Program gives undergrads from Peru lab experience

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Kenyi Saito-Diaz, left, is a graduate student in the lab of Ethan Lee, M.D., Ph.D., right, and is co-director of a program that connects Peruvian undergraduates to science labs around the United States and the world. (photo by Susan Urmy)

by Stephen Doster and Bill Snyder

There's a little bit of Peru in the Department of Cell and Developmental Biology.

It's in the form of Vanderbilt graduate student Kenyi Saito-Diaz, co-director of a program that connects Peruvian undergraduates to science labs in the United States and around the world.
“There weren’t many opportunities for Peruvian undergraduates who wanted to become scientists,” said Saito-Díaz, graduate student in the lab of Ethan Lee, M.D., Ph.D., professor of Cell and Developmental Biology. “Peru was losing its brightest minds.”

And so, in 2007, the Research Experience for Peruvian Undergraduates, or REPU, was born. It was co-founded by Merv Domínguez, now a Ph.D.-level researcher at Sweden’s Lund University, and Abel Alcázar-Roman, a former Vanderbilt graduate student who completed a postdoctoral fellowship at Yale. Saito-Díaz and co-director Sofia Espinoza Sanchez at Yale now coordinate REPU’s activities, which includes selecting interns and contacting mentors.

The idea was simple: the brightest Peruvian students would intern in U.S. laboratories for three to six months. The experience would make them better candidates for graduate programs abroad and increase their chances of being accepted.

Their idea has paid off. Since then, Peruvian students have joined graduate programs at Vanderbilt, Stanford, Harvard, Baylor, Purdue, Max Plank Institute in Germany, Lund University, University of Tokyo and other institutions, with a 100 percent acceptance rate.

“The quality of (REPU) students is quite high,” Lee said. “They are preselected for intelligence and drive. My main goal is to continue to work with Kenyi in his scientific development.”

Saito-Díaz’s current research focuses on the molecular mechanism of the tumor suppressor APC in the Wnt pathway. He has already published one scientific paper and co-authored two others.

The network built by REPU has grown from a couple of graduate students to more than 50. The program relies on mentors — graduate students or postdocs — who host REPU students in a specific university and help with visa documents, find a suitable lab for the student and help arrange housing.

They also are part of a network of Peruvian scientists sharing the same goal of REPU — to help the development of Peruvian science. It’s still early days for the program, and time will tell what impact it will have in Peru.

“Of course some of our students want to return to Peru,” Saito-Díaz said. “We can’t control whether all of them go back, but we can encourage them to be active in the worldwide Peruvian scientific community.”

Lee is optimistic. “The more exposure these students have to cutting edge labs in the U.S., the greater the possibility that these students will bring back their skill and knowledge to improve the sciences in Peru,” he said.

“The development of new technologies sparks new industries and new services, creating more jobs,” Saito-Díaz agreed. “For example, in Peru, many plants and herbs have been used in traditional medicine; however they have never been rigorously studied, and we don’t know precisely how they work.
“If we investigate them and understand their effects, we could isolate the active principle and design more effective drugs,” he said.

What’s needed, Saito-Diaz said, are highly trained scientists who can ask the right questions, and the right environment to nurture them.

“Vanderbilt is a great place to grow professionally — great labs, great science,” he said. “Everybody is very supportive, from Dr. Lee to Administrative Officer Cindy Young. I am very grateful to be here.”

For more information, visit www.repuprogram.com (www.repuprogram.com).

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