

Press release

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Basic information

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Department of: Clinical Medicine

Main supervisor: Henrik A. Kolstad

Title of dissertation: Occupational Exposure to Respirable Crystalline Silica, Styrene and risk of Autoimmune Rheumatic Diseases

Date for defence: 24th of February at (time of day): 5.00 PM Place: online

Press release (Danish)

Udsættelse for respirabelt krystallinsk silica og styren i arbejdsmiljøet og risiko for autoimmune reumatologisk sygdomme

"Occupational Exposure to Respirable Crystalline Silica, Styrene and risk of Autoimmune Rheumatic Diseases" er titlen på et PhD projektet, gennemført af Signe Hjuler Boudigaard ved Aarhus Universitet, Health.

Autoimmune reumatologiske sygdomme er en gruppe sjælden sygdomme, hvor immunforsvaret angriber og ødelægger kroppens egne celler, væv og organer. En række studier har peget på forhold i arbejdsmiljøet, bl.a. krystallinsk silica og organiske opløsningsmidler, som mulige risikofaktorer for udvikling af disse sygdomme.

Mange faggrupper udsættes for krystallinsk silica (kvartsholdigt støv), når produkter af sand og sten håndteres. Styren er et organisk opløsningsmiddel, som anvendes i produktionen af glasfiber og anden plast.

PhD projektet sammenkobler historiske arbejdspladsmålinger med informationer fra de omfattende danske registre over arbejdsstyrken og patientregistre. Projektet viser en øget risiko for de autoimmune reumatologiske sygdomme efter udsættelse for respirabelt krystallinsk silica. Projektet indikerer, at der kan være en sammenhæng mellem styren og en af de undersøgte sygdomme.

PhD projektet omfatter desuden nye målinger af kvartsstøvniveauet blandt forskellige faggrupper i Danmark. Disse bruges til at undersøge, hvilke forhold, der har betydning for høje kvartsstøvniveauer.

Forsvaret af PhD projektet afholdes d. 24/02 2021 kl 17.00. Det er offentligt og vil pga. COVID-19 restriktioner afholdes virtuelt. Link til virtuel deltagelse kan tilsendes ved kontakt til Kirsten Pughahl, kirpug@rm.dk

Yderligere oplysninger: Ph.d.-studerende Signe Hjuler Boudigaard, e-mail: sigkrt@rm.dk

Ellen Margrethe Hauge (Formand for bedømmelsesudvalget), professor, reumatologisk afdeling, Aarhus Universitets Hospital, Danmark

Noah S. Seixas, professor, Miljø og Arbejdsmedicinsk afdeling, Folkesundhedsvidenskab, Washington Universitet, Seattle, USA

Lars Alfredsson, professor, Institut for miljømedicin, Karolinska Institutet, Solna, Sverige

Press release (English)

"Occupational Exposure to Respirable Crystalline Silica, Styrene and risk of Autoimmune Rheumatic Diseases"

"Occupational Exposure to Respirable Crystalline Silica, Styrene and risk of Autoimmune Rheumatic Diseases" is the title of a PhD project carried out by Signe Hjuler Boudigaard at Aarhus University, Health.

Autoimmune rheumatic diseases are a group of rare diseases, in which the body's immune system attacks and destroys its own cells, tissues and organs.

A number of studies suggest occupational exposures such as respirable crystalline silica and organic solvents as potential risk factors. Workers are potentially exposed to respirable crystalline silica in occupations where products of sand and stone are handled. Styrene is an organic solvent used in the production of reinforced and other plastics.

The PhD project combines historical workplace measurements with information from the Danish comprehensive registers of employment and national patient registers. The project suggests an increased risk of autoimmune rheumatic diseases following exposure to respirable crystalline silica. There is only indication of an association between styrene exposure and one of the studied diseases. The PhD project also includes new air measurements of quartz across different occupations in Denmark. These are used to examine determinants of high quartz concentrations.

The defence will be held on the 24/02 2021 at 5.00 PM. It is public and due to the current COVID-19 pandemic, it will be virtual. A link for online participation can be provided from Kirsten Pugdahl, kirpug@rm.dk

For more information, please contact PhD student Signe Hjuler Boudigaard, e-mail: sigkrt@rm.dk

Assessment committee:

Ellen Margrethe Hauge (Chairman and moderator of the defense), Professor, Dept. of Rheumatology, Aarhus University Hospital, Denmark

Noah S. Seixas, Professor, Dept. of Environmental and Occupational Health Sciences, School of Public Health, University of Washington, Seattle, USA

Lars Alfredsson, Professor, Institute of Environmental Medicine, Karolinska Institute, Solna, Sweden

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