



**Join us in shaping the new Medical School at Bielefeld University:
Future-oriented, interprofessional, and strong in research and teaching**

Professorship for Medical Image Analysis and Processing (W2 TT W3)

Professorship for Medical Decision Support (W2 TT W3)

At Bielefeld University, an innovative Medical School with an interdisciplinary individual and population medicine orientation and the University Medical Center OWL (UMC OWL), with the Klinikum Bielefeld, Evangelisches Klinikum Bethel (EvKB), and Klinikum Lippe as holders, are established. We are looking for personalities with a promisingly nationally and internationally visible research profile within the fields of Medical Informatics and Data Science, who want to seize the development situation and its challenges as a chance and actively participate in research, teaching, patient care, and organization. You will be significantly involved in the further planning and implementation of the model study program in human medicine (according to ÄApprO), as well as in implementing the "clinician" and "advanced clinician scientist" programs. At the same time, you will take on a significant role in developing an interconnected, inter/nationally competitive research profile "Medicine for people with disabilities and chronic diseases". For more information, please visit <https://www.uni-bielefeld.de/fakultaeten/medizin/forschung/profil/>.

With the first appointment of the newly established professorships, the Medical School OWL will expand and strengthen the topic area of digital transformation of medicine. We expect the connectivity to the research profile of the Medical School OWL, to the Bielefeld Informatics, and particularly to the areas of Data Science and Digital Medicine. In this sense, you will be committed to profile-building interconnected projects of the Medical School OWL and form an important transdisciplinary bridge. Thereby, particularly experiences in clinical inpatient and outpatient fields of application are important. Close cooperation with the clinical departments of the University Hospital OWL and the physicians in private practice in the region is a prerequisite. In addition, we expect you to provide important impulses for the scientific use of data networking from research and care, for example, in the context of the Medical Informatics Initiative Germany, as well as a strong willingness to address age-, gender-, and diversity-related issues to improve care practices.

The prerequisites for both professorships are:

- completed degree in computer science or another relevant field of study,
- relevant doctorate in the field of (medical) computer science, and additionally scientific achievements according to § 36 paras. 1; no. 4 HG NRW,
- promisingly scientific achievements reflected in corresponding publications and third-party funding,
- scientific expertise in medical-clinical and non-clinical fields of application,
- the particular ability and willingness to work in interdisciplinary cooperation,
- connectivity to the research profile of the Medical School OWL,
- extensive teaching experience and experience with innovative teaching formats in the subject to be represented,
- experience and active engagement in equality-oriented promotion of young scientist.

Desireable is also a completed degree in medicine or another relevant field of study.

Furthermore, the following applies in detail:

Professorship for Medical Image Analysis and Processing (W2 TT W3)

As the position holder, you will develop an interdisciplinary cross-sectional area for the scientific use of medical image data with partners from clinical-diagnostic medicine. You will be involved, amongst other things, in developing and testing new methods, algorithms and software systems for the computer-assisted processing and analysis of medical image data to improve diagnostics and therapy monitoring, and you will promote this research field. Beyond this area, innovations in medical image analysis and image processing will be developed for computer-assisted therapy. In these fields, we expect networking with all clinical imaging disciplines – in particular with focus on biomarker research which is currently being established by the Professorship of Clinical Radiology – and the relevant areas of the technical/scientific faculties of Bielefeld University.

Further prerequisites are:

- expertise in the application of e. g. Machine Learning/Artificial Intelligence/Medical Data Science and/or Radiomics,
- a documented understanding and relation to medical procedures and imaging techniques.

Desirable are additionally experiences in analyzing the link between image data and findings, including NLP.

Professorship for Medical Decision Support (W2 TT W3)

As the position holder, you will significantly contribute to developing and analyzing large volumes of heterogeneous data based on various data sources from inpatient and outpatient diagnostics. Data from laboratory medical, pathological and imaging diagnostics, and health care data serve as a basis. The aim is to develop and test computer-based systems for data integration and decision support in prevention, diagnostics and care, including improvement in the quality and availability of care data for research purposes. Thereby, aspects of patient safety, the quality of diagnostic and therapeutic decisions, and improvement of care processes are in focus.

Further prerequisites are:

- previous experience in care research, cross-sectoral data collection and/or real world data/patient integration,
- experience in the extraction, coding, semantic harmonization/integration and quality assurance of research data from clinical information systems,
- experience in the analysis of large heterogeneous clinical data sets, clinical decision support and machine learning in the context of medical applications,

For the appeals applies:

The teaching load basically comprises 9 LVS in accordance with § 3 Para. 1 No. 1 LVV. The requirements for employment follow § 36 HG.

The W2 appointment variants are initially limited to five years; after appointment, a target agreement is formulated. In the event of a positive evaluation in the final year, the position is converted to a permanent W3 professorship. Tenure evaluations are regulated in the statutes for the implementation of W2 professorships with tenure track. W2 tenure-track professorships are firmly established at Bielefeld University as an equal tenure option. Tenure-track professors are offered a target-group-specific personnel development programme that provides support during the arrival phase and in preparation for the tenure evaluation.

Applications from suitable persons with severe disabilities and persons with disabilities of equal status are expressly encouraged.

Bielefeld University has received several awards for its successes within equality and is certified as a family-friendly university. The university pursues a committed equal opportunities policy concerning the appointment of professorships, among other things, and would expressly like to

invite qualified female applicants to apply. Applications are treated in concert with the State Equality Act. Family times will be considered in the context of the selection decision.

The Medical School OWL consider equality between women and men to be one main task, and the future jobholder will be involved in its implementation. Bielefeld University supports dual-career constellations to establish a common centre of life and work.

Please submit your application by **07/12/2023** via the online appointment portal of Bielefeld University: <https://berufungen.uni-bielefeld.de/>.

In addition to the usual application documents and information, we ask you to submit each a 2- page teaching and research concept paper. These concept papers should integrate gender- and diversity-specific content relevant to the advertised professorship. We expect a brief description of your previous and planned gender equality activities, besides, particularly for the promotion of young female scientists and the compatibility of career and family.

Contact:

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