

## Research Fellow in Molecular and Cell Biology

The University of Stavanger invites applications for a three-year doctorate scholarship in Biological Chemistry at the Faculty of Science and Technology, Department of Mathematics and Natural Science, at the Centre for Organelle Research (CORE), beginning August 1, 2010.

The title of the project is “*Subcellular ROS signaling networks in plants, mammals, and algae*”.

The position is available at the newly established Centre for Organelle Research (CORE). The project focuses on the communication between cell organelles via reactive oxygen species (ROS) including H<sub>2</sub>O<sub>2</sub> as the master regulator controlling a variety of stress responses. The ROS signaling network is highly complex due to the subcellular compartmentalization of stress-induced H<sub>2</sub>O<sub>2</sub> production. Cellular ROS dynamics have been investigated to some extent in single cell compartments but hardly in an integrative perspective considering several major cell compartments. In the course of this project proteinaceous ROS sensors and spectral variants of green fluorescent protein will be targeted to different cell compartments (e.g., chloroplasts, peroxisomes) to create multiply labeled cell lines for integrated, temporal and spatial high-resolution analysis of ROS dynamics by confocal microscopy (Nikon A1R).

The monitoring system will be applied to three model organisms including plants (Arabidopsis), mammals (human cell lines), and algae (Chlamydomonas). ROS homeostasis will be perturbed by various means (e.g., abiotic stress) including overexpressor lines and loss-of-function mutants of antioxidative enzymes and signal transduction components. Cutting edge imaging technologies will be applied to comprehensively dissect abiotic ROS signaling and accurate monitoring of ROS (H<sub>2</sub>O<sub>2</sub>) production, diffusion and scavenging by a non-invasive method. The research project is multidisciplinary combining cutting-edge imaging technology, molecular biology and biochemistry.

CORE houses state-of-the-art equipment in microscopy, genomics, and proteomics. CORE represents a highly active and stimulating environment and encourages collaborative and cross-disciplinary research. The project is technically and intellectually demanding and requires experience in plant physiology, molecular and cell biology. Students with such a background are prime candidates for the position.

Applicants must have earned a M. Sc. degree in biological sciences or possess corresponding qualifications which could provide a basis for successfully completing a doctorate. It is necessary to have obtained an average grade of B or better in order to qualify. The appointee must be able to work independently and as a member of a team, be creative and innovative. The research fellow must have a good command of both oral and written English.

The research fellow will be admitted to the doctoral program at the University of Stavanger on an agreement to complete the doctorate within the duration of the scholarship.

The program will mainly be carried out at the University of Stavanger, apart from a period of study abroad at a recognized and relevant centre of research.

The research fellow is salaried according to the State Salary Code, l.pl 17.515, code 1017, LR 20, ltr 45 of NOK 355 600 - per annum.

The position provides for automatic membership in the Norwegian Public Service Pension Fund, which guarantees favourable retirement benefits. Members may also apply for home investment loans at favourable interest rates.

Project description and further information about the position can be obtained from Prof. Simon Geir Møller, telephone, +47 51 84 17 17, email [simon.g.moller@uis.no](mailto:simon.g.moller@uis.no) or from Prof. Sigrun Reumann, telephone +47 51 83 18 97, email [sigrun.reumann@uis.no](mailto:sigrun.reumann@uis.no). See also <http://core.uis.no/>

Further information about the recruiting process can be obtained from Higher Executive Officer Hallgeir Hognestad, telephone +47 51 83 17 36, email [hallgeir.k.hognestad@uis.no](mailto:hallgeir.k.hognestad@uis.no)

The University is committed to a policy of equal opportunity in its employment practices. The University currently employs few female research fellows within this academic field and women are therefore particularly encouraged to apply.

The application must contain the following documents and material and be submitted in three verified copies: CV, the form "Utvidet søkerskjema" (Information to be made available to the applicants), certificates/diplomas, references, list of publications, publications and any other documentation that the applicant considers relevant

and be addressed to:

University of Stavanger  
Faculty of Science and Technology  
Attn. Hallgeir K Hognestad  
N-4036 Stavanger

The application should be marked **st.id 30033463**.

Closing date for applications is **March 31, 2010**.