

Press release

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Basic information

Name: Sara Konstantin Nissen

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Department of: Biomedicine

Main supervisor: Trine Hyrup Mogensen

Title of dissertation: HIV and the innate immune system: genetics and innate immune activation in HIV long-term non-progressors

Date for defence: 22/6-2018 at (time of day): 13.00 Place: "Læsesalen" (room 211) in the Bartholin building at Aarhus Universitet, building 1241, Wilhelm Meyers Allé 4, 8000 Aarhus C.

Press release (Danish)

Genetiske varianter bidrager til et favorabelt forløb under hiv infektion.

I et nyt ph.d.-projekt fra Aarhus Universitet, Health har molekylær mediciner og Ph.d. studerende Sara Konstantin Nissen undersøgt den gentiske bagrund hos særlige og sjældne hiv-patienter, som er i stand til at kontrollere hiv-infektionen uden behandling.

Et væsenligt fund var identifikation af en trippel variant i genet STING, som blev fundet hos en af de 11 danske hiv-"elite controller"-patienter. I laboratoriet viste forsøg på patient- og kontrol-celler, at celler fra hiv-patienten med STING-varianterne producerer mindre inflammation, mindre hiv-deling og mindre immuncelledød. Dermed kan STING-varianterne være en medvirkende faktor til patientens kontrol af hiv i årtiger uden behandling.

Samlet set har studiet ført til ny viden om mekanismerne bag hiv-sygdomsprogression. Desuden kan studiet give inspriation til nye studier af nye portentielle behandlingsmuligheder rettet mod STING.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 22/06-18 kl. 13.00 i Bartolin bygningen (1241), rum 211, Aarhus Universitet, Wilhelm Meyers Allé 4, 8000 Aarhus C. Titlen på projektet er "HIV and the innate immune system: Genetics and innate immune activation in HIV long-term non-progressors". Yderligere oplysninger: Ph.d.-studerende Sara K. Nissen, e-mail: sarakn@biomed.au.dk, tlf. 87167856.

Bedømmelsesudvalg: Assistant professor Nadia Roan, MSc, PhD Gladstone Institute, Department of Urology University of California San Francisco, San Francisco, USA

Dr. Anne Hosmalin, MD PhD Institut Cochin, Department of Infection, Immunity and Inflammation Paris-Sorbonne University, Paris, France

Chairman of the committee and moderator of the defense Professor MSO, Thomas Juul Corydon, MSc, PhD Department of Biomedicine

Press release (English) Genetic variants contributing to the HIV elite controller phenotype

A new PhD project from Aarhus University carried out by Sara Konstantin Nissen, describes rare genetic variants contibuting to slow disease progression in untreated HIV patients.



An important result from the study was the identification of a triple variant in the gene STING in one of the 11 rare danish HIV elite contoller patients. From experiements on patient and control cells it was shown that cells from the STING-variant carrying patients exhibited less inflammation, less HIV replication and reduced immune cell death. Hence the STING-variants seem to be a contributing factor to the slow disease progression and HIV control despite untreated HIV infection for decades. This study has provided important knowledge about the mechanisms underlying HIV disease progression. Furthermore, the study lays the ground for further studies on potential new drugs targeting STING.

The defence is public and takes place June 22nd 2018 at Building 1241 in room 211, Aarhus University, Wilhelm Meyers Allé 4, 8000 Aarhus C. The title of the project is "HIV and the innate immune system: Genetics and innate immune activation in HIV long-term non-progressors". For more information, please contact PhD student Sara K. Nissen, email: sarakn@biomed.au.dk, Phone +45 87167856.

Assessment committee: Assistant professor Nadia Roan, MSc, PhD Gladstone Institute, Department of Urology University of California San Francisco, San Francisco, USA

Dr. Anne Hosmalin, MD PhD Institut Cochin, Department of Infection, Immunity and Inflammation Paris-Sorbonne University, Paris, France

Chairman of the committee and moderator of the defense Professor MSO, Thomas Juul Corydon, MSc, PhD Department of Biomedicine Aarhus University, Aarhus, Denmark

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