

Department:	Department of Biohybrid & Medical Textiles (BioTex), Institute of Applied Medical Engineering
Job site:	Center for Biohybrid Medical Systems (CBMS) Forckenbeckstr. 55, 52074 Aachen
Description of the position:	PhD position for Biomedical Engineer/Biotechnologist/ Biologist (M. Sc.)
Job description:	<p>Our profile The focus of the Department of Biohybrid & Medical Textiles (BioTex) is the development of biohybrid implants, which are produced from the patient's own cells. For this reason, the working group is very interdisciplinary and includes scientists from the fields of materials research, engineering, biology, biotechnology and medicine.</p> <p>Your tasks You will be part of the DFG-funded graduate school Mechanobiology in Epithelial 3D Tissue Constructs (MEET; meet.rwth-aachen.de). In project C3 – <i>Guiding respiratory epithelium towards directed ciliary function</i>, you will work on an in vitro model of the tracheal mucosa. Your task is to evaluate the influence of defined wall shear stresses on ciliary development and orientation. Next to physiological stimulation, pathological stimuli will be simulated and inflammatory responses analyzed. To provide a fully functional tracheal substitute, a three-dimensional construct will be developed. Your work will include cell culture techniques, microscopical, histological and molecular evaluation as well as the use and adaptation of the bioreactor system for dynamical cultivation.</p>
Requirements / profile:	<p>Your profile You have completed your studies in Biomedical Engineering, Biology or Biotechnology or an equivalent field quickly and very successfully. You intend to obtain a PhD (Dr. rer. nat. or Dr. rer. medic.) on a challenging transdisciplinary topic. During your studies, you have acquired knowledge in the transdisciplinary fields of biomedical and tissue engineering and cell biology. Moreover, you have basic knowledge in fluid mechanics. We are looking for an ambitious, self-motivated candidate with good communication skills who is fluent in written and spoken English.</p>
Pay category:	TV-L 13 (65 %)
Hiring date:	July 01, 2022
Duration of employment:	3 years
Contact:	Univ.-Prof. Dr. med. Stefan Jockenhövel jockenhoevel@ame.rwth-aachen.de , +49 (0)241 80-47476 Dr. rer. medic. Anja Lena Thiebes thiebes@ame.rwth-aachen.de , +49 (0)241 80-47472 http://www.biotex-aachen.de
More information and application: http://www.me3t.rwth-aachen.de	
Equal career prospects for women and men.	
Severely disabled applicants with equal qualification will be given preferential consideration.	
Application deadline: March 31, 2022	