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ADVANCES & INSIGHTS:
The NIH Women in Science Newsletter

This e-newsletter is brought to you by the NIH Working Group on Women in Biomedical Careers.

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womeninscience.nih.gov

Recent Research and Perspectives

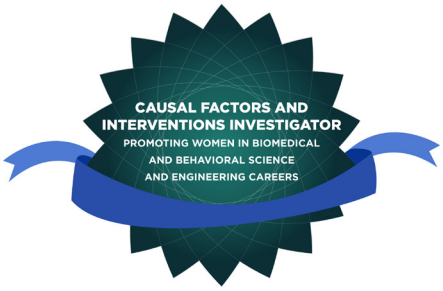
Differences in incomes of physicians in the United States by race and sex: observational study

Ly, D.P., Seabury, S.A., & Jena, A.B. (2016). *BMJ, 353,* i2923.
http://www.ncbi.nlm.nih.gov/pubmed/27268490

The authors used data from two nationally representative surveys of over 70,000 U.S. physicians spanning from 2000 to 2013. White male physicians earned substantially more than black male physicians, even adjusting for physician age, hours worked, specialty, and practice characteristics. However, gender disparities in income were even greater than racial, with white and black male physicians earning more than female physicians. White and black female physicians earned similar incomes in the adjusted analysis.

Retaining faculty in academic medicine: the impact of career development programs for women

Chang, S., Morahan, P.S., Magrane, D., Helitzer, D., Lee, H.Y., Newbill, S., … Cardinali, G. (2016). *Journal of Women's Health, 25*(7), 687–696.
http://www.ncbi.nlm.nih.gov/pubmed/27058451



Career development programs (CDPs) are thought to help retain women in academic medicine. The authors use data from the Association of American Medical Colleges to compare 3,268 female faculty attending CDPs between 1988 and 2008 with 17,834 female and 40,319 male faculty peers. Women who participated in a CDP stayed in academic medicine longer than same career–stage men and non-CDP women. The study indicates that academic health centers can help retain women by supporting CDPs, especially early in the career.

@NIHDirector

@JanineClaytonMD

@NIH_ORWH

/NIHORWH

In This Issue

Mentoring perception, scientific collaboration and research performance: is there a 'gender gap' in academic medicine? An Academic Health Science Centre perspective

Athanasiou, T., Patel, V., Garas, G., Ashrafian, H., Hull, L., Sevdalis, N., … Paroutis, S. (2016). *Postgraduate Medical Journal, 92,* 581–586. http://www.ncbi.nlm.nih.gov/pubmed/27531963

Differences in mentoring may contribute to the gender gap in academic medicine, where only 11 percent of full professors in the United States were women in 2005. The authors surveyed 104 professors of medicine at Imperial College London in the United Kingdom on their perceptions of mentoring. Male and female faculty reported similar perceptions of mentoring skills, quality, and frequency. The authors discuss initiatives undertaken by Imperial College London that may have contributed, including Athena SWAN, new recruitment and advertising strategies, mentoring circles, and "research and family life" forums.

Gender equity programmes in academic medicine: a realist evaluation approach to Athena SWAN processes

Caffrey, L., Wyatt, D., Fudge, N., Mattingley, H., Williamson, C., & McKevitt, C. (2016). *BMJ Open, 6,* e012090. http://www.ncbi.nlm.nih.gov/pubmed/27609850

Athena SWAN is a gender equity program established in the United Kingdom in 2005. Higher education institutions and departments can earn awards from Athena SWAN as a benchmark for gender equity. These awards were tied to financial incentives for certain institutions in 2011. The authors conducted qualitative interviews and held focus groups with staff from five UK medical school departments to look for unintended consequences or limitations of Athena SWAN. Female staff disproportionately served on the committee that applied for Athena SWAN awards, significantly increasing their workload. In addition, many postdoctoral researchers didn't know about available Athena SWAN initiatives, such as mentoring or leadership training, or didn't think their mentors would allow them to attend.

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Reporting Sex, Gender, or Both in Clinical Research?

Considering sex as a biological variable in preclinical research

Spotlight

Scientist Spotlight

Lydia Villa-Komaroff, Ph.D.

Lydia Villa-Komaroff, Ph.D., is a molecular biologist, an executive, and a diversity advocate. She is a board member and former Chief Executive Officer and Chief Scientific Officer of Cytonome/ST, LLC, a company developing and manufacturing purpose-built cell sorters. She is a founding member of the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS). Dr. Villa-Komaroff held faculty positions at the University of Massachusetts Medical Center, Boston Children's Hospital, and Harvard Medical School. She served as Vice President for Research at Northwestern University in Illinois, and Vice President for Research and Chief Operating Officer of the Whitehead Institute. Dr. Villa-Komaroff is a fellow of the American Association for the Advancement of Science and the Association for Women in Science. Her honors include induction into the Hispanic Engineer National Achievement Awards Conference Hall of Fame, a Lifetime Achievement Award from Hispanic Business Magazine, 2008 National Hispanic Scientist of the Year (Museum of Science and Industry, Tampa, Florida), 2013 Woman of Distinction (American Association of University Women), and the 2016 Morison Prize Lecture (MIT). She is one of 11 women scientists profiled on the website of the White House Office of Science and Technology. Her B.A. is from Goucher College, and her Ph.D. is from MIT…(read more)

Did you know?

The NIH Intramural Research Program hosts a website containing scientific career opportunities at NIH. In each newsletter, we will publish information about an opening at NIH in our new "Featured Job of the Month" section. To learn more about positions at NIH, please visit http://irp.nih.gov/careers/tenured-and-tenure-track-scientific-careers.

Current News and Reports

A winding path to satisfaction

Written by Sarah Fankhauser for *Science* on June 24, 2016

Dr. Sarah Fankhauser, assistant professor of biology at Oxford College of Emory University, uses her own experience as an example to convince students "not to fear bends in the road." She details her path from premed track to high-powered research track to a tenure-track position focused on teaching and undergraduate research. Her experience highlights the importance of good mentors and being flexible and open to unexpected opportunities.

Broadening participation in the life sciences: Current landscape and future directions

Written by Kenneth D. Gibbs, Jr., and Pat Marsteller for *CBE—Life Sciences Education* on September 1, 2016

The authors recommend approaches to broaden participation of women and underrepresented minorities (URMs) in the life sciences. First, clear benchmarks of success are needed. Efforts must be institutionalized with tools for standardized data collection, analysis, and reporting that work locally and nationally. Faculty and staff must be empowered to use the data to take action. Systemic issues need to be addressed, such as how traditional measures of merit may disfavor women and URMs. Finally, the authors call for abandoning the "pipeline" framework, which shifts focus away from systemic issues that can limit participation.

Gender bias: How to break the habit

Written by Molly Carnes and Jennifer Sheridan for the American Society for Cell Biology on September 2, 2016

Implicit gender bias—where gender stereotypes unconsciously affect decision-making—has been recognized as an important factor limiting women in science and engineering careers. The Women in Science & Engineering Leadership Institute (WISELI) at the University of Wisconsin-Madison created a 2.5-hour workshop designed to reduce gender bias. The workshop treats implicit gender bias like a habit that requires motivation to change, recognition of when it is occurring, strategies to break the habit, and the opportunity to practice these skills. In a randomized, controlled study of 96 departments at UW-Madison, departments that participated improved their climate and hired a greater proportion of women one to three years later compared to non-participating departments.

Featured Job of the Month

Chief, Biostatistics and Bioinformatics Branch, NICHD

The Division of Intramural Population Health Research is located within the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development and invites qualified candidates to apply for the position of Chief and Senior Investigator of the Biostatistics and Bioinformatics Branch. As one of three intramural branches in the Division, the Biostatistics and Bioinformatics Branch mission is to develop novel statistical methods motivated by the Division's population health research that includes human fecundity and fertility, pregnancy, and child and adolescent health and behavior. In addition, Branch scientists serve as statistical co-investigators on all etiologic and interventional research in keeping with the team science research paradigm practiced by the Division. The Branch's mission also includes a strong commitment to mentoring trainees at varying career stages and professional service. (read more)

More Info from ORWH

Reporting sex, gender, or both in clinical research?

Clayton, J.A., & Tannenbaum, C. (2016). *JAMA*. Advance online publication.
http://jamanetwork.com/journals/jama/fullarticle/2577142

Janine Clayton, M.D., and Cara Tannenbaum, M.D., M.S., discuss how to report sex and gender in clinical research. The term *sex* should be used when reporting biological factors, and *gender* should be used when reporting identity or cultural and psychosocial factors. Dr. Clayton and Dr. Tannenbaum call for clinical trial articles to report the methods used to determine sex and gender and to disaggregate the data by sex, gender, or both in order to uncover differences in efficacy, toxicity, or symptom profile.

Considering sex as a biological variable in preclinical research

Miller, L.R., Marks, C., Becker, J.B., Hurn, P.D., Chen, W.J., Woodruff, T., ... McCarthy, M.M. (2016).
FASEB Journal. Advance online publication.
http://www.fasebj.org/content/early/2016/09/27/fj.201600781R.abstract

In June 2015, NIH released new guidelines to ensure that NIH-funded investigators account for sex as a biological variable in preclinical research. In anticipation of these guidelines, ORWH convened key stakeholders in October 2014 to discuss methods and approaches to including male and female animals, tissues, and cells in preclinical research. This article builds on the workshop, including approaches for considering the role of sex chromosomes, sex hormones, and sex and gender assumptions in study design.