The Hannover Medical School (MHH), with about 10.000 employees the biggest state 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.

The Peter L. Reichertz Institute for Medical Informatics (PLRI) of TU Braunschweig and Hannover Medical School offers a position at Hannover Medical School as

Head of the Junior Research Group
Interoperable and Explainable Clinical Decision Support
(Full Position, TV-L) (f/m/d)

to be filled from April 1st, 2022. PLRI, one of the largest university-based centers for medical informatics in Germany, is a joint institute of TU Braunschweig and Hannover Medical School. As an academic institution be- longing to two leading universities, comprising an institute of technology and a medical school, located in one of Europe's most research-intensive regions, PLRI offers excellent research opportunities. We collaborate in interdisciplinary projects with health care centers, research institutes, enterprises and public organizations in order to shape the future of healthcare and medicine. Our activities range from the local level, as with institutions in Braunschweig and Hannover, through regional, national, and global corporations.

Your Challenges and Tasks:

Clinical decision support systems (CDSS) can take on specific tasks in diagnostic and therapeutic processes and support medical professionals in decision-making, through the abilities to process large amounts of data in a short time and to consider individual patient profiles during processing. Against the background of the increasing availability of – unfortunately, often distributedly stored – clinical data, e.g., generated by advanced imaging processes or OMICS technology, as well as non-clinical data sets, e.g., patient-generated data from sensors or apps, there is a growing need for interoperable CDSS based on open data standards and programming interfaces. Increasingly, CDSS contain AI (Artificial Intelligence) components and predictive pathophysiological and pathobiochemical simulations. To generate trust in such components and simulations in practice is challenging and requires explainable and interpretable underlying models as well as calculated decisions and simulation results.

The junior research group shall address the challenges of interoperability and explainability in close collaboration with the HiGHmed consortium (https://www.highmed.org) and based on the HiGHmed platform, which supports the development of interoperable applications. The group includes, in addition to the leadership, two PhD positions for five years each.

Main responsibilities:

The successful applicant is expected to:
- establish the junior research group,
- develop novel approaches to interoperable and explainable clinical decision support in close collaboration with clinical partners,
- assist in the acquisition of third party funding,
- publish high-quality scientific publications at renowned conferences and journals,
- engage in national and international research networks, and to
- assist in university teaching and the supervision of students.

Our requirements:

We are seeking outstanding candidates that have:
- obtained or are close to obtaining a doctorate in the area of computer sciences, information systems, medical informatics, bioinformatics, mathematics, or a

comparable course of study
- strong research experience in (at least) one of the following fields:
    - Biomedical Data Science
    - Clinical Decision Support Systems
    - (Explainable) Artificial Intelligence
    - Visualization and analysis of medical image and/or clinical data
    - Machine learning, data mining, predictive modeling
    - (Medical) data science and/or knowledge engineering
- above-average publication profile,
- very good oral and writing skills in English; German language skills are advantageous,
- willingness to work closely with an interdisciplinary project team,
- self-initiative and result-oriented working style, and
- experience in the acquisition of external funding and team leadership is preferred.

We offer:

- an attractive full position (38.5 working hours per week) in the motivated, team-oriented and international PLRI research team
- the possibility of acquiring own third-party grants and to develop the own scientific qualification (habilitation)
- this full-time position is to be filled from April 1st, 2022 and initially limited until March 31st, 2027
- a salary according to TV-L, up to salary group E15, depending on the qualification profile of the successful applicant

International applicants will need to complete a visa process before hiring can take place. The position is based at PLRI Campus Hannover and part of *the PLRI research focus Medical Information Systems (https://www.plri.de/).*

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.

Application deadline: 13th January 2022

Please apply through the MHH job portal:
https://mhh.hr4you.org/job/view/1132/head-of-the-junior-research-group-interoperable-and-explainable-clinical-decision-support-full-posit?page_lang=en

For questions regarding the position, please contact:

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