

Arizona internship program marks ninth year

By Eddy Ball

With funding from NIEHS and other sources, this summer the University of Arizona (UA) gave 45 more high school interns an intensive 7-week enrichment experience in science.

The UA Keep Engaging Youth in Science (KEYS) program brought students together with a network of mentors - faculty members, postdoctoral students, and graduate students - as they worked 40 hours per week in various UA laboratories.

Reaching out to promising students in Arizona high schools

The goal of the full-time immersion program is to attract the best and brightest to careers in science, technology, engineering, and mathematics (STEM) education and to improve diversity in STEM-related fields by reaching out to students from groups that have been historically underrepresented.

"The top KEYS programmatic goal is to give students real-world experiences that spark scientific curiosity and discovery, which can play a huge role in helping them decide whether to pursue science careers," said Serrine Lau, Ph.D., director of the NIEHS-funded [Southwest Environmental Health Sciences Center](http://www.pharmacy.arizona.edu/directory/terrence-monks-phd) (<http://swehsc.pharmacy.arizona.edu/>) at UA.

Like the NIH Summer Internship Program at NIEHS, KEYS concludes each year in late July with a poster session highlighting work on student projects. At the KEYS Research Showcase, students present their work to members of their scientific communities, their families, and the general public.

In addition to letting students enjoy hands-on experiences in UA laboratories, the program gives graduate students and postdoctoral fellows opportunities to develop their skills as mentors.

High-visibility, top-level support, and an enviable track record

The program began in 2005 as pilot program serving three students in a handful of UA laboratories, including Lau's. Since then, KEYS has gained broad support across the UA scientific community and among UA leadership. It is currently co-directed by staff at [BIO5 Institute](http://www.bio5.org/) (<http://www.bio5.org/>) and Marti Lindsey, Ph.D., Outreach Director of the Southwest Environmental Health Sciences Center at the UA College of Pharmacy.

The photo essay

(<http://uanews.org/blog/photo-essay-ua-training-next-generation-stem-specialists>)

created by the UA Office of Communications to showcase the program links KEYS to the university's "Never Settle"

(<http://neversettle.arizona.edu/>)

strategic plan that emerged out of a year-long planning process set in motion by UA President Ann Hart, Ph.D. The story includes statements of support by Kimberly Espy, Ph.D., UA senior vice president for research, and Rick Myers, chair of the Arizona Board of Regents.

The program's metrics are impressive. According to Lau, since the program began in 2007, more than 90 UA faculty members have mentored 233 interns, with more than half of the students from backgrounds underrepresented in science careers. Among all KEYS alumni, 78 are still high school students and 155 have gone on to pursue higher education.

Eighty-seven KEYS interns have chosen to attend UA, with 18 set to enter the university as freshmen this fall. Dozens of KEYS interns have earned recognition as well as competitive scholarships, including the Wildcat Excellence Award, National Merit Scholarships, and Flinn Scholarships.

In addition to NIEHS funding, the program relies on financial support from foundation, corporate, and UA sponsorships, as well as contributions from individual donors. Program leaders are currently working to build an endowment to enhance student support under the program.

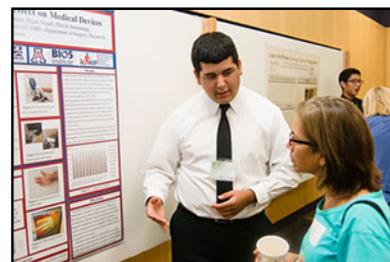
(This story was adapted from the UA News photo-essay "UA training the next generation of STEM specialists.")



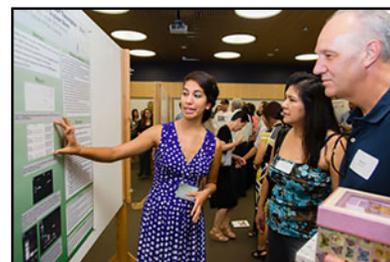
KEYS intern Samantha Andrade, left, discussed her project with Lau. Andrade worked directly with UA researcher [Terrence Monks, Ph.D.](http://www.pharmacy.arizona.edu/directory/terrence-monks-phd), (<http://www.pharmacy.arizona.edu/directory/terrence-monks-phd>) who shares a lab space and collaborates closely with Lau. (Photo courtesy of Jeb Zirato and Biomedical Communications)



From left, UA biomedical engineer [Ted Trouard, Ph.D.](http://www.u.arizona.edu/~trouard/), (<http://www.u.arizona.edu/~trouard/>) looked over imaging results with lab mentor, Ph.D. student Mike Valdez, and Brian Liu, a KEYS intern. (Photo courtesy of Mark Thaler and Biomedical Communications)



KEYS intern Mateo Mahoney dressed for success as he presented his research on medical devices during the program's research showcase. (Photo courtesy of Chad Westover and Biomedical Communications)



KEYS intern Melissa Bohlman, center, discussed her research project during the poster session, which drew the UA scientific community to celebrate the accomplishments of the program's young scientists.

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