

## Press release

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### Basic information

Name: Mads Ryø Jochumsen Email: [madsjoch@rm.dk](mailto:madsjoch@rm.dk) Phone: 61663110

Department of: Clinical Medicine

Main supervisor: Jens Sørensen

Title of dissertation: Non-invasive measurement of tumor blood flow with <sup>82</sup>Rubidium PET in prostate cancer

Date for defence: 17. december 2020 at (time of day): 14.00 Place: Store Anatomisk Auditorium (Bygning 1232 - lokale 115), Wilhelm Meyers Allé 3, 8000 Aarhus C and via Zoom (Meeting ID: 671 2804 7374, link: <https://aarhusuniversity.zoom.us/j/67128047374>).

Press release (Danish)

**Non-invasive measurement of tumor blood flow with <sup>82</sup>Rubidium PET in prostate cancer**

Prostatakræft er en af de hyppigste kræftformer hos mænd, som rummer både ufarlig lav-risiko sygdom og meget aggressiv kræftsygdom. Derfor er det vigtigt at kunne skelne klinisk signifikant prostatakræft, som kræver aktiv behandling, fra ikke signifikant prostatakræft. Blodgennemstrømningen i en tumor er en afgørende faktor for hvor hurtigt den vokser. Derfor afprøves den ikke-invasive <sup>82</sup>Rubidium positron emissions tomografi (PET) skanning til måling af blodgennemstrømning i prostata tumorer i et nyt ph.d.-projekt fra Aarhus Universitet, Health. Desuden studeres den kliniske anvendelighed af blodgennemstrømningsmåling i forhold til at foretage en risikovurdering af prostatakræft patienter samt den bagvedliggende tumor biologi. Vi fandt ud af at når man måler både prostata-specifik membran antigen (PSMA) optaget og blodgennemstrømningen i prostata tumorer med PET, kan langt de fleste tumorer klassificeres korrekt i enten klinisk signifikant eller ikke-signifikant prostatakræft, og derved levere klinisk relevant information om aggressiviteten af prostatakræft.

Projektet er gennemført af Mads Ryø Jochumsen, der forsvare det d. 17/12 2020.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 17/12 2020 kl. 14 i Store Anatomisk Auditorium (Bygning 1232 - lokale 115), Aarhus Universitet, Wilhelm Meyers Allé 3, 8000 Aarhus C og via Zoom (Meeting ID: 671 2804 7374, link: <https://aarhusuniversity.zoom.us/j/67128047374>). Titlen på projektet er "Non-invasive measurement of tumor blood flow with <sup>82</sup>Rubidium PET in prostate cancer". Yderligere oplysninger: Ph.d.-studerende Mads Ryø Jochumsen, e-mail: [madsjoch@rm.dk](mailto:madsjoch@rm.dk), tlf. 61663110.

Bedømmelsesudvalg:

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Professor Andreas Kjær, Cluster for Molecular Imaging, Biomedicinsk Institut, Københavns Universitet, Danmark

Press release (English)

## Non-invasive measurement of tumor blood flow with <sup>82</sup>Rubidium PET in prostate cancer

Prostate cancer is one of the most common malignancies in men, ranging from indolent low-risk disease to very aggressive cancer. Consequently, an important challenge in prostate cancer management is to differentiate clinically significant prostate cancer, which require active treatment, from insignificant disease.

Tumor blood flow is essential for tumor growth. Therefore, a new ph.d.-project from Aarhus University, Health studied the non-invasive <sup>82</sup>Rubidium positron emission tomography (PET) scan for tumor blood flow measurement in prostate cancer. Furthermore, the clinical usefulness of tumor blood flow for risk-evaluation as well as the underlying tumor biology were studied. With non-invasive measures of both prostate-specific membrane antigen (PSMA) uptake and tumor blood flow with PET, we could correctly classify most lesions into significant or insignificant prostate cancer and thereby provide clinically relevant information about prostate cancer aggressiveness.

The project was carried out by Mads Ryø Jochumsen, who is defending his dissertation on 17/12 2020.

The defence is public and takes place on 17/12 at 14 in Store Anatomisk Auditorium (Building 1232 - room 115), Aarhus University, Wilhelm Meyers Allé 3, 8000 Aarhus C and via Zoom (Meeting ID: 671 2804 7374, link: <https://aarhusuniversity.zoom.us/j/67128047374>).

The title of the project is Non-invasive measurement of tumor blood flow with <sup>82</sup>Rubidium PET in prostate cancer. For more information, please contact PhD student Mads Ryø Jochumsen, email: [madsjoch@rm.dk](mailto:madsjoch@rm.dk), Phone +45 61663110.

Assessment committee:

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Professor Andreas Kjær, Cluster for Molecular Imaging, Department of Biomedical Sciences, University of Copenhagen, Denmark

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