

## ChemDiverse Career Profile Questions

# Hammad Ullah

*PhD student in Nutraceuticals, Functional Foods and Human Health, University of Naples, Italy*

**Hammad was born in a small town in Pakistan, trained as a pharmacist in Pakistan, but is transitioning into a new career in research. He is currently a PhD student at the University of Naples in Italy**



### **Why did you decide on a career in science?**

I originally trained as a Pharmacist at Kohat University and my first inclination for this career path arose out of concern for others. I wanted to become a person actively involved with focus on the cure for chronic disorders without affecting patients' quality of life. Indeed, a significant part of my personal character is devoted to caring for other people and contributing to their wellbeing.

However, after working as a pharmacist for a short period of time, I became more interested in pursuing a research career in the areas of pharmacology, pharmacognosy and pharmaceutical chemistry.

### **What qualifications and experience do you have?**

In 2015 I obtained a PharmD degree from Kohat University of Science and Technology Pakistan, after which I was a practicing pharmacist. To change careers, and transition into research, in 2019 I obtained an MPhil degree in Pharmaceutical sciences from Abdul Wali Khan University Mardan, Pakistan.

Currently, I am a PhD student enrolled in the Doctoral school in "Nutraceuticals, Functional foods, and Human health" at the Department of Pharmacy, University of Naples Federico II, Italy. I am also working as a visiting researcher in the Department of Analytical and Food Chemistry, University of Vigo, Spain.

My current goal is to focus my research on preventative therapies such as nutraceuticals (foods that provide health benefits) and dietary supplements.

### **What does your typical day involve?**

I like to get up early every day to fit in some exercise before I start work. As a PhD student, I now spend most of my time in the laboratory carrying out experiments during the working day. The equipment I use regularly, such as the High Powered Liquid Chromatography system and Liquid Chromatography-Mass Spectrometer, is a very sophisticated version of thin layer chromatography often used in schools – this equipment allows me to separate and identify individual molecules from complex mixtures.

In addition to laboratory work, I also have to keep detailed notes of my experiments in lab books, and participate in group meeting with other colleagues to share our research ideas and findings.

Being Muslim, I also pray five times every day i.e., dawn prayer, midday prayer, afternoon prayer, evening prayer, and night prayer. I also read our Holy book, the Holy Quran, for 30 minutes, just after dawn prayer.



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## Do you work mostly on your own or as part of team?

There are times during the day where I work on tasks by myself, such as when writing up experiments or answering emails. However, mostly I work as part of a team, with my laboratory colleagues and with my PhD supervisors. We also work with other national and international scientists on collaborative projects.

## What is it like socially where you work?

I work in a friendly environment, where colleagues interact and communicate in a positive and helpful way. Sometimes we help each other on work specific problems, but often we just ensure that the general working atmosphere is enjoyable so that we're in a good mood all day!



## What challenges have you faced to get to where you are now?

Coming from a developing country, there were very few opportunities for me to get hands-on experience state-of-the-art research techniques in my early career. This is due to a significant lack of funding and adequate facilities in many research institutions in Pakistan.

This is one reason why I chose to carry out my PhD studies in a different country – I'm really taking advantage of this opportunity now by working hard on different aspects of my research training and getting great advice from my mentors.

## What possibilities are there for your career in the future?

My career path is reasonably straightforward: I hope to be an independent academic scientist, running my own lab, in about 5 years. First, I'll have to finish my PhD and carry out a few years of Post-Doctoral research.

## What do you think are the most important skills for someone in your role to have?

Obviously, critical thinking is important to solving scientific problems. However, it is really important to be able to communicate well, both in person and in writing. Good communication skills will help when publishing research in peer-reviewed journals and also to win funding from well-written grant applications.



## What one piece of advice would you give to someone seeking a career in chemistry?

It is better to understand something rather than to rely on memorisation, as it will pay off in the long-run.