PhD position in plant molecular biology/genomics (receptor like kinase signaling)

A PhD position is available at the Department of Biology. The appointment has a duration of 3 years with the possibility of until 1 year extension with 25% teaching duties in agreement with the department. The position is financed by the FRIMEDBIO program of the Norwegian Research Council (RCN) and will be linked to the project “A receptor like kinase (LRR-RLK) sensing sugars and tuning plant growth and immunity”

Information about the department

The strategy of the Department of Biology is to understand biological processes of life to secure sustainable use of and conservation of the environment. The Department has academic and research activities in the following disciplines: cell- and molecular biology, systems biology, physiology, ethology, ecology, evolution, population genetics, marine biology, aquaculture, biodiversity and environmental toxicology. Further information is available at: http://www.ntnu.edu/biology.

Job description

The PhD candidate will take part in the deciphering of a control system sensing extracellular sugar levels. We have identified a Leucine-Rich Repeat Receptor-Like Kinase (LRR-RLK) with a likely function in sensing of extracellular sugars and connecting sugar availability to the regulation of gene expression and growth in model plant Arabidopsis thaliana. Synthesis of organic compounds from inorganic through photosynthesis is essential for maintenance of life on Earth. Photosynthesis is a highly efficient and regulated metabolic process to maximize the use of available light, water, CO2 and minerals to produce sugars and minimize damaging effects of by-products. The stored energy in sugars can be used to fuel cellular metabolic processes. In addition, sugars are known as strong signalling molecules that regulate growth and development. Sugar production, transportation and consumption are tightly regulated processes. Molecular components and pathways involved in sugar and metabolite status sensing and signaling inside the plant cell have been studied comprehensively. In contrast, very little is known about how plants sense and respond to extracellular sugars. The PhD candidate, a post doc, and 2-3 MSc students will form a research unit performing a set of laboratory and greenhouse level experiments to evaluate physiological and molecular impacts of loss-of-function (knock-out) and over-expression plants for this regulatory system. This group’s research will be an integrated part of the activity in the Cell, Molecular Biology and Genomics Group at Department of Biology, NTNU.

Detailed information on our PhD programs is found at: http://www.ntnu.edu/nt/research/phd

Qualifications

The applicant must have an MSc (or equivalent) in cell/molecular biology/genomics or plant physiology/biochemistry. Documented experience on functional studies of (plant) signal transduction systemsgenes will be considered an advantage. Molecular genetics and some bioinformatics skills are expected. The successful candidate should be creative, with a strong ability to work problem-oriented. He/she should also enjoy interdisciplinary research and take keen interest in learning and working in teams.

The regulations for PhD programmes at NTNU state that a Master degree or equivalent with at least 5 years of studies and an average grade of A or B within a scale of A-E for passing grades (A best) for the two last years of the MSc is required and C or higher of the BSc. Candidates from universities outside Norway are kindly requested to send a Diploma Supplement or a similar document, which describes in detail the study and grade system and the rights for further studies associated with the obtained degree: http://ec.europa.eu/education/tools/diploma-supplement_en.htm

The position requires spoken and written fluency in the English language. Applicants from non-English-speaking countries outside Europe must document English skills by an approved test. Approved tests are TOEFL, IELTS and Cambridge Certificate in Advanced English(CAE) or Cambridge Certificate of Proficiency in English (CPE).

Terms of employment

The appointment of the PhD fellows will be made according to Norwegian guidelines for universities and university colleges and to the general regulations regarding university employees. Applicants must agree to participate in organized doctoral study programs within the period of the appointment and have to be qualified for the PhD-study. NTNU’s personnel policy objective is that the staff must reflect the composition of the population to the greatest possible extent.

The position as PhD is remunerated according to the Norwegian State salary scale. There is a 2% deduction for superannuation contribution.

Further information can be obtained from professor Atle M. Bones, Department of Biology, NTNU, Tel. +47 735 98692, E-mail: atle.m.bones@ntnu.no. Further information about the Department can be found at http://www.bio.ntnu.no/ and about the CMBG research group at http://boneslab.bio.ntnu.no/wordpress/

The application
Please submit: application letter, CV (summarizing education, positions and academic work - scientific publications), copies of educational certificates, transcript of records, documentation of English proficiency, list of publications and academic work that the applicant wishes to be considered by the evaluation committee, names and contact details of 2-3 references (name, relation to applicant, e-mail and telephone number).

Foreign applicants are advised to attach an explanation of their University's grading system. Please remember that all documents should be in English or a Scandinavian language.

Potential successful candidates will be interviewed via Skype or other means.

Applications must be submitted electronically through www.jobbnorge.no. Applications submitted elsewhere will not be considered.

The reference number of the position is: NT- 41/16

Application deadline: April 21st