

2015

## Front Matter

Follow this and additional works at: <http://scholarworks.gvsu.edu/mcnair>

---

### Recommended Citation

(2015) "Front Matter," *McNair Scholars Journal*: Vol. 19 : Iss. 1 , Article 1.

Available at: <http://scholarworks.gvsu.edu/mcnair/vol19/iss1/1>

# McNair Scholars Journal 2015

VOLUME 19



GRAND VALLEY  
STATE UNIVERSITY

[www.gvsu.edu](http://www.gvsu.edu)



**Vice Provost for Research Administration  
and Executive Director of the Center for  
Scholarly and Creative Excellence**  
Robert P. Smart Ph.D.

**Director**  
Dolli Lutes

**Project Manager**  
Dolli Lutes

**Editor**  
Michelle L. Sanchez

**Cover Design**  
Promotions Office

**Photography**  
Bernadine Carey-Tucker

**Graphic Design and Production**  
Promotions Office

**Grand Valley State University  
Faculty Mentors and Research Editors**

Larry Burns Ph.D.  
*Professor of Psychology*

Matt Christians Ph.D.  
*Assistant Professor of Cell and Molecular Biology*

Kristy Dean Ph.D.  
*Associate Professor of Psychology*

Amanda Dillard Ph.D.  
*Associate Professor of Psychology*

Matt Hart Ph.D.  
*Associate Professor of Chemistry*

Chris Kurby Ph.D.  
*Associate Professor of Psychology*

Brian Lakey Ph.D.  
*Professor of Psychology*

Kim McKee Ph.D.  
*Assistant Professor of Liberal Studies*

Ernest Park Ph.D.  
*Assistant Professor of Psychology*

Rachel Powers Ph.D.  
*Associate Professor of Chemistry*

James Smither Ph.D.  
*Professor of History*

Suganthi Sridhar Ph.D.  
*Associate Professor of Biomedical Sciences*

David Stark Ph.D.  
*Professor of History*

Paul Stephenson Ph.D.  
*Professor of Statistics*

Dwayne Tunstall Ph.D.  
*Associate Professor of Philosophy*

Glenn Valdez Ph.D.  
*Associate Professor of Psychology*

**GVSU McNair Scholars Journal**

## A Message from the McNair Scholars Program

With great pleasure, we present the 2015 Grand Valley State University McNair Scholars Journal. This journal is the culmination of the collaborative scholarship undertaken by our student scholars and their faculty mentors through our Ronald E. McNair Scholars Program. Their contributions to this journal represent the persistence and creativity of the students and the faculty mentors who exemplify GVSU's dedication to undergraduate scholarship and transformative learning.

The Ronald E. McNair Scholars Program, now in its 21st year at GVSU, is a federally-funded program providing research opportunities for low-income/first-generation, and underrepresented college undergraduates to prepare them for Ph.D. programs. At GVSU, our goals and values align with the McNair Scholars Program as we continually strive to provide equitable support for our students and prepare them for success in graduate school.

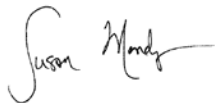
We congratulate each of the McNair Scholars whose research and scholarship is presented in this journal. This work represents your intellectual efforts, your persistence, and your limitless potential as future scholars. We are grateful for the faculty mentors who have worked so closely with our McNair Scholars to encourage their intellectual curiosity and foster their goals and dreams. This work also represents your dedication to your student's success.

We would also like to extend our appreciation to our colleagues who support and embrace the McNair Scholars Program; it is their dedication and hard work that makes this program possible.

Sincerely,



Robert P. Smart, Ph.D.  
Vice Provost for Research Administration  
Executive Director of the Center for Scholarly and Creative Excellence



Susan Mendoza, Ph.D.  
Director of Undergraduate Research and Scholarship  
Office of Undergraduate Research and Scholarship



Dolli Lutes, M.A., M.S.W.  
Director of McNair Scholars Program



**GRAND VALLEY  
STATE UNIVERSITY**



***“Before you can make a dream come true, you must first have one.”*** – Ronald E. McNair, Ph.D.

Ronald Erwin McNair was born October 21, 1950, in Lake City, South Carolina, to Carl and Pearl McNair. He attended North Carolina A&T State University where he graduated Magna Cum Laude with a B.S. degree in physics in 1971. McNair then enrolled in the prestigious Massachusetts Institute of Technology. In 1976, at the age of 26, he earned his Ph.D. in physics.

McNair soon became a recognized expert in laser physics while working as a staff physicist with Hughes Research Laboratory. He was selected by NASA for the space shuttle program in 1978 and was a mission specialist aboard the 1984 flight of the USS Challenger space shuttle.

After his death in the USS Challenger space shuttle accident in January 1986, members of Congress provided funding for the Ronald E. McNair Post-baccalaureate Achievement Program. The goal is to encourage low-income, first generation students, as well as students who are traditionally underrepresented in graduate schools, to expand their opportunities by pursuing graduate studies.



Ronald E. McNair, Ph.D.

## **Ronald E. McNair Post-baccalaureate Achievement Program**

### ***The Purpose***

The McNair Scholars Program is designed to prepare highly talented undergraduates to pursue doctoral degrees and to increase the number of individuals (from the target groups) on college and university faculties.

### ***Who are McNair Scholars?***

The McNair Scholars are highly talented undergraduate students who are from families with no previous college graduate, low-income background or groups underrepresented at the graduate level for doctoral studies. The program accepts students from all disciplines.

### ***Program Services***

The McNair Scholars are matched with faculty research mentors. They receive academic counseling, mentoring, advising, and GRE preparation. In addition to the above services, the McNair Scholars have opportunities to attend research seminars, conduct research, and present their findings orally or written via poster presentations. In the first semester of their senior year, the scholars receive assistance with the graduate school application process.

### ***Funding***

The Ronald E. McNair Post-baccalaureate Achievement Program is a TRiO Program funded through the United States Department of Education and Grand Valley State University.