beginning, he adds. "If you go into a lab and start working 16 hours a day, anything less than that will seem like slacking off," he says.

Kearns agrees that postdocs take a risk when they turn down a PI's request. "It's almost impossible for them to say no without feeling like they're going to get into trouble," he says. He encourages postdocs to harness the power of a simple phrase: "other commitments". As in, "I'd love to do that for you, but I have other commitments."

A track record of independent thinking and actions can be extremely valuable for postdocs looking to move on to the next step of their careers, but that record might become distorted through conscious and unconscious bias. Lawson says that women can find it harder to be recognized for their achievements. "You hear conversations in corridors suggesting that their success was really to do with their boss or their supervisor," she says. And they can face a double standard. "If you work very collaboratively and do well, you can be accused of not being independent enough. But if you put your head down and focus, it can be seen that vou're uncollaborative."

Lawson says she never felt her gender caused anyone to question her independence or accomplishments, largely because she had gone to such lengths to forge her own identity in the lab.

Some scientists speculate that biased views could be an important but underappreciated obstacle to the progression of women and people from under-represented groups in science. In the United Kingdom, for example, women make up about half the of PhD students in physical or biological sciences, but their representation drops at the higher levels of a career, in a phenomenon known widely as the leaky pipeline.

Many factors play a part in this muchdiscussed problem — but one could be that women have a harder time convincing granting bodies, review boards and potential employers that they deserve personal credit for their accomplishments. "Maybe it's more difficult for women, all other things being equal, to persuade appointment committees that they are independent," says Ed Bullmore, a neuroscientist at the University of Cambridge, who says that he has seen women get unequal treatment during the hiring process. "It may be one of those ways we are biasing the odds against women."

Bullmore thinks that scientists — including those on hiring committees — should accept and embrace the fact that nobody succeeds solely on their own.

"I don't feel that anything significant that I've done has been truly independent," he says. "It's essential for science for people to work freely with one another."

**Chris Woolston** *is a freelance writer in Billings, Montana.* 

## **COLUMN**The price of grief

Confronting loss can present an impossible choice, says **Summer Praetorius**.

The night before an interview for my dream job as a palaeoceanographer, I talked to my brother for the last time.

The position was one I'd sought throughout my entire career — it aligned perfectly with my research interests and was my best shot at a permanent job near my husband's work.

But the call with my brother was like a waking nightmare. I thought I was listening to him die over the phone as he gasped for breath.

This wasn't my first confrontation with major loss. When I was five, my mother narrowly survived a terminal-cancer diagnosis. When I was in high school, my brother developed schizophrenia and alcoholism. During my undergraduate programme, my father died unexpectedly. And, while I was in graduate school, my mother had a stroke — a magnetic resonance imaging scan showed an aggressive glioblastoma that claimed her life within a few months.

I managed each of these events as best I could without letting them derail my career in science, although I longed to quit so I could shrink the widening fracture between the demands of academia and my heart. But the question would always arise: what then? So, in the end, I tethered myself to the solid rock of science and clung on tightly.

The morning after the call with my brother, the job interview was like a continuation of a bad dream. So incoherent were my thoughts that it was as if I were watching my body from above. I felt like my dreams for a career in science were evaporating. I had skirted the black hole of grief my whole life, only to collapse at this important moment.

After the interview, I returned to the lab where I was a postdoc and told a supervisor what had happened. He suggested I contact them and say I hadn't been performing at my best, but he cautioned me to offer no excuses.

Practical advice, yes. But I think this is one reason junior researchers leave science — the demand to partition ourselves into separate entities can fragment our psyches.

Grief is like a hurricane sweeping through our brains; it can carve a fresh scarp through our self-confidence, leaving a fog in its wake. So many young scientists are already hanging on by a tenuous thread in an environment where there is no room for faltering.

This is especially true for those most susceptible to impostor syndrome — women, people of colour, anyone who belongs to an underrepresented group. For those who have fought



against voices telling them that they don't belong, this 'brain fog' might be perceived as proof that their dislocation in science is substantiated. Grief can be the tipping point that pushes young researchers into a false concession of their inability to hack it in science. This is echoed in a 2017 study that identifies a disproportionately high rate of mental illness among PhD students — especially those dealing with work–family conflicts (K. Levecque *et al. Res. Pol.* **46**, 868–879; 2017).

The paradox is that many scientists are driven to improve the world for humanity, but the culture of science can be dehumanizing. We need to promote a culture that recognizes our humanity, where normal, human failure and struggle are not equated with academic ineptitude.

If you are a young scientist struggling with grief, you might need time to sit with it. You might be forced to make difficult decisions. Be clear with yourself about what you are unwilling to give up, and forgive yourself the rest. You might find your goals changing on the other side of loss, but wait to make career-altering choices in the calm after the storm, not in the heat of heartache.

My brother died a week after our call. Two days after that, I was offered the job — a bitter-sweet victory. Science had ferried me to more stable ground, but demanded its fare in return. I am haunted by all that I couldn't give my family members in their final days. But this can be the bitter choice when confronting loss as an early-career scientist — escort a loved one to their death or keep your own dreams afloat. I wish it did not have to be so stark. ■

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