



Donor-Inspired Study

REQUEST FOR PROPOSALS: INTERACTIONS BETWEEN MITOCHONDRIAL FUNCTION AND CHRONIC DISEASES IN DOGS OR CATS

PROGRAM SUMMARY

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

The Donor-Inspired Study program allows individuals or organizations to directly support a research topic for which there is a pressing need.

We are pleased to announce we are accepting proposals for the study of interactions between mitochondrial function and chronic diseases in dogs or cats. Such diseases might include cognitive dysfunction syndrome, renal disease, unresponsive atopic dermatitis and dilated cardiomyopathy; although any diseases where mitochondrial dysfunction may play a role are of interest. Successful applications will focus on connection of mitochondrial energy function at the cellular level with systemic wellness. Wellness should be interpreted broadly, inclusive of behavior, energy, appetite and emotional (affective) states. Ideal applications will involve collaborations between biomedical research groups who are already established in the field of mitochondrial biology, and disease and veterinary researchers/clinicians. Approaches must be noninvasive, and laboratory animal models are not of interest. We will not accept off-topic proposals.

Samples from Morris Animal Foundation's Golden Retriever Lifetime Study may be made available to relevant projects. This is a longitudinal study established in 2012 with a cohort of 3,044 dogs at full enrollment in 2015. Dog owners and their veterinarians complete annual questionnaires, clinical examinations and sample collection. Samples available are whole blood, serum and urine. While the Study was established to determine risk factors for major cancers, the data and samples can be used to explore many other aspects of canine health. Applicants wishing to obtain access must contact us for pre-approval prior to preparing a proposal, as there is a necessity to determine whether there are sufficient samples for the disease(s) of interest. Please contact grantapplications@morrisanimalfoundation.org.

The maximum project duration is 36 months, and the budget cannot exceed \$150,000 USD. Indirect costs are not permitted for this RFP.



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@morrisanimalfoundation.org with any questions.

APPLICATION PROCESS

Submit applications at maf.fluxx.io. The application process includes completion of the online form and proposal attachment. Both the Principal Investigator and the individual submitting the application (if different from the Principal Investigator) must create an account before applying for funding. Your account must be reviewed and validated by Morris Animal Foundation, which may take up to two business days, so please plan to create an account several days prior to the proposal deadline. For details on how to create an account and submit an application, view our [Fluxx Applicant User Guide](#).



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 Summary** (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 Summary** (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** (five-page limit including figures, tables and all sections below): Note that “not applicable” is not a sufficient response.
 - 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 health span of dogs or cats
- 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** (one-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** (two-page limit): Include citations referenced numerically in the proposal.
- J. Budget** (one-page limit): Use the budget form in [the proposal template](#). The maximum project duration is 36 months, and the budget cannot exceed a total of \$150,000 USD. No indirect costs are permitted.
- 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. **Tuition:** Morris Animal Foundation does not pay for tuition.
 - iii. **Equipment:** Requests for equipment purchase may not exceed \$5,000 for the entire project.
 - iv. **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.
 - v. **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** (two-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** (two-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.