

Student Aid in the Institute of Molecular Cell Biology – WWU Münster

We are looking for a Master's student interested in working on the pilot project

Quantitative Analysis of GLUT4 Membrane Clustering in Cardiomyocytes

The project is a collaboration between the Cellular Bioenergetics group (AG Busch) and the Quantitative Cell Biology group (AG Grashoff) within the Institute of Molecular Cell Biology at the WWU Münster. We also collaborate with the Gould laboratory at the University of Strathclyde, Glasgow, UK.

Specifically, we want to investigate the clustering of the glucose transporter GLUT4 in iPS derived cardiomyocytes, using single molecule localization microscopy (SMLM, DNA-PAINT). This will involve characterization of the cell line via qPCR, western blotting and seahorse analyser assays, followed by the design of plasmids and subsequent genetic manipulation of the cell line, which will then allow us to visualize and analyze GLUT4 in classic Laser Scanning Microscopy (LSM) as well as SMLM.

The work mainly comprises

- Cell culture
- Microscopy
- Classical molecular biology techniques (as stated above)

Experience in one or more of these areas is beneficial but not a requirement. However, due to the advanced methodology of the project, we cannot offer the position to a Bachelor's student, unless they have sufficient laboratory experience (e.g. from a previous position as a lab technician).

If you would like to apply, please send your application with CV and relevant transcripts or references to Dr Silke Morris. If you need any more information before applying, feel free to get in touch.

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