Announcement of post-doc scholarship at the Department of Clinical Sciences, division of Neurology

Modeling of neuronal aging and neurodegenerative disease using human pluripotent stem cells and genome editing

In this project we will genetically engineer isogenic human pluripotent stem cell lines to harbor mutations predisposing to neurodegeneration. Alternatively, genes involved in aging and/or neurodegenerative disorders will be conditionally knocked out. The generated cell lines will be differentiated towards neural lineages using reprogramming technologies. The differentiated cells will be analyzed for markers of pathology in vitro and in vivo following transplantation using immunocytochemistry, gene expression and tested functionally using electrophysiology.

The scholarship holder will get the opportunity to learn novel and state of the art stem cell culture techniques, genome engineering using the CRISPR/Cas9 system and neuronal reprogramming technologies. Furthermore the holder will be able to get advanced knowledge of neurodegenerative disease such as fronto temporal dementia and age related cognitive dysfunction.

Reference number: V 2019/685

Scholarship period: The scholarship covers a period of 6 months with possibility of prolongation up to a maximum of 24 months in total.

Preliminary start date: 2019-05-15

Supervisor/contact person: Henrik Ahlenius, 046-2224259, henrik.ahlenius@med.lu.se

Qualifications:
- To be eligible for a post-doc scholarship at Lund University the recipient must hold a PhD degree within a relevant field. The PhD degree must not be from Lund University. The PhD degree must not be older than three year. The applicant must not have been employed at Lund University in the past two years.
- The applicant should have a strong background in cell and molecular biology.
- Experience working with human pluripotent stem cells and neural differentiation is also required.
- Experience from calcium imaging and network activity analysis is meriting.
- Furthermore the applicant should be fluent in English and have a keen interest in learning cutting edge biomedical technologies.

**Written application, including reference number, is to be sent via e-mail to the supervisor and must include the following:**

- CV
- Personal letter stating the reasons why the study suits the applicant (maximum one page)
- List of publications
- References (2)
- PhD diploma

**Application deadline:** 2019-04-12

**Information regarding scholarships at Lund University**
- The scholarship sum is paid out quarterly
- A scholarship awarded will be reviewed every six months
- Scholarships are tax-exempt
- Scholarships do not give rise to sickness benefits, compensation from the Social Insurance Office or retirement pension.
- A scholarship holder cannot be hired after the scholarship period due to tax reasons.