NINDS Request for Information (RFI) on Enhancing Diversity in Academic Research Institutions

Notice Number: NOT-NS-11-021

Key Dates

Release Date: August 19, 2011

Response Date: To assure consideration, comments must be received by September 23, 2011

Issued by

The National Institute of Neurological Disorders and Stroke (NINDS)

Purpose

The National Institute of Neurological Disorders and Stroke is seeking public comment on models and best practices to facilitate diversity among faculty and students within research institutions of higher education. This information will help the NINDS in designing improved strategies for the enhancement of diversity in the neuroscience and neurology research workforce. For the purposes of this RFI, NINDS is interested in expanding the pool of individuals from populations underrepresented in biomedical, behavioral, clinical and social sciences research workforce, including underrepresented racial and ethnic groups, individuals with disabilities, and individuals from socially, culturally, economically, or educationally disadvantaged backgrounds. For a complete definition of underrepresented groups, see: PA-08-190 (Section I, Recruitment and Retention Plan to Enhance Diversity).

Background

In issuing this RFI, the NIH and NINDS recognize a unique and compelling need to promote diversity in the biomedical, behavioral, clinical and social sciences research workforce. The NINDS expects that efforts to diversify the workforce will lead to the recruitment of the most talented researchers from all groups into research areas relevant to the mission of NINDS; to improve the quality of the educational and training environment; to balance and broaden the perspective in setting research priorities; to improve the ability to recruit subjects from diverse backgrounds into clinical research protocols that fall within the mission of NINDS; and to improve the Nation's capacity to address and eliminate health disparities relating to neurological disorders.

As the U.S. population becomes increasingly diverse, reflection of that diversity among the neurological sciences research workforce is vital to the NINDS research mission. To develop, maintain, and renew our scientific talent pool, it is imperative that we create a climate of opportunity to attract and retain the most talented individuals who can capitalize on innovation and advance scientific discovery. Research has demonstrated that a diversity of perspectives leads to better solutions to complex challenges, including healthcare research and education.

Information Requested

This RFI invites input from the neuroscience research communities on innovative strategies and practices that have proven successful in increasing the diversity of a talented pool of research faculty and students. Respondents are not expected to address all items below.

Challenge Issues for Comment

Please provide your comments on the challenges in establishing a sustainable program to

increase diversity within a research institution. Responses should include innovative approaches and ideas to address the items listed below. Input on items that may be addressed are listed, but your input need not be limited to the following:

1. The role NINDS should play in assisting institutions to enhance diversity among their student and faculty populations. (5000 characters max.)

NINDS could enhance diversity among students and faculty by: (1) working with other organizations or agencies to improve students' math, science, and language skills in all stages of the educational pipeline, (2) highlighting role models from specific underrepresented populations and their research to college and graduate students, (3) developing tools and resources so that institutions and professional associations can use them for recruiting diverse students, and (4) providing more socializing/mentoring opportunities for early-career scientists from underrepresented populations and incentives to successful mid-career mentors.

2. The tools or resources NINDS should provide that would make diversifying the neurological sciences research workforce more feasible or effective. (5000 characters max.)

Free monthly webinars spotlighting a successful underrepresented scientist from a different field or profession could be produced. If these webinars were recorded and archived, middle schools and high schools could use them as part of their science curricula or career exploration materials. These webinars would reveal many career options in neurological sciences research and could offer a glimpse of possible careers. According to the Olson and Fagen (2007), in *Understanding Interventions That Encourage Minorities to Pursue Research Careers*, "The most important change that has to happen is for women and minorities to have a sense that they belong in a particular setting" (p. 16).

Develop an electronic **toolkit** that summarizes the most effective recruitment and retention strategies, articles, brochures, videos, presentations, and resources about career planning in neurological sciences research. Disseminate this toolkit to medical professions, including allied health programs and associations.

Work with foundations or professional associations to offer **research awards** to students from underrepresented populations at different phases of education and training.

Use **social media** and **multimedia** to reach out to youth from underrepresented populations.

Develop **culturally sensitive marketing** materials such as outreach letters to high school guidance counselors in English and Spanish.

Approach the **media** about writing stories on the need for more diverse neurological science researchers. Give specific case examples from local medical centers or research departments.

3. Present obstacles that make it difficult for individuals from underrepresented groups (e.g., individuals from racial and ethnic groups, individuals with disabilities, individuals from disadvantaged backgrounds) to advance within the neurosciences, and suggestions for how these obstacles can be overcome.

Some PhD researchers choose faculty positions at teaching institutions rather than a postdoctoral fellowship to continue their research training. The underlying reason for this decision is presumed to be financial but there may be other reasons. In our field, the faculty shortage translates to significantly higher salaries in teaching compared to postdoctoral fellowships, so it is difficult to convince a promising minority researcher to continue the scientific career pathway without other financial supports such as a postdoctoral research award.

4. Present obstacles that make it difficult for institutions to implement programs designed to increase diversity within the neurosciences, and suggestions for how these obstacles can be overcome.

Institutions may be recruiting and offering scholarships to graduate students from underrepresented populations, but one obstacle is that some of the graduate students are not academically prepared for graduate studies. Being academically unprepared speaks to the need to provide more efforts to bolster mathematics, science, reading, and writing skills at earlier ages. Courses taken in high school influence college majors which influence graduate degrees.

According to Orlando Taylor from Howard University, we know that magnet schools in science, technology, and mathematics produce high percentages of students who go on to get PhDs and pursue research careers (Olson & Fagan, 2007). But how do we increase the number of students from underrepresented populations to attend magnet schools?

- 5. Examples of what constitutes success in a program aimed at increasing diversity within a neuroscience research institution. Comment specifically on the critical components necessary to drive the success of the program.
- 6. Indicate level(s) within the institution where diversity should be effectively facilitated (e.g., administration, faculty, graduate, post graduate).

Diversity should be facilitated at all levels, from middle school to high school, from college to graduate, from post-graduate to pre-faculty or first research positions. Faculty and administration must be involved but the incentives to recruit their participation will need to vary. Promotion and tenure committees may not judge faculty efforts to increase diversity at institutions as anything beyond service.

7. Activities your institution engages in to promote diversity, and the department/office responsible for carrying out these activities (e.g., Administrative personnel, Program/Departmental leadership).

The American Occupational Therapy Association (AOTA) represents the interests of over 140,000 occupational therapists, occupational therapy assistants and students of occupational therapy. AOTA's centennial vision states that by 2017, occupational therapy will be a "science-driven and evidence-based profession with a globally connected and **diverse** workforce meeting society's occupational needs." Therefore, increasing the diversity of occupational therapy practitioners is one of our key concerns as we strive to meet the increasing health care needs of an increasingly culturally and ethnically diverse population.

Our most recent 2010 workforce survey reveals that current students are slightly more diverse than practitioners, which is encouraging but is insufficient to meet the growing need. Similar to nursing, occupational therapy is experiencing a shortage of practitioners. The Great Recession has increased the number of applicants to occupational therapy programs and although class sizes have increased, the demand for occupational therapy graduates exceeds the number of graduates.

AOTA supports the Multicultural, Diversity, and Inclusion Networking Groups, which include the Black Occupational Therapy Caucus, the Network of Hispanic Practitioners, and the Network of Native American Practitioners. However, these networks serve more as support groups and do not have the resources for broad recruitment initiatives.

AOTA has developed a brochure describing research as a career pathway for occupational therapists and it specifically includes pictures of diverse young adults. The brochure has been distributed to occupational therapy students, and an online version is available on our website. AOTA staff has also attended diversity-related briefings/meetings and have given presentations to graduate students at Howard

University and occupational therapy conferences, speaking about the need for more researchers.

In collaboration with the University of Illinois at Chicago, a career PowerPoint was added to the AOTA Web site featuring 6 video clips of why students are becoming an occupational therapist or occupational therapy assistant. These clips have received hundreds of views and represent a broad diversity of the student population. The website also contains transcripts of occupational therapy practitioners from different backgrounds explaining their role, and some have been written in their native language (URL: http://www.aota.org/Students/Prospective/Diversity.aspx)

- 8. Examples of successful programs that are designed specifically to enhance diversity among neuroscience students and/or faculty. Comments can include how these programs are evaluated for their success.
- 9. Describe key factors that would be central to the development and maintenance of a successful program to enhance diversity within an institution.

Submitted by: Susan Lin, ScD, OTR/L

Director of Research, AOTA

Date: September 23, 2011