GUIDELINES FOR PREPARING RESEARCH PROPOSALS

Each application should have at least one investigator from the Faculty of Medicine and one or more investigators (s) from any of the other 5 Faculties at AUB. One should serve as the Lead Principal investigator (Lead-PI). A Co-Investigator is someone making a significant contribution to a project. All PIs and Co-investigators should review the proposal and indicate their agreement to serve by signing on the online submission system. The application will not be processed if all signatures have not been collected. It is the responsibility of the LEAD PI to ensure the timely collection of all electronic signatures.

The following is a list of items that should be covered in a research proposal, and the recommended length of each section. **Sections 2 through 6 should not exceed 10 pages.**

1. **Abstract:** (up to 350 words).
   Briefly: state the background, rationale, and aims of the project; describe the methodology and the analysis of data; and state the significance and relevance of the project.

2. **Specific Aim(s):** (up to 1 page).
   Enumerate and describe concisely the specific research objective(s) of this application. Emphasize the specific hypotheses to be tested.

3. **Background and Significance:**
   Describe the background to the present proposal, critically evaluating the existing knowledge on the topic, and specifically identify any gaps in knowledge the project is intended to fill. Describe the goals and objectives that the project intends to achieve. State the importance and relevance of the proposal to health care and medical sciences.

4. **Research Design and Methods:**
   Describe the research methods and procedures to be used to accomplish the specific aims of the project. **Comment critically on them.** This section should include, where appropriate:

   a. The specific data to be collected (the parameters to be measured).
   b. The means by which the data will be collected, analyzed and interpreted.
   c. A description of surgical procedures.
   d. The protocols of drug dosage regimens.
   e. The number of subjects per group, and its justification.
   f. A description of any new methodology and its advantage over existing methodologies.
   g. A discussion of potential difficulties and limitations of the work and possible alternatives.
   h. A tentative time-table for the investigation.
   i. A pointing out of procedures and materials that may be hazardous to personnel and the precautions to be exercised.
   j. A description of the statistical analysis of the data.
**Human Subjects:**

It is the Principal Investigator’s (PI) responsibility to indicate whether human subjects will be involved in any submitted research protocol. All proposals involving human subjects should be reviewed and approved by the IRB before launching the study. The following general points should be addressed in the proposal to the extent they help in understanding the proposal by the reviewer. This is distinct from the IRB application.

a. A description of the subject population including number, gender, age, health status, ethnic groups, etc., and criteria for inclusion and exclusion and their rationale.

b. Source of material obtained from living subjects in the form of specimens, records, or data. Indicate whether this will be obtained specifically for research purposes or whether use will be made of previously obtained material or material obtained in the course of standard clinical work-up of the patient.

c. A description of plans for recruitment of subjects, the nature of the information provided to prospective subjects, the method of obtaining consent and, if applicable, a copy of the informed consent form to be used.

d. Potential risks, their likelihood and seriousness. Describe alternative treatments and procedures that might be advantageous to the subject.

e. If more than minimal risk exists, state specifically the procedures for protecting against or minimizing these risks. Indicate how provision will be made to ensure necessary medical intervention and prolonged hospital stay in the event of adverse effects to the subject directly resulting from participation in the study.

f. A discussion of why the risks to the subject are reasonable in relation to the anticipated benefits and in relation to the importance of the knowledge that may result.

For IRB forms and applications please visit this website:

[http://www.aub.edu.lb/irb/Pages/index.aspx](http://www.aub.edu.lb/irb/Pages/index.aspx)

**Vertebrate Animals:**

This section complements the "Animal Use Form". The section should include:

a. Description of the proposed use of the animals in the work described. Identify the species, strain, sex, age, and number of animals to be used.

b. Justification for their use, especially for their number.

c. Procedures for ensuring that discomfort, distress, pain and injury will be limited to that which is unavoidable in the conduct of scientifically sound research. Describe use of analgesics, anesthetics, tranquilizing agents and/or comfortable restraining devices, where appropriate, to minimize discomfort, distress, pain and injury.

d. Description of the method of euthanasia to be used and reason for this choice (if applicable).

For IACUC forms and applications please visit this website:

[http://www.aub.edu.lb/FM/MEDICALRESEARCH/ANIMALCAREFAC/Pages/IACUCForms.aspx](http://www.aub.edu.lb/FM/MEDICALRESEARCH/ANIMALCAREFAC/Pages/IACUCForms.aspx)

5. **Interpretation of Results:**

Describe how the methodology and approach proposed will indeed give the answers to the questions posed, and explain how the data collected will be analyzed and interpreted. (This may be a separate section or an integral part of "Research Design and Methods").
6. **Preliminary Studies:**
This section should be used to report on preliminary pertinent studies and/or information that help in appraising the experience and competence of the investigators.

7. **Literature Cited:**
Provide the authors' names, title, journal, volume and page numbers and year of publication, in this order. For books, mention in addition the book title, editors' names (if applicable), publisher, and generate a list of references.

8. **Budget:**
This should be itemized and detailed enough to allow judgment of its appropriateness based on the description of the research design and methods. A separate justification section may be included if necessary. The budget may be divided into 5 parts:

   a. Personnel. Indicate the percent of time that will be allocated to the proposal. Include salaries and benefits in the budget.
   b. Supplies/Equipment: For supplies and equipment, make sure that the 35%-65% shipment expenses for foreign orders are considered.
   c. Others, e.g.: animal costs, token compensation for human subjects, including transportation costs. However, hospitalization, extended hospitalization or any another form of medical intervention that is a potential consequence of participation of the subject in a funded study **CAN NOT** be covered by the grant. The premiums for an insurance policy that is issued to cover for such events can, however, be paid for by the funded grant.
   d. Funds can be used to pay for personnel and reagents needed to carry on a given project.
   e. No more than 35% of the budget may be used to purchase equipment.
   f. **External technical services are covered provided three conditions are satisfied:**
      - The service is not available at AUB
      - A clear explanation of the necessity of performing this outside service is included in the proposal
      - The total cost of all external services does not exceed 25% of the total fund allocated
   g. All study-related clinical services paid for from the funded grant should be performed at AUBMC. Exceptions require prior approval by the Dean.
   h. Travel expenses are not covered by the funded grant.
   i. Publication fees are covered by the funded grant for papers solely related to research work generated the grant funds. No reviews, case reports, letters or other manuscripts will be covered.
   j. No duplicate funding will be approved for projects with significant overlap among separate applications submitted by different PIs or same PI.

9. **Timeframe for the Study:**
Describe the duration of the proposed work and the division of labor during that time-period. Set landmarks for accomplishment of tasks or specific aims for the duration of the study. It is important that the budget remains in line with the proposed timeframe. Request for a no-cost extension of a study period beyond the originally approved duration will be approval from the Dean. This will only be granted on exceptional basis.

10. **Time Commitment and Funds Available:**
The investigator must clearly state the percent of his/her time he/she will spend on this proposal. Mention other sources of funds for the proposal being now submitted and the amounts provided. Also,
a list of other research projects under way should be provided indicating percent time allocated to them, the granting agencies, the funds available and the dates they will expire.

11. **PIs and Co-investigators:**
This section should include a description of the role of the PIs, and each co-investigator in, and each one's contribution to, the accomplishment of the proposed work. PIs and all co-investigators should indicate the percent of their time to be spent on the project.

12. **Responsibilities of PIs and co-Investigators:**
All PIs and co-Investigators are responsible to adhere to all University guidelines and policies pertaining to research conduct. Deviations may jeopardize current and future funding.