Aktuelle Promotionsangebote

Die Promotionsbörse ist aufgrund von Wartungsarbeiten aktuell leider offline. Sie wird Ihnen aber bald wieder zur Verfügung stehen. In der Zwischenzeit sammeln wir die aktuellen Promotionsangebote hier.

Thema: The duodenal microbiome in pancreatic neoplasia

Datum: 23.04.2024

Abteilung: Innere Medizin IV – AG Rauber

Doktorvater: Prof. Patrick Michl

Betreuer: Dr. Dr. Conrad Rauber

Kontakt: conrad.rauber@med.uni-heidelberg.de

Startzeitpunkt: ab sofort

Voraussichtliche Dauer: 18-24 Monate

Davon in Vollzeit: 12 Monate

Methoden: Allgemeine Methoden des wet lab inkl. Cytometrie, ELISA, qPCR, Zellkultur, allgemeines Biobanking. Keine nicht etablierten Methoden.

Zielsetzung: Das Mikrobiom ist vor allem im Dickdarm gut beschrieben und beeinflusst das humane Immunsystem, was wiederum den Therapieerfolg von Immuntherapien bei Krebserkrankungen beeinflusst. 2017 hat die Gruppe um Ravid Straussmann in Science gezeigt hat, dass auch intratumoral (und v. a. beim PDAC) ein diverses Mikrobiom besteht, und die Therapie beeinflusst. In der vorgeschlagenen Arbeit schauen wir uns das duodenale Mikrobiom bei pankreatischen Tumoren und Vorgängerläsionen an.

Rahmenbedingungen

Strukturierte Betreuung: Die Arbeit teilt sich einen Biobankingpart neben dem Studium für ca. 12 Monate in der Inneren Med. IV (Abt. für Gastroenterologie) sowie einen 12 monatigen Vollzeitteil an der Bench auf (in Kollaboration mit AG Roberti, NCT/DKFZ). Es finden regelmäßige Laborseminare statt, im Rahmen derer auch das Projekt diskutiert wird.

Anforderungen: Interesse an translationaler Forschung und wet lab. Selbstständiges Arbeiten und Zuverlässigkeit.

Finanzielle Unterstützung: Die meisten unserer Doktoranden haben ein Stipendium (z. B. DGHO). Sollte dies nicht möglich sein, kann eine HiWi-Anstellung für den Vollzeitpart erfolgen.

Autorenschaft: Definitive Publikation mit Co-Autorenschaft.

Anmerkungen: Arbeit mit humanem Material. Keine Mausarbeiten. Die oben angegebenen Zeiten sind realistisch und werden im Doktorandenvertrag so festgehalten.

Thema: Allergies, IgE and risk of pancreatic cancer in the prospective European EPIC cohort study

Anbieter: Externe Einrichtungen – DKFZ

Datum: 04.04.2024

Betreuer: Prof. Dr. Rudolf Kaaks

Ansprechpartnerin: Dr. Verena Katzke

Kontakt: v.katzke@dkfz.de

Startzeitpunkt: sofort

Voraussichtliche Dauer: 6-12 Monate

Davon in Vollzeit: 9 Monate

Methoden: We will conduct a nested case-control study within the prospective EPIC cohort, measuring total and 10 specific IgEs in a cooperative lab at the University Clinics Tübingen. Conditional logistic regression will be used to estimate adjusted RR for risk of pancreatic cancer by IgE levels. Sensitivity and subgroup analyses will be performed, i.e. by lag-time, removing individuals with diabetes, stratifying by sex. C-statistics will be evaluated for discriminatory ability of a model with known risk factors (age, sex, smoking, alcohol, education, diabetes) incorporating biomarkers. If time permits, Cox regression will be run to evaluate associations of self-reported allergies with risk of PDAC in the full EPIC cohort. For all subjects, selected immune cells (TREGs, CD8+) are available and will be included in models. Correlation analyses will be run for all biomarkers combined.

Zielsetzung: The role of the immune system and of the inflammatory response are particularly important in pancreatic cancer development and progression. Interestingly, protective mechanisms have been postulated and investigated, primarily the concept of immune surveillance in allergic individuals. Epidemiologic studies have consistently found that self-reported allergies are associated with reduced risk of pancreatic cancer. The only prospective investigation on blood levels of IgE within the PLCO trial observed no association in 2014, with however limited PDAC cases (n=280 cases, Olsen S et al. CEBP 2014 PMID 24718282). In addition, we have shown in previous investigations that immune cells do play a role in probably late-stage pathogenesis of PDAC (Katzke VA et al. CEBP 2021 PMID 34548327). The proposed study will be the first one to investigate immune surveillance in combination with immune cell response.

Rahmenbedingungen

Strukturierte Betreuung: PhD students at the DKFZ are obliged to follow a structured program, which is open to medical doctoral students as well. The DKFZ offers numerous additional courses for

doctoral students, including statistical courses on all levels. The hosting division of Cancer Epidemiology offers a bi-weekly journal club in addition to daily fruiful and lifely exchange with other PhD students. Dr. Katzke will be the daily supervisor and is resonsible for the success of the project.

Anforderungen: At least one free term is required as epidemiological and statistical training plus application requires full-time attention. In addition, at least once a week support of our ongoing lung cancer screening trail (www.dkfz.de/4-in-the-lung-run) is required, i.e. informed consent interviews and blood draws.

Finanzielle Unterstützung: NA

Autorenschaft: One first authorship for the medical doctoral student on this project

Anmerkungen: EPIC is the largest European cohort with 520,000 participants across 10 countries. The working environment is international with close cooperation to the University of Pisa, Italy. We are looking for a medical student willing to spend at least one term full-time with us on an exciting scientific project but also in our ongoing lung cancer screening trial as a study physician. Fluency in German is a requirement. Statistical experience is of advantage but not mandatory.

Thema: MAPS - mobile health app for stroke prevention - Prüfung des Konzeptes „daily habits“ (kleiner Verhaltensmodifikationen im Alltag) mittels App

Anbieter: Neurologische Klinik - Neurologie und Poliklinik

Datum: 12.03.2024

Betreuer: Prof. Dr. C. Gumbinger

Ansprechpartner: Dr. M. Ungerer / Prof.Dr. C. Gumbinger

Kontakt: matthias.ungerer@med.uni-heidelberg.de

Startzeitpunkt: April 2024

Voraussichtliche Dauer: 6-12 Monate

Davon in Vollzeit: 3 Monate

Methoden: Prospektive klinische Studie Research Aims: - Increase in the Healthy Lifestyle and Personal Control Questionnaire (HLPCQ) Score and in daily step count) - Reduction of the vascular risk factors and stroke risk - Analysis of the practicality and success of the daily habits concept - Analysis of user profiles (user experience, different user profiles according to age and gender?)

Zielsetzung: We intend to conduct a randomized, non-blinded study with 90 healthy volunteers from the Bergstrasse district administration. 60 subjects will receive access to the app as part of the intervention group. Data collection will take place over 6 months. Changes in health behavior and objective risk factors are recorded on day 0, after 3, and after 6 months as part of individual examinations and laboratory tests.

Rahmenbedingungen

Strukturierte Betreuung: Teilnahme am Abteilungskolloquium / Journal Club - regelmäßige Treffen mit Betreuern / Doktorvater - Nettes Team / Unterstützung durch HiWi

Anforderungen: Wir haben eine App-programmieren lassen, die das Konzept der Daily Habits prüfen soll. Die Studie wird Ende April / Anfang Mai als Pilot im Kreis Bergstraße starten. Ab Mitte April sollte ein/e Doktorand:in für einige Wochen-Monate zeitlich weitestgehend voll zur Verfügung stehen, wenn die App ausgerollt wird und gleichzeitig Schulungen stattfinden. - Mitarbeit in der praktischen Durchführung der Studie / Datenerhebung - Hilfe bei der Auswertung

Finanzielle Unterstützung: Reisekosten für Einsätze im KH Heppenheim werden erstattet, ebenso Kongressreise für Posterpräsentation

Autorenschaft: Ergebnisse sollten von Doktorand auf Kongress präsentiert werden (als Poster oder freier Vortrag) Coautorenschaft(en), das Projekt wird mehrere Publikationen erbringen

Anmerkungen: Ethikantrag für Studie liegt vor - Studie ist durch ESRF gefördert - App einsatzbereit - Kooperationspartner gewonnen - Erfahrung in Doktorandenbetreuung liegt vor - Praktischer Teil sollte bis Ende 2024 abgeschlossen sein, Verschriftlichung der Promotion dann gerne in den darauffolgenden 3-6 Monaten

Thema: Tissue resident memory T cells and downstream cytokines as targets for immunotherapy in skin cancer and IO-toxicity (lab in NCT)

Anbieter: Hautklinik - Dermatologie und Venerologie

Datum: 28.02.2024

Betreuerin: Prof. Dr. Jessica Hassel

Ansprechpartner: Dr. Robin Reschke

Kontakt: RobinNiklas.Reschke@med.uni-heidelberg.de

Startzeitpunkt: flexible after prior discussion

Voraussichtliche Dauer: 24-30 Monate

Davon in Vollzeit: 10 Monate

Methoden: multiparameter Immunofluorescence, RNA in situ hybridization, spatial transcriptomics among others

Zielsetzung: Defining the spatial biology and immune contexture of skin cancers and immune related adverse events with a focus on TRM cells. We will discuss sub projects with attractive applicants.

Rahmenbedingungen

Strukturierte Betreuung: Weekly lab meeting. Experienced lab members, partly international. Direct contact to group leader. Growing team. JC club, scientific meetings possible.

Anforderungen: Two semesters off are required. We are looking for a strong interest in research and immunological and cancer-related questions. Ideally with prior lab and/or coding experience. Eligble students should submit a MD thesis based on this project.

Finanzielle Unterstützung: Application for a doctoral scholarship is supported and encouraged.

Autorenschaft: Reserach publications are planned and authorship definitely possible. Furthermore, the student is required to write a review paper to acquire basic knowledge about the scientific field and question.

Anmerkungen: Work on human material, mice not planned.

Thema: Functional and mechanistic improvements in expansion and conservation of stem cell derived cardiomyocytes.

Anbieter: Innere Medizin - Kardiologie, Angiologie u. Pneumologie

Datum: 23.02.2024

Betreuer: Prof. Dr. Edgar Zitron

Ansprechpartner: Dr. Timon Seeger

Kontakt: timon.seeger@med.uni-heidelberg.de

Startzeitpunkt: ab sofort

Voraussichtliche Dauer: 12-18 Monate

Davon in Vollzeit: 10 Monate

Methoden: Modern stem cell culture with iPSCs and differentiation in cardiomyocytes - Functional analysis of contractility, electrophysiology and calcium signaling in 2D and 3D models in vitro - Molecular methods (e.g. PCR, RT-PCR, Western blot, immunohistology)

Zielsetzung: Human induced pluripotent stem cells (iPSC) have revolutionized the scientific field, particularly due to the ability to differentiate iPSC into different cell types in a targeted manner. In the cardiovascular field in particular, the use of iPSC-differentiated cardiomyocytes (iPSC-CM) has led to a significant increase in research approaches. Despite the possibility to continuously differentiate iPSC into iPSC-CM for experiments, an optimization of the processes, especially with regard to proliferative expansion and cryopreservation, is essential to ensure a reproducible use of the cells. The aim of this work is to optimize the processes of freezing and thawing of iPSC-CM, depending on iPSC-CM expanded by induced proliferation. The functional and molecular properties will be evaluated comparatively in the following

Rahmenbedingungen

Strukturierte Betreuung: The working group is currently being set up and offers the possibility of close and direct supervision. This includes extensive training in various necessary laboratory techniques. In addition, there is a lively scientific exchange with the working groups of the Department of Medical Clinic III (Cardiology, Prof. Frey) and VIII (Experimental Cardiology, Prof. Backs) due to very close cooperation. There is also the opportunity to take part in workshops and seminars as part of the DZHK

Anforderungen: Openness for 2 semesters of laboratory work and enthusiasm to learn cellular and molecular techniques as well as dedication to excecute the project.

Finanzielle Unterstützung: Applications for doctoral scholarships (DGK, DZHK, CCP) are strongly supported.

Autorenschaft: The work will be published, offering the opportunity for authorship.

Anmerkungen: -

Thema: Investigating the Role of Inflammasome Activation in Heart Failure with Preserved Ejection Fraction (HFpEF)

Anbieter: Innere Medizin - Kardiologie, Angiologie u. Pneumologie - Kardiale Epigenetik

Datum: 23.02.2024

Betreuer: Professor Johannes Backs, Institut für Experimentelle Kardiologie, Innere Medizin VIII

Ansprechpartner: Philipp Konrad

Kontakt: philipp.konrad@med.uni-heidelberg.de

Startzeitpunkt: In 2024, the specific start date will be determined through discussion, ensuring that the doctoral student can utilize laboratory time to its fullest potential.

Voraussichtliche Dauer: 18-24 Monate

Davon in Vollzeit: 12 Monate

Methoden: We have developed a transgenic mouse line with acardiac inflammasome knockout. Utilizing this model, we will induce HFpEF and conduct echocardiographic and metabolic analyses to elucidate the inflammasome s role within a 9-week timeframe. Subsequently, we will delve deeper into the molecular and transcriptomic aspects to further explore the inflammasome s involvement. The entire project is supported by a pharmaceutical company and in close collaboration with the Innate Immunity Research Group of University of Tübingen

Zielsetzung: Our research, supported by a pharmaceutical company, aims to understand the role of inflammasome activation in HFpEF. Using a transgenic mouse model, we investigate its impact on cardiac function and metabolism. This collaboration seeks to identify potential therapeutic targets for HFpEF management.

Rahmenbedingungen

Strukturierte Betreuung: You will be directly mentored by Physician Scientist Philipp Konrad, working alongside him at the cutting-edge Institute of Experimental Cardiology (Backs Lab). Weekly experimental procedure seminars, monthly journal clubs, and yearly lab retreats will keep you engaged and inspired. You will also have the chance to showcase your work at prestigious national and international conferences, amplifying your impact and connections in the scientific arena.

Anforderungen: Alongside participating in an animal welfare course, immersing yourself in the heicumed program, and dedicating 2-3 semesters to lab work, you will also receive specialized training in molecular cardiology.

Finanzielle Unterstützung: We will assist you in applying for scholarships to fund your lab time. There are several possible scholarships available.

Autorenschaft: The work will be published, offering the opportunity for co-authorship.

Anmerkungen: We are an internationally renowned lab, connected to a vast network of scientists both nationally and internationally, equipped with state-of-the-art techniques. This environment will not only help you explore your scientific interests but also integrate you into the world of basic cardiology research. Moreover, the skills and techniques you acquire here are transferable across various scientific fields, opening doors to opportunities beyond cardiology research.

Thema:

Betreuer:

Ansprechpartner:

Kontakt:

Startzeitpunkt:

Voraussichtliche Dauer:

Davon in Vollzeit:

Methoden:

Zielsetzung:

Rahmenbedingungen

Strukturierte Betreuung:

Anforderungen:

Finanzielle Unterstützung:

Autorenschaft:

Anmerkungen: