

# The Penn State McNair Journal

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Summer 2010, Volume 17

*The Penn State McNair Journal* is published annually and is the official publication of the Ronald E. McNair Scholars Program at Penn State. No responsibility for the views expressed by the authors in this journal is assumed by the editors or the Ronald E. McNair Scholars Program.

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The program is funded by a \$297,000 Ronald E. McNair Post-Baccalaureate Achievement Program grant from the U.S. Department of Education.

THE PENN STATE MCNAIR JOURNAL

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## WELCOME

Since 1991, the Penn State McNair Scholars Program has enriched the lives of students at Penn State. 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 seventeenth issue of the Penn State McNair Journal. We congratulate the 2010 Penn State McNair Scholars and their faculty research advisors! This journal presents the research conducted in the summer of 2010 by undergraduate students from Penn State 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; Hank Foley, Senior Vice President of Research and Dean of the Graduate School; Regina Vasilatos-Younken, Associate Dean of the Graduate School, and Suzanne Adair, Assistant Dean and Senior Director of the Office of Graduate Educational Equity Programs, the administrative home of the McNair Scholars Program.

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**

## **TRIO PROGRAMS ON THE NATIONAL LEVEL**

Since their establishment in the mid-sixties as part of Lyndon Johnson's War on Poverty Program, the federal 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 208 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 11 TRIO Programs at Penn State comprise six of the nine TRIO programs. There are two Educational Opportunity Centers, one in Philadelphia and the other serving southwestern Pennsylvania, two Talent Search Programs serving western Pennsylvania and the city of York, Ronald E. McNair Scholars Program, four Student Support Services Programs, Upward Bound, and Upward Bound Math & Science. These programs annually serve more than 6,000 students, from 6th graders through adults, all with clear potential for academic success. The programs operate at the following Penn State campuses: University Park, Wilkes-Barre, Greater Allegheny, and the Pennsylvania Institute of Technology. The programs also operate 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 207 students earn their baccalaureate degrees. Of these graduates, 156 or 75 percent have gone on to graduate school at institutions across the country and overseas. As of January 2011, 35 or 17 percent have earned their doctoral or professional degrees and another 79 or 38 percent have earned their master's degrees only. Currently, there are 53 or 26 percent of alumni who are still enrolled in graduate programs. Among the institutions McNair alumni have attended or now attend are: Arizona State, Boston University, Columbia, Cornell, DePaul, Harvard, Howard, Indiana University-Bloomington, Johns Hopkins, New York University, Ohio State, Penn State, Purdue, Rice University, Stanford, Temple, Texas A&M, UCLA, University of California-Berkeley, University of California-Davis, University of Chicago, University of Maryland-College Park, University of Michigan, University of North Carolina-Chapel Hill, University of Pennsylvania, University of Texas-Austin and Yale, to name just a few.

*Summer 2010 McNair Scholars and Program Staff*



**Summer 2010 Penn State McNair scholars, program staff, McNair alumni and other special guests gather together at the conclusion of the 2010 National Penn State McNair Summer Research Conference held July 16-18, 2010 on the University Park campus.**

## 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**

### **PROGRAM AND EDITORIAL STAFF**

Teresa Tassotti, Program Director  
Felicia Sanders, former Academic Coordinator  
Judy Banker, Administrative Support Assistant

### **RESEARCH METHODS COURSE INSTRUCTOR**

Rama Radhakrishna

### **FACULTY RESEARCH ADVISORS AND PAPER EDITORS**

Collins Airhihenbuwa  
Mayra Bamaca  
Margaret Brittingham  
Douglas Cowen  
Vanitha Dayananda  
Graciela Espinosa-Hernandez  
Daphne Hernandez  
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John Kramer  
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Elina Mainela-Arnold  
Elizabeth Mellin  
Todd Palmer  
Laurie Scheuble  
Kevin J.A. Thomas

### **SOCIAL MENTORS**

Joseph Aguirre  
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Christy Lusiak  
Eric Marsh  
Mary Beth Oliver  
Todd Palmer  
Rama Radhakrishna  
Richard Robinett  
Gary San Julian  
Keith Wilson

## 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...**

Mimi (Abel) Hughes (PSU 2002)	M.S., University of California-Los Angeles Ph.D., University of California-Los Angeles
Juan Abreu (PSU 2002)	J.D., Rutgers University
Felix Acon-Chen (PSU 2004)	M.S., Stevens Institute of Technology
Taimarie Adams (PSU 2003)	J.D., Harvard University
Luis Agosto (PSU 2005)	Ph.D., University of Pennsylvania
Christopher Arlene (PSU 2004)	M.P.P., Harvard University
Karla (James) Anderson (VSU 1999)	M.S., Central Michigan University
Omotayo Banjo (PSU 2004)	Ph.D., Penn State University
Angelo Berrios (PSU 2000)	M.S., Joseph's University
Aaron Brundage (PSU 1995)	M.S., Penn State University Ph.D., Purdue University
Jose Buitrago (PSU 1995)	M.L.A., Harvard University
Sherese Burnham (PSU 1999)	M.A., University of Central Florida
Saalim Carter (PSU 2007)	M.A., University of Chicago
Jacqueline Cauley (PSU 2009)	M.A., Queen's University (Belfast)
Sofia Cerda-Gonzalez (PSU 1999)	D.V.M., Cornell University
Andra Colbert (VSU 2005)	M.Ed., Johns Hopkins University
Michael Collins (VSU 2005)	M.D., Howard University
Trinaty Crosby (PSU 2005)	M.S.W., Howard University
Evelyn Cruz (VSU 1996)	M.S., University of Virginia
Lurie Daniel (PSU 2000)	J.D., New York University
Natasha Deer (PSU 1995)	M.A., Florida State University
Alicia DeFrancesco (PSU 1997)	M.B.A., Babson College
Jorge Delgado (PSU 2004)	M.S., Purdue University
Eve Dunbar (PSU 1998)	Ph.D., University of Texas-Austin
Latia Eaton (VSU 2003)	M.S.W., University of Baltimore
Carol Elias (VSU 1997)	M.Ed., Virginia State University
Mark Elwell-Heyler (PSU 2002)	M.S., Cornell University
Natasha Faison (PSU 1999)	M.S., Penn State University, M.A., University of Michigan
Max Fontus (PSU 1999)	Ph.D., Indiana University-Bloomington
Tiana Garrett (VSU 2001)	M.P.H., Ph.D., University of North Carolina-Chapel Hill
Michael Godeny (PSU 2002)	Ph.D., University of Florida
Antoinette Gomez (PSU 1994)	M.S., Clark-Atlanta University M.S.W., University of Denver
Cristina Gonzalez (PSU 1999)	M.D., Albert Einstein Medical School
Sherie Graham (PSU 2002)	M.P.H., University of Michigan
Derek Gray (VSU 1998)	M.L.A., SUNY-Albany M.A., SUNY-Albany
Mark Harewood (VSU 2000)	M.A., Webster University

Atiya Harmon (PSU 2002)	M.S., University of Pennsylvania
Dennis Harney (PSU 1993)	M.A., University of Pennsylvania
Janet Harris (PSU 1996)	M.Ed, Duquesne University
Meng He (PSU 2002)	M.S., American University
Angela Hess (PSU 1998)	Ph.D., University of Iowa
Jeffrey Himes (PSU 1997)	M.A., West Virginia University
Priscilla Hockin-Brown (PSU 1996)	M.S., Michigan State University
Dustin Holloway (PSU 2002)	Ph.D., Boston University
Alisa Howze (PSU 1994)	Ph.D., Texas A&M University
Juliet Iwelumor (PSU 2006)	Ph.D., Penn State University
Andrea Jones (VSU 1998)	M.A., Virginia State University
Michelle Jones-London (PSU 1996)	Ph.D., Penn State University
Irene Karedis (PSU 2006)	M.A., Institute of World Politics
Leshawn Kee (VSU 1998)	M.A., Regents University
Haroon Kharem (PSU 1996)	Ph.D., Penn State University
Robert Ksiazkiewicz (PSU 2007)	M.A., University of Pittsburgh
Carrie (Hippchen) Kuhn (PSU 2001)	M.A., Stanford University
Judy Liu (PSU 1995)	M.S., University of California-Berkeley
	Ph.D., University of California-Berkeley
LaShawne Long-Myles (PSU 2001)	M.Ed., Xavier University
Lanik Lowry (PSU 2002)	M.B.A., University of Maryland-College Park
	M.A., University of Maryland-College Park
Charmayne Maddox (PSU 2004)	M.Ed., Penn State University
	M.Ed., Chestnut Hill College
Lourdes Marcano (PSU 1995)	M.B.A., University of Tennessee
Debra Marks (VSU 1996)	M.S., University of Virginia
	M.B.A., Liberty University
Leanna Mellott (PSU 2000)	Ph.D., Ohio State University
Robert Miller (PSU 1999)	Ph.D., University of Kentucky
Bethany Molnar (PSU 1998)	M.S., Northeastern University
Shartaya Mollett (PSU 2007)	M.S.W., University of Pittsburgh
Nicole Morbillo (PSU 1998)	D.P.T., New York University
Ndidi Moses (PSU 2000)	M.A., Penn State University,
	J.D., University of Connecticut
Rashid Njai (PSU 2000)	M.P.H., University of Michigan
	Ph.D., University of Michigan
Julio Ortiz (PSU 2002)	Ph.D., Penn State University
Robert Osanski (PSU 1995)	M.S., Penn State University
Hui Ou (PSU 2005)	M.S., Cornell University
Mark Palumbo (PSU 2000)	M.S., Wright State University
	Ph.D., Wright State University
Tracie Parker (VSU 2003)	M.A., Ohio State University
Anjana Patel (PSU 2008)	M.P.H., Drexel University
Franchette Pierre-Robinson (VSU 2002)	M.Ed., University of Illinois-Chicago
Tiffany Polanco (PSU 2004)	Ph.D., Rutgers University
Kenya Ramey (VSU 2006)	M.A., Temple University
Cavin Robinson (PSU 2002)	M.A., Ph.D., DePaul University
Caryn Rodgers (PSU 2000)	Ph.D., St. John's University
Armando Saliba (PSU 2003)	M.A., University of Incarnate Word
Lilliam Santiago-Quinones (PSU 1998)	M.Ed., Bowling Green State University
Thomas Shields (PSU 1998)	M.A., Penn State University
Christie Sidora (PSU 2000)	M.A., Duquesne University
Andrew Snauffer (PSU 1996)	M.S., Michigan Technical University

Melik Spain (VSU 1996)	M.S., Virginia Tech University
Anthony Spencer (PSU 1999)	Ph.D., Northwestern University
Kashra Taliaferro (PSU 2003)	M.Ed., University of Maryland-College Park
Scott Test (PSU 2008)	M.L.A., Clarion University
Constance Thompson (VSU 1996)	M.S., Cornell University
Anthony Paul Trace (PSU 2004)	M.S., Ph.D., University of Virginia
Shawyntee Vertilus (PSU 1998)	M.P.H./M.D., New York Medical College
Katherine Wheatle (PSU 2008)	M.P.H., Emory University
Patrice White (VSU 2001)	M.A., University of Maryland-College Park
Romon Williams (VSU 1995)	M.S., Wake Forest University
Wendy Williamson (PSU 1995)	M.B.A., Penn State University
Michele Wisniewski (PSU 2004)	Pharm.D., Massachusetts College of Pharmacy
Kenya Wright (VSU 1997)	M.S., North Carolina State University
Robert Allen Young (PSU 2007)	M.Ed., University of Pittsburgh
Heneryatta Ballah (PSU 2004)	M.A., Ohio State University, now pursuing Ph.D. In Women's Studies at same institution
Michael Benitez (PSU 2001)	M.Ed., Penn State University, now pursuing Ph.D. in Educational Leadership at Iowa State University
Laurian Bowles (PSU 1999)	M.A., University of London, M.A., Temple University now pursuing Ph.D. in Anthropology at same institution
Debbie Charles (PSU 001)	M.S., University of Maryland-College Park now pursuing V.M.D. at Tuskegee University
Dipnil Chowdhury (PSU 2007)	M.S., University of Pennsylvania, now pursuing Ph.D. in Engineering at same institution
Catherine Crawford (PSU 1996)	M.Ed., Central Michigan University now pursuing graduate studies at Cappella University
Felecia Evans-Bowser (PSU 2002)	M.S., Texas Tech University, now pursuing Ph.D. at same institution
Oneximo Gonzalez (PSU 2007)	M.S., University of Pittsburgh, now pursuing Ph.D. in Biomedical Engineering at same institution
Maria Gutierrez-Jaskiewicz (PSU 2005)	M.A., University of California-Berkeley now pursuing Ph.D. in Near East Studies at Yale University
Marissa (Graby) Hoover (PSU 2000)	M.S., Temple University, now pursuing Ph.D. in Educational Leadership at Penn State University
Angel Miles (PSU 2003)	M.A., University of Maryland-College Park, now pursuing Ph.D. at same institution
Amber Ortega (PSU 2008)	M.S., Penn State University, now pursuing Ph.D. at University of Colorado in Atmospheric Sciences
Zakia Posey (PSU 1999)	M.S., Michigan State University, now pursuing Ph.D. at same institution
Kristin Rauch (PSU 2004)	M.S., University of California-Davis now pursuing Ph.D. at same institution
Sassy Ross (PSU 2001)	M.F.A., New York University now pursuing Ph.D. in English at University of Utah
Steven Thompson (PSU 1997)	M.S., Indiana University-Purdue, now pursuing Ph.D. at Clemson University
Kahlil Williams (PSU 2001)	M.A., Ph.D., University of Pennsylvania, now pursuing J.D. at Columbia University

## **At the undergraduate level...**

Ilyas Abukar (PSU) August 2010  
Diana Barrantes Gomez (PSU) May 2010  
Danielle Forbes (PSU) May 2010  
Marlena Freeman (PSU) May 2010  
Dawn Gannon (PSU) May 2010  
Tatiana Gochez-Kerr (PSU) May 2010  
Victoria Jackson (PSU) May 2010  
Sopheavy Lim (PSU) May 2010  
Justin Meyer (PSU) May 2010  
Genevieve Miller-Brown (PSU) May 2010  
Alisa Shockley (PSU) May 2010  
Chelsie White (PSU) May 2010

## **On to graduate school in Fall 2010...**

Diana Barrantes Gomez now pursuing graduate studies in Biomedical Sciences at Johns Hopkins University  
Danielle Forbes now pursuing graduate studies in Educational Leadership at University of Illinois-Urbana Champagne  
Marlena Freeman now pursuing graduate studies in Food Science at University of Georgia  
Dawn Gannon now pursuing graduate studies in Creative Writing at University of Baltimore  
Tatiana Gochez-Kerr now pursuing graduate studies in Sociology at University of Illinois-Urbana Champagne  
Victoria Jackson now pursuing graduate studies in Political Science at University of Texas-Austin  
Justin Meyer now pursuing graduate studies in Clinical Psychology at Texas A&M-College Station  
Genevieve Miller-Brown now pursuing graduate studies in Bioengineering at Columbia University  
Alisa Shockley now pursuing graduate studies in Geography at University of Illinois-Urbana Champagne  
Chelsie White now pursuing graduate studies in Health Policy Administration at Penn State University

## **In graduate school as of Fall 2010...**

Latoya Currie (VSU 1999)	Virginia Commonwealth University (Education)
Alana Curry (VSU 2007)	Tuskegee University (Veterinary Medicine)
Blake Garcia (PSU 2009)	Texas A&M-College Station (Political Science)
Jennifer Geacone-Cruz (PSU 2002)	Bunka So-en Daigaku University (Fashion Design)
Kathy Goodson (VSU 2005)	University of Maryland-College Park (Biochemistry)
Paula Henderson (PSU 2005)	Barry University
Lissette Herrera (PSU 2009)	LaSalle University (Psychology)
Janay Jeter (PSU 2010)	Drexel University (Public Health)

Renee Killins (PSU 2007)  
Chong Mike Lee (PSU 2007)  
Edward Mills (VSU 2003)  
Jennifer Mulcahy-Avery (PSU 2009)  
LaShauna Myers (PSU 2003)  
Milton Newberry (PSU 2007)  
Benjamin Ogrodnik (PSU 2009)  
Fawn Patchell (PSU 2007)  
McKenna Philpot-Bowden (VSU 2004)  
Natalie Ragland (PSU 2001)  
Sue Annie Rodriguez (PSU 2008)

Adriana Segura (PSU 2006)  
Kedesha Sibliss (VSU 2003)  
Luisa Soaterna (VSU 2004)

Marquita Stokes (PSU 2009)  
Joshua Walker (PSU 2007)  
Aimy Wissa (PSU 2008)

Daniel Zaccariello (PSU 2008)

Purdue University (Life Sciences)  
Penn State University (Molecular Biology)  
University of Illinois at Urbana-Champaign (History)  
Boston University (Clinical Psychology)  
University of Pennsylvania (Higher Education)  
University of Georgia (Wildlife Sciences)  
Ohio State University (English)  
Penn State University (Nutrition Sciences)  
St. Joseph's University (Education)  
Ross University (Veterinary Medicine)  
Arizona State University (Human Development &  
Family Studies)  
Northwestern University (Medicine)  
Howard University (Medicine)  
Virginia Commonwealth University (Health  
Administration)  
Northwestern University (Clinical Psychology)  
American University (Education)  
University of Maryland-College Park (Aerospace  
Engineering)  
Rice University (Political Science)