# **University of Colorado at Boulder** Summer Undergraduate Research

### June 1 - August 7, 2009

## CU-Boulder Department of **Chemical** and **Biological** Engineering

#### **Co-Directors: Daniel K. Schwartz** & John L. Falconer

Are you looking for a summer research experience that is both professionally and personally rewarding?

NSF REU

The Department of Chemical and Biological Engineering at the University of Colorado will be conducting a ten-week summer research program for undergraduates in chemical engineering, chemistry, biochemistry, environmental engineering, bioengineering, materials science, and related fields.

Undergraduates will be selected for this program via a competitive process based on their academic record, letters of recommendation, personal statements, and accomplishments. This program is restricted to U.S. citizens or permanent residents.

## **Research Projects**

Each undergraduate will work with a faculty member on a research project in the area of advanced functional materials. Specific projects include:

- degradable orthopaedic biomaterials
- ultrathin polymer film growth
- biotechnology membrane separations
- atomic layer deposition
- liquid-crystal biosensors
- cross-linked liquid crystal assemblies
- zeolite membrane separation
- catalysis
- microparticle flows and synthesis
- polymers for microfluidic devices
- gas separation using ionic liquids
- photopolymerized microcomposites
- microparticles containing viruses
- nano-patterned molecular monolayers
- photopolymerized hybrid copolymers
  - semiconductor gas sensors



- **Program Highlights**
- weekly seminar weekly luncheons with faculty
- poster session graduate and post
- social events: rafting, hiking, Shakespeare festival
- financial provisions: \$4,500 stipend/\$2,000 food/lodging/travel
- modern apartment-style housing available
- doctoral research mentors 📕 minutes from downtown Boulder, 45 minutes from Denver
  - access to public recreational trails

Interested students should submit a completed application form along with the requested supporting materials. Additional information and applications are available at:

http://www.colorado.edu/che/reu/

Application packets must be postmarked by March 1, 2009

Colorado University of Colorado at Boulder