

PSU McNair Scholars Online Journal

Volume 9
Issue 1 *The Edge of the Known is Infinite:
Original Contributions in Undergraduate
Research*

Article 1

2015

Front Matter Volume 9, 2015

McNair Scholars Program
Portland State University

Follow this and additional works at: <https://pdxscholar.library.pdx.edu/mcnair>

Let us know how access to this document benefits you.

Recommended Citation

Program, McNair Scholars (2015) "Front Matter Volume 9, 2015," *PSU McNair Scholars Online Journal*:
Vol. 9: Iss. 1, Article 1.
<https://doi.org/10.15760/mcnair.2015.02>

This open access Front Matter is distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License \(CC BY-NC-SA 4.0\)](https://creativecommons.org/licenses/by-nc-sa/4.0/). All documents in PDXScholar should meet [accessibility standards](#). If we can make this document more accessible to you, [contact our team](#).

**The Edge of the Known is Infinite:
Original Contributions in Undergraduate Research**



2015

Ronald E. McNair Scholars Journal

Portland State University

About the Program

The Portland State University (PSU) Ronald E. McNair Scholars Program at Portland State University works with motivated and talented undergraduates who want to pursue PhDs. It introduces juniors and seniors who are first-generation and low-income, and/or members of under-represented groups to academic research and to effective strategies for getting into and graduating from PhD programs.

The McNair Scholars Program has academic-year activities and a full-time summer research internship. Scholars take academic and skills-building seminars and workshops during the year, and each scholar works closely with a faculty mentor on original research in the summer. Scholars present their research findings at the McNair Summer Symposium and at other conferences, and are encouraged to publish their papers in the McNair Journal and other scholarly publications.

The Ronald E. McNair Post-baccalaureate Achievement Program was established in 1986 by the U.S. Department of Education and named in honor of Challenger Space Shuttle astronaut Dr. Ronald E. McNair. The program, which has been on campus since 2003, is funded by a \$1,155,000 grant from the U.S. Department of Education and institutional cost-share funds.

The McNair Scholars Program's student-centered approach relies heavily on faculty and university commitment. Activities and opportunities provided by the program focus on building a positive academic community for the scholars while they are undergraduates at PSU.

About Ronald E. McNair

Ronald Erwin McNair was born October 21, 1950 in Lake City, South Carolina. While in junior high school, Dr. McNair was inspired to work hard and persevere in his studies by his family and by a teacher who recognized his scientific potential and believed in him. Dr. McNair graduated as valedictorian from Carver High School in 1967. In 1971, he graduated magna cum laude and received a Bachelor of Science degree in Physics from North Carolina A&T State University (Greensboro). Dr. McNair then enrolled in the prestigious Massachusetts Institute of Technology. In 1976, at the age of 26, he earned his Ph.D. in laser physics. His dissertation was titled, "Energy Absorption and Vibrational Heating in Molecules Following Intense Laser Excitation." Dr. McNair was presented an honorary doctorate of Laws from North Carolina A&T State University in 1978, an honorary doctorate of Science from Morris College in 1980, and an honorary doctorate of science from the University of South Carolina in 1984.

While working as a staff physicist with Hughes Research Laboratory, Dr. McNair soon became a recognized expert in laser physics. His many distinctions include being a Presidential Scholar (1971-74), a Ford Foundation Fellow (1971-74), a National Fellowship Fund Fellow (1974-75), and a NATO Fellow (1975). He was also a sixth degree black belt in karate and an accomplished saxophonist. Because of his many accomplishments, he was selected by NASA for the space shuttle program in 1978.

His first space shuttle mission launched successfully from Kennedy Space Center on February 3, 1984. Dr. Ronald E. McNair was the second African American to fly in space. Two years later he was selected to serve as mission specialist aboard the ill-fated U.S. Challenger space shuttle. He was killed instantly when the Challenger exploded one minute, thirteen seconds after it was launched. Dr. McNair was posthumously awarded the Congressional Space Medal of Honor. After his death in the Challenger Space Shuttle accident on January 28, 1986, members of Congress provided funding for the Ronald E. McNair Post-Baccalaureate Achievement Program. Their goal was to encourage low-income and first-generation college students, and students from historically underrepresented ethnic groups to expand their educational opportunities by enrolling in a Ph.D. program and ultimately pursue an academic career. This program is dedicated to the high standards of achievement inspired by Dr. McNair's life.

Source: mcnairscholars.com

Table of Contents

List of 2015 PSU McNair Scholars

PSU McNair Scholars Program Staff

Women in Philosophy: A Qualitative Assessment of Experiences at the Undergraduate Level

By: Crystal Nicole Lilith Aymelek

Faculty Mentor: Dr. Veronica Dujon

The British-American Imperial Agenda in Iraq: the Oil and Railway line from Kirkuk to Haifa, 1920-1932

By: Melinda Cohoon

Faculty Mentor: Dr. Laura Robson

Come Out Come Out Wherever You Are: A Content Analysis of Homeless Transgender Youth in Social Service Literature

By: Shannon Crossley

Faculty Mentor: Dr. Ben Anderson-Nathe

The Media's Presentation of The Second Chance Act: Funding for Reentry Following Prison

By: Ailene Joyce Farkac

Faculty Mentor: Dr. Lee Shaker

Co-curriculum and ESL student success: A case study in an intensive English language program

By: James D. Mitchell

Faculty Mentor: Dr. Kimberley Brown

Role of metabolic shifts in protection from mutation damage: Characterizing mitochondrial membrane potential in *C. elegans* gas-1 mutants

By: Lauren S. Muñoz-Tremblay

Faculty Mentor: Dr. Suzanne Estes

Characterization of the role that alternative ribonucleotide reductases play in restoring replication in the presence of hydroxyurea in *Escherichia coli*

By: Michael Sadek

Faculty Mentor: Dr. Justin Courcelle

List of 2015 PSU McNair Scholars & Mentors

Jill Africa-Barnes	Dr. Alma Trinidad
Crystal Aymelek-Christensen	Dr. Veronica Dujon
Victor Benavides-Montes	Dr. Andrea Goforth
Rachel Champaigne	Dr. Kim Brown
Melinda Cohoon	Dr. Laura Robson
Shannon Crossley	Dr. Ben Anderson-Nathe
Charles Daniel	Dr. Robert Roeser
Ailene Farkac	Dr. Lee Shaker
Matthew Hernandez	Dr. Angela Coventry
Fardowsa Idris	Dr. Shankar Rananavare
Aubrey Limburg	Dr. Maura Kelly
Jenny Lor	Dr. Jose Padin
Patricia Mansilla-Orihuela	Dr. Shankar Rananavare
Jillian Martin	Dr. Carmen Ripolles
Joyce McNair	Dr. Jose Padin
James Mitchell	Dr. Kim Brown
Emilio Molina	Dr. Jun Jiao
Lauren Munoz-Tremblay	Dr. Suzanna Estes
Edgard Musafiri Mimo	Dr. Lemmy Meekisho
Tan Nguyen	Dr. Marilyn Machiewicz
Esteban Rodriguez-Ariza	Dr. Jun Jiao
Griselda Velasco	Dr. Suzanna Estes
Rachel Wall	Dr. Martin LaFrenz
Clayton Ward	Dr. Mark Blackmore
Katie Whitaker	Dr. Hunter Shobe
Kery White	Dr. Charles Webb
Joanna Wolffe	Dr. Susan Olson
Serena Worthington	Dr. Margaret Neal

PSU McNair Scholars Program Staff & Editorial Board

Dr. Toeutu Faaleava, Director, McNair Scholars Program

Dr. Jolina Kwong Caputo, Associate Director, McNair Scholars Program

Charles Daniel, Teaching Fellow

Melissa Pirie Cross, Teaching Fellow

Kristy Schepker, Teaching Fellow