

Case Study: Internship

Caterina Brighi, Third Year Chemistry Student

Which company did you undertake work experience with?

Woods Hole Oceanographic Institution (WHOI) - one of the world leading ocean science research institutions associated to the Massachusetts Institute of Technology

How did you go about finding the internship?

I was specifically interested in getting research experience in ocean science and, as some of the best marine research institutions are either in the USA or in Australia, I was really determined to find a summer research opportunity overseas. So I started looking at the Universities in the USA having Ocean/Marine science department and I looked whether they offer summer programs, similar to our UROP placements at Imperial. Many of them offered Undergraduate students similar opportunities, however, the majority of them were only accessible to US citizens or permanent residents. One of the few accepting international student's applications is Woods Hole Oceanographic Institution (WHOI), which is one of the world leading ocean science research institutions and is associated to the Massachusetts Institute of Technology. So by looking at the WHOI website I actually found out that amongst many other undergraduate opportunities, there is a great Summer Student Fellowship program. I decided to apply for this and I started my application process by emailing a few researchers at WHOI working on areas of research I was interested to. I must say I was really surprised to see how quickly they replied and how enthusiastic and friendly they were. They told me briefly about their research and they all suggested that I apply to the program.

What was the timescale for your application?

The deadline was mid-February and I received their decision in mid-March. I received an email saying that I had been awarded the Summer Student Fellowship (SSF) and that 3 of the 4 advisors I had selected were offering me the opportunity to work with them. So I contacted the advisors and, either by email or by Skype, they all offered me a series of project from which I could choose. I have to say it was hard at the beginning to make a decision, since the projects look all very interesting and all the advisors were really enthusiastic. In the end, I choose a project on coral-microbe reactive oxygen species, which involved lab work and data analysis, but most importantly, it allowed me to use the knowledge acquired from my Chemistry degree to conduct research in something that I am really passionate about, which is studying the causes of coral bleaching. The SSF program offered 12 weeks of paid research experience and provided travel reimbursement, housing and a weekly stipend. I left Imperial at the beginning of June, a bit earlier than the



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end of term after having had the agreement of the DUG of my department and I arrived in the USA on the 8th of June.

What was the application and interview process like?

It was an online application process. I had to submit my CV, write a statement of research interests, future education, career plans and reasons for applying to the Woods Hole Oceanographic Institution. I had to provide 3 letters of recommendation from professors who are aware of my academic credentials. I had to send my transcripts and to fill an application form. Right after the acceptance of the SSF award I started looking at the VISA application procedure. I received help from the WHOI academic program office for my VISA application and I managed to get my VISA sorted within one month (it usually takes longer, even up to three months, so the earlier you apply the better).

What was your role and what did it involve?

I worked in the Marine Chemistry and Geochemistry Department and I learnt a lot of new techniques, including biochemistry lab experience (which we don't get in our Chemistry degree at Imperial). I worked under the supervision of 2 Professors and one Postdoctoral Fellow. The program admits 33 students from all around the world (there were only 6 non-US students) and we had weekly lectures in the field of Ocean science. We planned and carried out our own research project, we went on a one-day field sampling cruise and at the end of the summer we had to give a 20 minute presentation to the department and submit a report about our project. I really enjoyed my project and working here is just amazing, I had all the necessary resources to carry out my own research and the support from my advisors; I was surrounded by great scientists and had the great chance to discuss with them my research.

I was supposed to leave after the end of my project but I decided to extend my stay by three weeks as my advisors asked me to join them on a field work expedition in Curacao. I was super excited about it, since one of the reasons why I applied to this program was I was also trying to obtain field work experience! Even better it being in the Caribbean!

What was the most valuable thing about your work experience?

To top this already amazing experience I decided to submit an abstract of my research project to present at the AGU Fall Meeting in San Francisco this winter. I also applied for a student travel grant/scholarship which I won! I will be going to San Francisco in December and will have the opportunity to show my work, meet scientists from all around the world, find out about their research and network in the scientific academic community.

Do you have any tips for future Imperial students looking to make the most of their summer?

If someone asked me in January if I expected any of this happening, I'd say "absolutely not"! But I knew I would have never found out unless I tried applying. So my suggestion to anyone interested in doing research overseas is to look for opportunities, send emails (people are usually more friendly and approachable than you might think!) and be determined and motivated to obtain what you want. Even if the process might appear very tedious and "impossible" to get through, from my experience the more effort you put in, the more satisfaction you get out, and it totally pays off, sometimes even more than you would expect.

