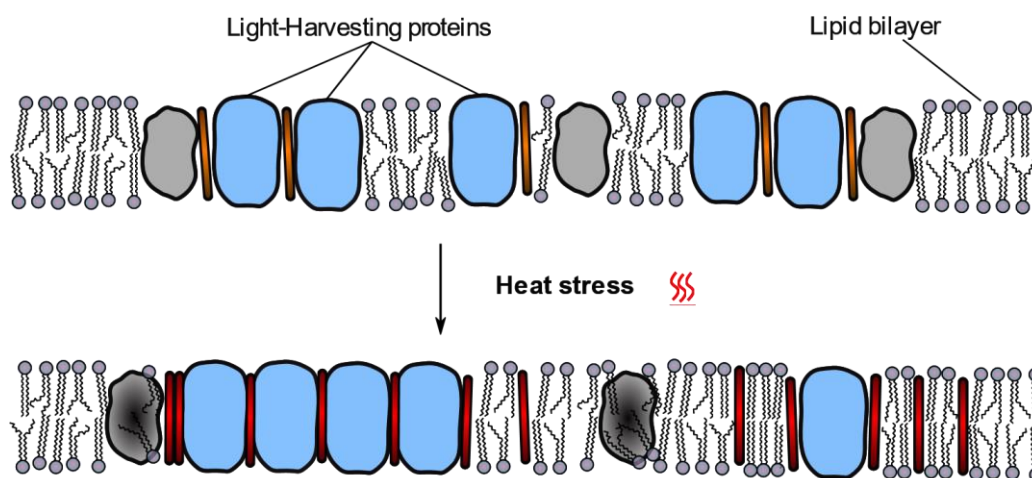


## Probing the heat-resistance of plant thylakoid membranes

Thesis about pinning the components responsible for the stability of thylakoid membranes to heat stress at Biophysics, as part of a BSc/MSc internship in the programs of Biology, Biotechnology or Molecular Life Sciences.

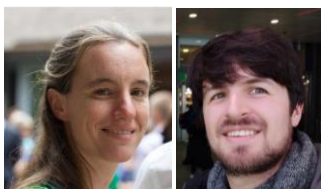
Photosynthesis, the “engine of life”, feeds oxygen to the biosphere. Increasing global temperatures and heat wave events undermine photosynthetic yield and hamper the growth of plants. The major components affected by heat stress are the lipids and proteins of the thylakoid membranes, where light harvesting reactions take place. Understanding the key factors that preserve the thylakoid structure and function under heat stress is crucial to obtain heat-resistant plant varieties. In this project you will be responsible for quantifying the heat stress tolerance of isolated thylakoid membranes and testing mutants with altered thylakoid composition. The approach will be highly multidisciplinary and combine biochemistry, spectroscopy and microscopy techniques



Overview of the thylakoid membranes of plants exposed to heat stress.

### You will learn:

- How to perform biochemical isolation of subcellular plant organelles and membranes
- How to use fluorescence as a tool to measure photosynthetic performance
- How to use advanced optical microscopy techniques
- Literature research and data analysis



### Further information:

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