



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 27

Fermentation with functional co-cultures: a metabolite driven approach to improve cocoa bean quality, safety and sustainability

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 researcher (ESR) in the area of sustainable food systems.

Job Description

We are looking for a doctoral student working on a project related to cocoa bean quality and the utilization of microbial co-cultures in controlled fermentation for the production of improved quality cocoa beans. The aim of the project is to carry out a metabolite-based profiling of selected lactic acid bacteria and yeasts, which improve the cocoa bean quality through the production of desired metabolites, using a rapid fingerprint screening method based on direct mass spectrometry in combination with conventional targeted analyses of the main metabolites.

Two secondments, each for the duration of three months, at the Research Institute of Organic Agriculture (FiBL) research and training center Sara Ana, department La Paz, in Bolivia are a part of this project. During the first secondments the ESR will focus on the technical optimization of the fermentation on site with preliminary field studies and contacts and interactions with the stakeholders, whereas the second visit will focus on the assessment of the functional co-cultures on field conditions. To achieve this, the ESR will be working closely with the employees in the FiBL research and training center Sara Ana in Bolivia, and will have the possibility to interact with the farmers via a local farmer's union of cooperatives El Ceibo.

The anticipated results/outcomes of this project are to utilize combinations of functional co-cultures and desired metabolites for the production of fermented cocoa beans with improved quality and safety, along with a better profit to the cocoa farmers. The results, outcomes and applications of the project will be communicated widely in the scientific community and are they are shared with key players in the cocoa value chain.



Interested / Your profile

To perform successfully, potential candidates should ideally have MSc degree in Food sciences (food biotechnology, food microbiology, food chemistry, analytics) or similar field of applied life sciences. Good writing and communication skills are also 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 4 = July 1, 2021) 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, *Spanish:* strong oral and written skills are considered beneficial, *German:* desirable but not mandatory.

Main Research Field: Food biotechnology, food chemistry

Sub Research Field: Food analytics, food microbiology

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 27), 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. The deadline is July 1, 2021.

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 the Prof. Dr. Laura Nyström (Laboratory of Food Biochemistry) at ETH Zurich, Monika Schneider (FiBL), and Prof. Dr. Susanne Miescher-Schwenninger (ZHAW).

The complete 36 months will be under a 100% working contract.



The PhD salary follows the regulations of ETH Zurich and will be according to EU regulations for Marie Skłodowska-Curie Early Stage Researchers. The monthly 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 secondments will take place in FiBL research and training center Sara Ana, department La Paz, in Bolivia.

Expected starting date of the working contract: **01.10.2021**

For questions and further information on the position, please contact (Prof. Dr. Laura Nyström laura.nystroem@hest.ethz.ch), no applications.

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 [World Food System 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, ESRs 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: Laboratory of Food Biochemistry, ETH Zurich, Schmelzbergstrasse 9 LFO, 8092 Zurich



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