



PhD position (f/d/m)

Department of Nuclear Medicine

Within the DFG-funded cluster of excellence "Hearing for All: Medicine, Basic Research and Engineering Solutions for Personalized Hearing Care (H4A 2.0)" at Hannover Medical School, a PhD student position on the subject "Nuclear medicine diagnostics of age-related hearing loss and rehabilitation of hearing with auditory implants" is available. The position offers the opportunity to participate in the graduate program "Auditory Sciences".

Background:

Hearing as a central factor of social participation is limited in a large part of the population (17%) due to age. The current status of diagnostics and therapy of hearing disorders needs to be improved. Nuclear medicine methods allow to image hearing processing "live" in the individual at a functional or molecular level. In animal models, this provides a better understanding of the pathophysiology of hearing loss. From this, new starting points for diagnosis, prevention and therapy can be derived. Technical advances in auditory implantation offer new prospects for the rehabilitation of hearing. In order to make this potential accessible, precise diagnostics including nuclear medicine procedures are essential.

Your tasks

Project:

The project builds on the methods and collaborations established in the first funding period of the cluster of excellence Hearing4all. The focus is on innovations in imaging with radiotracers (in particular positron emission tomography, PET). In the preclinical area, it is planned to investigate changes in inhibitory neurotransmission in connection with hearing loss and inflammatory processes after cochlear implantation. For patient studies, precise diagnostics of the central hearing system with minimal radiation exposure is to be realized using the latest nuclear medicine technology. In particular, challenges in image data processing (statistical parametric mapping, bio-kinetic modeling, deep learning, etc.) are to be solved. Thereby a general benefit for nuclear medicine diagnostics shall be achieved.

Your requirements

We are looking for a motivated researcher with a master's degree in physics, biology, veterinary medicine or neuroscience. Excellent experimental and theoretical knowledge as well as good team spirit are desired. Your application should include a letter underlining your specific interests, qualifications and motivation for this specific position.

Important key competencies

Analytical and goal-oriented approach, project management competence, willingness to take responsibility, own initiative, resilience, reliability, interest in models and statistical methods for data analysis.

The position is initially limited to 3 years with the prospect of extension in case of successful cooperation. It is a part-time position of 25 hours with working hours by agreement. Depending on personal qualifications, the job is classified according to TV-L (65% E13).

The MHH is a certified family-friendly university and is committed to promoting women in working life. Applications from women are particularly welcome. Severely handicapped applicants will be given preference if they have the same qualifications.

The Hannover Medical School (MHH), with about 10.000 employees the biggest state owned company of Lower Saxony, is a university institution for research and teaching in the human and dental medicine and a university hospital of supra-maximum medical care. Research, teaching, medical care and administration work hand in hand in the integration model at the MHH-campus.

Deadline: 25.03.2020



You have any questions beforehand?

Prof. Dr. Georg Berding will gladly answer them for you:

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We enable you a collegial initial training and diverse training and development opportunities as well as an extensive health program for employees. In addition, we offer reliable family support and there is a day care center for children with emergency childcare. Furthermore, you will find the usual social benefits of the public service.

The MHH is certified as family-friendly university and stands for the promotion of women in the professional life. Applications of women are particularly welcome. Severely disabled applicants with equal qualifications are given preferential consideration.