

Osteology Foundation Applied Research Grant Application Guidelines

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1 General Information

The Osteology Foundation aims to support scientific research and education projects in the field of oral tissue regeneration. To actively promote **translational and clinical research**, the Osteology Foundation awards grants to selected researchers yearly.

The flagship programme of the Osteology Foundation is the Applied Research Grant programme¹. This programme provides funding for both early-career and established researchers, and teams who present with a track record in generating and translating basic research findings towards clinical application. Interdisciplinary (collaborative) research involving basic scientists and clinicians, as well as research groups from different universities/entities, is strongly encouraged.

Applied Research

Applied research in (dental) medicine refers to scientific investigations and studies **aimed at developing practical solutions to real-life problems**, with a particular focus on improving medical/dental treatments, therapies, diagnostics, and care delivery. It involves using existing knowledge and scientific principles to design and evaluate interventions or strategies that can address specific health concerns or improve patient outcomes. Applied research in the field of oral/dental research is characterised by its translational approach, which seeks to bridge the gap between basic science and clinical practice by bringing scientific discoveries to the every-day clinical practice.^{2,3,4}

¹From 2024, this programme entirely replaces the two previously available Researcher Grant programmes: Advanced and Young Researcher Grants.

 $^{2}\ https://statesforbiomed.org/education/background-on-biomedical-research/biomedical-research-definitions/ (02.06.2023)$

³ Cohrs et al. Translational Medicine definition by the European Society for Translational Medicine, New Horizons in Translational Medicine, 2015

⁴ Zarbin, What Constitutes Translational Research? Implications for the Scope of Translational Vision Science and Technology. Trans. Vis. Sci. Tech. 2020

Applied Research Grants @ Osteology Foundation

Consistently with the above description, the projects proposed in the scope of the Applied Research Grant programme may be clinical or preclinical, but <u>must demonstrate</u> in any case a <u>high potential for clinical impact and/or the relevance for evidence-based dental/medical practice</u> for the benefit of human health and clinical care.

Figure 1 illustrates the clinical and translational research spectrum of all studies accepted by the Osteology Foundation.

- T0 refers to preclinical and foundational research. A clear link to clinical application in oral wound healing and tissue regeneration is required. Studies that address only basic scientific principles without any translational approach are <u>not</u> eligible for submission.
- T1 refers to studies translating basic research into a potential clinical application.
- T2 refers to efficacy studies, in which new interventions are trialled under optimal conditions.
- T3 refers to effectiveness studies, where promising interventions are trialled in real-world settings. Research exploring translation to clinical settings and practice through the implementation of validated treatment concepts and technologies in a real-world setting is included in this category.



• T4 refers to impact studies, which examine the impact of a new intervention/guideline at a population level.

Although T4 studies are accepted for consideration within the framework of this programme, we anticipate that most of the Applied Research Grants projects would fall in the T0-T2/T3 categories.



Figure 1: The translational research spectrum and corresponding focus.

Topics

Applications must be in the field of oral wound healing and tissue regeneration, and must cover one or more of the following topics:

- Bone regeneration
- Soft tissue regeneration
- Periodontal regeneration
- Wound healing
- Inflammation and Infection
- Systemic diseases
- Local factors affecting oral wound healing and tissue regeneration
- Treatment modalities for peri-implant diseases
- Anti-inflammatory and anti-infective agents



- Novel biomaterials and biologics
- Novel technologies and techniques
- Patient reported outcomes

2 Before applying – good to know

To improve the efficacy of handling applications and to facilitate objective project comparison, please note that **incomplete applications as well as those that deviate from the given guidelines** (e.g. exceed the permitted length and/or deviate from formatting guidelines) **will be rejected.**

2.1 Application process

The application process consists of two stages:

Stage 1: Letter of Intent (LOI)

Applicants submit an abstract/LOI of their proposed project. The Science Committee of the Osteology Foundation reviews the LOIs and selects the projects which progress to the second stage. The successful applicants will be then invited to submit a Full proposal.

Stage 2: Full proposal

Applicants are invited to submit their full application. The members of the Science Committee will thoroughly review these detailed study proposals, discuss the evaluation results, decide about the final grant recipients, and confirm the amount of funds to be awarded.

All invited applicants must file the documents to the Osteology Foundation within the same grant application cycle. A delayed submission of the full proposal is not possible. The respective applicants will be informed about the **decision** of the Science Committee after their committee meeting in the following year. Exact dates are published on the Osteology Foundation website.

To ensure a comparable format for all applications, the space for entering the project information is limited. All information must be provided in English. Applications submitted in other languages will be desk-rejected.

2.2 Application platform

All application documents must be submitted electronically via the online application system supported by ProposalCentral: https://proposalcentral.com/. If it is the first time you log in onto the system, **please ensure you have enough time to create a new account** (step needed only once) by following the instructions below.



| altum proposal central | Help O | pportunities Resources Announcements About Altum |
|--|---------------------------|---|
| I AM A(N) | APPLICANT OR AWARDEE | |
| If you already have an account, log in as applicant or awardee to access the Grant Opportunities or your started LOI or Proposal. ProposalCentral Applicants & Awar ProposalCentral enables researchers to tap int | ardees. | Applicant or Awardee Sign in to ProposalCentral to search for funding opportunities, submit grant applications, or manage your profile. Image: Communication of the communication of th |
| for their contributions, and realize the full poter efforts. \$28.5 Billion Funded Grants. 280+ Funding Organizations. | ntial of their scientific | OR USERNAME OR EMAIL LOGIN Forgot your password? Need an account? Forgot your password? Need an account to start setting up your account. |

Please type in "Osteology" in the search bar (see screenshot below), to find all grant programmes for which you can apply:

| | Home | Proposals | Awards Pro | fessional Profile | | Grant Opportunities | | • |
|---|------------------------------|-------------------|---|-------------------------|--|--|---------------------------|--------------|
| Total: 361 Opportunities Filter by Grant Maker ← | Sign up for Opportunity Aler | Now to start your | To begin an application, please click on the "Apply Now" button. application (includes letter of intent if required) | | | To view posted Grant ortunities, please go to this tab. | | |
| Show 25 v entries | | | | | | | Search: | |
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2.3 Funding Details

- It is understood that the Osteology Foundation may not provide the total amount of funding required to perform the planned study.
- A grant application submitted to the Osteology Foundation must not be submitted in parallel to another funding organisation or research grant provider (e.g. company) with identical scope and/or content. If so, the Osteology Science Committee may exclude the application from the granting process, unless a clear alternative plan is presented, should both requests for funding be awarded. Transparency is key.

2.4 Ethical approval

The approval of the relevant animal care committee/institutional human subjects review board of the respective official (national) body must not be submitted at application stage, although an already available ethical committee clearing of the study might work in support of your application. When the study is accepted for funding, a copy of the ethical approval document must be submitted to the Osteology Foundation and is a necessary condition to obtain any funding from the Osteology Foundation. In lack thereof, the funding decision may be retracted.

2.5 **Guidelines for Preclinical Research**

When performing animal research, the compliance with the principle of the **3Rs** (https://www.nc3rs.org.uk/the-3rs) to use:

- 1. Methods that avoid or replace the use of animals (Replacement)
- 2. Methods which minimise the number of animals used per experiment (Reduction)
- 3. Methods which minimise animal suffering and improve welfare (Refinement)

The Osteology Foundation also expects the applicants to respect the **ARRIVE (Animal Research: Reporting of In Vivo Experiments**, https://www.nc3rs.org.uk/arrive-guidelines) guidelines, especially in preparation of the grant proposal. To ensure high-quality reporting of animal research, the Science Committee reserves the right to reject grant applications that are not in compliance with the ARRIVE guidelines. Please also consider the **PREPARE guidelines** and checklist (https://norecopa.no/prepare/prepare-checklist).

2.6 Guidelines for Clinical Research

Any clinical trial shall be registered through an international clinical trials registry prior to the trial start. The registry that is recommended by the Osteology Foundation is: http://www.clinicaltrials.gov/

The trial registry number (ClinicalTrials.gov Identifier or similar) as well as the approval of the institutional human subjects review board shall be submitted to the Osteology Foundation before the start of the trial and is a prerequisite for the transfer of funding.

All clinical studies submitted to the Osteology Foundation must be in compliance with the current version of the <u>Declaration of Helsinki</u> and the ICH Good Clinical Practice (GCP)



Guideline or ISO EN 14155 standard (as far as applicable), as well as all national legal and regulatory requirements.

Moreover, the Osteology Foundation requests to follow the <u>CONSORT statement</u> and related checklists for setting up a study protocol for a randomized controlled clinical trial.

To strengthen the reporting of observational studies the Osteology Foundation requests to follow the <u>Strobe Statement</u> and related checklists.

Lastly, the <u>ID-COSM initiative reached a consensus on a core set of mandatory outcomes for</u> <u>clinical trials</u> in implant dentistry and/or soft tissue/bone augmentation in mid-2023. Adoption in future protocols and reporting on the respective domain areas by currently ongoing trials will contribute to improving evidence-informed implant dentistry and quality of care. All clinical trials commencing after 31 July 2024 must include these outcomes for consideration for publication in COIR, for example. In this light, the Osteology Foundation strongly encourages adherence to the ID-COSM minimum set of core outcomes for all grant applications.

2.7 Supporting tools for your application

Checklists are made available online by the Osteology Foundation to facilitate the development of a project proposal.

A Research Wizard is also available on The BOX to guide and facilitate the submission of research projects: https://osteology.org/User/MyResearch > Research Wizard.

2.8 Submitting person

Please note that it is not accepted to apply in the name of a third person. Principal Investigators should use their own account to submit and electronically sign their applications. Hand-written signatures are not necessary. All co-applicants will automatically receive a notification of submission. Each research group/department may submit only one application per round.

3 Letter Of Intent (LOI)

A summary of the LOI application requirements is provided below.

3.1 Summary of requirements for submission of a LOI

| р | clear overview of the study background, research question, aims of the roject, proposed methodology, clinical relevance and available expertise nd facilities (1000/1500 characters per section, see application form) |
|-----|--|
| • F | cespect the page limits and formatting guidelines: o (only if the <i>early-career</i> checkbox is ticked) Institutional support/recommendation letter – max. 1 page |
| | Font: Times New Roman, font size 12, line spacing 1.2 |



- Page margins: 2.5 cm (left, right, top), 2 cm (bottom)
- Upload PDF files only

3.2 Further details and definitions

An *early-career researcher* is defined as a dependent researcher who has a maximum of **five years' academic research experience** following the completion of their PhD degree, <u>or</u> completion of clinical training (residency programme) and provide demonstration of enrolment in a research programme (i.e. PhD).

Early-career researchers are considered to be under close mentorship; hence they must clearly describe if their research is an independent, well-framed project and/or embedded as a subproject into a larger project (e.g. larger clinical trial) and the roles/responsibilities/project ownership of their mentors in these projects. The submission of a sound project plan with realistic targets/outcomes and funding allocation (budget) is mandatory. A letter of institutional support is requested and is a prerequisite for submission by an early-career researcher.

Every other researcher is considered an established researcher, having both:

- 1. At least five years' academic research experience following the completion of their clinical training/PhD (or equivalent) degree
- 2. Track record of funding (principal investigator of at least one completed and fully funded grant/project) and publications (at least 5 first- or last-author publications + 5 other publications)

4 Review Process

The Osteology Foundation ensures strict confidentiality of all applications and applying research teams, as well as of the results of the review process. The application information will be shared only among the reviewers and the necessary Foundation members, and only for the purpose of evaluating the said application.

The LOIs will be reviewed based on predefined awarding criteria, covering:

- Clinical relevance
- Originality of hypothesis
- Methodology
- Facilities and qualifications

The Full applications are also thoroughly evaluated in terms of financial feasibility and credibility. Proposals that ignore the budget guidelines highlighted below, especially regarding material sponsorship agreements (support letters), may be desk rejected.

All applications are reviewed by a Scientific Review Board consisting of 1 member of the Science Committee and 3 members of the Osteology Expert Council. The names of the

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members of the Osteology Science Committee and Expert Council, who are part of the Scientific Review Board, are published on the Osteology Foundation website.

As a matter of policy, the Osteology Foundation does only give comments on positive or negative decisions after the Full proposal stage, upon request of the applicant.

5 Full proposal

Applicants that are selected to progress to the second stage are invited to submit a full proposal.

All documents for the full proposal must be submitted electronically via the online application system. For this, the applicant must use the same account created when submitting the corresponding LOI.

Further details on each step of the application can be found on the online application tool. Below, a summary of the application requirements is provided.

5.1 Summary of requirements for submission of a Full proposal

- Provide detailed information on study design (e.g. study hypothesis, control and test groups, primary outcome), applicants, and funding. Please see below for further details.
- Provide the following documents:
 - Detailed study proposal max. 12 pages

 - Overhead policy max. 2 pages CVs (template provided) max. 2 pages .
 - Proof of submission to/approval by ethics committee when available
 - Budget overview (template provided)
 - Corporate support letter(s)/sponsorship agreement(s),
 - if materials are needed and not budgeted for
 - Graphical abstract max. 1 page -

Respect the page limits and formatting guidelines and ensure that all information is included before submitting your application.

- Font: Times New Roman, font size 12, line spacing 1.2 .
- . Page margins: 2.5 cm (left, right, top), 2 cm (bottom)
- Use the available templates, when available
- Upload PDF files only

5.2 **Budget Plan – further tips**

The reviewers from the Osteology Foundation and the Science Committee should be able to understand the budget details easily. To ensure this, provide a thorough explanation for each budget category in both your detailed study protocol and the Budget Overview sheet.



- Plan your resources carefully and demonstrate efforts to reduce redundancies or unnecessary costs. Do not necessarily aim at maximum funding if your study can be conducted with a smaller amount. If such cases are recognised or there is a suspicion of budgets being artificially inflated, we reserve the right to desk-reject the corresponding application. Even if the maximum funding amount is 200 000 CHF, the Osteology Foundation does fund proposals that ask for less, if the resources are well allocated.
- On the Budget Overview sheet, provide details of the factors used to determine the costs of each budgeted item and personnel costs. Include all items that are necessary to conduct the project.
- Make sure to list and clarify which items are to be funded by the Osteology Foundation, and which are to be funded by other sources.
- Within your **detailed study protocol**, provide a justification of the listed budget items, as well as a detailed description why a budget item is important for the project and how the budgeted amounts will be used (e.g. what are the duties of the technical staff or what kind of supplies or material is needed for histomorphometry, animal care costs, patient related costs within clinical studies, ...). This will allow reviewers to estimate the realistic costs of the research project.
- Note that all amounts are in Swiss Francs (CHF)
- Please consider the following restrictions when developing your Budget Plan:
 - Personnel: The amount dedicated to salaries of the involved research staff are not limited, but must not constitute the entirety of the requested funding amount. We recommend not to exceed 50% of the requested amount for staff. The amount of effort spent by each contributor to the project must be clearly indicated as % FTE.

Example: if the PI is a full-time (100%) researcher and plans to work on this project for 4h week (i.e. approx. 10% FTE), they will indicate a project involvement of 10% on the Budget Overview sheet, and the corresponding fraction of the salary.

All personnel included in the project must be listed in the budget plan with base salary and their role and involvement in the project. If the staff is already paid by the institution, please list them anyway on the budget template, with the corresponding % of involvement in the project, and indicate 0 on the column "Amount requested to Osteology".

- Equipment: New equipment or extensions to existing equipment which are necessary for conducting the project can be budgeted. Basic laboratory equipment (e.g. microscope, cell culture incubator) is assumed to be available at the lab and is therefore excluded from funding.
- Supplies: This area includes all materials needed to conduct the proposed research.
 Every single item must be budgeted. For example, the quantity, type and cost of biomaterials or dental implants must be included into the budget plan. Itemize supplies in separate categories (e.g. cell culture material, antibodies, general laboratory supplies, histology material, augmentation materials, implants, radioisotopes ...). Categories in amounts less than CHF 500 do not need to be listed. If other sources of support cover any of these items, e.g. through material sponsorship agreements, it is also mandatory to list these costs and the respective financial support for it. In



such cases, please **provide support letters (e.g. from the respective company**). <u>If</u> a letter of support is not available, all materials MUST be budgeted for.

- Travel expenses: Only expenses directly related to the project are covered (e.g. investigator meeting, travelling to external research sites), if necessary to the success of the project and justified
- **Clinical studies:** Consider recruitment costs, patient care costs, medication, fees for ethic committee or notified bodies, etc.
- **Preclinical studies:** Consider preclinical models, care costs, etc.
- **Publication costs:** Publication costs for open-access publication. Max. 7500 Swiss francs of total requested amount.
- Overhead contributions are only made up to a maximum of 10% of the total project costs. As a prerequisite for funding of any overhead costs, the principal investigator or coordinating investigator must submit a copy of the official overhead regulations (only an excerpt with the most relevant information, maximum of 2 pages) stating the amount of requested overhead fees. An acknowledging letter including a statement to honour the policy of 10% of total project cost, or a letter with an indirect cost waiver reduction (if your Institution's overhead costs are higher) from your grants office, can also be considered.
- **Other expenses**: Any project-related costs which do not fall into any of the above categories.

6 After acceptance

6.1 Osteology Foundations grant database

When submitting a full proposal to the Osteology Foundation, the principal investigator and all coapplicants agree that the following information will be published with a delay of 6 months after a positive funding decision within the grant database of the Foundation's website.

The following information may be publicly disclosed: Year of funding, Funding programme, Investigators, Project title, Academic affiliation, Country, Region, Amount of funding, Project status and Link to publications, Graphical abstract, Layman summary

6.2 Funding Policy

The maximum funding amount for each project proposal is CHF 200'000.

Upon the acceptance of the Full proposal, and submission of the IRB approval documentation (if applicable), the **first instalment** (30% of the total funding) can be requested by the applicant. The **second and third instalment** (40% and 20% of the total funding amount, respectively) will be released at enrolment start and end, respectively. The **final instalment** (10%) will be released upon reception of a proof of submission of a manuscript to an **open-access**, **peer-reviewed journal** OR of a final report sent to the Osteology Office (in case of no publication). With that, the project is successfully completed.



6.3 Exclusion from further research funding by the Osteology Foundation

Principal investigators who received funding from the Osteology Foundation will be excluded from funding for the two years following their funding notification.

6.4 Open-access publication

Manuscripts originating from the funded project must be published in peer-reviewed scientific journals with **open access**. **Fees** for open access publication must be included in the budget plan but **must not exceed CHF 7'500 of the total funding amount**.

6.5 IRB approval

Please reserve enough time to obtain approval from your national institutional human subjects review board (IRB), when necessary. The **IRB approval is prerequisite for the payment of any funds**, and *may* support your application to stand out, if uploaded at full proposal stage. If a copy of the IRB approval is not received by the Osteology Foundation after one year from the notification of acceptance, we reserve the right to withdraw the funding decision.

6.6 Acknowledgements

Financial support provided by the Osteology Foundation should be acknowledged in the publication(s) resulting from this support in the following way:

"The project was supported by a grant [Osteology project number] from the Osteology Foundation, Switzerland."

6.7 Monitoring of funded projects

All funded projects will be monitored for progress biannually. The progress report shall give an update on the milestones reached and the timeline for the remaining term of the project according to the accepted Full proposal.

6.8 **Project extensions**

Projects can be extended twice at no costs for the Osteology Foundation for a maximum of 1 year at a time. To request a no-cost extension, please contact the Osteology Office (grants@osteology.org).



6.9 Termination of projects

Projects that exceed the maximum project duration including the duration of the no-cost extensions will be terminated by the Osteology Foundation. The remaining funds will no longer be available. Moreover, the Osteology Foundation reserves the right to terminate projects that do not regularly, at least on an annual basis, report on the status/progress of the funded study. The annual progress report is a prerequisite to release remaining funds. If such progress reports are not submitted in due time to the Osteology Foundation, funds will be frozen, and the corresponding financial account will eventually be liquidated. The Osteology Foundation reserves the right to decide on an individual project basis.