

By Karen Perkins

# For the love of ferns

I attended Hampshire College to major in music. While watering plants in the greenhouse to fulfill my community service requirement, I fell in love with a fern. ¶ Intending to make thousands of them, I discovered the college laboratory, where I tweezed the furry rhizomes of *Davallia fejeensis* into agar-filled test tubes, careful to keep my sleeve out of the Bunsen burner flame used to keep things sterile. Between frat parties and piano practice, I made a discovery: Agar prepared for growing bacteria caused the rhizomes to reprogram and become reproductive-like structures. My discovery set me on a path to research. I would stay on that path for about a dozen years.

No one in my family had ever studied science. I was already midway through college, with just a high school biology class behind me. I struggled through remedial math, then chemistry and physics. One graduate school accepted me. For the next 2 years, I taught and worked in a research lab, studying membranes. I aced my graduate courses. Membranes didn't seem to play a role in reprogramming development, so I transferred to Albert Einstein College of Medicine, to a laboratory that studied enzymes involved in transcription and DNA replication.

"Be here as often as possible," my new graduate adviser said. I went to dinner at 5 p.m. and returned at 7 p.m. "Where were you?" he demanded. From then on, I humbly apprenticed myself. I brought dinner in, studied while my gels ran, and slept on the orange vinyl couch in the women's lounge.

"You've studied enough. Let's go to a movie," one boyfriend said. I shooed him away. Another offered marriage and travel if I would quit my Ph.D. program. Ha! My experiments were my life. Finally, I married a cute medical student I met at a mixer in the research center lobby. He followed me to my postdoc at the University of California, Berkeley, where I was a Damon Runyon Cancer Research Foundation Fellow. While my husband was on call, and even when he wasn't, I buried myself in transcription factors that control developmental genes.

I applied for tenure-track positions and was offered several: Duke. Johns Hopkins. Brandeis. My husband said he would go anywhere. I committed to Hopkins and wrote my first big National Institutes of Health grant. My husband served me with divorce papers. I fell into a state of shock. Twelve years had passed since I'd fallen in love with my fern.

At Hopkins, I was unable to lift a pipette, let alone con-



*"I still love ferns, but I'll let someone else figure out their genetic switches."*

centrate on building a lab. I had written for scientific journals, but now I wrote madly in my own journal, using words as therapy to figure out what had gone wrong.

An old boyfriend invited me to sunny Los Angeles. Sceptically, I boarded a plane to a world of palm trees, movies, restaurants, and—surprisingly—laughter and love. These were tastes of a life I had missed. For months, I assumed my attraction to this "real" world was a transient response to the trauma of divorce. I expected my love for the lab to return. My grant was rejected by a couple of points. I moved to LA with no job prospects. I became a live-in girlfriend.

I remarried, re-divorced, practiced piano again, and raised two children. I bought a house near mountains and hiking trails. I

read. I briefly accepted a tenure-track assistant professorship at a liberal arts college, assuming I was ready for the lab again.

I wasn't. It was as a teacher that I made sense of myself. Teaching gave me a life of work but also a life of people and play. Colleges, though, want research. I resigned.

Today I teach 11th and 12th grade physiology. I have been a school board chair and a high school principal. I often work with special education and at-risk students. Many of them have trouble focusing because of traumatic life events. I can relate. I still love ferns, but I'll let someone else figure out their genetic switches. I'm okay with watering the ferns in my backyard. ■

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