

## **Press release**

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## **Basic information**

Name: Wieke Haakma Email: whaa@clin.au.dk Phone: 87167500

Department of: Forensic Medicine

Main supervisor: Lene Warner Thorup Boel

Title of dissertation: Advances in Forensic Imaging - CT angiography and diffusion MRI of the nervous

system

Date for defence: September 29th at (time of day): 13:30 Place: Moesgaard museum

Press release (Danish)

CT angiografi og diffusions MR scanning af nervevæv: videreudvikling af retsmedicinsk billeddiagnostik. Et nyt ph.d.-projekt fra Aarhus Universitet, Health.

De diagnostiske metoder i retsmedicinen kan til stadighed forbedres. Således har billeddiagnostikken vundet tiltagende indpas og er nu et anerkendt vigtigt supplement til, og endda i nogle tilfælde en mulig erstatning for, en tradtionel obduktion. Dette projekt har to formål: for det første at undersøge de mikrovaskulære strukturer hos afdøde personerved hjælp af CT angiografi; for det andet at undersøge nervevæv hos afdøde personer og kvantitere dets mikrostrukturelle egenskaber ved anvendelse af diffusions MR scanning. Resultaterne viser, at disse billeddiagnostiske metoder kan visualisere læsioner i såvel kar som nerver. Anvendelsen af disse metoder kan forbedre den retsmedicinske diagnostik samt tjene som en vigtig dokumentation. Projektet er gennemført af Wieke Haakma.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 29/09 kl. 13.30 i auditoriet på Moesgaard Museum, Moesgaard Allé 15, 8270 Højbjerg. Titlen på projektet er "Advances in Forensic Imaging - CT angiography and diffusion MRI of the nervous system". Yderligere oplysninger: Ph.d.-studerende Wieke Haakma, e-mail: whaa@clin.au.dk.

Bedømmelsesudvalg:

Lektor, dr.med. Finn Rasmussen, Røntgen og Skanning, Aarhus Universitetshospital

Professor, dr.med. Michael Thali, Institut für Rechtsmedizin Zürich, Schweiz

Professor, dr.med. Peter Mygind Leth, Retsmedicinsk Institut, Syddansk Universitet

Press release (English)

Advances in Forensic Imaging - CT angiography and diffusion MRI of the nervous system

There is an ongoing need for improved diagnostic methods in forensic sciences. The use of imaging modalities has gained much interest in forensic settings and may contribute to, or possibly replace, conventional autopsy. This thesis had two main goals: First, to investigate the (micro)vascular structures in post-mortem (PM) subjects. Second, to investigate nervous structures and characterize their microstructural properties in PM subjects. This was done by applying different imaging modalities such as computed tomography angiography (CTA) to clearly identify the vascular system, and diffusion tensor imaging (DTI) to investigate and quantify nervous structures PM. This thesis showed the ability of both imaging modalities to document vascular and nervous lesions. The application of these techniques may help to improve forensic diagnosis and documentation. The project was carried out by Wieke Haakma, who is defending her dissertation on 29/09.



The defence is public and takes place on 29/09 in the auditorium of the Moesgaard museum, Moesgard Allé 15, 8270 Højbjerg. The title of the project is "Advances in Forensic Imaging - CT angiography and diffusion MRI of the nervous system". For more information, please contact PhD student Wieke Haakma, email: whaa@clin.au.dk.

Assessment committee: Michael Thali, Professor, MD, PhD Institut für Rechtsmedizin, Universität Zürich, Schwitzerland

Peter Mygind Leth, Professor, MD, PhD Institute of Forensic Medicine, University of Southern Denmark, Denmark

Finn Rasmussen, Associate Professor, MD, PhD Department of Radiology, Aarhus University Hospital, Denmark

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