**The *Portulaca* genus: a photosynthetic marvel**

The two most widespread carbon concentrating mechanisms (CCMs) among terrestrial plants are the C₄ photosynthesis and the crassulacean acid metabolism (CAM). The occurrence of both C₄ and CAM in a single species is uncommon, with the best examples of such exception found in the *Portulaca* lineage. More specifically, in *P. oleracea* L., the C₄-CAM transition is so far known to be triggered by drought, and it is completely reversible upon water availability. Commonly known as “purslane” or “portulak”, *P. oleracea* is a cosmopolite weed, presenting a great but yet little explored photosynthetic flexibility. Therefore, Dr. Renata Callegari Ferrari is currently developing projects on the photosynthesis of this special group of plants and seeking for motivated students to work with.

Your tasks (depending on the project):
- Raising and cultivation of plants in soil and/or hydroponics, plus appropriate sampling and processing of plant material;
- Biochemical assays such as chlorophyll quantification or titratable acidity;
- Gas exchange monitoring using IRGA equipment;
- Molecular assays (RNA extraction and qRT-PCR) and bioinformatic analysis (phylogenetic inference, transcriptome mining, differential gene expression);
- Planning and execution of experiments, data analysis, interpretation and evaluation, documentation and presentation of data;

Your profile:
- Current Bachelor’s or Master’s student in biology and related (as long as you have an interest for photosynthesis);
- Lab experience is an advantage;
- Bioinformatic experience and coding in R or python is an advantage but not a requirement;
- You are a reliable, accurate and a responsible person with good analytical skills and a problem-solving mindset;
- Good communication skills in English (spoken and written).

We offer:
- An exciting and relevant research project with a duration of 3-6 or 6 to 12-months;
- A modern working atmosphere with guaranteed support for you to develop excellent knowledge and gain various scientific skills;
- Excellent laboratory equipment and a wide range of technologies.

Application deadline: **25th of July** or until the positions are filled.

To apply, please prepare as a single pdf: (1) CV and (2) a short motivation letter introducing yourself and mentioning your expectations for the work (max 250 words).

Please send your application via e-mail to: renata.callegariferrari[at]uni-goettingen.de