

**Understanding and dismantling structures, one bacterium at a time**

*Danielle H. Dube, Convocation, September 1, 2020*

As we start the academic year and you embark upon your college career, we're doing so in ways we could not have conceived of a year ago. We are being asked to navigate near-continuous uncertainty, in the face of imperfect information. We are being asked to take steps forward, with

Despite these amazing experiences in College, my path forward was not written in stone. I still questioned whether I belonged in science. On my first day of graduate school at Berkeley, where I set out to pursue my PhD in chemistry, I looked around the room filled with 50 other incoming students, and I felt like I didn't belong. My sense of security and value had crumbled; what was I thinking, that I might belong here, that I might be capable of pursuing this path? I sat next to a woman, another first year PhD chemistry student. Then other women sat nearby. This group of women went to dinner that night; dinner became a weekly event, and our dinners transformed into daily lunches. I found myself in an **uplifting and supportive group** of women chemistry students who faced the same fears, who all felt like imposters. We helped each other realize that we could do it, even in the face of repeated experimental setbacks and self-doubt. Even now, in moments of insecurity, we still prop one another up. Had I not met them, things could have gone differently. I might not have been able to muster the strength to repeatedly face my fears. **Though the science and the process gripped me, it was the community I formed within science that has kept me in this field, that has taught me to negotiate my self-doubt.**

Based on the data, as a woman chemistry professor, I am an anomaly. Though women earn 50% of chemistry bachelor's degrees and 41% of chemistry doctorates, only 20% of faculty in chemistry departments in the US are women. It's not all bad news: women with female PhD supervisors are much more likely to become academics than those with male PhD advisors. I count myself among the fortunate, as my research mentors in college, during my PhD, and during my Postdoc were brilliant and supportive women. Had I not worked with them, things could have gone differently. At Bowdoin, I have been part of an amazing support network of faculty friends and colleagues, both men and women. These relationships have helped to buoy me through countless challenges. My support network has continued to foster my growth and successes, even in the face of struggles. Some friends from my PhD support network were not as lucky – they found themselves in toxic environments that quenched their enthusiasm rather than bolstered it. That could have happened to me.

Although I have been successful, I still doubt myself and my capabilities. **I have been shaped by society in ways that make me constantly question my value in my chosen profession.** My imposter syndrome hasn't gone away; it crops up often, though less often than it once did. When I give a talk at a conference in a session with faculty from Harvard and MIT who I idolize, I wonder how I ended up on the invitation list. When I serve on National Institutes of Health grant review panels, as one of two women in the room of 20 and the only one from an undergraduate institution, I wonder why I'm there. Sometimes I'm still petrified. I have *over time* learned to navigate the fear, acknowledge it, face it, and use what I have learned to guide my students as they enter the field and push it forward.

Though my work began with seeking to dismantle the structures that bolster disease-causing bacteria, with **growing awareness** my focus has turned to much larger structures that need to be dismantled. I am a white woman from suburban New Jersey, from comfortable socioeconomic class, with parents with advanced degrees. I recognize that my experiences, my feelings of imposter syndrome, my need to find a community, my search for mentors who look like me, are the experiences of someone who, in many ways, is in a position of power and privilege.

**barbed. And for each success story, there are countless more failures. We have much to learn to get this right, to create an environment that fosters a sense of community and belonging,**