

Future Food – A Swiss Research Initiative

Call for Proposals

Call open from 14 December 2022 to 28 February 2023

Guidelines for Future Food Research Call

Zürich, December 2022

1. Objectives

¹ Future Food – A Swiss Research Initiative (hereinafter: Future Food Initiative) is a joint programme initiated by ETH Zurich, EPF Lausanne (EPFL), Bühler AG, Givaudan International AG and Nestlé SA.

² The Future Food Initiative awards research projects in the domain of food and nutrition science. Its main purpose is to contribute to the development of solutions that address grand challenges of the current food systems.

³ The duration of the research projects are 2 years for a postdoctoral projects or 4 years for a doctoral project.

2. Call topics

¹ The thematic scope of the call for proposal is defined by the Evaluation Board composed of one representative each from ETH Zurich, EPFL and the Industry Partners. The Call 2022 is open to proposals addressing the following research areas:

A. *Sustainable and nutritious lipids*

Examples

- Impact of presence/absence of triglycerides in food on micronutrients transport and absorption in the body
- What is the impact of different dietary lipids (special emphasis on fatty acids) on human health?
- Can we apply AI/ML to literature data and fill the knowledge gap about the health impact of selected fatty acids (e.g. stearic acid, linoleic acid etc)?

B. *Solutions for affordable nutrition in LMIC*

Examples

- Solutions for food enrichment with minerals, vitamins etc. in accordance with what is available and affordable.
- Associations between early life conditions and adult health and emphasis on nutrition in utero or early infancy and adolescence in accordance with affordability constraints.
- Assess the impact on climate change, the affordability and nutritional value of different types of traditional cuisine.

C. *Relationship between nutrition & microbiomes*

Examples

- Establish the impact on microbiome of natural and processed food ingredients relatively recently added to our diet (plant proteins, botanical extracts...)
- Establish the link between plant poly/oligosaccharides structure and their effect on gut microbiome and immunity.
- How can AI and big data support the understanding of the relationship between nutrition and microbiome?
- Understand the underlying mechanisms between plant-based diet and the microbiome

D. *Processing of plant proteins*

Examples

- Impact of the extraction process on plant-based proteins functionality and nutritional properties
- Usage of novel processes, such as non-thermal treatments, on plant-based proteins
- Sensorial properties of proteins – studying flavour-protein interaction and formation/masking of off-notes

3. Eligibility

- ¹ Eligible for submitting a project proposal are professors and senior researchers at ETH Zürich and EPFL. The three industrial partners are also entitled to propose projects provided they are supported by one of the professors
- ² To submit a proposal to this call, the Principal Investigator (PI) must be a researcher of ETH Zurich or EPFL. Eligible are Professors and Senior Scientists, including the 57 professors, that volunteered as hosting professors for the Future Food Initiative. The PI must thereby be an ETH Zurich or EPFL employee with at least a 50 % position, which must be guaranteed for the intended duration of the project. Joint submissions between the industry partners and a host professor are possible
- ³ Doctoral or postdoctoral projects funded by the program must be supervised by the PI.

4. Personal requirements

- ¹ The PI is responsible to identify a suitable doctoral or postdoctoral candidate to carry the work. Industrial partners can suggest suitable candidates from their network, but the final decision lies with the PI.

5. Applications

- ¹ All applications and supporting documents shall be submitted in English using the proposal template enclosed and must be submitted electronically as a single file in PDF.
- ² Email address for submission: futurefood@ethz.ch
- ³ Deadline for submission of project sketches is: **28. February 2023**
- ⁴ Deadline for submission of full proposal is: **31. May 2023**
- ⁵ The applications will be selected by the Evaluation Board in a two-phase approach (see attached timeline for details):
 - ^a Pre-selection based on a short project sketch
 - ^b Final selection based on full proposal
- ⁶ In a first phase, applicants submit a short project sketch of max 2-3 pages (see separate template). This description needs to include information on the scientists/research group(s) involved (interdisciplinary project teams are encouraged); as well as a short description of the project idea covering elements such as e.g. research objectives, duration of the project, nature of staffing (doctoral or post-doctoral researcher) and rough estimation of costs.
- ⁷ At the second phase, and subject to the confirmation of the project selection, applicants selected in the first stage are invited to hand in a full project proposal (see separate template). This proposal needs to include:

- ^a A cover sheet in which the main applicant is identified, and basic information is given (position, institution, address, email) and in which the title of the project, funds requested and key words/disciplines as well as the duration of the project are indicated. All co-applicants associated with the proposal must also be clearly identified
 - ^b An executive summary (maximum 400 words)
 - ^c A budget outlining the requested funds and justification
 - ^d The scientific proposal, including the state of research, the research goals and the research plan, expected milestones, as well as a list of literature references. If applicable, also describe industrial applications foreseen. The research plan should include sufficient scientific and technical details for the reviewers to be able to evaluate the proposal as a whole. The scientific proposal should not exceed 10 pages per proposed project (A4, Arial font, size 11, 1.15 line spacing.)
 - ^e CVs and relevant publications from the applicants and relevant involved researchers.
- ⁸ Proposals submitted to this call will only be considered if they fit to one (or more) of the defined call topics.
- ⁹ If applicable, relevant ethical, legal and social considerations should be included in the proposal. The prospective research must also comply with the existing ethics regulations and adhere to the principles of research integrity valid at the host institution (ETH Zurich or EPFL)

6. Duration and funding

- ¹ In total 3 projects will be funded. The total funds per project may not exceed CHF 197'000.
- ² The maximum duration per project is 4 years for doctoral projects and 2 years for postdoctoral projects.
- ³ Should the total project cost exceed 197'000 CHF, it is the responsibility of the PI to secure the remaining funds required.
- ⁴ The funds can be used for costs directly related to the approved project, including:
- ^a Salaries for postdoctoral researcher or doctoral students (based on ETH Zürich and EPFL standard salary rates at the time of submission).
 - ^b Running, maintenance and material costs, in particular consumables, animal purchase/ experimental costs, field expenses, travel expenses, cost of computing time, small items of equipment
 - ^c Direct costs for the use of external infrastructure such as user/ service fees for machine time/ technology platforms or for rental fees.
- ⁵ Eligible costs must be directly linked to the project and must be justified in the proposal. Salaries of the PI and the co-PI are not eligible for funding. Funding cannot be used for the purchase of new equipment or replacement costs of laboratory and field equipment.
- ⁶ Funding will be allocated at the start of the project for the full duration of the project.

7. Evaluation criteria

¹ Applications are evaluated by the Evaluation Board composed of one representative each of ETH Zurich, EPFL and the Industry Partners. External reviews may be solicited to appropriately evaluate the proposals.

² Specific review criteria for the evaluation process include:

- a. The project proposal's strategic fit to the topics specified in the Call.
- b. The project's relevance and practical impact with respect to the industry partners.
- c. Scientific excellence assessed in terms of:
 - i. Originality/novelty of research objective and/or research plan.
 - ii. Suitability and quality of research approach/ work method.
 - iii. Competence and experience of the applicant in the field of the proposed research.
 - iv. Feasibility of the project with respect to resources, management and organisation.

8. Evaluation procedure

¹ All proposals will be evaluated by the Evaluation board in accordance with the evaluation criteria (Section 6).

² The assessment procedure comprises two phases. Phase 1 consists of a preselection of applicants by the Evaluation Board based on the submitted project sketch. Applicants who are not selected for Phase 2 are informed in writing. Selected applicants are invited to submit a full proposal as indicated in Section 5.6.

³ In Phase 2 the full proposal will be evaluated by the Evaluation board.

⁴ The Evaluation Board will make its funding recommendation to the Vice President Research at ETH Zurich and to the Vice President for Academic Affairs at EPFL, who make the final funding decision consensually.

⁵ Notification of the decision will usually be given within three to four months of the submission deadline.

9. Grants and start of grants

¹ Fellowships are transferred and managed according to the rules issued by the respective formal host institution (ETH Zurich or EPFL).

² Projects may start immediately after approval and in general no later than six months after receiving the decision letter.

³ If projects are terminated prematurely, notification must be given to the Future Food Initiative immediately in writing. The remaining amount of the funds must be refunded to the Future Food Initiative.

10. Reporting

¹ The project team commit to send the Future Food Initiative a scientific and financial report annually after the start of the project.

² Project teams are encouraged to contribute to outreach and dissemination activities as appropriate in the frame of the Future Food Initiative in agreement with the World Food System Center and the Integrated Nutrition Center.

³ A final report is due upon completion of the project, including all relevant outcomes (publications, patents, etc.).

11. Annual symposium and industry exchange

¹ With the intention to create a diverse, dedicated and intellectually stimulating ecosystem of researchers in academia and industry, an annual symposium is conducted.

² In the context of the symposium, the researchers are committed to present their research results to the interested research community and representatives of the Future Food Initiative.

12. Applicable law

Subject to any specific provisions in these regulations, the provisions of the respective formal host institution apply.

13. Communication and contact

Any notice of communication to be given within the framework of this Call shall be forwarded to one of the following contact persons. For general enquiries related to the call, topics and collaborations, please contact:

Ivonne Blossfeld
ETH Zürich World Food System Center
iblossfeld@ethz.ch

or

Christian Nils Schwab
EPFL Integrative Food & Nutrition Centre
christian.schwab@epfl.ch

Attachment

Future Food Initiative Timeline of submission and evaluation process:

Stage	Start date	End date
Call open	14.12.2022	28.02.2023
Submission project sketch		28.02.2023
1 st evaluation round by Evaluation Board	01.03.2023	31.03.2023
Decision on first round communicated		31.03.2023
Submission project proposal		31.05.2023
2 nd evaluation round by Evaluation Board	01.06.2023	15.07.2023
Final Decision Communicated*		15.07.2023
Start of research projects*	Sep 2023-Feb 2024	

*Please note that dates for the final decision and start of research may be subject to change.