

Press release

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Basic information

Name: Alice Pedersen Email: ak@biomed.au.dk Phone: 25305518

Department of: Biomedicine

Main supervisor: Søren Riis Paludan

Title of dissertation: Characterization of STING-activated IRF3 and NF- κ B p65 pathways at the single cell level

Date for defence: 25/11-2020 at (time of day): 14:30 - 16:30 Place: Zoom (link to meeting: <https://aarhusuniversity.zoom.us/j/68077983277>)

Press release (Danish)

Virtuelt ph.d.-forsvar: Alice Pedersen

Characterization of STING-activated IRF3 and NF- κ B p65 pathways at the single cell level - et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Alice Pedersen, der forsvare det onsdag d. 25/11-2020.

Proteinet STING inducerer udtrykket af antivirale type 1 interferoner og pro-inflammatoriske cytokiner via transkriptionsfaktorerne IRF3 og NF- κ B p65, og er afgørende for the medfødte immunforsvar imod indtrængende mikroorganismer. Overaktivering af STING kan imidlertid føre til inflammatoriske sygdomme. Man undersøger i øjeblikket STING som et muligt mål for immunomodulatorisk behandling, hvilket kræver en dyb viden om STING signalering. Vi har derfor karakteriseret STING-activerede signalveje på enkeltcelle niveau. Vi viser, at STING-medieret NF- κ B p65 aktivering afhænger af IRF3. Disse interessante resultater kan guide undersøgelserne af STING-målrættede behandlinger.

Forsvaret af ph.d.-projektet er offentligt og finder sted onsdag den 25/11-2020 kl. 14.30 på Zoom. Titlen på projektet er "Characterization of STING-activated IRF3 and NF- κ B p65 pathways at the single cell level". Yderligere oplysninger: Ph.d.-studerende Alice Pedersen, e-mail: ak@biomed.au.dk, tlf. 25305518.

Bedømmelsesudvalg:

Lektor Malene Hvid - formand for bedømmelsesudvalg og moderator ved forsvaret - Institut for Biomedicin/Klinisk Medicin, Aarhus Universitet, Aarhus, Denmark

Lektor Leonie Unterholzner Division of Biomedical and Life Sciences, Lancaster University, Lancaster, Storbritannien

Lektor Troels Scheel, Institut for Immunologi og Mikrobiologi, Københavns Universitet, København, Danmark

Press release (English)

Online PhD defence: Alice Pedersen

Characterization of STING-activated IRF3 and NF- κ B p65 pathways at the single cell level: The project was carried out by Alice Pedersen, who is defending her dissertation on Wednesday 25/11-2020.

The protein STING induces the expression of antiviral type 1 interferons and pro-inflammatory cytokines through the transcription factors IRF3 and NF- κ B p65, respectively, and is key for the innate immune defence against invading pathogens. However, over-activation of STING can lead to inflammatory disease. STING is currently being explored as target for immunomodulatory therapy. This requires a detailed knowledge on STING signalling. Therefore, we have characterized the STING-activated pathways at the single cell level. Interestingly, we find that the STING-activated NF- κ B p65 requires IRF3. Our results will aid the investigation of STING as an immunomodulatory therapeutic target.

The defence is public and takes place on Wednesday 25/11-2020 at 14:30 - 16:30 on Zoom. The title of the project is Characterization of STING-activated IRF3 and NF- κ B p65 pathways at the single cell level. For more information, please contact PhD student Alice Pedersen, email: ak@biomed.au.dk, Phone +45 2530 5518.

Assessment committee:

Associate professor Malene Hvid - chairman of the committee and moderator of the defence
Department of Biomedicine/Clinical Medicine, Aarhus University, Aarhus, Denmark

Associate Professor Leonie Unterholzner Division of Biomedical and Life Sciences, Lancaster University, Lancaster, UK

Associate professor Troels Scheel Department of Immunology and Microbiology, Copenhagen University, Copenhagen, Denmark

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