

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:

Thomas A. Steitz, 78, Dies; Illuminated a Building Block of Life, nytimes.com, October 10, 2018

Thomas A. Steitz, PhD, Yale University Sterling Professor of Molecular Biophysics and Biochemistry and Professor of Chemistry, died October 9 at his home in Connecticut. Described as a "towering figure of late-20th century science," he was awarded a Nobel Prize in 2009 for his discovery of the exact size, shape, and position of every atom in the ribosome. This project, which took five years during his tenure at Yale, was a fundamental discovery because of its immediate application to medicine. It led to the understanding of how to find antibiotics that can evade drug-resistant bacteria. Dr. Steitz is survived by his wife of 52 years, Joan Argetsinger Steitz, PhD, Yale, an eminent molecular biologist who received this year's Lasker special achievement award in medical science in September. She is a founding board member of the *Rosalind Franklin Society*. Read more.

The Gruber Foundation Call for Nominations, gruber.yale.edu, October 14, 2018 The Gruber Foundation invites nominations on behalf of individuals whose achievements in Cosmology, Genetics, or Neuroscience would make them suitable candidates for recognition through the 2019 Gruber International Prize Program. Each prize, which is accompanied by a \$500,000 unrestricted monetary award, is designed both to recognize groundbreaking work in each field and to inspire additional efforts that effect fundamental shifts in knowledge and culture. Recipients are selected by a committee of distinguished experts in each field. Nomination forms should be completed and submitted online. Please go to https://gruber.yale.edu/prize-nominations for complete details and access to forms. 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

October 19, 2018

2018 AGU Union Medal, Award, and Prize Recipients Announced, September 4, 2018, eos.org

The American Geophysical Union (AGU), the world's largest organization of Earth and space scientists, will award medals to 33 individuals in recognition of their achievements, contributions, and service to Earth and space science community in scientific research, education, communication and research. The Union's highest honors will be presented at its fall Meeting in December 2018 in Washington, DC. Five women are among the prize recipients. Read more.

Science at Sea: Bess Ward Teaches and Researches from the Pacific Ocean, Princeton.edu, September 18, 2018

Oceanographer, Bess Ward, PhD, Princeton's William Sinclair Professor of Geosciences, taught her spring semester class "Biological Oceanography" from the Pacific Ocean aboard the R/V Sally Ride. The goal of this excursion in the Pacific Ocean was to find and analyze the microbes that play a key role in climate change and ozone depletion. Though she admitted that she "hated to leave the class for five weeks" – the only time to take this cruise – she designed a teaching schedule that allowed for student presentations, a series of guest lecturers, and her first teaching assistant who shared videos that Ward created and uploaded via satellite from the ship as it sampled waters off the coast of Mexico. Dr. Ward told her students: "If I'm going to be a biological oceanographer, I have to go to sea. You're witnessing firsthand an oceanographer doing the thing you're learning about." Read more.

New Analysis Suggests Women's Success in STEM Ph.D. Programs Has Much to Do with Having Female Peers, Especially in Their First Year in Graduate School, insidehighered.com, September 18, 2018

A new working paper from the National Bureau of Economic Research, "Nevertheless She Persisted? Gender Peer Effects in Doctoral STEM Programs," says that a woman's

chance of completing her PhD program can be increased by having female peers, even just a few. The findings, based on a sample of graduate students enrolled in STEM programs at public institutions in Ohio, showed that cohorts with no female peers, i.e., those in a "'female-unfriendly environment," were about 12% less likely than their male peers to earn a doctorate within six years. This evidence supports the long-held belief of advocates of women in STEM that gender-inclusive environments, along with networks of peers and mentors, are important "in sealing the so-called leaky pipeline to the PhD." Of note, the presence of peers in the first year doctoral studies is critical for the retention of female students in the second year. Read more.

Survivors Used #MeToo to Speak Up. A Year Later, They're Still Fighting for Meaningful Change, time.com, September 20, 2018

Since the rallying cry of the #MeToo movement, hundreds of survivors "[shared] their stories of sexual assault and harassment" and hundreds of alleged abusers "lost their positons of power." Though women are now more likely to be heard, the outcome is not so simple, as evidenced by the results of a national poll of 1,000 women conducted by TIME with SSRS. Three-fifths of women surveyed reported that the environment for women in the workplace had not changed, and just over half said they were no more likely to report sexual harassment than before. Read more.

Inside Fortune's 2018 Most Powerful Women in Business List, fortune.com, September 24, 2018

Fortune's domestic and international lists of women in business underscore the progress that has been made in the last two decades or so, since the ranking began, but also reflects how "the momentum can stall." The No. 1 spots have changed this year, naming Marilyn Hewson at Lockheed Martin in the U.S. and Emma Walmsley at GlaxoSmithKine. At the same time, the number of female CEOs leading Fortune 500 companies dropped overall from 32 to 24, and the lack of diversity is still pervasive in companies' C-suites. Read more.

Boeing and National Science Foundation Team Up for STEM Diversity and Training, geekwire.com, September 24, 2018

NSF and Boeing have partnered to accelerate skill development and increase diversity in STEM fields, targeting the skill areas of model-based engineering and systems engineering, mechatronics, robotics, data science and senor analytics, program management, and artificial intelligence. This combined \$21 million initiative is expected to launch in 2019. Among the planned programs is NSF INCLUDES – Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science – designed to increase the number of women in STEM and address the needs of women and veterans returning to the STEM workforce. NSF Director France Cordova acknowledged the importance of public-private partnerships in leading to "' a more technically proficient workforce with the skills needed to expand our national research and development base." Read more.

2018 Lasker Awards Luncheon, laskerfoundation.org, September 24, 2018

The 2018 Lasker Awards were presented by the Lasker Foundation on September 21, 2018 in New York City. Among the four Laureates was Joan Steitz, Sterling Professor of Molecular Biophysics and Biochemistry at Yale University and Investigator at the Howard Hughes Medical Institute, who was honored with a Special Achievement Award. Dr. Steitz is a founding board member of the Rosalind Franklin Society. Read more.

Science 'Mojo' and an Executive Dream Team: CEO Emma Walmsley's Bold Prescription for Reviving GlaxoSmithKline, fortune.com, September 26, 2018. Emma Walmsley is reshaping the 3-century old British Pharma giant, which has pharmaceutical, vaccine, and consumer health divisions. Though having joined GSK in 2010 and heading its consumer healthcare business since 2011, she is considered "something of an outsider in pharmaland" because she is not a man and not a scientist. Yet, since her tenure as CEO began in April 2017, she has earned the No. 1 position on Fortune's International Power list, and has made fast and sweeping changes to the company, including replacing 40% of her top managers, dropping 30 drug development programs, selling the rare-disease unit, and finalizing a \$300 million deal with 23andMe. One board member described Walmsley as "'a force of nature" and "'the quickest study I think I have ever met." Read more.

Why Mentoring Matters, and How to Get Started, nytimes.org, September 26, 2018 Professional mentorships, though according to the authors are not as common as in the past, are even more important now especially for young women. With 57 percent of women in the workforce, and increasing diversity, it is important to encourage mentorship opportunities. Research studies reported in this article show that women more so than men are likely to benefit from mentorship. Simply stated, mentorship advances careers. It "exposes both parties to new ideas and perspectives." But, mentorship outside the person's workplace can also be beneficial, for example, through professional organizations or college alumni. Read more.

Meet the Woman in Charge of Building the Best-Selling Pickup Truck in America, nytimes.com, September 27, 2018

With a master's degree in industrial engineering, a 24-year career spanning six Ford factories, and stints in engineering, production, and quality inspection across the country, Stephanie Manzano is back at Ford. As the first woman to oversee production at Ford, and one of the only women at the helm of a major American production facility, she faces barriers that are not surprising – skepticism of workers who have never had a female boss, the high expectations of those who have hoped for one, and the reported sexual harassment and gender discrimination at some Ford plants. The gender gap in manufacturing, compared with corporate settings is more pervasive, not just at the top but at every level. Women, who are less likely to enter manufacturing, make up fewer than 30% of manufacturing employees. But women may be better positioned to enter this field as vacancies become more available due to a tight labor market, a shift to high-tech engineering, and an aging workforce. According to Ms. Manzano, "pressure from the #MeToo movement has helped." Read more.

Missing: Women C.E.O.s, nytimes.com, September 28, 2018

As part of a continuing trend in corporate America, PepsiCo's CEO Indra Nooyi stepped down last month after a12-year tenure, to be replaced by a man. Despite the talk of leaning in, breaking glass ceilings, and diversity in the boardroom, the number of women running major companies is declining. Fewer than 5% of companies in the Standard & Poor's 500 now have female CEOs, though there is no dearth of eligible candidates. Structural barriers continuing throughout the career path to CEO contribute to this gap. According to experts, change must ultimately begin in the boardroom. If Boards of Directors, who are responsible for choosing chief executives, are not diverse themselves nor recognize the importance of diversity, change is not likely to occur. According to Lorraine Hariton, chief executive of Catalyst, the nonprofit focused on women in business, "'The board has to act very intentionally" by examining who is in their pool. Unconscious bias must also be addressed, she said. Anna Beninger, Senior Director, Research and Corporate Engagement Partner at Catalyst, will address this at RFS' annual board meeting on November 1-2 at the Wistar Institute in Philadelphia. Read more.

It Is 2018, So Why Are We Still Debating Whether Women Can Do Physics, newscientist.com, October 1, 2018

A commentary by physicist Jess Wade, PhD, Imperial College of London, addresses the controversial statement by Alessandro Strumia, University of Pisa, a longstanding member of the CERN collaboration, suggesting that "women weren't as good at physics, were promoted too early and received disproportionate funding given their ability." As a speaker at a workshop on gender and high energy physics presented at the CERN particle physics laboratory in Geneva, where Strumia commented on the role of women in physics, Wade remarked in her article: "We shouldn't be putting up with this. His remarks were offensive, but also damaging. When people in positions of power spread such ideas, they teach the next generation of scientists that such behavior is OK. Obviously, it isn't." Read more.

The Nobel Prize in Physics Has Been Awarded to A Woman for The First Time in 55 Years, And For Only the Third Time in History, cnn.com, October 2, 2018 Donna Strickland, PhD, a Canadian physicist, was awarded the Nobel Prize in physics, jointly with Gérard Mourou (from France), for their work on generating high-intensity, ultra-short optical pulses, and shared with Arthur Ashkin for developing "optical tweezers." Addressing the fact that women scientists deserved recognition, Strickland said: "We need to celebrate women physicists because we're out there, I'm honored to be one of those women." Read more.

Physicist Donna Strickland on Her 'Surreal' Nobel Prize Win and the Challenges for Women in Science, time.com. October 2, 2018

Donna Strickland, PhD, University of Waterloo in Ontario, just became the third woman to ever win the Nobel Prize in physics and the first woman to win in any category since 2015. The prize is shared with Gérard Mourou, her doctoral advisor, for research completed in 1985 when she was a 26-year-old graduate student at the University of Rochester. She describes this achievement as "surreal." Read more.

2018 McArthur Fellows, macfound.org, October 4, 2018

The MacArthur Foundation awarded 25 fellowships to individuals working in diverse fields, including sciences, arts, public health and civil liberties. The recipients of the \$625,000 unrestricted fellowships are "talented individuals who have shown extraordinary originality and dedication in their creative pursuits and a marked capacity for self-direction," according to the Foundation. Among the 2018 recipients are five female scientists: Livia S. Eberlin, analytical chemist; Debora Estrin, computer scientist; Sarah T. Stewart, planetary scientist, and Doris Tsao, neuroscientist, and Amy Finkelstein, health economist. Two male scientists also received awards: Clifford Brangwynne, biophysical engineer, and Alan Sly, mathematician. Read more.

McArthur 'Genius' Grant Winners for 2018: The Full List, nytimes.com, October 4, 2018

The MacArthur fellowships, awarded annually by the John D. and Catherine T. MacArthur Foundation for exceptional "originality, insight and potential," come with a no-strings-attached award of \$625,000, distributed over five years. Read more.

Who is Neri Oxman?, nytimes.org, October 6, 2018

Dr. Neri Oxman, Professor, MIT's Media Lab, is the recipient of this year's Cooper Hewitt Design award for interaction design presented at a ceremony and gala on October 18 in New York City. An architect, computational designer, and artist, she is the founder of a discipline she refers to as "material ecology," which integrates the technological advances of computational design synthetic biology and digital fabrication (3-D printing) to produce compostable structures, glass objects that vary their optical and structural properties, and garments created from a single piece of fabric. According to Paola Antonelli, senior curator of architecture and design at MoMA, what makes Dr. Oxman, the scientist, "so unusual" is that "her science works, her aesthetics work, and her theory works." Read more.

How Do You Find an Alien Ocean? Margaret Kivelson Figured It Out. nytimes.org, October 9, 2018

Margaret Kivelson, PhD, who will turn 90 this month, is professor emerita of space science at the University of California, Los Angeles. For 40 years, she has been actively involved in nearly every major NASA voyage beyond the asteroid belt. By transforming the way magnetometers are used in space missions and making them an essential tool of discovery, her team essentially established the "art of ocean detection." In turn, the outer solar system is now a "hot zone" in the search for habitability. In her most recent project, she is co-investigator working on the plasma instrument for the Europa Clipper, NASA's "next great voyage to the outer solar system," which is expected to launch as early as 2022. The spacecraft will study the habitability of Jupiter's ocean moon by determining the ocean's depth and salinity and the thickness of the ice hell above it. Dr. Kivelson "is not finished unlocking the secrets of Jupiter," with other projects in the works as well. Read more.

SRF 2018 Summer Scholars: Featuring the Next Generation of Rejuvenation Biotechnology Researchers (Part 2), newsletter@sens.org, October 9, 2018

The Sens Research Foundation Summer Scholars Program offers undergraduate students the opportunity to conduct biomedical research to combat diseases of aging, including cancer, Alzheimer's, and Parkinson's Disease. Guided by a scientific mentor, each scholar conducts a research project in areas such as genetic engineering or stem cell research. Profiles of summer scholars and their work are featured in the Foundation's Education blog. Read more.

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The Gruber Foundation Call for Nominations, gruber.yale.edu, October 14, 2018 The Gruber Foundation invites nominations on behalf of individuals whose achievements in Cosmology, Genetics, or Neuroscience would make them suitable candidates for recognition through the 2019 Gruber International Prize Program. Each prize, which is accompanied by a \$500,000 unrestricted monetary award, is designed both to recognize groundbreaking work in each field and to inspire additional efforts that effect fundamental shifts in knowledge and culture. Recipients are selected by a committee of distinguished experts in each field. Nomination forms should be completed and submitted online. Please go to https://gruber.yale.edu/prize-nominations for complete details and access to forms. Read more.

Power Posing is Back: Amy Cuddy Successfully Refutes Criticism, forbes.com, April 4, 2018

In 2012, Amy Cuddy's TED talk on the benefits of power posing received more than 46 million views, becoming the second-most popular TED talk in history. Power posing, exemplified by expansive body postures such as arms outreached, were used by public speakers and athletes, for example, for a few minutes in private "hoping to boost their feelings of power." Then, Cuddy's research was attacked as "mere pseudoscience" by other social psychologists. In a published rebuttal, based on an analysis of 55 studies on power posing, Cuddy and her collaborators maintain that power posing is still a legitimate method to make a person feel more powerful. The premise, according the author of this article, is that how we hold our bodies can have an impact on our minds,

that is, "how we think and feel about ourselves." Cuddy now refers to the effect as "postural feedback" rather than power posing. Read more.