

## Biology students earn NIH MHIRT research fellowships

Frida Ceja and Alexis Toruño, juniors from Dr. Roland Cooper's Research Methodology class during the 2015-16 academic year, utilized last summer National Institutes of Health's (NIH) Global Health Disparities Research Fellowships, through UC Berkeley's Center for Emerging and Neglected Diseases.

The Global Health Disparities Research Fellowships are funded through NIH's Minority Health & Health Disparities International Research Training (MHIRT) initiative. The awards, administered by UC Berkeley's Center for Emerging and Neglected Diseases, covered all expenses for students to spend at least 10 weeks at their respective host sites this summer.

Frida, a biology major, traveled to Tororo, Uganda, where she joined Dr. Cooper's [ongoing studies](#) at a malaria research and clinical center established by researchers from UCSF and Makerere University of Kampala, UG. Dr. Cooper and Dominican graduate student, Stephanie Rasmussen, from the [School of Health and Natural Sciences](#) accompanied Frida in Uganda. They conducted surveillance for drug resistance in malaria parasites from African patients taking a variety of different antimalarial therapies.

"We at Dominican are really lucky to have a class so unique like Research Methodology. From this class, I was able to learn the amazing research skills that made it possible for me to qualify for this fellowship. I have yet to hear about any other undergraduate programs that offer anything like that," Frida said. "From this fellowship, I hope to both advance and improve my research skills, such that I can apply it to whatever I choose to do after my undergraduate studies."

Alexis, also a biology major, last summer studied the ongoing Chikungunya virus epidemic in Nicaragua as well as the Zika virus. Under the direction of Dr. Eva Harris from UC Berkeley, Alexis examined infections in local populations by measuring viral seroprevalence as an indicator of past and current infections. She also was joined by an MHIRT awardee from UC Berkeley, Maritza Cárdenas, and they incorporated the Zika virus into their studies of ongoing research in collaboration with the Ministerio de Salud (Ministry of Health) in Managua, the capital.

"Due to the Zika virus explosion, we are seeing diagnostic tests for Chikungunya and Dengue cross-react with Zika, making our studies that much more complicated," Alexis said. "I hope through the MHIRT program, I will gain real world applications to the concepts I continue to study, solidify my professional and academic plans, and heightening my level of technical abilities. Working within the Global Health Disparities Research Fellowship program, I will gain clarity as to what my life would be like as a researcher."

This was the first time two Dominican students were selected at the same time through UC Berkeley's Global Public Program. Frida and Alexis spent three semesters in Dr. Cooper's class working on a malaria project in the [Department of Natural Sciences and Mathematics](#).

"The advantage our Research Methodology program gives our students when applying for fellowships and other programs is truly amazing," Dr. Cooper says. "They are often far ahead of students from the other universities, in terms of research experience."

Dominican's partnership with UC Berkeley Center for Emerging and Neglected Diseases program stems from President Mary Marcy's 2012 Strategic Initiative Grant, and is bolstered by support from a five-year grant from NIH to UCSF, Makerere University, and Dominican. In 2013, Stephanie Huevo (BS Biology '12, MS Biology '14) was awarded a MHIRT fellowship from NIH prior to her second research trip to Uganda. And in 2014, Chemistry major Jessica Hernandez (BS Chemistry '15) received such a fellowship to participate in the Household Influenza A transmission project in Managua, Nicaragua. Last April Jessica accepted an offer to attend the UC Berkeley Global Health MS program starting this fall.

Dr. Cooper is a faculty participant on NIH's MHIRT training grant. With Dr. Phil Rosenthal from UCSF, they have been hosting students at their Uganda site since 2010.

"Immersive research experiences, like MHIRT, start students on the path to be leaders in global health research in the developing and developed world," Dr. Cooper says.

*March 4, 2016*