**Follow the specified page limits throughout this application. The blue italicized directions guide you to include content used throughout the scientific review process. Not all instructions are relevant to each application; remove them before submitting. Format the application in Arial or Times New Roman, 11 or 12 pt., with 1-inch margins.**

*\*\*\*The Table of Contents (TOC) is already linked to the Headings within the template using the Microsoft Word Reference functionality for your convenience. However, feel free to delete and create your own TOC if you are unfamiliar with this functionality or have difficulty generating your desired TOC results. \*\*\**

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# Scientific Abstract

*250 word limit*

*Provide a clear, concise summary of the aims of proposed work and how they relate to long-term goals. State the hypothesis to be tested.*

# Study Proposal

*Items A through H. Limit to 12 pages for Oak Proposals or 8 pages for Acorn Proposals Be succinct.*

## Statement of Purpose/Hypothesis/Objectives

*Specific objectives must be different from ongoing or pending research.*

*• What is the problem and how common is it?*

*• What is new and valuable about this approach?*

*• What is the testable hypothesis?*

*• What are the Specific Aims, and how do they test the hypothesis?*

*• What is the definition of success for the study?*

*• If successful, what are the short- and long-term impacts on canine health?*

*• How does (or might) this work fit into a more extensive research program (if applicable)?*

## Background of Proposed Research

Significance to Canine Health:

*• What is the prevalence of the disease/health issue in specific breeds or the general canine population? If unpublished, including data from your institution is encouraged.*

*• Letters from supportive breed clubs or breed foundations are strongly encouraged.*

*• What is the potential impact of the study? Will the study results lead to a change in general or specialty practice? Will it lead to a change in our understanding of disease pathogenesis? Will the study have a significant impact on a rare problem or a lesser effect on a common problem?*

Justification and Literature Review:

*• Review current relevant literature. Use the literature to substantiate the problem, identify gaps in current understanding, and contextualize the need for the study. The review should be focused rather than comprehensive and include the most recent relevant publications in the field. Highlight investigator's contributions in the field. Include comparative medicine and potential One Health impact as appropriate.*

## Preliminary Studies

*• Describe preliminary studies that support the hypothesis. Data should be presented in a table, figure, or diagram with an explanatory legend whenever possible.*

*• Indicate if previous CHF funding was used to generate preliminary data.*

*• For pilot studies lacking preliminary data, briefly describe work related to the proposed research that will help establish the experience and competency of the investigators.*

## Experimental Methods and Design

*• Describe how each objective will be executed. The overall strategy, methodology, and analyses should be well-reasoned and appropriate to accomplish the project’s specific aims. Alternative methods should be presented when relevant. Create a comprehensive flow chart of your approach, if applicable.*

*• Describe the source of any investigational product. If a drug or biodevice that is not FDA approved or cleared is used (e.g., a compounded drug), provide assurance of purity, potency, safety, and stability.*

*• Relevant details of analytical procedures and assays should be given, including assurances that techniques are appropriately validated for use in the study. Statistical methods used to analyze data should be described. Make sure to describe all controls and how they serve as a standard for comparison within the experiment.*

*• Indicate benchmarks that will be used to evaluate successful progression of the study and how study progression may be amended if needed*

*For clinical studies or trials, include the following:*

*• Basic study design, including the groups being compared. If no control group is used, the rationale should be stated. Indicate whether the study is prospective or retrospective; case-control; superiority, non-inferiority, equivalence; cross-over; or longitudinal.*

*• Sample size in each group. Sample size calculations should be presented for at least the primary endpoints. Results of the power calculation should be given.*

*• Inclusion and exclusion criteria for study subjects and the control group, presented as a table whenever possible. If the requirements may create biases, describe how the biases or confounders will be prevented or controlled.*

*• Randomization to treatment and how bias will be controlled in outcome assessment. Is the study unblinded, single-blinded, or double-blinded? What are methods to blind owners and investigators to dogs’ inclusion in specific treatment groups?*

*• Outcome measures that will be assessed. Describe comparisons to be made, and identify primary and secondary outcome variables. If the variation is estimated, describe and justify the assumptions made. If there will be interim outcome analyses, describe the time points for those analyses.*

*• Statistical methods used to compare groups for primary and secondary outcomes. Include software that will be used. It may be helpful to include a table of the variables, timepoints, and comparisons that will be made, stating which methods will be used to perform analyses.*

*• Recruitment strategy and expected retention plans for studies requiring participation of samples from client-owned dogs. Document that the institutional caseload is adequate to provide the number of animals per year needed to complete the study as proposed. What recruitment tools will you use? State measures that will be taken if recruitment goals are not met and when they will be implemented.*

*All methods outlined in the proposal must adhere to the Foundation’s* [*Humane Use of Animals policy.*](https://www.akcchf.org/assets/files/Humane-Use-of-Animals-Policy.pdf) *The source of participating client-owned dogs or samples should be clearly stated. Participating dogs must have owner consent.*

## Anticipated Problems and Obstacles

*• Anticipated problems, obstacles, and mitigation measures should be carefully discussed. Typical issues might include, but are not limited to, personnel turnover, recruitment shortfall (actual number of disease presentations is lower than expected, lack of referrals, strict inclusion criteria reduce eligible cases, etc.), owner reluctance to participate due to multiple visits, loss to follow-up, sampling, or other reasons.*

*• Describe how your approach would change if benchmarks are not reached, or methods do not work. What alterations would be made to respond to technical problems that arise?*

## Expected Outcome, Significance, and Application of Findings

*• How would this work answer the research question(s)? What outcome(s) would make this study successful? What are the next steps in the larger research program? Would this outcome change current methodology, the practice of clinical medicine, or shift the scientific paradigm? How will the expected outcome of this proposal advance canine health?*

*• Include plans for data sharing, including results database, pre-print repository, publication, conference presentation, webinars, etc.*

## Key Personnel/Consultant/Collaborators

*• List the key personnel, consultants, and collaborators who will be assisting on the project.*

*• State the role that each individual will play in the project.*

*• For clinical trials and studies generating large data sets, it is strongly recommended that a statistician be included; for epidemiological studies, it is strongly recommended that an epidemiologist be included; for bioinformatics studies, it is strongly recommended that a bioinformatician be included.*

*• Biosketch attachment is required for each person listed under Key Personnel.*

## Timetable

*• Present a reasonable timeframe of work as a diagram or table. Include major milestones, dates by which they should be achieved, and time for data analysis. Indicate how these relate to Specific Aims. Describe how this timeline may be altered if the work does not progress as planned.*

*• Identify who will be responsible for each task.*

# Facilities and Research Environment

*1 page limit*

*Describe the facilities and necessary equipment needed to perform the proposed study. Describe the capability of any commercial laboratory or contractor that will be used.*

# Institutional Animal Care and Use Statement & Informed Client Consent

*250 word limit*

*Since CHF has restrictions on dogs used in research, please clearly indicate where the participating dogs and/or samples will be obtained. Participating dogs must have owner consent. A sample of your Informed Client Consent form* ***must be attached*** *to the end of the application.*

*Please visit our website to view our* [*Humane Animal Use Policy*](http://www.akcchf.org/assets/files/Humane-Use-of-Animals-Policy.pdf)*. Specific animal treatment protocols must be included in the Experimental Methods and Design.*

*For studies requiring participation or samples from student or staff-owned dogs,* ***a letter of assurance from a department head or institutional official must be included*** *attesting to acceptability of the project and demonstrating how coercion has been minimized on behalf of students and staff (see Humane Use of Animals policy section 8b for more details).*

Status of your IACUC protocol: 🞏 Approved 🞏 Submitted 🞏 n/a

Date of Approval: \_\_\_\_\_\_\_\_\_\_\_ Date of Expiration: \_\_\_\_\_\_\_\_\_\_\_\_\_

# Biosafety Concerns

*250 word limit*

*Indicate if there are any potential biosafety concerns including recombinant DNA, radiation, infectious agents, and other hazardous biological agents and toxins.*

# Budget Justification

*Please use this space for detailed budget justification. Itemized budget pages are attached to your application form as a separate template.*

*Salary for technicians, residents, undergraduate or veterinary students and postdoctoral fellows should be detailed regarding percent time commitment to the project. Please visit our website for eligibility requirements including breakdown of salary requests allowed for graduate students. CHF does not pay for tuition, or salary for faculty with full-time appointments.*

*Requests for salary for faculty with less than full-time appointments must be clearly justified and include an institutional letter to that effect.*

*Travel expenses required to complete the project should be clearly justified (sample procurement, presentation of research results at scientific meetings). Expenses for travel to scientific meetings are limited to $2,000.*

*To ensure funds are used for research, it is not AKC CHF’s position to incur indirect costs on sub-awards as a direct cost of the award.*

# Ongoing/Pending/Previous Research Support

1. *List all previous or current CHF funding including grant number and title. Under each, list publications (included manuscripts submitted or in press) that directly resulted from and acknowledged the CHF funding.*
2. *Provide a brief description of other related ongoing or pending research support by project title, funding source and amount approved or requested.*
3. *If the manufacturer of the drug or technology may benefit financially from the results of the study, indicate their contribution to the study.*

# Acknowledgement of Permission

I *[Applicant/PI Name]* grant permission for this application to be submitted to reviewers as confidential information in accordance with the policies of the Foundation.

# Attachments:

## [Abstract Page (Required)](http://www.akcchf.org/assets/files/AKC-CHF-Proposal-Abstract-Page.docx)

## [Signature Page (Required)](http://www.akcchf.org/research/application-process/application-templates/Signature-Template.doc)

1. Budget Template (Required) ([Excel](https://www.akcchf.org/research/application-process/application-templates/Budget-Template.xlsx) - preferred); ([Word](https://www.akcchf.org/research/application-process/AKC-CHF-Budget-Template.docx) - if needed) **ONE SHEET PER BUDGET YEAR.**

## [COMBINED Biosketch(es) of Key Personnel (Required for all personnel listed in proposal)](http://www.akcchf.org/research/application-process/application-templates/Biosketch-Template.docx)

## Literature Cited (Required)

## [Industry Involvement Disclosure (Required)](http://www.akcchf.org/research/application-process/application-templates/Industry-Involvement-Disclosure.pdf)

## Letters of Support (Optional)

## Informed Client Consent Form (If Applicable)

## Letter of Assurance for Use of Staff/Student Dogs (If Applicable)

## Example of Survey (Re quired, if survey included in proposed project)

## Letter of Institutional Appointment (If Applicable)

## Response to Reviewers (Resubmission Only)