**1 PhD student in the research education subject: Biology, focusing on molecular biology**

**Vacuole-mediated regulation of plant growth and immunity**

The PhD position will be based at the Department of Plant Biology, Uppsala BioCenter, Swedish University of Agricultural Sciences (SLU) and Linnean Center for Plant Biology. Research: The department undertakes fundamental research on model organisms, agricultural crops, forest trees and bioenergy crops. Our main areas of research comprise the interaction of plants with microorganisms and other environmental stresses; plant growth and development; biotechnology and metabolic engineering; regulation of gene expression; population genetics, genome analysis and the development of breeding systems. Species in use are model organisms such as Arabidopsis, Physcomitrella, tobacco and yeast; crops such as rapeseed, basket willow (Salix), potato and cereals; and pathogens such as viruses, bacteria and fungi/oomycetes. Education: The department is responsible for basic courses and advanced courses in general and molecular genetics; gene technology; cell biology; plant physiology; gene expression; plant breeding, plant biochemistry and biotechnology; molecular interactions between plants and pathogens. Besides, the department contributes to various other courses together with other departments.

**Project:** We are looking for a highly motivated individual to join our ongoing research on molecular plant-microbe interactions. We study the role of autophagy, a conserved process for degradation of cellular content, in plant growth and immunity. The PhD project builds on the recent identification of conserved proteins that contribute to the control of vacuole integrity, hormone signalling, and autophagy. We now aim to further elucidate the biochemical functions as well as the regulatory genetic pathways and protein networks associated with these proteins. The work will involve the characterization of genetic suppressors of mutant phenotypes in combination with cell biological and proteomic approaches in Arabidopsis and tobacco plants. The position is associated with the research group of Prof. Daniel Hofius at SLU in Uppsala. For more information about the Hofius lab, please visit the homepage: [http://www.slu.se/D_Hofius](http://www.slu.se/D_Hofius)

**Qualifications**

The candidate should have a higher university degree in molecular biology (Degree of Master or Master of Science) with emphasis on molecular genetics, functional genomics, plant physiology, or related topics. Documented abilities to manage a laboratory research project and experience with standard molecular biology techniques are required. Knowledge of plant molecular biology, cell biology, genetic and/or proteomic approaches in the Arabidopsis system is highly valued. The selection is based on the written application, CV, diploma/master work, personal references, and an interview.

**Forms for funding or employment**

Employment as PhD student

**SLU is an Equal Opportunity Employer.**

A person has basic eligibility for third cycle education if he or she has taken a second cycle qualification or has completed course requirements of at least 240 higher education credits, including at least 60 higher education credits at second cycle education. Upper secondary school grades equivalent to English B/English 6 are a basic requirement.

Selection among applicants meeting the requirements is made with reference to written application including curriculum vitae, copies of degrees and transcripts of academic records, one copy of the dissertation for masters or undergraduate degree, a list of at least two references familiar with the applicant's qualifications, certified knowledge of the English language and an interview.

Read about the PhD education at SLU at [www.slu.se/en/phd](http://www.slu.se/en/phd)

Use this [APPLICATION FORM](#)

Further information:

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**Academic union representatives**

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Applications, marked with ref no SLU ua 2590/2017, must have arrived at the Registrar of SLU, P.O. Box 7070, SE-750 07 Uppsala or registator@slu.se no later than 2017-09-29.