

2010 Summer Research Experience for Undergraduates in Cellular Engineering

Grantor: Rice University

Closes: 2/12/2010

Maximum: \$4,800.00

2010 Summer Research Experience for Undergraduates in Cellular Engineering

This Institute hosts the NSF REU-funded summer undergraduate internship in cellular engineering. This program is open to undergraduates from all disciplines of science and engineering who are interested in cellular engineering. This goal of this program is to expose students to cutting-edge technologies and approaches in metabolic and tissue engineering. The program dates are 5/24/10-7/30/10.

Cellular engineering is a field with enormous potential to make truly significant contributions to mankind in both medical and non-medical fields over the next decades. We believe the next generation of therapeutics (following recombinant proteins and peptides) will utilize cells and tissues. Many new technologies in fields such as environmental engineering and chemical production will also be based on advances in cellular engineering. Interdisciplinary scientists and engineers with skills in molecular and cell biology, biochemistry, and engineering will be necessary for U.S. industrial competitiveness and will be crucial for translating our world leadership in the scientific aspects of biotechnology into cost-effective, environmentally benign, industrial and product applications.

Some examples of ongoing metabolic and tissue engineering research that would be included in the summer program are: engineering of hard and soft tissue formation, cardiovascular tissue engineering, engineering cell surface interactions, metabolic engineering, and development and motility. Students are invited to attend the "Advances in Tissue Engineering" short course at Rice at no charge the week after the end of the research internship.

This summer NSF REU features: research training in cellular engineering; leadership, mentorship and social retreats; special seminars and career development workshops; a generous stipend and travel support; and on-campus housing.

Applicants **MUST** be U.S. citizens or permanent residents with a science and/or engineering background, **MUST** have graduated high school and **MUST** be currently enrolled as a fulltime university undergraduate during the time of their internship.

Stipend: \$4,300

Travel Allowance: \$500

The deadline for submitting all application materials is February 12, 2010

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Categories: Academia, Biochemistry, Cardiovascular, Chemical Engineering, Materials Chemistry, Metabolics, Molecular/Cellular Biology, Nanotechnology

Audience: Novice Researcher, Student Researcher, Undergraduate, Undergraduate Researcher