Research Program Trains Young Peruvian Scientists at Yale

February 27, 2015

“Through the REPU program, I’ve contributed to first-level research projects and worked alongside experienced investigators,” says Julio Miranda Alban, a senior at Universidad Nacional Mayor de San Marcos in Peru currently completing a research-intensive laboratory internship at Yale. “The name – Research Experience for Peruvian Undergraduates (REPU) – says everything.”

REPU offers young Peruvian scientists ten-week internship opportunities in research labs in the US and Europe. Yale has been a host institution since 2009, when Sofia Espinoza Sanchez, now a graduate student at Yale’s Molecular Biophysics & Biochemistry department, was invited to work on small noncoding RNA.

“The program is run by Peruvian graduate students and post-docs all over the world, many of whom are program alumni,” says Espinoza. “We manage the rigorous selection process, match highly-qualified applicants with labs at host institutions, and provide one-on-one mentorship to participants during their internship stay.”

Vanderbilt, Purdue, Texas A&M, Universidad de Navarra in Spain, and McMaster University in Canada also participate as host universities, offering internships in one of REPU’s three branches: biology (REPU-Biology), chemistry (REPU-Chemistry), and engineering (nanoREPU). Of the program’s 33 total participants, 19 have trained at Yale.
“REPU’s selection process assures that the interns are outstanding,” says Gary Brudvig, Benjamin Silliman Professor of Chemistry and Molecular Biophysics & Biochemistry. “They come ready to learn, work hard, and make strong contributions to their lab teams.”

Aside from working full-time in labs from January to the end of March, REPU interns from all branches participate in journal club meetings and ‘research in progress’ talks, gathering online to present on scientific journals and discuss their individual projects and results.

Rodrigo Beltran, a recent graduate of Pontificia Universidad Católica in Lima who is working with the Brudvig Lab at Yale, says these meetings encourage students to consider themselves “active contributors to a greater, multidisciplinary scientific network.”

To further strengthen the REPU network, the program began hosting a REPU Seminar at Yale at the end of each 10-week cycle, giving participants a chance to come together as a group for the first time.

“It’s a great opportunity for participants to meet successful Peruvian scientists, who come as keynote speakers to share their personal academic and career paths,” says Espinoza. “It’s also a time when we can all exchange ideas for improving scientific capacity in Latin America.”

After the three-month program, most participants continue their scientific training as research associates or graduate students.

Omar Julca, who worked with Dr. Thomas Melia, Associate Professor of Cell Biology, in 2010, was the first Peruvian to be accepted to a three-month program in Vienna after graduating from Universidad Nacional Agraria La Molina. Since then, Julca has come back to Yale to pursue a Ph.D. in Molecular, Cellular, and Developmental Biology.

“My experience with Repu opened my eyes to all of opportunities that exist in the sciences,” he says.

Another program alum that interned at Yale, María Jesús Olarte, agrees.

“REPU is opening doors for a whole new generation of young Peruvian scientists,” she says. “The training prepares them to succeed at top-tier labs and graduate programs.”

To that end, REPU alumni have had 100% acceptance rate into graduate programs across the globe, including Stanford, Harvard, Baylor, Columbia, and Lund University in Sweden. Many have also returned to Peru to continue with research and encourage other students to participate in training opportunities.

“As REPU grows to include more host universities and internships in new STEM fields, its main focus will remain advancing opportunities for young Peruvian scientists,” says Espinoza. “We seek to create a strong network of scientists who will not only contribute greatly to their fields, but also work together and help subsequent generations succeed.”

For more information on REPU, visit http://www.repuprogram.com.

- By Isadora Italia