SDSU Bridges Student Awarded Prestigious National Scholarship

Genaro Hernandez, a Bridges student who is transferring from Southwestern College to San Diego State University this fall, was recently awarded a National Institutes of Health Undergraduate Scholarship. The NIH Undergraduate Scholarship Program (UGSP) offers competitive scholarships to exceptional students from disadvantaged backgrounds who are committed to biomedical, behavioral, and social science research careers at the NIH. Each year the NIH selects up to 15 students nationally to participate in this prestigious program.

While still at community college, Genaro spent the last year working at SDSU in the laboratory of Dr. Robert Kortlieb and during the summer did research at the University of Texas Southwestern Medical Center in Dallas, Texas. His goal, after completing his B.S. degree at SDSU, is to earn the MD/PhD degree and to pursue a career doing clinical research focusing on diabetes. Genaro, who as a teenager lost his father to the disease, is committed to helping other families avoid the tragic loss that his own family experienced.

Michael Golden, 2010 recipient of the Homer Peabody Award for Teaching and Mentoring

Each year, the SDSU Bridges program selects an individual to receive the Homer Peabody Award for Teaching and Mentoring, which is awarded in recognition of service to SDSU Bridges students that carries on the spirit of Dr. Homer Peabody, who served as Medical Director of the Rees-Stealy Research Foundation Laboratory and mentor to over a decade of Bridges students. The 2010 recipient is Michael Golden, professor of Biology at Grossmont College. Professor Golden has been the Grossmont College coordinator of the SDSU Bridges to the Future program from the start of our partnership with that institution. He has been a tireless advocate for faculty and student diversity. When asked about Professor Golden, the Grossmont Bridges students consistently make the same two comments: “He cares.” and “Because he believes in us, we believe in ourselves.”

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Donations to the RSRF Lab can be made in the following ways:   by check made payable to the SDSU Campanile Foundation Laboratory and mailed to San Diego State University.
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From Sous Chef to Scientist

At one time in her life, Lynelle Garnica Guerrero was more used to following recipes and inventing new and interesting things for people to eat than she was used to following laboratory protocols. For several years she served as a sous chef for the Planet Hollywood chain of restaurants, traveling the United States and training other chefs on new menu items. While this might seem an exciting life to some, for Lynelle it was lacking something, intangible but vital to her happiness. Then, her world was turned upside down. Her mother died, suddenly and unexpectedly, from pneumonia. In an attempt to understand how something like this could happen in an age of modern medicine, she started reading everything she could about pneumonia, which led to reading about other diseases, and then more broadly about biology, in general. She wanted to see if there was a way that she could make a difference and prevent other lives from being devastated, as hers had been. So, taking her future into hands, she left a successful career to enroll in classes at San Diego City College in an attempt to discover the path to a future filled not just with success, but also with challenge.

While a student at City College, Lynelle was introduced to the Bridges program by Dr. Mike Leboffe. “The Bridges program was the best experience of my life,” Lynelle reflects. “During my time in Bridges I realized that you could earn more than a bachelor’s degree if you put your mind to it.” Her favorite part about the program? “Networking.” Lynelle replied. “Bridges is like an extended family that is forever. Hopefully I can give back when I’m established.”

Lynelle transferred to SDSU in 2005. She had spent her final year in community college doing research in the Rees-Stealy Research Foundation Laboratory under the guidance of Dr. Paul Paolini. This experience gave her the edge that she needed when she transferred and she was accepted into the Minority Access to Research Careers program, which enabled her to continue her research with Dr. Paolini. After completing her MARC program participation, she continued to work with Dr. Paolini until she graduated in May of 2008.

In Fall 2008, she began the next stage of her journey, working toward a Master’s Degree in Public Health (MPH) with an emphasis in environmental health. Working with her graduate mentor, Dr. Jenny Quintana, Lynelle has completed her MPH in two years, one year less than many of her peers. Her project is a bi-national one focusing on the US-Mexico border crossing at San Ysidro, which is the busiest land border crossing in the world. Her research seeks to understand how traffic and idling cars delayed at the border crossing affect air quality in the community of San Ysidro. Traffic-related air pollution has been reported to adversely affect lung, cardiac and reproductive health.

Having successfully defended her research, Lynelle is hoping to be able to work for San Diego County Department of Environmental Health, the San Diego Air Pollution Control District, or possibly with the EPA, taking a bi-national approach to the question of air quality and health. She would also like to be able to continue her education and eventually earn her Ph.D. She has come a long way since she took that leap of faith, leaving behind a successful career to try to become a scientist and have a positive impact on the health of others. She comments, “Public Health made me a better person. More aware of what should and shouldn’t do.” She has thought a lot about where she is and where she has been and there are two things she is certain about. “I’m excited that I’m now at a place where I can apply what I’ve learned and I know that my mom would be proud.”
When Mike Valdez interviewed for the SDSU Bridges program in Summer 2007, his biggest concern was that he had just received his first “B”, ruining his 4.0 grade point average. Other than that, his path seemed clear. A cross-country runner, he was used to thinking in terms of the long haul. He would transfer to SDSU in the spring of 2008, earn a biology degree, and go to medical school. He had been good at biology in high school and at community college and everyone told him that he was so smart that of course he would be a doctor. There was just one problem. He wasn’t really thrilled with the idea of working with patients. His real interest was in bioimaging. During the course of his Bridges experience, Mike was exposed to research done by computational scientists, which broadened his perspective about what it was to do research. He decided, rather than pursue the MD degree, he would, instead, set his sights on the MD/PhD degree and a career that had research as a vital component. After transferring to SDSU in the spring of 2008, he applied and was accepted into the Minority Access to Research Careers program and began doing research in the lab of Dr. Roland Wolkowicz. While Dr. Wolkowicz was a great mentor, he discovered that working in his virology lab was just not for him. He spent the summer of 2009 at Stanford University in their summer research program doing research in the lab of Dr. Nelson. He had a great experience, but it too confirmed to him that biology research was not where his heart was, despite all the encouragement of the people around him. These research experiences taught him some important things about himself. “I am happier when I pursue my passions and not the expected.” He started doing research in the lab of Dr. Usha Sinha, an approach is more physically interactive.” With this realization, he moved into the lab of Dr. Chris Sinha, chairperson of the Physics Department at SDSU, and began working on characterizing the white matter structure in mice with APOE-2 and APOE-4 genotypes. While he was lacking much of the background that the physics students in the lab had, everything was interesting to him. Some people thought it was strange for a biology major to be doing research in a physics lab, but for Mike, it felt right. He found his place in science, and his love of science, and he decided that he wanted to stay. When he got to UT Southwestern and began her graduate studies she was struck by the fact that the majority of female students in the lab of Dr. Christopher and her Ph.D. Her dissertation research in Dr. Carole Mendelson’s laboratory focused on the phenotypic characterization of fetal amniotic fluid (AF) macrophages (MΦ) during late gestation in the mouse. In April 2010, Alina Montalbano became Alina Montalbano, Ph.D., earning her Ph.D. in immunology from UT Southwestern. Next on her agenda: a post-doctoral research appointment, hopefully in San Diego, and then a career doing research and, possibly, teaching. It has been more than a decade since Alina was a Bridges student from Southwestern Community College. She left a job in retail as a store manager in search of a career in science. Growing up in a neighborhood where gangs were not uncommon, Alina didn’t envision a life where people would be calling her Dr. Montalbano. That’s where Bridges comes in. When asked to describe her Bridges experience Alina replied, “It was completely, fundamentally wonderful.” She went on to say, “It does exactly what it was designed to do. You don’t just gain skills, you gain confidence and that is essential.”

Alina embodies what is possible when the academic pipeline works as it should. After completing her Bridges experience, she transferred to SDSU and was admitted to the Minority Biomedical Research Support program, where she worked in the microbiology lab of Dr. Anca Segall. She also participated in the Alliance for Minority Participation program. In 1998 she was selected to participate in the NIH honors program, Minority Access to Research Careers, where she moved over to the Rees-Steady Research Foundation Laboratory under the mentorship of Dr. Paul Paulino. This was a time for Alina to get a sense of what a career in research was all about and to identify the area of research that she wanted to pursue. After a year in the Paulino lab and an additional year of coursework at university, Alina had determined that the field that she would like to build her career in was immunology. She was accepted into the lab of Dr. Ann Feneay at UT Southwestern and began her graduate studies. She was thrilled to earn her Ph.D. in Immunology. When Antoinette Linton joined the Bridges to the Future program she wasn’t even twenty years old. Her goal: to become a doctor. That goal gradually changed, first to a career as a research scientist, and then to a career as a science educator. A first generation college student, she excelled in middle and high school, and while attending San Diego City College, her path to the MD looked clear to her, but after she transferred to San Diego State University, she began doing research in the lab of Dr. Paul Paulino and her focus shifted to a career in research. She loved the science, but something was still missing… She just wasn’t sure what it was. To support herself, Toni worked as a teacher’s assistant at Hamilton Elementary and Roosevelt Junior High School. Her duties included supervising children between the ages of 7 and 16, using teaching techniques to improve reading skills and assisting guidance counselors with student behavior. It wasn’t until she was approaching the end of her undergraduate education that it clicked for her. She could combine her love of science with the calling she felt to bring science to young people – she would be a teacher. After earning her B.S. degree in biology, Toni entered SDSU’s teaching credential program. A Governor’s Teaching Fellowship recipient, after completing her credential, she was hired by the Sweetwater Union High School District to teach biology and chemistry. Toni has often remarked that she never truly, thoroughly understood chemistry until she had to teach it. It is a profession that allows her to embrace both her love of science and her passion for learning and teaching.

Toni is driven to understand her students and to understand why science poses such a challenge to urban students. This drive directed her to the graduate program at the University of Southern California, where in spring of 2010 she earned her Doctor of Education Degree. Her doctoral dissertation, Examining the Position of Department Chair in an Urban Secondary school science department as a tool to expand the role of teacher mentor: implications for teacher educators, reflects not only her interests in science and education but also her concern that urban students not be disenfranchised from the opportunities that a life in science holds.