

Laura Robles



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Fortunately no one told Laura Robles that what she wanted to do was probably impossible. A newly-minted PhD in 1975, Robles had just joined the Biology faculty at California State University, Dominguez Hills, a no-frills, inner city commuter college serving mainly Latino and African-American students from across southern Los Angeles. Robles wanted to set up her own independent research program there, drawing on her undergraduate and Masters' students for lab staff. She had no training funds, no specialized equipment, and no lab space.

Thirty years later, the Robles lab at CSU Dominguez Hills is going strong with significant grant support, cutting-edge equipment and a growing list of former students who have moved on to distinguished graduate and professional programs. The lab studies the retinal photoreceptor proteins that power vision in the octopus eye, one of the most complex vision systems in the invertebrate world. The Robles lab is considering how these cellular proteins shape the microvilli structure of the rhabdom, which contain all the molecular components needed for visual transduction. Named Acting Dean for Graduate Studies and Research last summer, Robles took the job on one condition: her lab will continue.

Those who have watched Robles build her lab and her career have nothing but admiration for her tenacity and energy. Steven K. Fisher, Robles' doctoral advisor at UC-Santa Barbara, says, "Laura started from scratch and built the whole thing up. It's been amazing to watch. She went to Dominguez Hills with the expectation that she would do a lot of teaching but that she would also keep her research going. She did it. And she has made some real contributions to the field."

Adds Fisher, "Laura has also done an outstanding job of building enrollments of minority students in research training programs. It's amazing how she involves students in lab work and in science meetings."

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Dean Bok, a neurobiologist and ASCB member at UCLA's Jules Stein Eye Institute, served as Robles' "unofficial post-doc advisor" in the early years. "When Laura got her first faculty position, she had to drive up to UCLA [to] do experiments and learn techniques." Now, says Bok, "Whenever I see Laura at meetings, she has at least four graduate students with her, going from poster to poster. She makes a point of making sure that people look at her students' posters and comment constructively. I'm proud to say that I've published with Laura and with some of her students. She is just an extraordinary mentor."

Notwithstanding her admiring colleagues and supporters, Laura Robles is perhaps her own best mentor. She was born in Oklahoma City where her parents moved just after World War II. Robles' parents met in San Diego where her mother moved during the war and her father was a Marine about to ship out for the invasion of Guadalcanal. But as her father was about to set sail, says Robles, "someone asked, 'can anyone here type?' So they kept him back."

The post-war Oklahoma economy proved no match for California's, so when Robles was an infant, the family moved back West.

Her father, of Mexican-American heritage, worked for San Diego Gas & Electric and loved to explain the wonders of electricity to his only child. Her Irish-American mother worked in aerospace until the industry's collapse in the 1960s, when she took a job at San Diego State. Both parents wanted their daughter to enjoy the college education that they never had.

Robles decided on science early. "At La Mesa Junior High, my science teacher, Mr. Quayle, was pouring two solutions back and forth and suddenly one of them turned bright blue. Right then, I thought, 'That's fantastic.' After that, I just had to know more. Then in high school, I dissected an earthworm. That clinched it for biology."

San Diego State made it possible for Robles to afford the education that her parents dreamed about; tuition was \$50 a semester, and she lived at home and hitched a ride with her mother everyday. Robles made the most of San Diego State, graduating with a BS in 1968 and a Master's in Biology in 1972. In the Fisher lab at UC-Santa Barbara, Robles learned how to apply EM and cytochemistry to identify the neuronal proteins of the snail, *Bulla goldiana*, and pushed through to her doctorate in three years flat.

Robles found her first and only faculty position on the San Diego freeway. "I knew about Dominquez Hills because on the drive between my parents' house and Santa Barbara, I'd seen the sign for the exit." So when she spotted a tiny ad for a faculty opening there in the back of *Science*, applying seemed natural. Robles started as a Lecturer in Biology in 1975 and was rehired the following year in a tenure track position.

Robles is passionate about her students. "My Dominquez students are wonderful. It's a minority-serving institution with a strong Hispanic presence. Many of them have difficult lives. I hear a lot of stories, but I try not to get too involved. Many are older students. They have families and jobs and all those pressures, but they come here to succeed. Many of my Masters' students are already teachers who want a science credential. I also have grad students who hope to work in biotech or in the health sciences or get into medical school. The ones who come to me wanting to do research are already pretty motivated so my goal is simple: I want to get them into doctoral research programs."

Teresa Ramirez, a current Robles student doing a "post-bacc" at the National Cancer Institute in Frederick, Maryland, is a case in point. "When I was in high school, I liked science but we didn't do any experiments. In the summer after high school, I was in the science program at Charles Drew Medical Center and someone there said that if I was going to Dominquez Hills, I should go see Dr. Robles. When I was a sophomore, she took me into the MBRS [Minority Biology Research Support] program." In 2002, Ramirez was selected for the NIH summer Minority International Training Program at the University of London. Ramirez recounts, "I'm an only child and I'd never been so far away from home. Dr. Robles said, 'I'll talk

to your parents and let them know this is a great opportunity."

In 2003, Robles took Ramirez to the ASCB meeting in San Francisco. Ramirez recalls that, "The talks were amazing. Some things, I did understand. Some things, it was like, 'Whoa, I would like to learn more about that.' I would never have been there if Dr. Robles hadn't said, 'Come on. This will be fun'."

Robles is extremely active in the minority science community, notably the Society for the Advancement of Chicanos and Native Americans in Science for which she was a longtime Board member and is currently Treasurer. Since 2001, Robles has served on the ASCB's Minorities Affairs Committee and its Public Information Committee.

Robles is now married to businessman Ronald Denton and has developed a passion for freshwater fishing at their lake house in East Texas. Robles has a son by a previous marriage, Daniel Roberts, who is now 24 and lives in Anaheim, pursuing a career in music and music recording. ■

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2005 ASCB Summer Meetings

Engineering Cell Biology—The Cell In Context

July 15-18—University of Washington, Seattle

Linda Griffith, *Massachusetts Institute of Technology*

Jean Schwarzbauer, *Princeton University*

Nuclear Architecture and Disease

July 21-24—Iowa State University, Ames

Kathy Wilson, *Johns Hopkins Medical School*

Tom Misteli, *National Cancer Institute/NIH*

Coordinating the Events of Directed Cell Motility

July 27-30—University of Washington, Seattle

Clare Waterman-Storer, *The Scripps Research Institute*

Gary Bokoch, *The Scripps Research Institute*

Information and registration at
www.ascb.org