A Message from the McNair Scholars Program

With great pleasure, we present the 2014 Grand Valley State University McNair Scholars Journal. This year our cover has been redesigned to help represent the new national emphasis on the value of undergraduate research.

The Ronald E. McNair Scholars Program, now in its 20th year at GVSU, is a federally funded program providing research opportunities for low-income/first-generation, and underrepresented college undergraduates to better 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.

This journal is a culmination of the collaborative research conducted by our student scholars and their faculty mentors. We congratulate each of the McNair Scholars whose research is presented in this journal. This research represents your persistence and growth as future scholars. We thank 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 represents your dedication to the 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 these successes possible.

Sincerely,

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

Susan Mendoza
Director of Undergraduate Research and Scholarship
Office of Undergraduate Research and Scholarship

Dolli Lutes
Director
McNair Scholars Program
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.

“Before you can make a dream come true, you must first have one.” – 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.

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