

Q&A

Michael Ehlers will become the chief scientific officer for neuroscience research at drug firm Pfizer in August. He tells *Nature* why he decided to trade in his post in academia to explore a career in industry.

Did your career path aim straight at neuroscience?

No. I began my science career as a chemistry undergraduate at the California Institute of Technology in Pasadena. A close friend was a biology major and recommended a neurobiology course that she was taking, because it was so interesting. The class used electrical-engineering principles and even a theory of neural networks, and I was hooked. I went to the store and got all the books about the brain I could find, and never looked back.

Although you became a full-time basic-science researcher, are you glad you did an MD-PhD?

Yes, it has been incredibly useful. At the time, I didn't know what to do with my interest in medicine. MD-PhDs are typically good at multiple things yet undecided about where to focus their careers. But at the end of the day, it was a great decision and is one of the reasons that I am making this move now. I will get to use my background in chemistry and pharmacology, and my medical training. To pull it all together on a scale that isn't feasible in an academic lab is a great opportunity.

What does industry offer you?

There is an enormous range of unmet medical needs in neurological and psychiatric diseases. For example, there are no good therapies for schizophrenia or bipolar disorder. It will take a full suite of skills and knowledge to develop them. I am drawn to industry's approach — synthesizing different aspects of basic and translational science to develop new innovative



medicines. I think it is a significant intellectual challenge.

Is it hard to give up tenure?

If someone had told me years ago that I would be a Howard Hughes investigator and endowed professor of neurobiology at Duke University, I wouldn't have believed them. The only idea I would have found crazier is that I would willingly give that up. People have questioned why I'm making this move. I tell them that this is exactly the right time to do it. I feel as if I have reached the limit of what I can do in the medium-sized academic lab setting. I have the good fortune to have an opportunity to re-challenge myself and do something new, to help translate interesting biology into innovative new medicines.

How did you balance the potential pitfalls and perks of moving to industry?

Industry is more dynamic than academia — programmes can change and positions disappear. But when I served on Pfizer's neuroscience advisory panel, I was struck by the extremely high level of science there. The scientists have incredible dedication. They are passionate about developing medicines. I wanted to work on a larger scale, in a setting in which people are charged with collaborating in teams and there is strong

incentive for that teamwork. People in academia talk about collaborating and occasionally do, but it is not as structured.

Do you think you will have the freedom to follow basic research interests despite the applied bent of big pharma?

There is a perception that industry doesn't offer as much freedom, but the constraints or variables make drug development more intellectually challenging. I realize that I'll need an end goal in mind and business will be based on opportunity and priorities, but I've got a broad range of interests and I think the full scope of my scientific curiosity will be occupied. One of my goals is to develop a culture of innovation and exploration.

What will be your first industry project?

Within the area of neurological and psychiatric diseases there are a number of exciting drug candidates. One important development is recent research indicating that antibody technologies may deplete the brain of beta amyloid, the toxic plaques that cause Alzheimer's disease. If we can get a hook into Alzheimer's, it may open up a whole target space and disease strategy for confronting other neurodegenerative disorders.

Is a neuroscience revolution afoot?

Yes. Neuroscience is at a clear inflection point at which human and molecular genetics and systems biology are merging with an understanding of how circuits work in the brain. The next decade will bring a continued revolution — and a lot of it will happen in industry. ■

Interview by Virginia Gewin

IN BRIEF

Graduates wanted in UK

Employers in the United Kingdom's chemical and engineering sectors are seeking more graduates this year than last year, says a survey released on 30 June by High Fliers Research, a market-research firm in London. This could restore half the jobs cut in 2008 and 2009, according to the survey. Vacancies have increased by 24.1% at pharmaceutical and chemical employers, and 9.5% at engineering employers. Scientists may also want to consider applying for jobs in investment banking and accountancy, as these sectors are recruiting about 30% more graduates. Banks like to hire scientists, says High Fliers managing director Martin Birchall, "because they are good problem solvers."

Ireland cuts awards

About 600 postdoctoral and PhD awards will not be offered in Ireland this year, as fiscal belt tightening continues there. The cuts, made by Science Foundation Ireland (SFI), Ireland's main research agency, came to light on 6 July. "These losses are short-lived, inevitable consequences of budgetary restrictions, but the cuts were made across a broad spread of skills to avoid damaging any specific areas," says SFI's director general, Frank Gannon. He predicts that research positions will be among the first employment offers to emerge next year, as they are a priority for Ireland's economic recovery. In April, SFI reduced the number of grants and the amount of funding for new principal investigators (*Nature* 465, 255; 2010).

Balancing gender

Steps can be taken to address gender inequities in European science, according to a report released last month by the European Commission-supported genSET project. The report calls for gender diversity in grant-selection panels, better awareness of salary-negotiation tactics, procedures that cater to dual-career couples, and institutional public-relations activities that consistently include women (for example, in promotional campaigns for new jobs). The report also recommends reducing teaching for those with heavy administrative workloads, focusing assessments on quality of research rather than quantity, and developing better ways to encourage women to apply for scientific posts. The €1.03 million (US\$1.3 million) genSET project will be completed in 2012.