

Virologist

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What does a Virologist do?

Virologists study viruses that affect humans, animals, bacterial cells and plants. Virologists typically work in research or teaching, and many split their time between these two activities. The job may be in the medical environment of a hospital or clinic or in a diagnostic, industrial or research laboratory. Virologists may also work as science writers or pursue additional training to work in pharmaceutical business or law.

What do you work in and what is your specialty?

I work as research scientist at the Institute for Glycomics on the Gold Coast Campus of Griffith University. This is a research-based role, where I spent a lot of time with experimental design, lab work, analysis and writing. I also supervise a student, which I do really enjoy. My research is based on the human parainfluenza virus, a significant childhood pathogen that causes croup, bronchiolitis and pneumonia. In particular, I am working in a drug discovery project to design and evaluate new anti-parainfluenza inhibitors.

How did you become interested in this area and when did you first start?

Since I studied Pharmacy I have been always interested in drug discovery and design. In my Masters degree I have worked with marine bacteria, which produce natural products that are used as drugs. In my PhD I started to work with viruses that infect humans. It is a highly interesting research area, especially the field of glycovirology as several viruses attach to our human cells via carbohydrates that are expressed on the cell surface.

What study path have you taken to get here?

I am from Germany, where I studied Pharmacy as undergraduate and graduate degree. For my graduate degree I spend several months in San Diego, where I accomplished my lab work abroad. I have learnt a lot in this very exciting time, especially I learnt to conduct a research project, perform experiments and analyse results. At the end of my lab work I had to write a Master's thesis. In my Master's degree I realised how much I enjoy science and that I wanted to pursue a career in it and therefore I started my PhD at the Institute for Glycomics with Prof. Mark von Itzstein. I just recently finished my PhD in virology and glycobiology.

What do you like most about your job?

I love that every day is different and has new challenges. It is very exciting that I can discover things that no one has ever seen before. I also enjoy working in a team, which is a very important factor to achieve goals in science. It is highly important to me that I can help to understand diseases and make a contribution to drug discovery and development, which hopefully will cure people one day.

Do you have any particular career highlights?

So far my PhD thesis is my career highlight. Within my thesis I was part of a research group that discovered the most potent anti-parainfluenza virus inhibitor in vitro to date.

What advice would you give to someone interested in working in this area?

If you think to go into science, I think it is important to work as a research experience student and gain some knowledge in how to work in a lab as early as possible. It will help you firstly to decide if a career in science is the right choice and you will also learn to develop crucial skills.