

## Media release

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### Basic information

Name: Alexander Fjældstad Email: Alefja@rm.dk Phone:

Department of: Clinical Medicine

Main supervisor: Therese Ovesen

Title of dissertation: Testing olfactory function and mapping the structural olfactory networks in the brain

Date for defence: 10/2 at (time of day): 14 Place: Palle Juul Jensen Auditoriet, Nørrebrogade 44, bygning 10G, Aarhus Universitet, 8000 Aarhus C

Media release (Danish)

Nye metoder til undersøgelse af lugtesansen.

Nyt ph.d. projekt fra Aarhus Universitet, Health, kan få stor betydning for udredning af patienter, der har mistet lugtesansen. Bag ph.d. -projektet står læge Alexander Fjældstad, som forsvarede projektet den 10/2/2017

Selvom nedsat eller tabt lugtesans er et fænomen, der berører op til at en femtedel af befolkningen, har det ikke tidligere haft stort lægevidenskabeligt fokus. Dette er dog ændret i de forgangne år, idet mange neurologiske og psykiatriske lidelser præsenterer sig ved en nedsat lugtesans. Det tidlige tab af lugtesansen kan derfor give indsigt i hvordan disse sygdomme udvikler sig, men kan også give mulighed for tidlig opsporing og behandling af disse sygdomme. Langt de fleste får dog nedsat lugtesans grundet blokering af duftmolekyler i næsen, og det kan være svært at skelne hvilken udløsende årsag der ligger bag sansetabet. Alexander Fjældstad har i sit ph.d. projekt etableret den første validerede lugtesanstest på dansk samt belyst nogle af de mekanismer der ligger bag vores evne til at genkende dufte. Projektet har ligeledes medført en revurdering af det område i hjernen man normalt måler på, når man udfører funktionelle skanninger af lugtesansen. Ved at analysere lugtesansens strukturelle hjernenetværk, er lugtecenterets forbindelser til øvrige områder i hjernen kortlagt, hvilket muliggør en helt ny form for analyser af lugtesansens ændringer i hjernen.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 10/2/2017 kl. 14 i Palle Juul Jensen Auditoriet, Nørrebrogade 44, bygning 10G, Aarhus Universitet, 8000 Aarhus C. Titlen på projektet er "Testing olfactory function and mapping the structural olfactory networks in the brain". Yderligere oplysninger: Ph.d.-studerende Alexander Fjældstad, email: Alefja (at) rm.dk.

Media release (English)

New methods for testing human olfaction.

A new PhD project from Health, Aarhus University, shows new insights to the sense of smell and how to test it. The project was carried out by Alexander Fjældstad, MD, who is defending his dissertation on the 10<sup>th</sup> of February 2017.

Though a diminished sense of smell is a common phenomenon, it has previously received little medical attention. However, in recent years, links between olfactory loss and prodromal symptoms in neurological and psychiatric diseases have been established. Thus, early loss of olfactory function may offer an insight to the early stages of disease progress, and perhaps an opportunity for early diagnosis and treatment. However, the vast majority suffers from olfactory loss due to obstruction of odorants in the nasal cavity and mucosa, and it can prove difficult to verify the originating cause of the olfactory loss. Alexander Fjældstad has in his PhD project established the first validated Danish olfactory test

and described some of the mechanisms behind our abilities to identify odours. Furthermore, the project has resulted in a redefinition of the olfactory parcellation used for analysing olfactory neuroimaging studies. By analysing the olfactory structural connectivity pattern, a new way of investigating olfactory networks and changes to olfactory connectivity in the brain has emerged.

The defence is public and takes place on 10<sup>th</sup> of February in the Palle Juul Jensen Auditorium, Aarhus University, Noerrebrogade 44, Bldg. 10G, Aarhus. The title of the project is "Testing olfactory function and mapping the structural olfactory networks in the brain". For more information, please contact PhD student Alexander Fjaeldstad, email: Alefja (at) rm.dk.

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