Press release

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Basic information

Name: Anders Laustsen Email: anders.laustsen@biomed.au.dk Phone: 28406215

Department of: Biomedicine

Main supervisor: Martin Roelsgaard Jakobsen

Title of dissertation: Studies on Plasmacytoid Dendritic Cells: A new and versatile platform to elucidate key biological questions

Date for defence: 07-11-2017 at (time of day): 14:00 Place: The lecture theatre Eduard Biermann, Lakeside Lecture Theatres, Aarhus University, 8000 Aarhus C

Press release (Danish)

Studier på plasmacytoide dendritiske celler: en ny og alsidig platform til at belyse biologiske fænomener

Et nyt ph.d.-projekt på Aarhus Universitet, Health, bidrager til ny forståelse af de sjældne plasmacytoide dendritiske celler (pDC'er). Bag projektet står cand. scient. Anders Laustsen, som forsvarer sin afhandling d. 07 november 2017.

pDC'er udgør en unik celletype, som har en central og vigtig rolle i immunforsvaret, herunder i genkendelsen og bekæmpelsen af virus infektioner. Nyere forskning antyder, at celletypen også har en vigtig rolle i autoimmune sygdomme og kræft. Af denne grund er pDC'er blevet eftertragtede indenfor forskningsverdenen, og særligt indenfor immunterapi. Dog er pDC'er svære at studere, da celletypen er meget sjælden.

Anders Laustsen har udviklet en ny metode, som muliggør undersøgelsen af pDC'er. Metoden bygger på blodets stamceller, som under specifikke forhold kan udvikle sig til pDC'er. Ved hjælp af metoden har Anders Laustsen belyst nøgle betingelser, som er nødvendige for at pDC'er udvikles og responderer på virus. Ydermere har han vist, at det er muligt at manipulere cellerne genetisk, hvilket vil muliggøre studiet af nye interessante mekanismer. Anders Laustsens arbejde har interessante perspektiver, da det muliggør dybdegående studier af en celletype, som ikke har været mulige før.

Forsvaret af ph.d.-projektet er offentligt og finder sted d. 07 november kl. 14:00 i Eduard Biermann Auditoriet (bygning 1252, lokale 204), Søauditorierne, Aarhus Universitet, 8000 Aarhus C. Titlen på projektet er "Studies on Plasmacytoid Dendritic Cells: a new and versatile platform to elucidate key biological questions". For yderligere information, kontakt ph.d.-studerende Anders Laustsen, e-mail: anders.laustsen@biomed.au.dk, tlf.: 28406215

Bedømmelsesudvalg:

Andreas Wack, Professor, The Francis Crick Institute, London, United Kingdom

Ulrich Kalinke, Director and Professor, Twincore, Institute for Experimental Infection Research, Hannover Germany

Steen Vang Petersen (Chairman), Associate Professor, Department of Biomedicine, Aarhus University, Aarhus, Denmark

Press release (English)

Studies on Plasmacytoid Dendritic Cells: a new and versatile platform to elucidate key biological questions

A new PhD project from Health, Aarhus University, contributes to a new understanding of the rare plasmacytoid dendritic cells (pDCs). The project has been carried out by MSc Anders Laustsen, who is defending his dissertation on November 7th, 2017.

pDCs represent a unique type of immune cells that have a central role in the immune system, in particular during viral infections. Increasing evidence has emphasized the role of the cell type within other diseases, including autoimmune disease and cancer. Consequently, pDCs have become prime targets of immunotherapy, prompting research into their mechanisms. However, given the rarity of the cell type, pDCs are difficult to obtain in numbers to facilitate research.

During his PhD, Anders Laustsen, has made a method that allow the study of pDCs. The method is based on blood stem cells that are induced to develop into pDCs under specific conditions. Using this method, Anders Laustsen has eludicated key factors that are essential for pDCs to attain activity and respond to pathogens. Moreover, Anders Laustsen has shown that it is possible to manipulate the pDCs genetically. Overall, Anders Laustsens work has some interesting perspectives, as it allows intricate and extensive studies to be performed on a cell type that has not been conceivable thus far.

The defense is public and takes place on 7/11-2017 at 14 pm in the Eduard Biermann Auditorium (building 1252, room 204), Lakeside Lecture Theatres, Aarhus University, 8000 Aarhus C. The title of the project is "Studies on Plasmacytoid Dendritic Cells: a new and versatile platform to elucidate key biological questions". For more information, please contact PhD student Anders Laustsen, e-mail: anders.laustsen@biomed.au.dk, phone: 28406215

Assessment committee:

Andreas Wack, Professor, The Francis Crick Institute, London, United Kingdom

Ulrich Kalinke, Director and Professor, Twincore, Institute for Experimental Infection Research, Hannover Germany

Steen Vang Petersen (Chairman), Associate Professor, Department of Biomedicine, Aarhus University, Aarhus, Denmark

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