**MBI6013– Research Proposal**

What is a Research Proposal?

A research proposal is a document that outlines the thesis topic, defines the issues that the thesis will address, and explains why the topic warrants further research. It should identify a problem and provide a proposed solution to that problem.

Each student will submit a clear research proposal based on his/her developing project. The proposal is expected to describe the thesis project in which a specific hypothesis is tested by two or three experimental Specific Aims.

Format of the Proposal:

The proposal follows a typical predoctoral fellowship style, consisting of:

1. **Background and Significance**

Briefly sketch the background leading to the present proposal, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill. State concisely the importance and relevance of the research described in this application by relating the specific aims to broad, long-term objectives.

1. **1 or 2 specific Aims**

List the broad, long-term objectives and the goal of the specific research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm, address a critical barrier to progress in the field, or develop new technology.

**Specific Aims**: Developed after discussions with the mentor about the overarching hypotheses, and the likely directions and outcomes of the proposed thesis research.

1. **Preliminary Data (if applicable)**

No significant preliminary data are required. If available, use this section to provide an account of

preliminary studies that are pertinent to this proposal.

1. **Research (Experimental) Design and Methods**

Describe the research design conceptual framework, procedures, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantage over existing methodologies. Describe any novel concepts, approaches, tools, or technologies for the proposed studies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. As part of this section, provide a tentative sequence or timetable for the project.

1. **Bibliography or Reference List:**

List all literature references. Each reference must include the title, names of all authors, book or journal, volume number, page numbers, and year of publication. The reference list should be limited to relevant and current literature. While there isn’t a page limitation, it is important to be concise and to select only those literature references pertinent to the proposed research.

**References Cited within the Text:** Any references used within the text of the proposal should be numbered sequentially within the text. The full reference should then be cited in numerical order in the Bibliography or Reference List at the end of the proposal. In the list, all authors and full titles of papers must be included.

**General Instructions for Preparing the Written Proposal:**

* **Language**: English
* **Proposal Length**: The written proposal must be more than 2000 words.
* **Plagiarism:** The paper requires a plagiarism rate of less than 30%.
* **Required font for text:** Arial 11pt, or Times New Roman 12pt
* The entire proposal (including title page and Bibliography) must be sent as a PDF document.
* **Spelling**: The spelling given in any standard dictionary may be used. However, whatever forms are adopted should be adhered to consistently throughout the text of the written proposal.
* **Tables, Figures, Reproductions:**

Tables and figures and all legends should be embedded into the document. Tables are numbered consecutively throughout the written proposal. The word TABLE, followed by the appropriate Arabic numeral, is placed above the caption.

Figures are numbered consecutively in Arabic numerals, with the word "Figure" (only the first letter is capitalized) and the appropriate numeral appearing before the caption. If possible, figures should be oriented in the “portrait” configuration.

Legends should be placed immediately under the figure in order to facilitate the reading of

the written proposal.

* **References and Footnotes**: References to published articles should be cited. Every reference listed must appear in the Bibliography. The format for the references included in the bibliography

should follow that in the suggested manual of style or a highly respected scientific journal. At a

minimum, each reference must include the names of all authors, the title of the article, the name of the journal, the volume number and the pages of the article. Titles of articles must be included.

Footnotes are to be placed at the foot of the page and numbered consecutively.

* **Title Page:** The title page is to list the title of the written proposal, the student’s full name, the full name of the student’s mentor, and the student’s Department.