

grateful to have landed his job as a research associate at the New Zealand Institute for Plant & Food Research, a government institute in Nelson funded partially by industry. He earned a master's in biology in 2005 from the University of Basel, Switzerland, but despite his focus on marine science and several internships, he could not find work in ecology. He took a job in a cancer-research lab at the University of Otago in Dunedin, New Zealand, where he gained experience in molecular-biology techniques. These skills helped him to land his current position in 2015, where he genotypes fish for a breeding project. He also spends days at sea, testing net systems, which he helps to design, for their effects on fish.

Research technicians in industry often have more-varied advancement opportunities than do their counterparts in academia or government. Technicians at Roche Innovation Center in Basel, for example, can explore a new pursuit by spending half of their time in business units such as competitive intelligence, supply-chain management, or technology transfer, says Benjamin Hall, a principal scientist at the centre.

Paula Soteropoulos, chief executive of the pharmaceutical company AkCEA Therapeutics in Cambridge, Massachusetts, says biotechnology managers are on the look-out for technicians who will add long-term value to their company, for instance, advancing into jobs in regulatory affairs or other areas. Soteropoulos says she has hired clinical-trials-management specialists whose previous experience included work at the bench as technicians.

Whether a candidate wants to carry on in a tech position or pursue a PhD, it is vital that they keep on top of relevant research developments. "Nothing stays stagnant in industry or academia. You need to constantly keep yourself updated," says Anil Koul, director of the Institute of Microbial Technology in Chandigarh, India, and a former senior director at Johnson & Johnson in Beerse, Belgium. Master's degrees are also the norm in the pharmaceutical industry and salaries are generally higher than in academia, he adds. "A job in pharma is extremely competitive," he says, "even at the entry technical level."

Assessing the scientific-enterprise landscape and deciding which direction to pursue can be tough for an aspiring scientist. Soteropoulos says that "regardless of bachelor's, master's or PhD, my advice to any young person is to take risks on new opportunities", adding that it is important to have the confidence to try new things. Speaking of one's career arc, she adds: "It does not have to be on the straight ladder." ■

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## BACK STORY

# Depression tracker

*Sociologist Katia Levecque had studied mental health and social inequality in diverse populations before joining the Centre for Research & Development Monitoring (ECOOM) at Ghent University in Flanders, Belgium, in 2012. Her report on graduate-student mental-health concerns (K. Levecque et al. Res. Policy 46, 868–879; 2017) went viral, becoming the second-most-discussed article on social media for 2017, according to research-metrics tracker Altmetric.*

### What did your study find?

Our survey of 12,000 PhD students from 5 universities in Belgium found that one-third of the 3,659 students who responded had or were at risk of developing a common mental-health disorder, mainly depression or general anxiety. When we compared our data with a survey of highly educated people in Flanders, we saw that PhD students had a risk of mental-health issues that was 1.8–2.8 times higher than for comparable groups.

### What responses did you get?

The reactions fell largely into two camps: "This is nothing new, we have known it for years"; or "We are surprised — this is not what we have expected". Some professors admitted that they felt powerless and ill-equipped to do anything. Others acknowledged that they, too, experience the stigmas and taboos that make it a difficult topic to talk about.

### The report was retweeted more than 7,000 times. What was that like?

In every presentation I give, when people are 'allowed' to talk or when they feel safe enough, we get to a catharsis moment and they all start sharing their experiences. I continue to get e-mail and phone calls. PhD students send heartbreaking testimonies. Supervisors ask what they can do to spot mental-health concerns, or to better support students. Research organizations have asked for advice on high-level policy programmes to tackle these issues.

### How long was this report in the making?

When I joined ECOOM, they were finalizing a survey to be sent to all junior researchers, including PhD students. I asked why they were not covering mental health or well-being. We added those questions at the last minute. I started analysing the data in 2014, but the study wasn't published until last year.

### Why the delay?

With results like these, we realized the study could have significant impact. First, our team



checked and rechecked the data to confirm that the methodology was sound and the conclusions were robust. We then informed funders and policymakers about our findings and the possible media attention. We waited to make the results public until we were published in a reputable journal, but our study was discussed in the Flemish parliament before publication.

### Has this study affected your research plans?

We are organizing a follow-on survey in Flanders for deeper insights into well-being and social support. I'm also working with the United Kingdom, the Netherlands and other countries to do comparative analyses.

### Do you have concerns about future surveys?

Yes. Although the boost in recognition of mental-health issues is good, and a lot of departments or universities are setting up surveys, I worry some may get data that are not comparable. For example, if institutions use survey measures that are not valid and reliable, it might not be clear what is being measured. The concern is that we could have a growth of data, but those might not be the best data to base policies on.

### What do you think of the attention your study has attracted?

Having this kind of impact is something you can only dream of as a researcher. The barriers that students have encountered when they experience problems and can't talk about them are the same ones we experienced when we tried to publish our findings. But some of those barriers have been broken down by the fact that this paper has been so well received. ■

INTERVIEW BY VIRGINIA GEWIN

This interview has been edited for clarity and length.