

By Nathan Bradshaw

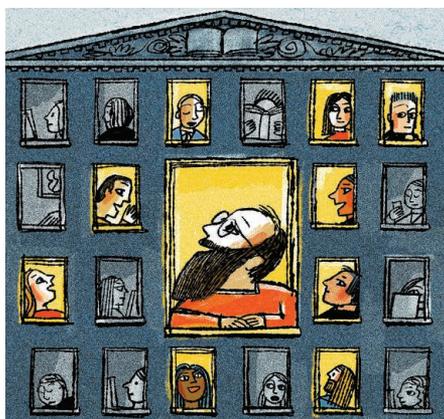
Finding a community in the lab

It is a rite of passage for every college student: English 101. The class began with introductions. At 28 years old, I knew that I would be older than the average student. After almost failing out of high school, I had enlisted in the U.S. Navy and spent the next 8 years operating the nuclear reactor on an aircraft carrier. But I was not prepared for the six precocious high school students who were in the community college class with me, getting some exposure to higher education and earning college credit. They hammered home the feeling I had been trying to keep at bay: I was too old to be starting this journey. I only returned for the next class because the Department of Veterans Affairs was paying me a living allowance while I attended college. But when my studies led me to my first research lab, I found some much needed common ground.

I had started college with plans to become a pharmacist. In my introductory chemistry and biology courses, I found other “nontraditional” students—older students, veterans, students with kids, students who were also working full-time jobs—who grew into a cohort for me. The research I conducted as part of the class was challenging, but it offered an opportunity to apply some of the skills I had learned in the Navy, reassuring me that my experience had value. I enjoyed research so much that, before I completed my first year of college, I decided that I would go on to pursue a Ph.D.

When I transferred to a 4-year university, I regularly felt like an outsider among students 10 years younger than me with limited life experience. But again, research provided a place where I felt I belonged. When I started working in a lab on a project developing artificial muscles, a graduate student demonstrated how the muscles move when connected to an instrument called a Keithley source meter. The student had focused on synthesizing the muscles and wasn't very familiar with the meter, which both generates and measures voltage and current. I, on the other hand, had spent more than 6 years using an older version of this instrument for reactor maintenance in the Navy. I immediately felt at home. I could do this.

My undergraduate research adviser gave me free rein to pursue new directions with the meter and design my own experiments. This was just one way that she encouraged me to capitalize on my experience and helped me learn to be an undergraduate in my 30s. Her support helped me



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see college as a continuation of my career instead of starting over. The years I spent in the Navy became an asset instead of a gulf between me and my peers.

I'm now pursuing my Ph.D., and I feel lucky to have found colleagues and mentors who make me feel that I belong. But I know that this is not everyone's experience, and that academia and labs can be alienating places. So, I do what I can to help foster a welcoming, supportive environment for the other researchers around me. I regularly share the difficulties I faced in school and lab with junior members of the lab to help them understand that everyone struggles. I also co-founded a speaker series where visiting professors share stories about their own roots in underrepresented

communities or their efforts to reach out to other groups. My goal is to help graduate students see the humans behind the science and connect with the speakers at a deeper level.

These are just small steps. But they are based on the lesson that I learned through my years of struggling to find my place in academia: Community doesn't depend on age or background, but on appreciating one another's perspectives and skills and acknowledging that, despite differences, we face some common struggles. Taking the time and effort to build connections with other members of your lab and research community can help students of all backgrounds find success. It certainly did for me. ■

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