Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

GUIDELINES FOR ETH ZURICH RESEARCH GRANT APPLICATIONS

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THE ETH ZURICH RESEARCH GRANT PROGRAM

ETH Zurich Research Grants («ETH Grants») are intended to promote highly creative and original research at ETH Zurich that may result in fundamental new knowledge or technologies, thus advancing its innovation potential. The overall aim is to seed new research and development directions at an earlier stage than other funding agencies. The program therefore prioritizes applications that venture into yet uncharted territory, preferably involving high-risk approaches and / or novel combinations of disciplines with the potential for excellence and exciting discoveries in all fields of science and engineering represented at ETH Zurich. Grant applications that involve scientifically sound but relatively generic investigations or complement already ongoing research efforts in a Principal Investigators (PI) laboratory are assigned low priority.

Within the ETH Zurich Research Grants Program, there are two funding lines:

- «**Single-PI Grants»** applications involve a single ETH Zurich PI and may include additional applicants from the same research lab. They are primarily intended to support single doctoral student projects. Funding per project is limited to a maximum of CHF 350,000 for a maximum duration of four years.
- «**Collaborative Grants»** are aimed at collaborative, ideally interdisciplinary proposals involving two or three research groups with a clear added scientific value with respect to the combined contributions, each of which must be substantial and of similar importance to the project. Funding is provided mainly for one doctoral student per PI. It is limited to max. CHF 1,000,000 per grant for a maximum duration of four years.

The present guidelines are valid for both funding lines except where explicitly stated otherwise.

ETH Grants should not be the primary and certainly not the only source of competitive research funding for any ETH Zurich group. Rather, they are a source of seed funding for step-out projects with high impact and visibility that would have difficulties to obtain funding from other sources. An ETH Grant is thus not meant to substitute e.g., regular SNSF (Swiss National Science Foundation) projects but will provide initial funding that enables further grant applications (e.g., SNSF), collaborations, or novel research directions. Third-party funding is also a prerequisite for eligibility to apply for an ETH Grant.

FUNDING RULES

1. Who May Submit an Application

a) A grant application may be submitted by one or more applicants from the same research group in case of a «Single-PI Grant» application and must involve applicants from at least two and no more than four research groups in case of a «Collaborative Grant» application. One PI must be designated as the representative of all applicants for all correspondence and for managing the funds if successful.

b) The PI(s) of a grant application must be ETH Zurich employees with at least an earned doctorate or equivalent qualification and at least a 50 % ETH Zurich position, which must be guaranteed for the intended duration of the project. In general, co-applicants will also be ETH Zurich employees. External co-applicants can be considered if the project involves a substantial collaboration with a non-ETH Zurich group. However, external co-applicants cannot receive funding from the ETH Zurich Research Grants program.

c) All PIs are, in general, required to hold at least one other substantial, peer-reviewed, active external grant as a main PI (e.g., from the SNSF). Exceptions to this rule are ETH researchers who hold a career-development grant or fellowship (e.g., recipients of a SNSF Professorial or Ambizione Fellowship). Professors who have just arrived at ETH Zurich are also exempt from the rule in their first year, but it is expected that they submit a substantial grant to an external funding agency in parallel to the internal submission.

d) Assistant professors, whose employment formally ends before the planned duration of the project, may submit an application under specific conditions and must contact the Grants Office in advance of the submission.

e) Established Researchers ("Oberassistent/in") may submit an application even if they do not hold another external grant, but the request must be justified in a cover letter and employment must be guaranteed for the planned duration of the project (see point 1.b). ETH Grants are intended to develop and support academic independence from the host lab in applications proposed by Established Researchers as well as Senior Scientists and a corresponding letter of support must be submitted by the host professor (does not apply to Titular Professors) (see also point 1.f below).

f) The formal doctoral supervisor ("Leiter / Leiterin der Doktorarbeit") must either be the PI or a co-applicant or s/he must submit a letter of support confirming that s/he will take formal responsibility for the doctoral student (see also point 1.e; a combined letter of support may be issued). The formal doctoral supervisor must also have a guaranteed ETH Zurich position for the duration of the proposed project.

g) Postdoctoral researchers are generally not eligible as a PI. In exceptional cases, submissions from postdocs may be accepted, but the applicant must contact the Grants Office in advance of the submission.

2. Who May Not Submit an Application

a) Researchers who do not have at least a 50% ETH Zurich position at the Research Assistant or higher level, doctoral students, prospective doctoral students, and employees who do not have a guaranteed ETH Zurich position for the entire duration of the proposed project (e.g., professors who are about to retire) are not eligible to apply. Separate rules apply to joint professors (e.g., with the UZH).

b) A single PI must not submit more than one ETH Grant proposal per call. The simultaneous submission of both a «Single-PI Grant» and a «Collaborative Grant» is not permitted. In case a PI holds an active ETH Grant, each additional application in subsequent calls within the same funding line will be evaluated more stringently according to the review criteria (see point 14.).

3. What May Be Funded Through an ETH Grant

- «**Single-PI Grants»** should be used primarily to fund doctoral research projects completed at ETH Zurich under the supervision of ETH Zurich employees. The typical Single-PI Grant will comprise one doctoral student and will receive funding for the student's salary and for material costs, including travel to a scientific congress for the doctoral student. Doctoral students are provided a 100 % salary at the standard ETH doctoral salary level valid at the time of project approval for a maximum period of four years.

  The maximum funding level for a project requesting support for a single ETH Zurich research group is CHF 350,000 over a maximum of four years.

  Postdoctoral positions in addition to the doctoral position are generally not granted for a Single-PI project. If they are absolutely necessary for the successful completion of a project, they may be funded exceptionally for a maximum period of one year but must be well justified. The corresponding costs are in addition to the maximum funding level stated above.

- «**Collaborative Grants»** are intended to seed interdisciplinary projects that integrate substantial disciplinary contributions and existing competencies into a new, collaborative research approach. Funding will cover salary for generally a single doctoral student per PI for a maximum period of four years and, if well justified, one additional postdoctoral researcher per grant for a maximum period of two years as well as material costs. Salary rates are provided for 100 % employment at the standard ETH salary level valid at the time of project approval.

  Funding for collaborative endeavours involving two to three ETH Zurich research groups is limited to a maximum of CHF 1,000,000 over a maximum of four years.

See www.ethgrants.ethz.ch for standard salaries applicable to ETH Grants.

The following items may also be included in an ETH Grant application if they are explicitly required for completion of the intended research: (i) running and maintenance costs, rental fees, costs of consumables, (ii) service / usage fees for technology platforms, and (iii) field expenses.

Participation of the doctoral students and postdoctoral researchers in scientific congresses is viewed to be an important element in their academic career. Travel expenses will be covered by an ETH Grant but are expected to be borne by the applicant him-/herself if not explicitly requested in the proposal.

Open Access publication costs (APC) are by default taken over by the ETH Library. However, they may be covered by the ETH Grant budget if no agreement exists between the library and the concerned publisher.

4. What May Not Be Funded Through an ETH Zurich Research Grant

In general, ETH Zurich Research Grants *may not be used to fund*:

a) The PI's and co-applicants' salaries.

b) Diploma or MSc research students.

c) Postdoctoral researchers who received their doctoral degrees from ETH Zurich or the University of Zurich immediately before the beginning of the proposed project.

d) Research requiring security classification, so that publications are prohibited.

e) The development of technologies and products towards the commercial market (support for the development of innovative technology, products or services is available from e.g., the ETH Zurich Pioneer Fellowship Program.

f) Purchase of new equipment or replacement costs of laboratory and field equipment. Equipment explicitly required for an ETH Grant project should be funded through other sources. It is possible to submit a request in parallel to the Scientific Equipment Program (see www.equipment.ethz.ch), but in order to ensure efficient handling, parallel applications must be declared, and the Grants Office should be contacted in advance.

g) Personnel employed by institutions other than ETH Zurich.

5. Duration

The maximum funding duration for an ETH Grant is four years.

APPLICATION PROCEDURE

6. When and How to Submit Applications

There are two ETH Grant submission deadlines per year, on March 1 and September 1. Applications must be submitted electronically in pdf-format using the web-based system at www.ethgrants.ethz.ch. Applicants must use the provided templates and follow the naming conventions for the individual documents.

7. Language

Grant applications must be written in English.

8. What Primary Information Should Be Included in an Application

The grant application should include:

- A concise summary (abstract) with key details on the objectives of the proposed research project, the methods to be employed, and the significance of the anticipated results (max. 400 words).
- The rationale for the proposed research and state of research. It is essential to include appropriate references to others' most recent work as well as the PI's and co-applicants' work.
- A detailed research plan with goals and expected outputs (see downloadable document templates for more information). The research plan must include scientific and technical details and expected milestones for each proposed (doctoral) subproject. It is essential that the internal and external reviewers understand the potential and limitations of the proposed (doctoral) subprojects. Furthermore, the respective roles to be played by the PI(s) and co-applicants should be explicitly stated.
- For projects involving more than one PI, a description of the scientific value that is added by the collaboration. The role of each PI must be clearly described in the application.
- A description of the resources and infrastructure available for the realization of the research.
- A description of the significance of the project to ETH Zurich.
- An explanation why this research is appropriate for consideration within the ETH Zurich Research Grant Program and why it may be regarded as a step-out project for the PI(s).
- A justification for the requested funding. Details concerning the request of personnel are required for each application.

- A list of a) recent relevant publications by the PI(s) and co-applicants and b) a list of recent relevant publications by others. Each reference must include (i) the names of all authors in the order as published, (ii) the year or publication, (iii) the title of the article, (iv) the title of the journal or book, (v) the volume number, and (vi) the page numbers. If a publication or other relevant manuscript is available electronically, the website address may be provided.
- In case of a resubmission, a Cover Letter must be provided in which the criticism of both the Research Commission and the external reviewers is addressed point by point.

Technical abbreviations and jargon should be avoided or adequately explained. In particular, the summary should be written in a form that allows the educated layman to understand the objectives of the proposed research project, the methods to be employed, and the significance of the anticipated results.

9. What Supplementary Information Should Be Included in an Application

The following details concerning costs and funding NOT included in the requested credit are also required for ETH Grant applications:

- Construction and equipment
- Computer resources
- Contributions from other agencies (requested or approved).

10. What Documents Must Accompany an Application:

a) A two-page Curriculum Vitae (CV) with a list of publications of the past five years is required of the PI(s), co-applicants and any named doctoral student, postdoctoral researcher or Senior Scientist to be funded.

b) A final report for each ETH-funded project of the PI that was completed within a period of three years prior to the grant application. For details, see the final report form in the file download area at www.ethgrants.ethz.ch.

c) A list of active grants and submitted grant applications of the PI(s) and the ETH Zurich co-applicants. This list should include the PI's and co-applicants' names, the titles of the projects, the funds granted or requested, the project periods, and the granting agencies.

d) A list of at least five suggested external reviewers to be entered via the web-based submission system. The suggested external reviewers should be independent of the PI(s), co-applicants, and any person who may receive funding as a result of the grant application. The suggested external reviewers should not be (i) close colleagues and collaborators, (ii) former supervisors, (iii) co-authors of publications from the last five years, (iv) co-editors of journals or books or (v) co-investigators of other grant applications. In general, the suggested external reviewers should not be employees of ETH Zurich or the University of Zurich.

   The Executive of the ETH Zurich Research Commission will seek to obtain reviews from a selection of the suggested external reviewers and other experts in the relevant research field(s). To maintain confidentiality and avoid bias, the names of the external reviewers will not be passed on to the members of the ETH Zurich Research Commission or to the PI's.

   In case of resubmission, applicants should propose other external reviewers than those in the previous application.

e) Exceptionally, applicants may provide a list of researchers whom they consider to be inappropriate external reviewers. Such a list should state the reasons for excluding the potential external reviewers.

f) Price quotes for expensive materials and services.

g) A letter of support from the host professor confirming that they accept formal responsibility for the doctoral student if the PI is not a professor, including a statement regarding the PI's academic independence (see points 1.e) and 1.g)).

Of the above documents, only the CVs, bibliographies and cost estimates will be forwarded with the application for external review.

11. Gender Aspects

ETH Zurich strives to promote gender equality in scientific research by integrating the gender dimension into the research content in all fields of research. Research in gender studies is also being supported through the ETH Zurich Research Grant funding program.

- Gender must be consistently considered throughout the whole research cycle (from the proposal to the research and dissemination phase) if it involves humans as research objects (e.g., as patients, consumers, end-users or as citizens in surveys) and must be considered in the experimental design, data collection, analysis and interpretation of the outcomes. If the gender dimension for such research is not being considered, a justification must be supplied why it is not being addressed.
- Research not directly involving humans should adopt the principles of gender-sensitive research if appropriate (e.g., fundamental research on genomics, development of materials in the biomedical sector, product design).

12. Ethical issues

The research carried out in the framework of the project must comply with ETH Zurich's scientific integrity and research data management regulations. The applicant must state in the ETH Zurich grant application system (eResearch) if the intended research requires authorization or notification. By filling in the form the applicant confirms that they are aware of the legal regulations at the federal and cantonal levels that are relevant to the research project.

Furthermore, in the grant application system there are instructions on how to proceed if the intended research needs authorization or notification. This applies in particular to research on humans, research on human embryonic stem cells.

13. Use of generative AI and AI-assisted technologies

The use of generative AI tools such as large language models, chatbots, and image creators in the preparation of an ETH Grant proposal is permitted in principle, but at the applicant's own risk. It must be disclosed in the Cover Letter by providing detailed information about which generative AI tools were used, for what purpose, and to what extent, whether in writing the proposal, creating illustrations, or collecting and analysing data.

Please note that the use of generative AI tools may raise concerns regarding intellectual property and scientific misconduct. Applicants are fully responsible for the content and accuracy of their research proposal. They must adhere to the principles of research integrity that apply at ETH Zurich. Since this extends to any and all parts of a proposal produced by an AI tool, applicants must ensure that all sources are cited appropriately and correctly, and that the documents do not contain factually incorrect, misleading, falsified, plagiarized, or fabricated information.

The Research Commission therefore advises applicants to exercise maximum caution when using generative AI or AI-assisted technologies in the development of their research proposals.

EVALUATION

14. Review, Recommendation and Decision Procedures

The decision on funding is based on a strict, quality-based evaluation process. Assuming that basic requirements are met, every ETH Grant application will be reviewed by independent external experts and assessed by one or more Subcommissions of the ETH Zurich Research Commission. If requested by the Subcommissions, hearings may be conducted with applicants of large proposals who seek financial support amounting to more than CHF 500,000. Larger proposals can also be assessed by an ad-hoc commission comprising relevant members of the Research Commission and, if necessary, external experts.

The review criteria used for the evaluation of ETH Grant applications are summarized below. In some instances, additional criteria taking into account specific objectives of an application might be included. Although, as a rule, applications in all fields of science represented at ETH Zurich will be considered for an unbiased and competitive review, compatibility with the overall research strategy of the ETH Zurich Executive Board ("Schulleitung") might be applied as an additional merit criterion for large applications.

Review criteria are as follows:

- Does the proposed project show potential for scientific excellence?
- Does the PI / do the PIs venture into a novel research direction?
- Is the proposed project creative and original?
- What is the impact of the project?
- How appropriate is the combination of disciplines and what is the scientific added value with respect to the combined contributions from the partners? (Applicable to projects involving two or more research groups)
- How well conceived, organized and state-of-the-art is the proposed activity?
- Does the project have a reasonable chance of success and what difficulties can be expected?
- What is the relevant experience of the applicants in the research field of the proposed project?
- Are the requested resources and available infrastructure adequate?
- Are ethical and gender aspects being considered where appropriate?
- If the PI holds an active ETH Grant: Is the new project clearly different in terms of topic, objectives, and research question?

The Subcommissions' recommendations will be forwarded to the entire ETH Zurich Research Commission for consideration. The final recommendations of the Commission will be communicated to the Vice President for Research, who makes the final funding decisions.

15. When to Expect a Decision

Notification of decisions made by the Vice President for Research will normally be sent to the PI within four months of the respective submission deadline. The earliest starting date for approved projects is the first day of the month following the date of the decision letter.

In case of a rejection without external review (see point 16.), notification of the decision will usually be given within one month of the respective submission deadline.

16. Rejection without External Review

Grant applications will be *rejected* by the Executive of the ETH Zurich Research Commission without external review if one or more of the following criteria apply:

a) The application is not written in English.

b) The PI does not have an active, external, peer-reviewed grant (for exceptions, see point 1.c and e).

c) The proposal had previously been rejected by the ETH Zurich Research Commission and has been resubmitted without substantial revision or taking into account the comments and concerns provided in the previous review.

d) The application is identical or similar to an application that has been submitted at the same time to another granting agency.

e) The application is identical or similar to an application that has been rejected on scientific grounds or has been partially funded by another granting agency prior to submission to the ETH Zurich Research Grants program.

f) The application is submitted by someone who is not allowed to submit an application (see point 2.).

g) The required documents specified under point 8. and 11. are not provided.

h) The abstract is not written in a form that allows the educated layman to understand the objectives of the proposed research project, the methods to be employed, and the significance of the anticipated results.

i) There are significant parts lacking in the review of the state of research.

j) The description of the research plan is particularly poor (e.g., the explanations of the proposed doctoral research are inadequate).

k) The description of the detailed research plan is too long (see point 8 and page limits in the document templates, respectively).

l) The reference system does not follow the specified rules.

POST-GRANT PROCESSES

Whenever possible, Open Access should be granted to publications resulting from an ETH Grant, as per ETH's Open Access Policy. Publication fees (APC) are taken over by the ETH Library for the most important journals. Otherwise, the material cost budget of the grant may be used to cover them. The ETH Grant programme must be mentioned in publications, e.g., in the form "This work was supported by an ETH Zurich Research Grant".

A final report of maximally five pages must be submitted to the Grants Office within two months after completion of the project. The report should compare the original goals with the actual outcomes and list all publications and other research outputs that resulted from the project.

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