

Chemical Biology: Elucidating the mode of action of a novel nematicide on plant parasitic nematodes

Feeding the world is an increasing challenge for the 21st century. Talented scientists with flexibility to cut across disciplines are sorely needed to address this.

This studentship will provide training in core techniques in cell biology and biochemistry including imaging and metabolomics. The student will join a motivated team of researchers at Southampton who share an interest in using expertise in neuroscience and neurochemistry to leverage advances in food security. S/he will be enthusiastic with imagination to develop an exciting programme of research designed by the supervisors Professors Lindy Holden-Dye and Vincent O'Connor. The supervisors have an excellent track record of progressing the careers of postgraduate students over more than two decades.



The studentship will be based in the Centre for Biological Sciences in the innovative and interdisciplinary Institute for Life Sciences at the University of Southampton.

Background: Plant parasitic nematodes (PPNs) are microscopic worms that invade plant roots causing large scale crop losses. They are an increasing problem due to reduction in chemical nematicide use because of environmental concerns. There is a pressing need to develop alternative and/or integrated strategies to tackle this continuing threat. The Holden-Dye/O'Connor group has a strong track record of working with industry to elucidate the mode of action of new chemicals and drugs. This project will explore the mode of action of a new nematicide using a range of biochemical assays, cell biology, imaging and metabolomics.

Training provides a pathway for careers in academic research or industry.

Funding is for 4 years. We welcome applicants from the UK/ EU who have or expect to obtain at least an upper second class degree in Biological Sciences or allied subjects. Funding will cover fees and a stipend at current research council rates of £ 14,296 per annum. To apply please email Professor Lindy Holden-Dye lmhd@soton.ac.uk with the subject line 'PhD'.

Over 97% the University's research environment has been assessed as world-leading and internationally excellent.