Department: Institute of Physiology, LuF Neurophysiology
Job site: RWTH Aachen University Hospital

### Description of the position:
**PhD student**

### Job description:
**Our profile**
The focus of our dynamic work group is on hereditary pain, peripheral sensory neurons and the natural environment of their free nerve endings in the skin. In a translational approach, we investigate excitability and mechanosensitivity of neurons derived from stem cells (iPSCs) of patients with pain syndromes and peripheral neuropathies. We use the patch-clamp technique, multi-electrode arrays (MEA), molecular biological, immunohistological and cell biology as well as modern materials for tissue engineering, such as (inter)active synthetic hydrogels, to enhance cell growth, support co-cultures, and probe cellular mechanobiology.

**Your tasks**
You will be part of the DFG-funded graduate school Mechanobiology in Epithelial 3D Tissue Constructs (ME3T; me3t.rwth-aachen.de). In project B3: *Mechanostimulation of an innervated 3D skin model*, you will participate in setting up dermal equivalents, expand those into 3D hydrogel based skin models, which will be “innervated” by sensory neurons. Using light actuated hydrogels, you will probe the mechanosensitivity of these constructs and readout the cellular response using calcium imaging, patch-clamp or multi-electrode recordings.

### Requirements / profile:
**Your profile**
The ideal candidate will be an ambitious, highly-motivated, team-oriented graduate in natural sciences (biology, physics, chemistry, medicine, biomedical engineering or similar) with a strong interest in mechanobiology, neurophysiology and innovative materials for controlled and directed 3D cell/tissue culture. Proficiency in scientific communication, data analysis, and advanced English language skills are required; prior experience in patch-clamp recordings and/or stem cell culture and differentiation, design and use of hydrogels for cell culture is appreciated, but no prerequisite.

### Pay category: TV-L 13 (65%)
### Hiring date: July 01, 2019
### Duration of employment: 3 years
### Contact: Univ.-Prof. Dr. Angelika Lampert
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www.ag-lampert.ukaachen.de

Equal career prospects for women and men.
Severely disabled applicants with equal qualification will be given preferential consideration.

**Application deadline: March 15, 2019** (apply via https://me3t.rwth-aachen.de/positions)