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: Stine Andersen Email: stineandersen@clin.au.dk Phone: +45 42361909

Department of: Clinical Medicine

Main supervisor: Jens Erik Nielsen-Kudsk

Title of dissertation: Neurohormonal and anti-fibrotic modulation in experimental right ventricular failure

Date for defence: 11 June 2020 at (time of day): 14:00 Place: Online Zoom event

Press release (Danish)

En undersøgelse af nye behandlingsmuligheder til højresidigt hjertesvigt

Et nyt ph.d.-projekt fra Aarhus Universitet, Health har undersøgt nye behandlingsmuligheder af højresidigt hjertesvigt. Projektet har karakteriseret en dyremodel for forskellige sværhedsgrader af højresidigt hjertesvigt og anvendt denne model til at undersøge to nye mulige strategier til behandling af højresidigt hjertesvigt. Projektet, der er gennemført af Stine Andersen, vil blive forsvaret d. 11/6 2020.

Hos patienter med forhøjet blodtryk i lungekredsløbet skal højre hjertekammer pumpe mod et meget højere tryk end normalt. Denne belastning af hjertet fører med tiden til højresidigt hjertesvigt, som er en af de primære dødsårsager hos disse patienter. På trods heraf findes der i dag ingen muligheder for direkte at behandle det svigtende højre hjertekammer. I jagten på nye behandlingsmuligheder er udviklingen og anvendelsen af robuste og velkarakteriserede dyre-modeller er afgørende. Dette ph.d.-projekt har beskrevet en rottemodel for forskellige sværhedsgrader af højresidigt hjertesvigt og undersøgt to nye mulige behandlinger modellen. Den første behandling er rettet mod dannelsen af arvæv i højre hjertekammer, mens den anden behandling er rettet mod den neurohormonelle ubalance, som bidrager til udviklingen af højresidigt hjertesvigt.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 11/6 kl. 14:00. Titlen på projektet er ”Neurohormonal and anti-fibrotic modulation in experimental right ventricular failure”. Grundet COVID-19 vil forsvaret blive gennemført online via Zoom. Link med adgang til forsvaret kan fremsendes ved henvendelse til ph.d.-studerende Stine Andersen, e-mail: stineandersen@clin.au.dk, tlf. +45 42361909.

Bedømmelsesudvalg:
- Professor Marion Delcroix, MD, PhD, Department of Pulmonology, University Hospitals Leuven, Belgien
- Professor Göran Rådegran, MD, DMSc, The Section for Heart Failure and Valvular Disease, Skåne University Hospital, Sverige
- Professor Steen Dalby Kristensen, MD, DMSc, Afdeling for Hjertesygdomme, Aarhus Universitetshospital, Danmark

Press release (English)

An investigation of new treatment options for right heart failure

A new PhD study fra Aarhus University, Health has investigated new treatment options for right heart failure. The project has characterized an animal model of different severities of right heart failure and used this model to investigate two potential treatments for right heart failure. The project was carried out by Stine Andersen, who is defending her dissertation on 11/6 2020.

In patients with elevated blood pressure in the pulmonary circulation, the right ventricle has to pump against a much higher pressure than normally. With time, this pressure overload leads to right heart failure, which is one of the leading causes of death in this patient group. Despite this, no treatment exists that directly targets the failing right ventricle. In the search for new treatment options, the development and use of robust and well-characterized animal models are essential. This PhD project has described a rat model of different severities of right heart failure and investigated two new potential treatments in this model. The first treatment targets the formation of scar tissue in the right ventricle, whereas the second treatment targets the neurohormonal imbalance, that contributes to the development of right heart failure.

The defence is public and takes place on 11 June 2020 at 14:00. Due to COVID-19, the defence will be held online via Zoom. The title of the project is Neurohormonal and anti-fibrotic modulation in experimental right ventricular failure. Please contact PhD student Stine Andersen (stineandersen@clin.au.dk) to receive a link to participate in the online defence.

Assessment committee:
- Professor Marion Delcroix, MD, PhD, Department of Pulmonology, University Hospitals Leuven, Belgium
- Professor Göran Rådegran, MD, DMSc, The Section for Heart Failure and Valvular Disease, Skåne University Hospital, Sweden
- Professor Steen Dalby Kristensen, MD, DMSc, Department of Cardiology, Aarhus University Hospital, Denmark

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