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.

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Feature Articles

Standing on the Shoulders of Giants: Results From the Radiation Oncology Academic Development and Mentorship Assessment Project (ROADMAP). Holliday EB, **Jagsi R**, Thomas CR Jr, Wilson LD, Fuller CD. Int J Rad Oncol 2014 Volume 88(1): 18 – 24. http://www.ncbi.nlm.nih.gov/pubmed/24210670

This manuscript analyzed survey information regarding mentorship practices and cross-correlated the results with metrics of academic productivity among academic radiation oncologists at US Accreditation Council for Graduate Medical Education-accredited residency training programs. Data collected included demographics, presence of mentorship, and the nature of specific mentoring activities. *Differences in gender and race/ethnicity were not associated with significant differences in mentorship rates*, but those with a mentor were more likely to have a PhD degree and were more likely to have more time protected for research. Mentorship is widely believed to be important to career development and academic productivity. The results emphasize the importance of identifying and striving to overcome potential barriers to effective mentorship.

Mentoring and the Career Satisfaction of Male and Female Academic Medical Faculty. DeCastro R, Griffith K, Ubel P, Stewart A, **Jagsi R**. Acad Med 2014 Volume 89(2): 1 – 11. http://www.ncbi.nlm.nih.gov/pubmed/24362376

This article explores aspects of mentoring that might influence medical faculty career satisfaction and to discover whether gender differences exist. The authors compared, by gender, the development and nature of mentoring relationships, mentor characteristics, extent of mentoring in various mentor roles, and satisfaction with mentoring. Significantly more women were dissatisfied with work-life balance (52%) than men (40%) ($P < 0.001$). Mentor gender, gender concordance of the mentoring pair, and number of mentors were not significantly associated with satisfaction. The authors concluded that those concerned about faculty attrition from academic medicine should consider mentor training and development.

Articles of Note

Global Gender Disparities in Science. Lariviere V, Ni C, Gingras Y, Cronin B, Sugimoto CR. Nature December 12, 2013 Volume 504: 211- 213. http://www.nature.com/news/bibliometrics-global-gender-disparities-in-science-1.14321

This manuscript presents a bibliometric analysis confirming that gender imbalances persist in research output worldwide. The author states that women publish significantly fewer papers in areas in which research is more expensive, are less likely to participate in collaborations that lead to publication and are much less likely to be listed as either first or last author on a paper. In addition, in the most productive countries, articles with women in important author positions receive fewer citations than those with men. The study lends quantitative support to the fact that barriers to women in science remain widespread worldwide, despite more than a decade of policies aimed at levelling the playing field. For a country to be scientifically competitive, it needs to maximize its human intellectual capital. The data suggest that because collaboration is one of the main drivers of research output and scientific impact, programs fostering international collaboration for female researchers might help to level the playing field.

Trends in the Earnings of Male and Female Health Care Professionals in the United States, 1987 to 2010. Seabury SA, Chandra A, Jena AB. JAMA Internal Medicine October 14, 2013 Volume 173, Number 18: 1748 - 1750. http://archinte.jamanetwork.com/article.aspx?articleid=1754348

The data in this article suggest that female physicians currently earn less than male physicians even after adjustment for specialty, practice type, and hours worked. Salary differences between men and women currently exist among physician researchers as well. This raises questions about whether the gender gap in

earnings among US physicians has closed over time, particularly compared with the earnings gap for other health care professionals, including workers overall. Comparing earnings over time is important in assessing the impact of policies to promote gender equality among physicians.

Current News

SPOTLIGHT: Worta McCaskill-Stevens MD, MS

Dr. Worta McCaskill-Stevens, chief of the Community Oncology and Prevention Trials research group in the Division of Cancer Prevention at the National Cancer Institute, and medical oncologist extraordinaire, is truly a prominent woman in science. In addition to her primary research responsibilities, Dr. McCaskill-Stevens is the Chief of the Community Oncology and Prevention Trials Research Group, which houses the Community Clinical Oncology Program (CCOP). She is the Director of NCI's new Community Oncology Research Program (NCORP), which aligns the existing community-based programs. NCORP will continue the success of the CCOP network in providing access to cancer control, prevention, screening, and treatment clinical trials to individuals in their own communities, and expand its scope to include cancer care delivery research. She is passionate about providing underrepresented populations access to clinical trials, and she advocates for the testing of targeted cancer treatments in populations most burdened by the disease, such as African American women. She notes that although a greater proportion of white American women are likely to be diagnosed with breast cancer, African American women are more likely to die from the disease.

During her tenure at the NIH, Dr. McCaskill-Stevens served as the program director of one of the largest breast cancer prevention studies ever completed. The Study of Tamoxifen and Raloxifene (STAR) trial involved over 500 medical centers in the United States, Puerto Rico, and Canada. The clinical trial compared the efficacy of Tamoxifen and Raloxifene in reducing the incidence of breast cancer in post-menopausal, high-risk women, and found that both drugs reduced the risk of developing invasive breast cancer. The FDA has since approved the use of both drugs for breast cancer risk reduction in high risk women.

Outside of the NIH, Dr. McCaskill-Stevens has served as the chairwoman of the American Associate for Cancer Research's (AACR) Women in Cancer Research Council (WICR). The WICR is a membership group within AACR dedicated to recognizing women's achievements and promoting career development in cancer research. The WICR council is comprised of prominent scientists, including several Nobel Laureates, who serve on the council for three year terms.

Dr. McCaskill-Stevens has received several awards and national recognition for her work including the Kaiser Family Fund Award for Excellence in Academic Achievement and Leadership in Medicine, Omega Alpha Medical Honor Society, the NIH Director's Award for Clinical Trials, and the NCI Merit Award for Breast Cancer Prevention. Most recently, she was named one of six Health and Science Trailblazers included on EBONY's Power 100 List for 2013.

Prior to joining NIH, Dr. McCaskill-Stevens trained at Washington University, The American College of Switzerland, the Harvard School of Public Health, Georgetown University, and the Mayo Clinic. She held positions with the Alan Guttemacher Institute, Earl G. Graves Publishing Company, and Time Inc. When asked what advice she would offer to a young woman or minority scientist, she said "Find what it is that captures your curiosity and passion, it will sustain you through any challenges that you may confront in this dynamic and exciting field of science." Through her research and outreach experiences, Dr. McCaskill-Stevens has become an invaluable role model for current and future trainees in academic medicine and biomedical research.

NIH Welcomes Six New Women Stadtman Tenure-Track Investigators

The next class of eleven new Stadtman investigators has joined the NIH research community, and with them we welcome six outstanding woman scientists. The Stadtman Tenure-Track program was implemented at NIH in

2009 as a broad search program designed to identify and recruit talented scientists. The program is named for the renowned biochemist Earl Stadtman, who worked at NIH for 50 years and mentored numerous NIH researchers – two of which became Nobel Laureates. Prior to 2009, the search for intramural scientists was undertaken individually by the institutes and centers (ICs); the Stadtman program allows the ICs to pool their resources, sharing the cost of the search as well as the task of reviewing applicants.

In its inaugural year (2009), approximately 900 people applied to the program and eight scientists were hired; 563 people applied in 2011 and nine were hired. Going forward, the NIH seeks to hire at least ten new Stadtman researchers in each round. The newest additions to the program bring the total number of scientists hired through this mechanism to twenty eight.

Welcome the new women investigators: Yexica (Yeka) Aponte, Ph.D., (NIDA) who studies the neuronal basis of natural behaviors such as feeding, to delineate the behavioral disruptions that lead to eating disorders and drug addiction; Lucy Forrest, Ph.D., (NINDS) who studies the mechanisms of membrane proteins which facilitate the passage of essential and toxic chemicals into and out of the cell; Stavroula (Voula) Mili, Ph.D., (NCI-CCR) who studies the regulation of RNA localization pathways to determine how deregulation contributes to cancer progression as well as neurodegeneration; Sunni Mumford, Ph.D., (NICHD) who studies the effects of diet on reproduction and fertility in males and females; Kandice Tanner, Ph.D., (NCI-CCR) who studies de novo "tumor organogenesis" and how epithelial morphogenesis contributes to the colonization of distant organs by cancer cells; Quan Yuan, Ph.D., (NINDS) who studies the regulation of dendrite development and wiring stability in fruit flies – with the long-term goal of ascertaining the principles controlling the establishment, maintenance and functions of neural circuits.

Their male colleagues are: Anirban Banerjee,Ph.D., NICHD; Kapil Bharti, Ph.D., NEI; Luca Gattinoni, M.D., NCI-CCR; Audray Kenkay Harris,Ph.D., NIAID and Todd McFarlan, Ph.D., NICHD.