

2-year post-doc positions

in *Chlamydomonas* Molecular Biology and/or Biophysics.

Job Description:

We are searching for two highly motivated post-docs to join our group for two years, with possibility of renewal for additional two.

We are opening the position in the context of the ERC advanced grant "**GrInSun**". The the job description is "***Chlamydomonas reinhardtii* molecular biologist/biophysicist**" and will be carried out within a multidisciplinary team, which can account for numerous joint publications (<https://scholar.google.com/citations?user=-SNf1wMAAAAJ&hl=it&oi=ao>). The researcher will work on newly generated genome-edited *Chlamydomonas* strains deleted in the major LHCII antenna complex. This strain will be the recipient of complementation with randomly mutagenized *lhcb* gene(s), followed by phenotypic selection by advanced spectroscopical methods. The aim is to perform mutation analysis for identifying protein domains involved in determining light harvesting & photoprotection properties of individual pigment-protein complexes. Co-expression experiments will be performed in order to study determinants for assembly of PSII-supercomplexes. Selected mutant genes will be used in building *Chlamy* strains with tailored antenna systems for enhanced light use efficiency for biomass and bio-products. Results will be compared to those obtained by mathematical modelling based on cryo-EM structural analysis. More details on the project and on this specific position can be provided on requests.

The team:

Our research group (Laboratory of photosynthesis and Bioenergy, Dep. of Biotechnology, University of Verona) offers a very relaxed and friendly environment. The group is heterogeneous and combines biochemists, biophysicists and molecular biologists and computational biologists. At the same time, the group is very motivated, currently involved in many national and international collaborations and

possesses a strong track-record in photosynthesis and synthetic biology of plants, mosses and unicellular algae.

Requirements:

- PhD in Biology, chemistry or physics and related disciplines.
- Previous experience with algae and/or plant molecular biology and genome editing.
- Biophysics, biochemistry and bioinformatic skills will be acknowledged

- Application deadline: december 22nd 2022
- Start of working period: March 1st, 2023 (can be negotiated).

Contact:

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