

Spring 2016 HRA Members' Meeting – Session Summary

HEALTH RESEARCH ALLIANCE
MEMBERS' MEETING

Co-Hosted by

Doris Duke Charitable Foundation

New York Stem Cell Foundation March 31 – April 1, 2016



MEETING AGENDA, PARTICIPANT LIST, SPEAKER BIOS, AND OTHER MEETING MATERIALS CAN BE FOUND ON THE MEMBERS' MEETING PAGE AT: [HTTPS://WWW.HEALTHRA.ORG/MEMBERS-ONLY/NEW-YORK/](https://www.healthra.org/members-only/new-york/)

SESSION 2: APPROACHES TO ACHIEVE GENDER EQUITY IN STEM FACULTY: SUCCESSES, HURDLES AND OPPORTUNITIES FOR COLLABORATION

Speaker: **Stephanie Abbuhl, MD**

Professor & Vice Chair Faculty Affairs, Department of Emergency Medicine

Executive Director, FOCUS on Health & Leadership for Women

www.focusprogram.org

University of Pennsylvania Perelman School of Medicine

Talk Title: **Women in Medicine and Biomedical Research**

<https://www.healthra.org/download-resource/?resource-url=/wp-content/uploads/2016/03/Stephanie-Abbuhl-New-York-Spring-2016-Meeting-Presentation.pdf>

Part I: What the Data on Gender Diversity Show:

Even in 2014 there are progressively fewer women as one goes up the academic ladder.

At US medical schools in the US, 79% of full professors are men while only 21% are women.

Our trainees see women in faculty roles at medical schools, but not in senior positions.

Women make up 38% of total faculty in medical schools but only 5% of all women faculty at medical schools are full professors.

Several studies show same disturbing trends. The common belief is:

“We just need to wait for all the women in the pipeline to advance.”

However, Dr. Abbuhl convincingly demonstrated using longitudinal data from several studies¹ that;

“It’s not a “waiting” problem -It’s an advancement problem.”

- In US medical schools, women are less likely to be full professors after accounting for age, experience, specialty, and measures of research productivity.
- These sex differences held across all specialties.
- They did not vary by school research funding ranking.
- Junior faculty women received significantly less start-up support from their institutions than men.
- The discrepancies were not explained by degree, years of experience, or institutional characteristics.

There are 5 Main Causal factors –Putting Women at a Cumulative Disadvantage:

1. Unconscious Bias

- Most people believe they are objective; however, both men and women give lower ratings when work is thought to be woman’s.²
- Tenured or tenure-track faculty members in the departments of biology, chemistry, and physics—were significantly more likely to hire a man, pay him a higher salary, and see him as more worthy of mentoring, a bias that was equally strong among female and male scientists, and did not vary by age, race, or discipline.³

- The very assertiveness necessary to overcome these barriers is perceived as unacceptable female behavior. ⁴

2. Salary Discrepancies

- Women earn an average of 11% less than men, even after adjustment for specialty, hours worked, etc. ⁵
- Women's deficits are greater for those with more seniority. ⁵
- Early Career MD Researchers (2010-2011 NIH K08 & K23 awardees) women averaged \$10,921 less even after adjusting for appropriate variables. ⁶

3. Mentoring

- Academic faculty cite mentoring as critical to their success
- Women have perceived lower rate of effective mentoring - reported as obstacle to career advancement. (Sponsors are key to success yet women don't receive this type of mentorship.)
- Mentoring gaps include negotiation skills and work-life balance. ⁷

POTENTIAL HRA ACTION ITEM: Develop pilot strategies for incorporating a "SPONSORSHIP MODEL" into award mechanisms. "Sponsors differ from traditional mentors/coaches in that Sponsors have the position and power to advocate publicly for the advancement of nascent talent, including women, in the organization. Although academic medicine differs from the corporate world, the strong sponsorship programs that have advanced women into corporations' upper levels of leadership can serve as models for sponsorship programs to launch new leaders in academic medicine."

4. Work-Life Balance

- Long work hours
- Women in caregiving role disproportionately
- Technology makes 24/7 jobs

5. Culture

- Dual Career Couples – 86% of women have a working spouse yet 45% of men have a working spouse. ⁸
- Men worked 7 hours longer and spent 12 hours less on parenting/domestic tasks.
- Among spouses who both worked full-time men spent 9 hours less on parenting/domestic than women.
- There have been NO changes in 2 decades.

POTENTIAL HRA ACTION ITEM: Develop creative interventions to reduce the conflict between fulfilling both professional and parental roles. "Data show that could have substantial impact on improve the ability of early career scientists (particularly women) to succeed in science."

Part II: Experiments into effective Interventions:

The NIH-TAC Trial ; Transforming Academic Culture

Hypothesis:

Among women assistant professors, a multi-faceted intervention will do 3 things:

- Improve academic productivity (publications, grants)
- Improve self-efficacy & improve culture
- Decrease work-family conflict

Long term goal:

To create an environment where women can succeed fully in their careers, maximizing their contributions to academic medicine and improving workplace for all faculty.

Caveats:

- Very public trial possibly had an impact across the entire school
- No release time for intervention faculty
- Academic productivity may not be the most meaningful outcome
- Only 2 months of follow-up

Results:

Both intervention and non-intervention groups improved significantly in:

- Total # of peer reviewed publications
- Grant status
- Work-family conflict scores
- Work self-efficacy scores
- Department culture scores

However, intervention faculty decreased work hours while sustaining academic productivity.

NEXT STEPS: PENN FACULTY PATHWAYS PROGRAM - A CAREER LEADERSHIP PROGRAM FOR STEM ASSISTANT PROFESSORS

3 Goals: Maximize Faculty Potential, Leadership Skills: Personal/Professional, Build Cohort Community

Year 1 – 8 Sessions

| | |
|-------------------------|-------------------------|
| Inside Leadership | Promotion Strategies |
| Total Leadership Part I | Time Management |
| Total Leadership Part 2 | Effective Communication |
| Total Leadership Part 3 | Career Mapping |

Year 2 – 4 sessions

| | |
|-------------------|------------------------|
| Stress Management | Negotiation Strategies |
| Leadership Styles | Refreshing Career Map |

Early Evaluation shows increases in:

- confidence in leadership
- confidence in negotiation
- planning career goals

ADDENDUM:

Listed below are additional potential “action items” for HRA sent by Dr. Abbuhl after the meeting. These interventions address the 5 key causal factors.

1. Unconscious bias.

- Consider having reviewers take the one-day unconscious bias training at Harvard (or the 4-day train the trainer program):

<https://www.aamc.org/initiatives/diversity/322996/lablearningonunconsciousbias.html>

2. Salary inequities

- Require grant applicants to demonstrate that their institutions have made efforts to review salaries for gender equity—including that the Chair/Chief of the department/division has signed off on a salary that has been reviewed and is fair and comparable to others with equivalent responsibilities.

3. Mentorship

- Require a short document from the mentor that highlights their plan for mentorship including how they will address the sponsorship issues—e.g. using the mentor’s significant professional power and influence to pave the way for career opportunities for the mentee.
- Ask specifically about leadership/faculty development programs and request that the applicant be enrolled in one and provided sufficient release time from other obligations (rather than just more requirements added to the already-too-full-plate) to participate.

4. Managing Work-Life Balance/integration

- Request that the institutions supply their work-life and family-friendly policies that apply to the applicant.
- Inquire specifically about maternity and paternity leaves, lactation space, and on-site or near-by day-care availability.
- inquire specifically about administrative assistance provided by the department/division.

5. Culture

- Ask what the department’s initiatives for gender equity have been over the past 3 years and request the current gender breakdown of key leadership positions and senior academic ranks.
- Ask if there are intermittent “culture surveys”; when was the last one was issued and did it lead to change initiatives? Are there plans for future surveys?

From Dr. Abbuhl:

“Asking these questions sends a strong message....that the HRA funders care about these issues and want to be reassured that the organization (both at the institution and department/division level) are working to ensure gender equity by addressing the culture and institutional policies/procedures —rather than just “fixing the women.”

Finally, and very important, the HRA members might consider funding much needed research in this area – experiments with creative initiatives and potential solutions – so that proper research can be done to develop, implement, and measure outcomes related to improving the culture and success of women biomedical researchers.”

Citations:

1. Tesch, JAMA 1995, Nonnemaker, NEJM 2000, Jena, JAMA, 2015, Sege, JAMA, 2015
2. Valian V. Why so slow: The advancement of women. Cambridge, MA:MIT Press, 1998; Moss-Racusin, PNAS, 2012
3. Moss-Racusin, PNAS, 2012
4. Butler & Geis (1990), J Person & Social Psychol; Carli, LaFleur & Loeber (1995) J Person & Social Psychol; - Heilman et al (2004) J Applied Psychol; Phelan et al (2008) Psych Women Quart
5. McMurry JE et al. J Gen Intern Med. 2000;15:372-80; Capek L et al. Plast Reconstr Surg. 1997;99:289-99; Dresler CM et al. Arch Surg. 1996;131:1128-33; Kaplan SH et al. N Engl J Med. 1996;335:1282-9; Wright AL et al. Acad Med. 2003;78:500-508; Ash AS et al. Ann Intern Med. 2004;141:205-212; Jagsi R et al. JAMA, 2012; 307:2410-2417
6. Jagsi et al; Acad Med; 2013
7. Files et al. J Women’s Health; 2008; Blood et al. J Women’s Health; 2012; De Castro R et al. Acad Med; 2014
8. Jolly S et al. Ann Intern Med 2014

Speaker 2: Moses Chao, PhD

Professor, Department of Cell Biology; Professor, Department of Neuroscience and Physiology;
Professor, Department of Psychiatry, Skirball Institute, New York University

Talk link: <https://www.healthra.org/wp-content/uploads/2016/03/Moses-Chao-New-York-Spring-2016-Meeting-Presentation.pdf>

The statistics regarding women in training vs. senior positions has not changed since 2000:

- There is a significant drop off in number of women between graduate and postdoctoral training (54-56% of trainees) and tenure track (29%)
- Women represent only 23% of Full professors and 19% of Chairs
- Women are promoted less, paid less, win fewer grants and receive fewer invitations to speak

Unconsciousness bias contributes significantly to inequality.

Recommendations for promoting and ensuring gender equality in STEM areas:

- A report card for each institution documenting female representation at each level
- Requirement for grant-giving organizations to base funding opportunities upon gender equality
- Achieve gender balance in review and speaker committees
- A supportive environment
- Monitor for unconscious bias

Speaker 3: Eric Nestler, MD/PhD

Professor and Chair Neuroscience, Professor Pharmacology and Systems Therapeutics | Mt. Sinai Medical Center

Talk link: <https://www.healthra.org/wp-content/uploads/2016/03/Eric-Nestler-New-York-Spring-2016-Meeting-Presentation.pdf>

We have already tested time and it hasn’t worked. It’s not a pipeline issue it’s a retention issue, and the John vs Jennifer bias has not changed.

Diverse Brains Initiative: Goals

Launch a year-long discussion: To make everyone aware of the barriers to recruitment and retention of women and minorities in neuroscience.

- To identify tangible steps to reduce such barriers.
- To improve everyone's appreciation of implicit biases and subconscious behaviors that limit success.
- Short-term: to improve everyone's sense of productivity and satisfaction within the FBI at Mount Sinai.
 - Serve as a template for other departments/institutes. Long-term: to increase the recruitment and retention (promotion) of women and minorities in neuroscience.

Suggestions for action:

Incorporate "Affirmative Attention." Be intentional about inclusion/diversity for every symposium, panel, dinner guest, Etc. If we don't, inherent bias in all of us will prevent diversity.

Alter peer review system - require a report card (see NYSCF presentation below). Be transparent and think about blinded review. Blinded review is the standard in other fields but not standard in biological sciences.

SESSION 2B: HRA MEMBERS' EXPERIENCES IMPLEMENTING PROGRAMS

Speaker 1: Louise Perkins, PhD

Chief Science Officer | Melanoma Research Alliance

<http://www.curemelanoma.org/research/mra-research-awards/team-science/>

MRA and L'Oréal Paris collaborated to offer a Team Science Award for a woman-led team with the goal of attracting and supporting women who are conducting field-leading melanoma research. Multidisciplinary teams consisted of two or more established PIs and a young investigator with complementary expertise, but the team must be led by a woman. (There was an initial misconception that the whole team had to be women.)

The rationale was to increase the % of female leadership in the team awards. In the past, the % of individual female applicants was about 1/3rd for but for the team science awards it was only 18%.

Program elements included:

- Required each team to have a formal mentor
- Increased # of female reviewers
- All team science applications judged together, but as part of review look at track record of working in teams. (Women led teams seemed to have more history of doing this.)

Results looking at all Team Applications:

- 20% of letter of intent before from women this cycle 42% – notable increase
- No pushback from review committee or anyone, especially since it was made clear that the science was paramount. (But it was a donor-led initiative.)
- Having a greater % of women reviewers may or not be helpful.

Speaker 2: Susan L. Solomon

Chief Executive Officer | New York Stem Cell Foundation

<https://nyscf.org/research/iwise>

Genesis for creating Women in Science and Engineering (IWISE) was dissatisfaction with their own practices.

Goal of IWISE: Generate a shortlist of strategies to promote women in science, medicine, and engineering

The IWISE working group generated a list of 7 actionable strategies for advancing women in science, engineering, and medicine. The full details of these recommendations were published in Cell Stem Cell, in March 2015.

Direct financial support strategies:

1. Implement flexible family care spending
2. Provide "extra hands" awards

Psychological and cultural strategies

3. Recruit gender balanced external review and speaker selection committees
4. Incorporate implicit bias statements
5. Focus on education as tool

Major collaborative and international initiatives

6. Create an institutional report card for gender equality that applicants need to submit
(This is a very impactful intervention - after some tweaking eg, needs to be simple and standardized, something a department chair can complete, and care has to be taken so women applicants aren't penalized at institutions receiving a poor report card.)
7. Partner to expand upon existing searchable databases of women in science, medicine and engineering

POTENTIAL HRA ACTION ITEM: Convene a task force to look at all the recommendations from this session to come up with a set of recommended interventions and some ways to measure the impact of these interventions. One place to start is with the institutional report card. Do you have day care? What kind of mentorship/sponsorship program do you have? Another is to look at what is valued in applications. Women would score higher if higher value is placed on teaching, giving talks and seminars, collaborations and team science.

POTENTIAL HRA ACTION ITEM: Work together to create a database of women for review committees, meeting speakers, etc. The few women in leadership positions are asked to participate much more in conferences and committees and this comprehensive list would help extend these opportunities to other women, and not overburden those who are already being frequently asked.

POTENTIAL HRA ACTION ITEM ; Research the bias literacy workshop created by Molly Carnes. "Promoting Institutional Change Through Bias Literacy". <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3399596/> Is this worthwhile presenting to our membership?