**PhD opportunity in Plant-Microbe Interactions**

**Project: Evaluation of potential resistance mechanisms involved in the pea/Aphanomyces/Fusarium pathosystems**

**Project description**: The research project will explore the interactions between nodulation and root rot infection of pea related to timing of infection and resistance status of pea. Experimental methods will involve inoculation of pea lines with Rhizobium and various root rot pathogens in the greenhouse, RNAseq analysis of differentially expressed genes involved in nodulation and defense responses, followed by gene expression analysis of selected genes at varying time points. Thus, an ideal candidate should have background knowledge through coursework in genetics/molecular biology, plant-microbe interactions and plant pathology. Experience required includes working with RNA, performing real-time quantitative PCR, genetic analysis, and some bioinformatics. Experience performing greenhouse trials and inoculations with plant pathogens is an asset. Evidence of effective science communication demonstrated by publication in quality journals is required. Candidates must pass the minimum requirements for admission into a PhD program in the Department of Biological Sciences at the University of Lethbridge.

**Funding**: Includes an annual stipend of $24,000.00 (CAN), travel to conferences and research costs.

**Location**: Lacombe Research and Development Centre, Agriculture and Agri-Food Canada, Lacombe, Alberta, Canada, with some time also spent at the Lethbridge Research and Development Centre

**Start date:** Screening of candidates starts in November 2018, with an anticipated start date of May 2019.

For further information and/or to apply, please email letter of application, including CV and contact details for 2 referees to:

Syama Chatterton ([syama.chatterton@canada.ca](mailto:syama.chatterton@canada.ca)) and Ravinder Goyal ([Ravinder.goyal@canada.ca](mailto:Ravinder.goyal@canada.ca) )