

Department:	DWI – Leibniz Institute for Interactive Materials or Forschungszentrum Jülich, Institute of Biological Information Processing 2: Mechanobiology (IBI-2)
Job site:	DWI – Leibniz Institute for Interactive Materials or Forschungszentrum Jülich
Description of the position:	PhD Position: Development of a dynamic multi-tissue system for manipulating and measuring epithelial mechanics
Job description:	<p>Our profile</p> <p>The DWI is committed to the development of materials with active and adaptive properties. The capability for active adaptation and interactivity is one of the most profound challenges of today's materials research and will ultimately lead to the evolution of intelligent materials. A research focus is on 3D printed membrane structures and their integration into multi-tissue assemblies.</p> <p>The research at IBI-2 is focused on the biomechanics of cells and their mechanical interaction with the environment. Modern methods of cell biophysics and cell biology are employed that are complemented by biomimetic model systems.</p> <p>Your tasks</p> <p>You will be part of the DFG-funded graduate school "Mechanobiology in Epithelial 3D Tissue Constructs" (ME3T; me3t.rwth-aachen.de). You are expected to work in an interdisciplinary team with a keen interest in novel technological developments. Your project is designed to develop new multi-tissue systems, which will help (i) to study the influence of defined extracellular matrix structures, (ii) to manipulate the physicochemical microenvironment and (iii) to measure cellular functions (e.g. permeability, traction forces) in compound co-culture systems. The project is most tightly connected to B3 but will also cooperate with A2, A3, B1, B2 and C1. Depending on your qualifications, you will be hosted by the DWI or FZJ.</p>
Requirements / Your profile:	<p>Your profile</p> <p>You have completed your studies in engineering, biophysics or biotechnology very successfully with a M.Sc. degree, have acquired a "love for science" and are now searching for a challenging PhD project in a stimulating interdisciplinary and international environment. During your studies, you have acquired knowledge in the transdisciplinary fields of biotechnology, biophysics and/or cell biology. You distinguish yourself by resilience and excellent teamwork capacity. You are fluent in written and spoken English.</p>
Pay category:	TV-L 13
Hiring date:	July 01, 2022
Duration of employment:	3 years
Contact/Send application to:	<p>Univ.-Prof. Dr.-Ing. Laura De Laporte, Phone: +49 (0)241 80-23309 Email: delaporte@dwil.rwth-aachen.de www.dwi.rwth-aachen.de/index.php?id=799</p> <p>Univ.-Prof. Dr. rer. nat. Rudolf Merkel, Phone: +49 (0)2461 61 4551 Email: r.merkel@fz-juelich.de www.fz-juelich.de/ics/ics-7/EN/Home/home_node.html</p>
Equal career prospects for women and men.	
Severely disabled applicants with equal qualification will be given preferential consideration.	
Application deadline: March 31, 2022	