

HELMHOLTZ MUNICH

B.sc. thesis or HIWI Position at Helmholtz Munich Innovate with Us the future of pre-clinical lung-on-a-chip models

Are you interested in the further development of our advanced *in-vitro* lung model?

We, the laboratory for Pulmonary Aerosol Delivery at the Institute of Lung Health and Immunity (LHI) of Helmholtz Munich, are working on the development of advanced *in-vitro* models of the lung.

We aim to investigate disease models in a biomimetic coculture model of endothelial and epithelial cells cultured on our novel *BETA* membranes.

We are looking for an **undergraduate student** interested in bioengineering and working with advanced technologies.

What we can offer you

- A multi-disciplinary project with access to cutting-edge technology
- Being part in the further development of our advanced *in-vitro* lung model
- We will train you and guide you to work independently – of course, you will get the full support of your supervisor.
- You will work in a research team with international collaborations (language: English).

What we expect you to have

- Cell culture experience
- Interest in working with advanced technologies (e.g. electrospinning)
- Good time management and organizational skills
- Knowledge of Immunofluorescence (IF) staining and confocal microscopy are an advantage

...and what you will improve

- Advanced cell culture models (mono- and coculture model)
- Analyse biological endpoints with viability assays or IF staining
- Handling of in vitro mini lung which is unique in the world.

If you're motivated to work with the next generation of lung-on-a-chip models, we'd love to hear from you! **Apply today to be part of this exciting journey into the future of lung research.**

Would like to know more about our research projects? Please check out these papers:

1. Doryab A, Taskin MB, Stahlhut P, Groll J, Schmid O. Real-Time Measurement of Cell Mechanics as a Clinically Relevant Readout of an In Vitro Lung Fibrosis Model Established on a Bioinspired Basement Membrane. *Adv Mater.* 2022 Oct;34(41):e2205083. doi: 10.1002/adma.202205083. Epub 2022 Sep 11. PMID: 36030365.

Please feel free to ask any questions about this position:

M.sc. Christina Gabriel christina.gabriel@helmholtz-munich.de

Ph.D. candidate in Pulmonary Aerosol Delivery (Schmid Lab) [Schmid Lab](#)

Institute of Lung Health and Immunity (LHI)

Helmholtz Munich, 85764 Neuherberg/Munich