UC SANTA BARBARA

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UCSB PHYSICIST TO DISCUSS ATOMIC FORCE MICROSCOPY AND THE WONDERS OF BIOLOGICAL STRUCTURES

Atomic force microscopy has helped uncover the reasons for the uncommon strength of some materials produced naturally by plants and animals.

UC Santa Barbara physicist Paul Hansma will discuss some of those discoveries in "Small Wonders of Evolutionary Engineering: From Abalone Shells to Bone," a UCSB Affiliates Science Lite lecture on

Monday, May 13 at 7:30 p.m. at the University Club, 1332 Santa Barbara St., Santa Barbara. Tickets are $5 for Affiliates and Chancellor's Council members and $8 for the general public. Advance registration is required and can be made by calling the UCSB Office of Community Relations at 893-4388. Using an atomic force microscope (AMF), Hansma and his research team have uncovered a kind of molecular glue that holds together the layers of an abalone shell.

Understanding the makeup of that adhesive could lead to medical therapies that could strengthen bones, teeth, tendons, skin, and the walls of blood vessels. Hansma earned a Ph.D. in physics at UC Berkeley and has been a member of the faculty at UCSB since 1972.

His research began with inelastic electron tunneling and Scanning Tunneling Microscopes and has evolved to the development of AMFs.

He is particularly interested in developing AMF applications for biology and medicine.

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.