International Women’s Day 2014
by Yasmina Laouar, Professor of Immunology

International women’s day (originally called the international working women's day) is marked around the world on March 8th as an occasion for celebrating the political, social, and economic empowerment of women, and for the reassertion of women’s rights worldwide. This event emerged from the activities of labor movements at the turn of the twentieth century in North America and across Europe. Precisely, the idea started from the socialist movement in the US in 1909, got nurtured in Europe between 1910 and 1917, subsequently was celebrated in many countries, but took a long road before the United Nations officially adopted it and before the US officially recognized it. This is one event my colleagues Christiane Wobus (from Germany), Irina Grigrova (from Russia), and myself (from Algeria) share in common from our memories.

I still have vivid memories of this day. I grew up celebrating this event in the associations for “Women Progress and Equality” and we have many of these associations in Algeria. Not that it was originally my choice of entertainment, but at my time you have to sit in these associations, and what happens in these associations, Algerian women talk about their lives. These women came with no denial, with no hypocrisy, with no loyalty, not to their husbands, not to their fathers, not to their gods. For one day, they came to tell us how life looks like in a society of men, so that girls of my generation see life as it is. It is only then where I understood the value of education as a mean to access to choices and liberty. Algeria scored less than 10% of literacy among women by the time of independency (1962). In 2007, the New York Times published an article on Algerian women stating that women in Algeria make 70% of lawyers, 60% of Algeria’s judges are women and medicine is dominated by women. This is one example of the progress of women in this century, women have pushed themselves in spite of constraints from traditions and religions, and I think we owe it to them to keep the tradition to celebrate this day. This year, I have paired with two Ph.D. students Alyx Schubert (P. Schloss Lab) and Kaitlin Flynn (M. Swanson lab) who did a fantastic job: they materialized a vision to implement this tradition in our department to give a voice to the younger generation of women scientists.
Women in Science Roundtable: A Graduate Student’s Perspective
by Ellyn Schinke, Ph.D. student

In light of “International Women's Day”, a large group of female scientists spanning multiple generations and varying positions gathered together to discuss an important question regarding the issues women face in the scientific field. With topics ranging from starting a family to public perception, this group of women were able to address and offer insights into the complications women face. There were certainly stark differences in experiences, paths pursued, and opinions on all matters. Never before did I think I would hear the words “graduate school is the best time to have kids!” Most notable to me was the difference in perspective relating to women in high level positions. While those of us who were more novice seemed to possess an optimism on this and other issues, this was in contrast to the realism of those more senior researchers who had endured more than their fair share of battles to ensure their status in the field.

Public perception was also an important topic to tackle, with many concerned about being perceived by their physicality rather than their intellectual contributions. Kaitlin Flynn shared an entertaining anecdote, which led us all to joke that her mentor, Michele Swanson (Professor of Microbiology), inspired reverence, and maybe a tad bit of fear, in her colleagues, a trait Asst. Professor Nicole Koropatkin teased that we should all hope to emulate. As the gathering was about to disperse, some important and enlightened points were made. Though varied perspectives were expressed about all that we had discussed, this group of women seemed to agree on one thing. The most notable collaborations and relations they had formed in the course of their careers had been with other women. All women can likely agree that we are not always supporters of each other in many aspects of life. We have all dealt with our fair share of cattiness and judgment at the hands of other women. As discussion wrapped, one important point seemed most evident. If we, as women, are to succeed and establish ourselves in the scientific field, we must first champion each other.

Around 35 female graduate students, post-docs, PIs, and staff attended a “women in science” roundtable discussion on women’s issues. Tuesday March 4, 2014

ARE WE THERE YET?

42%

of all women and men Ph.D. faculty in Microbiology & Immunology at the University of Michigan are women.

31%

of all women and men Ph.D. faculty in microbiology nationally are women.

What Women Need to Succeed in Science
Attracting females to research careers—and keeping them there.

by Huda Y. Zoghbi and Paul Greengard | Feb. 1, 2014

Nearly every discussion of women in the sciences eventually arrives at the same question: Why, at a time when women are leading countries and multibillion-dollar corporations and are as likely as men to major in science as undergraduates, do we still see so few women pursuing leadership positions in the realm of research?

Today, it's no longer a question of ability. The days of overt discrimination against women in the sciences have passed. Thankfully, pioneering female scientists like Rosalind Franklin are now recognized for contributions to groundbreaking work, like that which earned her collaborators a Nobel Prize. It would be hard for a graduate student in 2013 to imagine that within living memory are the days when asking a female faculty member to serve on a thesis committee was controversial.

However, an undercurrent of exclusion still exists. From a young age, girls begin to get the message that a life in science is somehow beyond their reach. Female scientists are not immune to that same undercurrent, and the missed opportunities are not limited to women.

The sciences as a whole suffer when women choose alternate paths, and the United States, which is already fighting fiercely to remain competitive in an increasingly sophisticated global science scene, loses ground each time a woman puts her scientific curiosity on the back burner.

Progress in the lab rarely takes place in a singular, big-bang moment. It's an incremental process of trial and error, of subtle probing and evaluating that ultimately coaxes the secrets of nature into the light. There may be no other field of work that benefits more from the diversity of thinking and processing that can only occur in a setting where men and women are equally represented and regarded.

So how can we help more women choose—and succeed in—science?

First, guidance.

A career at the higher levels of academia is preceded by a long, rigorous path that puts particular demands on women who wish to have a family. Our experience mentoring more than 100 women in our labs has shown that, while female research scientists can and should be held to the same standard as men in achievement and performance, they are more satisfied and more likely to remain in the field if given guidance to help them achieve both their professional and personal goals.

Women who trained even 20 years ago had to write their own formulas—they had few, if any, examples set for them. The wisdom imparted by those veterans is one of the greatest assets available to young women entering science today. Navigating the path between work and family in a demanding field is never simple, but it need not be a trade-off. Any scientist who has tucked his or her child into bed and returned to the lab can attest to that.

Next, recognition.

Praise and attention are critical, but not for the sake of the ego. Drawing attention to the achievements of women working in science sets a powerful example for those women still dreaming of their own success. In 2003, when the Pearl Meister Greengard Prize was established, it was one of the only major accolades spotlighting women scientists.

After the first annual award ceremony at Rockefeller University, hundreds of e-mails poured in from women around the globe at all stages of their careers. They were thrilled and grateful. Their message: it's about time.

Finally, image.

The portrayal of scientists in media and culture has historically been less than helpful in attracting anyone to the field, much less women. And while “geek chic” has become part of the vernacular, the public rarely gets a glimpse of the extraordinary gratification and downright fun many scientists have along the way. LEGO introduced its first female scientist figurine this year, and while she's a much-needed step in the right direction, it's hard to imagine young girls seeing their futures reflected in a pocket protector and thick-rimmed glasses.

We owe it to ourselves and to the future of US science to portray the richness that a life in research can hold for both men and women. We have all seen highly gifted people with a love of math or science pursue other lucrative careers, simply because they don't realize the excitement that can be found at the lab bench or in the field.

The beauty of science is that when you go to work every day, you have no idea what might happen. You may work hard for months or years with little progress toward answers until the day when everything changes. The rush of reward and satisfaction is beyond compare. For anyone, man or woman, what could be more exciting than that?

Huda Zoghbi is a professor of molecular and human genetics and neuroscience at Baylor College of Medicine, an investigator with the Howard Hughes Medical Institute, and director of the Jan and Dan Duncan Neurological Research Institute at Texas Children's Hospital. She is the recipient of the 2013 Pearl Meister Greengard Prize. Paul Greengard is Vincent Astor Professor at Rockefeller University. He is the recipient of the 2000 Nobel Prize in Physiology or Medicine. Greengard and his wife, sculptor Ursula von Rydingsvard, are the founders of the Pearl Meister Greengard Prize.
Reaching Equilibrium
by Kaitlin Flynn, Ph.D. student

Now that we’ve begun to identify some of the issues facing women in science, how can we best move forward towards equilibrium and creating a sustaining scientific workforce that welcomes and supports all genders? The following infographics, taken from a compilation of a discussion from the ScienceOnline 2014 conference by reporter Katie L. Burke, do a great job of outlining the challenges and potential solutions facing all of us on this important topic.

The Problems:

- The “Leaky Pipeline” in Academia: While enrollment is at 60% or higher levels for girls in STEM fields in some undergraduate disciplines, the number of women in the scientific workforce decreases dramatically as students progress into graduate, postdoctoral and professorial jobs. Why are these women leaving, and where are they going?

- Sexism and Gender Biases: Not only do female scientists and engineers often encounter sexism and hiring differences in the workplace, implicit gender biases exist in both female and male minds. For instance, a recent study that examined faculty responses to the same resume of an applicant for a research position with either a male or female name rated the female applicant as less capable. Not only did male faculty exhibit favoritism towards the male applicant; female PIs did as well (Moss-Racusin, et al 2014, PNAS). Subtle gender biases feed into our every interaction and must be considered when reviewing grants, publications or job applications.

- Harassment and Unsupportive workplaces: Many female scientists report dealing with subtle sexism, offensive jokes or even sexual harassment from male colleagues and superiors. These women report feeling uncomfortable with confronting the aggressors or even calling out an off-putting remark. How can we make the workplace a safe environment for all?

The Solutions:

- Education + Collaboration: Addressing and talking about these issues is the first step to change. We hope this newsletter will be a starting point for a number of difficult conversations that may need to take place between students, their coworkers, their mentors and their future advisors. The more we acknowledge the challenges facing women scientists, the more apt we are to be able to effect change. Joining forces with powerful men and women in advanced positions of their field (grant review, administrative, etc) will also be necessary to pursue institutional changes needed to bolster female success in STEM.

- Commitment to “checking your bias”: As discussed, both genders need to address subtle gender bias in hiring and decision making processes. To advocate for change is certainly important-- but to commit to carefully considering whether you favor one candidate over another is due to gender or ability will be critical to changing our own subtle biases.

- Pursuit of change--and calling out the haters: Dealing with harassment issues needs to come from both the top and the bottom. Young scientists should not feel uncomfortable reporting instances of harassment or abuse, and older colleagues in the field can help by being open and receptive to these concerns. In addition, to effect policy change at the institutional level for issues such as family leave and equal pay, women need to continue to voice their concerns to those at the top-- and move into those decision-making positions when openings become available.

With commitment to the realization that women in STEM face many challenges, we can work together towards equal opportunities and a healthy workplace environment for all.

![Image: Women in Science Infographic]
Today is International Women’s Day, a day we recognize women’s achievements and inspire the next generation of leaders and professionals. Looking back at just the last 50 years, we have ironed out a lot of major issues of overt sexism and discrimination and also removed many barriers to women’s success. Although, even in our department it may seem like we are only 8% shy of a perfect 50/50 female to male faculty ratio (see page 2), this last bit is far from insignificant. After all is said and done, years later our society is still left with lingering stereotypes and subtle biases, which are arguably harder to eliminate than the blatant problems of the pre-civil rights era. These stereotypes are engrained in all of us from a very young age even without our conscious knowledge. Like it or not they have a way of creeping in and affecting male and female behavior alike. Even a subtle reminder of a stereotype has been shown to negatively affect people’s behavior and performance, through a phenomenon called “stereotype threat.” So while many budding female scientists, like myself, may not have ever experienced any overt gender discrimination like our predecessors, the small things over time add up. What they equal is a lack of confidence and impostor syndrome in young female scientists, a lack of women entering higher-level, leadership positions, and a lack of examples for future generations to look up to.

How can we as a department balance out the last 8%? I learned on Tuesday that a former department chair, Michael Savageau, championed for hiring more women scientists. It was because of his initial efforts and conscious awareness that we have the ratio of female to male faculty in our department today. Ladies of M&I, consider yourselves fortunate because this is 11% higher than the national average for a microbiology department (see page 2). Not only that, but we have many great examples to follow in women like Michele Swanson, Denise Kirschner, Mary O’Riordan, and Yasmina Laouar. Having that female mentorship available is critical for my fellow female graduate students and myself. I also encourage all the M&I women to participate in outreach opportunities. Women need support and mentoring at all ages, from elementary school to graduate school. Whether you volunteer at a science fair, run a high school club, or mentor an undergraduate in the lab, all these things make a difference. Men of M&I, your part is just as important. Be conscious of these issues. Though subtle gender biases may not negatively affect you directly, they affect your female colleagues, students, staff, friends, relatives, and significant others! Even though it may seem like we are basically there, we are not. The moment we become complacent is the moment we have given up on ever reaching the ideal.
Training & Funding Opportunities

Career Development Grants for Postdoctoral Women

“Career Development Grants for Postdoctoral Women are given to support the career development of the candidate by providing funds to travel to a meeting, visit another laboratory, take a course in a geographically distant place, or for other travel to advance the candidate’s career.”
http://www.awis.affiniscape.com/displaycommon.cfm?an=x6&subarticlebr=340

Susan Lipschutz, Margaret Ayers Host and Anna Olcott Smith Awards for Rackham Graduate Students

“Award recipients will have demonstrated exceptional scholarly achievement, a sense of social responsibility and an interest in the success of women in the academic community.”
https://www.rackham.umich.edu/prospective-students/funding/nomination-allocation/lipschutz-host-smith

FY 2013 Career-Life Balance (CLB) Supplemental Funding Opportunities for Postdoctoral Investigators funded by NSF

This is a “gender-neutral supplemental funding opportunity for NSF research awardees that support postdoctoral investigators. NSF recognizes that

Outreach

After School Science Night
Monday, March 10
2:30-5:00pm
Ypsilanti Community School
Hosted by FEMMES (Females Excelling More in Math, Science, and Engineering). Mandatory training session on Sunday, March 9 at 8pm in the Natural Science Building. To register:
https://docs.google.com/a/umich.edu/forms/d/1w55smLmLs1LJmYcVh97jPwGlh2hkJvN6ZSncyvYS-M/viewform?edit_requested=true

FEMMES Capstone Event
Saturday, March 22
7:30am-3:30pm
“Our Capstone events host approximately 100-120 4th-6th grade girls from Ann Arbor, Ypsilanti, Dexter, and the metro Detroit area, where they spend the day with UM professors, faculty, and students. The girls engage in hands-on science activities hosted

Volunteer Girls Who Code Instructor

Do you have a computer science background? Are you interested in hands on mentoring? Start a programming club through Girls Who Code in the metro Detroit area! Gain experience teaching computer science and its applications to a group of 5-12 high school girls. Volunteers should have taken at least 2 college level computer courses or have an equivalent experience level. Contact Alyx Schubert (alyx@umich.edu) for more information and visit:
http://girlswhocode.com/about-us/

For more information on FEMMES:
FEMMES often has after school activities and day long science workshops for 6-8th girls. If you have any questions about events contact FEMMES by email.
femmesvolunteerumich@gmail.com
Workshops and Additional Resources

AWIS Workshop on Leadership and Management
Tuesday, March 11th, 2014
3:00-5:00 PM, Rackham Assembly Hall
Guest Speaker: Courtney Reynolds
“Courtney Reynolds leads the residential life team within one of the largest all-male housing communities in the country, Cary Quadrangle at Purdue University. While her professional emphasis is on women’s leadership and advocacy.” Register here: https://docs.google.com/forms/d/1i4KpyzUgdMfHXdZIKuoQDUdTbRv_yWEWzHDsk/viewform

Generations of Women in STEM Career Panel
Presented by FEMMES at UM ich
Wednesday, March 12, 2014
6:30-8:00pm, West Lecture Hall, MS2
Dr. Judy Yu, Product engineer for Accuri (BD Biosciences)

AWIS Alternative Careers Panel
Tuesday, March 25, 2014
5:00-7:00pm
Rackham East Conference Room

Books
Hardball for Women By Pat Heim
Why So Slow by Virginia Valian

A Special Thanks to:

Yasmina Laouar: For coming up with the idea and encouraging graduate student involvement
Alyx Schubert & Kaitlin Flynn: For organizing and mediating the roundtable discussion, Alyx also put together the newsletter
Heidi Thompson: For photo documenting the discussion
All contributors to the newsletter
All participants in the discussion
Men of Microbiology & Immunology: For reading/listening and being conscious about women’s issues in science...

Change doesn’t happen without you too!

Department of Microbiology & Immunology
University of Michigan
5641 Medical Science Building II
1150 West Medical Center Drive
Ann Arbor, Michigan, 48109-5620