

Prof. Bernhard Grimm

Faculty of Life Sciences

Department of Biology

Plant Physiology



Topics / Trends

Biomolecules

Sustainability & Ressource Efficiency

Pharma(ceuticals)

Industries

Agriculture & Food

Healthcare & Life Sciences

Expertise

Prof. Grimm and his team mainly investigate the metabolic control of tetrapyrrole biosynthesis and photosynthesis. They also do research on the regulation of sucrose transport in plants. The plant science team is interested in studying the unique properties and functions of plant cells, such as intracellular communication between the nucleus and the two main plant organelles, plastids and mitochondria. Prof. Grimm's group applies several experimental methods and techniques from the areas of biochemistry, genetics, molecular and cell biology in their research and in the training programs for students and young academics.

Scientific Services

The Plant Physiology group provides all necessary equipment and instrumentation for plant growth and molecular genetics, biochemical and physiological work:

- S1 greenhouse
- growth cabinets for Arabidopsis
- radionuclide laboratory
- HPLC equipped with diode array and fluorescence detector
- FPLC
- fluorescence spectrometer
- microtiter plate reader (w/ fluorescence detection)
- UV/Vis photometer • PAM-2000 fluorometer
- LI-COR photosynthesis device
- fluorescence microscope
- ultracentrifuges and high speed centrifuges including rotors
- clean benches
- incubators for growth of genetically modified bacteria and yeast
- several PCR machines, e.g. microplate readers and PCR light cyclers
- confocal laser scanning microscope (CLSM)

Testimonials

- Oil mills: pigments in rapeseed oil
- Food-producing corporation: postharvesting treatment and storage of leafy greens
- Pharmaceutical group: vitamin synthesis and content in plants