

ChemDiverse Career Profile Questions

Sara Velasquez

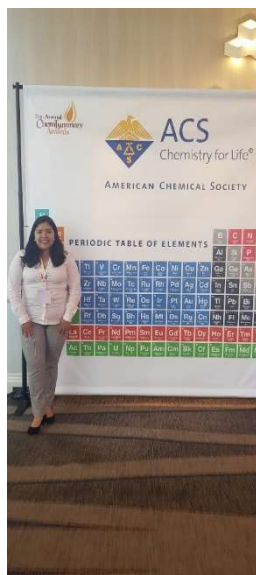
PhD student in the Department of Pure and Applied Chemistry at the University of Strathclyde.

Sara was born in Central America and up until now has lived in 4 countries and speaks 4 languages. Sara is keen to promote science as a career choice



Why did you decide on a career in science?

I initially wanted to develop a career in engineering, which led to me studying materials engineering. It all started from being good at maths and physics in school, and wondering what I should do with my life. During my Bachelor's Degree I quickly realized that what I enjoyed most was research and developing new materials. Therefore, I transitioned to materials science/chemistry research.



When did you decide on a career in science?

During my undergraduate, thanks to my mentors from LABTUCAL, which is a research lab I was working in at the Federal University of Santa Catarina, Brazil. They believed in my potential as a researcher far more and much earlier than I did myself. They encouraged me to continue my studies through a Master's in Switzerland en route to the PhD, which I am currently working on.

What qualifications and experience do you have?

I have a Bachelor's Degree in Materials Engineering and a Master's in Materials Science. My work experience was mostly on industrial internships and research experience working as student research assistant. Recently I have also had the chance to gain some teaching experience, with first year undergrad labs.

What does your typical day involve?

My day varies quite a bit, depending on the stage of my research. Usually it involves arriving in the lab, to perform experiments and/or doing data analysis. When the research is at a more advanced stages, it involves preparing presentations and writing research papers to share the results more widely.

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

PhD projects and research can involve a lot of individual work, but very little research is entirely down to one person. I work closely with my supervisor who directs the project and helps with the interpretation of results – especially when they are not what we might have initially expected! Since my project is very different from the other members of my group I do not work directly with other PhD students or postdocs locally very often. However, I have a lot of collaboration projects with PhD students from different international groups such as in Switzerland and the United States. As well as keeping in touch through virtual meetings in ordinary times we catch up at conferences, meetings or through short research exchanges at other labs.



ChemDiverse Career Profile Questions

What is it like socially where you work?

Many of the people I have worked closely have become great friends, particularly from my Master's degree and through the international network I work in. As well as providing a great support base for my career (and hopefully opportunities for collaborations in future) we have had some fantastic experiences together, including skiing trips in Italy and Austria and a trip through Brazil after a conference.

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

I think the biggest challenge I have faced has always been finding a way to get here. It was very difficult mostly because of the country I was born in. Since no local University offered qualifications in my area I needed to find and win a scholarship to move to another country. After getting that first chance it has been a constant search for my next opportunity, well before I finish the previous stage, since my stay in each country depends on my student visa. That uncertainty is always a big mental challenge as I know that if I do not manage to line up a new position soon, my working opportunities are much reduced. Unfortunately returning to my home country is not an option, since there are no jobs in my field and would be a waste of my efforts to this point.



What are you most proud of in your career?

I think that what makes me the proudest is the "distance travelled", from where I started and the opportunities I had to where I am now and where I could get by following the same train of thought, motivation and ideas.

What possibilities are there for your career in the future?

Once I finish my PhD, which will be in a year or so, I hope to find a postdoctoral position where I can continue working in the type of chemistry/materials science research I most enjoy. After that I hope to find a path to an independent research career working in a university. There are also a lot of options in industry for people with qualifications in chemistry and materials science, and there is a growing interest in applications to medical and biotech.

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

Self-motivation! All research work is based on managing to keep motivated, even when the experiments are not working or the results are not as expected. There needs to be a reason for you to wake up and keep going to the lab for the experimental research despite not all days being the best. Another skill is patience, as you need to be able to perform all the experiments calmly and reproducibly, being very cautious to avoid errors.

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

The most important recommendation is to never give up in your pursuit of a career in chemistry, sometimes the path might look a bit foggy and it could feel easier to give up or do something else, but if a career in chemistry is what you really want that is never the best option. The chemistry sector needs as much diversity as possible for everyone to feel comfortable and included.

