

Dear Colleagues,

I am pleased to include another issue of RFS Briefings with some timely and encouraging updates on women in science.

Of note in particular:

How far will your essay take you? Science and SciLifeLab Prize for young scientists, www.sciencemag.org, June 19, 2018

The Science & SciLifeLab Prize for Young Scientists is open for entries, with an application deadline of July 15, 2018. Now in its 6th year, the international prize will offer four recent PhD graduates "a life-changing" opportunity. To enter, submit a 1000-word essay based on your work in the categories of Cell and Molecular Biology, Ecology and environment, Genomics and Proteomics, and Translational Medicine. Read more.

Theranos Founder Elizabeth Holmes Indicted on Fraud Charges, www.nytimes.com, June 15, 2018

Elizabeth Holmes, the founder of Theranos – a lab testing company – and its former president were indicted on charges of defrauding investors out of hundreds of millions of dollars and deceiving hundreds of patients and doctors. Promising to "revolutionize" health care through proprietary blood testing machines requiring only a few drops of blood from a finger prick, the company claimed it could detect everything from HIV to a diabetic's A1C level, and at a lower cost than existing blood tests. According to federal officials, the two company leaders knew that the tests "were likely to contain inaccurate and unreliable results." The article highlights the history of this fraud, beginning in 2016, when Ms. Holmes was barred by federal regulators from owning and operating a laboratory for two years. Read more.

Editorial – How far has Elizabeth Holmes set back women who want to start a biotech company?, www.genengnews.com, May 24, 2018

Mary Ann Liebert, founder of RFS and publisher of 90 peer-reviewed journals, as well as books and trade publications, published an editorial in the company's flagship publication, *Genetic Engineering and Biotechnology News* (GEN), about the impact of Elizabeth Holmes' debacle. With nearly 15 women-owned biotechnology companies, Ms. Liebert questioned whether women will now have a greater challenge getting capitalists and private investors "to commit to a woman-owned biotech startup?" This concern will be addressed at the annual Rosalind Franklin Society meeting on November 1-2, 2018 in Philadelphia. Read more.

See below for more news about women in science

Please continue to share important news and opportunities with us so that we may share it with you, and others who are committed to supporting the careers of exceptional women in science.

With regards,

Karla Shepard Rubinger Executive Director Rosalind Franklin Society

RFS Briefings

June 22, 2018

Training Next-Gen Underrepresented (UR) Biomedical Scientists: What Works, What's Wrong, What's Right on Target, https://virtual.keystonesymposia.org/ks/, May 31, 2018

On June 28, 2018, Keystone Symposia's Director of Diversity in Life Sciences, Irelene Ricks, PhD, will lead a free virtual webcast roundtable discussion on best practices for training and mentoring the next generation of biomedical scientists. Keystone is a member of RFS' Council of Academic Institutions (CAI). After the discussion, epanelists will also answer audience questions, which can be submitted when registering or via the chat room or Twitter during the webcast, which be held from 2:30 – 4:00 ET. Two of the panelists are also affiliated with CAI institutions, including University of Maryland and University of Wisconsin-Madison. Read more.

7 Scientific Pioneers to Receive 2018 Kavli Prizes, www.kavliprize.org, May 31, 2018 The Norwegian Academy of Science and Letters announced the winners of the 2018 Kavli Prizes in the fields of astrophysics, nanoscience, and neuroscience. Jennifer A.

Doudna, University of California-Berkeley and her collaborator Emanuelle Charpentier, Max Planck Institute for Infection Biology, Berlin, along with Virginijus Šikšnys (working independently), will share the cash prize of \$1 million in Nanoscience. These three scientists invented CRISPR-Cas9, the "revolutionary nanotool for editing DNA, opening a new chapter in biology, agriculture, and medicine." Dr. Doudna spoke at an RFS Board Meeting, and a video presentation is available on the RFS website. Christine Petit, College de France/Pasteur Institute was among the three winners of the Kavli Prize in Neuroscience for scientific discoveries of the molecular and neural mechanisms of hearing. Read more.

The science candidates: Texas runoff loss leaves Wilson with bitter taste, www.sciencemag.org, May 31, 2018

Mary Wilson, a former math professor, lost her bid in mid-May for the democratic nomination in the 21st congressional district of Texas to Joseph Kosper, a 20-year army veteran with an engineering background. Though she had pursued a doctoral degree in mathematics at the University of Texas before her decision to focus on teaching rather than research, she was unable to win the backing of the 314 Action, an organization that helps scientists and engineers seeking political office. The group supported Kosper because he had more campaign funds and a moderate message. Wilson, a minister who also came out as a lesbian the mid-1990s, hoped that her career serving people in need and embracing all points of view would be an asset. Her advice to any scientist seeking to run for Congress is "to raise at least \$100,000 before you declare," which is "a political reality that we live in, she added." Read more.

Applicant's race or gender doesn't appear to influence NIH peer reviewers, www.sciencemag.org, May 31, 2018

An NIH-funded study found no evidence of racial or gender bias in the scoring of grant proposals. Using an experimental design, the names of original investigators who submitted NIH bread-and-butter R01 research grants funded in 2012 were randomly assigned fake race and gender names. Scientists with relevant expertise were recruited to review these proposals using standard NIH procedures and assessment criteria. Each received two proposals from fictitious white men, and a third from an imaginary white woman, black man, or black woman. In response to some objections to the findings, the authors argue that they are not claiming such bias doesn't exist. Psychologist Patricia Devine, who led the study, explains that bias may "crop up at some other point in the process." NIH's Center for Scientific Reviews is funding another experiment to assess bias based on the re-evaluation of 1,200 grant proposals, including some un-funded, after they were stripped of all personally identifiable information. Read more.

Making grad school work for STEM students, www.sciencemag.org. May 31, 2018 A committee of the National Academies of Sciences, Engineering, and Medicine just released a report on "revitalizing" graduate STEM education, an update of a 1995 NASEM report on "reshaping" graduate education. A main finding is the need for a greater focus on mentoring and high quality teaching which would in turn address many other pervasive problems, such as poor preparation for non-academic careers, a lack of

diversity, and over specialization. The "mismatch" between what professors assume their job to be and the career paths of their students is evidenced by the facts that fewer than 40% of the STEM PhDs in the U.S. work in academia and fewer than half of that group become independent investigators like their mentors. According to Alan Leshner, CEO emeritus of AAAS in DC, we need "student-centered" education where "core competencies" are supplemented by workshops, internships, and networking. He argues that agencies such as NIH and NSF should require grant applicants to include evidence of quality teaching and mentoring in their applications. Read more.

The Underground Science Festival has new faces to introduce to you, mobile.nytimes.com, May 31, 2018

The First Underground Science Festival (May 30 through June 6), presented concurrently with the World Science Festival, was created as platform to "shine a light on the achievements of those who history has overlooked," such as Rosalind Franklin, through comedy. The program showcased at the Caveat, a performance space on Manhattan's Lower East Side, hosted by Kate Downey who worked as a theater director and Ben Lillie, a particle physicist who started organizing science-related story telling events 2009. Performers included scientists, stand-up comics, and others. The <u>Caveat</u> has ongoing events, many of which address issues in academia and science. In another event at the Underground Science Festival, an organization focusing on the contributions of women to scientific fields – 500 Women Scientists – hosted a Wikipedia Edit-a-Thon, led by scientist Maryam Zaringhalem, to create or alter existing Wikipedia pages to better reflect contributions of women in science. Read more.

Why Melinda Gates has been funding female VCs through her secretive investment firm, www.fortune.com, May 30, 2018

Disappointed that so few women-led businesses are getting funding, Melinda Gates has "quietly" invested in female-led or minority-focused venture firms through her Seattle-based investment and incubation company, Pivotal Ventures. Targeting both emerging and long-standing funds, she believes that more money behind women and minorities will lead to more innovation and better products. She is especially interested in initiatives that will have positive messages and outcomes for younger teenagers, addressing mental health issues by using technology, for example. Fortune's interview with Ms. Gates explored the role limited partnerships (LPs) play in the venture ecosystem, the effects of the #MeToo movement, and how female-led and female-focused firms can challenge established players, among other timely issues. Read more.

Will U.S. academies expel sexual harassers?, www.sciencemag.org, May 29, 2018 The 7,000-member National Academies of Sciences, Engineering, and Medicine announced that they "may adopt new policies allowing the prestigious bodies to eject members who have committed harassment and other forms of misconduct." Academy members hold life-long terms with no current mechanisms for removal due to harassment. A statement was signed on May 22 by the heads of the three societies, underscoring their position: "We want to be sure that we are doing everything possible to prevent sexual harassment, to instill a culture of inclusion and respect, and to

reinforce that harassment is not tolerated." This announcement is not without controversy. While some welcomed it as a major step, others were concerned that the "dialogue" would not lead to major changes in a timely manner. Marcia McNutt, head of the National Academies of Sciences, whose 17-member governing council has 11 women, anticipates a vote to amend its bylaws at its annual meeting next April. But, she is concerned that it may be difficult to get a majority vote from an honorary society of more than 80% men over 70 years of age. Read more.

A graduate student discovers the importance of humanizing data, www.nytimes.com, May 23, 2018

In an essay called "Finding Myself in Research, Mya Robinson – a "black, first generation college graduate from a low-income Appalachian community in Pennsylvania" and now a graduate student in epidemiology at UNC-Chapel Hill – acknowledges that "People with Ph.D.'s do not look like me, and do not come from where I come from." During her poster presentation on characteristics of breast cancer at a conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved," a black woman with no apparent institutional affiliation introduced herself as a survivor advocate who, though not a scientist, interacts with them to give the patient and survivor perspective. Her simple statement to Ms. Robinson that "I see myself in this research. This was a study meant for women like me." reminded the author that her role as a researcher was not just to become a known scholar, but do so for "the sake of humanity." Read more.

Joanne Lipman's Win Win: Crucial at a time when women's movements are seemingly talking only to other women, www.firstpost.com, March 20, 2018

Joanne Lipman's recently published book, Win Win: When Business Works for Women, It Works for Everyone, based government studies, brain research, transgender scientists, and more, takes an alternative approach to understanding women's role in the workplace. The author, senior journalist and former editor-in-chief of USA Today, agrees that "it's essentially a man's world" but advocates for communication between men and women in the workplace to address the gender imbalance. For example, she explains that men often feel targeted for "being sexist" and thus "defensive" when it comes to women's empowerment. In fact, according to a study by Catalyst, 74% of men cited fear of: "loss of status," "other men's disapproval," and "making a mistake" as reasons for undermining their support for gender equality. To combat this attitude, Lipman believes that "men need to be in the room too." "Mixed groups are just smarter," she said. Read more.

It is time for Zero Tolerance for Sexual Harrassment in Academic Medicine,

Academic Medicine, 93(2), 163-165, February 2018 (Abstract) In a Perspective article, the authors describe scientific societies' efforts to address the issue of sexual harassment and to begin to establish safe environments at national meetings. Sexual harassment continues in academic health centers despite the fact that more women than ever before are in leadership positions, according the findings of recent surveys. Read more.

Women and men in STEM often at odds over workplace equity,

www.pewsocialtrends.org, January 9, 2018

A nationally representative study conducted by the Pew Research Center in summer 2017 examined issues faced by women in the workplace across occupations and industries. Overall, women in STEM jobs and non-STEM jobs say they have experienced workplace discrimination, but those in STEM are more likely to report they have experienced it. Of note, women working in STEM jobs, compared with male coworkers, experienced a more hostile environment, characterized by more frequent discrimination and sexual harassment. Gender is also perceived as more of a barrier than an advantage to career success. Half of women in STEM said they have been discriminated against at work. Three groups of women, however, were most likely to have experienced gender discrimination: women employed in settings where men outnumber women, women in computer jobs, and women who hold postgraduate degrees. Findings also showed that a higher share of Blacks in STEM jobs report racial/ethnic discrimination. Read more.