

Press release

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Basic information

Name: Lotte Kaasgaard Jakobsen

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Department of: Clinical Medicine

Main supervisor: Professor L. Henning Olsen

Title of dissertation: The Development of the Urinary Tract - Studies on contractile properties, aquaporin expression and urine composition

Date for defence: March 23rd at (time of day): 14 Place: auditorium B, Aarhus University Hospital, Skejby

Press release (Danish)

Kan man påvirke urinvejene allerede i fosterlivet og derved reducere konsekvenserne af medfødte misdannelser?

Dette undersøges i et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Læge Lotte Kaasgaard Jakobsen, afhandlingen forsvares torsdag d. 23. marts 2017.

Urinvejene er den del af kroppen der oftest er påvirket af medfødte misdannelser. Faktisk fødes 2 % af alle nyfødte med en misdannelse i urinvejene. Nogle er milde og kan nemt korrigeres, men andre er alvorlige og vil påvirke hele barnets liv. Ofte er det muligt at erkende misdannelserne allerede under de rutinemæssige scanninger i løbet af graviditeten. I dette phd-projekt ser vi nærmere på hvornår og hvordan blærefunktionen udvikles. Dette er med henblik på at finde det optimale tidspunkt for at sætte ind med behandling, som i svære tilfælde måske allerede skal startes inden fødslen. Vi undersøger desuden tilstedeværelsen og udviklingen af vandkanaler i urinvejenes slimhinder, samt hvordan urinens sammensætning ændrer sig gennem passagen af urinvejene. Hvis vandkanalerne opreguleres som følge af visse misdannelser kan en måling af vandkanalerne for eksempel i fostervandet måske forudsige noget om sværhedsgraden af misdannelsen. Forsvaret af ph.d.-projektet er offentligt og finder sted den 23/3 kl. 14 i auditorium B, Aarhus Universitetshospital, Palle Juul-Jensens Boulevard 99, 8200 Århus N. Titlen på projektet er The Development of the Urinary Tract - Studies on Contractile Properties, Aquaporin Expression and Urine Composition. Yderligere oplysninger: Ph.d.-studerende Lotte K. Jakobsen, e-mail: LotteKJ@clin.au.dk, tlf. 22762227.

Press release (English)

Is it possible to affect the urinary tract already during foetal life, thereby reducing consequences of congenital malformations?

This question is addressed in a new PhD-project from Aarhus University, Health. The project was carried out by MD Lotte Kaasgaard Jakobsen, who is defending her dissertation on March 23rd.

The urinary tract is the part of the body most often affected by congenital malformations. In fact, as much as 2 % of newborns have a malformation in their urinary tract. The malformation is sometimes mild and easy to treat, but in other cases the malformation is serious and will affect the child throughout life. It is often possible to detect malformations already during routine pregnancy scans. In this project we examine how and when bladder function develops. We hope in this way to better predict the optimal timepoint for intervention, which in severe cases might be relevant already during foetal life. We further examine the expression and development of water channels in the urinary tract and how urine composition changes during passage of the urinary tract. If water channels are upregulated due to malformations, maybe measuring water channels in the amniotic fluid can predict

the severity of the malformation. The defence is public and takes place on March 23rd at 2 pm in auditorium B, Aarhus University Hospital, Palle Juul-Jensens Boulevard 99, 8200 Århus N. The project title is: The Development of the Urinary Tract - Studies on Contractile Properties, Aquaporin Expression and Urine Composition. For more information, please contact Ph.d.-student Lotte K. Jakobsen, e-mail: LotteKJ@clin.au.dk, tlf. +45 22762227.

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