The Core Facility for Small Animal Imaging (Head: Prof. Dr. rer.nat. Volker Rasche) of Ulm University is seeking a

PhD student for the characterization of novel compounds using small animal PET/MRI

Reference-code 107725

for supporting ongoing Research activities in the field of characterizing and particle-peptide combinations as Basis for novel Imaging probes.

The Position (50%/E13 TV-L) is initially limited to 3 years, starting as soon as possible

The Core Facility Small Animal Imaging and the Department of Nuclear Medicine, members of the interdisciplinary "MoMAN" consortium, have great Expertise in pre-clinical multi-modality Imaging. The Advantages of the highresolution MR Imaging and the high-sensitivity PET Imaging are combined providing new possibilities for evaluation and optimization of pharmacological compounds. Ulm University has been granted a DFG funded Collaborative Research Center (SFB1279) on "Exploiting the Human Peptidome for Novel Antimicrobial and Anticancer Agents".
The proposed CRC aims at optimizing available endogenous effector molecules and will use Peptide libaries from various Body fluids and tissues for the discovery of as-yet-unknown endogenous agents displaying antimicrobial (i.e. antiviral and antibacterial) and/or anticancer (e.g. anti-neoplastic and anti-metastatic) activity. In combination with nanoparticles the compound design covers broad spectrum of innovative substances. Major Goals of projects in area care the application of novel Tools and methodologies to evaluate and optimize the activity, stability and delivery of the bioactive probes analyzed. In this context, in vitro studies as well as in ovo and small animal PET/MRI will be applied for the characterization of the pharmacokinetics and biodistribution of the newly developed compounds. The state-of-the-art infrastucture includes a Bruker BioSpin 11.7T Small Animal MRI with up-to-date sequence development Software and a Siemens Focus 120 small animal PET System (combined small animal PET/MRI System is under DFG application) for the Imaging Tasks in Addition to various in vitro Imaging and detection methods.

Your tasks:

- Characterization, Evaluation and optimization of novel Imaging compounds primarily by in vitro and in ovo techniques as well as multi-modality Imaging of PET and MR
- Development of quantitative and reproducible methods for in vivo compound quantification by PET/MRI methods

You have/are:

- A Master`s degree in life sciences with strong Background in molecular biology (e.g. MolMed, Biology, Veterinary) or Physics, (or related subject)
- Experience in small animal Imaging, preferably related to methods applicable to PET/MRI
- Skills in compound labelling and assessment of pharmacokinetics by PET/MRI are advantageous but not mandatory
- Highly motivated candidate with lively interest in interdisciplinary molecular imaging

We offer:

- International Graduate School in Molecular Medicine Ulm (IGradU)
- Highly interdisciplinary working enviroment

Are you interested?

Please email your application (including CV, list of publications, letter of reference) as a single PDF file to Prof. Volker Rasche (volker.rasche@uniklinik-ulm.de), subject: "PhD SFB 1279 PET/MRI imaging"). For further information, please visit our website (https://www.uni-ulm.de/einrichtungen/moman/) or contract Prof. Rasche (+49 731 500 45014)

Employment takes place through the administration department of the University Medical Center Ulm, which acts in the name and on behalf of the federal state of Baden-Württemberg. Handicapped people with equal qualifications will be employed preferentially. The University Ulm strives for an increased proportion of women in research and teaching and therefore strongly encourages qualified female scientists to apply for the position.