

Career strategies for young European scientists (XVI)

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For foreigners, Finland is not a bad place to do a PhD although it might take a bit more time than elsewhere. A firsthand case report by Kathleen Gransalke who went there from Germany five years ago.

After the diploma you still have dreams! My dream was to go out and see the big wide world while gaining a PhD at the same time. This sounded like a cunning plan and so I applied for a job at the University of Helsinki. This was easy enough to do – I just sent an email to ask if they could possibly need someone like me. They did and took me in. To this day I have no idea why I chose to go to Finland of all countries, but back then it seemed like a brilliant idea. Finland here I come!

Firstly, it has to be said that Finland is rather a nice country. Maybe its summers are a little too short for the Central European taste but the landscape is amazing and the people are really not that different from the rest of us. The working atmosphere is a lot more relaxed and informal than in Germany, for example. As I discovered, in many cases it's possible just to fire off an email asking for a job and they will reply. The biggest difference I found between Finland and Germany is the fact that you address your boss, and basically everyone else from professor to secretary, by their first names, which needed and still needs some getting used to. There's no need for being overly polite, as is very common in most German universities and institutes. They are all your friends!

The University of Helsinki itself is one of the oldest in Europe, founded in 1640 in Turku, a city in Western Finland, and then moved to Helsinki in 1828. Only the city centre campus, home of the Departments of Theology, Law, Arts, Education and Social Sciences still dates back to this time. There are, however, three more campuses spread throughout the city, which have a more mod-

ern face: the Kumpula campus, which houses the Departments of Physics, Chemistry, Mathematics and Statistics, Computer Science, Geology and Geography; the Meilahti campus for biomedical studies and the Bio-



Be always prepared to a lab sauna party...

sciences campus in Viikki, beautifully situated a little outside of the city, 8 km to be exact, and with a nature sanctuary nearby. Here was where I ended up some five years ago.



Lots of government money is spent on research and development over here and, thanks to the Ministry of Education, the amount of funding for universities will be increased even more throughout the coming years. This investment in research makes Finland a very attractive country for international scientists and so it comes as no surprise that many of the university buildings are recently built (in the last 10 years or so) and that more and more new facilities are springing up like mushrooms everywhere. Apart from that, most of the labs, in Viikki as well as Meilahti and Kumpula, are very well equipped, boasting every machine you can imagine. Nuclear magnetic resonance spectrometers, mass spectrometers, MEG magnetoencephalography devices are available for everybody's use, as a service or in collaboration. Throughout, the campus's core facilities have been designed to offer every service that you might need for your research, including in-situ hybridisation, flow cytometry, neuronal cell culture and mouse behavioural units. You sometimes feel a little bit like a child in a toy shop.

If you want to do your dissertation in Finland you have to follow some different rules. At the University of Helsinki there are several faculties, each with their own PhD requirements. I joined the Faculty of Biosciences and, compared to Germany, the regulations are a bit more challenging. You not only work on your very own project but at the same time you also have to obtain a certain number of credit points. This can be achieved by attending lectures, seminars, practical courses and exams. It's no big deal because what's

Finland Facts 1

Government Support for Research and Development

- ▶ Finnish research and development (R&D) expenditure was estimated at €6.4 billion in the private, public and higher education sector in 2008. This was an increase of about €200 million from the previous year.
- ▶ Central government R&D expenditure amounted to 1.8 billion euros in 2008. This was an increase of 68 million euros from the previous year.
- ▶ The Academy of Finland awarded 287 million euros for the funding of high quality research in 2008. This was an increase of about 25 million euros from the previous year. 81% went to universities.
- ▶ 28% of general research grant applications were approved in 2008.

(Source: Academy of Finland, Annual Report 2008)

on offer is very diverse, ranging from electronic publishing and graphics courses to more scientifically relevant lecture series and, most importantly, the language used is usually English. Teaching and course assistance is not an integral part of a typical PhD student's life over here but sometimes it can't be avoided. The hardest part, however, is to get all the publications you need for graduating. Depending on the faculty this can be up to three first-author papers as, for example, in the Faculty of Behavioural Science and this makes it a very hard task to finish your dissertation within three or four years. Last year, the Faculty of Biosciences scaled down their PhD requirements a bit and this means that nowadays it's enough if only one article you want to use in your thesis is accepted in a peer-reviewed scientific journal. So apart from lots of dedication to your project you will need a lot of patience and beyond that, a lot of luck. Most people I've met needed five or more years to finish their thesis, even if the project went as smoothly as a hot knife through butter. This, of course, is strongly influenced by the nature of the project and the work surroundings.

As in other countries, Finnish graduate schools were established as a more efficient and faster way for PhD students to finish their thesis. It's a four-year programme which is financed by the Ministry of Education but places are very limited. At the University of Helsinki there are four major graduate schools in the bioscience field: the Helsinki Biomedical Graduate School, HBGS; the Helsinki Graduate School in Biotechnology and Molecular Biology, GSBM; the Finnish Graduate School of Neuroscience, FGSN; and the Viikki Graduate School in Biosciences, VGSB. The graduate schools organise courses and social gatherings with fellow PhD students, furthermore, every student has to give an annual report to a thesis committee.

The most important aspect of a researcher's life is, of course, the funding. As a foreigner, it's more or less the custom that you will receive a stipend of 'only' about €1,300 per month, which is just about enough to cover your living expenses, especially if you want

Finland Facts 2

PhD in the Faculty of Science at the University of Helsinki

- ▶ minimum four years to graduate
- ▶ 2-4 publications in a peer-reviewed scientific journal
- ▶ thesis work is complemented by up to 60 ECTS-compatible credits
- ▶ doctoral thesis is commonly written in the form of an article-based dissertation.
- ▶ doctoral candidate takes a final book exam before the defence
- ▶ doctoral thesis is defended at a public examination

(Source: University of Helsinki)

to allow yourself the luxury of having your own apartment. Not earning a real salary means on the one hand that you don't have to worry about tax declarations and such but on the other hand you miss out on some bonuses, social benefits like a pension, unemployment insurance and so on. However, from this year grant recipients are obliged to insure themselves at their own expense. For me it was also a struggle to get accepted into the social security system without a real employment contract but it worked out in the end.

Where does the funding come from? There are three main sources:

- ▶ grants provided by the university, including international student grants, travel grants, dissertation completion grants, publication grants and grants for young researchers;

- ▶ government grants provided by the Academy of Finland (Suomen Akateemia), which operates within the administrative sector of the Ministry of Education;

- ▶ many private organisations that support research in different fields.

The biggest private organisations are:

- ▶ the Finnish Cultural Foundation (Kulttuurirahasto), which awards grants to individuals and groups working in the arts, science and various fields of cultural life;

- ▶ the Cancer Foundation (Syöpäsäätiö) supporting research work on cancer preven-

tion, diagnosis, treatment and patient support;

- ▶ the Sigrid Jusélius Foundation, which awards grants for domestic medical research.

There are, however, also smaller private memorial trusts where you can apply for a personal grant. Among those are, for example, the Magnus Ehrnrooth, the Maude Kuistila and the Aarne & Aili Turunen foundations. Most of these foundations, but not all, will accept

an application written in English as well and, like everywhere else, not every application will be successful. But at least there are many options which you can take into consideration when applying for financial support.

Alongside the somewhat crazy lab life of a researcher, there are two more things that you may find challenging in Finland: the rent for apartments and the Finnish language. You will never understand either of them without superhuman effort. There's no need to waste time on language courses, which are organised by the university and free of charge for university personnel, because almost everyone, including the technicians, speaks English anyway. You just have to encourage them occasionally. However, in the "outside world" some Finnish wouldn't hurt. In fact, it makes your life a lot easier.

Overall, the rather international climate at the University of Helsinki, with about 36,400 degree students, of which 1,500 are foreign (mainly from Finland's neighbours Russia and Estonia, as well as from China) adds a little flavour to the everyday life and work in the lab and there are many possibilities to meet and get to know other students. If you look closely, you will also find some fellow countrymen (Germans in my case) here and there, working in the labs as exchange students, PhDs or post-docs.

The bottom line is that Finland definitely is a great place to visit and with its rich scientific resources probably also attractive for post-doc researchers. However, if you plan to do your dissertation quickly and painlessly, then it is probably not the ideal country. If, on the other hand, you focus on quality instead of time and, moreover, like a challenge then *Tervetuloa Suomeen!* Welcome to Finland!

Finland Facts 3

Foreign students and researchers the University of Helsinki in 2008

- ▶ Whole university: 2% of all students at basic study level, 6% of all students at major study level, 12% of all PhDs
- ▶ Top three countries: Russia (202 people), China (139), Estonia (124)
- ▶ Faculty of Biosciences: 2% of all students at basic study level, 12% of all students at major study level, 17% of all PhDs
- ▶ Top 3 countries: Russia (15 people), China (21), Germany (11)

(Source: University of Helsinki, Statistics 2008)