AARHUS UNIVERSITY

Media release

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Basic information

Name: Simon Lykkemark Email: SimonL@mb.au.dk Phone: 21675351

Department of: Clinical Medicine

Main supervisor: Kim Ryun Drasbek

Title of dissertation: A novel phage display selection method for pericyte biomarker discovery

Date for defence: Monday 23 January 2017 at (time of day): 13.00 Place: Biochemistry 6, Aarhus University (building 1170, room 347)

Media release (Danish)

Phage display of recombinant antibodies for the discovery of novel pericyte biomarkers

Pericytter er i mange år blev betragtet udelukkende som støtteceller for endotelceller i blodkar. Nyere forskning i pericytter har imidlertid vist, at pericytten er en vital komponent i blodkar med vigtige funktioner i vaskulær udvikling, stabilisering og remodellering. Endvidere er et reduceret pericyt-dække af kapillærer og pericyt dysfunktion blevet forbundet med forskellige neurodegenerative lidelser, herunder diabetisk retinopati, amyotrofisk lateral sklerose (ALS) og Alzheimers sygdom. Forskning i pericyttens funktioner og deres potentielle bidrag i patologiske tilstande er begrænset af manglen på specifikke molekylære markører til genkendelse af pericytter. I et nyt ph.d.-projekt fra Aarhus Universitet, Health, har Simon Lykkemark haft fokus på anvendelsen af phage-display af rekombinante antistoffer med det formål at identificere hidtil ukendte biomarkører for pericytten. I jagten på nye biomarkører har Simon udviklet en ny metode, der gør det muligt at målrette antistof selektioner imod bestemte celler i en blanding af forskellige celletyper og imod bestemte områder i vævssnit. Projektet er gennemført af Simon Lykkemark, der forsvarer det 23/01-2017

Forsvaret af ph.d.-projektet er offentligt og finder sted den 23/01-2017 kl. 13.00 i Biokemi auditorium 6, Aarhus Universitet, Ole Worms Allé 3, 8000, Aarhus C. Titlen på projektet er ”A novel phage display selection method for pericyte biomarker discovery”. Yderligere oplysninger: Ph.d.-studerende Simon Lykkemark, e-mail: SimonL@mb.au.dk, tlf. 21675351.

Media release (English)

Phage display of recombinant antibodies for the discovery of novel pericyte biomarkers

For many years the pericytes were suggested to solely serve as scaffolding for endothelial cells in microvessels. However, recent pericyte research has demonstrated that the pericyte is a vital component of microvessels with important functions in vascular development, stabilization and remodeling. Moreover, reduced capillary pericyte-coverage and pericyte dysfunction have been linked to various neurodegenerative disorders including diabetic retinopathy, amyotrophic lateral sclerosis and Alzheimer’s disease. Research on pericyte function and their potential contributions in pathological conditions is hampered by the lack of specific molecular markers for the pericyte. In a new PhD project at Aarhus University, Health, Simon Lykkemark has focused on the use of phage display of recombinant antibodies for the discovery of novel biomarkers for the pericyte. In the search for new biomarkers, Simon has developed new antibody selection methods for targeting single cells in a heterogeneous population and targeting small clusters of cells in tissue sections. The project was carried out by Simon Lykkemark, who is defending his dissertation the 23rd of January, 2017.

The defence is public and takes place on 23/01-2017 at 13.00 in Biochemistry auditorium 6, Aarhus University, Ole Worms Allé 3, 8000, Aarhus C. The title of the project is ”A novel phage display selection method for pericyte biomarker discovery”. For more information, please contact PhD student Simon Lykkemark, email: SimonL@mb.au.dk, Phone +45 21675351.

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