

Gender Equity and STEM

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Town Hall on STEM Equity
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Our Lab's Mission: "To positively impact women's health through the rigorous pursuit of research with high translational value"

Outline



- **Why** is gender equity important in STEM?
- **Why** do we have a gender gap?
 - Leaking pipeline
- **How** do we strategically approach closing the gender gap in STEM?
- **Intentionality** is KEY to success and transformational change!
 - Examples of intentionality 😊

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Gender Equity and STEM: Why is it important?



- Study after study demonstrates that diversity in the workplace and STEM is critically IMPORTANT to do **BETTER SCIENCE!**
- The World Economic Forum's Global Gender Gap Report for 2020 projects that on current trends, **global gender gap** will take **99.5 years to close!**
- We can take steps to close that gap sooner!



Gender Equity and STEM: Why is it important?



Increasing the number of women in science isn't only about harnessing the **best talent** to tackle the challenges facing humanity. Science is often a foundation for **well-paid careers** that boost the **economic security of women**, and in turn give them a greater **social** and **political voice**. And as the World Economic Forum's [Global Gender Gap Report](#) makes clear, the **benefits** this can bring are **shared by society** as a whole, whatever one's gender.

Outline

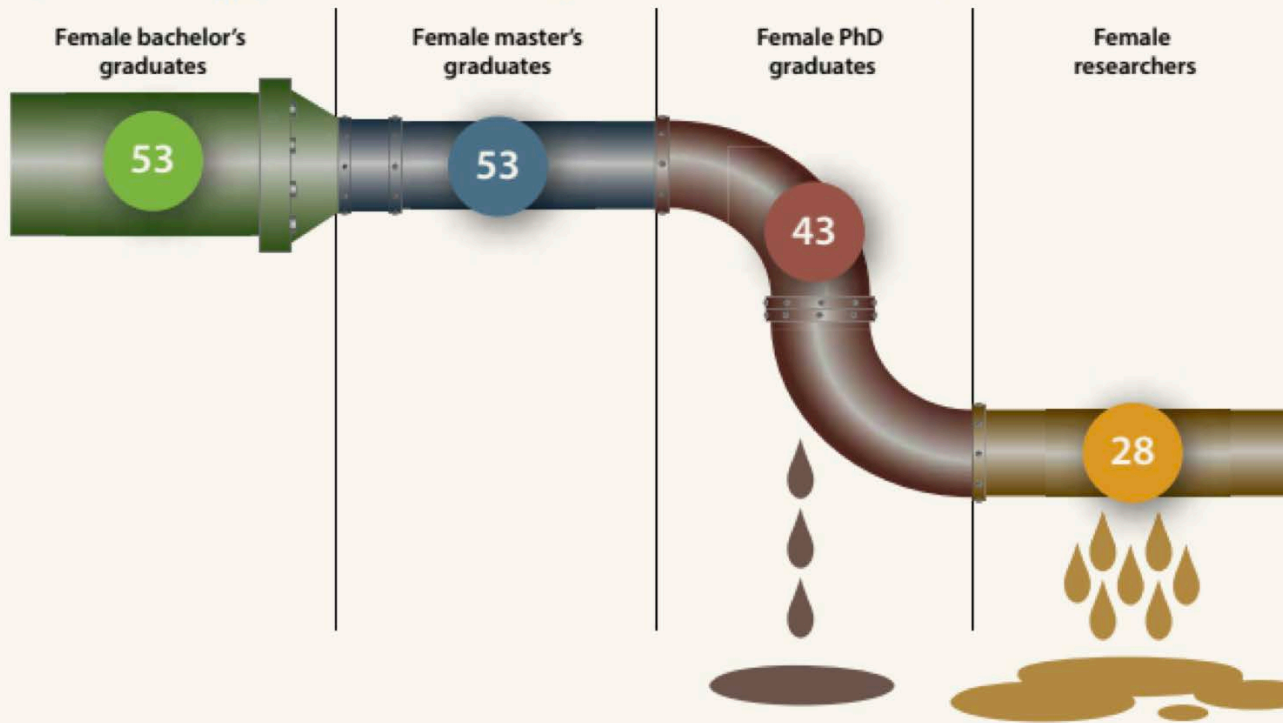


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Gender Equity and STEM: What is happening?

- The “leaky” pipeline beginning with PhD graduates...

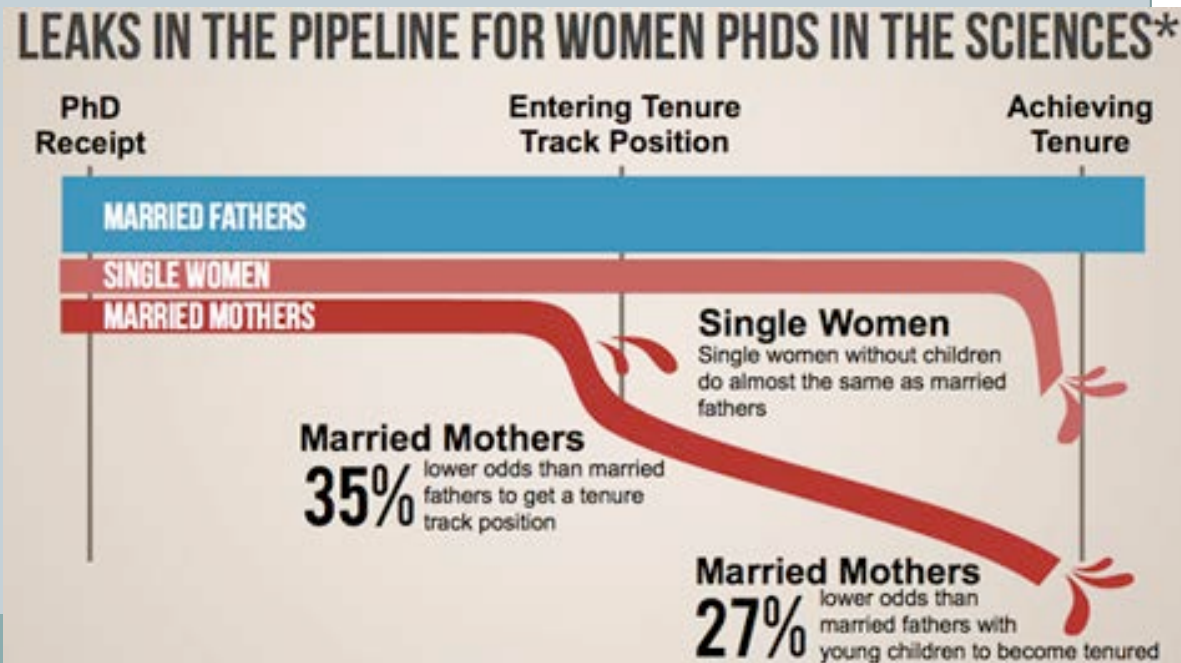
Figure 3.1: The leaky pipeline: share of women in higher education and research, 2013 (%)



Source: UNESCO Institute for Statistics estimates based on data from its database, July 2015

Gender Equity and STEM: What is happening?

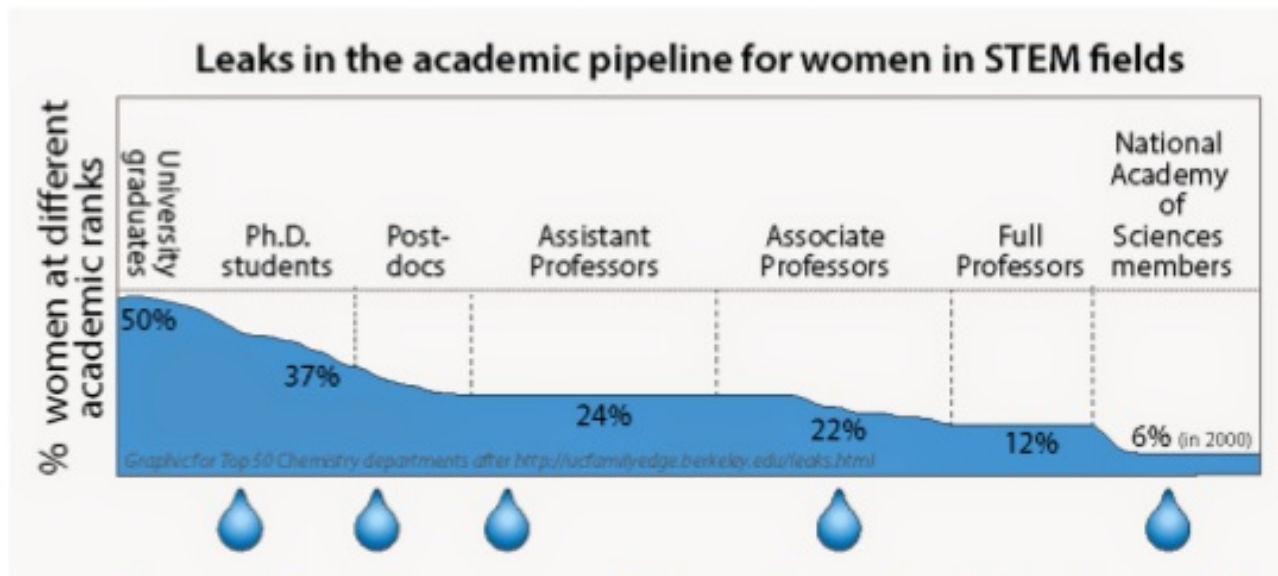
- **Early career**
 - At risk due to lack of support
- **Mid-career**
 - At risk following motherhood and/or due to lack of career growth expectations
 - Women drop out at key life phases, most notably childbearing years and then at mid-management level
- **Established career**
 - At risk due to isolation and exclusion
 - Women find themselves with few female peers in high-level leadership positions.
 - ✦ 6% of CIOs are women
 - ✦ 12% of CEOs in biotech/pharma are women
 - ✦ 4% of CEOs in healthcare are women



Source: http://www.americanprogress.org/issues/2009/11/women_and_sciences.html

Gender Equity and STEM: What is happening?

The Gender Gap within STEM



Potential Causes of the “Leaky Pipeline”?

- lack of role models in the upper divisions of academia
- low self-confidence
- poor student impressions of work-life balance in academia

Obstacles to Equity



- Organizations need to address barriers to women in STEM careers that include:
 - Lack of female role models and mentoring
 - Lack of females in leadership that can sponsor other women
 - Gender stereotyping
 - Less family-friendly flexibility in STEM
 - Male-centered culture

Obstacles to Equity



- **Need to address the challenges of retaining women in STEM**
 - Need top-down and multi-pronged approaches to creating more attractive and supportive environments for women
 - One off programs are insufficient
- **Breaking down the confidence gap**
 - Globally, women feel less confident in their roles than their male counterparts—this extends across all key STEM skill sets and career stages
 - To succeed, confidence matters as much as competence!
 - ✦ Men overestimate their abilities and performance, women underestimate both. Their performances do not differ in quality
 - ✦ Women apply for promotion when they met 100% of the qualifications, while men applied when they met 60%

Obstacles to Equity



- Combination of factors drive confidence gap, ranging from too many “lack of” situations, to bias, to isolation.
 - Lack of knowledge about hiring and advancement processes
 - Cultured mindset barriers (rule followers vs. risk takers)
 - Bias in (some) workplaces
 - ✦ Men promoted based on “potential”, women promoted based on “experience and track record”
 - Lack of peers and informal support networks/social isolation
 - ✦ Lots of support on social media, Twitter, etc.
 - Lack of formal support networks
 - ✦ At UA, Women in Medicine and Science Groups: WIMS, WAM, GWIS,
 - Making a huge impact on support, culture, empowerment, award nominations (AAMC Career Training, ELAM, amplification of ideas, faculty development sessions, etc.

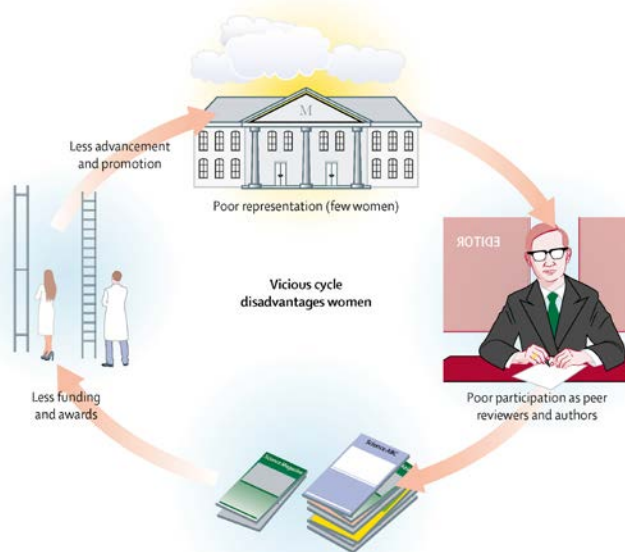
Obstacles to Equity



On the research front, a [2018 study](#) published in *JAMA Surgery* reported that across five of the most prominent surgical journals, nearly 80% of first authors were male. The four top-rated [pediatric journals](#) also underrepresented women in perspective articles and opinion pieces.

And a [research letter](#) published in *JAMA Internal Medicine* reported no female presidents among 10 separate medical societies — not because there aren't highly qualified women to take these positions, but because women are not being elected to them. A follow up [survey](#) of more than 1,200 female physicians found that half reported being interested in future elected positions and need support from supervisors and colleagues.

"I don't know a football coach in this country who is willing to leave 50% of their talent on the bench," says Travis. "But that's what we do in medicine."



- One example from *Lancet* on Vicious cycle of publishing that disadvantages women

Obstacles to Equity



- “When committees consider women for opportunities, you hear things like, ‘She just had a baby,’ or ‘We could consider her, but she has three kids.’ These are things that never come up with men who are in the same rank.”
 - Sasha Shillcutt, MD, MS
 - University of Nebraska Medical Center

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Cultivating Institutional Change



- “I’m a firm believer that ‘if you can’t see it, you can’t be it,’” says Travis, who is part of a leadership team focused on increasing the number of women in leadership positions at MD Anderson.
- The first thing she did in her role as vice president of the Office of Women Faculty Programs: restructure the **leadership search policy**.
- The office convened a diverse search committee, trained them in **unconscious bias** and **behavioral interviewing skills**, and charged them with creating a short list of three candidates for each open position, including one woman and/or one minority.
- That line of questioning, coupled with an intentional effort to recruit more female leaders, has **doubled** the percentage of **women leaders** at MD Anderson from 14% in 2008 to nearly 30% in 2018.

Cultivating Institutional Change



- **How to close the confidence gap?**
 - Share the stats and encourage open discussion
 - Encourage leadership/execs to identify and actively sponsor high-potential future women leaders
 - Ensure job descriptions focus on the need-to-haves for any role and aren't a quest for a "unicorn"
 - Make it easier/more accessible for women to be mentors and role models
 - ✦ Networking with female leaders
 - Investigate gender pay gaps and invest in closing them
 - ✦ Don't have unrealistic job descriptions or a wish list of qualifications

Cultivating Institutional Change



- **Work-life design is critical to retaining women in STEM**
 - Critical for retaining both men and women across all career stages
 - Women in STEM are clearly ambitious and place a high value on career advancement opportunities
 - At various stages in lives (including critical stages) STEM women value work-life design elements more than career advancement opportunities

Cultivating Institutional Change



- Universities across all STEM fields are under pressure to close the gender gap and increase the number of women in leadership positions
- Internal and external talent pipeline = Recruitment
 - Ability to successfully recruit and DEVELOP a sustainable group of STEM women to lead the organization
- Leadership commitment
 - Accountability metrics, % of total compensation tied to diversity metrics
 - % of President/Deans direct reports who sponsor women 😊

Cultivating Institutional Change



- **Equitable talent development**
 - Promotion into management, leadership positions
- **Talent's perception of opportunity**
 - Satisfaction with growth opportunities
 - Perception of meritocracy
 - Perception of work-life balance

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Intentionality is KEY!



- “The institutions that are performing the best in terms of **gender equity are intentional** about inviting **more women** to the **table** and shining a **light** on their successes.”
- “**Women** bring a different **voice** and a different **perspective** that can help **solve** many of the **problems** facing academic medicine today.”
 - Elizabeth Travis, PhD
 - MD Anderson Cancer Center

Intentionality is KEY!



- Holistic approaches to closing the gender gap
- Examples: Novartis = #1 ranked by DiversityInc in overall diversity
- Key elements
 - Deep, visible CEO commitment and executive diversity council focused on goals and metrics
 - Diversity and Inclusion councils—self organized groups of employees who have assumed responsibility for infusing D&I within their functional areas (UA COMP—WIMS).
 - Employee resource groups (ERG)—voluntary, employee led affinity groups with shared interests, life experiences, etc are used for recruitment/talent enhancement
 - ✦ Support recruitment, retention, career development initiatives, networking and mentoring activities, multicultural awareness, and respect

Intentionality is KEY!

- Example of leaders making a stand and setting an intention: Dr. Francis Collins at NIH “no more manels”

June 12, 2019

Time to End the Manel Tradition



The National Institutes of Health is committed to changing the culture and climate of biomedical research to create an inclusive and diverse workforce. The recent report by the National Academy of Sciences, Engineering and Medicine, “Sexual Harassment of Women: Climate, Culture, and Consequence in Academic Science, Engineering, and Medicine,” identified the critical role that scientific leaders must play to combat cultural forces that tolerate gender harassment and limit the advancement of women. These concerns also are highly relevant to other groups underrepresented in science. It is not enough to give lip service to equality; leaders must demonstrate their commitment through their actions.

Toward that end, I want to send a clear message of concern: it is time to end the tradition in science of all-male speaking panels, sometimes wryly referred to as “manels.” Too often, women and members of other groups underrepresented in science are conspicuously missing in the marquee speaking slots at scientific meetings and other high-level conferences. Starting now, when I consider speaking invitations, I will expect a level playing field, where scientists of all backgrounds are evaluated fairly for speaking opportunities. If that attention to inclusiveness is not evident in the agenda, I will decline to take part. I challenge other scientific leaders across the biomedical enterprise to do the same.

The diversity of bright and talented minds engaged in biomedical research has come a long way – and our public engagements need to catch up. Breaking up the subtle (and sometimes not so subtle) bias that is preventing women and other groups underrepresented in science from achieving their rightful place in scientific leadership must begin at the top.

Francis S. Collins, M.D., Ph.D.
Director, National Institutes of Health



Intentionality WORKS!

#HEFORSHE MEN WHO CHAMPION WOMEN

MODERATORS: KATE GERULL
SHIKHA JAIN, MD



JULIE
SILVER, MD



THOMAS
VARGHESE, MD



OMAR
LATEEF, DO



HOWARD
LIU, MD



MICHAEL
SINHA, MD



LEWIS
FLINT, MD

WHAT IS HE FOR SHE?

- STANDS UP FOR WHAT'S RIGHT
- NOT LIMITED TO GENDER EQUITY
- WHAT SHE SAID
- IT'S AN ACTIVE PROCESS
- A MOVEMENT FOR EQUITY
- THE IS ALL OF US SUCCEED & LEAD
- NEEDS TO BE A CULTURE ENGINEER
- EVERYDAY, NOT WHEN CONVENIENT

I LEARNED FROM FAILURE?

ALLIES WILL MAKE MISTAKES

WHAT IS A HE FOR SHE ALLY?

- EQUAL REWARD, EQUAL OPPORTUNITY

STOP SHAMING USEDATA

- WOULDN'T IT BE WONDERFUL IF WE DIDN'T HAVE THIS TYPE OF MEETING?

- NOT THE LEADERSHIP TITLE, LEADERSHIP OPPORTUNITY

- CULTURE MOST UNDERUSED MOST UNDERACTED

CHANGE PEOPLE EDUCATE HOLD ACCOUNTABLE

- INFLUENCE VS. AUTHORITY
- DIFFERENT TOOLS FOR DIFFERENT ROLES
- AS A LEADER, YOU ARE A STEWARD
- IF YOU DON'T KNOW YOU'RE BEING UNDERPAID, CAN'T CHANGE IT

HOW CAN MEN GET INVOLVED?

ASK
AND BE AVAILABLE

CURATE OUR CIRCLE

- I HATE BEING THE DUMBEST PERSON IN THE ROOM

AT CURRENT PACE,
IT WILL TAKE
208 YEARS

- WE HAVE A LOT TO LEARN

- MORE IN PARTNERSHIP WITH WOMEN IN MEDICINE

POINT OUT
DON'T
EXPECT LESS

- ATTITUDES REFLECT LEADERSHIP WHEN NOT FOLLOWED, FOLLOW UP ON THAT

"MANELS"

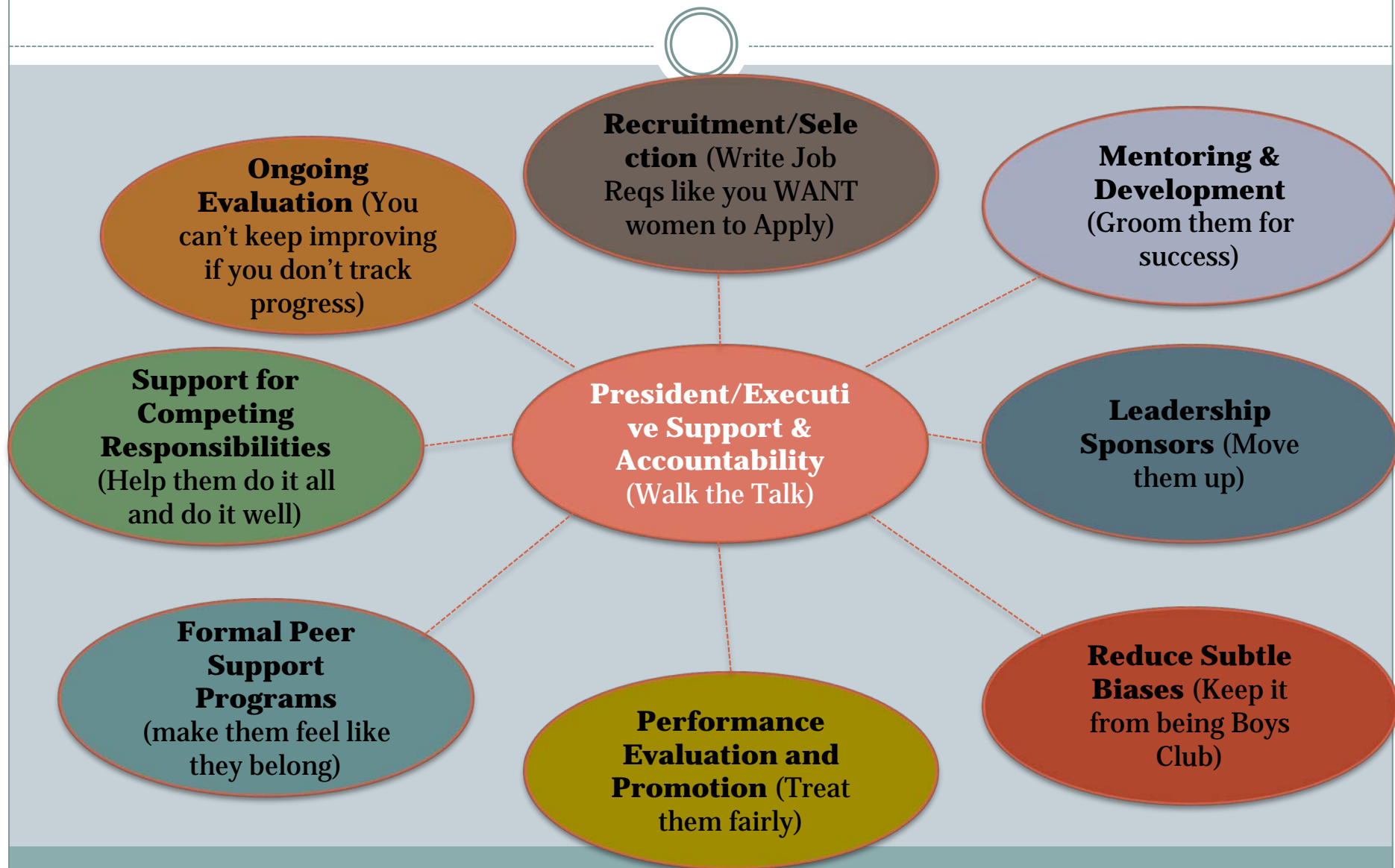


MEN CAN COMMIT IT TO MAKING DIVERSITY
CENTRAL

UPSTANDER & TAKING ACTION

lauren green
dancingwithmarkers.com

Gender Equity and STEM: Key take homes



The Kelly Global Workforce Index (KGWI) is an annual global survey that is the largest study of its kind. Global report on STEM.

Gender Equity in STEM is possible!



Achieving **gender equity in STEM is possible**. It will take strong leadership and creative follow through.

Change will require **constant, deliberate attention** on the part of **institutional leadership, governments, and stakeholders**.

When the **best minds are recruited and supported** in their scientific inquiries, more cures will be found, more discoveries made, and countless lives improved.

Questions???



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