**Faculty Research Grant Application**

**Program Objectives**

The University of Louisville School of Dentistry (ULSD) invites Research Grant Applications from faculty (80% FTE or more, including non-tenure track). The purpose of this program is to increase faculty research productivity, stimulate cross-disciplinary research, and enhance the ability of ULSD faculty to apply for extramural research grants. For 2023-2024, applications will be accepted for funding up to $5000, and it is anticipated that up to 2 awards will be made per year.

Fundable projects have a focus that is in line with the research objectives of ULSD, and they must generate information of value to oral health. The Research Committee (RC) critically evaluates and provides feedback on proposals submitted for funding under the Faculty Research Grant (FRG) program.

Fundable research may include:

* Outcomes and oral health services research
* Oral epidemiology
* Dental education
* Biological sciences
* Dental biomaterials
* Patient-based studies
  + Mechanisms of disease
  + Therapeutic interventions
  + New technology

**Expected Outcomes**

It is expected that FRG recipients will act on all of the following:

1. Present their results at Research!Louisville, and whenever possible at AADR/IADR/ADEA or other national meeting
2. Use the results toward the preparation of an extramural grant submission and peer reviewed publication
3. Six months after an award is made, a brief progress report must be submitted to the Associate Dean for Research. A final report summarizing progress towards the outcomes listed above must be submitted at project completion, or not later than 2 years after the award was received, whichever comes first.
4. Acknowledge the funding source in any abstracts, papers, and presentations that are generated as a result of the award.

**Submission Deadlines for Applications and Review Process**

Submission deadlines occur each year week 2 of Fall term and week 2 of Spring term. Completed applications delivered after the deadline will be reviewed during the next review cycle. Applications must be delivered electronically to the Chair of the research Committee (lisa.sandell@louisville.edu). Only complete submissions are considered for review.

The RC will review all submitted proposals at the meeting following each deadline, and the award recipient will be announced within two weeks after the Committee’s recommendation.

Applications will be reviewed according to the following criteria:

1) Does the proposal identify a significant question based on the appropriate literature?

2) Will the proposed research substantially respond to that question?

3) Will the proposed work likely lead to a publication or an extramural grant application?

4) Has the PI had met the outcome expectations for any previous FRG support?

Proposals may be funded with a budget reduction. Changes in the proposed budget will be based on; 1) the committee’s perception of the scientific need, and 2) the funds available to the committee.

**Note:** Faculty are also encouragedto explore other internal UoL funding opportunities that are available through the Office of the EVPRI. Information can be obtained at the following address: <http://louisville.edu/research/support/internal>

**Application Cover Page**

1) Title of Research Project:

2) Principal Investigator:

Other Investigators:

Student Researcher:

(Participation of a student researcher is encouraged)

3) Estimated Project Duration: (not to exceed 2 years)

4) Total Dollar Amount Requested: (not to exceed $5000)

5) Is this project currently submitted or being reviewed for funding by an external agency? If so, where and what is the status of review?

6) Has this project been previously submitted externally for funding? If yes, provide details?

7) Compliance

| Categories | **Yes** | **No** | **Approval Number** |
| --- | --- | --- | --- |
| a. Humans as subjects? |  |  |  |
| b. Experimental animals? |  |  |  |
| c. Ionizing radiation, radioisotopes? |  |  |  |
| d. Recombinant DNA? |  |  |  |
| e. Toxic, carcinogenic, mutagenic agent? |  |  |  |
| f. Pathogenic organisms? |  |  |  |

Note that appropriate approval numbers have to be provided to the Research Committee prior to the release of funds and the start of the research.

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**Research Plan Format**

Use the format as outlined below. Be concise. Do not exceed five total pages for the research plan (Items A-D). Document should be single-spaced, with Arial 11 point font and 0.5 inch margins. The text below each heading is intended as a guide, to help with organization and with clear communication of the investigators’ ideas. Not all components will be applicable for all projects. However, the points described are all relevant for future extramural applications.

DESCRIPTION OF RESEARCH PROJECT:

1. **Specific Aims and Objectives**

A brief focused overview of the project. Concisely state the broad problem addressed by the proposal. State the focused problem you will address. State the overall research hypothesis. List each specific aim which specifies a highly focused approach that directly tests the hypothesis. Specifically state the Research Hypothesis for each aim.

1. **Background, Significance and Innovation**

• Document/quantify the significance of the broad problem (e.g., incidence of disease, negative impact of failed procedures on health care, etc.).

• Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses. Focus the big problem to a narrow problem.

• Describe the ‘gaps’ in knowledge in the field, and explicitly state your premise. Relate the literature to points that are critical to your question, including experimental evidence underlying the specific aims to be tested. Include current references to published work.

• Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.

• Explain how the application challenges and seeks to shift current research or clinical practice paradigms.

• Describe any novel theoretical concepts, approaches or methodologies, instrumentation or intervention(s) to be developed or used, and any advantage over existing methodologies, instrumentation or intervention(s).

1. **Approach**

• This is the most detailed section.

• Describe the overall strategy, methodology, and analyses you want to use to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted.

• Give a description of the experimental design and procedures, and how the results will be interpreted. State the type of study design (survey research; prospective cohort study; Type III clinical trial; etc.). Where appropriate, provide the rationale for using that study design compared to other possible designs; that is, explain your choice of this study design in terms of the strengths and weaknesses of these designs.

• Describe how general procedures will be performed. What are the controls? Where will patients be obtained? What are the criteria for identifying the control patients?

• State how successful completion of each Specific Aim will address the overall Research Hypothesis.

• Specify statistical procedures. Clinical studies must include a power analysis.

• Describe expected outcomes. Discuss potential problems, alternative strategies, and benchmarks for success.

• Provide an expected time-table for the project.

1. **Goals**

Provide a short statement of how this project will increase the PI's research competitiveness. State explicitly how you expect this project to lead to (1) publication, (2) research grant application (name the agency and target submission date), or (3) other goals.

1. **Literature cited** Relevance is more important than quantity.
2. **C.V. or NIH-style biosketch** for PI and co-investigators. In the Other Support section please indicate any scientific or administrative overlap with the current project. See: http://grants.nih.gov/grants/forms/biosketch.htm

**Signature Page**

Endorsement: I certify that the statements made in the application are true, complete, and accurate to the best of my knowledge; that any false, fictitious, or fraudulent statements or claims that I make, may be subject to criminal, civil, or administrative penalties; and that I agree to accept responsibility for the scientific conduct of the project and to provide the required progress and invention reports if a grant is awarded as a result of the application. Persons named in the application have agreed to participate as described.

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SIGNATURE OF PRINCIPAL INVESTIGATOR

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PRINTED NAME

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ADDITIONAL INVESTIGATOR

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

STUDENT RESEARCHER

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DEPARTMENT CHAIR(S) APPROVAL

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PRINTED NAME

**Budget Form:**

Guidelines:

* List all projected expenses.
* The total budget may not exceed $5000.
* Provide brief justification for budget items greater than $200.
* The FRG does not support faculty or staff salaries.
* Research subjects can be compensated for time and transportation.
* The FRG allows travel support up to $500.