Two PhD positions are available to study molecular plant-microbe interactions

Department of Plant Integrative Biology
Supervisor: Dr. Robert Malinowski
Project manager: Dr. William Truman
Salary: 3000 PLN per month (36 months)
Deadline for applications: September 16th, 2016

The aim of this study is to characterise the cellular events involved in host recognition of the protist plant pathogen *Plasmodiophora brassicae* and to investigate the molecular function of putative virulence factors deployed by the pathogen. Clubroot disease, caused by *P. brassicae* is responsible for significant losses in the production of brassica crops throughout the world. Recent completion of the *P. brassicae* genome allows us to identify potential virulence factors involved in the evasion and suppression of host immune responses. We are seeking two PhD candidates to investigate the molecular interactions involved in the establishment of clubroot disease who would be involved in researching both sides of the host-parasite interaction. A particular focus of the project is the potential role that chitin recognition plays in these events and furthermore the involvement of chitinases in defence against infection. *Arabidopsis thaliana* will be used as the principal experimental model with parallel experiments conducted in *Brassica napus*. Natural variation in these responses will be surveyed across *Arabidopsis* accessions from various environments and selected Polish pathotypes of *P. brassicae*.

This is fixed term three year PhD student scholarship financed by the National Science Centre, Poland in the frame of the OPUS project UMO-2015/19/B/NZ3/01489. The expected start date for the project will be autumn 2016.

Experimental approaches involved in the project will include:
Pathogen growth assays
Cloning of pathogen effector genes
Protein expression and enzyme activity assays
Generation of transgenic lines in *Arabidopsis thaliana* and *Brassica napus*
Gene expression profiling of host defence responses

**Candidate profile**

Masters degree in biology, biochemistry or related life science discipline
Experience in molecular biology techniques
Excellent skills in spoken and written English
Genuine interest in plant biology and molecular plant-microbe interactions, strong motivation and enthusiasm for the research process
Documents required

Application letter detailing background, research goals and motivation
Curriculum vitae
Two reference letters and contact details for the referees
Copies of any publications in press
Copies of relevant diplomas

The application must contain the following statement:
"I hereby give consent for my personal data included in my offer to be processed for the purposes of recruitment, in accordance with the Personal Data Protection Act dated August, 29,1997 (uniform text: Journal of Laws of the Republic of Poland 2014 item 1182 with further amendments)."

For informal enquiries please contact William Truman at wtru@igr.poznan.pl
For more information about the institute and our lab please visit the websites:
www.igr.poznan.pl and www.biotalent.eu

Complete application packages should be combined into a single PDF file and sent via email to both office@igr.poznan.pl and wtru@igr.poznan.pl, please title the email “OPUS PhD application for William Truman UMO-2015/19/B/NZ3/01489”. 