

PhD position in Plant Molecular Biology**Project title: “The role of light signalling in plant immunity”****University of Glasgow & James Hutton Institute, Scotland, UK**

A fully-funded 4-year PhD position is available to study the signalling crosstalk between light and plant immunity in *Arabidopsis* and crop species.

Project summary and background:

Light is essential for regulating every aspect of plant growth and development. Recent studies have revealed that light quality and duration can influence plant immune response onset as well as the virulence of some pathogens. *Phytophthora infestans* is the causal agent of potato late blight which is still the most devastating pathogen of potato worldwide. The genome of *P. infestans* encodes a family of effector proteins that are translocated into host cells during pathogen attack. Two such effectors have recently been shown to target components of blue and red light signalling pathways in the crop host potato. This novel finding suggests that *P. infestans* is manipulating host light signalling pathways to benefit disease progression. Light signalling pathways have been extensively characterised in the model flowering plant *Arabidopsis*. This PhD project therefore aims to exploit expertise, experimental tools and systems in both light and defense fields using model and crop systems to examine the crosstalk between light and plant immunity. The student will have the opportunity to work at the James Hutton Institute (Gilroy and Birch labs) and the Institute of Molecular, Cell and Systems Biology at the University of Glasgow (Kaiserli and Christie labs) and receive training by experts in the fields of plant immunity and light signalling, respectively, at each site. This PhD project will provide training in a broad range of biological techniques, interpersonal communication skills, time-management and knowledge transfer. The PhD student will receive specialised training in genetics, functional genomics, biochemistry, cell biology as well as microbiology and will be encouraged to present their work at local, national and international conferences.

Eligibility: UK or EU nationality; Degree requirements: BSc Honours or equivalent in Biological Sciences/Molecular Biology/Genetics/Biochemistry/Biotechnology/Plant Science (expected 1st class or 2:1), or MSc, Diploma in a relevant field. **PhD funding** will cover all tuition fees, research expenses, conference attendance and a stipend of £14,553 per annum for living expenses.

Application deadline: January 5th 2018**Interview:** January 15th – February 2nd 2018**Start Date:** October 2018

Please send your CV stating your academic record, list of publications or achievements, a **cover letter** clearly stating why you are applying for this PhD project and the names of three **academic referees** to eirini.kaiserli@glasgow.ac.uk and Eleanor.Gilroy@hutton.ac.uk. For more information regarding the PhD programme please contact Alexis.Merry@glasgow.ac.uk or visit: <https://www.gla.ac.uk/colleges/mvls/graduateschool/>, <http://www.hutton.ac.uk/staff/postgraduate>.

For more information on the research carried out in the labs of the supervisors:

Dr. Eleanor Gilroy <http://www.hutton.ac.uk/staff/eleanor-gilroy>

Prof. Paul Birch <http://www.hutton.ac.uk/staff/paul-birch>

Dr. Eirini Kaiserli <https://www.gla.ac.uk/researchinstitutes/biology/staff/eirinikaiserli/>

Prof. John M. Christie <https://www.gla.ac.uk/researchinstitutes/biology/staff/eirinikaiserli/>

Life in Scotland: <https://www.visitscotland.com>

<https://peoplemakeglasgow.com/discover/districts/districts-west-end>