

## DAMAGE CONTROL

*How to take a successful break*

Even when you know that stepping away from your PhD studies makes sense, it can create problems, from disruptions in your research to unmerited damage to your reputation. To finish your programme and launch your career, try to take these steps.

- **Plan, plan, plan** PhD candidates who successfully take leave say that charting out their eventual return was as important as departing in the first place. Make sure that you understand how your time away will affect your funding, teaching responsibilities or other roles in your department. Plan how you'll continue your research once you return, even if you think its specific direction could change.
- **Find your champion** Make sure you have a person in your corner — ideally, your adviser — to stick up for you when you encounter resistance. “You have to have someone who would say, ‘This person is worth carrying for six months, or a year, because they bring great value to my lab and to the institution,’” says Nathan

Vanderford, who researches training issues in academia at the University of Kentucky in Lexington. “You have to have an advocate.” Others, including savvy administrative staff, can prove key in the nuts and bolts of making arrangements.

- **Open your mind** One reason that students decide not to take a leave of absence is because of fear that it will damage their chances of getting a conventional academic job. But a little experience outside the ivory tower might teach you that you would actually be happier applying your degree elsewhere — in industry, for instance. “All the things I really liked the most were the things most scientists hated,” says Heather Buschman, who earned her PhD from the University of California, San Diego. In Buschman's case, having an adviser who had worked as a clinician and encouraged her to pursue a different direction — communications — was crucial, she says. **E.B.**

mastery of important technological advances, warns Kim First, president and chief executive of the recruiting firm Agency Worldwide in Encino, California. As a headhunter who searches for PhD graduates for jobs in biotechnology and pharmaceutical companies, she says that she encounters few candidates who have interrupted their doctoral programme. “The way technology is changing, taking a break can become difficult,” she says. “How do you stay cutting edge?”

Other recruiters say that taking time away to have children or for other life events can hurt a researcher's scientific reputation, and that students should find ways to incorporate those obligations into their PhD programme without putting their research on pause.

Some think that the stigma might be worse for women. Justin Schwartz, head of the materials science and engineering department at NCSU, has helped students to organize leaves of absence. When it comes to parental leave, he says, women are more likely than men to take the time off — but those who do are often terrified (sadly, with some reason, he notes) that faculty members will think that they lack the drive to be the best and will extrapolate that women aren't suited to doing science.

But whether female or male, most students experience one clear consequence after taking the break: they lose momentum. Harding says that although there was a benefit to delaying her dissertation — a competing paper helped her to solve a problem in her data — she now has few job leads near

her husband's medical residency in the Netherlands, and attributes that to having lost potential publications and chances to attend more conferences.

“Your worth is based on quantitative measures like an impact factor,” she says. “They want people with publications. Life doesn't always cooperate.” Harding is now networking locally — getting involved, for instance, with a organization in the region that funds research into Parkinson's disease.

O'Keefe wishes that the harsh judgement weren't there, but says that it seems specific to academia. “People feel badly and a lot of scientists out there judge them harshly,” she says. “There's a lot of, ‘If you had to take time off, you're not really good enough to finish.’” She says that many early-career scientists she knows who interrupted their PhD programmes eschewed academic research in the end, and instead, accepted positions in industry or teaching. Now in her early 40s and a mother, she says that she wouldn't have done anything differently, and looks forward to expanding her research.

“I was on the fast track and I was moving too fast,” she says. “A lot of good comes from taking a break and reassessing your priorities. A year off is sometimes the best thing you can do. The big message is, it's OK and you're not alone and you can go on to be what you want to be.” ■

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## TRADE TALK

# Industrial shift



*As a staff scientist at Thermo Fisher Scientific in San Diego, California, Shikha Mishra investigates how to deliver DNA and other materials into cells and organisms. She explains how*

*and why she left academia for a job in industrial research.*

### Describe your workday yesterday.

I had run an experiment the night before and had a bunch of data. I analysed them for about an hour and talked with my manager about what I'd seen and tried. Then we formulated a plan and I went back into the lab and set up another experiment. That was pretty standard — very similar to what goes on in academia.

### How did you learn about jobs outside academia?

My father was an industrial physicist, and I knew that he was happy. But my biggest difficulty was that my friends and I didn't understand where we could fit within the biotech industry. I didn't know the different sectors: manufacturing and quality control, marketing, product management and development. The way I learned was buying many, many cups of coffee for working people who agreed to meet with me. I'd ask: “What do you do? How did you find this opportunity?”

### When did you decide on industry?

Four years into my postdoc at Harvard Medical School in Boston, Massachusetts, I was happy and my projects were going well — but the commitment time-wise was extraordinary. It was 7 days a week, and there were times when it was 14 or 16 hours of work a day. I was coming to a transition because I was about to get married. I thought: “Life has got to fit into my career plans.”

### What do you wish you had done differently in your job search?

I wasn't thinking past the grant deadline or the next publication. I should have had a LinkedIn profile before starting my job search, because I had to track down old friends — contacts whom I may not talk to every day, but who'd be happy to help me. ■

### INTERVIEW BY MONYA BAKER

This interview has been edited for length and clarity. For more, see [go.nature.com/2fwrzyg](http://go.nature.com/2fwrzyg)