AARHUS UNIVERSITY

# Press release

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**Basic information**

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Department of: Clinical Medicine

Main supervisor: Niels Møller, MD, DMSc, professor

Title of dissertation: Metabolic effects of ketone bodies and SGLT2 inhibition

Date for defence: May 27th at (time of day): 14:00 Place: Zoom meeting: https://aarhusuniversity.zoom.us/j/66112728649

Press release (Danish)

## Metaboliske effekter af ketoner og SGLT2 hæmmere

Ketonstoffer er en vigtig energikilde for kroppen ved tilstande med mangel på kulhydrater. Forbrændingen af ketoner er en energieffektiv process grundet en stor produktion af ATP-molekyler i forhold til iltforbruget. Af samme årsag har det potentielt en terapeutisk interesse at inducere ketonstofstigninger. En ketonstofstigning kan blandt andet opnås gennem infusion af ketonstoffer og SGLT2-hæmmer behandling, som er en nyere medicinsk behandling af diabetes. SGLT2-hæmmer behandling beskytter mod hertesvigt og hjerte-kar relateret død, som potentielt kan forklares ud fra stigningen i ketonstoffer. I denne afhandling indgår fire studier, der undersøger effekterne af stigninger i cirkulerende ketonstoffer, et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Katrine Meyer Lauritsen, der forsvarer det online d. 27/5 2021. Forsvaret af ph.d.-projektet er offentligt og finder sted online. Titlen på projektet er ""Metabolic effects of ketone bodies and SGLT2 inhibition". Yderligere oplysninger: Ph.d.-studerende Katrine Meyer Lauritsen, e-mail: katrine.mj@clin.au.dk, tlf. 78462003

Bedømmelsesudvalg:

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Press release (English)

## Metabolic effects of ketone bodies and SGLT2 inhibition

Ketone bodies function as a substrate in times of carbohydrate depletion. They are a highly energy efficient substrate for oxidation due to a high ATP molecule generation compared to oxygen consumption. Therefore, hyperketonemia is of potential therapeutic interest. Hyperketonemia can amongst other be induced through ketone body infusions and SGLT2 inhibitor treatment, which is a rather new medical treatment against diabe- tes. SGLT2 inhibitor treatment protects against heart failure and cardiovascular death, which is possibly explained by the increase in ketone bodies.
In the current thesis four studies investigating hyperketonemia are included. The project was carried out by Katrine Meyer Lauritsen, who is defending her dissertation online on 27th May. The defence is public and takes place online. The title of the project is Metabolic effects of ketone bodies and SGLT2 inhibition. For more information, please contact PhD student Katrine Meyer Lauritsen, email: katrine.mj@clin.au.dk, Phone +45 78462003

Assessment committee:

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