

Harini Boraluwa

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NERC Research Experience Placement inspires student to pursue a cross-disciplinary PhD

As a result of her NERC-funded Research Experience Placement, Harini has developed an unexpected interest in biology that has inspired her to apply for cross-disciplinary PhD projects. “The placement helped me decide that I want to do cross-disciplinary research rather than stick to just chemistry,” she says. “So I’ve been applying for PhDs that have collaborations between chemistry and biology or biotechnology.”



Harini spent seven weeks on a NERC-funded Research Experience Placement (REP) in the Department of Animal and Plant Sciences during the summer before the final year of her chemistry degree at Sheffield University. She applied for the placement because she wanted more research experience and the chance to apply her chemistry knowledge to a biological problem. The last time she had studied biology was in school.

The aim of the REP was to find out whether bedbug pheromones could be the key to killing the bugs without using toxic chemicals. Harini’s job was to extract the pheromones and study the chemical differences between the genders, to see if pheromones from one could be used to attract and trap the other.

Harini was not immediately taken by the idea of the project, but that changed very quickly. “I was quite disgusted by the idea of it at first,” she says. “Even though I wanted to apply my chemistry knowledge to something completely different, I didn’t imagine myself ever working with bedbugs or anything like that. But I started enjoying it pretty much from the first day.”

Harini’s chemistry background proved extremely valuable in the project, as she already had experience in gas chromatography, the technique used to analyse the bedbug pheromones. Her knowledge of chemistry also helped her interpret the graphs produced by the gas chromatography machine and understand the properties of the molecules she was working with.

A key skill Harini gained during the REP was how to work as part of a research group. “I appreciated the opportunity to work with PhD students and attend group meetings,” she says. “I liked listening to what everyone else was doing, taking ideas from them, and offering up my ideas. Even though I was an undergraduate, I was starting to understand the biology of bedbugs and felt I could offer some suggestions. I really enjoyed working in a group in that way.”

The placement made it clear in Harini’s mind that she wanted to do a PhD. “Doing this project helped me to decide that I definitely want to carry on doing research,” she says, “I’d like to say thank you for the opportunity to do the placement. I really enjoyed it, and felt it was very worthwhile.”

