

COMPETITIVE RESEARCH GRANT GUIDELINES

Spring Application Deadline February 7
Fall Application Deadline August 15

General Information

The Foundation for Endodontics inspires and supports research and the genesis of new knowledge in endodontics. The goal for the Competitive Research Grants program is to support rigorous, innovative, and technically sound research that is relevant to the practice of endodontics. Research proposals aimed at addressing the most pressing clinical questions or enhancing fundamental basic science knowledge towards the improvement of endodontic education and patient care, and elevating the specialty are welcome.

Applicants should adhere to the guidelines for preparing and submitting a research proposal as detailed below.

- 1. Principal investigators (PIs) may only submit one research proposal at a time.
- 2. Submissions will not be accepted after 5 p.m. Central Standard Time on the day of the deadline. Applicants are notified that their proposal was received and deemed complete within one week of the deadline. Funding is announced *after* the Foundation's Annual Board meeting in the spring (notification made in late March/early April) and Interim Board meeting in the fall (notification made in late November/early December).
- 3. Proposals must address at least one of the AAE Research Priorities.
- 4. No dollar limits are set for grant budgets. The Foundation only supports direct costs associated with project execution. Funding for indirect costs to a PI's institution is not allowed. All funds must be spent in support of the proposed investigation and within the funding period of the grant.
- 5. Awards are made and funds disbursed to the PI's institution.

- 6. Unused funds must be returned to the Foundation within 60 days of project completion.
- 7. The award timeline for funded projects is one year. A <u>no-cost extension request</u> may be submitted by the PI for review and approval.
- 8. Resubmission applications must have the same project title and same PI as the original application and include an "Introduction to Resubmission" page addressing the reviewers' critiques on a point-by-point basis.
- 9. New submissions from previous grantees will be considered upon verification that appropriate progress and/or final reports have been submitted for any previously funded research projects. Please include the previously funded project title and/or submission ID # and the award cycle (fall/spring and year). The grantee must include evidence that the results have been published, are *in press*, or have been submitted for publication. Former grantees who have not submitted a progress report in accordance with the guidelines and do not provide evidence of manuscript submission/publication will not be considered for funding.
- 10. A final progress report is required for grant closeout within 60 days of project completion.
- 11. An abstract of the results must be submitted within six months after completion of the project.
- 12. Manuscripts based on research supported by the Foundation must be submitted for publication. The *Journal of Endodontics* reserves the first right of refusal of all manuscripts based on research supported by the Foundation (i.e., manuscripts must be submitted to the *Journal of Endodontics* before being considered for any other publication). This does not guarantee manuscript acceptance. The following statement is to be included in the acknowledgment section of any publications or presentations associated with work funded by the Foundation:

"This study (add grant submission ID#) was supported by the Foundation for Endodontics."

Eligibility

PIs must be current AAE members who meet one or more of the following criteria:

- 1) Students enrolled in an advanced specialty education program in endodontics, or postgraduate students, at a school that is accredited by or has a reciprocal agreement with the Commission on Dental Accreditation (CODA) of the American Dental Association (ADA)
- 2) Faculty or research scientists in endodontology (or other disciplines) of a dental school that is accredited by or has a reciprocal agreement with CODA
- 3) Faculty or research scientists who are not endodontists are eligible to apply for funding with an AAE member endodontist included as consultant or co-investigator. To encourage international scientific collaborations, an international collaborator may be included, however projects must be carried out at institutions that are accredited by or have a reciprocal agreement with CODA. Funds are only disbursed to CODA-accredited institutions within the United States or Canada.

AAE Research Priorities

Proposals to the Competitive Research Grants program must address at least one of the AAE Research Priorities below:

- 1. Patient-Centered Research & Outcomes
 - a. Clinical outcomes (success, survival, healing)
 - b. Patient-reported outcomes (pain, quality of life, satisfaction)
 - c. Data-driven research
- 2. Technologies & Materials Science
 - a. Diagnostic technologies, imaging, artificial intelligence (AI)
 - b. Endodontic instruments and devices
 - c. Novel materials and biomaterials (sealers, bioceramics, scaffolds)
 - d. Digital dentistry, computer-assisted devices
- 3. Biological & Translational Science
 - a. Pulp and periradicular biology, microbiology, immunology
 - b. Regenerative endodontics
 - c. Genetics, molecular diagnostics
 - d. Endodontic and systemic disease
- 4. Education & Training
 - a. Endodontic education/training outcomes
 - b. New endodontic teaching models

Preparing your Grant Application

Applications should be developed in accordance with the guidelines below. Several required components and instructions apply to all submissions. Applications missing any of the required components at the time of submission will be triaged without scientific review. It is the responsibility of the principal investigator to ensure that the application is complete prior to submission.

A standard page layout for 8.5 x 11-inch paper must be used with margins of no less than 1 inch. Line spacing should be single line spaced, and an easy-to-read font (e.g., Times New Roman, Arial, at least 11pt.) should be used.

A. Face Page

B. Biosketches

Must be completed by the PI and co-investigators (including mentors) in the proposal using this <u>template</u>. The completed biosketch(es) must be uploaded to the "Uploads" task within the submission site). Failure to include biosketches, or using a template or format other than the AAEF template will result in triage of the application.

C. Statistical Analysis Approval

A <u>Statistical Analysis Approval</u> form signed by an individual with the appropriate credentials and expertise to evaluate and/or conduct the statistical analysis proposed in the study is required for all submissions. The completed form must be uploaded as a PDF in the "Uploads" task at the time of submission.

D. IRB/IACUC Approvals

Statement of Approval or Exemption from Human/Animal Use Committees for the use of humans and/or animals by the appropriate institutional offices are required. If these are not yet available, include a letter or statement from the institutional review board, or animal welfare committee, indicating that the proposal has been submitted for approval. A proposal will not be funded until all necessary approvals for human/animal research are received by the Foundation. If necessary, the completed form or letter/statement must be uploaded as a PDF in the "Uploads" task at the time of submission.

E. Budget

An itemized list of all expenses to complete the proposal, including those supported by funds from other sources, if applicable. Other sources of funds must be identified. Funds may be budgeted to support proposed work/activities only. Funds are not permitted nor intended to cover or supplement salaries, tuition, travel, alterations/renovations of facility, large equipment or clinical equipment, publication costs, or institutional indirect costs. Funds requested to cover costs associated with research services and facilities (e.g., research cores, biotechnology companies, bioinformatics support) must be supported by a project-specific quote. Funds to support statistical analyses services are allowed (provided that these services are provided by independent professionals who are not authors, co-authors, or mentors in the proposal). The table below provides an overview of allowable costs. The budget must be included in the budget template and uploaded in the "Uploads" task at the time of submission.

Expenses	Budget Details	Allowable costs
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Supplies and reagents	Must be project-specific and itemized	No cap
Equipment (permanent)	Minor equipment purchases are allowed if properly justified as essential for the proposed work. Requests must not duplicate any equipment in the PIs department. All equipment purchased shall remain the property of the PIs awarded institution.	\$1,000 max
Statistical analysis services	Must be project specific Authors, co-authors, and mentors cannot be the providers.	\$2,000 max
Animal facility expenses	Must be project-specific and itemized. Budget must be justified based on number of animals, animal facility per diem costs and duration of the study.	
Human subjects research	Participant compensation is allowed. Budget must be justified based on number of subjects proposed in the study.	No maximum
Core facilities and external service providers	Must be project specific. A service quote must be included as an attachment during submission. Authors, co-authors, and mentors cannot be the providers.	No maximum
Salaries	Funds cannot be used to support salaries of any kind.	Not allowed
Travel	Funds cannot be used for travel expenses of any kind.	Not allowed
Institutional indirect costs	Funds cannot be used to cover institutional indirect costs.	Not allowed

F. Research Plan

1. Abstract (250-word max)

Summarize the objective of the study, study hypothesis and aims, a brief outline of the methodology, and expected impact of the project.

2. Introduction and Specific Aims (1,100-word max)

Introduce the topic of the project, state the gap in knowledge, provide a clear rationale for the study, a clear statement of the hypothesis, state the specific aims of the study, and the expected impact of the project.

3. Background and Significance (1,400-word max)

Describe previous studies from the literature that are relevant to the proposal, addressing what is known and unknown about the topic of the study. Include details of any preliminary data and/or pilot studies performed by the investigators in support of the current proposal.

4. Significance of Research in Relation to the AAE Research Priorities (200-word max) Explain how the research proposal relates to the <u>AAE Research Priorities</u>.

5. Research Methods (1,600-word max)

State the study design and describe in detail the study samples or study population(s), experimental groups and controls, experimental procedures, and research timeline. If applicable, include information about IRB/IACUC approvals for the use of human subjects or

animals in the proposed research. Provide details of sample size calculations or information on how sample size was determined (if a sample size analysis was not conducted).

6. Data Analysis (850-word max)

Provide details of the statistical analysis methods, description of statistical tests, and the reasons for their selection. State the level of significance adopted.

7. Resources and Environment (850-word max)

Describe the institutional resources, equipment, and facilities (clinical, laboratory, animal) available for the research.

8. Research Timeline (300-word max)

A proposed timetable for the research project must be included. Students must demonstrate that the project can be completed prior to graduation.

9. References (35 reference limit)

All material referred to in the application must be referenced. References must follow the format used in the *Journal of Endodontics*.

**Resubmission Applications

Applicants who are submitting a revised proposal should include a one-page "Introduction to Resubmission" document addressing previous critiques in detail and on a point-by-point manner. Changes to the text in reference to reviewers' comments should be noted throughout the body of the research proposal in underlined font.

G. Letters of Support

A resident or postgraduate student who is the PI on a proposal must include two letters of recommendation from faculty members familiar with the proposal. One letter must be from the student's research supervisor. Resubmission applications must include new letters of recommendation with updated dates, and content when applicable. Letters of support must be uploaded in the Letters of Support section.

H. Conflict of Interest Declaration

All investigators must disclose any conflict of interest that they might have with respect to any grant application to the Foundation. Having an interest in a product, service, course, or company does not necessarily impact an applicant's status. Applicants should exercise particular care that no detriment to the Foundation for Endodontics will result from conflicts between self-interest and those of the Foundation. The overall purpose of Foundation competitive research grant program is to advance the specialty and therefore any potential or real conflict of interest should be disclosed and the project should be independent of any self-interest. Applications will not be considered or receive scientific review without a completed Conflict of Interest Declaration form. Any research that is not consistent with, or does not advance, the Foundation's mission will not be funded. Please see the Conflict of Interest Declaration form The completed form must be uploaded as a PDF in the "Uploads" task at the time of submission.

Review Process

Applications are reviewed by the AAE's Research and Scientific Affairs Committee. Only applications deemed complete with all required critical documentation using the provided templates (IRB/IACUC documents, budget, statistical approval letter, biosketches) will be reviewed. Applications that fail to include required components will be triaged without scientific review. The committee submits funding recommendations to the Board of Trustees of the Foundation for Endodontics who reviews and approves funding decisions. Committee members are required to disclose any potential conflicts of interest with any application(s) and are excluded from reviewing or discussing any such application(s).

Proposals are evaluated for scientific merit based on the following criteria:

• Significance

Does the project address an important problem or critical barrier to progress in the field? Is the hypothesis well-formulated and testable? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Investigator

Do the principal investigator and collaborators have appropriate experience and training to carry out the project? Is there evidence showing an ongoing record of accomplishments that have advanced their field(s)? Is the work proposed appropriate to the experience level of the principal investigator and other researchers (if any)?

Innovation

Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel concepts, approaches or methodologies, or interventions? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?

Approach

Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility, and will particularly risky aspects be managed? If the project involves clinical research, are the plans for i) protection of human subjects from research risks, and ii) inclusion of minorities and members of both sexes/genders, as well as the inclusion of children, justified in terms of the scientific goals and research strategy proposed?

Environment

Is the scientific environment in which the work will be performed appropriate for successful completion of the study? Are there institutional resources available to the investigators that contribute to successful completion of the study? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements? Is there evidence of mentoring support for residents and early-stage investigators?

• Overall Impact Significance to endodontics, innovation, probability of success, general grantsmanship (readability, well-formatted proposal)

Reviewers' critiques will be shared with the PIs of applications that receive a scientific review after the Foundation's Annual Board meeting in the spring (notification made in late March/early April) and Interim Board meeting in the fall (notification made in late November/early December).

Questions? If you encounter difficulties with the submission site or for further information, please contact the Program Manager at grants.foundation@aae.org or 312-872-0452.