

TENURE-TRACK FOR MEDICAL ENGINEERING



INFORMATION FOR APPLICANTS

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1. General

This tenure-track position is announced within the scope of the funding programme of the State of Upper Austria in cooperation with FWF for a group leader of a Young Research Group in the field of Medical Engineering.

The Young Research Groups are funded by the State of Upper Austria as part of the STAR (Step Ahead Through Research) research funding initiative. FWF is responsible for the administration of the programme. For detailed information see: <https://bit.ly/2WuFbPw>.

The newly founded Linz Institute of Technology and the Medical Faculty at the Johannes Kepler University (JKU) together with the Technical and Natural Sciences Faculty of JKU intend to significantly expand the research and teaching profile of JKU into the topic of Medical Engineering. The LIT Medical Engineering topic focuses on excellence in research and teaching in the topics of biomedical electronics, biomedical sensors, biomedical imaging, biomedical mechatronics, biomechanics, Theragnostics or similar research topics. We are looking for candidates with a strong, internationally recognized research profile. The successful applicant is expected to participate in the bachelor's and master's degree programs of the JKU Linz in Medical Engineering as well as in the LIT's Graduate School.

2. Research

The successful candidate has a strong expertise in one or more of the following topics on

biomedical electronics, biomedical sensors, biomedical imaging, biomedical mechatronics, biomechanics, Theragnostics or similar research topics

The candidate will design, develop and investigate methods towards the vision of interfacing the biomedical and electronics/mechanics worlds for human-machine communication and smart-implants. Additionally, the candidate should be able to demonstrate familiarity with technical and industrial applications of medical devices for humans and several aspects of life sciences showing a solid understanding of the related hardware and technical and ethical issues.

The Application Guidelines for the Young Research Groups Programme provide the following research-related qualifications of the proposed group leader (1.7.3 of the Guidelines; <https://bit.ly/2WuFbPw>):

- Potential group leaders must have a doctoral degree and at least two years of research experience after finishing his/her doctorate. The doctoral degree may not have been gained more than eight years before the date of the submission deadline (30 April 2019). This period may be extended for documented periods of raising children; military and civil service; relevant education and training in the field such as clinical training in medicine; and long, serious illnesses that have led to gaps in the group leader's career.
- The nominated group leaders must have research experience after finishing their doctoral degree at a different research institution than the applying research institution. In general, several years of work experience at a foreign research institution is required.
- The group leader's qualification to lead the research group must be shown by an exceptionally good international track record (high-calibre, peer-reviewed publications in top-ranking, international journals, monographs, internally generated patents, etc.). The following criteria are

decisive for assessing the publication track record of the nominated group leader and initiating the review process:

- Number and quality of the group leader's publications must be commensurate with his/her career stage and meet the high standards of the programme. The profiles of FWF START principal investigators (<https://pf.fwf.ac.at/en/research-in-practice/projectfinder>) or ERC Starting Grantees (<http://erc.europa.eu/projects-and-results/erc-fundedprojects>) can serve as a guide.
 - Peer review: All the publications listed (or more than half in the case of the humanities) must have been subject to a quality assurance procedure in line with high international standards, which usually means that journals should be listed in the Web of Science, Scopus, or the Directory of Open Access Journals (DOAJ). For journals not listed in those databases, or monographs, edited volumes or contributions therein, or other publication types, a link to the publisher's website describing the respective peer review procedure must be included in the publication list. Should no such description be available, it is the responsibility of the applying research institution to provide evidence that the publisher has conducted an appropriate quality assurance procedure on the publication.
 - International nature: In the natural sciences, life sciences, and social sciences, most of the publications listed must be in English. In the humanities and cultural studies, as well as arts-based research, most of the publications must have a wider than national reach.
- The group leader's research independence must be evident from his/her curriculum vitae (hereinafter referred to as CV) and publication list (e.g., principal investigator of thirdparty funded projects, lead and last authorships, sole authorships, corresponding authorships).

3. Teaching

The successful candidate should have teaching experience at Bachelor, Master or Doctoral level. The vast majority of courses at LIT in the respective areas are taught in English, therefore the candidate should be experienced in teaching in English language, an international teaching experience is desired. The position includes teaching obligations in the study programs on medical engineering equivalent to four teaching hours per week. The candidate should have experience in (co-)supervising academic theses.

4. Infrastructure

For all laboratory tasks new clean room facilities at LIT are available. Also the general biomedical research facilities are existent at the ZMF (Zentrum für Medizinforschung). Furthermore, several institutes of the TNF (Technische Naturwissenschaftliche Fakultät) have extended facilities which can be accessed under mutually agreed terms and conditions with these research groups.

5. Additional Requirements

The successful candidate should have the following additional qualifications:

- Excellent command of spoken and written English
- Great interest in collaborations within the LIT and the university as well as outstanding team-working abilities in order to cooperate with national and international research institutes
- High social competence

The Application Guidelines for the Young Research Groups Programme state the following exclusion criteria for group leaders:

- Persons who at the time of submitting the application already have a position at the applying research institution that includes the prospect of permanent employment upon fulfilment of a qualification agreement (e.g. tenure track position) or a permanent contract of employment in a research position cannot be nominated unless the employment contract is linked to third-party funding.
- Researchers also cannot be nominated who at the time of submitting the application already are or have been the principal investigator at the applying research institution as part of one of the following funding programmes: FWF START, ERC Grants. (Persons who received one of these grants in the past and carried out the respective project at a different research institution than the applying research institution can be nominated. However, the project concerned must have ended or will end before the Young Research Group project begins.)

6. Tenure (Qualification) Agreement

The position will be initially limited to a period of six years. Job holders will be offered a tenure agreement if the academic performance suggests that the required high qualification can be reached. If the requirements of the agreement are met, employment will be continued for an indefinite period as a tenured Associate Professor (according to § 99 Sec 5 and 6 of the Austrian University Act). Promotion to Full Professorship is possible in a simplified procedure (following § 99, Sec 4, Austrian University Act).