UC SANTA BARBARA

THE Current

June 13, 2005
Gail Gallessich

U.S. Presidential Science Award Presented to UCSB Scientist

The White House announced today that Frank L. H. Brown, a young assistant professor in UC Santa Barbara's Department of Chemistry and Biochemistry, will receive the highest honor that a scientist at the beginning of his or her career can receive in this country. He is among 58 individuals from across the nation to be presented with the Presidential Early Career Awards for Scientists and Engineers (PECASE).

John H. Marburger III, science advisor to the president and director of the Office of Science and Technology, will present the awards later today.

This Presidential Award recognizes young scientists and engineers who show exceptional potential for leadership at the frontiers of knowledge. Each year the National Science Foundation (NSF) selects 20 nominees for the Presidential Early Career Awards for Scientists and Engineers (PECASE) from among the most meritorious of the agency's recipients of its Faculty Early Career Development award. Brown was chosen by the NSF. Other government agencies also select nominees.

This award is UCSB's first PECASE in the sciences and only the second ever awarded to a UCSB faculty member.* It is also the first time a UCSB faculty member has been chosen by the NSF for the award.

Brown was cited for developing new computational algorithms for the investigation of cellular phenomena that is resulting in new computational tools to investigate cell membrane dynamics and cytoskeletal assembly.

"This outstanding recognition of the work and potential of one of our young faculty members brings pride and pleasure to our UCSB community," said Chancellor Henry T. Yang. "We wish Professor Brown a joyous celebration at the White House."

Martin Moskovits, UCSB's Dean of Science said, "Frank Brown embodies all of the outstanding characteristics this award recognizes: innovative and imaginative research, stellar teaching and student mentoring, and good citizenship. Frank is a theorist who uses computational techniques to determine the properties of molecules important to human biology. Using his highly sophisticated computations, his work could lead to new medical therapies, reducing the cost of discovering new pharmaceuticals."

Alec Wodtke, chair of UCSB's Department of Chemistry and Biochemistry, said, "I am so pleased to see such a deserving young scientist receive this prestigious award. Frank Brown is a role model for academic excellence and it is profoundly fitting that he should be the first scientist on this campus to receive the PECASE award. His example will inspire all those who follow him."

Brown received his B.S. in chemistry and B.A. in applied mathematics from UC Berkeley and his Ph.D. in physical chemistry from MIT. He was an NSF Postdoctoral Fellow at UC San Diego and a Yen Fellow at the University of Chicago before joining the UCSB faculty in 2001.

Here is how Brown describes the work of his research group: "Cells are the basic structural unit of life; to have any hope of understanding biology at the level of an organism, it is necessary to understand the inner workings of the various cells from which the organism is assembled. Similarly, all cells are composed of molecules (water, lipids, proteins, ions, etc.) and it is necessary to understand molecular biochemistry to formulate a realistic picture of cellular functioning. Cellular biology and molecular biology are thus complementary fields working toward the ultimate goal of elucidating the processes of life. Given this complementarity, it is interesting to note that theoretical and computational efforts have largely been directed toward the molecular side of biology. Our interests lie in developing theoretical and computational tools from the physical sciences for use in studies of cellular biology."

*Dan Blumenthal, professor in UCSB's Department of Electrical and Computer Engineering, received the PECASE in 1999.

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.