

Name:

Barbara Schaffran

Job title:

PhD student in the field of neuroscience at the DZNE (German Centre for Neurodegenerative Diseases)

Career:

Barbara's interest in neurobiology was suscitated at school when the action potential was discussed in class. Although Barbara already knew that she would like to work in a scientific profession, she could not decide on a degree after graduation. So she went to England to work as an au pair. This also helped her to improve her English a bit, the language of science. After that, she started studying Molecular and Technical Medicine at a University of Applied Sciences in the Black Forest and was able to gain a lot of practical experience there. Barbara then came to Bonn for her bachelor thesis. She wrote this at the DZNE and discovered her keen interest in neuroscience. Barbara therefore decided to complete her master's degree in neuroscience in Frankfurt. Barbara then went on to write her master thesis in England. She liked it because she was not so tied to one place for her studies and was able discover something new too. After that, Barbara applied for a doctoral degree at the DZNE in Bonn. Since 2016, she is writing her doctoral thesis here and is researching how our nerve cells can regenerate.



Responsibilities:

Barbara's daily work is particularly characterized by the independent carrying out of experiments in the DZNE's laboratories. Here she examines how nerve cells can grow and regenerate. Understanding these mechanisms is important for treating neurodegenerative disorders such as Alzheimer's disease. Additionally, cooperation with colleagues also plays an important role. Writing and answering emails to and from colleagues from all over the world is just as important as having a coffee together in the cafeteria on site. Even reading scientific texts about the latest research results is part of her everyday work. In addition, Barbara also attends conferences around the world. Scientists from a wide range of countries exchange views on new challenges, studies and research results in the field of neuroscience and medicine. Further, Barbara participates in the planning and hosting of meetings and the networking of young scientists.



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Skills I need in my job:

- Teamwork
- Keen interest in scientific work
- Independence
- Curiosity
- Good time management

What I need to know in my job:

- Good English skills
- Knowledge about the function and structure of the nervous system
- Safety instructions regarding work in the laboratory
- Clean and correct implementation and evaluation of experiments
- Handling of technical instruments such as microscope

German Centre for Neurodegenerative Diseases

At DZNE, scientists are researching the similarities and differences between different brain diseases with the aim of developing new preventive and therapeutic approaches. Basic research is closely linked to clinical research, population studies and health services research.



<https://www.dzne.de>



Barbara Schaffran, PhD student in the field of neuroscience at the DZNE Bonn

“My name is Barbara Schaffran, and I work as a scientist at the German Centre for Neurodegenerative Diseases (DZNE) in Bonn. Here I am writing my doctoral thesis in the field of basic research. Basic research means that my research is about finding out more about the structure and functioning of our nervous system and not how to use it directly in the field, for example in the treatment of patients. That would then be the aim of so-called applied research.

My interest in neurobiology was awakened in biology class when the action potential was discussed. Although I already knew that I wanted to work in a scientific profession, I could not decide on a course after finishing school. So I decided to go to England as an au pair for a year. It also helped me to improve my English a bit, the language of science.

After that I started my **studies** of Molecular and Technical Medicine at a University of Applied Sciences in the Black Forest and could already gain a lot of practical experience there. For my bachelor thesis I came to Bonn. I wrote it at DZNE and discovered my keen interest in neuroscience. I therefore decide to continue onto my master studies in neuroscience in Frankfurt. I wrote my master thesis in England. I especially liked that I was not so tied to one place and could discover something new again. Then I applied for a doctoral degree at the DZNE in Bonn. Since 2016 I am writing and researching my doctoral thesis.

My **typical day at work** could look like I'm reading and answering the emails I get from colleagues around the world at my office desk. After that, I usually carry out various experiments and examinations in the laboratory, which I have to plan, implement and evaluate independently. In my work, I examine how nerve cells can grow in a healthy and unhealthy condition. My aim is to promote the ability of nerve cells to regenerate. In order to find out, I microscope various neurons labeled with fluorescent dyes under different conditions. Otherwise my work also involves the constant exchange with colleagues. It is very important to discuss and review your work with others. This actually happens every day with coffee in the office or at conferences where I regularly travel abroad or to other cities in Germany. It is therefore very important to speak good English in order to be able to communicate well about one's own work and the research of others. So that I am always up to date and know all about the research of others, I also almost daily read scientific texts. I further participate in the planning and hosting of meetings and the networking of young scientists like me.

It is very important in my job to be able to work good as a team, to be able to work independently and to be able to manage my time well. But it is very important that you are inherently a curious person and keen interest in research as well as taking pleasure in carrying it out. In addition to having good command of English, for my job I also need the **knowledge** of how the nervous system works and how it is structured, what safety instructions should are to be observed in a laboratory and how experiments should be carried out precisely and correctly. I also need to know how to properly use the technical tools, such as the microscopes, in our lab, which are quite complicatedly built and expensive.“