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Projects for Diploma/Master Theses

Using the Moss *Physcomitrella patens*, we investigate:

- Organellar Proteomes and Signalling in Mitochondria and Chloroplasts
- Glycoengineering and Molecular Pharming
- Bioinformatics, Genome Annotation and Systems Biology

Currently several projects are available in our group dealing with various research areas. Our main subjects are the study of organelle function in *Physcomitrella patens* in the context of evolution and development, the biotechnological application of moss strains with a humanized glycosylation pattern and the improvement of genome annotation by the analysis of transcriptomics and proteomics data.
We offer to learn a variety of molecular biology techniques at the DNA, RNA as well as the protein level. In our group high-throughput data are analysed as well as studies on single genes or proteins conducted. Projects will include on the one hand basic techniques as e.g. sequence analysis, phylogeny, cloning and blotting and on the other hand advanced techniques as confocal microscopy, CoIP, advanced expression profiling and quantitative proteomics.

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