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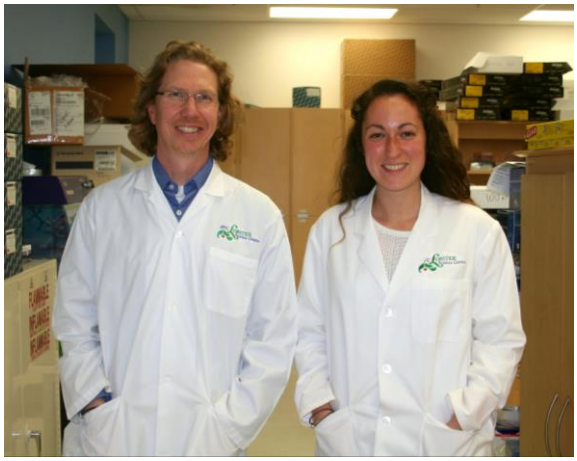
I am a PhD candidate studying lobster health at Swansea University, under the supervision of Professor Andrew F Rowley and Dr Claire McCabe (nee Vogan).

This year I received a Society of Biology Travel Grant in order to study at the Atlantic Veterinary College's Lobster Science Centre (LSC), in Charlottetown, Canada. Part of the University of Prince Edward Island, the LSC runs various shellfish research programmes.There was one area in particular that I was interested in -the lobster disease Gaffkaemia.



Gaffkaemia is a fatal bacterial lobster disease that can cause significant economic loss. It was thought to be endemic to American lobsters; however, there have been numerous reported outbreaks in the European species. The gaffkaemia bacteria enter the lobster through damaged areas on the lobster carapace, and subsequently colonise the tissues and blood. The lobsters eventually die of septicaemia.

I spent a month at the LSC working alongside Professor Spencer Greenwood and his colleagues, Dr Fraser Clark and Adam Acorn. My original plan was to learn about ways to test between the virulent and avirulent forms of the disease. There is a protein capsule which differentiates between the two forms of the bacterium *Aerococcus viridans* var. *homari*, which has been well studied, however, new findings suggest that the 'virulence' may arise from bacterial concentrations as even 'avirulent' forms were able to induce death, albeit after a longer time, just at higher concentrations.

Whilst at LSC I used their state of the art equipment to practise qPCR and DNA extractions, optimising methods ready for my return home. I am now able to use my new-found skills to test crustacean samples from a Marine Conservation Zone. I learnt about other crustacean diseases whilst at the LSC, including Bitter Crab Disease, *Hematodinium* spp., which usually effects crabs; Bumper Car, caused by the ciliate *Anophryoides haemophilia* and has been found in the American lobster and White Spot Syndrome Virus (WSSV), a pandemic shrimp disease which has also been found to affect lobsters when induced in vitro. Due to changing seawater temperatures I am interested to test which diseases may be present in UK waters.

My work with the LSC has been invaluable as a young researcher. As I now enter the final year of my PhD I think it is important to meet senior scientists within my field, sharing ideas and beginning collaborations has helped my research no end. I applied for a travel grant from the Society of Biology, as the Society represents and supports a broad range of biological science research. My PhD encompasses a wide range of research, from pathology and immunology, fisheries management and ecology, so it seemed a fitting choice.

Whilst on my travels I maintained a blog detailing my journey, findings and experiences
www.cedavies72.blogspot.co.uk