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Note from the Director

The end of the academic year is the ideal time to take stock of our student successes and the overall state of the program. First, and exceptionally exciting for long-term McNair staff, two of our UCSB scholars have completed their graduate school degrees. Racquel Dominguez (BS 2010) successfully defended her thesis at the University of Michigan in 2014. She is now a postdoctoral research associate at Washington University in St. Louis School of Medicine in the Molecular Microbiology department. Richard Espinoza, (BA 2011), received his PsyD from Wright Institute (Berkeley) this spring. He will complete a postdoctoral fellowship at WISE & Healthy Aging in Santa Monica, CA and will be studying for state and national licensing exams.

Ten of our just graduated seniors are about to begin their studies in master's and doctoral programs around the country. All but one of the ten is attending a major public university (UCs at Berkeley and San Diego) and the universities at Illinois, Indiana, Maryland, Purdue, Wisconsin, and Scripps Research Institute. Eight of these graduates published their research in the UCSB McNair Scholars Research Journal, two in Volume 4, eight in Volume 5. [Elsewhere in this newsletter, we provide more details about where the students are going, what they will be doing, and special awards they received at graduation. Our journals are on-line at <http://mcnair.ucsb.edu/journal.html>.]

Of the students who will be seniors in 2015-16, six spent this past summer undertaking research at prestigious summer programs working with faculty from research institutions (Maryland, Northwestern, Wisconsin, UC-San Diego) and one is involved in the American Economic Association's special summer training program located at the University of New Mexico. These students will rejoin the six who remained at UCSB this summer to complete their GRE exams, begin statements of purpose, draft writing samples, and prepare to submit applications to graduate school in Fall 2015. Also this summer, ten new juniors are engaged in their first opportunities to undertake research with faculty at UCSB.

Once again, we are pleased to announce that Edison International is continuing to provide some funding in support of our STEM students. And finally, after weathering a spring flood in our building, we have settled into our temporary quarters. Sometime in late Fall 2015 after retrofitting is complete, we look forward to returning to Building 477. Stop by and visit us.

Dr. Beth Schneider, Professor of Sociology

McNair Scholars Participating in 2015 Summer Research Programs Around the Country

Gisella Diaz: Center for Visual Science, Undergraduate Fellowship Program, University of Rochester

Jorge Dominguez: American Economic Association, University of New Mexico

Jamelia Harris: Summer Undergraduate Research Program, University of Wisconsin, Madison

Jacqueline Lepe: Behavioral and Social Sciences, Student Research Institute, University of Maryland

Bertin Solis: Summer Training Academy for Research in the Sciences, University of California, San Diego

Scott Susi: Summer Training Academy for Research in the Sciences, University of California, San Diego

Paola Villegas: Student Research Opportunity Program, Northwestern University

Scholar Profile: Rachel Scarlett



Rachel graduated this spring with a BS in chemistry and environmental studies. She will be attending Purdue University in the fall to begin her PhD in ecological sciences and engineering. Rachel's decision to pursue a PhD was motivated both by her undergraduate research experiences as well as her experience growing up in Los Angeles, CA. Rachel's interests center around human-environment relationships and sustainable use of natural resources. Growing up in Los Angeles, Rachel saw human-environment relationships obscured by the lack of a direct connection to the natural resources used by the city's inhabitants, like clean water and food. Through her subsequent research experiences at UCSB, she gained new scientific and social insights into these relationships. Her research projects have included investigations of microbial regulation of greenhouse gas production, effects of UV radiation on microbial decomposition of organic matter and human perceptions of new urban agricultural technologies. Her senior thesis focused on the effects of reclaimed water irrigation on soil chemistry and plant growth. According to

Rachel, "The profound impact [these] experiences have had on my personal and academic life has influenced my decision to pursue a PhD and become a professor at a research university." These experiences have also convinced Rachel of the necessity of integrating the natural/physical sciences with the social sciences to find and implement solutions to pressing environmental problems facing society.

Edison Scholars



The McNair Scholars Program at UCSB is proud of our scholars who benefit from the generosity of the Edison International Program. The Edison International Program provides grants to students who demonstrate financial need and who plan to earn a STEM degree. The McNair Scholars Program receives financial support from Edison International which provides students with travel opportunities and supplies. In 2014-15, eight of our McNair Scholars received funding through this program, including: Daniel Cha, Jorge Dominguez, Benjamin Huffman, Richard Marta, Victor Mata, Rachel Scarlett, Christian Suarez, and Erik Suarez. Congratulations to our Edison recipients!

Class of 2016 Community College Transfer Students



Daniel Cha
Major: Mathematics
Hometown: Sunnyvale, CA
Graduation Date: June 2016
Mentor: Dr. Jeffrey Stopple
Mentor's Department: Mathematics
Research Interests: Mathematical logic theory, set theory, group theory, number theory, complex analysis



Eugenie Guzelian
Major: Psychology
Minor: Applied Psychology
Hometown: Beirut, Lebanon
Graduation Date: June 2016
Mentor: Dr. Karen Szumlinski
Mentor's Department: Psychological and Brain Sciences
Research Interests: Anxiety disorders, empathy, theory of mind



Sylvia Garcia
Major: English and Geography
Hometown: Camarillo, CA
Graduation Date: June 2016
Mentor: Dr. Tommy Dickey
Mentor's Department: Geography
Research Interests: Human impact on polar bears



Adriana Sanchez
Major: Psychology
Minor: Applied Psychology
Hometown: Simi Valley, CA
Graduation Date: June 2016
Mentor's Name: Dr. Melissa Morgan Consoli
Mentor's Department: Counseling, Clinical and School Psychology
Research Interests: Resilience, subjective well-being, culture and ethnicity



Scott Susi
Major: Biopsychology
Hometown: Monterey, CA
Graduation Date: June 2016
Mentor: Dr. Craig Montell
Mentor's Department: Molecular, Cellular and Developmental Biology
Research Interests: Synaptic plasticity and neurogenesis

Undergraduate Research and Creative Activities Colloquium: Spring 2015



Our McNair Scholars participate in various research activities, such as presenting their work at conferences and colloquia throughout the country. Locally, sixteen scholars took part in the annual UCSB Undergraduate Research and Creative Activities (URCA) colloquium. Here, the McNair Scholars have an opportunity to network with faculty and other researchers and present their research, and they also have a chance to win prizes in the annual poster competition. McNair Scholars have placed in this competition every year. At this year's colloquium a McNair scholar participated in the first annual "URCA Slam." Senior scholar Joleana Shurley presented her work to the public and a panel of judges in a succinct five minute oral presentation. She placed third

in the competition. At the colloquium, other current McNair scholars presented cutting edge scholarship covering a wide range of topics and research interests, including "Media's influence on fertility: a study from Uganda," "Pushing the limits: the effects of studentification' in Isla Vista, California," and "Developing a fluorescent based destabilizing domain system with UnaG and Bilirubin" just to name a few.

Class of 2017 Scholars



Olubukayo (Buki) Akinyemi
Major: Biology
Hometown: Riverside, CA
Graduation Date: June 2017
Mentor: Dr. Mary Hegarty
Mentor's Department: Psychological and Brain Sciences
Research Interests: Drug effect and design, spatial ability and memory



Patricia Martin
Major: Sociology
Minors: Education and Applied Psychology
Hometown: Bakersfield, CA
Graduation: June 2017
Mentor: Dr. Rebecca Mireles Rios
Mentor's Department: Education
Research Interests: Latina/o parental engagement and student academic motivations, education policy, juvenile justice



Emma Angeles
Major: Anthropology with Biological Emphasis
Hometown: Brentwood, CA
Graduation Date: June 2017
Mentor: Dr. Danielle Kurin
Mentor's Department: Anthropology
Research Interests: Forensic anthropology, human resilience, bioarchaeology of care, paleography



Akira McDaniels
Major: Chemistry
Hometown: Monrovia, CA
Graduation Date: June 2017
Mentor: Dr. Beth Schneider
Mentor's Department: Sociology
Research Interests: Mechanisms of disease, epidemics, public health



Arash Assar
Major: Psychology
Hometown: Santa Monica, CA
Graduation Date: June 2017
Mentor: Dr. Rebeca Mireles Rios
Mentor's Department: Education
Research Interests: Sports psychology, mindfulness, motivation



Victoria Melgarejo
Majors: Linguistics and Spanish
Hometown: North Shore, CA
Graduation Date: June 2017
Mentor: Dr. Mary Bucholtz
Mentor's Department: Linguistics
Research interests: Bilingual education, speech pathology, social-cultural linguistics



Imani Buris
Majors: Psychology and Communication
Hometown: San Jose, CA
Graduation Date: June 2017
Mentor: Dr. Heejung Kim
Mentor's Department: Psychological and Brain Sciences
Research Interests: Cultural influence, social and self identity, cultural integration



Marina Quintanilla
Majors: Global Studies and Feminist Studies
Hometown: Los Angeles, CA
Graduation Date: June 2017
Mentor: Dr. Laury Oaks
Mentor's Department: Feminist Studies
Research Interests: HIV/AIDS, women's reproductive rights, health care access, public health, global health



Joshua Hudson
Majors: Political Science and Global Studies
Hometown: Barstow, CA
Graduation Date: June 2017
Mentor: Dr. Reginald Daniel
Mentor's Department: Sociology
Research Interests: Multiracial identities & biracial identities



Christian Rodriguez
Major: Physics
Hometown: Norwalk, CA
Graduation Date: June 2017
Mentor: Dr. Ben Monreal
Mentor's Department: Physics
Research Interests: Astrophysics/astro particle physics

Class of 2015 heading to graduate school!

Nathan Alamillo: PhD, Public Health Joint Doctoral Program, University of California, San Diego/SDSU

Iliana Avila: MA, Latin American and Latino Studies, University of Illinois, Chicago

Benjamin Huffman: PhD, Chemistry, The Scripps Research Institute, Jupiter, Florida

Victor Marta: PhD, Economics, University of California, Berkeley

Richard Mata: MA, Engineering and Industrial Applied Mathematics, Claremont Graduate University

Michelle Parra: MA, Sexuality Studies, San Francisco State University

Jacqueline Partida: PhD, American Studies, University of Maryland, College Park

Rachel Scarlett: PhD, Ecological Sciences and Engineering, Purdue University

Erik Suarez: PhD, Economics, University of Wisconsin, Madison

Lizette Wences: MA, Speech Pathology, Indiana University, Bloomington

The McNair Scholars Research Journal 2015

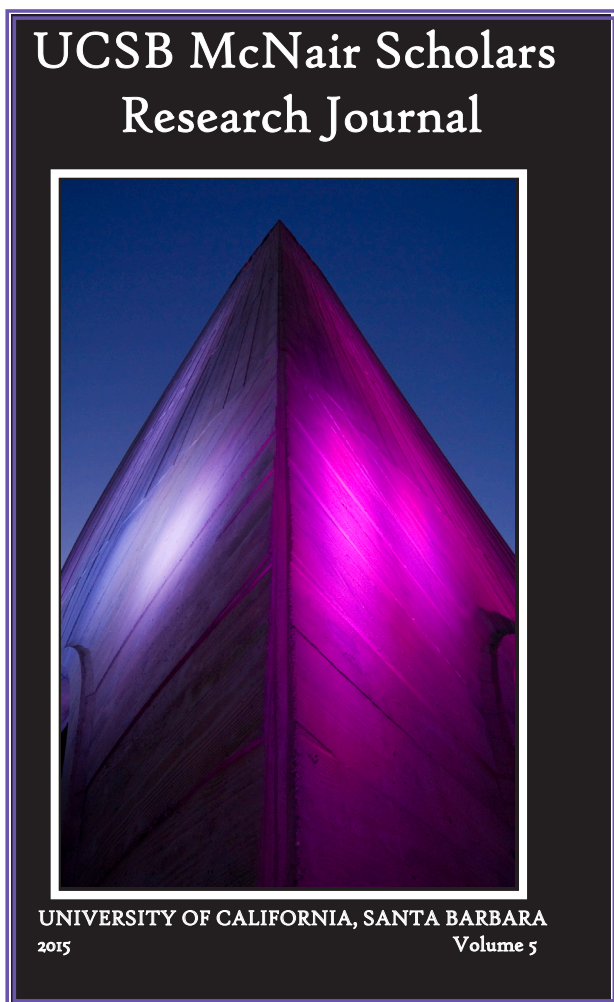


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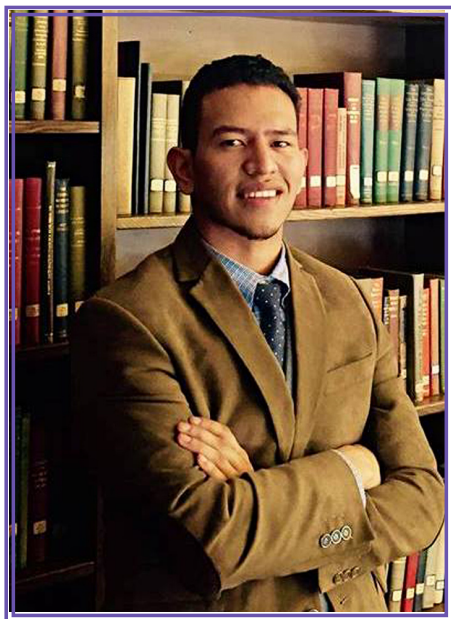
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To view this journal and previous journals, please go to: <http://mcnair.ucsb.edu/journal.html>

Alumni Reflection with Angel Rodriguez



UCSB McNair Alumni Angel Rodriguez completed his bachelor's degree in Philosophy in June 2012. He was awarded the Eugene-Cota Robles Fellowship and pursued his master's degree in Latin American and Iberian Studies at UCSB under the guidance of Professor Gabriela Soto Laveaga. Upon completion of his master's thesis, which focused on the cultural history of biomedical research in Central America during the mid-20th century, Angel was admitted to the History of Science PhD program at Harvard University.

Angel enjoys working in an intellectual environment and interacting with colleagues. He believes these are two significant experiences of graduate school which can help all students develop their identities as scholars. According to Angel, "we are in a constant state of becoming, being open to new schools of thought and creatively adapting them to our own questions, makes for very interesting work."

Angel deeply values the preparation that the McNair Scholars Program offered him: "The tools of a scholar include public speaking, article-length writing skills, posters and research development just to name a few. While these may be available elsewhere in the university, McNair really understood how we could best learn and apply them in our specific interests." Angel's advice to McNair Scholars:

"Strive to be better than who you were yesterday, plan the productivity of today and continue to imagine the scholar that you want to be tomorrow."

Seniors Graduate with Recognitions and Awards

Nathan Alamillo, who graduated Summa Cum Laude, was the recipient of the following awards: Chancellor's Award for Excellence in Undergraduate Research, 2014-15 Dean of Undergraduate Education Award in the College of Letters and Sciences for outstanding academic and personal achievement, Louise A. and Stephen D. Pahl "Making a Difference Award," and the University Service Award.

Iliana Avila received the University Service Award for her ongoing contributions to the Equal Opportunity Program (EOP).

Benjamin Huffman presented his work "Developing a Fluorescent Based Destabilizing Domain System with UnaG and Bilirubin," at the annual Biomedical Research Conference for Minority Students this year. At this conference, Benjamin received an award for best student poster presentation in biochemistry. He was also the recipient of the Willard L. McRary Prize from the Department of Chemistry.

Richard Mata presented his work on "Dipole – Dipole Energy of Two Stable, Non-Linear Agglomerates of Magnetic Particles in Ferrofluid" at the Society for Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS) national conference in Los Angeles, California in October of 2014. At this conference, Richard received an award for best student presentation in mathematics.

Rachel Scarlett received the 2014-2015 Environmental Studies Outstanding Academic Achievement Award. Furthermore, her work "Effects of UV Photogradation on Subsequent Microbial Decomposition of Bromus Diandrus Litter," has been accepted for publication in the journal *Plant and Soil*.

Christian Suarez presented his research project titled, "Understanding Type 2 Diabetes through the Glucose Transporter and Pancreatic Beta Cell Glycosylation During Starvation." His project was presented at the Out in STEM annual conference in Atlanta, Georgia where he won the Award of Excellence for Outstanding Undergraduate Poster.

