

Press release

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Basic information

Name: Rikke Hahn Kofoed Email: rhko@biomed.au.dk Phone: 27594527

Department of: Biomedicine

Main supervisor: Poul Henning Jensen

Title of dissertation: Regulation of α -synuclein levels by Parkinson's disease-associated kinases

Date for defence: January 11th at (time of day): 13 Place: Fysiologisk Auditorium A, 1162-013

Press release (Danish)

Regulering af α -synuclein niveauer vha. kinaser associeret med Parkinson's sygdom

Parkinson's sygdom associerede kinasers evne til at regulere niveauet af proteinet α -synuclein undersøges i et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Rikke Hahn Kofoed, der forsvare det d. 11/1-18.

α -synuclein spiller en vigtig rolle i udviklingen af Parkinson's sygdom, og forandringer i α -synuclein genet, som forårsager et øget udtryk af proteinet, er knyttet til en forøget sygdomsrisiko.

Nedregulering af α -synuclein kan derfor være en mulig behandlingsstrategi for sygdommen.

Flere metoder er allerede udviklet og testet i dyremodeller for at opnå dette, men der er endnu ingen behandling tilgængelig for patienterne.

Dette ph.d. projekt har undersøgt muligheden for at regulere α -synuclein ved brug af små molekyler, der vil kunne indtages som tabletter. Molekylerne modulerer aktiviteten af forskellige enzymer, såkaldte kinaser, som tidligere er blevet associeret med Parkinson's sygdom. Dette har ført til opdagelsen af en ny signaleringsvej, som kan regulere niveauet af α -synuclein, og som kan modificeres ved hjælp af disse små molekyler. Resultaterne giver en ny og vigtig viden om mulighederne for at nedregulere α -synuclein og kan potentielt bidrage til den fremtidige udviklingen af behandlingsstrategier for Parkinson.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 11/1 kl. 13 i Fysiologisk Auditorium A (1162-013), Aarhus Universitet, Ole Worms Allé, Aarhus. Titlen på projektet er "Regulation of α -synuclein levels by Parkinson's disease-associated kinases". Yderligere oplysninger: Ph.d.-studerende Rikke Hahn Kofoed, e-mail: rhko@biomed.au.dk, tlf. 27594527.

Bedømmelsesudvalg:

Lektor Peter Bross, Molekylær Medicinsk Forskningsenhed, Institut for Klinisk Medicin, Aarhus Universitet

Professor Leonidas Stefanis, Laboratory of Neurodegenerative Diseases, Biomedical Research Foundation of the Academy of Athens

Lektor Hilal Lashuel, EPFL, Brain Mind Institute Lausanne

Press release (English)

Regulation of α -synuclein levels by Parkinson's disease-associated kinases

The ability of Parkinson's disease-associated kinases to regulate the protein α -synuclein is investigated in a new ph.d. project from Aarhus University, HEALTH. The project was carried out by Rikke Hahn Kofoed, who is defending her dissertation on January 11th, 2018.

Several lines of evidence suggest a key role of α -synuclein in the development of Parkinson's disease and genetic changes, which increase the level of the protein, increase the risk of the disease. Downregulation of α -synuclein could therefore serve as a possible treatment strategy. Several methods have already been developed to obtain this in animal models, but no treatment is yet available in the clinic.

This ph.d. project has investigated the possibility of regulating α -synuclein using small molecule drugs, which is suitable for oral administration. The molecules regulate the activity of specific enzymes called kinases, which have been associated with Parkinson's. This has led to the discovery of a new pathway capable of regulating α -synuclein and which can be modified using these small molecules. The results overall provide new and important knowledge about the opportunities to decrease α -synuclein and can contribute to future development of treatments for Parkinson's disease.

The defence is public and takes place on January 11th, 2018, at 1 p.m. in Physiologic Auditorium A (1162-013), Aarhus University, Ole Worms Allé, Aarhus. The title of the project is "Regulation of α -synuclein levels by Parkinson's disease-associated kinase". For more information, please contact PhD student Rikke Hahn Kofoed, email: rhko@biomed.au.dk, Phone +45 27594527.

Assessment committee:

Associate Professor Peter Bross, Research Unit for Molecular Medicine, Department of Clinical Medicine, Aarhus University

Professor Leonidas Stefanis, Laboratory of Neurodegenerative Diseases, Biomedical Research Foundation of the Academy of Athens

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