Research and Development

Pontificia Universidad Católica de Chile

Call for Proposals for MSc projects in Food Science:

Understanding and Leveraging Quirinca for Food Applications

*Call open from **22st January to 20th March**, **2026**, at 17:00 hrs.*

(Chilean time)

1. Background and scope

To strengthen their scientific collaboration, Nestlé Research and the Pontificia Universidad Católica de Chile (PUC) have decided to join efforts and engage on collaborative research projects. Hence, **this call for proposals has the aim to create and support disciplinary and interdisciplinary research Master's project in the field of food science and technology into the characterization of a local ingredient such as *Quirinca* and its potential use in food applications,** bringing together competences from academic and industrial research centers.

The food industry is increasingly seeking novel, sustainable ingredients that can enhance nutritional profiles and support local economies. Quirinca, an ancestral Chilean seed, is at risk of extinction but offers unique nutritional and functional properties. Its rescue and incorporation into food products—such as tortillas and empanadas—represent not only an innovation in gastronomy but also a commitment to cultural heritage and community development. This project aims to comprehensively characterize quirinca flour, assess its safety and functionality, and develop food prototypes that showcase its potential.

2. Theme of the Call

The proposals should address meaningful approaches to characterise and leverage the use of quirinca in food applications.

The proposal should consider the following aims as deemed necessary by the researchers to contribute to the overall objective. The working program laid-out below is a guide for the elaboration of a proposal by the research teams and should not be considered as a restrictive or exclusive list of aims.

The challenges of introducing a new local ingredient into food applications are multifaceted:

- **Nutritional and Functional Characterization:** Detailed analysis of quirinca's composition, including macronutrients, micronutrients, amino acid profile, fatty acid profile, and physical properties
- **Safety Assessment:** Rigorous evaluation of antinutritional compounds (phytates, tannins, enzyme inhibitors), toxicological risks (cyanogenic glycosides, heavy metals), and microbiological safety.
- **Functional Properties:** Investigation of protein properties (solubility, emulsification, foaming, viscosity), and dough properties.
- **Application Development:** Formulation and sensory evaluation of food product prototypes.

Proposals that demonstrate a robust interdisciplinary approach are highly welcome.

It is expected that proposals will be formulated as a joint research project, which will be supervised in collaboration between the Principal Investigator (PI) of PUC and the corresponding PI of Nestlé to be appointed later (see Review and Selection Process below). **The final version of the research project will be the result of a joint work between the PUC PI and the Nestlé PI and presented for decision in the Nestle - PUC Research Grant Steering Committee.**

3. Eligibility

Researchers interested in submitting a proposal must meet the following eligibility criteria:

- At the time of submission, the Principal Investigator (PI) must be a PUC academic (professor with at least 22 hrs. contract at the institution) and **eligible to direct a thesis in a Masters program at PUC** related to the theme of the call.
- Individuals with a potential conflict of interest related to the project are not eligible to submit proposals. Any potential conflicts must be disclosed in the proposal.
- Applications and all associated documents must be written in English.

Please ensure that you review and fulfill eligibility criteria before submitting your proposal. Only proposals submitted by professors meeting the above criteria will be considered for further review.

4. Duration and Funding

The program aims to fund a **Masters project for 1 year**, to be undertaken in any Scientific (Research oriented) Master program at PUC, relevant to the theme of the call.

Funding will be destined to cover only the following items:

- **Tuition**: depending on the specific program, with a total maximum of $ 9.000.000 CLP[1]
- **Scholarship**: Total annual stipend of $ 6.000.000 CLP ($500 CLP/month x 12 months)
- **Operational costs**: a maximum of $2.500.000 CLP

5. Deadline and Submission guidelines

The final deadline for the submission of proposals is 20th March, 2026, at 17:00 hrs. (Chilean time)

[1] If the annual cost of the program is less than the total maximum, only the 2026 value of the tuition of the corresponding program will be covered. Values correspond to those published at https://admision.uc.cl/postgrado/magister/

Full proposals should consist of:

- An abstract or short summary of the research proposal (250 words).
- A detailed research proposal outlining the project idea and originality of the research proposal. It should include project objectives, methodology, timeline and expected milestones (max. 4 pages, single spaced line, 12 pt. Arial font).
- The PI's Curriculum Vitae, including a publication record. If the proposal is presented by a group of researchers, the PI must be clearly identified and all co-researcher's CV's must be included.
- Incorporating potential MSc candidate(s) Curriculum Vitae for the project are considered a plus, but not a requirement.

Proposals must be submitted to the email: investigacionydesarrollo@uc.cl

Any inquiries about the proposal can be directed to: Nihan.dogan@rdor.nestle.com or Christoph.Hartmann@rdls.nestle.com

6. Review and Selection Process

All proposals will undergo a strict review process. The Nestle - PUC Research Grant Steering Committee will be responsible for assessing each proposal. Additionally, external reviewers may be solicited to appropriately evaluate the proposal.

Once the initial review is complete, shortlisted applicants may be invited to participate in a second phase during which applicants will have to further elaborate their proposals in collaboration with Nestlé PIs.

A final selection among the shortlisted applications will be made based on the overall merit of the proposals, with careful consideration of the committee's recommendations. The final number of projects to be selected will depend on the availability of funds and the quality of the proposals. Successful applicants will be informed and proceed to the grant agreement and project planning phase.

The Nestle – PUC Research Grant Steering Committee reserves the right to declare the call desert if none of the received proposals meets the necessary quality or alignment with the scope of the call.

7. Evaluation Criteria

The proposals will be evaluated based on the following criteria:

- **Alignment with the scope of the call:** extent to which the proposal aligns with the stated goals described above and fits with at least one theme of the call.
- **Methodology and approach:** feasibility and clarity of the methodology and approach to achieve the project desire outcomes in the expected timeframe.

- **Originality and scientific excellence:** scientific excellence and originality of the proposed project, including creativity and unique approaches or ideas.
- **Prior experience:** Demonstrated proficiency of the PIs on the subject.
- **Impact:** potential impact of the project outcomes and how this would contribute to the goal of the program.
- **Long-term viability:** sustainability of the proposed activities beyond the funding period.
- **MSc Candidates' curriculum** (if available)**:** capability and potential of the candidate

8. Project Deliverables and Reporting

The project deliverables should align with the objectives outlined in the proposal and will serve as key indicators of progress and success.

Funded applicants will be required to submit progress reports throughout the project duration. These reports should provide information on the progress, challenges and achieved milestones. In addition, a final project report will be due at the conclusion of the project. This comprehensive report should encapsulate the project's outcomes, impact, scientific publications, or intellectual properties discoveries. Publications can be used as a means for reporting. Any publication must obtain an approval by Nestlé prior to submission as stated in the individual statement of work. All intellectual property generated through the execution of the proposal is subject to the conditions of the Nestlé – PUC research Grant.