NIH Updates on Women in Science
News for You to Use!

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NIH Updates on Women in Science is brought to you by the NIH Working Group on Women in Biomedical Careers. We encourage you to share this e-newsletter with colleagues.

Feature Articles

Culture Matters: The Pivotal Role of Culture for Women’s Careers in Academic Medicine
Knowledge and Perceptions of Family Leave Policies Among Female Faculty in Academic Medicine

Articles of Note

Representation of Women as Authors, Reviewers, Editors in Chief, and Editorial Board Members at 6 General Medical Journals in 2010 and 2011


Gender progress (?) Despite some success, the proportions of women in Nature’s pages and as referees are still too low

Current News

NIH’s Center for Scientific Review Holding Competition for Ideas on Detecting Bias and Maximizing Fairness in the Peer Review Process

Hannah Valantine, NIH’s first Chief Officer for Scientific Workforce Diversity.
Feature Articles

Culture Matters: The Pivotal Role of Culture for Women’s Careers in Academic Medicine
This study collected data from 133 women assistant professors at UPENN Perelman School of Medicine with respect to work demands, work-to-family conflict, and department/division culture, and measured the impact of work culture on the association between work demands and work-to-family conflict. The study found that at equivalent levels of work load, more supportive cultures resulted in lower levels of work-to-family conflict. The authors conclude that work culture can either exacerbate or alleviate the impact of high work demands in women assistant professors.

Knowledge and Perceptions of Family Leave Policies Among Female Faculty in Academic Medicine
The purpose of this research was to determine the knowledge and perceptions of family leave policies and practices of senior women leaders at 24 medical schools (18 full professors and 4 associate professors). Of the 22 participants, only nine correctly understood their institution’s policies; six misunderstood the policies and seven admitted to ignorance of their institution’s policies. Four themes were identified from the data: 1) Framing family leave as a personal issue undermines its effect on female faculty success; 2) poor communication of policies impairs access and affects organizational climate; 3) discrepancies in leave implementation disadvantage certain faculty in terms of time and pay; and 4) leave policies are valued and directly related to academic productivity. The authors conclude that policy awareness among senior leaders is lacking and organizational support is needed to support equitable policy creation and implementation.

Articles of Note

Representation of Women as Authors, Reviewers, Editors in Chief, and Editorial Board Members at 6 General Medical Journals in 2010 and 2011
In this publication, the authors determined the proportion of women authors of original research/editorials, reviewers, editors in chief, or editorial board members at six general medical journals between January 2012 and December 2011. The data showed increases in the proportion of women who were first and senior authors of original research in leading medical journals (compared to a similar study from 2004). The proportion of women authors of editorials, editors in chief and editorial board members also increased, however, most research articles and editorials are authored by men. At the journals surveyed, there were less than 30% women reviewers. The authors conclude that all of the leading general medical journals can improve the representation of women in many roles.

The House of Commons Science and Technology Committee report begins with a description of the “leaky pipeline” and background information on the importance of gender diversity in science. The report describes gender perceptions in STEM careers with respect to recruitment, progress and promotion, funding, publication and working patterns. The final portion of the report outlines the practicalities of maintaining an academic career, and then makes recommendations for improvement of current efforts to help women stay in STEM careers in the UK.
Gender Progress (?) Despite Some Success, The Proportions of Women in Nature’s pages and as Referees are Still Too Low
An editorial in Nature described their attempt to increase the number of female scientist authors in the journal. Their data shows that while the numbers have increased in some areas of the journal, such as the increase in women appearing in profiles from 18% in 2011 to 40% in 2013, in other facets of the journal there is still a deficit of women authors. The editorial provides information on the strategies that the journal has undertaken.

Current News

NIH’s Center for Scientific Review Holding Competition for Ideas on Detecting Bias and Maximizing Fairness in the Peer Review Process. The NIH’s Center for Scientific Review (CSR) has taken the equality bull by the horns and put out two America COMPETES Act Challenges to address potential biases in the review and award of NIH grants. The America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act (America COMPETES Act) was signed into law in 2007 and was designed to spur investment in innovation through research and development, thereby improving the competitiveness of the United States in the global science and engineering arena. The NIH developed these two challenges to generate ideas for strategies to increase the fairness of grant reviews, and therefore improve the overall grant-making peer review process.

The New Methods to Detect Bias in Peer Review challenge is focused on ideas for detecting potential bias in the NIH peer review process. Submissions for this challenge may focus on approaches, strategies, methods, and/or measures to detect bias among reviewers that are based on gender, race/ethnicity, institutional affiliation, area of science, or the amount of research experience of an applicant. The Strategies to Strengthen Fairness and Impartiality in Peer Review challenge is aimed more at reviewer training methods which can enhance fairness and impartiality in NIH peer review. Full development of training materials is not required to win this challenge; however, the proposed ideas must be detailed enough to allow for an assessment of their efficacy at addressing fairness and impartiality.

Potential biases that have been identified in the current grant review process are those that may be associated with the applicant or the reviewer, and are based on such variables as sex, age, university, academic rank, or race, to name a few. Each first place challenge winner will receive $10,000 and the second place winners will receive $5,000 in prize money. The application process for these challenges closes on June 30th and the winners will be announced on September 2nd, 2014. Check the CSR website at http://public.csr.nih.gov/Pages/default.aspx after that date to see the winning ideas.

SPOTLIGHT: Hannah Valantine, MD
This spring, the National Institutes of Health (NIH) welcomed to its ranks a true champion for workforce diversity. In April 2014, Dr. Hannah Valantine made history by becoming the first Chief Officer for Scientific Workforce Diversity. In this role, she is responsible for leading the effort to diversify the biomedical research workforce through expanding recruitment and retention, and promoting inclusiveness and equity throughout the biomedical workforce. Dr. Valantine came to the NIH from Stanford University School of Medicine, where she served as Professor of Cardiovascular Medicine and the Senior Associate Dean for Diversity and Leadership, and was an advocate for promoting and retaining women and underrepresented groups in the biomedical workforce.
When asked about the lack of women in academic medicine she said, “We have had over 50 percent of women graduating from medical and graduate schools for at least 10 years, and yet when you look at their trajectory through the faculty ranks, we lose women at every career stage. We cannot blame it on an inadequate pipeline, but rather a leaky pipeline in which women’s advancement is stalled at every career stage, because of a number of reasons, including the culture of academic medicine.” During her tenure at Stanford, the representation of women at every faculty level increased and is now greater than national and peer benchmarks. Similarly, large increases in African American, Hispanic and Native American faculty occurred during the same time, attesting to her success addressing the complex challenge of expanding scientific workforce diversity.

Dr. Valantine has spent the majority of her life acutely aware of the underrepresentation of women in leadership roles within academic medicine. She was raised in Gambia until the age of 13 when her family moved to London where her father served as Gambia’s first ambassador to the United Kingdom. She earned her bachelor’s degree in biochemistry from Chelsea College at the University of London, and entered medical school at a time when medicine was largely considered to be a ‘man’s field’. Despite the fact that her colleagues scoffed at the idea of an African woman becoming a cardiologist, she entered the field nonetheless. Although she faced adversity in many forms, Dr. Valantine succeeded in much of her endeavors, and believes that having exceptional mentors and sponsors was the key to her success.

In 1985, Dr. Valantine did a research fellowship at Stanford University where she was recruited to the faculty in 1989, rising through the ranks to full professor in 2000. Complementing her role as Chief Officer for Scientific Workforce Diversity, Dr. Valantine will be a senior investigator in the NIH intramural research program. Her NIH-funded research has focused on understanding the mechanisms of organ transplant rejection, and translating this knowledge into biomarkers for non-invasive monitoring of patients. Most recently, she has applied genomic approaches, including cell-free donor DNA, for early diagnosis of acute rejection. Dr. Valantine’s research provided a causal role for cytomegalovirus infection and transplant rejection, resulting in a major paradigm shifts in the way heart transplant recipients are managed today. Similarly, her diversity work has emphasized a strong research approach that she argues is critically important to accelerate institutional transformation and culture change.

In addition to her professional successes, Dr. Valantine is a wife and mother of two daughters, and has skillfully maintained the delicate balance between professional and personal life. Dr. Valantine truly is a role model for all scientists, especially women and other underrepresented groups. Her vision is to create scientific workforce culture that fosters excellence through diversity, inclusion, and work environments that catalyze the recruitment and advancement of the brightest and best scientists.