

A German pharmacy student

Tim, why did you want to study pharmacy?

Tim When I first left school, I didn't want to study pharmacy at all. I thought being a pharmacist was very boring because I thought that all pharmacists did was to give a box of tablets to the patient in exchange for some money. It was only later on that I came to see that pharmacists can do so much more than that by providing care to patients around medicines.

My initial intention was to study molecular biology, but my grades from school weren't quite good enough. What I really wanted to do was a PhD in genetic research and getting a first degree in pharmacy is one way you can do this in Germany. Not that getting a place in a school of pharmacy is easy because there are relatively few places to study pharmacy. Germany has 21 schools of pharmacy. (Putting this in some sort of context there is one pharmacy school for every 4.5 million inhabitants in Germany compared with one for every 3.5 million inhabitants in the UK).

Which school of pharmacy did you go to?

Tim I went to the Phillips University of Marburg. It is one of the biggest pharmacy departments in Germany. I think it's one of the best, but all students think this about the university where they studied!

Can you tell me something about the pharmacy degree?

Tim The course is four years long. There is a lot of laboratory work and a strong emphasis on chemistry. Pharmacy students in Germany have the greatest number of hours of chemistry teaching of any country in the European Union.

During the first year, we study inorganic chemistry, biology, histology and pharmaceutical technology. This is followed in the second year by courses in organic chemistry, analytical chemistry, physics, botany and physiology. At the end of the second year we have a multiple-choice exam in chemistry, biology, physics and analytical chemistry. It's pretty tough and every pharmacy student in Germany takes exactly the same exam at exactly the same time.

In the third year we move on from the basics to study pharmaceutical chemistry, biochemistry and phytochemistry (the chemistry of plants). Herbal medicines have always been important in Germany and the pharmacy degree reflects this. In the final year we continue with analytical chemistry, pharmaceutical technology and pharmacology and at the end there is an oral exam in chemistry, biology, pharmacology and pharmaceutical technology.

What I really remember is the exams. There are a huge number of them — both written and oral — and you have to pass

Pamela Mason interviews
Tim Steimle, a recent
pharmacy graduate from
Marburg University in
Germany

each one before going on to the next year. I think I took between 30 and 40 exams.

Now you have left university and had time to reflect, what do you think of the pharmacy degree you did?

Tim The degree gave me a good solid basis in science, which I value. At the time I particularly enjoyed pharmacology, pharmaceutical technology and biopharmacy. However, the degree does not prepare you effectively for working in a pharmacy. Once I started to work in a pharmacy I began to see what the opportunities were to help patients, but the degree provides little training in pharmaceutical care, clinical pharmacy, communication and information management — all of which you need to help patients with their medicines.

Money is an issue for students everywhere. How do you cope in Germany? Do you get any grants?

Tim Fees are minimal. All we have to pay is a small registration fee. As for expenses while studying, some of us get help from the state, but mostly it's our parents who pay. Some of us work in the holidays, but there isn't really any time to work during term time.

What happens after the pharmacy degree?

Tim To qualify as a pharmacist, you do one year's practical training at the end of which you have to pass exams in pharmacy law and practice. Six months of this training must be in a community pharmacy, but the rest can be in a hospital pharmacy, industry or a university. Spending six months in a university enables you to do some research and it's an opportunity to complete a thesis and get a postgraduate diploma. But it's not very popular and I think only about 5 per cent of German pharmacy students do this.

Where did you do your preregistration training?

Tim I worked for six months in a community pharmacy in Hamburg, which is where I live now. It was during this time that I became very interested in pharmaceutical care. After that I went on to the Swiss Federal Institute for Technology in Zurich for two months to get some training in e-learning for pharmacists before going on to work for GlaxoSmithKline where I was involved in planning a virtual university for pharmacists. This included developing a web-based disease management programme for pharmacists to help patients with asthma. Students on the programme also had to attend seminars to get practical "hands-on" experience of asthma inhalers. Then they are asked to provide pharmaceutical care for patients with asthma and discuss their experiences via a web-based chat and bulletin board.

I also spent six months in a hospital where I participated in a project with physicians, nurses, a pharmacist and also ABDA — the Federal Association of German Pharmacists — whose idea the project was. We created a system to reduce medication errors in a stroke unit.

How have you developed your interest in pharmaceutical care?

Tim I have worked on a pharmaceutical care project. Supervised by Professor Marion Schaefer at the Humboldt University in Berlin, this was the first such care project in Germany. We recruited 25 final year pharmacy students together with the community pharmacists who would be supervising them during their preregistration year. The idea was to get both the students and their pharmacists motivated to provide pharmaceutical care.

The students were trained in delivery of pharmaceutical care, communication with patients and physicians and information management. During their preregistration year, the students were expected to provide pharmaceutical care for one to two patients. To support them I organised a web-based chat room where they could

discuss cases and share any difficulties they were having.

The project is now finished and we are evaluating the results. We are quite pleased with the outcome, but the project has demonstrated how difficult it is to motivate pharmacists to provide pharmaceutical care. Half the students achieved the aim of providing care for one to two patients, a quarter achieved the aim in part but a quarter did not achieve it at all.

What are your plans for the future? Do you still want to do a PhD in genetics?

Tim No, I don't. I still want to do a PhD, but not in genetics. Pharmaceutical care is my interest now. I'm thinking about creating and evaluating a system that reduces medication errors in clinical and long-term care settings.

What about hobbies and interests?

Tim Partying with friends is my favourite pastime. Hamburg is a great place to do this. But I've recently started sailing too. The North Sea isn't that far away and we also have the river Alster, so there's plenty of opportunity for sailing.

What do you think are the main challenges for German pharmacists in the future?

Tim This is a very difficult question. I think that all pharmacists should provide pharmaceutical care. In fact it's the only thing pharmacists should do. Medication errors cost an enormous amount of money, not to mention adverse effects for patients, and pharmacists can help to make the medication process safer for patients. But not many pharmacists are providing pharmaceutical care in Germany. There are many ongoing projects, but pharmaceutical care in Germany is still in its infancy.

A friend of mine describes the situation like this. "We started in the stone-age and we are now in the bronze-age." In short we still have a long way to go. ☹️