My trek back to science

After I finished my Ph.D. studies at the Massachusetts Institute of Technology in 2012, my career was at a crossroads. I had gone to graduate school with the hope of pursuing a career in academia, but by the time I got my degree, that dream seemed far from reality. I was burned out, and I couldn’t even bring myself to look for postdoctoral positions, let alone consider a lifetime in the lab. I also knew I couldn’t possibly make an objective decision about what I should do for the rest of my life. I needed a break.

I am often drawn to extremes, so I thought: “What could possibly be further from a Ph.D. in chemistry than to thru-hike the Pacific Crest Trail (PCT), traversing the United States from Mexico to Canada?” It was May and the sun was blazing at the California-Mexico border when I began my 2668-mile journey. Just days before I had been working in a chemistry lab, conducting research that I could take in seemingly infinite directions, but now there was just one: north. I started walking.

Over the next several weeks, my focus narrowed until my biggest concern was the number of miles to the next water source. I simply wanted to physically survive each day, which was a welcome change from the previous 5 years. In contrast with my experience in graduate school, progress on the trail was well defined and quantifiable: Each step brought me closer to Canada. Occupied with satisfying my immediate physical needs, I didn’t spend much time consciously thinking about the future.

But after 16 weeks, 4 days, and 7 hours, I reached the Canadian border and my hiking adventure was over. Reality set in: I needed to return home and figure out what I was going to do next. I caught a bus from the trail’s northern terminus at the Canadian border to Vancouver, then another bus to Seattle, Washington, then a flight back to Boston. I returned home 45 pounds under my typical healthy weight, as it had been difficult for me to consume all the calories I needed to hike nearly a marathon a day. While I recovered, I needed to eat every few hours and walk several miles each day to prevent leg spasms. It also took time to readjust emotionally to a life where there was no obvious, well-trodden path to follow.

I felt bored and detached after my trek, but this only made me more eager to start a new journey. Initially, I wasn’t sure I was any closer to making a career decision than I had been before I started my hike, but after a few weeks of rest and recovery, it became clear that the weeks on the trail had refreshed me and renewed my love of science. I wanted to read journal articles to learn of new discoveries that had been reported while I was away. I was eager to embark on independent research. Most importantly, I missed the community of academics I had left behind. So I decided I wanted to do a postdoc after all. I set up a meeting with my graduate school adviser, who then put me in contact with the lab head who would become my postdoctoral adviser. His research team was designing new organic flow battery chemistries, and it was a perfect fit for everyone: They got the synthetic chemist they needed, and I got a chance to work in an applied field with engineers, physical chemists, and theoreticians.

After hiking, I began to think much more about big-picture ideas than I had in graduate school. Although my Ph.D. said “Inorganic Chemistry,” to the motley group of hikers I encountered on the trail I was simply a scientist. I took that identity to heart and came back to the lab with fewer inhibitions about learning new fields of research. I had also become more accepting of the messiness of cutting-edge science. Basic research can be slow and inefficient, and sometimes it’s not clear if the effort will be worth the reward of discovery. But hiking the PCT helped me learn to celebrate little accomplishments, and to take each day and each experiment one step at a time—lessons that have served me well as I pursue my academic career path.

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