

NIH Efforts to Promote and Sustain the Careers of Women in Science

The National Institutes of Health (NIH) is strongly committed to correcting the underrepresentation of women in science. Although women make up half of the trainees in many science, technology, engineering, and medicine (STEM) fields, there is a well-documented drop-off in the number of women at the junior faculty level. The number of women continues to decline further up the academic ladder.



Vivian W. Pinn

The NIH Working Group on Women in Biomedical Careers (WG), the NIH Office of Research on Women's Health (ORWH), and other offices, Institutes, and Centers throughout the NIH are participating in efforts to confront this important problem. Their activities address the challenges faced by women both within the NIH intramural community (scientists working at the NIH) and throughout the extramural community (universities, academic health centers, research institutions, etc.).

Tangible Actions and Innovative Programs

The WG was established as the result of a 2007 National Academies report that examined the reasons for women's continued underrepresentation in STEM fields.¹ The report called for universities, professional societies, and government funding agencies to change the climate of academia. The chair of the committee that prepared the report, former Secretary of the U.S. Department of Health and Human Services Donna Shalala, issued a personal challenge to then-Director of the NIH Elias Zerhouni to respond to the report and not to let it just sit on a shelf. In response, Zerhouni established and co-chaired the WG with one of us—Vivian W. Pinn, Director of the ORWH. The new NIH Director, Francis Collins, has expressed his commitment to the continuation of the WG and has offered his leadership as co-chair.

The WG strives to address major issues that may affect the retention and advancement of women in biomedical careers. Among these issues are childcare, family leave, and



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mentoring. The WG is also focusing on the unique challenges faced by women in the physical sciences, including bioengineering, and by women of color.

The WG has sponsored U.S. workshops on

mentoring women in biomedical careers and best practices for sustaining career success. The recommendations generated at these workshops have been incorporated into the subsequent activities of the WG; they are also being considered in the design of future interventions and career programs. Some accomplishments include:

- Providing current information on the success of women in obtaining NIH grants
- Extending the tenure-clock for intramural NIH scientists by one year to accommodate family leave
- Extending the allowed period of paid parental leave to eight weeks for both intramural and NIH-funded extramural trainees
- Helping to develop, fund, and implement an NIH leave bank program that allows NIH employees to obtain needed leave to deal with family emergencies
- Helping to establish the Mid-Atlantic Higher Education Recruitment Consortium, which assists in the recruitment of dual-career couples by helping them find positions near each other
- Developing the Request for Applications (RFA) *Research on Causal Factors and Interventions that Promote and Support the Careers of Women in Biomedical and Behavioral Science and Engineering*

Information on the activities of the WG and other resources can be found at the Women in Biomedical Careers website, <http://womeninscience.nih.gov>. Viewers will find:



[The NIH Re-entry Program] helps... scientists, both women and men, re-establish careers that had been disrupted for family reasons such as illness, childcare, or relocation to accommodate a spouse or partner.

The NIH is committed to helping both women and men scientists successfully apply for its many grant programs.

- Data on grants success rates
- Reports from the workshops
- A list of the 14 projects funded under the RFA
- Links to over 200 articles and reports on women in STEM
- The archives and subscription link for the WG's monthly e-newsletter

The e-newsletter, *NIH Updates on Women in Science*, contains descriptions of relevant studies and events, highlights of best practices for sustaining women's careers, and profiles of junior women scientists.

Role Models and Re-entry

In addition to supporting the activities of the WG, the ORWH fulfills its mission of developing opportunities for—and supporting recruitment, retention, re-entry, and advancement of—women in biomedical careers in a number of ways. For example, in October 2009, ORWH published *Women in Science at the National Institutes of Health 2007–2008* in hard copy and on the ORWH website (http://womeninscience.nih.gov/women_science_book/index.asp). This publication profiles women in a wide range of positions and roles across the NIH. The profiles of these doctoral-level women scientists include:

- Their fascinating biographical information and research interests
- Thought-provoking descriptions of experiences that shaped their careers
- Insight on how they manage work/life balance
- Their thoughts on the importance of mentoring—both being mentored and mentoring others

Another ORWH initiative is the NIH Re-entry Program. This program helps biomedical and behavioral scientists, both women and men, re-establish careers that had been disrupted for family reasons such as illness, childcare, or relocation to accommodate a spouse or partner. The program provides supplements to existing NIH research grants to support the research and mentoring of the re-entering scientists. In 2008, the program was expanded to include candidates who were in postdoctoral positions when they left active research. Previously it was open only to those who had held faculty positions. Although this program is open to both women and men, the issue of career interruption

disproportionately affects women. Over 90% of the grantees have been women. Additional details can be found at <http://grants.nih.gov/grants/guide/pa-files/PA-08-191.html>.

Support for Grant Applicants

The NIH is committed to helping both women and men scientists successfully apply for its many grant programs. Toward that end, the Office of Extramural Research has posted a wealth of helpful information on its website (http://grants.nih.gov/grants/grant_basics.htm), including program descriptions, tips for applicants, and tutorials for new investigators. In addition, many of the NIH Institutes and Centers have prepared materials that are either specific to their own programs or are generally applicable. The National Library of Medicine has a helpful website that presents links to a number of these tutorials and tip sheets (www.nlm.nih.gov/ep/Tutorial.html). This includes the “All About Grants” webpage from the National Institute of Allergy and Infectious Diseases and the mock study section video created by the Center for Scientific Review.

In 2008, the NIH Director sent a message to every NIH employee reaffirming the commitment of the NIH leadership team “to making this Agency a model for other research institutions of how science can be done in a family-friendly environment.” Having such a message from top leadership helped sensitize the NIH community to the importance of family issues to both women and men. As efforts continue to improve the environment and enhance resources for women scientists, the collaboration of the Office of the Director, the Office of Intramural Research, the Office of Extramural Research, and the broader NIH community will set the tone. It will also serve as a model for sustained institutional commitment to addressing this very important issue. ■

—Vivian W. Pinn and Joslyn Yudenfreund Kravitz, Office of Research on Women's Health, National Institutes of Health

Reference

¹Committee on Maximizing the Potential of Women in Academic Science and Engineering, National Academy of Sciences, National Academy of Engineering, Institute of Medicine. (2007). *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*. Washington, DC: National Academies Press.

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