THE SAHLGRENSKA ACADEMY
INSTITUE OF NEUROSCIENCE AND PHYSIOLOGY

UNIVERSITY OF GOTHENBURG

Department of Psychiatry and Neurochemistry
Administrator:
Telephone No:
E-mail address:

Announcement - scholarship at undergraduate/advanced level

The Department of Psychiatry and Neurochemistry, Institute of Neuroscience and Physiology, hereby announces a vacant scholarship at advanced level in analytical neurochemistry research with molecular mechanisms underlying Alzheimer's disease pathology.

Training plan

Subject: Monitoring Amyloid Aggregation Dynamics In Vivo using iSILK

Background: The research will be to develop an advanced method for probing the spatial amyloid peptide dynamics in brain tissue sections from an experimental mouse model of Alzheimer's disease. We have been labelling mice with ^{15}N protein diet leading to metabolic incorporation of the stable isotope into the amyloid beta (Aß) peptide sequence. This in turn that allows us to follow Aß aggregation in developing AD pathology.

Purpose: We have previously performed a large-scale stable isotope labelling experiment in APP NL-F knock in mouse model of AD. The work here will be used to develop an advanced workflow for comprehensively probing Aß peptide dynamics in tissues from these animals.

Method: For this purpose, for this we will establish a comprehensive chemical imaging paradigm. combining MALDI imaging mass spectrometry and Histological Staining Techniques followed by Multivariate Image Data Analysis using advanced bioinformatic tools.

Time plan

1) Introduction to mass spectrometry- and chemical histological imaging

2) Training in Sample Preparation for imaging MS and chemical amyloid staining

3) Develop a correlative imaging method imaging in mouse brain tissue combing IMS followed by subsequent amyloid staining and hyperspectral microscopy

4) Work on brain tissue in mouse models of Alzheimer's disease

5) Training in multivariate image analysis strategies for multimodal imaging data to achieve tissue classification

Learning outcome: The applicant will be trained on new technologies in protein and lipid imaging and will enhance his/her knowledge to have a better understanding of the function of amyloidogenic peptides in neurodegenerative Alzheimers disease pathology.

Period
2020-11-15 to 2021-11-14

Financing
12 payments of 15000 SEK. A total of 180 000 SEK for the whole period

If you require any further information, please contact Jörg Hanrieder, jh@gu.se, supervisor.

Application
To apply please fill out the form "Scholarship application" and send it to Jörg Hanrieder, jh@gu.se, supervisor.

To be eligible for a scholarship you must be a registered student at undergraduate or advanced level at the University of Gothenburg, other Swedish university or an international university with which the University of Gothenburg has a collaboration agreement.

Please attach a copy of your registration certificate with your application. The certificate must demonstrate that you are a registered student throughout the scholarship period.

Closing date is 2020-11-25.

From: **Liselotte Jansson** Liselotte@alzheimerfonden.se
Subject: Sv: Stipendium Gästdoktorand
Date: 12 September 2019 at 13:21
To: Jörg Hanrieder jorg.hanrieder@neuro.gu.se

Hej Jörg, jag har inget emot det, men ni får själva svara för ev skattekonsekvenser som kan komma av detta.

mvh

Liselotte Jansson
Generalsekreterare

Alzheimerfonden
liselotte@alzheimerfonden.se, mobil 0704-817043
Hemsida: www.alzheimerfonden.se
Post- och Besöksadress: Vegagatan 9, 113 29 Stockholm
PG: 90 11 19-8 BG: 901-1198

-----Ursprungligt meddelande-----
Från: Jörg Hanrieder <jorg.hanrieder@neuro.gu.se>
Skickat: den 12 september 2019 10:37
Till: Liselotte Jansson <Liselotte@alzheimerfonden.se>
Ämne: Stipendium Gästdoktorand

Hej Liselotte,

jag har en gäststudent/doktorand från UCL som ska jobba på mitt projekt och undrar om jag får använder pengarna till finansiering av stipendium till henne så hon kan bekosta sina livskostn här i Sverige.

Hälsningar
Jörg

THE SAHLGRENSKA ACADEMY

INSTITUTE OF NEUROSCIENCE AND PHYSIOLOGY

Department of Neuroscience and Physiology
Supervisor: Jörg Hanrieder
Telephone No: 070 25 71 888
E-mail address: jh@gu.se

Training Plan (max. one A4 page)

Subject

Monitoring Amyloid Aggregation Dynamics In Vivo using iSILK

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Institute of Neuroscience and Physiology
PO Box 430, SE405 30 Göteborg
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www.neurophys.gu.se

1 (2)

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