Press release

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Basic information

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Department of: Clinical Medicine

Main supervisor: Anne Stidsholt Roug

Title of dissertation: Immunophenotyping and genomic profiling in myeloid neoplasms - biological aspects and clinical relevance

Date for defence: 16th of December 2019 at (time of day): 14.00 Place: Aarhus University Hospital, Auditorium C, Entrance C, Palle-Juul Jensens Boulevard 99, 8200 Aarhus N

Press release (Danish)

Forsvar af PhD-projektet " Immunfænotyper og genomiske profiler i myeloide neoplasier - biologiske aspekter og klinisk relevans"

Projektet omhandler to kategorier af hæmatologiske sygdomme - myeloproliferative neoplasier (MPN) og akut myeloid leukæmi (AML). Myeloproliferative neoplasier består af flere undergrupper. Generelt har MPN-patienter et kronisk forløb, men over tid er der risiko for at progrediere til AML. Akut myeloid leukæmi er en aggressiv malign sygdom med en dårlig prognose, specielt blandt ældre. En præcis prognostisk vurdering er fortsat en udfordring blandt disse patienter. En mere nøjagtig prognose vil øge muligheden for at individualisere behandlingen og således mindske risikoen for over- og underbehandling. I dette projekt bliver prognosticeringen i MPN og AML evalueret ved en multidisciplinær fremgangsmåde, hvor de leukæmiske celler bliver karakteriseret ved tilstedeværelsen eller fraværet af overflademarkører og/eller mutationer.

Projektet indeholder tre studier med formålene at
1) Undersøge ekspressionen af overflademarkøren C-type lectin domain family 12, member A (CLEC12A) i MPN-patienter. CLEC12A har vundet indpas i diagnosticering og monitorering af behandlingseffekt af AML-patienter.
2) Undersøge en eventuel sammenhæng mellem ekspressionen af overflademarkører, herunder CLEC12A, og mutationer, samt mellem ekspressionen af overflademarkører og overlevelse blandt nydiagnosticerede AML-patienter.
3) Undersøge værdien af at kombinere exom- og RNA-sekventering, der er to forskellige metoder til at vurdere forekomsten af mutationer, i AML-patienter. Desuden blev disse metoder sammenlignet med de rutinemæssigt anvendte metoder i vores laboratorium på tidspunktet for studiets udførelse.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 16/12 kl. 14 i auditorium C114-101, Aarhus Universitets Hospital, Palle-Juul Jensens Boulevard 99, Indgang C, 8200 Aarhus N. Titlen på projektet er ”Immunfænotyper og genomiske profiler i myeloide neoplasier - biologiske aspekter og klinisk relevans”. Yderligere oplysninger: Ph.d.-studerende Laura Laine Herborg, e-mail: herborg@clin.au.dk, tlf. 27857429.

Bedømmelsesudvalg:

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Press release (English)

Defence of the PhD-project: "Immunophenotyping and genomic profiling in myeloid neoplasms - biological aspects and clinical relevance"

The project deals with two categories of hematological disorders - myeloproliferative neoplasms (MPN) and acute myeloid leukemia (AML). Myeloproliferative neoplasms (MPN) consists of several subgroups. Most MPN-patients have a chronic course of disease, but eventually some will progress into AML. Acute myeloid leukemia is an aggressive malignant disease with a poor prognosis, especially in elderly patients. A precise prognostication remains a challenge among these patients. A more accurate prognosis would increase the options for individualized treatment, hence reducing the risk of over- or undertreatment. In this project, the prognostication of MPN and AML is evaluated by a multidisciplinary approach, where the leukemic cells are characterized by the presence or absence of surface markers and/or mutations.

The project consists of three studies, which aimed at
1) Investigating the expression of the surface marker C-type lectin domain family 12, member A (CLEC12A) in MPN-patients. CLEC12A has gained impact in diagnosing and monitoring treatment efficiency in AML-patients.
2) Investigating a possible correlation between surface marker expression, including CLEC12A, and mutations, as well as between the surface marker expression and survival among newly diagnosed AML-patients.
3) Investigating the benefit of combining exome- and RNA-sequencing, which are two different methods for assessing the presence of mutations, in AML-patients. Furthermore, these methods were compared to the routine methods used in our laboratory at the time of the study.

The defence is public and takes place on Monday 16th of December 2019 at 2 pm in Auditorium C114-101, Aarhus University Hospital, Entrance C, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N. The title of the project is "Immunophenotyping and genomic profiling in myeloid neoplasms - biological aspects and clinical relevance".
For more information, please contact PhD student Laura Laine Herborg, email: herborg@clin.au.dk, Phone +45 27857429.

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