

UHMS RESEARCH GRANTS

INSTRUCTIONS

INTRODUCTION:

Undersea and Hyperbaric Medical Society (UHMS) physicians, scientists, nurses, and other personnel are encouraged to submit research and development proposals to the UHMS Research Committee for funding consideration. Applications for funding will only be considered for research in diving and hyperbaric medicine. The process for submission and review of proposals will be described below. The grant application is available from the UHMS website, www.uhms.org.

APPLICATION PROCESS:

Completed grant applications must be submitted electronically (via email) to the UHMS (electronic submission allows for fast, convenient distribution to Research Committee Members for scoring). In addition, pages 1 and 3 must be printed out, signed, and mailed to the UHMS, along with any appendix materials. Once a full application has been received (email and mail portions), the UHMS will record the submission and forward the research application to the Chair of the UHMS Research Committee. If the Chair of the Research Committee finds the research application to be complete, he or she forwards the application to another individual for critical review. This reviewer may, or may not be a member of the research committee, but is selected because of expertise in the subject matter of the research proposal. Comments from this anonymous review are returned to the research applicant. The researcher then has an opportunity to resubmit a revised research application to the Chair of the Research Committee. This revised research proposal is subsequently distributed to all members of the research committee for priority scoring and review. The average scores from all submitted applications for the particular submission cycle are forwarded onto the UHMS Research Foundation. The Foundation determines the number of proposals to be funded per funding cycle, and to what amount. Presently, the UHMS offers one research application cycle per year.

SCORING:

During the application process, each member of the Research Committee will review each grant application and give each a numeric "priority" score, ranging from 1.0 to 4.0 (1 is best, 4 is worst), according to the guidelines below. These individual scores are averaged. The average score and comments from committee members will be reported to the Principle Investigator. The Research Foundation of the UHMS will make the final funding determination. Traditionally, projects that score above a 2.0 are not considered for funding.

1.0 - 1.9: Outstanding

2.0 - 2.9: Good

3.0 - 4.0: Fair

APPLICATION GUIDELINES:

The following criteria must be met before a grant application can be considered for funding:

- A. The Principal Investigator (PI) must be an active (regular, emeritus, or associate) member of the UHMS. Students will not be considered as PI's.
- B. Only proposals requesting funding for one year or less will be eligible.
- C. Research utilizing human or animal subjects must be approved by the appropriate committees of the PI's institution (with approval letter included as an appendix) prior to beginning the outlined study. Studies involving humans must also include submission of an appropriate consent form.
- D. Research questions, and/or hypothesis or hypotheses, should be identified explicitly in the context of the proposal.
- E. The Research Committee will not provide funds for loans of any type.
- F. Applications are strongly encouraged to include a statement of plans to attract long-term and/or additional future funding.
- G. Funding provided by the Undersea and Hyperbaric Medical Society must be acknowledged upon presentation of research, (i.e. publication or formal presentation).
- H. The UHMS will not fund:
 - purchase of computer equipment
 - travel expenses for researchers
 - publication costs
 - overhead expenses
- I. Funding is limited to \$5,000.00.
- J. The application must be submitted via email to uhms@uhms.org, and by mail to UHMS, 21 West Colony Place, Suite 280, Durham, NC 27705. The mailed copy must include a signed face sheet, signed Helsinki Form, and any appendix materials. The appendix materials may also be submitted electronically, if they need to be reviewed by the Research Committee during the scoring process.

RESEARCH PROPOSAL TIMELINE:

- **Dec 1** Deadline for submission of grant application to the UHMS (email and print copies). Upon receipt, the application will be reviewed for format and completeness. If the application is found incomplete, it will be returned to the Principal Investigator without review. The application may be amended and resubmitted for the next funding cycle, if the December 1st deadline passes. A satisfactory application will be assigned to a primary reviewer.
- **Jan 1** Deadline for anonymous reviewers to complete the initial review. The reviewer's comments will be sent to the PI by email (for timely revision of the grant application) and by mail (for the record).
- **Feb 1** Deadline for Principle Investigator to respond to reviewer's comments and resubmit revised grant proposal to the Chair of the Research Committee. The revised grant proposal is then forwarded to all members of the Research Committee.
- **Mar 1** Deadline for Research Committee members to submit their scores and comments to the Chair of the Research Committee. The individual scores are averaged and submitted in rank order to the Chair of the UHMS Research Foundation, and to the Executive Director of the UHMS.
- **Mar 15** Chair of the Research Committee notifies each Principle Investigator of his or her score.
- **Apr 1** Allocation of funds to the grant financial officer as guided by the UHMS Research Foundation and notification of Principle Investigators receiving funding. The Principle Investigator must sign a grant contract and return it to the UHMS Research Foundation before the funds can be disbursed.

- **One year after** allocation of funds Submission to the Chair of the UHMS Research Committee of study summary abstract and progress.

SPECIFIC INSTRUCTIONS:

The grant application is in PDF format. This format is universally viewable by downloading the free Adobe Acrobat Reader software at www.adobe.com, and ensures that the grant application the PI submits is identical to the grant application the Research Committee members will review. The type is set at Times New Roman, 12 pt, and the space provided for each section is adequate, but within the limits set by the grant application guidelines. To complete each section of the grant application, simply use the mouse to click next to, or below, each section heading. Check boxes may be checked or un-checked by using the mouse to click inside the check box.

SECTION 1:

Item 1 Title of Project. Choose a title that is descriptive and specifically appropriate, rather than general. Do not exceed 60 characters, including the spaces between the words and punctuation.

Item 2 Abbreviated Title for Accounting Purposes. For expedition in making financial transactions, choose a title that will provide the Accounting Department easy access to your computerized record. Do not exceed 30 typewriter spaces, including the spaces between words and punctuation.

Item 3 Name of Principal Investigator. Name the one person responsible for the scientific, technical, and fiscal direction of the project. Include department, organization, mailing address, telephone, fax, and email in the appropriate areas as indicated.

Item 4 Direction of Funding. Please indicate the individual or institution to whom funding should be directed. Include department, organization, mailing address, telephone, fax, and email in the appropriate areas as indicated.

Item 5 Human Subjects. If activities involving human subjects are not planned at any time during the proposed project period, check the box marked "NO." If activities involving human subjects are planned during the proposed project period, check the box marked "YES." To insure against delays in the review of the application, IRB review by the PI's institution is best completed prior to submission of the application. However, if the IRB review is unavoidably delayed beyond the submission of the application, enter "pending." A follow-up certification of IRB approval must be sent to the UHMS prior to onset of the study. A copy of the participant's consent form must also be submitted. Funding will not begin until this documentation is provided. Any modifications to the Research Plan section of the application required by the IRB must be submitted with the follow-up certification.

Item 6 Vertebrate Animals. If activities involving vertebrate animals are not planned at any time during the proposed project period, check the box marked "NO," otherwise mark "YES," and indicate the Institutional Animal Care and Use Committee approval date. A policy similar to item 5 also applies to projects requiring IACUC approval.

Item 7 Dates of the Entire Proposed Project Period. Indicate start date and anticipated completion date. Request no more than 12 months for the entire proposed project period.

Item 8 Amount Requested. Enter the sum of the total costs that appear on page 4 of the grant application form.

Item 9 Other Funding Source(s). Indicate whether this proposal is currently receiving, or has previously

received, funding through internal funding sources, (i.e., Cancer, Heart/Lung Institutes), or from an external funding source (i.e., Corporations, NIH). Also, if applicable, anticipate sources of future funding.

Item 10 Signature of Principal Investigator and Date. Sign and date the printed copy of the grant application, then mail it to the UHMS at 21 West Colony Place, Suite 280, Durham, NC 27705.

Declaration of Helsinki. The principal investigator and all co-investigators must sign this form, stating that the research to be undertaken will adhere to the Declaration of Helsinki.

Description/Abstract. Follow instructions on page 4 of the application. Remember to state the hypothesis addressed, outline the objectives of the project, and the specific activities or methods to be used to meet the stated objectives.

Specific Aims. Follow instructions on page 4 of the application.

Detailed Budget. Please note that the subtotals and grand total on this page calculate automatically.

Salary. List all individuals, salaried or not, including the principal investigator, who will participate in scientific development/execution of the project. For each individual, include their role in the project, percentage of time, and requested salary. Begin with the principal investigator and include each person's department or organization. Calculate salary as follows: Monthly Salary + Benefits X Percent of time given to project
X Number of months involved in project = Total amount requested

Equipment. List separately each item of equipment requested for this study, and its cost.

Supplies. Itemize supplies requested for this study, and their costs.

Other Expenses. Specify and itemize other expenses. It is recommended that consideration be given to budgeting for special needs, such as data analysis.

Budget Justification. Provide detailed information on the responsibilities of all personnel for whom salary support is requested. Follow instructions on page 6 of the application.

Resources and Environment. Complete each section as requested. Do not exceed the space provided.

Major Equipment. Do not exceed the space provided.

Additional Information. Do not exceed the space provided.

SECTION 2:

Observe the page limitations, but include sufficient details to facilitate an effective review. Be specific and informative; avoid redundancies.

Background and significance. Briefly sketch the background of the present grant application, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill. State concisely the importance of the research described in this application by relating the specific aims to the broad, long-term objectives. (Limit to one page.)

Experimental design and Methods. Discuss in detail the experimental design, procedures and protocols to be

used, and the means by which the data will be analyzed and interpreted. Describe any new methodology and its advantage over existing methodologies. Discuss the potential difficulties and limitations of the **criteria that will be used to determine if feasibility has been demonstrated**. Point out any procedures, situation, or materials that may be hazardous to personnel and the precautions to be exercised. Include two statistical subsections: data analysis and sample size. In the subsection on data analysis, include: 1) A clear statement of the major hypotheses in statistically valuable terms, 2) The statistical methods by which the hypotheses will be tested, including the significance level (usually a two-tailed 5% significance level), and 3) A summary of descriptive and other analyses to be performed. Specify how statistical assumptions such as normality will be checked. In the subsection on sample size, include a discussion on how the sample size was determined and why it will be adequate to the purposes of the study. Although not every study will have the standard 90% power to distinguish clinically important effects at a two-tailed 5% significance level, even feasibility studies require justification of why the proposed number of subjects or animals is adequate. (Do not exceed five pages.)

UHMS Impact. State the impact your project will have to the UHMS and/or hyperbaric and undersea medicine, i.e., improved quality, cost savings, patient care, staff time, ownership and access of databases, or commercial applications. Also, present a plan that will assure, to the greatest extent possible, that you will be able to maintain this new program after the grant has been completed. (Do not exceed one page.)

Literature Cited. Each literature citation must include the names of all authors, the name of the book or journal, volume number, page numbers, and year of publication. Citations in the reference list are to be in the form used by the US National Library of Medicine and *Index Medicus* (see instructions for authors in *Undersea and Hyperbaric Medicine*). (Limit to two pages.)

SECTION 3:

Biographical Sketch(es) of Investigator(s). For the principal investigator and each coinvestigator, include a brief biographical sketch. (Do not include personal information on CV's.) (Limit to one page per investigator.)

SECTION 4:

Appendix. Appendix materials may include, if applicable: consent form, IRB approval letter, IACUC approval letter, information on other areas of funding, letters of support, and background non-published information. Mail appendix materials to the UHMS, 21 West Colony Place, Suite 280, Durham, NC 27705.

The appendix materials may also be scanned in and submitted electronically, if they need to be reviewed by the Research Committee during the scoring process.