AARHUS UNIVERSITY

Press release

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Basic information

Name: Margarita Melnikova Jørgensen Email: msm@clin.au.dk Phone: 2025 8333

Department of: Clinical Medicine

Main supervisor: Consultant, Associate Professor, Dr.med. Ida Elisabeth Holm

Title of dissertation: Histological profiling of tumor microenvironment in colorectal cancer

Date for defence: 9th October 2020 at (time of day): 9:00-11:00 Place: Auditorium, Entrance B, Skovlyvej 9, Randers Hospital and Zoom

Press release (Danish)

Ph.d. forsvar med titlen "Histologisk profilering af tumor mikromiljø i kolorektal cancer"

Forsvaret omhandler et nyt ph.d.-projekt fra Aarhus Universitet, Health, og Patologi, Regionshospitalet Randers. Projektet er gennemført af Margarita Melnikova Jørgensen, der forsvarer det d. 09. oktober.

Kolorektal cancer (CRC) er den tredje mest hyppige cancer form i verden. Traditionelt klassificeres tumorer i det daglige kliniske arbejde i patoanatomiske grupper, men indenfor hver gruppe ses variation med hensyn til prognose og behandlingsrespons. Dette skyldes en underliggende molekylær og biologisk heterogenitet, som ikke afspejler sig i den patoanatomiske klassifikation. Der er derfor et behov for at forfine CRC-klassifikation og identificere nye prognostiske biomarkører. Tidligere studier har vist, at celler, der omgiver tumor, såkaldt tumor mikromiljø, er vigtige for tumor vækst og udvikling. Tumor mikromiljø spiller en dobbelt rolle i tumorgenese og fungerer enten som tumor fremmende eller hæmmende, afhængigt af den cellulære sammensætning.

Formålet med dette ph.d.-studium er primært at karakterisere tumor mikromiljøet ved brug af klinisk relevante histologiske markører under anvendelse af immunhistokemi og automatiseret billedanalyse software (Visiopharm). Et andet aspekt af undersøgelsen omhandler anvendelse af "tissue microarrays" i biomarkørstudier efterfulgt af validering af denne teknik til vores biomarkørpanel. Derudover undersøger vi relationen mellem epitelceller og tumor mikromiljø og tab af CDX2 ekspression i forhold til kliniske/patologiske parametre. Resultaterne fra projektet vil blive præsenteret og diskuteret til forsvaret.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 09/10 kl. 9 i Auditorium, Indgang B, Skovlyvej 9, Randers Hospital and Zoom. Kontakt venligst ph.d.-studerende Margarita Melnikova Jørgensen msm@clin.au.dk for meeting ID. Titlen på projektet er ”Histologisk profilering af tumor mikromiljø i kolorektal cancer”. Yderligere oplysninger: Ph.d.-studerende Margarita Melnikova Jørgensen, e-mail: msm@clin.au.dk, tlf. 2025 8333.

Bedømmelsesudvalg:
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Press release (English)

PhD defence entitled "Histological profiling of tumor microenvironment in colorectal cancer"

The project was carried out by Margarita Melnikova Jørgensen, who is defending her dissertation on the 9th of October.

Colorectal cancer (CRC) is the third most common cancer form worldwide. Tumors within the same pathoanatomical group often vary in prognosis and treatment response because of an underlying molecular and biological heterogeneity of CRC. Therefore, there is a need to complement tumor staging with new prognostic biomarkers. The tumor microenvironment consisting of cells surrounding the tumor has recently been highlighted as a novel determinant of disease progression. The tumor microenvironment plays a dual role in tumorigenesis, either acting as a tumor enhancer or tumor inhibitor, depending on its cellular composition.

The main objective of this PhD study is to characterize tumor microenvironment using a panel of clinically relevant histological markers. In this project the relationship between the tumor microenvironment and molecular/biological profile of CRC is investigated using immunohistochemistry and automated digital image analysis software (Visiopharm). Another aspect of the study adresses the application of tissue microarrays in biomarker studies followed by the validation of this technique for our biomarker panel. Additionally, the relationship between epithelial and stromal compartments of CRC and examination of CDX2 loss in relation to the clinicopathological parameters are investigated. The results of the project will be presented and discussed at the defence.

The defence is public and takes place on the 9th of October at 9 AM in Auditorium, Entrance B, Skovlyvej 9, Randers Hospital and Zoom. Please contact PhD student Margarita Melnikova Jørgensen msm@clin.au.dk for meeting ID. The title of the project is "Histological profiling of tumor microenvironment in colorectal cancer". For more information, please contact PhD student Margarita Melnikova Jørgensen, email: msm@clin.au.dk, Phone +45 2025 8333.

Assessment committee:
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