



# Institute for Functional and Clinical Anatomy

Job title:	PhD student (w/d/m)
Limited in time:	36 months
Position:	Full-time
Start:	from June-July 2025
Classification:	TVL E13 (65%)
Application Deadline:	May 15, 2025

## *Insights into Meibomian gland function*

**(PA738/15-2)**

As part of this DFG-funded project, scientific questions regarding the physiology and function of the Meibomian glands are being investigated. These glands produce essential lipids for the tear film and are crucial for maintaining ocular surface health. The goal is to gain a better understanding of the causes and mechanisms of Meibomian Gland Dysfunction (MGD), a leading cause of Dry Eye Disease (DED).

The research focuses, among other things, on the presence and role of myoepithelial cells, mechanosensitive ion channels in meibocytes, mechanotransduction through blinking, the mechanical properties of the tarsus, and the structure of the muscle of Riolo. In addition, the establishment of a meibocyte cell line is planned. The project combines approaches from stem cell biology, tissue engineering, mechanotransduction, and lipid production to develop new therapeutic strategies for MGD.

## **Qualification characteristics:**

- University degree in human medicine, dentistry, molecular medicine, veterinary medicine, biology, biochemistry or equivalent
- Great scientific interest, knowledge and practical experience in molecular-cell biological techniques are advantageous
- High intrinsic motivation, team spirit, interest in eye and eye immunology issues, sociability, independent work
- Willingness to perform animal experiments
- No participation in student teaching

## **Significant applications should be sent to:**

Professor Dr. med. Dr. h.c. Friedrich Paulsen  
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