

Q&A

Fekrije Selimi, a neurobiologist at the National Center for Scientific Research in Paris, received the Boehringer Ingelheim Federation of European Neurosciences award in July. She tells *Nature* how she embraces career challenges.

Did you pursue your PhD in a traditional academic lab setting?

No. During the first year of my PhD at the University of Paris, I had the opportunity to do research with the pharmaceutical company GlaxoSmithKline (GSK) in Geneva, Switzerland, as part of a collaboration between my mentor and the team leader there. I spent a year in Geneva learning molecular-biology techniques, such as working with transgenic mice, to understand the dynamics of neurodegeneration better.

Were you tempted by a career in industry?

It was a great experience, but I have always wanted to do academic research. My time at GSK reinforced for me that a scientist needs to be at the frontier of basic research to contribute to any significant progress in terms of applied research. This was a high-profile lab at GSK doing fundamental research on apoptosis and neurodegeneration. Seeing first-hand how basic findings drive therapeutic development pushed me even more to pursue basic science. Once mechanisms are discovered, they can help to direct therapeutic research efforts. That said, if you want to explore a subject deeply and do long-term research, the pharmaceutical sector is perhaps not the best destination because research priorities can shift quickly.

What has been your most pivotal career decision?

Studying with Nathaniel Heintz during my postdoc at Rockefeller University in New York. Once I had earned my PhD, I knew I wanted to dissect the molecular biology of brain connections to understand how the brain is built. At the time, tools



to modify specific neurons in mice were just being developed in Heintz's lab, among others. He was the type of person I wanted to learn from — an innovative researcher eager to explore the mechanisms of biology. If I hadn't done that postdoc, I don't know that I would have got this award. That is where I learned to pursue innovative science.

How long did it take to develop the synaptic-protein profiling approach for which you won the award?

It took five years, because each of the many technical steps had to be developed from beginning to end. We combined genetic modification of the mouse with biochemical approaches to dissect the signalling pathways that underlie the formation of specific brain connections. Our approach let us purify a single type of synapse from the mouse cerebellum and, subsequently, identify specific synaptic proteins at work. Using mass spectrometry analysis, we identified about 60 different candidate proteins at this particular synapse. It was important that my mentor supported me for the time it took to do all the necessary experiments.

Has your success led you outside your comfort zone?

Yes. I found that once I had experienced the adventurous feeling that comes from exploring new areas of

research, I really liked it. I learned much at Rockefeller by following the credo that if you have to do something new to do good science, just do it. For example, I did a bit of electrophysiology although I wasn't trained in it. Now I know that anything is possible if I put in the energy and time.

Why did you apply for this award?

The award offers €25,000 (US\$32,000) in funding for research projects. Because I was already writing grant applications, I thought, "Why not?" As an early-career researcher, I need as much financial help as possible. I was surprised and happy to receive the award, especially because it will help to equip my lab at my new destination, the Collège de France in Paris, from January. The award also represents important encouragement. It validates the hard work I have done, which makes me want to continue doing innovative research.

Why take the new post?

I have my own group in someone else's team at the National Center for Scientific Research, but I am not yet totally independent. When this interesting institute put out a call for applications, I was pleased to get a position because it is exactly the type of research environment I prefer. The Collège de France has labs with different teams pursuing everything from neurobiology to cardiovascular disease to the biology and genetics of development. I learned at Rockefeller that this type of environment fosters innovative research when groups from distant fields learn from one another. ■

Interview by Virginia Gewin

IN BRIEF

Canadian fellowships

The Canadian government has created a fellowship programme to attract top postdoc talent. Alain Beaudet, president of the Canadian Institutes of Health Research in Ottawa, hopes Banting Postdoctoral Fellows will achieve a status like that of Rhodes Scholars. To recruit the best candidates, the fellowship requires that applicants be endorsed by the host institution president. At Can\$70,000 (US\$66,000) a year, the two-year awards pay much more than a typical first-year postdoc in North America and are open to biomedical, social and natural scientists. Fifteen of the 70 fellowships may be taken outside Canada by Canadian citizens. The application deadline is 3 November.

Postdocs form union

University of California (UC) postdocs have voted to unionize, ratifying a five-year contract that brings their starting pay in line with US National Institutes of Health recommendations. The contract, approved on 11 August, also formalizes policies on sick days, leave, travel expenses, job protection and annual reviews. "It's a big victory," says Matthew O'Connor, a bioengineering postdoc at UC Berkeley who was on the contract bargaining team. There are some 6,500 postdocs at UC, 10% of all postdocs in the United States. Only a handful of US universities have postdoc unions, including Rutgers University in New Brunswick, New Jersey, the University of Connecticut in Storrs, and the University of Massachusetts in Amherst.

Influx of students to US

A continuing increase in Chinese graduate applicants has helped to boost the number of foreign graduate students coming to the United States, according to the Council of Graduate Schools (CGS) in Washington DC. On 19 August, the CGS reported a 3% increase in offers of admission to US graduate schools to international students (up from a 1% decline last year), including a 16% increase in offers to students from China. Last year, offers to Chinese students rose by 17%. Meanwhile, offers of admission to US citizens fell by 1%. Nathan Bell, director of research and policy analysis at the CGS, says that such growth from China isn't sustainable, largely because the country is quickly increasing its own training capacity.