RESPONSE – Open PhD Position

Open PhD Position in

RESPONSE (GA No. 847585)
«RESPONSE - to society and policy needs through plant, food and energy sciences»
H2020-MSCA-COFUND-2018

ESR 13

Towards improved crop resilience – discovering essential factors that control chloroplast development

Within the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 847585, ETH Zurich is offering a 36-month PhD position for an early-stage researchers (ESR) in in the area of sustainable food systems.

Job Description

We are looking for a motivated PhD student to work on fundamental aspects of chloroplast development in Arabidopsis thaliana. We have recently established that a protein essential for plant viability is associated with components of the plastidial gene expression machinery. The aim of this PhD project is to understand the molecular role of this protein and its interactors in chloroplast function. To achieve this, the successful applicant will combine molecular genetics and plant physiology with next-generation RNA sequencing, bioinformatics, state-of-the-art microscopy and automated image processing.

A planned secondment of 3 months at Photon Systems Instruments (PSI) in Drasov, Czech Republic, is part of this project. During the secondment, the ESR will benefit from PSI’s unique equipment and expertise for photosynthetic analyses to phenotypically characterize plants impaired in chloroplast development. Furthermore, the ESR will have the opportunity to develop new tools to expand the use of photosynthetic measurements on intact plants. The ESR will be working closely together with Klára Panzarová – Head of Research Center at PSI – and PSI’s core R&D team, enabling the ESR to gain invaluable experience in industrial innovation processes.

Together, the research performed at ETH Zurich and during the secondment will allow the ESR to characterize a protein network crucial for plastid development and to create novel methodologies for dynamic photosynthetic measurements. In the long term, this project will thus help identify potential avenues to monitor and ultimately improve the vitality and stress resilience of chloroplasts in crops, providing a foundation for sustainable food systems. We envisage this project to result in important scientific and methods-oriented publications, as well as an application note describing the innovative new phenotyping methodology developed at PSI.
Interested / Your profile

The successful candidate will have a strong background in molecular biology, an interest in plant sciences, the willingness to learn and develop new techniques and the ability to work in a team. Good writing and communication skills are essential.

Eligibility: Early stage researcher in the first 4 years (full-time equivalent) of their research careers, including the period of research training, starting at the date of obtaining the degree which would formally entitle them to embark on a doctorate either in the country in which the degree was obtained or in the country in which the initial training activities are provided.

At the time of recruitment (for call 2 = July 1, 2020) by the host organisation, researchers must not have resided or carried out their main activity (work, studies, etc.) in Switzerland for more than 12 months in the 3 years immediately before the reference date. Compulsory national service and/or short stays such as holidays are not taken into account.

Language requirement: English / Proficient oral and written English skills are expected.

Main Research Field: Plant Science

Sub Research Field: Cell biology, organelle development, fluorescence and electron microscopy, image processing

RESPONSE is open to applicants of any nationality.

For submitting your online application: https://join.lszgs.uzh.ch/ (select PhD Program Science and Policy). The online application should contain all information as indicated by the application portal. Moreover, the following documents have to be uploaded under “further documents”: 1) a letter of motivation to join a) the RESPONSE doctoral programme and b) to apply for this specific position (ESR xx), 2) a comprehensive tabular CV, and 3) transcripts of records. If you apply for more than one RESPONSE position, please refer to them in your letter of motivation. Please note that we exclusively accept applications submitted through our online application portal. Applications via email or postal services will not be considered.

Benefit

We are offering an interesting position at the interface of science and policy. While working in an international, interdisciplinary and innovative research environment at ETH Zurich, the ESR will be jointly co-supervised by Dr. Barbara Pfister and Prof. Samuel C. Zeeman (Plant Biochemistry Group) at ETH Zurich and by Klára Panzarová, Head of Research Center at the secondment partner Photon Systems Instruments.

The complete 36 months will be under 100% working contracts.
The PhD salary follows the regulations of ETH Zurich and will be according to EU regulations for Marie Skłodowska-Curie Early Stage Researchers. The gross salary will not be lower than CHF 3920.

The successful candidate will be matriculated and will have a working contract at ETH Zurich. He/she will work in Switzerland. The secondment at PSI in Czech Republic will take place from September to November 2022.

Expected starting date of the working contract: 01.10.2020.

For questions and further information on the position, please contact Dr. Barbara Pfister (barbara.pfister@biol.ethz.ch; no applications via email, please).

Further information

RESPONSE Doctoral Programme (DP): «RESPONSE - to society and policy needs through plant, food and energy sciences» is funded by the European Union’s Horizon 2020 research and innovation program under the Marie Skłodowska-Curie Grant Agreement No 847585. RESPONSE DP builds on the academic expertise of three world-leading institutions - ETH Zurich, University of Zurich and University of Basel. The successful candidate will be integrated in the research network and infrastructure of the internationally renowned competence center Zurich-Basel Plant Science Center.

All RESPONSE ESRs will follow the PSC PhD Program Science and Policy that is unique in its kind. Through the curriculum of this program, ESR will be trained in the communication of scientific evidence to policy-makers and the public; the involvement of different stakeholder groups as well as in policy development and endorsement in Europe and at global scale.

For project, programme and application details: https://www.plantsciences.uzh.ch/en/research/fellowships/response.html

Working location: Institute of Molecular Plant Biology, ETH Zurich, LFW building, Universitätstrasse 2, 8092 Zurich, Switzerland
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