

Donor-Inspired Grant Proposal

REQUEST FOR PROPOSALS: NOVEL CURATIVE OSTEOSARCOMA TREATMENTS FOR GIANT-BREED DOGS IN NORTH AMERICA: SEED AWARDS

PROGRAM SUMMARY

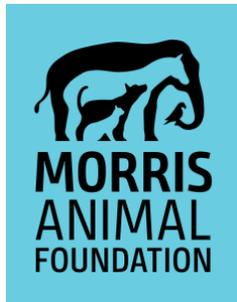
The mission of Morris Animal Foundation is to bridge science and resources to advance the health of animals. We fund hypothesis-driven, humane animal health research projects with high scientific merit and the potential for significant impact.

The Donor-Inspired Study program allows donors to directly support a research topic for which there is a pressing need. This request for proposals (RFP) is funded by a donor who lost her beloved St. Bernard dog to osteosarcoma. In memory of this very special dog, this donor is partnering with the Morris Animal Foundation to support research that will lead to curative treatments for osteosarcoma in giant-breed dogs, improving survival and quality of life.

This is the first phase of a two-stage process, with the donor strongly committed to finding a cure for this disease. This initial RFP will award seed funding to collaborative, interdisciplinary groups working on methods of treatment that have strong translational potential leading to clinical impact. Successful proposals will include innovative approaches that have not yet been funded or add significantly to research already in process; in both cases requiring establishment of technical merit and feasibility. These may include but are not confined to immunotherapies, vaccines, cell therapies and combination therapies. Precision medicine is a desired goal. Projects may encompass methods of early diagnosis, if appropriate. Academic/industry partnerships are welcome, provided there is both financial and in-kind input and recognition that Morris Animal Foundation contracts include royalty agreements.

Projects must be focused on clinical impact for St. Bernard dogs and other giant-breed dogs in North America. Only owners who have already opted out of amputation as a treatment option can enroll in the study. For ethical reasons, the decision to avoid amputation should have been made prior to the owner(s) being made aware of an enrolling study. Research studies targeting other breeds or other geographic regions will not be considered. Proposed use of laboratory animals in research studies will not be accepted under this RFP.

The maximum project duration is 18 months, and successful projects funded from this first RFP may be invited to compete for a larger, very significant award in a subsequent RFP, pending progress review. As a guideline, a budget in the region of \$125K is acceptable, but proposals under or over will also be reviewed.



MORRIS ANIMAL FOUNDATION POLICIES

Health Study Policy: Projects must adhere to the Foundation's [Health Study Policy for Animals Involved in Research](#). For this RFP, the Foundation will not fund projects that include euthanasia of animals for research purposes, nor source data and/or samples from such projects. Proposals recommended for funding by scientific reviewers are reviewed separately by animal welfare and ethics experts prior to funding.

Parachute Science: Projects that include international collaborations should address international scientific engagement and benefits and include a named Principal Investigator or Co-Investigator in the country where the research will occur. The Foundation endeavors to achieve our objectives through ethical pathways and with the clear intention of inclusivity, diversity, and the elimination of the practice of parachute/colonial science.

COVID-19 Considerations: Research plans must include mitigation strategies for operational risks posed by the ongoing COVID-19 pandemic. Alternative strategies for travel restrictions, pandemic related mandates, supply shortages, etc., should be included in the proposal.

Environmental Policy: Consideration should be given to reducing detrimental effects of research projects on the environment. Travel requests should be limited and well justified with respect to the project objectives. We encourage means of transportation with the lowest possible carbon emissions.

APPLICANT QUALIFICATIONS

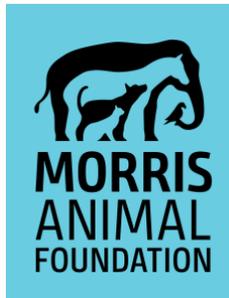
Competitive applicants will have a record of research expertise demonstrated through peer-reviewed publications. A maximum of one application as Principal Investigator (PI) or Co-Investigator in response to this RFP is permitted.

PROPOSAL CRITERIA

Resubmissions of prior proposals to the Foundation are not permitted without explicit permission. If an Investigator submits an uninvited resubmission, they may be penalized from re-applying for up to two years. Contact grantapplications@morriscaninalfoundation.org with any questions.

APPLICATION PROCESS

Submit applications at maf.fluxx.io. The application process includes completion of the online form and proposal attachment.



REVIEW PROCESS

All proposals submitted to Morris Animal Foundation in response to this RFP will undergo administrative and scientific review. Administrative review includes ensuring the proposal follows guidelines and instructions. Scientific review is conducted by two Scientific Advisers and will then be scored by the entire Scientific Advisory Board according to [this rubric](#). Projects recommended for funding are reviewed by Morris Animal Foundation's [Animal Welfare Advisory Board](#) for adherence to our [Health Study Policy for Animals Involved in Research](#).

PROPOSAL GUIDELINES

Carefully review and adhere to these proposal guidelines. Guideline deviations may result in disqualification of your proposal.

Proposal Format: use this [proposal template](#) to complete your proposal. Do not remove any headers or sections. Indicate “not applicable” if a section or question does not apply.

Use 11-point font (Times New Roman or Arial preferred), single-spaced lines and ¾-inch margins. Define technical terms and acronyms on the first use. The complete proposal, including attachments, must be converted to a single PDF prior to submission.

Proposal Outline:

- A. Lay Abstract** (2,000-character limit): This information may be used in communications with the public to showcase your project or shared with potential funders. Lay language should be used, and we require a Flesch Reading Ease Score of 50-70 (determine your score [here](#)). This should not be a duplicate of the technical abstract (below).
- B. Technical Abstract** (2,000-character limit): For review by Foundation staff and the Scientific Advisory Board.
- C. Title Page** (one page): Include the proposal title and name, and institution and email address of the PI and all Co-Investigators.
- D. Research Proposal** (5-page limit including figures, tables and all sections below): Note that “not applicable” is not a sufficient response in section D.
 - i. **Hypothesis and Objectives:** Enumerate specific, testable hypotheses with feasible objectives for the timeline and budget.
 - ii. **Problem Description and Significance:** Include a brief literature summary and preliminary data (if applicable) that describes the current state of the problem and justifies the need for the proposed study.
 - iii. **Study Design and Methods:** Include the experimental design and methods for each objective. Data analysis methods must also be described.
 - iv. **Possible Risks and Mitigations:** Identify potential shortcomings of the design and methods, or possible operational challenges for the project. Address how the project team will address these issues.



- v. **Animal Health Impact** (approximately one page): Impact is vitally important to our donor-supported organization. We may decline proposals where impact is incompletely addressed, particularly those lacking in impact beyond the scientific community. Scientifically robust studies in which non-academic and broader impact are integral to the study design will have the highest chance of success.

Scientific impact, including impact beyond this research field. Key questions include:

- Why is this work integral to the welfare or longevity of the giant breed dogs with osteosarcoma?
- Is this project likely to make a rapid contribution to solving a problem or addressing a key knowledge deficit that is obstructing progress?
- How likely is it that the findings will have an impact beyond the period of this award?
- Is there potential for wider impact e.g., for other scientific fields, animal populations, species, or geographic regions?

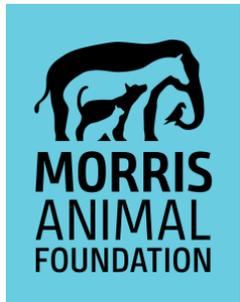
Non-academic impact, including stakeholders and beneficiaries. Key questions include:

- Who might be interested and who might benefit from it?
- What are the needs of these stakeholders and how were these identified?
- Will stakeholders be involved in project design, execution, preparation of training and/or dissemination of results? Have any been included as applicants?
- If applicable, describe the extended impact this work may have on the environment, policy, human behavior, industry, economics or public awareness.

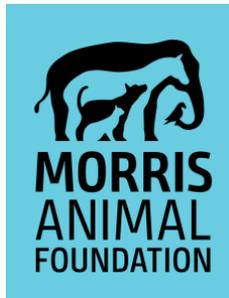
If applicable, have connections with policymakers been established? Is there an engagement activities and outputs plan (knowledge exchange activities)? Engagement beyond academic/scientific communities will substantially strengthen your proposal. Key questions include:

- What time and effort will be committed to these activities? Please include in the budget and timeline below if appropriate (section H).
- Who do you propose to engage with and how? Include letters of support if applicable.
- How will the success of engagement activities be evaluated?
- What experience do the applicants have with non-academic engagement, and/or what training or other resources are available?

- E. Sample Size Calculation** (no page limit): use the Sample Size Form from the [proposal template](#) as applicable.
- F. Animal Involvement Justification (AIJ) Form** (no page limit): Use the AIJ form from the [proposal template](#), regardless of live animal involvement. This form is required.



- G. Recombinant DNA/Biohazards/Biosecurity Measures** (no page limit): Applicants using recombinant DNA techniques must confirm that they have complied with National Institutes of Health guidelines for this technology and that they have approval from their institution's Biological Safety Committee to conduct the proposed research if it is funded. Also indicate any other potential biosafety concerns, including the use of radiation. Describe biosecurity measures that will be put in place to protect humans and animals from transmissible disease and biological agents.
- H. Facilities and Equipment** (1-page limit): Describe facilities and equipment available to conduct the proposed research. Include resources available at the PI's institution and sub-contracted or fee-for-service resources needed to complete the research.
- I. Cited References** (2-page limit): Include citations referenced numerically in the proposal.
- J. Budget** (1-page limit): Use the budget form in the [proposal template](#). The maximum project duration is 18 months and no indirect costs are permitted under this RFP. As a guideline, a budget in the region of \$125K is acceptable, but proposals under or over will also be reviewed.
- i. **Salary:** Include salary for each person's time spent on the project as "% project appointment". Identify each person's project role. Also include the fringe benefit rate for each person, to calculate total personnel costs. If salary for time spent on the project will not be charged to the project (in-kind contribution), list the % project appointment as "0%" on the budget form. If a contributor's salary is covered 100% by institutional or company sources, do not request salary support. Please keep in mind the international nature of our Scientific Advisory Boards in terms of providing justification that can be clearly understood.
 - ii. **Equipment:** Requests for equipment purchase may not exceed \$5,000 for the entire project.
 - iii. **Travel:** Requests for travel to scientific meetings must be well-justified in terms of environmental and scientific impact and should not exceed \$2,000. Travel needed to complete research objectives should be budgeted separately. Travel must be essential; resources or activities that provide alternatives are preferred. Possible ongoing disruptions to travel due to COVID-19 should also be considered. For international project teams, activities should be conducted wherever possible by teams and/or collaborators already in-country.
 - iv. **Other Project Expenses:** Briefly categorize other project expenses. Examples include laboratory or clinical consumables, reagents, non-equipment study supplies and service fees for specimen analysis.
- K. Budget Justification and Project Timeline** (2-page limit): Use the budget justification form in the [proposal template](#). Use the project timeline to demonstrate how the research objectives will be completed in the timeframe requested. Include data analysis time and manuscript preparation time.
- L. Other Support** (no page limit): Identify active or pending support for the PI and all Co-Investigators. Overlap, whether scientific, budgetary or commitment of an individual's effort greater than 100%, is not permitted. Submissions to other funding sources should not duplicate this project unless we have already officially declined to fund it. Provide the following information for all current and pending support.
- i. **Project ID, Funding Source, Funding Start and End Dates**
 - ii. **Project Title**



- iii. **Overlap:** If any scientific, budgetary or effort overlap might be perceived, explain why no overlap exists.
 - iv. **Summary:** Summarize project objectives and results to date
- M. Biographical Data** (2-page limit per person): Include a biosketch for the PI and each Co-Investigator with the following information:
- i. **Name, Role on this Project**
 - ii. **Current Position** (title, institutional affiliation, institutional address)
 - iii. **Education and Training** (degrees, institution, year completed, areas of emphasis)
 - iv. **Previous Positions, Honors, Awards, Committee Assignments**
 - v. **Selected Peer-reviewed Publications**
- N. Letters of Support:** Include a letter of support from any collaborator, funding agency, policymaker or commercial partner whose contributions are required to achieve the research objectives described in the proposal.