



HiWi in drug discovery at Institute of Lung Health and Immunity (Großhadern), Helmholtz Munich

[Burgstaller lab](#) is working on development of small-molecule antifibrotics against Idiopathic Pulmonary Fibrosis, integrating phenotypic drug discovery with AI methods.

We are looking for a master student with excellent cell culture skills for an 8 hours/week HiWi position (15.81/hour for students with a bachelor's degree).

Contract period: October, 2026 onwards. At least 6 months (with possibility of extension).

Location: Max Lebsche Platz 31, 81377 Munich (2 minutes from U6 Klinikum Großhadern)

Lab background: Idiopathic pulmonary fibrosis (IPF) is characterized by overproduction of extracellular matrix (ECM) by activated myofibroblasts, leading to uncontrolled scarring and lung remodelling, ultimately leading to lung failure and death. We developed a high-throughput, high-content phenotypic screening assay that uses IPF-patient derived human lung fibroblast. Using this, we discovered and have been developing a novel class of antifibrotics called N23Ps ([Gerckens, et. al., 2023](#)). We work across the early stages, from lead identification and optimization to target identification and preclinical testing in human precision cut lung slices (hPCLS). We are also leveraging our screening data to train AI models for in silico screening and generative AI tasks.

Project background: This HiWi position would involve characterization and dose-response testing of newly identified hits using our phenotypic assay. We are also expanding our training datasets for multimodal modelling to include morphological profiling using Cell Painting ([Bray, et. al., 2016](#)). You will primarily be responsible for performing these two assays. Depending on time constraints and interest, you may also work with our ex vivo model (hPCLS).

Apply only if you:

- Are based in Munich and currently enrolled in a biology (or related) master program at LMU or TUM.
- Have **extensive** wet lab experience, especially in cell culture methods.
- Can work independently, reliably and manage to fulfil your duties in a timely manner.
- Can communicate and express thoughts and ideas clearly in English.

Optional but desirable experience:

- Using 384-well plates and small-molecule dilutions.
- Immunofluorescence staining
- Fluorescence/confocal microscopy
- Cell Painting assay

What we offer:

- A friendly, and flexible working environment.
- First-hand experience into the drug development process and AI for drug discovery.
- An interdisciplinary team consisting of biomedical and computational scientists, MDs and medicinal chemists.
- Using a pipetting robot (for certain steps)!

Please send an email to kevin.merchant@helmholtz-munich.de expressing interest and shortly highlighting motivation for applying (without using AI) with a CV attached.