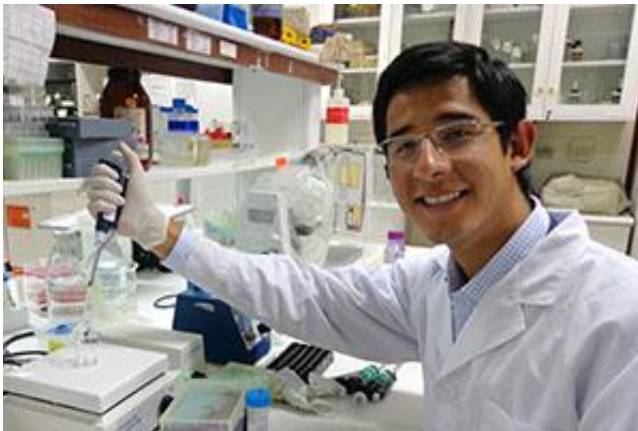


# Student studies link between weather, tropical disease

January 7 2014, by Gareth Trickey

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Science student Gustavo Gutierrez visited Peru for a summer internship. Credit: Gustavo Gutierrez

A shanty town on the outskirts of Peru may not be the most popular destination for summer break.

But for U of T Mississauga science student Gustavo Gutierrez, the chance to meet the residents of the poorest communities in his home country was an opportunity too good to pass up.

Gutierrez, an undergraduate student in the university's Environmental Science and Biology for Health Sciences programs, trekked to small shanty communities near Lima, Peru, as part of a three-month summer internship with the Bloomberg School of Public Health in 2012.

In these densely populated towns with little or no basic infrastructure, Gutierrez worked alongside local doctors and global health specialists to investigate the transmission and prevention of infectious diseases including tuberculosis, cysticercosis and norovirus.

"It was an incredible environment being able to work alongside experienced professionals doing research to help people," Gutierrez said.

"It was interesting to hear how they tackle problems at the molecular level and through clinical and hospital diagnosis.

"My time in Peru opened my understanding about how I can better society, which I believe is the purpose of science."

The success of the research drew Gutierrez back to Peru this past summer for a second internship, this time with the Pan-American Health Organization.

On his return visit, Gutierrez joined a multinational team examining the influence [weather events](#) and the environment have on the spread of tropical diseases.

Analyzing the proliferation of tropical diseases, such as malaria, during certain weather events such as floods or storms, Gutierrez helped to show a correlation between climatic and environmental variables and the spread of vector-borne and neglected [tropical diseases](#).

"When you have a lot of rain or there is a reduction in forest cover you can expect an increase in [infectious diseases](#)," Gutierrez said.

"This type of analysis could help health specialists better direct resources to critical or at risk areas, and could also help to develop environmental policies."

With two internships completed, Gutierrez, is now planning a third trip to Peru.

His advice to other students considering an internship is to be open to all options and don't be afraid to search out your own opportunities.

"I think a lot of students considering an internship or work experience don't realize there are many opportunities out there for them," Gutierrez said.

"While you may not get academic credit for some internships, you can still gain great experience like I did and strengthen your resume."

Provided by University of Toronto Mississauga

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