

UC SANTA BARBARA

# *THE* **Current**

March 21, 2005

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## **Four UCSB Faculty Members Receive Prestigious National Science Foundation Career Awards**

Four young faculty members at the University of California, Santa Barbara have received the prestigious CAREER award from the National Science Foundation.

The Faculty Early Career Development (CAREER) Program offers the National Science Foundation's most prestigious awards in support of the early career development activities of those teacher-scholars who are most likely to become the academic leaders of the 21st century.

NSF explains that CAREER awardees are selected on the basis of creative proposals that effectively integrate research and education within the context of the mission of their organization. The plans are expected to build a firm foundation for a lifetime of integrated contributions to research and education.

The financial awards will be paid out over a five-year period. The winning faculty members and their projects follow below.

- Jeffrey W. Bode, assistant professor of chemistry and biochemistry, will receive \$575,000 to develop catalytic methods for the synthesis of organic molecules, and to apply these new reactions to the synthesis of biologically active peptides and natural products.

- Patrick S. Daugherty, assistant professor of chemical engineering, will receive \$400,000 to develop experimental approaches for the analysis and engineering of biomolecular interaction specificity in complex, multi-component systems.
- Ram Seshadri, assistant professor of materials, will receive \$466,272 for his fundamental research on why certain magnets are half metals while others are not, and on how new half metals could be designed from scratch. Half metals are a special class of magnetic materials that show great potential in spin-based electronics where spin rather than the charge of electrons is manipulated.
- Timothy P. Sherwood, assistant professor of computer science, will receive \$400,000 to develop specialized architectures and algorithms for security processing on high throughput memory tiles.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

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## **About UC Santa Barbara**

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.