Press release

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Basic information

Name: Maj Ulrichsen Email: mulr@biomed.au.dk Phone: 004528890022

Department of: Biomedicine

Main supervisor: Christian B. Vægter

Title of dissertation: Sortilins in peripheral nerve regeneration

Date for defence: 31.01.2020 at (time of day): 13.00 Place: Fysiologisk Auditorium, (Bygning 1162, lok. 013), Ole Worms Allé 4, 8000 Aarhus, Danmark.

Press release (Danish)

Sortilin og SorCS2's rolle i regeneration af perifere nerver

Perifere nerver er i stand til at regenerere efter skade, men funktionel rehabilitering er ofte mangelfuld og fuld funktion genvindes sjældent. Neurotrophin signalering er vigtig under regeneringen af perifere nerver, men den molekylære mekanisme der ligger til grund for regeneringen er endnu ukendt og en bedre forståelse af denne vil bidrage til muligheden for at forbedre nerveregeneration.

Et nyt Ph.D.-projekt fra Aarhus Universitet, Health, har undersøgt funktionen af neurotrophin receptorne, sortilin og SorCS2, under regeneringen af perifere nerver. I projektet er cellebiologiske eksperimenter blevet kombineret med studier i mus til at undersøge hvorledes mangel på sortilin eller SorCS2 påvirker Schwannske celler, som er essentielle for funktionen af nerver og for at understøtte regenerationen af nerver, og regenerationen af iskias nerven efter en knuseskade.

Resultaterne viser at sortilin og SorCS2 er involveret i neurotrophin signalering i Schwannske celler men sortilin og SorCS2 er ikke essentielle for Schwannske celler under regenerationen af perifere nerver, ej heller for funktionel regenering. Projektet er gennemført af Maj Ulrichsen, der forsvarer det d. 31/1 2020.

Forsvaret af ph.d-projektet er offentligt og finder sted den 31/1-2020 kl. 13.00 i Fysiologisk auditorium, Aarhus Universitet, Ole Worms Allé 4, Aarhus. Titlen på projektet er "Sortilins in peripheral nerve regeneration". Yderligere oplysninger: Ph.d.-studerende Maj Ulrichsen, e-mail: mulr@biomed.au.dk, tlf. 28890022.

Bedømmelsesudvalg:

Professor and Senior Consultant in Hand Surgery Lars B. Dahlin
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Press release (English)

The role of sortilin and SorCS2 in regeneration of peripheral nerves.

Peripheral nerve fibers retain the capacity to regenerate after injury. Neurotrophin signaling is important in the process of peripheral nerve regeneration, but functional recovery is often poor and rarely reaches the pre-injury level leading to an immense need for increased insight into the molecular mechanisms underlying nerve regeneration.

A new PhD project from Aarhus University, Health, has investigated the function of the neurotrophin receptors, sortilin and SorCS2, during regeneration of peripheral nerves. The function of sortilin and SorCS2 was studied in Schwann cells, which are crucial for regeneration of peripheral nerves, using cell biological experiments. Studies in mice were used to study how ablation of sortilin or SorCS2 affects regeneration of the sciatic nerve after a crush injury.

The results support a function of sortilin and SorCS2 in neurotrophin signaling but the receptors appear not to be essential to Schwann cells or to functional motor nerve regeneration.
The project was carried out by Maj Ulrichsen, who is defending her dissertation 31. January 2020.

The defence is public and takes place on 31/1-2020 at 1 pm in Fysiologisk auditorium, Aarhus University, Ole Worms Allé 4, Aarhus. The title of the project is "Sortilins in peripheral nerve regeneration". For more information, please contact PhD student Maj Ulrichsen, email: mulr@biomed.au.dk, Phone +45 28890022.

Assessment committee:

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