For Immediate Release

El Camino College Grad Helps Researchers Battle Deadly Viruses

Michael Espino credits ECC’s MESA program for inspiring him to pursue a career in science

El Camino College alumnus Michael Espino is getting ready to join researchers on the front lines of the battle against dangerous diseases.

Michael, who graduated from the University of California, Berkeley this past spring, is beginning his second year of work in a lab studying flaviviruses such as the West Nile virus, the Zika virus, and Hepatitis C. Through studies at the lab, researchers are looking at virus tropism, or flaviviruses’ ability to infect certain tissues or species. For example, why the Hepatitis C virus is only known to infect humans and chimpanzees, and why it seems to target liver tissue.

With that base of knowledge, researchers can begin working toward the ideal treatment for these viruses – a vaccine.

“The ability to understand which types of tissues and which types of animals can be infected is key to developing study models, which are necessary to develop vaccines,” said Michael, who is now gearing up for graduate school.

During his first semester at UC Berkeley, Michael applied and was selected to be a global health fellow as a summer intern working with researchers in Nicaragua trying to clarify the epidemiological characteristics of household influenza transmission in tropical conditions.

Michael said he owes much of his passion for research and science to the Mathematics, Engineering, Science Achievement (MESA) program at El Camino College. He worked two jobs while he was a student, including a full-time job running a hair salon. Without the support of staff members in MESA and the motivation he found interacting with other passionate students in the program, Michael said he might have dropped out.

“With MESA, you’re around students who want the same things you want – who want to transfer to a university and work in science or math or engineering,” Michael said. “I loved being people around people like that, it really helped me.”

In his current project, Michael is part of the National Institutes of Health-funded Post-Baccalaureate Research Education Program (PREP), and works in a lab in the microbiology department at the Icahn School of Medicine at Mount Sinai in New York City. After completing this year of study, Michael said he hopes to move into a M.D. or doctoral program. Eventually he hopes to lead clinical trials of vaccines.

“I really like that translational period between basic science and human health,” Michael said. “I like to know my work is helpful in the short term. I want to know that I’m not finding a tiny molecular process that might be relevant to medicine in 15 years.”