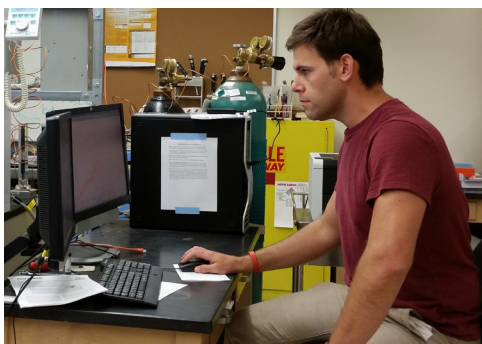

ENERGIZE NEW MEXICO GRADUATE EXTERNSHIPS

YEAR 3 ANNUAL REPORT: EDUCATION & OUTREACH



FROM TOP: Adam Martinez in the lab at Trevi Systems in California; John Roesgen working on gel encapsulation at NMSU; Xu Wang enjoying the campus of NM Tech

The EPSCoR Externship Program is a research exchange program that allows New Mexico graduate students (with an existing assistantship) to spend a semester or summer doing research at a partnering New Mexico university or research facility. Externships provide opportunities to conduct research in a host lab, take courses at the host institution, and interact within the host's laboratory and institution.

Year 3 was the first year in the program, and three students participated—two in summer 2015 and one in fall 2015. These students presented their work at the fall New Mexico Academy of Science Research Symposium and wrote blog posts for the NM EPSCoR website.

John Roesgen, a UNM PhD student, learned techniques to analyze metabolomics at Dr. Omar Holgin's NMSU lab. Metabolomics is the study of unique chemical fingerprints that cells can leave behind, and John measured the metabolic response of algae grown in silica gels. Of the experience, John said, "I doubt that I would have been able to expand my knowledge to include metabolomic assays or incorporated them

into my research without the assistance provided through this externship."

Xu Wang, a Masters student at NMHU, worked at Dr. Frank Huang's NM Tech osmotic power lab. Xu worked closely with Dr. Huang's team, and helped develop a thin, water-stable membrane that can be used to produce clean water from wastewater. "Here at NM Tech people enjoy sharing their ideas on every aspects with you," Xu said. "I am really grateful for this opportunity."

Adam Martinez, a NM Tech Masters student under Dr. Huang, worked at Trevi Systems in Petaluma, CA, during the fall 2015 semester. Under the direction of Osmotic co-lead Qiang Wei from NMHU, Adam developed hollow fiber membranes that can be used in removing salt from sea water. He says Trevi employees treated him as if he were part of their team. "Working at Trevi was an incredible experience. I genuinely felt as though I were part of a team working towards a common goal."

"I was given responsibilities as though I were legitimately part of the team, not just an intern... I found every aspect of this experience worthwhile." —Adam Martinez, Externship Alumnus