UC SANTA BARBARA

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UC LEADS

Manuel Larach wants to build molecules — the kind that might cure a disease, or revolutionize medicine. The UC Davis student, who is about to complete his bachelor's degree in chemistry, now has his eye on an advanced degree. For him, this is uncharted territory.

"There aren't that many Latinos in grad school, especially in the science fields," Larach said. He will be the first in his family to attend graduate school — a challenge he said he relishes, though he anticipates needing help to navigate the often Byzantine world of graduate school preparations.

Fortunately for Larach and students like him, there is UC LEADS (Leadership Excellence Through Advanced Degrees). The program identifies promising upper division undergraduates and pairs them with faculty mentors, who provide a window into the research life and preparation for the rigor and rewards of grad school.

Larach and about 80 other similarly driven students converged at UC Santa Barbara's Corwin Pavilion Saturday, March 10, for the 18th Annual UC LEADS Research and Leadership Symposium. The event was an opportunity for the students — who hailed from across the entire UC system — to share their research, brush up on their presentation skills and build a network.

"These are all students who faced barriers to educational attainment at an earlier point in life and who have overcome those barriers and have committed themselves to science," said Carol Genetti, UCSB Graduate Division dean and chair of the UC

LEADS systemwide steering committee. “For many this is their first opportunity to step into the professional world. It’s quite inspiring!”

The highlight of the academic year for the program’s participants, the symposium represents months, if not years, of research conducted by the undergrads with the guidance of a faculty advisor and grad student mentors. The topics presented at the event spanned a wide range of disciplines, as the students discussed the cutting-edge science and emerging phenomena that in many cases inspired them to embark on a life of research: black holes, human-robot interactions, gene editing, attention and memory in a smartphone world, to name just a few. They came prepared and eager to discuss the research summarized in the poster presentations that took up the first half of the day.

After lunch, participants networked, toured the campus and received more words of encouragement to make their mark on the world through science, technology, engineering and mathematics (STEM). Confidence-building and perseverance were among the major themes of the event.

“I think we all know how important it is to work hard, but I also think that one of the things that is incredibly important in the work we do is to persevere despite having setbacks,” said keynote speaker Monique Limón, a former UC LEADS program coordinator who now serves on the California State Assembly representing the 37th District.

Setbacks and disadvantages are nothing new to most students in the program . They often are the first in their families to go to college, let alone graduate school. Many are from underrepresented populations in academia. And some are those who dared to bridge the gap from their original major to a life in the STEM fields.

For UCSB fourth-year undergrad Shannon Grossman, it was the latter. A student athlete when she first came to campus, Grossman, like many students, started out in one discipline but discovered that she had an aptitude for science and the enthusiasm to match. What she was missing was the guidance.

That all changed after a stint with UCSB chemistry professor Norbert Reich’s research group, investigating the use of near-infrared light to regulate cellular pathways. Grossman quickly made the leap from curious onlooker to bone fide researcher.

“Through UC LEADS and under the great mentorship of a graduate student in the lab, I have honed skills critical to success as a scientist,” Grossman said. “I have learned to think critically about data; how to design, plan and execute experiments and how to present my research to a wide variety of audiences. I feel confident in the lab now and I feel I can and will make contributions to science through my involvement in research.”

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.