



Open position for the LSM call of applications

Department/Institute:

Plant Molecular Biology

Subject areas/Research fields:

Physiology, molecular biology, genetics

Keywords:

photosynthesis, cyclic electron flow, suppressor mutation, protein

Name of supervisor:

Dario Leister

Funding:

LSM-CSC, third-party funding if at this time available (funding proposal is in progress)

Project title:

Understanding and improving cyclic electron flow in plants

Project description:

Cyclic electron flow is a major electron transport pathway in photosynthesis, playing an essential role in sustaining efficient photosynthesis and protecting it under adverse light conditions. In this project, we will make use of our published and unpublished screens of suppressor mutants, which have identified various factors involved in cyclic electron flow in the plant *Arabidopsis thaliana*.

The project will involve characterising the new factors in cyclic electron flow at all levels, from

characterising mutant and over-expressor plants to characterising the corresponding proteins with respect to their structure and interactions with other proteins. We have expertise in a large portfolio of genetic, physiological and biochemical tools to achieve this.

References:

Penzler JF, Naranjo B, Walz S, Marino G, Kleine T, Leister D (2024) A *pgr5* suppressor screen uncovers two distinct suppression mechanisms and links cytochrome *b₆f* complex stability to PGR5. *Plant Cell* 36: 4245-4266. doi: 10.1093/plcell/koae098

Rühle T, Dann M, Reiter B, Schünemann D, Naranjo B, Penzler JF, Kleine T, Leister D (2021) PGRL2 triggers degradation of PGR5 in the absence of PGRL1. *Nat Commun* 12: 3941. doi: 10.1038/s41467-021-24107-7

For further information, please contact:

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Research group website:

www.plantmolecularbiology.bio.lmu.de

Apply: Please send your application through the [online portal](#) of the Graduate School Life Science Munich (LSM)