

UC SANTA BARBARA

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## **Packard Fellowship Awarded to UCSB Chemist**

Joan-Emma Shea, assistant professor of chemistry and biochemistry at the University of California, Santa Barbara, has recently been awarded a prestigious Packard Foundation Fellowship for Science and Engineering for the year 2003.

The Packard Foundation Fellowship Advisory Panel, made up of distinguished scientists and engineers, invites the presidents of 50 leading research universities to nominate two young professors each from their institutions every year. This year the panel selected 16 fellows from 99 candidates. Candidates must be young faculty members in the first three years of their academic careers. The intent of the fellowship program is to provide support for unusually creative researchers early in their careers. The fellowship of \$625,000, paid over five years, may be used for any reasonable research expenditure.

"Joan is an outstanding new chemist who is coming into her own now and I think this award really recognizes that," said Alec Wodtke, chair of the department.

Shea's research spans the fields of theoretical chemistry and biophysics. Work supported by the Packard Foundation will focus on the study of protein folding and aggregation.

She explains that "Proteins are among the most important building blocks of life. They play an essential role in a wide variety of ways from antibodies fighting

infection, to enzymes catalyzing biochemical reactions, to the structural collagen in our bones. Synthesized on the ribosome as chains of amino acids, proteins spontaneously assemble under physiological conditions into well-defined biologically active three-dimensional structures. How this 'protein folding' takes place is essential to understanding how they work. It is also one of the most important unsolved puzzles of biology."

According to the Packard Foundation, 332 fellowships have been awarded over the past 15 years, totaling over \$192 million, to faculty members at 51 top national universities. It is among the nation's largest nongovernmental programs designed to seek out and reward the pursuit of scientific discovery with "no strings attached" support. The fellowship program funds fellows' research in a broad range of disciplines that includes physics, chemistry, mathematics, biology, astronomy, computer science, earth science, ocean science and all branches of engineering.

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