Open position for the LSM call of applications

Department/Institute: LMU Faculty of Biology, Plant Molecular Biology

Subject areas/Research fields: Genetics, cell biology, physiology

Keywords: chloroplast, plastid signal, GUN1, suppressor screen

Name of supervisor: Prof. Dario Leister

Project title:

Regulators of chloroplast signalling

Project description:

In chloroplast signalling, the chloroplast communicates its state to the rest of the cell, in particular the nucleus, to adjust the expression of nuclear-encoded proteins targeted to the organelle. While the plastid protein GUN1 is known to play a critical role in this type of signalling in young plants, we found that GUN1 also plays a role in adult plants and in cold acclimation. In this project, we are identifying and characterising proteins that functionally interact with GUN1. To this end, we have used genetic screens to identify a number of candidate proteins awaiting characterisation, and we are initiating novel screens. In this project, students will learn and apply techniques from genetics, molecular biology and biochemistry.

References:

Richter AS, Nägele T, Grimm B, Kaufmann K, Schroda M, Leister D, Kleine T (2023) Retrograde signaling in plants: A critical review focusing on the GUN pathway and beyond. Plant Commun 4:100511. doi: 10.1016/j.xplc.2022.100511.

For further information, please contact:

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Reseach group website:

www.plantmolecularbiology.bio.lmu.de

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