

Press release

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Basic information

Name: Yulia Olsen Email: yo@ph.au.dk Phone: +4587158739

Department of: Public Health

Main supervisor: Torben Sigsgaard

Title of dissertation: Airborne Alternaria and Cladosporium spores in Denmark

Date for defence: 15 August at (time of day): 10:00 Place: Fysiologisk auditorium

Press release (Danish)

Høje koncentrationer af luftbårne Alternaria- og Cladosporium-sporer i Danmark er forbundne med lokal kornhøstning

Et nyt ph.d.-projekt fra Aarhus Universitet, Health har bestemt luftkoncentrationer af sporer fra de to dominerende svampetyper i rum og tid og har undersøgt, om lokale landbrugsområder kan have indflydelse på sporefrigivelsen.

Projektet er gennemført af MSc, PhD studerende, Yulia Olsen, der forsvare det d. 15. August 2019

Luftbårne Alternaria- og Cladosporium-sporer bærer aeroallergener forbundet med øget astma-sværhedsgrad hos sensibiliserede individer. Dog vides der kun lidt om deres forekomst i Danmark, deres kilder, samt de forhold der medfører stigning i sporkoncentrationer. Dette projekt viser, at Alternaria-koncentrationer kan nå højere værdier i det vestlige Danmark sammenlignet med det østlige Danmark på grund af mere intensivt landbrug i regionen. Kornhøst viste sig at være den vigtigste årsag til frigivelse af Alternaria sporer, og var samtidig forbundet med høje Cladosporium sporkoncentrationer.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 15. August 2019, kl. 10.00 i Fysiologisk auditorium, Aarhus Universitet, Ole Worms Allé 4, 8000 Aarhus C. Titlen på projektet er "Airborne Cladosporium and Alternaria in Denmark". Yderligere oplysninger: Ph.d.-studerende Yulia Olsen, e-mail: yo@ph.au.dk, tlf.+4587158739.

Bedømmelsesudvalg:

Professor Hans Jürgen Hoffmann (formand for bedømmelsesudvalget)
Institut for Klinisk Medicin - Lungemedicinsk afdeling, NBG,
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Associate Professor, Senior lecturer Jakob Löndahl; Ergonomics and Aerosol Technology,
Department of Design Sciences, Faculty of Engineering LTH,
Lund University, Lund, Sweden

Associate Professor Idalia Kasprzyk;
Department of Ecology and Environmental Biology, Faculty of Biology and Agriculture,
University of Rzeszow, Rzeszow, Poland

Press release (English)

High concentrations of airborne *Alternaria* and *Cladosporium* spores in Denmark are associated with local grain harvesting.

A new PhD project from Aarhus University has explored air concentrations of two most dominant fungal spore types spatially and temporally, questioning whether local agricultural fields can influence the spore release.

The project was carried out by MSc, PhD student, Yulia Olsen, who is defending her dissertation on August 15, 2019.

Airborne *Alternaria* and *Cladosporium* spores carry aeroallergens associated with increased asthma severity in sensitized individuals. However, little is known as about their occurrence in Denmark about the sources as well as factors related to increase in concentrations. This project showed that *Alternaria* concentrations can reach higher values in western Denmark, compared to eastern, due to more intensive agriculture in the region. Grain harvesting was found to be the main cause of *Alternaria* spore release, and it was also associated with high *Cladosporium* spore concentrations.

The defence is public and takes place on August 15, 2019 at 10:00 in Fysiologisk auditorium, Building 1162, Aarhus University, Ole Worms Allé 4, 8000 Aarhus C. The title of the project is "Airborne *Alternaria* and *Cladosporium* in Denmark". For more information, please contact PhD student Yulia Olsen, email: yo@ph.au.dk, Phone +4587158739.

Assessment committee:

Professor Hans Jürgen Hoffmann (chairman and moderator of the defence)
Department of Respiratory Diseases and Allergy, Clinical Medicine,
Aarhus University

Associate Professor, Senior lecturer Jakob Löndahl Ergonomics and Aerosol Technology,
Department of Design Sciences, Faculty of Engineering LTH,
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