



How to Increase Enrollment and Persistence of Women in STEM fields? Be an Accomplice, as Well as an Ally

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As I have been mulling over how to write this column during the past few weeks, I couldn't quite decide on the tone of the column I would write. In particular, I have been worried to write an article that is too negative, especially considering the immense stress we have all been under over the past two years, and particularly because I have had mostly great experiences in my field.

I generally like to hear bad news before good news, so I will write that way as well. I will start with an honest account of my negative experiences as a woman in a STEM (science, technology, engineering, math) field, followed by what I have found to be helpful to my past and current success as an Assistant Professor in the department of Chemistry and Biochemistry here at Detroit Mercy.

So, what are some of the challenges that I have faced as a woman in STEM? One of my first very negative experiences I can remember was my second year, winter quarter in college. I walked into my male professor's office hours for help on the content we were learning in class. At the end of our meeting, this professor then commented on how good my body looked, that all the faculty had been talking about this, and told me to, "keep it up".

Over winter break, I had undergone a rather serious surgery, and one result of that surgery and the recovery period was a change in my weight. In the moment, I felt frozen and shocked. I didn't tell anyone about what had happened at the time. I didn't feel I had any power in this situation, and if other faculty in the department were talking about me, that didn't feel like a safe space either. Before applying to graduate school, I asked this person for a letter of recommendation as I had been a teaching assistant for them. Only later at the start of the #MeToo movement was I able to reflect back on that experience and name it as sexual harassment.

Since college, I have had many more, but less clear experiences where I have felt "othered" in my field. Most of the time, this looks like second-guessing my own experience. Would I receive more support from former mentors if I were male? Would a student treat my male colleague the way they just treated me? How different would my teaching evaluations look?



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Why did that other faculty member that I've met before just assume I was a student? Who knows! But these are the questions I ask myself when I experience sexism in the workplace.

What have I learned from my experiences that I would suggest to everyone out there with the opportunity to influence the path of women in STEM? Don't settle for being an ally, be an accomplice.

Largely, my experiences as a female-identifying scientist have been positive. In high school, my teachers gave me books about math, and encouraged me to continue pursuing STEM. This is actually very meaningful given that I attended a professional ballet preparatory school! I am thankful that I was never (to my memory) haunted by the ghosts of stereotype threat, or told outright that I didn't belong in science. I was supported along the way. My first year in college, my female calculus professor suggested I consider a major in math. I've had the opportunity to be directly mentored in research by both female and male faculty, and told that I would fit well in an academic position. I've been blessed to have a remarkably smooth transition from my PhD to where I am now, largely because of this mentoring.

What have I learned from my experiences that I would suggest to everyone out there with the opportunity to influence the path of women in STEM? Don't settle for being an ally, be an accomplice. I learned this phrasing during the first anti-racism workshop I attended by Community Ready Corps Allies & Accomplices (CRCAA). If you want to increase recruitment, retention, and career-long persistence of women in STEM, only action is sufficient.

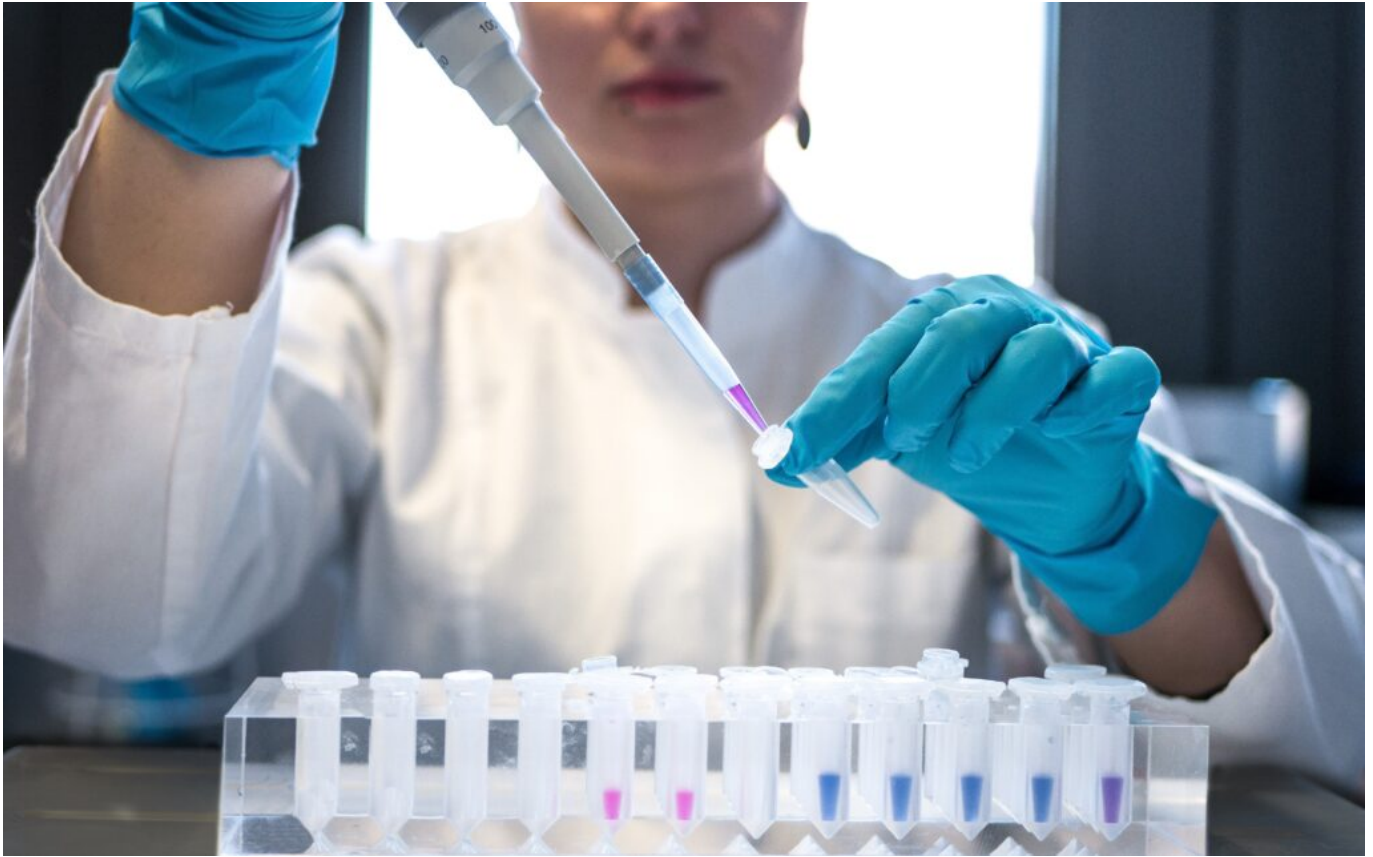


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For faculty, this can look like a number of different things. I am sure I will not name them all, especially since I am early in my career and haven't yet faced challenges that come later in a career or with family planning, but I will name a few:

- Learn about stereotype threat so you don't propagate negative harmful stereotypes of women in your classroom. Teach your students about important contributions that women have made in your field, and hang posters of them in your office or building.
- Actively recruit women into your research team and ask them what their goals are.
- Practice having conversations about sexism and harassment in science with your mentees so they know you are an advocate for women.
- Watch for sexism in the workplace and call it out when you see it.
- Don't have the expectation that women should dress a certain way in a professional environment.
- Invite women speakers to talk about their scholarship.
- Don't ask your female colleagues to do a disproportionately large portion of service. Know that all of this work needs to be done by everyone, not just women.
- And, most of all, realize that many people have more than one identity that is marginalized in science, and sometimes these identities are invisible.
- Be an ally and accomplice for all of us.