

# Doctoral Researcher – Plant Protein Refining

**80%-100%, Zurich, fixed-term**

The ETH Sustainable Food Processing group uses innovative processing technologies for novel protein sources, a combination of emerging thermal and non-thermal technologies, and sustainability assessment to target fundamental challenges in food science and society such as food safety and security. We are starting the recruitment for a Doctoral Researcher – Plant Protein Refining beginning in September 2023. The position is going to be open until a suitable candidate is found. Start date by mutual agreement with the latest start date on February 1st, 2024.

## Project background

The project on plant protein refining intends to achieve protein powders low in antinutrients, plain taste and flavour, and good functionality from pea and rapeseed using an innovative 'green' solvent system. Suitable extraction conditions to remove antinutrients and approaches to recover the solvent to achieve a circular process need to be investigated. The composition and functionality, i.e., gelling, foaming, and emulsification properties, of the recovered plant proteins will be studied in detail.

## Job description

We are looking for someone highly motivated to conduct research in innovative food process engineering topics. Several food engineering courses on thermal, electromagnetic, and mechanical food processing are going to be supported. You are going to have the chance to develop independent food process engineering initiatives, preferably in collaborative projects with our international/national research and/or industry partners.

## Your profile

You should have:

- excellent academic qualifications,
- very good communication skills,
- a Strong self-motivation.

We are looking for:

- a team player,
- In addition, enthusiasm for research and talent to engage in food chemistry and engineering questions are required, as enthusiasm for unravelling underlying mechanisms as well as in food process modelling aspects,
- Experience in thermal and mechanical food processing is important,
- You must have a Master's (or equivalent) in Food Engineering, Food Technology, Food Chemistry, Organic Chemistry, Chemical Engineering, Bioprocessing or a closely related area.

# Your workplace

We offer...

- continuous training and learning opportunities for hard and transferable skills,
- perspectives for career development in academia, entrepreneurship, and industry,
- a strong team culture and culturally diverse team,
- a flexible working environment with home office options.

## We value diversity

In line with [our values](#), ETH Zurich encourages an inclusive culture. We promote equality of opportunity, value diversity and nurture a working and learning environment in which the rights and dignity of all our staff and students are respected. Visit our [Equal Opportunities and Diversity website](#) to find out how we ensure a fair and open environment that allows everyone to grow and flourish.

## Curious? So are we.

We look forward to receiving your online application with the following documents:

- cover letter including a short statement of experience and qualifications,
- a two-page research proposal outlining the current issues, important literature, and possible approaches for plant protein extraction,
- a comprehensive CV with maximum of three pages,
- Diplomas/transcripts,
- contact information for two academic references.

Please note that we exclusively accept applications submitted through our online application system. Applications via email or postal services will not be considered. Also, applications without a research proposal will not be considered.

Further information about the ETH Sustainable Food Processing group can be found on our website [www.sfp.ethz.ch/](http://www.sfp.ethz.ch/). Questions regarding the position should be directed to Dr. Joseph Dumpler ([joseph.dumpler@hest.ethz.ch](mailto:joseph.dumpler@hest.ethz.ch))(no applications) or Prof. Dr.-Ing. Alexander Mathys by email ([alexander.mathys@hest.ethz.ch](mailto:alexander.mathys@hest.ethz.ch)) (no applications).

## About ETH Zürich

ETH Zurich is one of the world's leading universities specializing in science and technology. We are renowned for our excellent education, cutting-edge fundamental research and direct transfer of new knowledge into society. Over 30,000 people from more than 120 countries find our university to be a place that promotes independent thinking and an environment that inspires excellence. Located in the heart of Europe, yet forging connections all over the world, we work together to develop solutions for the global challenges of today and tomorrow.