RESEARCH COMMISSION

FMD-USJ Research Protocol

October 2026

This template should be used as a checklist of possible sections and may subsequently facilitate the inclusion of this project in the Research Platform of Saint Joseph University of Beirut. It may be amended to remain consistent with the requirements of that platform.

1. INSTITUTIONAL FRAMEWORK

- Specify the institutional framework within which the project will be conducted.
- Department: Researcher's affiliation
- Laboratory or division: Location where the research will be conducted (correspondence address)

a. Department – Faculty – University – City – Country
b. Unit – Laboratory – Faculty – University – City – Country

Affiliation template in English

- Department of XX, Faculty of Dental Medicine, Saint Joseph University of Beirut, Beirut, Lebanon.
- Biomaterials Laboratory, Cranio-Facial Research Center, Faculty of Dental Medicine, Saint Joseph University of Beirut, Beirut, Lebanon.

Affiliation template in French

- Département de XX, Faculté de Médecine Dentaire, Université Saint-Joseph de Beyrouth, Beyrouth, Liban.
- Laboratoire ,Centre de Recherche Cranio-Faciale, Faculté de Médecine Dentaire, Université Saint-Joseph de Beyrouth, Beyrouth, Liban

2. TYPE OF PROJECT: Master's project, doctoral project, etc.

3. PROJECT TITLE: The title must be clear and precise.

4. RESEARCH AND PUBLICATION TEAM

Give the name, position and laboratory (or department) affiliations of the project supervisor(s) and of the principal investigator (s).

- Project supervisor: name, affiliation and email address.
- Project co-supervisor(s): name, affiliation and email address.

Principal investigator (s): the student (s) primarily involved in this research (surname, first name and email address).

Authorship of publications:

- List the researchers who will be named in publications arising from the project and specify the role of each.
  - Each co-author's affiliations must be listed in the following order (see the examples under Institutional framework):
    a. Department – Faculty – University – City – Country
    b. Laboratory – Faculty – University – City – Country
    c. List any other affiliations, where applicable.

5. TYPE OF STUDY: For each category, tick the appropriate answer(s).

Category	Study type
Descriptive / comparative	☐ Descriptive study (describes a health status in a population) ☐ Comparative study (compares interventions, groups, etc.) ☐ Validation study (validates diagnostic tools, measurements, etc.)
Observational / interventional	☐ Observational study (non-interventional) ☐ Experimental study (interventional)
Clinical / preclinical / epidemiological	☐ Clinical study (dental or medical practice) ☐ Preclinical in vivo study (animals, cells, etc.) ☐ Preclinical in vitro study (specimens, blocks, teeth, etc.) ☐ Field study (patient recruitment from hospitals, institutions, dispensaries, schools, etc.) ☐ Pilot study ☐ Phase I study (product toxicity in humans) ☐ Phase II study (product efficacy in humans) ☐ Phase III study (randomized controlled clinical trial) ☐ Phase IV study (post-marketing trial)
Retrospective / prospective / cross-sectional	☐ Retrospective study (past data) ☐ Prospective study (follow-up) ☐ Cross-sectional study (no follow-up)
Meta-analysis	☐ Systematic review (comprehensive collection, critical appraisal and synthesis of existing knowledge) ☐ Meta-analysis (statistical component of a systematic review)
Other	☐ Other (please specify):

6. BUDGET

Note: As Master's projects are not currently funded by the Research Council, stating "self-funded" without further details is sufficient if the researcher will cover the expenses personally. However, if external funding, even partial, supplements self-funding, it must be detailed: source, type (financial or in-kind), and conditions imposed by the third-party funder.

Specify the resources required

Provide a realistic budget covering all research-related costs (personnel, equipment, operating expenses, etc.).

1. Internal or external funding

Where possible, give the expected expenditure for each year of the project so that funders can phase their support.

* Income
* Expenditure

2. Other resources

List the existing resources, with their financial value and source.

* Personnel
* Premises
* Equipment

7. KEYWORDS: List keywords in alphabetical order and verify them using MeSH.

8. GENERAL BACKGROUND

- Describe the project clearly enough for scientists outside the field to understand it.
- Situate the project within current knowledge and practice, with supporting references.
- Where relevant, explain why the research question matters.
- Identify the gaps in current knowledge.
- Explain how the proposed research will address these gaps.

9. SUMMARY OF THE TOPIC AND APPROACH

- Describe the research in a short paragraph.
- Briefly introduce the general and specific context of the project.
- Cite recent, relevant review articles and highlight the gaps in current knowledge.

10. INNOVATIVE NATURE OF THE STUDY:

State whether the study continues an existing line of research within the research unit or is an entirely new project.

11. RESEARCH OBJECTIVES

The objectives are the cornerstone of the protocol. They, and the specific objectives in particular, must be fully consistent with the research questions raised and with the proposed resources and methods.

- **Primary overall objective**
  The primary objective should state the expected benefit of the research findings. It must be relevant and clearly described.
- **Secondary objectives**
  The secondary (specific) objectives should describe, in technical terms, the precise aspects under investigation. They must be relevant and clearly described.

12. HYPOTHESES

Hypotheses are formulated in analytical studies (as opposed to descriptive studies).
State the null hypothesis and the alternative hypothesis:

- The null hypothesis (H_0) states that there is no difference between the parameters being compared (any observed difference is due to chance).
- The alternative hypothesis (H_1) is the one you expect to be true or aim to demonstrate.

13. METHODOLOGY

13.1 Techniques to be used

Clearly state:

- Whether the techniques already exist or will be developed during the project. Preliminary studies are not mandatory but may be justified to improve efficiency or because of the innovative nature of the research; they may also form a research project in their own right.
- Whether these techniques involve collaboration with external laboratories.
- Which tasks you will carry out yourself and which will be carried out by others.
- How the operators will be calibrated (if there is more than one operator).
- Whether other research is being conducted on similar topics; if so, give the titles and the names of the researchers involved, and explain how your project differs.
- Whether any data were collected before your research began; if so, state this in the protocol, as the committee must approve their use.
- Whether the research methods are qualitative or quantitative.

13.2 Study population and sampling method

- **Characteristics**

This section must specify:

- **Inclusion: Characteristics of the materials or participants eligible for the study.**
  - Patient inclusion criteria (age, sex, duration, etc.).
  - Clinical and paraclinical definition of the disease under study.
- **Exclusion: Characteristics that exclude individuals from the study.**
  - Exclusions relating to:
  - the disease;
  - the patients;
  - incompatible treatments.
- **Required sample size**
  - Make sure the study has the resources (number of subjects required) to meet its objectives and test its hypotheses. The statistician who will analyse the data must be involved in developing the protocol from this stage onwards.
  - Describe how the sample size was calculated.
  - Sampling: random, consecutive or convenience. Describing the sampling method (including its design and type, where applicable) allows readers to judge how representative the sample is and, therefore, the external validity of the study.
  - Location and method of patient recruitment, tooth collection or other relevant procedures.
  - Randomization
  - Describe the technical procedures, the arrangements for emergency unblinding and the persons responsible (noting any particular difficulties in multicentre trials).
- **Procedures for handling**
  - Subjects lost to follow-up.
  - Protocol non-compliance.

13.3 Description of variables (how and by whom they are measured, units of measurement, type and categories). Data collection must be limited to the specific objectives and the variables included in the hypotheses.

A. Data sources: How and by whom data are measured, units of measurement, type and category.

These may be direct sources (environmental sources) (clinical examination data, interview data, etc.) or indirect sources (archives, previously collected statistical data, etc.).

B. Definition of the variables to be studied

- Primary variable (corresponding to the primary objective).
- Secondary variable(s) (corresponding to the main objectives).
- Provide the definitions and limits of the variables under study.

C. Data collection procedures

- Methods: Forms, interviews, observations or data collection instruments must be included in the appendices.
- Authorization: In particular, address authorization for human trials, computerized processing of individual data, and authorization from the institution's management when the institution acts as the de facto sponsor of the experiment.
  - Specify data ownership and any potential patent applications.
  - Patient information sheets and informed consent forms must be included in the appendices.
- Logistics: Specify the investigators' training and qualifications (CVs), data storage arrangements, and any preparatory training.

13.4 Statistical methods

- Provide the analysis plan and its stages.
- An initial descriptive stage will guide the use of specific analytical techniques.
- Justify the statistical methods used.

14. STRENGTHS

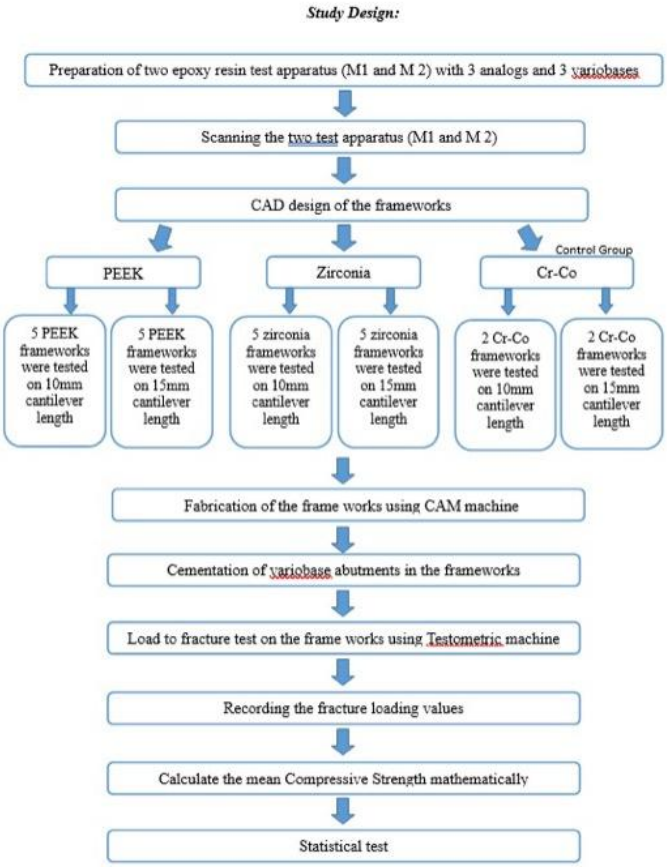
- **Clinical relevance: Specify the clinical value of your research.**
- Ease of publication
- Method

15. EXPECTED SCIENTIFIC OUTPUTS

Presentations, publications, etc.

16. STUDY DESIGN

Briefly describe the different stages of the research project in a diagram (see the example below, in French or English depending on the language of the text).



17. TIMELINE

Define the steps and the approximate date for the project

18. REFERENCES: Recent, relevant articles (use Vancouver style, as required by FMD for thesis writing).