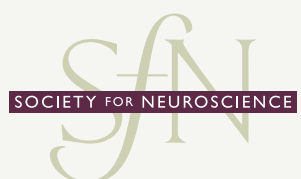


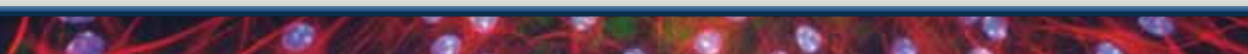


30 *years*
of **Advancing Diversity**
in Science

THE SOCIETY FOR NEUROSCIENCE
CELEBRATES THE 30TH ANNIVERSARY OF THE
NEUROSCIENCE SCHOLARS PROGRAM



Supported by the National Institutes of Health/National Institute of Neurological Disorders and Stroke



From its inception in 1969, the Society for Neuroscience (SfN) has been committed to promoting diversity within neuroscience. SfN's mission statement speaks of "bringing together scientists of diverse backgrounds" and increasing "participation of scientists from diverse cultural, ethnic, and geographic backgrounds."

To accomplish this mission, in 1981, SfN established the Minority Traveling Fellowship, later called the Conference Program for Young Minority Scientists, and now the Neuroscience Scholars Program (NSP). In 2011, SfN celebrates 30 years of supporting diversity in neuroscience through the NSP, SfN's signature diversity program. With strong and enduring financial support from the National Institutes of Health (NIH), in particular the National Institute of Neurological Disorders and Stroke (NINDS), the NSP is recognized as one of the most successful diversity programs.

National surveys and studies in the United States have well documented the challenge of underrepresentation of minority scientists at every level, as well as the phenomenon of a decrease or flattening in the number of URM scientists at each higher educational and professional level. The NSP has addressed these issues since its inception.

Over the past 30 years, the NSP has evolved from a one-year travel program to the SfN annual meeting to a robust three-year fellowship with individualized enrichment programs and funds for professional development, networking opportunities, assigned mentors, and most recently, coaching for investigator grant writing. Since the first 8 participants who attended the 1981 and 1982 SfN annual meetings, the program has grown to support a total of 579 Scholars to date.

During that time, the NSP has helped foster the careers of many successful researchers in neuroscience. Although the names of the program and of the SfN leadership group that oversees it have changed several times, the focus has remained the same — the NSP represents a cornerstone of SfN's enduring commitment to promoting diversity within the profession.

In this commemorative booklet, SfN shares the story of the NSP, and profiles the careers of a select few of the many successful NSP Scholars.

1981
SfN establishes Minority Traveling Fellowship

1982
SfN secures funding from NINCDS

1988
SfN secures NINDS funding for Conference Program for Young Minority Scientists

1997
Program expands with NINDS support to 3-year Neuroscience Scholars Program

2004
SfN secures renewal of NINDS grant

2007
Program expands to undergraduates

2009
SfN secures renewal of NINDS grant

2010
Record number of applicants

2011
30th anniversary celebration



Program Evolution

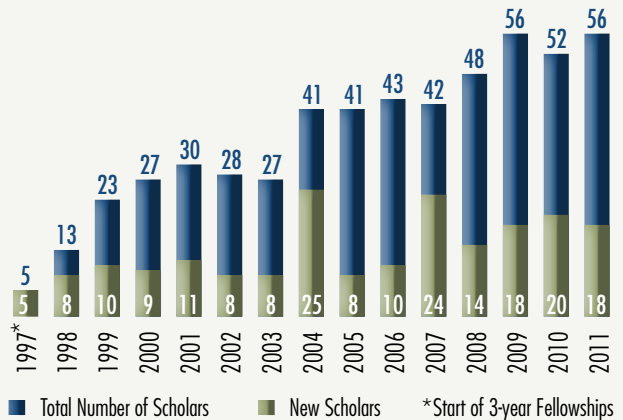
As the Neuroscience Scholars Program has grown and evolved, SfN has received strong support and funding from the NIH, starting in 1982 with funding from what was then the National Institute for Neurological and Communicative Disorders and Stroke (NINCDS).

Over the years, SfN has committed significant in-kind funding and organizational leadership from its diversity-related committees that have played a critical role in the program's successful outcomes.

The Scholars

Since its early years, the NSP has grown into a vibrant and highly competitive program, with a steady growth in the number of applications. A record 102 applicants applied in 2010 for 20 coveted slots. With increased funding from NINDS, the program is now adding each year 18-20 new Scholars — graduate students, postdoctoral fellows and, since 2007, highly qualified undergraduate students.

Total Number of Scholars by Year



🌀 **Women:** Since 1996, 55 percent of all Scholars have been women.

🌀 **Race/ethnicity:** Since 1997, 48 percent of all Scholars have been Hispanic/Latino, 35 percent Black/African-American, 4 percent Native American, and 3 percent Pacific Islander. (10 percent not indicated)

Current Program Goal and Components

The NSP's current overall goal is to increase the likelihood that diverse trainees who enter the neuroscience field continue to advance in their careers — that is, fixing the “leaky pipeline.” Toward this end, the program offers Scholars a rich array of activities and support to maximize their experience and benefits:

- 🌀 Annual funds for career enrichment activities
- 🌀 Mentoring and networking opportunities
- 🌀 Support for SfN annual meeting attendance
- 🌀 Complimentary SfN membership and subscription to *The Journal of Neuroscience* online
- 🌀 Creation of an online community of support for Scholars and others interested in diversity issues

“The NSP encourages minorities in their research and allows them to take risks that they wouldn't be able to without it.”

— Paul Gray, PhD

“The NSP is a spectacular program and NINDS is very proud of its accomplishments. It provides a lot of bang for the buck. It's probably the most successful diversity program we support.”

— Story C. Landis, PhD, NINDS Director

Achievements

To assess achievements and lessons learned over the past 30 years, SfN conducted a retrospective survey of former Scholars in 2010. In addition, a series of in-depth interviews were conducted to capture alumni career history and their perspectives on the program's impact, as well as the perspectives of key leaders in the program. The survey successfully reached 220 past Scholars (approximately 40 percent) and had a strong overall response rate (38 percent, n=84).

Selected Outcomes

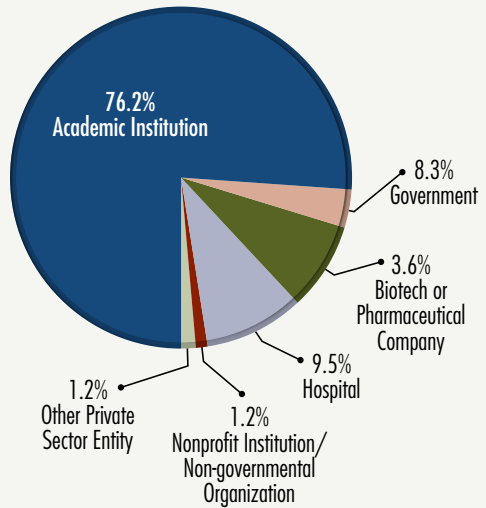
Survey responses indicate:

- ☞ The program offered significant value by **increasing Scholars' commitment to a neuroscience career** (87 percent of respondents) and helping with their **career advancement** (90 percent).
- ☞ **Attending the SfN annual meeting** (87 percent), the world's largest gathering of neuroscientists, and **networking opportunities** (88 percent) were the most highly rated program components.
- ☞ Scholars were successful in receiving **competitive grant funding**, with 56 reporting cumulatively 290 awards totaling nearly \$95 million.
- ☞ **Former Scholars have largely stayed within academia and achieved high standing**, including full professorships and other faculty positions.

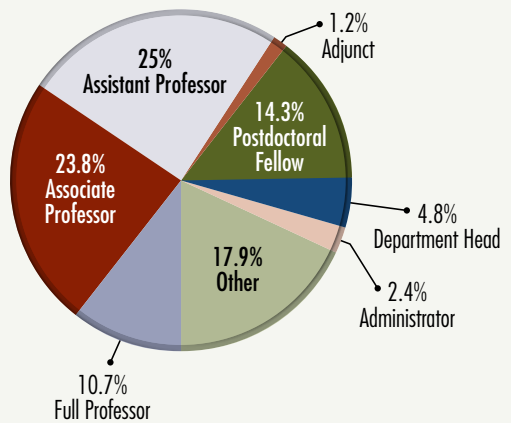
Other outcomes include:

- ☞ **Former Scholars participate in SfN governance**, having been selected to lead and serve on SfN committees and advisory groups. Over the past 30 years, there has been a marked increase in the number of URMs, in general, and former NSP Scholars assuming leadership roles.

Current Professional Setting



Current Position



"One of the most important building blocks in my professional life was the encouragement of my SfN mentor. He took me under his wing and told me one day I could really make a difference."
— Alfredo Quinones-Hinojosa, MD

"The SfN annual meeting is the portal to everything in neuroscience! Bringing the Scholars to the SfN meeting is therefore very important to their careers."
— James Townsel, PhD

NSP Principal Investigator/Program Director



Erich D. Jarvis, PhD

Associate Professor, Duke University and Howard Hughes Medical Institute

Erich Jarvis provides leadership to the NSP and serves as a role model for current and future Scholars. He was a Scholar in 1995 and has since mentored hundreds of young neuroscientists. The road he traveled in becoming one of the field's most vital voices was far from typical. Growing up in Harlem, he pursued his passion for both science and performing arts. When offered the opportunity to audition for the Alvin Ailey American Dance Theater after high school, he chose to pursue science. It was through science that Jarvis felt he could make a greater impact on the world.

As an undergraduate, Jarvis published six papers on bacterial molecular genetics, and went on to Rockefeller University for his graduate and postdoctoral training. Today, Jarvis is renowned for his discoveries on the molecular biology of learned vocal communication in birds, and the implications for understanding evolution and mechanisms of spoken language in humans.

For his research, Jarvis has received numerous awards including NSF's Waterman Award in 2002, NIH Director's Pioneer Award in 2005, and the prestigious appointment as a Howard Hughes Medical Institute Investigator in 2008. Jarvis is often tapped to serve on task forces such as NSF's Enhancing Support for Transformative Research and the Advisory Committee to the NIH Director on Peer Review. His research and life has been documented in a well-known video by NOVA *Science Now*.

Jarvis looks forward to leading the NSP into the future, continuing to help diverse trainees make it through the pipeline toward successful careers as scientific investigators.

Profiles of Selected NSP Scholars



Michael Ivy, PhD (1981)

Associate Professor, Department of Biological Sciences, Tennessee State University

Mike Ivy received his doctorate in physiology from the University of Illinois at Chicago, where he developed a keen interest in researching the cholinergic nervous system, diabetes, and protein trafficking. Ivy expands his passion for his work outside the lab to educate the public, and youth in particular, about neuroscience. Through his service on SfN's Public Education and Communication Committee and annual efforts to organize Brain Awareness Week, he has contributed enormously to educating his local community about the wonders of the "world between our ears." Ivy also works closely with students across campuses in Nashville to foster student interest in neuroscience.



Profiles of Selected NSP Scholars (continued)



Edward Castañeda, PhD (1982)

Professor and Chair, Department of Psychology, University of Texas at El Paso

Eddie Castañeda, one of the earliest NSP participants, co-directs UTEP's Hispanic Health Disparities Research Center. His research on how amphetamine-evoked dopamine release may produce cross-sensitization to drug-conditioned environmental cues or stress provides insights about drug craving and recidivism in recovering addicts. Castañeda has been an active mentor in the sciences, and has contributed to diversity widely, including serving on SfN's Committee on Diversity in Neuroscience and the steering committees for the APA Diversity Program in Neuroscience.

Joseph A. Whittaker, PhD (1986)

Dean and Professor of Biology, Morgan State University

Joe Whittaker's professional experience spans more than 20 years in undergraduate, graduate, and medical education. At Morehouse School of Medicine, he spearheaded an initiative that drove the design and construction of the current Neuroscience Institute, the first of its kind at a historically black college and university and a prototype for 12 additional NIH-supported Specialized Neuroscience Research Programs at minority-serving institutions. Whittaker has authored more than 32 articles published in peer-reviewed medical and scientific journals, and was recently appointed a member of the Committee on Equal Opportunity in Science and Engineering at the National Science Foundation.



Vanya Quinones-Jenab, PhD (1990)

Professor and Chair, Psychology, Hunter College of CUNY

Vanya Quinones-Jenab has been at Hunter College for more than 14 years, and as chair oversees all undergraduate, graduate, and postdoctoral fellows. She also is Director of the NIH Blueprint's Enhancing Neuroscience Diversity through Undergraduate Research Education Experiences (ENDURE), and the Minority Institutions Drug Abuse Research Program (MIDARP). Quinones-Jenab's current areas of research concentrate on neurological mechanisms underlying sex differences in responses to stressors, such as pain and drugs of abuse. Her research has demonstrated fundamental sex differences in cocaine-induced behavioral effects.

Genevieve Neal-Perry, MD, PhD (1994–1996)

Assistant Professor, Department of Obstetrics and Gynecology and Department of Neuroscience, Albert Einstein College of Medicine

Genevieve Neal-Perry graduated from Dartmouth College and Robert Wood Johnson Medical School, and completed a residency in Obstetrics and Gynecology. In addition to directing research in her active neuroendocrinology laboratory, she is the Reproductive Endocrinology and Infertility Clinical Fellowship Director and Associate Dean of Diversity Mentoring. Neal-Perry's research focuses on the neuroendocrine axis and the effect of age and steroid hormones on hypothalamic-pituitary-gonadal physiology in females. She is the recipient of multiple prestigious career development awards, including awards from the American Federation for Aging Research and The Robert Wood Johnson Foundation.





Alfredo Quiñones-Hinojosa, MD (1995–1998)

*Associate Professor of Neurosurgery and Oncology and
Director of Brain Tumor Surgery Program, Johns Hopkins University*

Alfredo Quiñones-Hinojosa graduated from Harvard Medical School in 1999, having the honor of giving the commencement speech. He completed his neurosurgery residency at the University of California, San Francisco, where he also completed a postdoctoral fellowship in developmental and stem cell biology. Quiñone-Hinojosa's research focuses on the role of stem cells in the origin of brain tumors and the potential role stem cells can play in fighting brain cancer and regaining neurological function. He has received numerous awards including awards from the Howard Hughes Medical Institute and the NIH, and is a recipient of the American Association of Neurological Surgeons Ronald Bittner Award. He recently authored a book, *Dr. Q: My Journey from Migrant Farm Worker to Brain Surgeon*.

Gonzalo Torres, PhD (2000–2003)

Associate Professor, Department of Neurobiology, University of Pittsburgh

Gonzalo Torres, originally from Chile, did his graduate work at St. Louis University School of Medicine and completed his postdoctoral training at Duke University. Torres' research offers new leads for the development of therapies for diseases like schizophrenia, Parkinson's, and drug addiction. In 2008, Torres received the prestigious Presidential Award for Early Career Scientists and Engineers (PECASE), the highest honor bestowed by the U.S. government on outstanding scientists and engineers beginning their independent careers. He has remained actively involved in the NSP and served on SfN's Committee on Diversity in Neuroscience.



Toni L. Cordero, PhD (2004–2007)

Senior Scientist, Neuromodulation Research, Medtronic, Inc.

Toni Cordero earned her doctorate in pharmacology from the University of Illinois-Chicago and completed her postdoctoral training at the University of California San Diego. In 2008, Cordero transitioned from academia to the private sector, where she continues to research neuropharmacologic treatments for chronic and debilitating pain. She received the National Institute of General Medical Sciences Career Development Award and the prestigious NIH Pathway to Independence Award.

Rhonda Dzakpasu, PhD (2006–2009)

*Assistant Professor, Department of Physics and Department of
Pharmacology and Physiology, Georgetown University*

Rhonda Dzakpasu joined the Georgetown University faculty in 2008. She received her PhD in experimental optical physics in 2003 from the University of Michigan, where her thesis work resulted in the development of dynamic light scattering microscopy, a novel optical technique to image submicroscopic motions. Today, Dzakpasu is a cross-disciplinary professor at Georgetown, teaching primarily physics to undergraduate students and neuroscience graduate students while emphasizing the value of cross-disciplinary collaboration.





**“Winning this award
opened opportunities for me
that had a very significant
effect on my career.”**

— *Toni Cordero, PhD*

SfN gratefully acknowledges all those who have made significant contributions to advancing diversity in neuroscience, and the generous funding support from NINDS and National Institute of Mental Health. The following individuals have played leading roles as principal investigator/program director of SfN’s NIH-funded programs, or held volunteer leadership positions with responsibility for SfN’s diversity goals.

Joanne E. Berger-Sweeney, PhD
Catherine A. Cornwell-Jones, PhD
Joseph T. Coyle, MD
Anne M. Etgen, PhD
Arnold G. Hyndman, PhD
Erich D. Jarvis, PhD
Peter R. MacLeish, PhD
William J. Martin, PhD
Joe L. Martinez, Jr., PhD
David D. Potter, PhD
Edward Reyes, PhD
James G. Townsel, PhD
C. Ovid Trouth, MD, PhD
Lydia Villa-Komaroff, PhD
Torsten N. Wiesel, MD

**“I was always on the track to become a
neuroscientist — it is what I always wanted
to do. The difference is that with the NSP,
I gained confidence
and resources
that I might not otherwise have had available.
It widened the scope of what I knew.”**

— *Joaquin Lugo, PhD*

**“The NSP nurtures
scientific confidence and
gives Scholars the tools
to be successful.”**

— *Genevieve Neal-Perry, MD, PhD*

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