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Since 1991, the Penn State McNair Scholars Program has enriched the lives of students at both Penn State and Virginia State University, our partner in the McNair collaboration. The McNair Program holds a very special place in our lives, as well as in the lives of the faculty and staff who work with our students. This publication celebrates their achievements and we offer it to our readers with pride and pleasure.

This is the thirteenth issue of the Penn State McNair Journal. We congratulate the 2006 Penn State McNair Scholars and their faculty research advisors! This journal presents the research conducted in the summer of 2006 by undergraduate students from Penn State and Virginia State University who are enrolled in the Penn State McNair Scholars Program.

The articles within this journal represent many long hours of mutual satisfying work by the Scholars and their professors. The results of their research are published here and have also been presented at various research conferences around the country. We are especially proud to see how these students have grown as researchers and scholars. The hard work, dedication, and persistence required in producing new knowledge through research is most evident in these articles.

We very much appreciate the guidance, expertise, caring and patience of our fine group of Penn State faculty research advisors. For their ongoing support and assistance, we thank Graham Spanier, President of Penn State University; Rodney Erikson, Provost of Penn State University; Eva Pell, Senior Vice President of Research and Dean of the Graduate School; Evelynn Ellis, Senior Director of the Office of Graduate Educational Equity, the administrative home of the McNair Scholars Program. Also, special thanks to Eddie Moore, President of Virginia State University, and Gladys Nunnally, Honors Program Director at Virginia State University.

We are also fortunate to have the support and encouragement of many faculty and staff members who have worked with our students as social mentors or who have presented workshops and seminars on the many aspects of graduate and faculty life. You give the most precious of gifts to our students – your time in volunteering to support, encourage and nurture our Scholars’ hopes and dreams.

Teresa Tassotti
Project Director

Curtis Price
Academic Coordinator
TRIO PROGRAMS ON THE NATIONAL LEVEL

Since their establishment in the mid-sixties as part of Lyndon Johnson’s War on Poverty Program, TRIO Programs have attempted to provide educational opportunity and make dreams come true for those who have traditionally not been a part of the educational mainstream of American society. The TRIO programs are funded under Title IV of the Higher Education Act of 1965. While student financial aid programs help students overcome financial barriers to higher education, TRIO programs help students overcome class, social and cultural barriers to higher education. There are eight TRIO programs, which include the original three – Upward Bound, Talent Search and Student Support Services. The additional programs are Educational Opportunity Centers, Upward Bound Math & Science Centers, the Ronald E. McNair Post-Baccalaureate Achievement Program, a dissemination program, and a training program for TRIO staff. McNair programs are located at 180 institutions across the United States and Puerto Rico. The McNair Program is designed to prepare participants for doctoral studies through involvement in research and other scholarly activities.

TRIO PROGRAMS AT PENN STATE

The TRIO Programs at Penn State comprise six of the nine TRIO programs. There are two Educational Opportunity Centers, one in Philadelphia and the other in Pittsburgh; Ronald E. McNair Scholars Program; Student Support Services Program; two Talent Search Programs serving western Pennsylvania and York, Upward Bound; and Upward Bound Math & Science. These programs annually serve more than 5,000 students, from 6th graders through adults, with clear potential for academic success. The programs operate both at University Park and in communities across the state, often linking with middle schools, high schools, and community agencies. The programs focus on helping students overcome economic, social, and class barriers so that they can pursue education beyond high school.
MCNAIR SCHOLARS PROGRAM AT PENN STATE

Designed for low-income and first-generation college students, and students from groups underrepresented in graduate education, the McNair Scholars Program at Penn State encourages talented undergraduates to pursue the doctoral degree. The program works closely with these participants through their undergraduate career, encourages their entrance into graduate programs, and tracks their progress to successful completion of advanced degrees.

The goal of the McNair Program is to increase graduate degree attainment of students from the above-mentioned underrepresented segments of society. McNair Scholars are presented with opportunities to study and do research in the University's state-of-the-art facilities in order to hone those skills required for success in doctoral education. Through both academic year and summer program components, McNair Scholars are required to complete a series of steps that lead to their application and enrollment in a graduate program of their choice.

Since 1991, the McNair Scholars Program at Penn State has helped 147 students earn their baccalaureate degrees. Of these graduates, 114 or 78 percent have gone on to graduate school at institutions across the country. And within this group, 20 or 18 percent have earned their doctoral or professional degrees and another 32 or 28 percent have earned their master’s degrees only. Currently, there are 52 or 46 percent of alumni who are enrolled in their graduate programs, 13 of whom have earned their master’s and are now pursuing their doctorates. Among the institutions McNair alumni have attended or now attend are: Penn State, Harvard, University of California-Berkeley, University of California-Davis, Stanford, Howard, Cornell, UCLA, Boston University, Indiana University-Bloomington, University of North Carolina-Chapel Hill, University of Maryland-College Park, John Hopkins University, University of Pennsylvania, Purdue, DePaul, and Ohio State, to name just a few.
Standing (left to right): Curtis Price (Academic Coordinator), Robert Ksiazkiewicz, Andrae Laws, Robert Allen Young, Michael Mollenhauer, Mohammed Faacy Farook, Saalim Carter, Joshua Walker, Dipnil Chowdhury

Sitting (left to right): Teresa Tassotti (Program Director), Shartaya Mollett, Tamara Fleming, Courtnee-Evan Spino, Renee Killins, Judy Banker (Staff Assistant), Alana Curry
ABOUT RONALD E. MCNAIR

Dr. Ronald Erwin McNair, the second African American to fly in space, was born on October 21, 1950, in Lake City, South Carolina. In 1971, he received a Bachelor of Science degree, magna cum laude, in physics from North Carolina A&T State University. He continued his education at the Massachusetts Institute of Technology (MIT) where, in 1976, he earned his Ph.D. in physics.

While at MIT, McNair performed some of the earliest development of chemical and high-pressure CO lasers. He went on to study laser physics at E'cole D'ete Theorique de Physique in Les Houches, France. He was well published and nationally known for his work in the field of laser physics through the Hughes Laboratory.

In 1978, McNair realized his dream of becoming an astronaut when he was selected from a pool of several thousand applicants to be included in the first class of thirty-five applicants for the space shuttle program. Ronald McNair and six other astronauts died on January 28, 1986 when the space shuttle Challenger exploded after launching from the Kennedy Space Center in Florida.

McNair was an accomplished saxophonist; held a sixth-degree, black belt in karate; and was the recipient of three honorary doctorates and a score of fellowships and commendations. He was married to the former Cheryl Moore and is the father of two children, Reginald Ervin and Joy Cheray. After his death, Congress approved funding to honor the memory of McNair by establishing the Ronald E. McNair Post-Baccalaureate Achievement Program, which became the sixth program funded under the TRIO Programs umbrella.

“Historians, who will write about McNair, the man, will discover that there was much more to him than his scholastics achievements. Friends who knew him, say he walked humbly and never boasted about his achievements. They say his commitments were to God, his family and to the youths he encouraged to succeed.”

(Ebony, May 1986)
SPECIAL ACKNOWLEDGEMENTS

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**McNair Alumni on the Move**

We congratulate our recent graduates and are very proud of their accomplishments. We also extend congratulations to those Penn State McNair alumni who have earned their graduate degrees as well as those alumni currently enrolled in graduate studies.

**At the graduate level...**

Taimarie Adams (PSU 2003)  
Karla (James) Anderson (VSU 1999)  
Michael Benitez (PSU 2001)  
Jose Buitrago (PSU 1995)  
Sherese Burnham (PSU 1999)  
Aaron Brundage (PSU 1995)

Sofia Cerda-Gonzalez (PSU 1999)  
Debbie Charles (PSU 2001)  
Catherine Crawford (PSU 1996)  
Natasha Deer (PSU 1995)  
Alicia DeFrancesco (PSU 1997)  
Lurie Daniel (PSU 2000)  
Jorge Delgado (PSU 2004)  
Eve Dunbar (PSU 1998)  
Latia Eaton (VSU 2003)  
Carol Elias (VSU 1997)  
Michael Godeny (PSU 2002)  
Antoinette Gomez (PSU 1994)  
Cristina Gonzalez (PSU 1999)  
Sherie Graham (PSU 2002)  
Janet Harris (PSU 1996)  
Angela Hess (PSU 1998)  
Priscilla Hockin-Brown (PSU 1996)

Marissa (Graby) Hoover (PSU 2000)  
Meng He (PSU 2002)  
Jeffrey Himes (PSU 1997)  
Alisa Howze (PSU 1994)  
Andrea Jones (VSU 1998)  
Michelle Jones (PSU 1996)  
Leshawn Kee (VSU 1998)  
Haroon Kharem (PSU 1996)  
Carrie (Hippchen) Kuhn (PSU 2001)  
LaShawne (Long) Miles (PSU 2001)  
Charmayne Maddox (PSU 2004)  
Debra Marks (VSU 1996)  
Robert Miller (PSU 1999)  
Bethany Molnar (PSU 1998)  
Nicole Morbillo (PSU 1998)  
Ndidi Moses (PSU 2000)  
Robert Osmanski (PSU 1995)

J.D., Harvard University  
M.S., Central Michigan University  
M.Ed., Penn State University  
M.A., Harvard University  
M.S., University of Central Florida  
M.S., Penn State University  
Ph.D., Purdue University  
D.V.M., Cornell University  
M.S., University of Maryland-College Park  
M.Ed., Central Michigan University  
M.A., Florida State University  
M.B.A., Babson College  
J.D., New York University  
M.S., Purdue University  
Ph.D., University of Texas-Austin  
M.S.W., University of Baltimore  
M.Ed., Virginia State University  
Ph.D., University of Florida  
M.S., Clark-Atlanta University  
M.D., Albert Einstein Medical School  
M.S., University of Michigan  
M.Ed, Duquesne University  
Ph.D., University of Iowa  
M.S., Michigan State University  
Ph.D., Rutgers University  
M.S., Temple University  
M.A., American University  
M.S., West Virginia University  
Ph.D., Texas A&M University  
M.P.A., Virginia State University  
Ph.D., Penn State University  
M.A., Regents University  
Ph.D., Penn State University  
M.A., Stanford University  
M.Ed., Xavier University  
M.Ed., Penn State University  
M.S., University of Virginia  
Ph.D., University of Kentucky  
M.S., Northeastern University  
Ph.D., New York University  
M.A., Penn State University,  
J.D., University of Connecticut  
M.S., Penn State University
Hui Ou (PSU 2005) M.S., Cornell University
Caryn Rodgers (PSU 2000) Ph.D., St. John’s University
Thomas Shields (PSU 1998) M.A., Penn State University
Christie Sidor (PSU 2000) M.A., Duquesne University
Melik Spain (VSU 1996) M.S., Virginia Tech University
Anthony Spencer (PSU 1999) Ph.D., Northwestern University
Shawntee Vertilus (PSU 1998) M.P.H./M.D., New York Medical College
Patrice White (VSU 2001) M.S., University of Maryland-College Park
Romon Williams (VSU 1995) M.S., Wake Forest University
Wendy Williamson (PSU 1995) M.B.A., Penn State University
Kenya Wright (VSU 1997) M.S., North Carolina State University
Heneryatta Ballah (PSU 2004) M.A., Ohio State University, now pursuing Ph.D. at Ohio State
Laurian Bowles (PSU 1999) M.A., University of London, now pursuing Ph.D. at Temple University
Felecia Evans (PSU 2002) M.S., Texas Tech University, now pursuing Ph.D. at Texas Tech
Natasha Faison (PSU 1999) M.S., Penn State University, now pursuing Ph.D. at Eastern Michigan University
Derek Gray (VSU 1998) M.A., SUNY-Albany, now pursuing J.D. at North Carolina Central University
Rashid Njai (PSU 2000) M.P.H., University of Michigan, now pursuing Ph.D. at University of Michigan
Mark Palumbo (PSU 2000) M.S., Wright State University, now pursuing Ph.D. at Wright State
Zakia Posey (PSU 1999) M.A., Michigan State University, now pursuing Ph.D. at Michigan State
Steven Thompson (PSU 1997) M.S., Indiana University-Purdue, now pursuing Ph.D. at Clemson University

**At the undergraduate level...**

Johnese Bailey (VSU) May 2006
Syleena Guilford (VSU) December 2005
Juliet Iwelumor (PSU) May 2006
Marie Krouse (PSU) May 2006
Kenya Ramey (VSU) May 2006

**On to graduate school in Fall 2006...**

Johnese Bailey (VSU 2006) now pursuing graduate studies at University of South Carolina
Juliet Iwelumor (PSU 2006) now pursuing graduate studies at Penn State University
Kenya Ramey (VSU 2006) now pursuing graduate studies at Temple University

**In graduate school as of Fall 2006...**

Juan Abreu (PSU 2002) Rutgers University (Law/Criminal Justice)
Luis Agosto (PSU 2005) University of Pennsylvania (Immunology)
Omotayo Banjo (PSU 2004) Penn State University (Media Studies)
Angelo Berrios (PSU 2000) St. Joseph’s University (Education)
Jennifer Carman (PSU 2000) Strayer University (Health Administration)
Michael Collins (VSU 2005) Howard University (Medicine)
Catherine Crawford (PSU 1996) Central Michigan University (Education)
Trinaty Crosby (PSU 2005) Howard University (Social Work)
Max Fontus (PSU 1999) Indiana University-Bloomington (Chemistry)
Tiana Garrett (VSU 2001) University of North Carolina-Chapel Hill (Chemistry)
Kathy Goodson (VSU 2005) University of Maryland-College Park (Biochemistry)
Maria Gutierrez (PSU 2005) University of California-Berkeley (Middle East Studies)
Mark Harewood (VSU 2000) Webster University
Dustin Holloway (PSU 2002) Boston University (Molecular Biology)
Mimi (Abel) Hughes (PSU 2002) University of California at Los Angeles (Atmospheric Sciences)
Lanik Lowry (PSU 2002) University of Maryland-College Park (Human Resources)
Lourdes Marcano (PSU 1995) University of Tennessee (Business Administration)
Leanna Mellott (PSU 2000) Ohio State University (Sociology)
Angel Miles (PSU 2003) University of Maryland-College Park (Women’s Studies)
Edward Mills (VSU 2003) University of Illinois at Urbana-Champaign (History)
LaShauna Myers (PSU 2003) University of Pennsylvania (Higher Education)
Kizzy (Frey) Nicholas (PSU 2000) Penn State University (Education)
Nikki Ogburn (VSU 1997) Longwood University
Tracie Parker (VSU 2003) Ohio State University (Music Education)
Franche Pierre-Robinson (VSU 2002) University of Illinois-Chicago (Education)
Tiffany Polanco (PSU 2004) Rutgers University (Animal Science)
Kristin Rauch (PSU 2004) University of California-Davis (Anthropology)
Cavin Robinson (PSU 2002) DePaul University (Philosophy)
Sassy Ross (PSU 2001) New York University
Adriana Segura (PSU 2006) Northwestern University (Medicine)
Kedesha Sibliss (VSU 2003) Georgetown University (Medicine)
Luisa Soaterna (VSU 2004) John Hopkins University (Biophysics)
Kashra Taliaferro (PSU 2003) University of Maryland-College Park (Education)
Selima Taylor (PSU 2004) New York University (Health Science Administration)
Anthony Paul Trace (PSU 2004) University of Virginia (Medicine/Biochemistry & Molecular Genetics)
Kahlil Williams (PSU 2001) University of Pennsylvania (Political Science)