# Ethical Conduct of Research (Guidelines and Policy for the) and Procedures for Investigating Misconduct

Policy Category: Research Approved By: Senate Effective Date: June 15, 1995

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# **1. PREAMBLE**

Lakehead University has always recognized the necessity for maintaining the highest ethical standards in the conduct of research. A researcher must be honest in proposing, seeking support for, conducting, and reporting research, as well as respecting the rights of others in these activities.

The societal and economic costs and benefits of research endeavours demand that impeccable standards of research inquiry be maintained. Lakehead University believes that research standards must be rigorously maintained, ethically irreproachable, and reinforced by example and regulation. Although misconduct may occur at an individual level, it could have serious ramifications for the entire Lakehead University community.

It is recognized that, Lakehead University must be sensitive to the issues of **ethical conduct** in research and other scholarly activity in order to maintain our ability to self-

regulate our research endeavours and to strengthen the creative and productive aspects of the freedom to conduct research.

The purpose of this document is to set forth the principles and procedures pertaining to misconduct in research and other scholarly activity at Lakehead University. These policies and procedures are not intended to replace procedures for resolving fiscal improprieties, issues concerning the ethical treatment of human or animal subjects, or criminal/legal matters.

Allegations of misconduct in research, though rare, must be dealt with effectively. The individual researcher has the responsibility to avoid misconduct and Lakehead University has the responsibility to deal with misconduct promptly should it occur within the institution as well as maintain an environment that encourages proper research conduct. Formal procedures are essential to determine how allegations should be handled and to protect the rights of individuals, the University and any outside funding agency.

This policy applies to all those conducting research under the aegis of Lakehead University. It is incumbent upon all members of the university community to practice and to promote ethical behaviour.

The LUFA/Board Joint Committee for administering the Agreement has accepted this document as approved at the June 15, 1995 Senate meeting.

# 2. DEFINITION OF TERMS

2.1 **Research:** Work undertaken to expand the frontiers of knowledge, to apply existing knowledge to new applications or study of a particular question.

2.2 **Publication:** For the purpose of these guidelines, a publication is any book, journal article, technical or other report, research paper, whether in print, typescript or manuscript form, or recorded and/or stored in electronic or other form.

#### 2.3 Research Personnel:

2.3.1 **Principal Investigator:** This person has ultimate responsibility for a research project and in the case of a project funded by an external or internal grant, the holder of the grant. In the case of a project that is not funded, the initiator of the project.

2.3.2 **Co-investigator:** The person(s) who may hold equal responsibility with the Principal Investigator for designing the research project and collecting, analyzing and reporting the data.

2.3.3 **Research Trainee:** refers to any undergraduate or graduate student engaged in a research project.

2.3.4 **Research Associate:** refers to any professional assistant usually a post-doctoral fellow or another researcher working under the supervision of the Principal Investigator.

2.3.5 **Research Assistant:** refers to personnel, not holding a graduate degree, working under the direction of the Principal Investigator.

2.3.6 **Research Team:** refers to all members listed in items 2.3.1 to 2.3.5.

2.3.7 **Immediate Supervisor:** The Principal Investigator is the immediate supervisor of all members of the research team.

2.4 **Research Unit:** a faculty, department, school, centre, research institute, interdisciplinary research project or laboratory under the aegis of Lakehead University.

2.5 **Allegation:** A written complaint supported by evidence addressing one or more of the points mentioned in Section 4.

# **3. GUIDELINES FOR THE ETHICAL CONDUCT OF RESEARCH**

#### **3.1 Supervision of Research Personnel**

The Principal Investigator is ultimately responsible for careful supervision which considers the best interest of the research project, the research team, the institution, the research sponsor and the academic community.

3.1.1 The ratio of other research personnel, especially students, to Principal Investigator should be small enough to allow effective communication and continuous supervision of all aspects of the research project.

3.1.2 The Principal Investigator should oversee the design of the research and the processes of acquiring, recording, examining, interpreting and storing data; and should edit research reports prior to their publication.

3.1.3 The Principal Investigator is responsible for providing each new member of the research team with applicable governmental and institutional requirements for the conduct of studies involving human subjects, animals, radioactive or other hazardous substances or recombinant DNA; the University's Guidelines for Ethical Conduct of Research as well as any other information which is directly relevant to the research activity (such as guidelines for use of archival documents).

3.1.4 The Principal Investigator should clarify the relationship among members of the research team which may include a Memorandum of Understanding (MOU) outlining roles and responsibilities.

3.1.5 Collegial discussion among all research personnel in a research team unit should be held regularly to contribute to the scholarly efforts of members, monitor progress and to provide informal review.

#### 3.2 Data Gathering, Storage and Retention

The retention of accurately recorded and retrievable results is to enable a scholar to account for the results obtained in the research he or she has conducted.

3.2.1 Original primary data/evidence must be retained by the laboratory or unit in which they are generated. The immediate supervisor and all co-investigators must have free access to all original data/evidence and products of the research at all times. With the knowledge and authorization of the Principal Investigator, a member of the research team may make copies of the primary data for his or her own use. Authorization to make copies by a research team member may not be withheld without valid reasons; the reasons must be communicated in writing to the Dean of the Faculty or, in cases involving graduate students, to the Dean of Graduate Studies and Research (the Dean).

3.2.2 All Primary data should be promptly recorded in clear, adequate, original and permanent form which should not reasonably leave the laboratory or unit. The principal investigator shall together with the appropriate university personnel arrange for secure and confidential storage. The duration of the storage shall be for seven years. If, during this seven year period, the Principal Investigator leaves the University, the University must maintain these files for the remainder of the seven year period. Alternative arrangements for copies to be kept by the University instead of the original must be made with the Principal Investigator.

3.2.3 When a Principal Investigator leaves the University, arrangements for the safekeeping of records and/or products must be made with his/her immediate supervisor.

3.2.4 Provision of material products - such as apparatus and/or substances, or software developed and prepared during research - to third parties for non-commercial research purposes within or outside the unit should only be made with the approval of the Principal Investigator.

#### 3.3 Co-Authorship

The co-authors of a publication are all those persons who have made significant intellectual contributions to the results. An administrative relationship to the investigation does not by itself qualify a person for co-authorship. Authorship decisions should not be affected by whether participants were paid for their contributions or by their employment status. The author who submits a manuscript for publication accepts the responsibility of having included all appropriate co-authors. The submitting author should send each co-author a draft copy of the manuscript and make a reasonable attempt to obtain consent on co-authorship including the order of names. Other contributions should be indicated in a footnote or an "Acknowledgements" section.

3.3.1 There shall be no honorary co-author. The authorship shall be based entirely on significant intellectual, professional or research immediate supervisory contribution.

3.3.2 In student - professor collaborations, as co-authors in a joint publication, both student and professor should: 1. make a significant scholarly contribution that is creative and intellectual in nature, or 2. be integral to the completion of the paper. A student should be granted due prominence on the list of co-authors for any multiple-authored article that is based primarily on the student's own dissertation/thesis, according to the commonly accepted practice in the field.

3.3.3 In case of a conflict between co-authors on technical content, number of coauthors or order of names in co-authorship, all attempts should be made to resolve the matter informally. If unavoidable, mediation by the Chair/Director of the academic unit, the Director of the research unit or the Dean may be required. In case the conflict cannot be resolved, dispute resolution may be necessary.

# 4. FRAUD OR RESEARCH MISCONDUCT

4.1 Factors intrinsic to the process of academic research such as honest error, conflicting data, or differences in interpretation or assessment of data or of experimental design do not constitute fraud or misconduct.

4.2 Fraud or misconduct in academic research means:

4.2.1 Fabrication, falsification, or plagiarism;

4.2.2 Material failure to recognize by due acknowledgement the substantive contributions of others or the use of unpublished material of others without permission, or the use of archival materials in violation of the rules of the archival source;

4.2.3 Material failure to obtain the permission of the author before making significant use of new information, concepts or data obtained through access to manuscripts or grant application during the peer review process;

4.2.4 Attribution of authorship to persons other than those who have participated sufficiently in the work to take public responsibility for its intellectual content. Purely formal association with the research project such as the headship of a laboratory or faculty where the head or dean had no direct research involvement may be noted as an acknowledgement but not as authorship. General supervision of the research group is also not sufficient for authorship but may be acknowledged. Technical help, data collection or critical reviews of the manuscript prior to publication may be acknowledged in a separate paragraph.

4.2.5 Submission for publication of articles originally published elsewhere except where it is clearly indicated in the published work that the publication is intended to be a republication;

4.2.6 Intentional diversion of the research funds of the university, federal or provincial granting councils or other sponsors of research;

4.2.7 Material failure to comply with relevant federal or provincial statutes or regulations for the protection of researchers, human subjects, or the health and safety of the public, or for the welfare of laboratory animals;

4.2.8 Material failure to meet other relevant legal requirements that relate to the conduct or reporting of research;

4.2.9 Failure to reveal material conflict of interest to sponsors or to those who commission work, or when asked to undertake reviews of research grant applications or manuscripts for publication, or to test products for sale or for distribution to the public;

4.2.10 Failure by those involved in a research project to reveal to the employer any material financial interest in a company that contracts with the employer to undertake research, particularly research involving the company's products, or to provide research-related materials or services. Material financial interest includes ownership, substantial stock holding, a directorship, significant honoraria or consulting fees but does not include routine stock holding in a large publicly traded company.

4.2.11 Deliberate destruction of one's own research data in order to avoid the detection of wrong doing; or tampering with or destruction of the research of another person either for personal gain or out of malicious intent, such as introducing computer viruses.

4.3 In the event that an occurrence takes place that is a violation of common practices and standards of behaviour and is not listed above, but involves members of the Lakehead University Faculty Association, both Lakehead University and the Lakehead University Faculty Association are willing to discuss the issue and determine whether or not the occurrence should be considered as fraud or research misconduct.

# 5. PROCEDURES FOR INVESTIGATING REPORTS OF FRAUD AND RESEARCH MISCONDUCT:

#### 5.1 Consultation:

5.1.1 Before making a written allegation of misconduct a person must consult with the Dean of Graduate Studies and Research (the Dean), it being understood that this consultation will remain confidential. The Dean shall maintain confidentiality in dealing with the allegation so as to protect the reputation and careers of all involved, as well as the reputation of the University. If the allegations are against the Dean, a person must consult with the Vice-President (Academic). In these instances, the Vice-President (Academic) would follow the same process as outlined below for the Dean.

5.1.2 Upon receiving an allegation, the Dean must determine, as promptly and prudently as possible, the merit of the allegations, which in no case should be more than ten working days.

5.1.3 If, through this consultation it is determined that the allegation has no merit, all practical steps should immediately be taken by the Dean to redress any harm that may have been done by the allegation. The person making the allegation may discuss the issue in confidence with the Vice-President (Academic) if he/she believes that the consultation has not adequately dealt with the allegation.

5.1.4 If through this consultation it is determined that the allegation has merit and constitutes serious fraud or research misconduct, the Dean will recommend that a written allegation be submitted to the Vice-President (Academic) for a formal investigation to be initiated.

The Vice-President (Academic) may ask the person(s) against whom allegations are made to show cause why a formal investigation should not be initiated. Within ten working days of a receipt of a written allegation, the Vice-President (Academic) must decide whether a formal investigation should proceed.

5.1.5 It is the responsibility of the Dean to take whatever actions may be necessary to protect the person making the allegation from possible acts of coercion or retribution by the individual(s) alleged to be involved in fraud or research misconduct. This is especially important if the person making the allegation is a graduate student supervised by the individual alleged to be involved in fraud or research misconduct, or is a research employee whose employment in the University is directly dependent upon grant or contract funds for which the individual alleged to be involved in fraud or research misconduct is the signing authority.5.2 Formal Investigation

Once the Vice-President (Academic) has determined that a formal investigation should proceed, the Vice-President (Academic) will establish an Investigative Committee within ten working days.

5.2.1 The Investigative Committee shall be comprised of three members. The person(s) alleged to have committed fraud or research misconduct will nominate one committee

member, the person submitting the written allegation will nominate one member. The two nominees select a chair. (See Appendix I).

5.2.2 The Vice-President (Academic) will present the Investigative Committee with the written allegation and turn over all relevant materials. The person alleged to have committed fraud or research misconduct has a right to submit relevant materials to the Committee. The person alleged to have committed research fraud or misconduct shall have the right to full disclosure of all information or evidence relevant to the case. This right shall include the right to examine documents or material prior to the hearing as well as have the right to submit relevant materials to the Committee.

5.2.3 The Committee will address the charges of fraud or research misconduct and determine whether or not they have merit.

5.2.4 The Committee will ensure that it is cognizant of all real or apparent conflicts of interest on the part of those involved in the inquiry, including both those alleged to have committed fraud or research misconduct and those making the allegations.

5.2.5 It may seek impartial expert opinions, as necessary and appropriate, to ensure that the investigation is thorough and authoritative.

5.2.6 The Committee will keep, on file, copies of all materials it has collected and any tape recordings of its hearings so that they are available for transcription if required.

5.2.7 The Committee should aim to review all research with which the person alleged to have committed fraud or research misconduct has been involved during the period of time considered pertinent in relation to the allegations. A special audit of research accounts may also be performed on the sponsored research of the involved person alleged to have committed fraud or research misconduct of fraud or research misconduct.

5.2.8 The person alleged to have committed fraud or research misconduct, any coinvestigator(s) or immediate supervisor related to the investigation will have the right to be present at Committee meeting or send a delegate, to have reasonable access to all presenting and to present information to the Committee.

5.2.9 The person alleged to have committed fraud or research misconduct, any coinvestigator(s) or immediate supervisor related to the investigation will be given the opportunity to review and comment on a draft of the Report. Their remarks will be included as appendices in the final report.

5.3 Subsequent Actions from the Formal Investigation of the Investigative Committee 5.3.1 The Investigative Committee, upon reviewing all the elements in the case, will communicate their decision to the President who shall inform the person(s) alleged to have committed fraud or research misconduct of the decision of the Committee and of any actions that are to be taken. In addition, where appropriate, any outside funding agency shall be informed of the results of the inquiry and of the actions which will be taken. In all proceedings and subsequent to a final decision, the University will undertake to assure that those making an allegation in good faith and without demonstrably malicious intent will be protected from reprisals or harassment.

5.3.2 The University shall take such steps as may be necessary and reasonable to:

5.3.2.1 Protect the reputation and credibility of persons wrongfully accused of fraud or misconduct in research, including written notification of the decision to all agencies, publishers, or individuals who were informed by the employer of the investigation.

5.3.2.2 Protect the rights, positions and reputations of persons who in good faith make allegations of fraud or research misconduct, or whom it calls as witnesses in an investigation. Such protection shall include, as a minimum, legal counsel and other legal costs should the persons be sued for their participation in any investigation or in arbitration proceedings.

5.3.2.3 Minimize disruption to the research of the person making the allegation and of any third party whose research may be affected by the securing of evidence relevant to the allegation during the course of the investigation.

5.3.2.4 Ensure that any disruption in research, teaching or community service resulting from allegations of fraud or misconduct does not adversely affect future decisions concerning the careers of those referenced in (5.3.2.1 - 5.3.2.3) above.

5.4 Appeals 5.4.1 For members of the University community who are members of a bargaining unit, the appeal process will be that set out in the agreement with the University. If the agreement does not contain such provision appeal will be made to the Vice-President (Academic). 5.4.1.1 Any discipline imposed on a member of LUFA for fraud or misconduct in research shall be subject to Article 30 (Grievance and Arbitration) of the Collective Agreement, except that cases involving allegations of fraud or misconduct in research shall proceed directly to arbitration by a three person board.

5.4.1.2 A statement from the employer that a LUFA member is guilty of fraud or misconduct in research, with or without any formal sanctions, constitutes discipline and may be arbitrated.

5.4.1.3 If the matter is referred to an arbitration board, the University shall bear the onus of proving just and sufficient cause, notwithstanding the recommendations of any previous inquiry committee. The arbitration board shall hear all evidence de novo. The arbitration board shall have the power to vary the penalty imposed by the employer.

5.4.1.4 The standard of proof in any such arbitration shall require the establishing of a deliberate intention to deceive and that there was no possibility of an honest error.

5.4.2 For other members of the University community, appeal will be made to the Vice-President (Academic).June 15, 1995

# **APPENDIX I**

Appendix I contains a suggested list of factors to be considered in the Selection of the Investigative Committee.

- The subject matter of the inquiry, and the desirability of committee competence in a specialized area of research;
- The importance of selecting persons who have had no prior involvement in the subject matter of the inquiry;
- The importance of protecting the reputations of individuals by maintaining confidentiality;
- The amount of time the case may take when considering factors such as the volume and nature of the research to be reviewed and the degree of cooperation shown by the subject of the investigation.