AARHUS UNIVERSITY

Press release

Please fill in this form and return it to graduateschoolhealth@au.dk in Word format no later than three weeks prior to your defence.

Basic information

Name: Anders Valdemar Edhager Email: ave@clin.au.dk Phone: +4561600054

Department of: Clinical Medicine

Main supervisor: Associate Professor Johan Palmfeldt, Research Unit for Molecular Medicine, Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

Title of dissertation: Translational Proteomics for the Identification of Protein Alterations and Biomarkers in Disease Models

Date for defence: 24/10/2018 at (time of day): 13.00 Place: Auditorium in Science Center Skejby, Brendstrupgårdsvej 21A, 8200, Aarhus N

Press release (Danish)

Translationel proteomics for indentifikation af proteinændringer og biomarkører i sygdomsmodeller

Massespektrometri og proteomics er stærke analytiske redskaber inden for translationel medicin. Dette tredelte Ph.d.-projekt (Studie I-III), viser hvordan massespektrometri-baseret proteomics kan benyttes til at udlede molekylære mekanismer og til søgen efter nye biomarkører af sygdom. Ph.d.-projektet er gennemført på Aarhus Universitet, Health, af Anders Valdemar Edhager, der forsvarer det d. 24 oktober 2018.
Inaktivitet kombineret med næringsoverskud kan føre til overvægt, hvilket er en global byrde. Overvægt er en risikofaktor for komorbiditeter såsom inflammation i fedtvæv, insulin resistens, T2DM og kardiovaskulær sygdom. Formålene med Studie I og II var at afdække proteinændringer i henholdsvis rotte hjertemuskelaturen ved udvikling af T2DM og i inflammeret human fedtvæv, for at øge vores forståelse for de sygdomsbringende processer som følger disse tilstande.
I studie III blev en grisemodel brugt til at identificere nye mulige biomarkører for hypoksisk-iskæmisk encefalopati i plasma og cerebrospinalvæske, til tidlig og korrekt diagnosticering af nyfødte som blevet udsat for iltmangel til hjernen ved fødslen.
Forsvaret af ph.d.-projektet er offentligt og finder sted den 24/10 2018 kl. 13.00 i Auditoriet i Science Center Skejby, Aarhus Universitetshospital, Brendstrupgårdsvej 21A, 8200, Aarhus N. Titlen på projektet er "Translational Proteomics for the Identification of Protein Alterations and Biomarkers in Disease Models". Yderligere oplysninger: Ph.d.-studerende Anders Valdemar Edhager, e-mail: ave@clin.au.dk, tlf. +4578455410.

Bedømmelsesudvalg:
Professor Bent Honoré, Department of Biomedicine, Aarhus University, Aarhus, Denmark
Associate Professor Ruth Birner-Grünberger, Institute of Pathology, Medical University of Graz, Graz, Austria
Clinical Professor Kurt Højlund, Department of Endocrinology, Odense University Hospital, Odense, Denmark

Press release (English)

Translational Proteomics for the Identification of Protein Alterations and Biomarkers in Disease Models

Mass spectrometry and proteomics are strong tools in translational medicine. The present PhD project, divided in three parts (Study I-III), show how mass spectrometry based proteomics can be used to elucidate molecular mechanisms of disease and in the search for novel diagnostic biomarkers. The project was carried out by Anders Valdemar Edhager, who is defending his dissertation on October 24, 2018.

Sedentary lifestyles combined with excess nutritional intake leads to obesity, which has become a global health burden. Obesity is a risk factor for a wide range of co-morbidities including adipose tissue inflammation, insulin resistance, type 2 diabetes mellitus (T2DM), and cardiovascular disease. The aims of Study I and II were to reveal protein changes in the rat heart during the development of T2DM, and in inflamed human adipose tissue, respectively, to increase our understanding of the pathophysiological processes accompanying these disease conditions.
In Study III, a piglet model was used to identify potential candidate biomarkers in plasma and cerebrospinal fluid, for early and correct diagnosis of hypoxia-ischemia encephalopathy (HIE) of newborns exposed to asphyxia at birth.
The defense is public and takes place on 24/10-2018 at 13.00 in the Auditorium at Science Center Skejby, Aarhus University Hospital, Brendstrupgårdsvej 21A, 8200, Aarhus N. The title of the project is “Translational Proteomics for the Identification of Protein Alterations and Biomarkers in Disease Models”. For more information, please contact PhD student Anders Valdemar Edhager. Email: ave@clin.au.dk, Phone: +4578455410.

Assessment committee:
Professor Bent Honoré, Department of Biomedicine, Aarhus University, Aarhus, Denmark
Associate Professor Ruth Birner-Grünberger, Institute of Pathology, Medical University of Graz, Graz, Austria
Clinical Professor Kurt Højlund, Department of Endocrinology, Odense University Hospital, Odense, Denmark

Permission

By sending in this form:

- I hereby grant permission to publish the above Danish and English press releases.
- I confirm that I have been informed that any applicable inventions shall be treated confidentially and shall under no circumstances whatsoever be published, presented or mentioned prior to submission of a patent application, and that I have an obligation to inform my head of department and the university’s Patents Committee if I believe I have made an invention in connection with my work. I also confirm that I am not aware that publication violates any other possible holders of a copyright.