

A day in the life of a biopharmaceutical senior scientist



Dr Jana Broecker is a senior scientist in the Biochemistry Department at Sosei Heptares in the UK, where she is part of a team that develops small-molecule therapeutics using protein structural information. Jana graduated as a Diploma Engineer from the Technical University Berlin (Germany) and did her PhD with the University of Kaiserslautern on the biophysical quantification of membrane-protein stability. She also completed post-doctoral research at the University of Toronto (Canada), where she spearheaded the optimization of membrane-protein crystallization using polymer-bound lipid nanodiscs and where she also developed a method that avoids crystal harvesting.

How did you get into science?

As a person, I am naturally very curious and interested in why and how things work, and therefore, I have been interested in science from childhood. I still remember when I got my first microscope as a child and how excited I was to be able to see things that are not visible to the human eye.

What's the most interesting project you've worked on?

At Sosei Heptares, we are working with G protein-coupled receptors (GPCRs), which are important key players in the human body. Their malfunctioning can lead to various human diseases, ranging from metabolic, immunological and neurodegenerative disorders to cancer and infectious diseases. GPCRs are notoriously difficult to study, which makes working with them extremely exciting and gratifying. As such, studying GPCRs is the most interesting project I have worked on.

What has been the greatest challenge in your career so far?

I am originally from Germany and moved to Canada for my post-doctoral research, while having a very young child. It was a challenge to adjust to a different language and culture, but this experience eventually helped me to add exciting scientific research to my CV and to also grow on a personal level. In fact, we even added a second child to our family during that time and later moved overseas again, this time to the UK. Adjusting to a new environment was luckily much easier the second time around.

What inspires you about your job?

Like most scientists, I am inspired by gaining knowledge and by the prospect of using that acquired knowledge to improve humanity. Now that I am working for a biopharmaceutical company, it truly motivates me to know that my work contributes to the development of drugs, which will eventually improve the lives of patients.

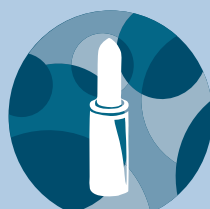
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What is your advice for someone who would like to move from academia to industry?

Working in industry is very different from working in academia, and therefore, you first need to understand which sector suits you better. For instance, life in industry is much more structured than academic research and requires not only high-end scientific skills, but also a multitude of

transferable skills. As such, you need to be able to work closely with others in accordance to strict timelines while being flexible in your thinking and actions and excelling as a communicator. If you are convinced that you would like to move into industry, I would advise you to do this early on in your career, as it can get difficult to adjust the longer you have been in academia. ■

Job profile

A senior scientist works in a laboratory on a specific project or a set of projects. The job can be based in a university, hospital, research institute or in industry. Senior scientists plan and conduct experiments, and analyse results, either with a specific end use, such as developing a new product or a commercial application, or to broaden scientific understanding.

Qualifications and key skills

A PhD in a related discipline plus extensive post-doctoral research experience and advanced technical skills in the relevant field are usually required for the role. Project management and/or leadership skills are necessary, as well. General key skills include an ability to work independently, a self-driven approach to working, a flexible and adaptable attitude and good problem-solving skills. Excellent oral and written scientific communication skills are required for writing scientific documents and for presenting at conferences.

Responsibilities

Senior scientists will often manage a project: they will plan experiments, conduct the experiments, analyse results and write reports. They may also supervise junior members of the team and ensure smooth running of the lab. The role requires the individual to keep abreast of the current research in their field and to present their work at relevant conferences or meetings, as well as write journal articles.

Salary and career development

Salaries for senior scientists can depend heavily on their qualifications, experience and location. Career progression can be towards the managerial side or a Principal Scientist role.



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