineered affinity reagents from hyperthermophilic protein scaffolds

**Shoeb Ahmed**

Asymmetric PI3K Signaling Predicts Persistence of Adhesion-driven Cell Migration

**Prasenjit Sarkar**

Quantitative comparison of human embryonic stem cell proteome using SILAC

**Arpan Mukherjee**

Uranium mobilization by thermoacidophilic archaea

**Inci Ozdemir**

Novel carbohydrate-active enzymes and S-layer domain containing-proteins from extreme thermophiles for biomass deconstruction

**Andrew Frock**

Carbohydrate Fermentation to Hydrogen by Hyperthermophilic Thermotoga Communities

**Fei Shen/Nafisa Islam**

Silica Surface Modifications for Biosensor Development and Bio-Applications

**Erin Phelps**

Computer Simulation of Protein Aggregation Kinetics Using an Intermediate Resolution Model