

Press release

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Basic information

Name: Henrik Holm Thomsen Email: henrik.holm.thomsen@clin.au.dk Phone: 5072 183

Department of: Clinical Medicine

Main supervisor: Niels Møller, professor

Title of dissertation: Effects of free fatty acids and 3-hydroxybutyrate on protein, glucose, and fat metabolism and intracellular signaling pathways during inflammatory stress

Date for defence: May 31 2019 at (time of day): 1300 Place: William Scharff Auditoriet

Press release (Danish) Muskeltab under akut inflammatorisk sygdom - effekt af tilførsel af ketonstoffer?

Ketonstoffer dannes, når ingen eller meget lidt kulhydrat er tilgængeligt som det ses ved feks længerevarende faste. Ketonstofferne medvirker til at reducere muskeltabet under faste og bruges som brændstof istedet for kulhydrat. Ved at inducere en slags 'faste-tilstand' med tilførsel af ketonstoffer under en anden muskel-tabende tilstand, inflammation som feks infektioner og andre akutte sygdomme, har vi undersøgt om en lignende reducering af muskeltab finder sted. Dette i et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Henrik Holm Thomsen, der forsvarer det d. 31/5-2019.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 31/5-2019 kl. 13.00 i William Scharff Auditoriet, Aarhus Universitet, Bartholins Allé 3, 8000 Aarhus C. Titlen på projektet er "Effects of free fatty acids and 3-hydroxybutyrate on protein, glucose, and fat metabolism and intracellular signaling pathways during inflammatory stress ". Yderligere oplysninger: Ph.d.-studerende Henrik Holm Thomsen, e-mail: henrik.holm.thomsen@clin.au.dk, tlf. 5072 1835.

Bedømmelsesudvalg:

Mogens Pfeiffer Jensen, PhD, M.D. (chair of the committee) Department of Rheumatology Aarhus university Hospital

Jørgen Jensen, Professor, MSc, PhD Department of Physical Performance, Biochemistry of Exercise Norwegian School of Sport Scineces, Oslo Norway

Michael Kjær, Clinical Professor Institute of Sports Medicine Copenhagen Bispebjerg Hospital, Copenhagen Denmark.

Press release (English) Skeletal muscle wasting during acute inflammatory disease - can ketone bodies reduces this?

Ketone bodies form when carbohydrate avalibility is scarse as seen with prolonged fasting. Ketone bodies hold a key position in reducing skeletal muscle loss and as a fuel substrate during prolonged fasting. Acute inflammatory disease, e.g. acute infection, is associated with muscle loss. We investigated effects on skeletal muscle protein turnover by inducing an 'artificial fasting-state' during



an acute inflammatory insult. The project was carried out by Henrik Holm Thomsen, who is defending his dissertation on 31/05-2019.

The defence is public and takes place on 31/5-2019 at 13.00 in William Scharff Auditorium, Aarhus University, Bartholins All+e 3, 8000 Aarhus C. The title of the project is "Effects of free fatty acids and 3-hydroxybutyrate on protein, glucose, and fat metabolism and intracellular signaling pathways during inflammatory stress". For more information, please contact PhD student Henrik Holm Thomsen, email: henrik.holm.thomsen@clin.au.dk, Phone +45 5072 1835.

Assessment committee:

Mogens Pfeiffer Jensen, PhD, M.D. (chair of the committee) Department of Rheumatology Aarhus university Hospital

Jørgen Jensen, Professor, MSc, PhD Department of Physical Performance, Biochemistry of Exercise Norwegian School of Sport Scineces, Oslo Norway

Michael Kjær, Clinical Professor Institute of Sports Medicine Copenhagen Bispebjerg Hospital, Copenhagen Denmark

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