



THE UNIVERSITY OF BALAMAND INSTITUTIONAL REVIEW BOARD (IRB)

POLICIES AND PROCEDURES

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I. Institutional Review Board Bylaw

1. Role

The primary responsibility of the Institutional Review Board (IRB) is to protect the rights, safety and well-being of participants involved in human subject research.

The IRB fulfils its responsibility by conducting prospective and continuing review of human subject research, including review of research protocols and related materials (informed consent documents and investigator brochures), as well as any adverse events or unanticipated problems reported to the IRB.

In reviewing research proposals, the IRB must determine whether they fulfill the following ethical criteria:

- Risks to subjects are minimized.
- Risks to subjects are reasonable in relation to anticipated benefits.
- Selection of subjects is equitable.
- Informed consent is sought from each prospective subject or the subject's legally authorized representative.
- Informed consent is appropriately documented.
- Subject safety is adequately monitored.
- There are adequate provisions to protect the privacy of subjects, and to maintain the confidentiality of data.
- Additional safeguards are included to ensure protection of vulnerable populations.
- Clinical and nonclinical data available on the investigational product(s) are relevant to the study of the product(s) in human subjects.

In performing the above review, the IRB has the authority to approve, require modifications (to secure approval) or disapprove any human subject research conducted at the University of Balamand or at the affiliated hospitals of the University of Balamand Faculty of Medicine and Medical Sciences by faculty members, staff, students and affiliated physicians.

2. IRB Ethical Guiding Principles

The principles and procedures followed by the IRB in conducting its mission include:

- Code of Nuremberg 1947
- Universal Declaration of Human Rights 1948-UN
- Declaration of Helsinki: 1964 and 2013 updates
- International Ethical Guidelines for Biomedical Research Involving Human Subjects (WHO) and CIOMS- Geneva- 2002
- Good Clinical Practice/International Conference of Harmonization, ICH guidelines
- Lebanese Code of Ethics Law 288 (22 Feb 1994) and law 240 (22 Oct. 2012)
- Patients' rights and Informed Consent law (2004)
- Accreditation of IRBs- Ministerial Decree 1/141-27 Jan 2016

2.1. General ethical principles

All research involving human subjects should be conducted in accordance with three basic ethical principles, namely respect for persons, beneficence and justice. These principles guide the conscientious preparation of proposals for scientific studies. The present guidelines are directed at the application of these principles to research involving human subjects:

- a. Respect for persons.** It incorporates at least two fundamental ethical considerations, namely:
 - *Respect for autonomy*, which requires that those who are capable of deliberation about their personal choices should be treated with respect for their capacity for self-determination.
 - *Protection of persons with impaired or diminished autonomy*, which requires that those who are dependent or vulnerable be afforded security against harm or abuse.
- b. Beneficence.** It refers to the ethical obligation to maximize benefits and to minimize harms. This principle gives rise to norms requiring that the risks of research be reasonable in the light of the expected benefits, that the research design be sound, and that the investigators be competent both to conduct the research and to safeguard

the welfare of the research subjects. Beneficence further proscribes the deliberate infliction of harm on persons; this aspect of beneficence is sometimes expressed as a separate principle, non-maleficence (do no harm).

- c. Justice.** It refers to the ethical obligation to treat each person in accordance with what is morally right and proper, to give each person what is due to him or her. In the ethics of research involving human subjects the principle refers primarily to distributive justice, which requires the equitable distribution of both the burdens and the benefits of participation in research. Differences in distribution of burdens and benefits are justifiable only if they are based on morally relevant distinctions between persons; one such distinction is vulnerability. "Vulnerability" refers to a substantial incapacity to protect one's own interests owing to such impediments as lack of capability to give informed consent, lack of alternative means of obtaining medical care or other expensive necessities, or being a junior or subordinate member of a hierarchical group. Accordingly, special provision must be made for the protection of the rights and welfare of vulnerable persons.

Justice requires also that the research be responsive to the health conditions or needs of vulnerable subjects. The subjects selected should be the least vulnerable necessary to accomplish the purposes of the research. Risk to vulnerable subjects is most easily justified when it arises from interventions or procedures that hold out for them the prospect of direct health-related benefit. Risk that does not hold out such prospect must be justified by the anticipated benefit to the population of which the individual research subject is representative.

2.2. Special risk groups or vulnerable subjects

a. Research involving vulnerable persons

Special justification is required for inviting vulnerable individuals to serve as research subjects, and if they are selected, the means of protecting their rights and welfare must be strictly applied.

b. Research involving children

Before undertaking research involving children, the investigator must ensure that:

- The research might not equally well be carried out with adults.
- The purpose of the research is to obtain knowledge relevant to the health

needs of children.

- A parent or legal representative of each child has given permission to participate in the study.
- The agreement (assent) of each child has been obtained to the extent of the child's capabilities.
- A child's refusal to participate or continue in the research will be respected.

c. Research involving individuals who by reason of mental or behavioral disorders are not capable of giving adequately informed consent

Before undertaking research involving individuals who by reason of mental or behavioral disorders are not capable of giving adequately informed consent, the investigator must ensure that:

- Such persons will not be subjects of research that might equally well be carried out on persons whose capacity to give adequately informed consent is not impaired.
- The purpose of the research is to obtain knowledge relevant to the particular health needs of persons with mental or behavioral disorders.
- The consent of each subject has been obtained to the extent of that person's capabilities, and a prospective subject's refusal to participate in research is always respected, unless, in exceptional circumstances, there is no reasonable medical alternative and local law permits overriding the objection.
- In cases where prospective subjects lack capacity to consent, permission is obtained from a responsible family member or a legally authorized representative in accordance with applicable law.

d. Women as research subjects

Investigators, sponsors or ethical review committees should not exclude women of reproductive age from biomedical research. The potential for becoming pregnant during a study should not, in itself, be used as a reason for precluding or limiting participation. However, a thorough discussion of risks to the pregnant woman and to her fetus is a prerequisite for the woman's ability to make a rational decision to enroll in a clinical study. In this discussion, if participation in the

research might be hazardous to a fetus or a woman if she becomes pregnant, the sponsors/ investigators should guarantee the prospective subject a pregnancy test and access to effective contraceptive methods before the research commences. Where such access is not possible, for legal or religious reasons, investigators should not recruit for such possibly hazardous research women who might become pregnant.

e. Pregnant women as research participants

Pregnant women should be presumed to be eligible for participation in biomedical research. Investigators and ethical review committees should ensure that prospective subjects who are pregnant are adequately informed about the risks and benefits to themselves, their pregnancies, the fetus and their subsequent offspring, and to their fertility.

Research in this population should be performed only if it is relevant to the particular health needs of a pregnant woman or her fetus, or to the health needs of pregnant women in general, and, when appropriate, if it is supported by reliable evidence from animal experiments, particularly as to risks of teratogenicity and mutagenicity.

3. IRB Membership

3.1. IRB Members

The Provost of the University of Balamand formally appoints the IRB members.

The Provost will satisfy the following requirements when appointing IRB members:

- The IRB will include at least three physicians from affiliated hospitals to the University of Balamand Faculty of Medicine and Medical Sciences in addition to one or more academic members from the University of Balamand.
- The IRB will include one social worker or one member with expertise in behavioral or social sciences.
- The IRB will include one member with expertise in legal matters.
- The IRB will include one independent member to represent civil society from the geographical area served by the University.
- Members serve a three-year term and are eligible for reappointment.

- Members vote to approve, require modifications in, or disapprove human subject research submitted to the IRB.
- Members are expected to attend IRB meetings on a regular basis, serve as primary reviewers for research within their areas of expertise, and serve as general reviewers on all research discussed at convened meetings.
- Members are also expected to conduct expedited review on behalf of the IRB when so designated by the IRB Chairperson.

3.2. IRB Chairperson

The Provost of the University of Balamand formally appoints the IRB Chairperson.

The IRB Chairperson serves a three-year term. In addition to the responsibilities of IRB membership, the Chairperson has the following responsibilities:

- To identify proposals, appropriate for full board review
- To determine that proposals submitted are ready for review
- To identify the need for external consultation
- To assign primary reviewers
- To attend and chair all IRB committee meetings
- To ascertain the quorum is present
- To prepare the agenda
- To review and approve all official IRB correspondence

3.3. IRB Secretary

At the first meeting of the IRB, the members elect a Secretary.

In addition to the responsibilities of IRB membership, the Secretary is responsible for:

- Liaising with the Chairperson to plan meetings
- Taking meeting minutes
- Circulating meeting minutes
- Generating all official IRB correspondence

- Checking that agreed actions are carried out

3.4. Special considerations

a. Independent consultants

The IRB may invite individuals with competence in special areas to assist in the review of issues that require expertise beyond or in addition to that available on the IRB, without having the privilege of voting.

b. Conflict of interest

No IRB member may participate in the IRB's initial or continuing review of any research in which the member has a conflicting interest, except to provide information requested by the IRB. IRB members, including the Chairperson, who have conflicting interests, are required to disclose such interests and to absent themselves from deliberations, quorum counts, and votes on the relevant research. Such absences are recorded in the meeting's minutes.

4. Conduct of meetings

4.1. Call for a meeting

- The IRB meets monthly and more frequently if needed on dates that are announced in advance.
- The IRB Chairperson sends notice of meeting and agenda to IRB members one week in advance of the meeting date.
- The IRB Secretary communicates with members to check if they can attend the meeting to ensure quorum.
- A non IRB member can be invited to the meeting at the discretion of the IRB Chairperson.

4.2. Quorum requirements and voting at IRB meetings

- The Quorum consists of a simple majority of the members of the IRB (more than 50% of the full board).
- In order for research to be approved, it must receive the approval of a majority of IRB members.
- The IRB Chairperson votes as a regular member, and breaks a tie of votes

when it happens.

- Only IRB members can vote.
- Consultants do not vote.
- Members absenting themselves due to conflicting interests may not be counted toward quorum requirements.
- At the time of voting, the chairperson asks members to vote separately for each action with the following choices: for, against or abstain.
- Voting by proxy is not allowed.

4.3. Meeting Minutes

- The Secretary is responsible for taking the minutes of the IRB meetings.
- In the absence of the Secretary for any IRB meeting, another member of the IRB will be nominated by the Chairperson to take minutes for that meeting.
- The following specific information will be recorded in the meeting minutes:
 - Date, time (opening and closing), place
 - Members attendance (members present and absent) to determine quorum
 - Non IRB members' attendance
 - Conflict of interest declaration by IRB members
 - Summary of discussed topics
 - Actions taken by the IRB
 - Votes for these actions
 - A list of research approved since the last meeting using expedited review process
 - Name and signature of person who prepared the minutes
 - Name and signature of the IRB Chairperson with the date of approval
- The Secretary will submit a draft of the minutes to the IRB Chairperson for review, corrections and approval. Once they are finalized, the minutes are sent to the members for comments and corrections.

- The minutes are formally approved in the next full board meeting and submitted to the Chairperson for signature.
- The Secretary member files the signed minutes in the Minutes of the Meeting folder of the IRB and sends one copy of the minutes to the Provost's Office.

4.4. Notification of decisions

It is the responsibility of the Secretary of the IRB to generate letters within 7 to 10 working days after decisions have been made. These letters will be approved and signed by the IRB Chairperson.

These letters will contain the following information:

- Results of the review of the protocol, amendments, continuation, adverse events.
- Comments, need of revisions or more specific types of information that may be required before IRB action can be taken.
- The IRB Chairperson will forward to the Principal Investigator the decision of the IRB.

The Principal Investigator cannot proceed with research until a written notification of final approval has been received from the Office of the Provost.

II. Preparation and Submission of Research Proposals

1. Guidelines for submission of research proposals

All research involving human subjects conducted at the University of Balamand and its affiliated hospitals must be reviewed and approved by the Institutional Review Board. Proposals must first be submitted to the IRB Office at uob.irb@balamand.edu.lb, then the Chairperson of IRB will process the application and coordinate the review.

The following outlines the guidelines for submitting a research proposal to the IRB. Applications for clinical trials sponsored by pharmaceutical companies should also include such a proposal as a summary of the study that is written according to those same guidelines.

- **Abstract:** Briefly state the background, rationale and aims of the project; describe the methodology and the analysis of data; state the significance and relevance of the project.
- **Specific aim(s):** Describe concisely the specific research objective(s) of this application. Emphasize the specific hypotheses to be tested.

- **Background and significance:** Describe the background to the proposal, critically evaluating the existing knowledge on the topic, and identifying any gaps in knowledge the project would 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.
- **Progress report/Preliminary studies:** A progress report is required for renewals. For new applications, this section may be used to report on preliminary pertinent studies and/or information that help in appraising the experience and competence of the investigator.
- **Research design and methods:** Describe the research methods and procedures to be used to accomplish the specific aims of the study. Comment critically on them. This section should include, where appropriate:
 - The specific data to be collected (the parameters to be measured)
 - The means by which the data will be collected, analyzed and interpreted
 - A description of surgical procedures
 - The protocol of drug dosage regimens
 - The number of subjects per group, and its justification
 - A description of any new methodology and its advantage over existing methodologies
 - A discussion of potential difficulties and limitations of the work and possible alternatives
 - A tentative time-table for the investigation
 - A pointing out of procedures and materials that may be hazardous to personnel and the precautions to be exercised
 - A description of the statistical analysis of the data
- **Human subjects.** The following points should be addressed:
 - A description of the subject population including number, gender, age, health status, ethnic groups, and criteria for inclusion and exclusion and their rationale.
 - 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.

- 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, the informed consent form to be used, written in (at least) the Arabic language.
 - Potential risks, their likelihood and seriousness. Describe alternative treatments and procedures that might be advantageous to the subject.
 - 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. Funds should be secured or available as insurance to cover these expenses.
 - State also why the risks to the subject are reasonable in relation to the anticipated benefits or to the importance of the knowledge that may result.
- **Interpretation of results:** Describe how the methodology and approach proposed will indeed give the answers to the questions addressed, and explain how the data collected will be analyzed and interpreted.
 - **References:** Provide the authors' name, title, journal, volume and page numbers and year of publication, in this order. For books, mention in addition the book title, editor's name (if applicable), and publisher.
 - **Budget:** This should be itemized and detailed enough to allow judgment of its appropriateness based on the description of the research design and methods. The budget may be divided into 4 parts: Personnel (time allocated for the study and corresponding salary of a research assistant), Supplies, Equipment, and Others.
 - **Time-frame 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. Make sure the budget is in line with the proposed timeframe.
 - **Principal Investigator and co-investigators:** This section should include a

description of the role of the Principal Investigator and each co-investigator and his/her contribution to the proposed study, including percentage of time allocated to the project.

2. Documents required for IRB review

All documents required for IRB review should be submitted by the Principal Investigator to uob.irb@balamand.edu.lb. As applicable, this may include, but is not limited to:

- Application form for review of research proposals signed by the Principal Investigator and Co-Investigators: Form A for Clinical Trials/Invasive/Interventional Research or Form B for Educational Research/Surveys/Non-Invasive Studies.
- Research Study Approval checklist signed by the department chairperson
- A summary of the proposal written according to IRB guidelines
- The research protocol clearly identified and dated, together with supporting documents and annexes.
- All data collection forms to be used in the research, including but not limited to case report forms, questionnaires, interview schedules
- Consent forms (Arabic, and when applicable, English).
- A summary of all safety, pharmacological, pharmaceutical, and toxicological data available on the study product, together with a summary of clinical experience with the study product to date (recent investigator's brochure, published data, a summary of the product's characteristics).
- Insurance policy in case of complications or adverse events.
- Curriculum vitae of all investigators.
- IRB/Ethical committee approvals from other centers if multicenter studies.

3. Processing of research proposals

The complete research proposal with all supporting documents, including the application form and the approval checklist signed by the Department Chairperson, must be submitted by the Principal Investigator. The research proposal must be submitted as soft copy. The

Office of IRB will review and ensure that all required documents are submitted and properly completed. The Principal Investigator will be notified of any missing documents.

The IRB Office will not process any research proposal unless all required documents are available. The IRB chairperson will conduct an initial review and make a determination of whether the proposal requires full board review. If the research proposal requires a full board review, it will be considered in the next regularly scheduled IRB meeting.

If the research proposal is qualified for an expedited review, the Chairperson of the IRB will assign one member or more of the IRB to review the proposal.

If the research proposal is considered exempt from further review, the Chairperson of the IRB will issue a corresponding letter.

III. IRB Review

1. What is to be reviewed by the IRB

- a. All research involving human subjects conducted at the University of Balamand and affiliated hospitals or having affiliated hospitals or University of Balamand affiliated physicians, faculty members, staff or students as principal Investigator or Co-Investigator (including pilot studies)
- b. All research involving human subjects submitted by hospitals that do not have an accredited IRB and have requested the University of Balamand IRB to provide a review for their research studies.
 - *Research* is defined as systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge.
 - *Human subject* is defined as a living individual about whom an investigator conducting research obtains:
 - Data through intervention or interaction with the individual
 - Identifiable private information
- c. The IRB is entitled to review different types of studies, including but not limited to the following:
 - Clinical trials

- Epidemiological research
- Social science research
- Research on medical records or other personal information
- Research on stored samples
- Health systems research
- Implementation research
- Specific categories of research could be exempted or subject to an expedited review

2. Categories of Review

2.1. Exempt review

a. Research exempted from review

- A research could be exempted from IRB review if there is no possibility of harm arising as a result of the conduct of the research, or the information being evaluated is already available in the public domain. The risk of such research is minimal.
- Minimal risk: The probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.
- What follows could qualify for exemption:
 - Research in educational settings, involving normal educational practices (research on regular or special instructional strategies, effectiveness of instructional techniques, curricula).
 - Research involving the use of educational tests (cognitive, diagnostic, aptitude), survey procedures, interview procedures or observation of public behavior, unless human subjects can be identified directly or indirectly, or any disclosure of participants' responses outside the research could place them at any risk.
 - Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these

sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

- Research conducted to the approval of agencies or departments, designed to study, evaluate or examine public benefit of service programs.
- Taste and food quality evaluation and consumer acceptance studies, if no additives and no risks involved.
- These exemptions do not apply to research involving prisoners.
- Examples of exempt research:
 - ❖ Anonymous surveys or interviews (without identifiers)
 - ❖ Passive observation of public behavior without collection of identifiers
 - ❖ Retrospective chart reviews with no collection of identifiers
 - ❖ Analyses of discarded pathological specimens without patient identifiers

b. Exempt review procedure

The IRB Chairperson will approve or refer the study for expedited or full board review. The IRB Chairperson's decision will be conveyed to the Principal Investigator.

2.2. Expedited review

a. Research eligible for expedited review

- Research not eligible for an exempt review may be eligible for an expedited review.
- An expedited review procedure may be used for:
 - Minor changes in previously approved research during the specified approval period
 - Initial or continuing review of research involving no more than minimal risk and burden to research participants

- What follows could qualify for expedited review:
 - Collection of samples and data in a manner that is not anonymous and that involves minimal risk to subjects.
 - Research on drugs and medical devices used in accordance with their cleared/approved labeling.
- Examples:
 - Studies involving collection of hair, saliva, dental plaque, blood samples of healthy volunteers.
 - Studies of existing pathological specimens with patient identifiers.

b. Expedited review procedure

The IRB Chairperson will determine whether a research is eligible for expedited IRB review. If eligible, the Chairperson of the IRB will assign one or more members to review and approve the research on behalf of the IRB. If no approval was granted, the study should be fully reviewed.

2.3. Full board review

a. Research qualified for full board review

- A full board review is required for research that is not eligible for exempt or expedited review.
- In short, research that is judged to involve more than minimal risk, or involves protected populations such as children, prisoners, or disabled individuals, must undergo a full board review.

b. Full board review procedure

- The IRB Chairperson will assign one or two reviewers from the IRB membership roster, based on the IRB member's educational background and expertise.
- If appropriate, consultant(s) to IRB may also be identified.
- Reviewer(s) will present the proposal to the IRB at the next regularly scheduled meeting.
- The study will be decided upon by majority vote.

3. Assigning reviewers

The IRB Chairperson will assign the reviewer(s) within one week of receipt of the application, from within the IRB committee, based on educational background and expertise.

If no IRB member has the appropriate expertise for the proposed research study, or if additional expertise is needed, the IRB will seek the input of an outside reviewer/consultant with the appropriate expertise. A second reviewer will be assigned from the IRB membership. The consultants might be asked to attend the IRB meeting when discussing the proposal that he/she reviewed, but does not participate in the final decision, obtained through consensus or voting.

4. Length of approval period

The IRB approves a research study for a limited time (maximum one year). If the researcher wants the study to continue after that, they must apply for a new review to renew the approval.

IV. Continuing Review of Ongoing Research

1. Definition

Continuing review is a periodic review conducted after a research has received initial approval by the Institutional Review Board.

The purpose of continuing review is to periodically reassess the totality of the research and determine whether the risk/benefit ratio has changed, whether there are unanticipated findings involving risks to participants or others, and whether any new information regarding the risks and benefits should be disclosed to participants.

2. Frequency of continuing review

Except for research that has been exempt from review, all ongoing research must be reviewed by the IRB at intervals appropriate to the degree of risk, but not less than one review per year.

At each initial and continuing review, the IRB specifies the duration of the next approval period.

3. Continuing review process

- If a research study is expected to last longer than the IRB approval period, the principal investigator must apply for continuing review.
- The principal investigator is responsible for ensuring that the research is submitted to the IRB for continuing review 6 weeks before its expiration date to avoid a lapse of IRB approval.
- Generally, the continuing review process occurs at the same level as the initial review:
 - An expedited review will be used for the continuing review of research initially approved under an expedited review procedure, unless the research no longer meets the criteria for expedited review.
 - A full board review is required for the continuing review of research initially approved by the full committee.
 - An expedited review procedure may be used for the continuing review of research previously approved by the full board as follows:
 - where the research is permanently closed to the enrollment of new subjects;
 - where all subjects have completed all research-related intervention;
 - where the research remains active only for long-term follow-up of subjects;
 - where no subjects have been enrolled and no additional risks have been identified;
 - where the remaining research activities are limited to data analysis.
- After reassessment of the research at continuing review, the IRB has the authority to approve, require modifications, suspend, or terminate approval of research.

4. Materials reviewed

The principal investigator is required to provide the IRB Chairperson via email with a completed status report.

The status report must include detailed information about the progress of the study, the number and type of participants consented since the last approval, a summary of protocol events and deviations (if any), a report of subject complaints (if any), and a review of any significant, relevant literature published since the last approval.

If any changes are proposed since the last IRB review, the amendment should be described and the revised documents submitted.

5. Lapsed approval

- If the principal investigator fails to provide continuing review information to the IRB, or the IRB has not reviewed and approved the research by the specified expiration date, all research activities involving human subjects must stop.
- The Principal Investigator will be notified that IRB approval has lapsed.
- If an investigator makes a clinical determination that immediately stopping all or some of the research activities would not be in a subject's best interest, the investigator must inform the IRB in writing on a subject-by-subject basis. This formal request must include the rationale and justification as to why the research activities should be allowed to continue.
- The IRB Chairperson will determine whether there is an overriding safety concern or ethical issue involved that justifies subjects' continuing participation in the research.

V. Review of Amendments

1. General consideration

- Changes to an approved research study may not be implemented without prior IRB approval, except where necessary to eliminate immediate hazard to subjects in which case the IRB must be notified at once.
- Approval of amendments does not change the approval period of the research. The expiration date will remain the same as was determined at the time of initial or continuing review.

2. Procedure

- Before implementing changes to a previously approved research, the Principal Investigator must send a letter to the IRB Chairperson describing the proposed changes and attach any supporting documents that must be changed as well.
- Depending on the degree and significance of the changes, the IRB Chairperson will determine whether the amendment is appropriate for expedited review or requires full board review.

- Minor changes will be approved through an expedited review process, while changes considered as more than minor will be approved at a full board meeting.

VI. Reporting Adverse Events to IRB

1. Definitions

- An **unanticipated problem** includes any incident, experience, or outcome that meets all of the following criteria:
 - Unexpected (in terms of nature, severity, or frequency) given (a) the research procedures that are described in the protocol-related documents, and (b) the characteristics of the subject population being studied
 - Related or possibly related to participation in the research (possibly related means there is a reasonable possibility that the incident, experience, or outcome may have been caused by the procedures involved in the research)
 - Suggests that the research places subjects or others at a greater risk of harm (including physical, psychological, economic, or social harm) than was previously known or recognized.
- An **Adverse Event (AE)** is any untoward or unfavorable medical occurrence in a human subject, including any abnormal sign, symptom, or disease, temporally associated with the subject's participation in the research, whether or not considered related to the subject's participation in the research.
- A **Serious Adverse Event (SAE)** is an adverse event that:
 - Results in death
 - Is life-threatening
 - Requires hospitalization or prolongation of existing hospitalization
 - Results in a persistent or significant disability/incapacity
 - Results in a congenital anomaly/birth defect
 - Any other adverse event that, based upon appropriate medical judgment, may jeopardize the subject's health and may require medical or surgical intervention to prevent one of the other outcomes listed in this definition.
- **Internal Adverse Events** are those adverse events experienced by subjects enrolled

by the investigator(s) at the Institution.

2. Procedure

Adverse events that are unanticipated problems and all Internal Serious Adverse Events must be reported immediately to the IRB Chairperson and Office of the Provost within 48 hours of the investigator's knowledge of the adverse events.

It is the responsibility of the Principal Investigator to ensure that written notification is submitted in a timely manner to the IRB Chairperson and Office of the Provost.

The IRB chairperson will determine whether the reported event requires full board review.

- If yes, it will be presented to the IRB at its next scheduled meeting, unless an immediate meeting is called for.
- If not, the IRB chairperson on behalf of the IRB will determine what action should be taken in response to the event.

VII. Closure of a research study

When a study ends, is cancelled for any reason or prematurely completed, the Principal Investigator must notify the Office of IRB that the study is closed.

Once a research study is closed, no more contact with subjects for research purposes is allowed. Therefore, if an investigator is still collecting follow-up data about subjects (either directly from subjects or indirectly from existing records), the study should remain open until all data have been collected, even if new subjects are no longer being enrolled. A final report must be submitted within one month of the closure date.

VIII. Responsibilities of the Principal Investigator

Although more than one investigator may conduct research studies, including other physicians, faculty members, students and staff, one investigator is designated as "Principal Investigator" with overall responsibility for the preparation, conduct, and administration of a research study.

In the case of sponsored clinical trials, the Principal Investigator is the physician, faculty member, student or staff at the University of Balamand or affiliated hospital who is the main person responsible for the trial.

1. Qualifications

The IRB recognizes only one Principal Investigator for each research study. The Principal Investigator must be a physician, faculty member, student or staff of the University of Balamand or its affiliates. On research conducted by students, a faculty member must serve as the advisor and assume responsibility for exercising appropriate oversight of the student's research.

It is preferable that at least the Principal Investigator of a research study involving human subjects, if not all investigators, obtain certification in research ethics and conduct. Online training courses are available for this purpose, such as the Biomedical Responsible Conduct of Research Basic Course offered by the Collaborative Institutional Training Initiative (CITI) (www.citiprogram.org) or the NIH course (<https://phrptraining.com/>).

2. Responsibilities for study execution

- The Principal Investigator must originate, sign and submit all study-related correspondence. He/she must submit an application for any research study involving human subjects to the IRB for review and approval before initiating, modifying, or continuing any research study beyond its IRB-approved period. All official correspondence is addressed to the Principal Investigator.
- The Principal Investigator is responsible for identifying key personnel involved in the conduct of research, monitoring their activities, informing the IRB of proposed changes, adverse events, and responding in a timely fashion to inquiries or requests from the IRB.
- The Principal Investigator is ultimately responsible for assuring compliance with applicable IRB policies and procedures, and for the oversight of the research study and the informed consent process.
- The Principal Investigator is responsible for recruiting participants in a fair and equitable manner, weighing the risks and benefits of participation and providing special protections, as necessary, to participants who are members of vulnerable populations.
- The Principal Investigator must review the informed consent with the research subject, answer all questions and ensure that the subject will exercise power of choice without intervention of outside elements and forces, coercion or other form of pressure. A copy of the signed informed consent document must be filed with the investigator study file

and a signed copy should be given to the subject. In addition, human research subjects should be kept fully informed of any new information that may affect their willingness to continue to participate in the research study.

- The Principal Investigator is responsible for maintaining adequate, current, and accurate records of research data, outcomes, and adverse events to permit an ongoing assessment of the risk/benefit ratio of study participation.

3. Responsibilities for reporting

The Principal Investigator is responsible for making the following reports in conducting the research study:

- Submitting to the IRB all protocol modifications and amendments prior to their implementation except in cases of immediate hazard to human participants, whereby a written explanation to the IRB about the rationale for the implementation of change should be provided.
- Reporting unanticipated or adverse events involving risks to participants. Written notification of unanticipated problems should be submitted to the IRB in a timely manner.
- Reporting to the IRB any conflict of interest involving the Principal Investigator or any key personnel at the time of project initiation and any time during the conduct of research.
- Submitting a final closure report at the conclusion of the study.