

McNair Scholars

Since the inception of the program in 1999, the McNair Scholars Program at Cal Poly Pomona has served over 200 students and 38 have completed their doctorates so far, with 35 additional scholars currently in Ph.D. programs!

We would like to take this opportunity to congratulate these scholars and hope that their accomplishments inspire everyone to reach for the stars and pursue their dreams.

Here are just some of the universities McNair scholars have continued onto over the years!

Claremont Graduate University	University of California, Los Angeles
Cornell University	University of California, Riverside
Georgia Institute of Technology	University of California, San Diego
Harvard University	University of California, Santa Barbara
Massachusetts Institute of Technology	University of Illinois at Urbana-Campaign
Stanford University	University of Maryland
The Ohio State University	University of Michigan
University of Arizona	University of Southern California
University of California, Berkeley	University of Wisconsin-Madison
University of California, Irvine	

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Developing Leaders
Through Graduate Education

Pictured: Dr. Cristian Aguilar speaking at the 16th Annual McNair Symposium.

Save the date! The 17th Annual Symposium is **June 3rd, 2016**

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WWW.CPP.EDU/~McNair

Facebook: McNairCPP Scholars

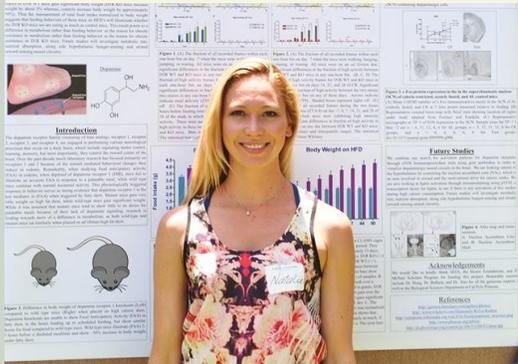
CPP Faculty Position Openings - /www.cpp.edu/~faculty-affairs/open-positions/



Director's Message

The McNair Scholars Program is dedicated to helping low-income, first-generation, and underrepresented students at California State Polytechnic University, Pomona advance into graduate programs across the nation. I hope this newsletter will give you a glimpse of the wonderful things current and past scholars are doing.

Our tremendous success is due to the dedication of staff that has served the program over the past 16 years, the brilliant and wonderful students, and the support of the university, the broader community, and the U.S. Department of Education. If you would like to help us continue to thrive, please consider one of these ways:



Sharing Your Successes

Let your congressional representatives know what the McNair Scholars Program has allowed you to achieve. Congress sets the budget for the McNair Program. By speaking up for the program, you will help congressional members see the importance of investing in future leaders and prevent funding cuts. To contact your elected officials, go to www.house.gov/representatives/find and www.senate.gov/senators/contact.

Supporting the Scholars

Presenting research results at professional conferences is one of the best ways for a scholar to get noticed by potential graduate faculty mentors as well as providing invaluable opportunities for networking. Additionally, scholars are encouraged to visit graduate schools and attend recruitment events.

With your help, we are also instituting a new scholarship, available to McNair Scholars, ranging between \$500 to \$2,000. Please help by sending donations to the McNair Scholars Program at <https://secure.qgiv.com/?key=calpolyadvancement>.

Thank you. I hope you will stop by and say hello the next time you are near Cal Poly Pomona.

Sincerely,
Dr. Winny Dong



Introducing the 2015-2016 McNair Scholars



The McNair Scholars Program Team



Dr. Winnie Dong
Director



Dr. Wei Bidlack
Program Faculty Advisor



Dr. Frank Torres
Director Emeritus



Elena Alvarez Villegas
Project Coordinator



Katherine Azurin
Assis. Project Coordinator

Check out where some of our graduated scholars are headed...

Aaron Castellanos
McNair Cohort 15
2015 Graduate from
Cal Poly Pomona's
College of Science



Accepted into
Stanford University's
Aeronautics/
Astronautics Ph.D. program

Aaron says "the independent research opportunity" through McNair helped him "at the 223rd American Astronomical Society meeting," at the Jet Propulsion Laboratory (JPL), and to "conduct quality research at MIT in 2014." In the future, he wishes to work at JPL "on flight projects, such as a possible Europa explorer."

Brian Bulaya
McNair Cohort 15
2015 Graduate from
Cal Poly Pomona's
College of Urban
Development



Accepted into
University of Illinois at Urbana-Campaign's
Urban Planning Masters program

Brian says that "The McNair Scholars Program helped push me academically." In the future, he plans to "work for a multilateral organization such as the United Nations on development projects in Sub-Saharan Africa" and later to start "entrepreneurial endeavors within the Democratic Republic of Congo and South Africa."

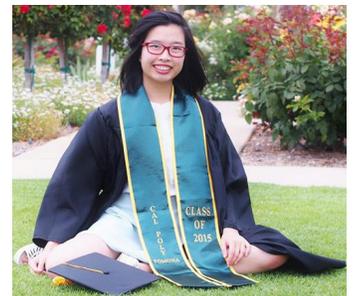
Cynthia McKee
McNair Cohort 15
2015 Graduate from
Cal Poly Pomona's
College of Agriculture



Accepted into UCLA's
Molecular Cellular and
Integrative Physiology
Ph.D. program

Cynthia says one of her best experiences as a McNair scholar was "getting to know my cohort and immersing myself in research while living on the Cal Poly Pomona campus for the McNair summer program." After she obtains her Ph.D., Cynthia plans on working on her post-doc and returning to academia.

Nhu Q. Do
McNair Cohort 15
2015 Graduate from
Cal Poly Pomona's
College of Science



Accepted into UCI's
Biotech Ph.D.
program

Nhu says after she obtains her Ph.D., she plans "to go into the biotech/pharmacology industry to obtain an industrial working experience for some time and then return to academia." She also feels that the "McNair Scholars Program offered guidance and various resources that enabled me to become a more competent applicant for graduate schools."

BRONCO SCHOLAR



Want to read the McNair Scholars final research projects? Check out Bronco Scholar at Broncoscholar.library.cpp.edu. McNair's special collection can be found under Student Research.

Thank you Ronald E. McNair!

The program has helped me mature as both a scholar and a person as I've been exposed to brilliant minds in a multitude of fields.—Kimberly Vongnalith

My project showed me that biotechnology and the skills I acquired in lab are beneficial across these fields and can be honed through graduate school.—April Aquino

I feel that I have become more secure in the fact that I want to attend graduate school while being in the McNair Scholars Program.—Sekani Robinson

McNair allowed me to test and confirm that I am a capable Ph.D. candidate. Through the experiences in McNair, I have met people in high positions with humble beginnings.—Daniel Grajeda

After conducting research, I know that I would like to continue in graduate school. I found out that research is exhilarating and exciting, but it is also tedious and challenging. I'm glad I was able to find this out in McNair.—Renee Estephan

I changed as a scholar, especially through the many workshops provided by McNair regarding minorities in graduate school, the graduate school process itself, and the scientific methods in academia.—Daniel Gomez

I feel more motivated to attend graduate school and become a more skilled researcher.—Adrienne Jaime

McNair provided me with an opportunity to do more demanding research and found that I really liked the challenge. This solidified my plans to keep continuing research and graduate school.—Glen Morrison

The support the McNair Scholars Program has given me has made a significant impact on my academic, career, and personal goals. The program has also motivated me to pay it forward and motivate other students to pursue research and advanced degrees.—Christian Garrido

McNair provided insight and resources, like the preparatory guidance needed to get to my graduate career.—Jessennya Hernandez

From Cohort 16



Dr. Felipe J. Perez, Ph.D., P.E.

Associate Professor of Structural Engineering at CPP

B.S. in Civil Engineering from Cal State Northridge

M.S. and Ph.D. in Civil Engineering from Lehigh University

Dissertation Title: "Experimental and Analytical Lateral Load Response of Unbonded Post-Tensioned Precast Concrete Walls."

Dr. Perez embodies the McNair spirit, both as a mentor and as a low-income, first-generation student who completed his Ph.D. One major factor in Dr. Perez's career is the fact that he was able to find good mentors as an undergraduate and graduate student. He shared with us that at Cal State University, Northridge, he "worked on undergraduate research under the direction of my mentor and friend, Dr. Behzad Bavarian. At Lehigh, my mentors were Dr. Richard Sause and Dr. Stephen Pessiki." He knows that good mentorship doesn't stop after a degree; he notes that his "mentors continue to help throughout [his] academic career," and that he can "rely on them for support and advice."

Because of Dr. Perez's experiences with mentorship as a student, he felt motivated to pass it on and to work with the Ronald E. McNair Scholars Program as a mentor for our low-income, first-generation, and underrepresented students. He commented that "the McNair Program has given [him] the opportunity to work closely with students to solve interesting engineering problems, to instill in them a sense of confidence, and to encourage further inquiry." He noted that McNair mentorship "required an element of dedication and time commitment, but it was a very rewarding experience" for both him and his students. His drive for helping students stems not just from his similar background to the McNair scholars, but by "an urge to make a difference in students' lives and to help them achieve their academic goals."

Dr. Perez has had industry experience that also helps him with insight as an educator and a mentor. In industry, Dr. Perez designed and retrofitted structures for earthquake resistance. The influence of industry and academic inquiry can be found in the projects he mentors, like Lucas De Buren from Cohort 15's McNair project, "Analytical Discrepancies in Fiber Model Analysis of Unbonded Post-tensioned Precast Concrete Walls" which tested tensions of precast concrete walls against the analytical modeling software used both academically and commercially in the interest of finding where the software was miscalculating the stress loads of the walls.

On a closing note, Dr. Perez has some advice for anyone pursuing an advanced degree. "Getting an advance degree is more like a marathon than a sprint," he states, "you will need dedication, diligence, and above all, patience. Nothing is impossible. Work hard, but take time to enjoy life as well, as you will not get those years back."

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Dr. Cristian Aguilar, McNair Cohort 8

B.S. in Biotechnology from Cal Poly Pomona in 2008

Ph.D. in Biological Sciences from University of California, Irvine in 2014

*Dissertation Title: Epigenetic Regulation of Limb Regeneration and Radical Excision Repair in the Axolotl (*Ambystoma mexicanum*)*

The Ronald E. McNair Scholars Program was Dr. Aguilar's first taste of undergraduate research, which led him to other research-oriented programs, like the Amgen Scholars found at U.C. Berkeley in 2007. His experiences with undergraduate research, along with the mentorship of faculty like Dr. Nancy E. Buckley and Dr. Kunxin Luo, helped him enter the Ph.D. program at the department of developmental and cell biology at UCI.

While at UCI, Dr. Aguilar found his research topic becoming more specific. When he started, he found that his original interest in cancer biology shifted because he "realized that [he] was not as interested in cancer as a whole, but in the cellular process that occur during cancer such as re-initiation of the cell cycle." As he continued to research and read more literature on this new subject, he "decided to begin [his] own investigation of changes in epigenetic modifications underlying the regenerative process."

Dr. Aguilar wants all the current and future scholars to remember one thing, "focus on designing your own education, and then make it a reality. The doctorate degree inherently conveys a sense of autonomy when it comes to conducting research. There will be a new level of independence seemingly forced upon you. Embrace the independence and run with it."



Dr. Krystal Allen-Worthington, McNair Cohort 3

B.S. in Animal Science from Cal Poly Pomona in 2004

Doctoral of Veterinary Medicine (DVM) from Cornell University in 2010

Ph.D. in Comparative Biomedical Sciences from Cornell University in 2012

Dissertation Title: The GnRH Receptor-Associated Membrane Raft Signaling Compartment in Mouse Gonadotrope Cells

Dr. Allen-Worthington has fond memories of the McNair Scholars Program and notes that it "helped to demonstrate [her] commitment to research and set [her] apart as a serious candidate" when it came to graduate programs. When she was accepted into Cornell's DVM/Ph.D. program, she said she "couldn't believe it" and thought that her "friends were playing a prank." She started her program at Cornell in 2004 and completed her dual program in June of 2012.

The dissertation process was long for Dr. Krystal Allen-Worthington, and she notes that "it was a tough process and [she] thought about quitting more than once." This is due to a "fair share of dead-ends and unanswered questions" and four abandoned projects. But her fifth project showed promise, and she stuck with it. Her fellow McNair cohort member and best friend, Jody (Lopez) Cameron, was her support along the way and a big part of her success.

She notes that during her time with her McNair cohort, she learned that "you never have to struggle alone," and that "reaching out for help when you need it will get you to a better result and help you build relationships along the way." Dr. Allen-Worthington also has some tips when it comes to choosing a mentor. "Choose the mentor/school that has a proven record of getting their graduates into positions you want for yourself" and not just to choose "the flashiest project or the biggest name."

About Trio and the McNair Scholars Program

The Federal TRIO Programs (TRIO) are Federal outreach and student services programs designed to identify and provide services for individuals from disadvantaged backgrounds. TRIO includes eight programs targeted to serve and assist low-income individuals, first-generation college students, and individuals with disabilities to progress through the academic pipeline from middle school to post-baccalaureate programs.

Designed to assist first-generation, low-income students and those who are underrepresented at the graduate and doctoral level, the program at Cal Poly Pomona was first funded in 1999. The Ronald E. McNair Post-baccalaureate Achievement Program is named for Dr. Ronald E. McNair, one of those who perished aboard the space shuttle Challenger in January 1986.

The McNair Scholars Program at Cal Poly Pomona is a one- or two-year program designed to improve students' research skills and prepare them for entering graduate schools and advanced study. This education grant provides an internship opportunity for students to learn how to do research, present their findings at a summer symposium and at national conferences, and successfully apply for and enter graduate school. Through the efforts of the students themselves, the faculty mentors, and the program staff, these students can achieve their goals.



Dr. Ronald E. McNair

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