

„**S**upporting **C**hallenging **C**areers –
Training **E**xceptional **P**hysician **S**cientists “

THESIS PROPOSAL

Promovend:

Name: cand. med. Kai Kaufmann
Geburtsdatum: 8. Oktober 1984

Doktorvater / Doktormutter:

Name: Prof. Dr. Heike L. Pahl
Position: Leiterin, Sektion Molekulare Hämatologie

Projekt:

Titel: Analysis of the MPN phenotype in a transcription factor NF-E2 transgenic mouse model.

Hypothese: Overexpression of the transcription factor NF-E2 is sufficient to generate a myeloproliferative phenotype in a transgenic mouse model.

Rationale: We have described that NF-E2 is overexpressed in MPN patients (Goerttler *et al*, BJH 2005) and mice lacking NF-E2 have an anaemic and a platelet phenotype (Shivdasani *et al.*, 1995, 1998). Hence, it is likely that overexpression of NF-E2 in a murine model also generates a phenotype. Initial data from Dr. Albert Gründer and cand. med. Tobias Hadlich, who have examined the NF-E2 transgenic mice generated in our lab, also point to this.

Ziel der Arbeit: Phenotypic characterization of two transgenic mouse strains, generated in our lab, that overexpress NF-E2.

Methoden (in Klammern ist die Person zu nennen, von der die Methoden erlernt werden können; „to be established“ zeigt an, dass die Methode vom Doktoranden in diesem Labor neu zu etablieren ist):

- measurement of mouse CBC – (from A. Gründer and T. Hadlich)
 - analysis of mouse CBC over time, with database (to be established)
 - murine blood smears (from A. Gründer and T. Hadlich)
 - interpretation of stainings (to be established - giant platelets, Howell-Jolly bodies)
 - reticulocyte stains (from T. Hadlich)
 - genotyping of transgenic mice by PCR (from A. Gründer and T. Hadlich)
 - genotyping of mice by Southern Blot (being established by A. Gründer)
 - quantification of NF-E2 expression by qRT-PCR (from A. Gründer and T. Hadlich)
 - isolation of murine bone marrow (from A. Gründer, S. Kayser and T. Hadlich)
 - plating of murine cells for colony assays (from T. Hadlich and S. Kayser)
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- scoring of murine colony assays (from T. Hadlich and S. Kayser)
 - sacrificing of mice and preparation of organs for analysis (from A. Gründer and T. Hadlich)
 - bleeding time assays (to be established)
 - clotting assays (to be established)
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Beginn der Doktorarbeit: März 2009

Voraussichtliche Dauer: 12 Monate

Thesis Committee:

Betreuer: Prof. Pahl

Co-Betreuer: Prof. Luebbert

Datum, Unterschrift
Doktorand

Datum, Unterschrift
Betreuer

Datum, Unterschrift
Co-Betreuer

Datum, Unterschrift
Leitung SUCCESS
(Frau Prof. Dr. H. L. Pahl)

Das Original dieser Vereinbarung geben Sie bitte bei Frau H. Vogel, Personalreferentin der Klinik für Innere Medizin I, Hämatologie, Onkologie und Stammzelltransplantation, ab.

Je eine Kopie verbleibt bei:

- dem/r Doktoranden/in
- dem/r Betreuer/in
- dem/r Co-Betreuer/in