

Press release

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Basic information

Name:

Carl Ted Kejlberg Andelius Email: Ted.andelius@clin.au.dk Phone: +4541637879

Department of: Clinical Medicine

Main supervisor: Professor Tine Brink Henriksen, MD, PhD, Department of Child and Adolescent Medicine, Aarhus University Hospital

Title of dissertation: Neonatal hypoxic ischemic encephalopathy – pathology and neuroprotection

Date for defence: 29 May 2020 at (time of day): 14:00 Place: Online Zoom event

Press release (Danish)

Studie skaber ny viden omkring hjerneskade hos nyfødte udsatte for iltmangel under fødslen.

Et nyt PhD projekt fra Aarhus Universitet har undersøgt ny behandling til nyfødte med hjerneskade grundet iltmangel i forbindelse med fødslen. Desuden har projektet belyst nogle af de mekanismer der ligger til grund for hjerneskaden. Projektet der er gennemført af Carl Ted Kejlberg Andelius vil blive forsvaret d. 29/05 2020.

Omkring en promille af nyfødte børn i Danmark vil opleve iltmangel ved fødslen. 70% af disse vil dø eller få vedvarende men i form af cerebral parese, epilepsi og andre handicap. Ud over støttende behandling er køling den eneste behandling til børn, der bliver udsat for moderat til svær iltmangel ved fødslen. Det har imidlertid været vist hos dyr, at man kan reducere graden af hjerneskade, der opstår under iltmangel, ved efterfølgende at afklemme blodforsyningen til en arm eller et ben. Denne lokale behandling inducerer en beskyttende effekt i andre organer, inklusiv hjernen, og mindsker dermed graden af hjerneksade. I dette PhD projekt er denne behandling undersøgt sammen med køling for at se, om de to behandlinger tilsammen er bedre. Projektet har også haft til formål at undersøge nogle af de mekanismer, der ligger til grund for udviklingen af hjerneskaden i timerne efter ilmanglen.

Forsvaret af Ph.d.-projektet er offentligt og finder sted den 29 Maj kl. 14.00. Grundet COVID-19 vil forsvaret blive gennemført online via Zoom. Link med adgang til forsvaret kan fremsendes ved henvendelse til Ph.d.-studerende Carl Ted Kejlberg Andelius, e-mail: ted.andelius@clin.au.dk.

Titlen på projektet er "Neonatal hypoxic ischemic encephalopathy – pathology and neuroprotection". Yderligere oplysninger:

Ph.d.-studerende Carl Ted Kejlberg Andelius, e-mail: ted.andelius@clin.au.dk, tlf. +4541637879.

Bedømmelsesudvalg:

Professor Grethe Andersen MD, DMSc, Department of Neurology, Aarhus University Hospital, Denmark

Professor Nicola Jayne Robertson, , MB ChB, Ph.D., EGA Institute for Women's Health, University College London, United Kingdom

Professor Henrik Hagberg, MD, Ph.D., Department of Obstetrics and Gynaecology, The Sahlgrenska University Hospital, Sweden

Medlem af bedømmelsesudvalget uden stemmeret:

Professor Tine Brink Henriksen, Department of Child and Adolescent Medicine, Aarhus University Hospital, Denmark

Press release (English)

New insights in pathology and neuroprotection in neonates with hypoxic ischemic encephalopathy.

A new PhD study from Aarhus University explores a novel treatment for newborns with brain damage due to a hypoxia at birth. The project was carried out by Carl Ted Kejlberg Andelius, who is defending his dissertation on 29th of May 2020.

Approximately 1 of 1000 new-borns will be exposed to a hypoxia during birth which will result in brain damage or death. Currently, the only treatment available is therapeutic hypothermia where the neonate is cooled for three days to reduce brain damage. A novel treatment where short periods of ischemia applied to an extremity after the insult have been shown to reduce brain damage. This PhD project has investigated whether this novel treatment can add to the neuroprotective effect of therapeutic hypothermia. This project has also investigated some of the underlying mechanisms that constitutes this brain damage.

The defence is public and takes place on 29th of May 2020 at 14:00. Due to COVID-19, the defence will be held online via Zoom. Please contact PhD student Carl Ted Kejlberg Andelius (ted.andelius@clin.au.dk) to receive a link to participate in the defence online.

The title of the project is "Neonatal hypoxic ischemic encephalopathy – pathology and neuroprotection".

For more information, please contact PhD student Carl Ted Kejlberg Andelius, email: ted.andelius@clin.au.dk, Phone +45 41637879.

Assessment committee:

Professor Grethe Andersen MD, DMSc, Department of Neurology, Aarhus University Hospital, Denmark

Professor Nicola Jayne Robertson, , MB ChB, Ph.D., EGA Institute for Women's Health, University College London, United Kingdom

Professor Henrik Hagberg, MD, Ph.D., Department of Obstetrics and Gynaecology, The Sahlgrenska University Hospital, Sweden

And as non-voting member of the assessment committee:

Professor Tine Brink Henriksen, Department of Child and Adolescent Medicine, Aarhus University Hospital, Denmark

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