

2020 ACVIM RESIDENT RESEARCH GRANTS

The intent of this funding mechanism is to provide a stimulating research experience for ACVIM residents by working with experienced research-scientist mentors. We encourage enrolled ACVIM residents to consider this opportunity to become engaged in research to improve animal health.

To apply for these grants residents must identify an established research mentor. First year residents are encouraged to apply. Second year residents may apply with a strong statement that outlines an achievable timeline for completion of research during the remaining residency period. Third and fourth year residents are not eligible to apply unless in an approved non-traditional residency program with completion date >1 year from application for resident award. Budget requests up to **\$10,000** will be considered. While residents are identified as the grant recipient, the mentor will assume fiscal responsibility for the project.

We are looking for clearly written projects that can be completed in one year with the expected outcome of a publication with the resident as first author and a scientific presentation of research at the ACVIM Forum or discipline-specific scientific meeting. **The Education and Research Committee and the ACVIM Board of Regents encourage applications from residents in private practice, and from private practice-University collaborations.**

Support for the ACVIM Resident Research Grant program provided by



The ACVIM is proud to partner with the Purina Institute to work towards our mutual goal of facilitating knowledge exchange, promoting collaboration and supporting the thought leaders of the future and their work to advance scientific research in veterinary care.

RESIDENT RESEARCH GRANT PROPOSAL GUIDELINES:

The proposal must consist of the items outlined in the task list to be considered a complete proposal.

1. **Title page**
 - a. Title
 - b. Name of resident applicant
 - c. Expected residency completion date
 - d. Name of research mentor
 - e. Department/Affiliation
 - f. Total funds requested
 - g. Specialty (drop down w/ our 5 specialties)
2. **Project summary** (300 word limit)
3. **Lay summary** (300 word limit)
4. **Body of proposal** (2,500 word- limit-approximately 5 pages)
 - a. Introduction/Justification
 - i. Rationale and Significance of the Problem
 - b. Objectives/hypothesis to be tested

- i. Preliminary data (if available). While not required, preliminary data is strongly encouraged.
 - c. **Experimental Methods and Design**
 - i. Include a clear statistical plan for data evaluation.
 - ii. Control group(s) and justification as to their appropriateness.
 - iii. When using client/patient material, justification that hospital admissions will support sample collection within a useable time frame.
 - d. **Timeline**
 - i. Include estimated date for project completion, including writing up and publication submission in relation to expected date of residency completion.
- 5. **References cited** (2,000 word limit - approximately to 4 pages)
- 6. **Plan for dissemination of results** (500 word limit -approximately 1 page)
 - a. Please describe how the results of this research will be communicated to the ACVIM membership, practicing veterinarians, and other stakeholders.
- 7. **Animal use justification**
 - a. For studies involving animals please include species, number of animals and USDA pain category for proposed procedures (<https://www.nal.usda.gov/awic/reducing-pain-and-distress>)
 - b. Power calculation to indicate sufficient numbers of animals included/justify animal numbers
 - c. Describe how pain and/or distress will be controlled
 - d. For non-client owned animals, please indicate what will happen to animals at the completion of the study
 - e. Include a copy of client consent form if client animals proposed
 - f. Please include status of **institution animal care and use committee** (IACUC) approval at institutions where animal care and use committees govern animal use. If the applicant institution **does not have an IACUC**, please provide the following documentation:
 - i. Provide a complete and accurate description of what procedures will be performed on/with the animals, including:
 - 1. Describe all procedures, their frequency and time points over the course of the experiments.
 - 2. Include how long the animals will be maintained. Include dose, route of administration and frequency of any drugs to be administered.
 - 3. Describe methods used in behavior studies (including use of noxious stimuli or other methods of positive or negative reinforcement).
 - 4. Please provide details of any surgical procedure, including anesthetic protocol and pain management.
 - 5. How are the numbers of animals justified? Include statistical power calculations if applicable.
 - 6. What are the potential study-induced or related problems the animals might experience (i.e. health problems, pain, distress, complications, etc.)
 - 7. How will pain/distress be monitored? Please provide specific clinical signs, frequency of monitoring and how animals will be monitored off hours.
 - 8. Explain what steps will be taken to alleviate pain and discomfort. Include drug, dose, route, and frequency.
 - 9. Please describe criteria for removing animals from the study protocol (i.e. at what point do pain/distress warrant removal from the experiment?)

Note: Grant funds will not be released until adequate IACUC documentation or the documentation that an IACUC approval is not required is received by the ACVIM office. Applicants are strongly encouraged to begin the IACUC application process when the proposal is submitted.

8. **Itemized budget and budget justification**
 - a. See budget form (below).
 - b. Note: ACVIM will not pay salary or tuition for residents or faculty. Salary requests for technical personnel permitted. Travel costs for collection of samples are permitted. However, travel for presentation at the ACVIM forum or other meeting should not be included. All materials, supplies and other costs must be documented and clearly justified.
 - c. Award money may NOT be used for indirect costs.

9. **Facilities and other resources**
 - a. Please document availability of necessary equipment and facilities to complete the proposed work
 - b. Include documentation of other essential resources (i.e., adequate clinical caseload, access to ultrasound, MRI, equipment, etc.)

10. **Biographical sketches for both resident and mentor(s) (3,000 word limit for each investigator)**
 - a. Use NIH format, do not include funding

11. **Current and pending funding for the research mentor**
 - a. Please include award sponsor, dates, amount and role in each project
 - b. Please address any overlap with the current proposal

12. **If you are applying or have applied for another ACVIM fellowship or ACVIM specialty grant, please list the name of the grant, the amount requested and the intended use of the award. (500 word limit)**

13. **Institutional Letter of Support**
 - a. Institutional letter of support should document that the resident will have adequate protected time to complete the proposed project (number of off clinic weeks, etc.) and that the resident and mentor will have access to the necessary resources.
 - b. Letter of support should come from the appropriate institutional personnel (i.e., Hospital Director, Department Chair). The institutional letter of support should be co-signed by the Residency Program Director to indicate the training program's support of the application and the resident's time off clinical duty to complete the proposed project.

INSTRUCTIONS FOR MENTORS:

The resident must name a research mentor, who together with the resident will be responsible for the planning, direction and execution of the project. The research mentor does not need to be the same as the clinical residency mentor. Letter of support from the research mentor must include the following:

1. **Mentoring plan (1-page limit)**
 - a. A detailed mentoring plan describing the nature of supervision and mentoring that will occur during the proposed award period. If more than one mentor is proposed, the respective areas of expertise and responsibility of each should be described. Co-mentors should describe clearly how they would coordinate the mentoring of the candidate.
 - b. Exceptional mentoring plans should address:
 - i. WHAT aspects of development would be targeted? For example, study design, manuscript preparation, patient management, ethical care of animals, scientific manuscripts.
 - ii. WHO will be responsible for each section or aspect of the mentees development?
 - iii. HOW (for example, time in the lab, visiting scholar, working with a statistician)?
 - iv. WHEN (in the set-up of the study, during regular meetings as the study progresses, after each case, times for manuscript writing and review)?

- v. WHERE (with the statistician, with a collaborating scientist, with primary mentor)?
 - vi. Include estimated date for project completion in relation to expected date of residency completion.
2. **Description of resident involvement in the major planning and writing of the current application** (1-page limit)
- a. If the project is a sub-project of mentor's research activities, please describe what is unique about this opportunity for this resident, how the experience will lead to a stand-alone publication and presentation for the resident, and what new techniques or methods the resident will learn as a result of the research experience.
 - b. What constitutes successful outcomes for the resident involved in this project (i.e. what are the measurable milestones/outcomes)?
3. **Description of research qualifications and previous experience as a research supervisor** (1-page limit)
- a. This section **MUST** include list of previously received ACVIM Resident Research Awards and outcomes of the project (Publications, Presentations, Current Position of Resident who worked on the Project and other relevant statement about general benefits gained by resident as a result of working on the project).
 - b. **Mentors/investigators who have not submitted an interim or final report for a previously completed ACVIM-funded fellowship, resident or research awards will not be eligible to compete for future ACVIM funding and are not eligible for this opportunity.**

SUBMISSION OF PROPOSALS

Proposals should be submitted electronically by 11:59 pm Mountain Time October 15, 2020. The Education and Research Committee will review all proposals. Please contact the ACVIM Office with questions regarding this application at Research@ACVIM.org or by phone at [800.345.9081](tel:800.345.9081) or [303.231.9933](tel:303.231.9933).

SELECTION CRITERIA

Members of the ACVIM Education and Research Committee will score proposals based on the scientific merit (10 points), potential impact of the research on the advancement of the specialty (10 points), qualifications of mentor(s) in support of the program (10 points), proposed training in research and professional development (10 points),

Proposals must score a minimum of 5/10 each category to receive funding.

Unfunded programs will receive feedback from the review committee as to how their proposals could be improved for the future.

ACVIM Policy for the Humane Treatment of Animals

The American College of Veterinary Internal Medicine believes that the use of animals in research is a privilege that carries with it professional, scientific, ethical and moral obligations. The ACVIM endorses the principles embodied in the "3 Rs" tenet of Russell and Burch (1959). These principles are: replacement of animals with non- animal methods wherever feasible; reduction of the number of animals consistent with sound experimental design; and refinement of experimental methods to eliminate or reduce animal pain and distress.

Based on these principles and beliefs, the ACVIM requires that all proposals have the approval of the appropriate regulatory group (ie: IACUC, Animal Ethics Committee) and report this approval to the Foundation prior to the release of funding. Every animal shall have compassionate care, comfort and protection from abuse and unnecessary pain and distress. Investigators shall also minimize stress and fear in animals. The ACVIM shall not fund health studies that require euthanasia as the study endpoint. The ACVIM considers euthanasia acceptable, with informed consent of the owner or responsible agent, if the disease or condition being studied or an unanticipated illness or injury results in pain and suffering in the animal which cannot be alleviated with standard methods. The ACVIM requires informed owner consent in all clinical/research trials. An informed owner consent form of acceptable standards must be approved by the ACVIM prior to funding.



Use of samples from biorepositories is acceptable in ACVIM-funded studies. The use of Institutional Colony Animals will be evaluated on a case-by-case basis, but at no time will ACVIM funds be used to purchase animals to be included in colonies. The ACVIM reserves the right to terminate funding of a study if progress is deemed unsatisfactory or if there are concerns about animal well-being.

Projects that involve the use of recombinant DNA, viral vectors, and / or radioactivity must be approved by the Institutional Biosafety Office of the institution where the work is to be done. A copy of the Institutional Biosafety Office approval must be provided in the event funding is awarded.

If the proposed project does not require IACUC or Institutional Biosafety approval, please include a statement that indicates that the proposed project is exempt and explains why.

I have read and agree that all research activities in the program will ascribe and adhere to the ACVIM's policy for Humane Animal Use

Signature of PI: _____

**COMMITMENT STATEMENT
2020 ACVIM Resident Research Award**

Title of Proposal: _____

Resident (PI): _____

Dept/Affiliation: _____

Expected Date of Completion of Residency: _____

Resident signature: _____

Mentor/Co-Mentors (Signatures): _____

Total funds requested: _____

BUDGET

Category	Year 1
<p><u>Personnel:</u></p> <p>1. Program director</p> <p>2. Co-investigators</p> <p>3. ...</p> <p>4. Technician Salary (X% effort) Fringe (Y% fringe rate)</p> <p>5. Student Assistant Salary Fringe benefits (Y%)</p> <p>Total Salaries & Wages</p>	<p>\$0</p> <p>\$0</p> <p>\$0</p>
<p><u>Supplies, Expenses & Travel:</u></p> <p>1. Materials and supplies <i>(please list individual supplies below)</i></p> <p>2. Laboratory charges <i>(please list individual charges below)</i></p> <p>3. Travel for sample collection or work/training in another laboratory**</p> <p>4. Other expenditures <i>(please list below)</i></p> <p>Total Supplies & Expenses:</p>	
<p><u>Animal Use & Care:</u></p> <p>Animal Purchase:</p> <p>Animal Per diem:</p> <p>Total Animal Care:</p>	
Total of All Categories:	

* Salary requests for principal investigators, residents and mentors not allowed. Please list proposed % efforts for these individuals. You may request salary for technicians and students. These requests must be clearly defined and justified in the following budget justification.

**Travel for collection of samples or to perform or learn techniques in a collaborating laboratory is allowable. Travel for presentations at scientific meetings is not allowed.

*** Award money may not be used for indirect costs.

ITEMIZED BUDGET JUSTIFICATION (1-page limit)

Personnel include percent effort and role(s) in the project

Materials and supplies

Laboratory charges

Travel

Other costs