Kelly Pollock

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EDUCATION

Cornell University, Ithaca, NY
B.S., Chemical Engineering *5/2010*

- Cumulative GPA: 3.85
- Dean's List, all semesters

University of Colorado at Boulder *Expected 2015*
Ph.D., Chemical Engineering

EXPERIENCE

University of Colorado at Boulder, Graduate Student *6/2010-present*
Boulder, CO

- Conducted research aiming to control valvular interstitial cell phenotype by manipulating the cellular microenvironment.

Merck and Co., Co-op, Chemical Process Research and Commercialization *6/2009 – 8/2009*
Rahway, NJ

- Determined the energy required to break crystals in a slurry with sonication using a Reaction Calorimeter.
- Evaluated the ultrasonic efficiencies of lab equipment using the Reaction Calorimeter and the Enhanced Adiabatic Calorimeter.
- Analyzed the effect of vessel configuration and composition on ultrasonic efficiency for use in scale-up.

Merck and Co., Co-op, Bioprocess Research and Development *9/2008 – 12/2008*
West Point, PA

- Designed, executed, and analyzed process validation experiments for vaccine development.
- Used high performance liquid chromatography to analyze intermediates of vaccine production.
- Evaluated the kinetics of a process step.

University of Michigan, Undergraduate Research Assistant *5/2007 – 8/2007*
Ann Arbor, MI

- Conducted research on the factors affecting size and shape of polymer-based biphasic microparticles created by electrohydrodynamic co-jetting for use in drug delivery and tissue engineering.
- Co-authored a publication, "Towards Designer Microparticles: Simultaneous Control of Anisotropy, Shape, and Size", in press in the journal *Small, (2009)*.

ACTIVITIES

Teaching Assistant, University of Colorado at Boulder *8/2010 – 12/2012*

- Held office hours and graded homework for a graduate biochemical separations class.

Teaching Assistant, Science Discovery, University of Colorado at Boulder *9/2010 – 12/2010*

- Taught elementary school students math using games and puzzles.

Teaching Assistant, Cornell University College of Engineering *8/2009 – 12/2009*

- Presented problem solutions, held office hours, and graded homework for and introductory chemical engineering class.

Cornell University College of Engineering, Peer Advisor *8/2007 – 12/2007*

- Advised a group of freshmen on classes and extracurricular activities to help them transition to college.
- Organized events to familiarize new students with the school.

Encouraging Young Engineers and Scientists *9/2006 – 5/2010*

- Prepared lesson plans and led activities to capture the attention of elementary and middle school students while teaching them about science and engineering.
- As a team leader, organized volunteers and materials for activities.