Women of the Hour

It is my pleasure to attend the inaugural WinRS breakfast. The discussion topic, ‘How to retain women in science’ is a crucial issue as there is still slow progress towards gender equity. Female researchers are still under-represented in academia at all ranks, on scientific boards of directors, as first authors etc. (e.g. women scientists account for 19% of full professors nature.com/women). Why is that? Being a scientist is an amazing career with many positive aspects that are all too often over-shadowed by daunting prospects such as getting long-term funding, the tenure process and achieving work life balance. I look forward to hearing and discussing why we may be losing talented women in the pipeline and how we can do a better job of attracting, training and keeping women in science and the field of reproduction.

Sarah Kimmins
New member of the Board of Directors
De-biasing in our lives as scientists

Bias is something we all need to face and deal with as scientists. The topic of research bias is getting a great deal of attention right now, with widespread concern about reproducibility of research results. It is enticing to think that research fraud is the main cause of this crisis in confidence in what is in the research literature … but in fact, our own worst enemy is our human nature. It is incredibly easy to get overly invested in a hypothesis, whether because the hypothesis is the product of long stretches of work or because all our research papers and grant applications have this central hypothesis running through them. We owe it to ourselves to practice good science, to stay true to the scientific method, and very simply, listen to what the data tell us(1). Nature’s news section has a great article that I like to use in my teaching, ”How scientists fool themselves – and how they can stop(2)”. 

There is another flavor of bias that we need to deal with as well, the bias that affects how we view others and are viewed by others. Here again, a problem is our human nature, as quite often, this is implicit bias, rather than explicit (although make no mistake, explicit bias exists too). Many of us are familiar with reports of reduced research funding success for female scientists as compared to men (the most recent of which is from the Canadian Institutes of Health Research (CIHR)(3)); You probably remember the story last year of two female researchers’ submitted manuscript that received the suggestion in the review that they “find one or two male biologists to work with” (in part because the manuscript was on gender differences in the transition from PhD student to post-doctoral fellow(4)). Similar phenomena show up in teaching evaluations(5). Perhaps most significantly, a fascinating view is provided by those who are transgender, who have gotten to see the human experience from two different sides(6).

For a chunk of my time as a faculty member, I was the only woman in my department. At the time, I shrugged this off. I figured, heck, I’m a little toyboy-ish, I can roll with this. But now that the tides have turned and I no longer am the only woman, and I can see how that situation wore on me – caused unnecessary stress, sapped energy that could have been used elsewhere (and goodness knows in our line of work, we need all the energy we can get!), I can only begin to imagine what other situations are like – e.g., being a racial or ethnic minority, LGBTQ, etc. I have noted examples regarding women in the paragraph above for WinRS readers. But obviously, the challenge of bias goes way beyond gender … and beyond science and research.

How to move forward, and dream of things getting better? Terms like “leaky pipeline” are thrown around (especially for women leaving the research workforce, particularly in early-to-mid career stages), but I see the issue is bigger and broader than that. Part of the answer, I feel, is appreciation of diversity, and creating a culture in our work places where all feel welcome, valued and, ideally, understood. This kind of culture can develop when we get to know and work with people with different viewpoints and backgrounds. Stereotypes and bias (including deeply hidden implicit biases) will diminish – not to mention our work will almost certainly improve, with the input from different viewpoints. We need to have conversations about how to be more inclusive, and improving diversity will be a crucial component. And then, the pipeline hopefully won’t leak for anybody, and the only temptation to leave the workforce will be for the best of reasons – not because one sees glass ceilings, or because one senses being unwelcome or unappreciated, but to pursue other things that one deeply cares about.

This big issue of bias intrigues me and is important to me, to the point where I have mused about whether it will be possible to develop a debiasing-themed Presidential Symposium for the 2019 SSR annual meeting. And writing this piece, including noting my curiosity about such a symposium, is my way to call for ideas – so if you have thoughts on how we could make this work, I am all ears!

Janice Evans
Incoming SSR Vice President Elect for 2016-2017

1. twitter.com/AcademicsSay/status/7253067836198001086
2. www.nature.com/news/how-scientists-fool-themselves-and-how-they-can-stop-1.18517
Retaining women in science: a panel discussion with SSR presidents

Janice Bahr (Term 1993-1994)
Dr. Janice Bahr is a Professor Emerita in the Department of Molecular and Integrative Physiology and Department of Animal Science at the University of Illinois. She was granted a Ford Foundation Fellowship for the duration of her Ph. D, which she obtained in 1974 from the University of Illinois. In August of the same year she was appointed an Assistant Professor at the University of Illinois as the first ever woman faculty member in the Department of Animal Sciences with cross-appointment in the Department of Molecular and Integrative Physiology. She was the only woman in a department of 40 men for 20 years. She has over 216 publications including book chapters and co-author of one textbook. She had over 60 graduate students and postdoctoral fellows, in a career spanning more than 40 years. Her research interests in reproductive physiology have been extensive, from fish to humans, but have focused primarily on ovarian physiology and endocrinology of the laying hen. Dr. Bahr has served extensively on SSR in various capacities in addition to her term as President, 1993-1994. This included as Treasurer from 1988-1991, Board of Directors, 1984-1987 and representation on numerous committees, many of which she was the chair, for over 30 years and as a result was the recipient of the Distinguished Service Award in 1997. She is recognized as a leader both within and outside of academia and was the recipient of the first SSR Trainee Mentor Award in 2007.

Joanne Fortune (Term 1994-1995)
Dr. Joanne Fortune is the James Law Professor of Physiology at Cornell University College of Veterinary Medicine. Her research focuses on the hormonal regulation of ovarian follicles, with cattle being the primary animal model. In particular, her lab focuses on the signals that control whether a primordial follicle will be selected to resume growth and which ones are eventually ovulated. Dr. Fortune has served on most of the committees of SSR and has had numerous leadership roles, including Secretary, Treasurer and Board of Directors since 1980, and this was recognized in 2008 when she was the recipient of the Distinguished Service Award.

Geula Gibori (Term 2001-2002)
Dr. Geula Gibori is a Professor of Physiology and Biophysics in the College of Medicine at the University of Illinois, Chicago. In 1973, she received her Ph.D. in Physiology from Tel Aviv University, Israel. She then moved to the United States to work as a Ford Foundation Postdoctoral Fellow in the Department of Reproductive Physiology at Case Western Reserve University. After a second postdoctoral period in reproductive endocrinology at the University of Michigan in Ann Arbor, she was recruited to the University of Illinois at Chicago where she began as an Assistant Professor in 1976. She was promoted to Associate Professor in 1980 and to Professor in 1986. For the past 30 years, Dr. Gibori has been working on hormonal regulation and gene expression of ovarian and uterine hormones, defining the action and interaction of cytokines and estradiol on key ovarian and decidual genes whose expression is essential for the normal progress of pregnancy. Dr. Gibori has consistently served the field of reproductive biology and the society, with several terms as a member and chair of multiple committees. She served in the Board of Directors from 1997 to 2003, and as President-Elect (2000), President (2001) and Past President (2002) of the society. In 1998, she received the SSR Research Award for her lifelong record of the highest standards in innovative research and dedicated leadership in the reproductive sciences community. Her achievements were acknowledged by countless institutions, including the University of Illinois which nominated her Woman of the Year in 2002.
Joy Pate (Term 2004-2005)
Dr. Joy Pate is a Professor of Reproductive Physiology and the C. Lee Rumberger and Family Chair in Agricultural Sciences in the Department of Animal Sciences of Penn State University, as well as the director of the Center for Reproductive Biology and Health. She received her Ph.D. from the University of New Hampshire and was appointed as Assistant Professor at The Ohio State University in 1983, where she was promoted to Professor and served a term as Associate Chair of the Department of Animal Sciences. She joined Penn State University in 2008. Her research focuses on the biology of the corpus luteum with the goal of improvement of the reproductive efficiency of domestic animals. Her work has provided fundamental insight into cholesterol metabolism for steroidogenesis, the mechanisms by which prostaglandin causes luteolysis, the roles of resident immune cells in luteal function, and the involvement of microRNA in regulation of luteal function. Dr. Pate has provided extensive service and leadership to the field of reproductive biology, and especially to our own scientific society. Beginning with her election as Director in 1995, Dr. Pate served SSR for nine years in major leadership positions - including Secretary (1998–2001), President–Elect (2003), President (2004), and Past–President (2005), and served on countless committees since 1993. Her outstanding achievements were acknowledged by numerous awards, including the Outstanding Young Teacher Award in the College of Agriculture, the Gamma Sigma Delta Research Award and the OARDC Senior Faculty Research Award. In 2011, she received the SSR Distinguished Service Award in recognition of her leadership and selfless dedication toward the society.

Sally Perreault-Darney (Term 2011-2012)
Dr. Sally Perreault-Darney is currently serving as the Editor-in-Chief of Environmental Health Perspectives (EHP) published by NIEHS. After earning her Ph.D. in Anatomy and Reproductive Biology from the University of Hawaii in 1980 and conducting postdoctoral research at the Johns Hopkins University, she established a research program in reproductive toxicology and epidemiology in the US Environmental Protection Agency’s Office of Research and Development. As an active researcher she published both basic and applied research findings, contributed to EPA and national workgroups, served as a Branch Chief and Division Director, and finally transitioned from the lab to become a National Program Director in ORD’s Immediate Office. There, she helped set the EPA’s research agenda in environmental public health in areas related to chemical exposures that contribute to childhood disorders, environmental justice, and the design of healthy environments for children. She is a long time champion of children’s environmental health and, as an Editor, continues to foster the translation of new knowledge into regulatory, public health, and community actions that protect children and support their healthy development. A believer in service, Dr. Perreault-Darney was the Treasurer (1997-1999, 2012-2014), President-Elect (2009), President (2010) and Past President (2011) of the society, as well as the associate Editor of Biology of Reproduction. Her exceptional achievements in the discipline were recognized by the US EPA Gold (1996) and Bronze (1995, 1999, 2003) Medals for Distinguished Service related to research activities and products and the American Society of Andrology Distinguished Service Award (2007). In 2007, she was elected to the prestigious Johns Hopkins Society of Scholars.

Barbara Vanderhyden (Term 2011-2012)
Dr. Barbara Vanderhyden is a Professor of Cellular and Molecular Medicine at the University of Ottawa, and has held the inaugural Corinne Boyer Chair in Ovarian Cancer Research since 2000. After completing her Ph.D. in Reproductive Physiology at the University of Western Ontario in 1988, she worked as a postdoctoral fellow at The Jackson Laboratory in Maine. In 1991, she joined the Cancer Research Group at the University of Ottawa, which has evolved into the Cancer Therapeutics Program at the Ottawa Hospital Research Institute, where she is a Senior Scientist. Dr. Vanderhyden’s research focuses on ovarian cancer: she investigates the early events associated with tumor initiation, the impact of various genes and hormones on disease progression, and the efficacy of novel therapeutics.
A strong advocate for science education, she established and oversees two bilingual science outreach programs: Let’s Talk Science, which makes science fun for students in local schools; and Science Travels, which sends teams of grad students to deliver science workshops in remote First Nations and Inuit communities in the far north. Dr. Vanderhyden’s service to the society includes appointments as President-Elect (2010), President (2011) and Past President (2012). She received the 2003 Award of Excellence, the 2004 Mentorship Award, the 2005 President’s Award for Service to the University of Ottawa through Media and Community Relations and the 2015 Excellence in Education Award. She was also named as one of Canada’s Most Powerful Women by the Women’s Executive Network (2007), an Honoured Champion by the United Nations Association in Canada (2009), a YMCA-YWCA Woman of Distinction Award, Research category (2009), and one of the Top 50 Canadian Broadcasting Corporation’s Champions of Change (2010). She received the Governor General’s Caring Canadian Award in 2014, and was recently named a Distinguished University Professor.

Susan Suarez (Term 2012-2013)

Dr. Susan Suarez is a Professor in the Department of Biomedical Sciences at Cornell University. She obtained a BS from Cornell in Ecology and then an MS from the University of Miami in Marine Biology. After completing her MS in fish reproduction, she switched her focus to mammalian reproduction and obtained her PhD in 1981 from the University of Virginia, followed by postdoctoral research at UC-Davis where she subsequently obtained an adjunct faculty position. In 1988 she was awarded a tenure-track position at the University of Florida. Despite obtaining tenure, in July 1994 she moved to Cornell University for another Associate Professor tenure-track position. Fortunately she was also granted tenure there and was eventually promoted to her current position. Exactly 30 years after the publication of her master’s thesis, a fish was named after Dr. Suarez (Ogilbia suarezae) in honor of her work on fish reproduction. Dr. Suarez's mammalian research has focused on the regulation of sperm movement through the female reproductive tract, in particular the storage and release of sperm from the oviductal reservoir and the functions and control of sperm hyperactivation. Dr. Suarez has been on numerous committees in SSR over the years, most notably being the founding chair of the Minority Affairs Committee, and many years on the Editorial Board.

Janice Bailey (Term 2016-2017)

Dr. Janice Bailey is a Professor of Animal Science and Vice-Dean of Research at the Faculty of Agriculture and Food Science at the Université Laval in Québec City, Canada. In 1992, she received her Ph.D. from the University of Guelph, Canada in Reproductive Physiology. She then moved to the United States to work for two years as a postdoctoral fellow at the University of Pennsylvania before joining the faculty at the Université Laval in 1994. Dr. Bailey’s research focuses on sperm function and reproductive toxicology. This includes determining the signaling pathways involved in sperm maturation, the multigenerational influences of exposure of the father to environmental pollutants and improving assisted reproduction techniques for the livestock industry. Since 2004, Dr. Bailey has served extensively on the SSR on various committees including as Program Co-chair for the 2013 meeting in Montréal, Canada. She is currently President-Elect and will become President of SSR at the close of the meeting in San Diego this July. In addition, she is actively involved in the American Society for Andrology and is the chair of the Knowledge Translation Committee of the Quebec Reproduction network (RQR). In 2005 she was awarded the Young Andrologist Award by the American Society of Andrology and in 2015, received an award for Technical Innovation in Enhancing Production of Safe Affordable Food from the Canadian Society of Animal Science.

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