UC SANTA BARBARA

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UC Santa Barbara Beckman Scholars Program Names 2012 Scholarship Recipients

UC Santa Barbara has named three additional undergraduates to its inaugural cohort of Beckman Scholars, bringing the current number of campus participants in the prestigious research-centered scholarship program to four.

In a first for the campus, UCSB was selected in 2011 for the Beckman Scholars Program, an initiative meant to aid undergraduates conducting interdisciplinary research in the chemical and biological sciences. With an award totaling $115,800, the scholarships will support six undergraduate students over the course of three years. Each scholar receives $19,300 to engage in research and additional career and technical training during one academic year, and over two summers. Through close faculty mentoring, scholars partake in career development, including technical writing, publishing, and presenting their research at professional meetings.

"To increase the number of outstanding scientists in the country, we need to engage more undergraduates in laboratory research projects," said Michael Witherell, vice chancellor of research at UCSB. "The Beckman Scholars Program provides the funding needed to support the young scientists, and UCSB has the outstanding researchers willing to be their mentors.

It is a great national program, and we are proud to be a part of it."

Joining 2011 Beckman Scholar **Madison Cornwell** (biochemistry and Spanish, 2013), the 2012 Beckman Scholars, their majors, and expected years of graduation are:

Maia Kinnebrew, biology in the College of Creative Studies, 2014

Carolyn Mills, chemical engineering, 2013

Kendrick Yim, pharmacology, 2013

This August, UCSB's Beckman Scholars will attend the annual Beckman Scholars & Beckman Young Investigators Symposium in Irvine, at the Arnold and Mabel Beckman Foundation. The following week, the students will join over 80 other undergraduate summer research interns on August 9, from 12–4 p.m., in a poster colloquium at UCSB's Elings Hall. The campus community is invited to watch these young researchers present their summer projects.

Kinnebrew's research in the lab of Songi Han, a professor in the Department of Chemistry and Biochemistry, focuses on elucidating the function of proteins involved in cellular response by studying the oligomerization of a 7-Transmembrane Proton Transporting Protein.

Mills is working to engineer novel nanostructured materials by studying the self-assembly of the short biological peptide diphenylalanine –– a collaborative project between Beckman faculty mentor Patrick Daugherty, and professor Scott Shell, of the chemical engineering department.

Yim joins the lab of Professor Joel Rothman, in the Department of Molecular, Cellular and Developmental Biology (MCBD), to study the molecular mechanism of cell proliferation and death using the nematode C. elegans as a model system.

Cornwell, the campus's 2011 Beckman Scholar awardee, will complete her final year in Professor Kenneth Kosik's lab, also in MCDB, studying Alzheimer's disease and the role of chemical inhibitors in CDK5 and GSK3-ß kinases in the formation of neurofibrillary tangles.

"The Beckman Scholarship Program has enabled me to engage in the scientific process on a level that is simply unattainable through the standard coursework-based undergraduate education," Cornwell said. "Through the hands-on approach of taking interest in a pressing scientific question, and then taking the initiative to

methodically investigate the issue, my perspective upon biomedical research has matured and been enriched."

Administered at UCSB through the Center for Science and Engineering Partnerships at the California Nanosystems Institute, the Beckman Scholars conduct research under the mentorship of faculty in the Departments of Chemistry and Biochemistry, Chemical Engineering and Molecular Cellular and Developmental Biology. Their work represents the diverse and robust array of biomedical research ongoing at UCSB that promises to yield exciting discoveries.

In addition to Han, Daugherty, Rothman, and Kosik, the 10 faculty mentors for UCSB Beckman Scholars include: Galen Stucky (principal investigator), and Craig Hawker, professors of Chemistry and Biochemistry and of Materials; Kevin Plaxco, a professor of Chemistry and Biochemistry; Kathleen Foltz, an associate professor in MCDB; and Samir Mitragotri, a professor, and Todd Squires, an associate professor, in the Department of Chemical Engineering.

The founder of Beckman Instruments, Inc. and a leader in establishing the modern instrumentation industry, Arnold Beckman is considered one of the top five inventors of scientific instruments. He created devices that revolutionized the study and understanding of human biology. Established in 1997 by the Arnold and Mabel Beckman Foundation, the Beckman Scholars Program is an invited program for accredited universities and four-year colleges in the United States. The foundation provides grants to nonprofit research institutions for scholarly work in chemistry and the life sciences, and more specifically, to foster the invention of new methods, instruments and materials that will open new avenues of research in science.

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About UC Santa Barbara

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