**DCS Full Grant Proposal Guidelines**

All DCS graduate students that are also in a residency program are required to submit a grant proposal to the DCS Research and Graduate Studies (RGS) Committee for approval prior to completion of their programs regardless if DCS funding will be requested or not. Non-graduate-degree DCS residents must submit a proposal for approval by the RGS committee if DCS funding will be requested for research Resident proposals may also be submitted to the RGS committee for review and feedback prior to submission to an external funding agency. The goal of this is to provide suggestions that may strengthen the proposal. Proposals must also be submitted to the RGS for approval should funding for the research will be requested from DCS. After reviewing each proposal, the RGS committee will approve the proposal or request a resubmission in which the resident needs to address the concerns and comments of the committee’s review prior approval. A maximum of 3 reviews of each proposal will be provided to the resident by the RGS committee.

Resident proposals submitted to the RGS for approval should ideally have been submitted to an external granting agency for consideration. In this case, the proposal should follow the format dictated by that agency as long as it complies with the basic requirements of the DCS proposal format (see below). Submission of pre-proposals is discouraged. If a resident chooses to submit a pre-proposal for approval, they must modify the pre-proposal to meet the requirements of the DCS grant proposal format. If a suitable external funding agency is not available, the grant should follow the DCS format. The DCS requirements represent basic components required by most granting agencies.

Submission of a resident grant proposal for DCS funding ($5000 maximum) can occur if external funding has been sought through an external grant and denied or if the resident is seeking DCS funds for research support in addition to what was requested in an external grant. Non-traditional proposals for surveys, retrospective or other type of studies that may not fit the type of application requested by federal, state, or other private funding agencies can be submitted for DCS funding ($5,000 maximum). In cases in which an appropriate source of external funds is not available, the principal investigator or resident mentor should state in the cover letter that the following alternatives have been previously explored without success:

a) Seeking of funds from external agencies in which the topic of research could be of high relevance (i.e., the Veterinary and Comparative Clinical Immunology Society [VCCIS], American Board of Veterinary Practitioners Foundation [ABVP], American Society for the Prevention of Cruelty to Animals [ASPCA], etc.).

b) Seeking of funds from private entities that may benefit from the results from the research/study to be performed (i.e., pharmaceutical companies that manufacture medications to be used, private veterinary specialty clinics, etc.)

c) Seeking collaboration within the University, College, or Department with experts in other fields to reduce the potential of paying consultation, statistical analysis, and/or other related fees.

d) Exploring the option of using existing start-up or professional funds.

Request of DCS funds must be clearly stated in the cover letter submitted with the grant and clearly accounted for in the budget (if applicable). If the decision on an external proposal is pending, this should also be clearly indicated at the time of proposal submission.

**DCS Resident Grant Proposal Format**

**Section I: Title Page and Abstract**

**1. Title Page:** (limited to one page) - should include the project title and names of the principal investigator/primary mentor, lead graduate student/resident and co-investigators along with their academic title, department, specialty board certification, and degrees such as DVM, PhD.

**2. Abstract (project summary):** Limit to 250 words

**Section II: Study Proposal:** This section of the application should not exceed **12 double-spaced typed pages, 1 inch margins and an easy-to-read font (not less than 11 point)**.

The following sub-sections should be included in Section II (please include page numbers)

**1. Specific Hypothesis(es) and Study Objectives:** Limit to ≤ 1 page

Be precise and enumerate clearly. Feasibility and realistic expectations of objectives is paramount.

**2. Background and Study Justification:** Limit to ≤ 3 pages

This sub-section should state the **significance** of the problem, the question the research team wants to answer, and the relevance of answering the question. A succinct literature review should be provided indicating the current research in the area, including the investigators’ contributions. Specific reference to relevant published literature is important as is addressing relevancy to animal owners and veterinarians and applicable breeds if appropriate. Literature review should focus on providing relevant information for readers to understand the importance of the research question.

**3. Preliminary Data:** Limit to ≤ 1 page

If any pertinent preliminary data from the *research team* exists, show the data. Tables, graphs, and figures are encouraged.

4. **Experimental Methods & Design:** limit to ≤ 5 pages

This section should clearly demonstrate approach to complete study objectives. Residents are encouraged to organize this section describing methodology for each specific objective. Be precise about experimental design, number of animals, treatments, sampling schedules, etc. Justify any clinical trial numbers that are cited.

It is highly recommended that a statistician be consulted prior to the design of the study. A sample size calculation and power analysis must be clearly demonstrated in this section as should a thorough description of planned data (statistical) analysis. Technical terminology should be defined on first usage although acronyms and abbreviations may be used subsequently.

If client‑owned animals are to be used, demonstration that the institutional caseload is adequate to provide the required number of animals per year is required.

If the proposal involves the use of a new medication, assays, diagnostic testing, etc., justification and/or validation of their use as described in the proposal should be included.

**\*\*Sub-sections 5-7 should not exceed 2 pages total\*\***

**5. Expected Outcomes and Overall Impact**

Clearly state the expected outcomes of the research including the potential impact on current knowledge in the area and, if relevant, the clinical relevance of the research and how it will impact veterinarians and owners.

**6. Pitfalls and Limitations of Proposed Research**

This section should identify potential problems and demonstrate consideration for how the research methods will be modified to address problems if they are identified.

**7. Timetable**

Indicate sequence and schedule of experiments and reporting of study findings (e.g., case recruitment, when specific components of experimentation will occur, data analysis, manuscript preparation…). Be realistic in your goals. This may be presented in narrative or tabular format.

**Sections III-VII do not need to be double-spaced**

**Section III. Humane Treatment of Animals and client consent:**  If there are no live animals or client owned animals used in the study please indicate so. If live animals are to be used, please indicate where you are in the process of getting IACUC and/or CRRC approval.

**Section IV. Facilities, Personnel & Equipment:** Availability of necessary facilities, personnel and equipment to complete the proposed study should be documented.

**Section V. Cited References:** Include article titles, list all authors, and complete references to all publications.

**Section VI. Budget:** Presentation of the budget (including totals) is limited to 1 page and must be presented in tabular format (this does not apply to the narrative budget justification.)

* Examples of required information includes expenses for documented procedures, diagnostics, supplies, laboratory expenses, animal usage and housing, etc
* Clearly denote price for each item, number of items required and total price for that item/assay/diagnostic/etc
* An example budget is included at the end of the form; note that other categories may need to be added depending on your particular project.

**Section VII. Narrative Budget Justification:** Limited to 1 page

Items not justified may be deleted from the budget of an approved/funded proposal. Justify the cost of supplies, diagnostic or laboratory testing, publication costs, procedures, travel for research purposes and any included salaries (time on the project). Graduate student, faculty, and technician salaries cannot be included in budgets for DCS funding. Student worker salaries or Boehringer Ingelheim Summer Scholar stipends are accepted. No travel is funded through DCS budget unless it is required travel for sample collection or analysis.

**Example Budget Worksheet (include additional detail under each heading if applicable):**

|  |  |
| --- | --- |
| **Category** | **Total** |
| **Personnel:** |  |
| **Consumable Supplies:** |  |
| **Laboratory or diagnostic analysis** |  |
| **Animal Use & Care: (if applicable)** |  |
| **Other (if applicable)** |  |
| **Publication costs** |  |
| **Travel for research purposes** |  |
| **Total Requested:** |  |