

We are currently seeking a student assistant ("HiWi") (f/m/d) for

## "Supporting retinal organoid culture and photoreceptor cells differentiation."

In retina research, animal models have only provided a general molecular understanding of retinal physiology and diseases, but much is still unknown about huma-relevant outer-retina function. To gain insights into the human retina, our group is in establishing an *in vitro* tissue model that can recapitulate the complex properties of the native retina. Thus, we are currently engineering an adherent retinal organoid where the photoreceptor layer directly interacts with the retinal epithelium. We combine stem cell-derived RPE with human iPSC-derived photoreceptor progenitors or early-development organoids. The pre-committed cells can be obtained directly from human iPSCs. Inspired by the natural retina and its development, the system's physiological co-maturation will be ensured by biochemical and physical cues of the interphotoreceptor matrix using hyaluronic acid-based hydrogels.

### Your Tasks

- Retinal organoid culture
- Human iPSC culture maintenance
- Support on photoreceptor cell-differentiation protocol from human iPSCs.

### Your profile

- You are studying biology, bioengineering, or a related discipline.
- You have a basic experience in mammalian cell culture techniques
- You are a reliable and careful worker who can integrate well into a team.

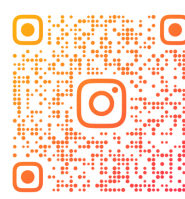
### Our offer

- Possibility to continue your work with us for a Master's thesis.
- A student contract of 10 hours / week for a period of 6 month.
- Involvement into the activities of a dynamic and active interdisciplinary research between DWI and the medical faculty of RWTH.
- Close practical and theoretical supervision

If you are interested, please send a short motivational letter, CV and transcripts via email at [dirusso\[at\]dwi.rwth-aachen.de](mailto:dirusso[at]dwi.rwth-aachen.de) or [jdirusso\[at\]ukaachen.de](mailto:jdirusso[at]ukaachen.de)



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