Intensity and Excellence at Göttingen

What do a Linestra light bulb, a city sightseeing tour, and cell culture have in common? If your first thought is "not much," you have not been to the University of Göttingen, where these seemingly unrelated things are brought together in the lives of the students of two new M.Sc./Ph.D. programs in molecular biology and neurosciences. Both programs started only 1 year ago but have already attracted a lot of attention, both nationally and internationally.

So what makes these programs so interesting, especially for an international audience, and what distinguishes them from typical German university programs?

First of all, the university does not charge any tuition fees for the program—a big plus in the competition for international students, if not so important for German students. (Because the academic sector is heavily financed by taxes, Germany's universities are generally free of tuition.)

But even more significantly, all students admitted to the program receive scholarships provided by several institutions and industry partners. Dr. Steffen Burkhardt, the program coordinator, explains: "The students have to study hard and don't have time to work in the evening hours, so we want to make sure they don't have to worry about their finances."

As a prerequisite for enrollment, potential students need to have a first degree (B.S. or equivalent) in a related subject. But beyond that, "we spend a lot of time selecting our students," says Burkhardt. After an initial application, the candidates have to pass a written test and are interviewed personally at a later stage. Although this procedure is quite unusual by German standards, Burkhardt highly recommends it: "After the first year's final exams, we had proof that those students selected met our high expectations."

Basically, both programs are the complete opposite of what is generally perceived as typical for Germany's degree programs. This also has some serious consequences for a student's life: Instead of the traditional semester structure with two long breaks, students have to fit 35 to 37 weeks of study into the period from mid-October to August, with exams and a short break to follow. "The intense program has very many advantages, but sometimes, days just fly by when you spend a whole day from 8 a.m. until 10 p.m. in the lab," says Laura Swan, a student from Australia who has just completed her first year in the neurosciences program.

As a reward for the hard work, students complete the program much faster than usual. The M.Sc. program comprises a 1-year program of classes, followed by a 6-month thesis project or direct transfer into the Ph.D. program, which can be completed in an additional 3 years.
In order to guarantee high-profile training for students, the University of Göttingen has established collaborations with renowned research institutions nearby. Both programs represent International Max Planck Research Schools; they are partners with the Max Planck Institutes for Biophysical Chemistry and for Experimental Medicine in Göttingen. The new Göttingen Centre for Molecular Biology hosts the molecular biology program. The European Neuroscience Institute and the German Primate Centre provide additional resources for the neurosciences program. These partnerships certainly benefit the program and contribute scientific excellence: "The Max Planck Institutes have a very good reputation worldwide," says Pan Fong Chen, explaining the reasons for leaving her native Malaysia and coming to Göttingen this year. With only 40 students admitted to both programs each year, classes are very small and provide an excellent teacher-to-student ratio.

And those students are a truly international bunch. Of the 40 students admitted for both programs this year, only 10 are from Germany. The rest come from pretty much all over the world: from Armenia and Taiwan to Mexico and the United States. It requires considerable work by Burkhardt, in his role as program coordinator, to achieve this level of foreign participation and ensure that the new students settle quickly into German life. He organizes a unique "intensive care" induction for incoming students.

Each student is personally met at the Göttingen railway station upon arrival and is given courses in essentials such as how to set up a personal bank account, complete health insurance contracts, sign rental agreements, and fill out university forms. The students sometimes laugh during these courses, because Burkhardt has to translate terms such as "Linestra Leuchtröhre" (Linestra [a particular brand] lightbulb) or "Bettkasten" (bed frame) from the German inventory list for the dormitories. And fun is not forgotten. There is also a social program, with events such as a sightseeing tour and a welcome party, so students have a chance to get to know each other.

Regular degree programs in Germany generally come with a slight problem for international students built in—the language barrier. But the University of Göttingen provides double support. All courses, seminars, and exams are held in English, and, additionally, when newcomers start their programs, they have to go through an intensive German course in their first 4 weeks. Later on, German classes still take up 2 hours per week.

All this effort, a reflection of the wider national bid to attract more international students to Germany, is much appreciated by the students in Göttingen: "The prep courses are a big help when you come to Germany for the very first time," says Yaisa Andrews, who has a bachelor's degree from the University of the West Indies in Trinidad and went through this process last year. She is now pursuing her Ph.D. in the neurosciences program. "There is also a strong camaraderie within the program. Everybody helps each other, and we get along really well," Andrews says. And Swan, the student from Australia, agrees.

But what about the Germans in the program? Application figures from German students could be higher, Burkhardt admits. But there are two sides to the story: On the one hand, the program has only recently been established, which means that there may be an information deficit in Germany. And English being the program's primary language may deter many Germans, as could scepticism about the new M.Sc. and Ph.D. degrees. But on the other hand, the proportion of Germans being admitted to the programs is much greater than the proportion applying, according to Burkhardt. "Those applications we get from German candidates are usually highly sophisticated."
Steffen Lemke is one of the few Germans who started in the initial program last year. He has no regrets: "It is really great to be at the forefront of innovative programs, and I see this as an opportunity for myself." Burkhardt hopes to increase the number of German applications in the next year with intensified outreach, which will help students recognize the value of programs such as these, which prepare them well for research careers.