

SCHOOL OF ANAESTHESIA

37 MILITARY HOSPITAL



RESEARCH POLICY

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POLICY OR REGULATIONS ON RESEARCH

PREAMBLE

Research is also central to the mission of the School of Anaesthesia, 37 Military Hospital. It is the cornerstone of continuous creation of knowledge which is the foundation of all disciplines. It directly contributes to social well-being, health, culture, economic development and the advancement of society.

Research can flourish only in a climate of academic freedom which includes freedom of inquiry and the right to disseminate the results thereof, freedom to challenge conventional thought, freedom from institutional censorship, and the privilege of conducting research on human and animal subjects. However, with academic freedom comes the responsibility to ensure that all research is informed by the principles of honesty, integrity, trust, accountability and collegiality; meets high scientific and ethical standards; is conducted with honest and thoughtful inquiry, rigorous analysis, and accountability for the use of professional standards; and seeks to increase knowledge in ways that do not harm but which benefit society.

The cultivation of these values in the School of Anaesthesia, 37 Military Hospital students are advanced by the ongoing education of its members in matters of research integrity, and by adopting and following appropriate policies within which research should be conducted, policies which all major funding agencies require educational institutions to have in place.

This regulation, therefore, establishes a general framework for the conduct of research. It is premised on individual responsibility for the selection and conduct of research as individual members of the School of Anaesthesia, 37 Military Hospital students health communities are best positioned, through special knowledge, to be aware of both the manner in which their research and scholarly activity is being conducted and the consequences of such activity. Special responsibility rests with researchers to remain aware of the consequences of their research and to balance the potential benefits against the possibility of harmful applications.

This regulation should be interpreted in a manner that is consistent with the vision of the School of Anaesthesia, 37 Military Hospital as a research and scholarly community committed to the principles of academic freedom, honesty, integrity, trust, accountability and collegiality, and the idea that fair play must prevail at all times.

This regulation does not replace the policies and guidelines of agencies sponsoring research or which have oversight of particular research activities.

1. DEFINITIONS

1. For the purposes of this Regulation:

1.1 “Agency” means the funding agency, foundation, organization, sponsor or other Person, public or private, international, national, provincial or foreign, supporting in whole or in part any Research, or which has oversight of any Research.

1.2 “Chair” means the chair or director of a department, school, institute or centre and includes the chairs of all such units within which a researcher undertakes research.

1.3 “Corresponding Author” means:

- a. the researcher so identified by agreement of research collaborators; or
- b. In the absence of agreement, the researcher who submits a manuscript for publication.

1.4 “Data” means the recorded factual information and material, both physical and electronic, commonly accepted in the relevant scientific community as necessary to validate research findings including, but not limited to, research proposals, laboratory records, progress reports, internal reports, and presentations.

1.5 “Gift” means a voluntary transfer of property without valuable consideration or benefit of any kind to the donor, or to any person designated by the donor.

1.6 “Legal Person” includes corporations, partnerships, associations, foundations, organizations, government agencies, and any other entity or body.

1.7 “Person” means, as the context requires, natural and legal persons.

1.8 “Plagiarism” means the representation of another’s work, published or unpublished, as one’s own or assisting another in representing another’s work, published or unpublished, as his or her own.

1.9 “Principal Investigator” means the researcher who is so identified to an agency or, in the absence of such identification, the researcher who has primary responsibility for the design, conduct and supervision of research.

1.10 “Regulatory Framework” the regulations, policies and guidelines of the School of anaesthesia, 37 Military Hospital concerning the conduct of research and related matters as they may exist from time to time.

1.11 “Research” includes all forms of funded and unfunded scholarly, scientific and professional work and related activities based on intellectual investigation aimed at discovering, interpreting, and revising, disseminating or publishing knowledge.

1.12 “Research Related Agreement” includes international project agreements, licensing agreements, research agreements, research contracts, research grant applications, research grant agreements, service agreements, shareholder agreements, clinical trial agreements, confidentiality agreements, material transfer agreements, partnership program agreements, collaborative research development agreements, inter-institutional research agreements and industrial research chair agreements and any document accessory to such agreements.

1.13 “Research Misconduct” includes, but is not limited to the definitions of the funding agencies for such misconduct, for example: fabrication, falsification, plagiarism, misappropriation of intellectual property rights of another, or any other conduct that constitutes a significant departure from the ethical and other standards that are commonly accepted within the relevant research community for proposing, performing, reporting or reviewing research or treating human and animal research subjects, but does not include honest errors or differences of interpretation or judgment relating to data or results that are reasonable in light of the circumstances in which they are made or reached.

1.14 “Researcher” means any member of the School of Anaesthesia, 37 Military Hospital who engages in research.

1.15 “Student” means a student as defined in the Code of Student Conduct and Disciplinary Procedures.

1.16 SOA means School of Anaesthesia, 37 Military Hospital.

2. SCOPE

2.1 This regulation or policy applies to all research conducted by a researcher (principal investigator).

3. BASIC OBLIGATIONS

3.1 The primary responsibility for the selection and conduct of research shall rest with the researcher and to this end he or she shall:

- a. Maintain the highest standards of honesty, integrity and ethical behaviour in all research.
- b. Familiarize himself or herself with and abide by the regulatory framework and the regulations, policies and guidelines of any agency relevant to his or her research.
- c. Not misrepresent his or her academic, professional or employment credentials or experience.
- d. Obtain necessary approvals including, but not limited to, ethics, protocol and standard operating procedure approvals, before engaging in a Research activity for which prior approval is necessary.

- e. Use scholarly and scientific rigor and integrity in obtaining, recording and analyzing Data, and in reporting and publishing results.

3.1.1 The School of Anaesthesia, 37 Military Hospital shall take reasonable measures to ensure that researchers are made aware of, and kept informed of changes to the regulatory framework relevant to research.

3.2 In the case of collaborative or team research, the principal investigator shall take reasonable measures to ensure that the members of the research group or team are aware of and comply with the regulatory framework relevant to the research being undertaken.

3.3.1 The administration shall put in place reasonable measures to ensure that students who may engage in research are aware of:

- a. Their obligations in respect of academic integrity and the ethical conduct of research.
- b. The Regulatory Framework relevant to their research.

3.3.2 A supervisor of Students engaged in Research shall take reasonable measures to:

- a. Ensure that the Students have been advised of their obligations in respect of academic integrity and the ethical conduct of Research.
- b. Ensure that the Students have received a copy of the Regulatory Framework relevant to their particular Research.
- c. Provide the Students with a copy of any Research related documents which the Students have been asked to sign.
- d. disclose to the Students any special conditions concerning such matters as constraints on publication, limitations on future use of Data, and ownership of intellectual property that may influence a Student's decision to participate in the Research.

3.4 A Researcher engaged in Research external to the School of Anaesthesia, 37 Military Hospital which is not part of her or his academic duties shall act with integrity and adhere to the highest ethical standards.

3.5 A Researcher who engages in Research which is not part of his or her academic duties for Persons external to the School of Anaesthesia, 37 Military Hospital shall:

- a. Comply with the disclosure requirements of the Regulatory Framework governing conflicts of interest, and conflicts of commitment and consulting activities.
- b. advise in writing the Person on behalf of whom such activities are undertaken that the researcher is acting in his or her private capacity, and not as an employee or representative of the SOA (School of Anaesthesia, 37 Military Hospital) unless the researcher has been expressly authorized in writing so to act by his or her Chair.

- c. not make use of School of Anaesthesia, 37 Military Hospital personnel or students, or more than minimal use of services, facilities, equipment or supplies in such research without, in advance of such use:
 - a. obtaining written approval for such use from the Chair and Dean; and
 - b. making appropriate written financial arrangements to reimburse the School of Anaesthesia, 37 Military Hospital in advance of such use.

3.5.1 Where appropriate, prior to granting approval pursuant to section 3.5, the Chair shall consult with the Dean, Vice-Principal (Research and International Relations) and/or Vice-Principal (Administration and Finance).

3.6 A Researcher shall ensure that publications do not misrepresent data or images and that the nature and purpose of any image manipulation is explained.

3.7 A Researcher shall comply with the accepted practice of his or her discipline relating to the publication of Research including those constraining:

- (i) the submission of manuscripts to two or more journals; and
- (ii) the duplicate publication of Data or a manuscript.

3.8 A Researcher shall not enter into or participate in any arrangement whereby an Agency or Person with a vested interest in the findings of Research may:

- (i) suppress any findings of the Research; or
- (ii) withhold information that may have a bearing on the interpretation of the findings

3.8.1 Section 3.8 shall not override the rights of human subjects of the Research.

3.9 A Researcher normally shall not enter into an arrangement with a Person to write or contribute to a publication without the Researcher's contribution being publicly acknowledged. Such an arrangement is only acceptable if the Researcher, if so requested, is prepared to be publicly associated with the publication.

3.10.1 Subject to section 3.5, a Researcher shall acknowledge his or her affiliation with the School of Anaesthesia, 37 Military Hospital in all publications resulting from Research undertaken while a member of the School of Anaesthesia, 37 Military Hospital community.

3.10.2 A Researcher who is no longer a member of the School of Anaesthesia, 37 Military Hospital community shall cease to indicate in publications, other than those resulting from Research performed while a member of the School of Anaesthesia, 37 Military Hospital community, his or her affiliation with the School of Anaesthesia, 37 Military Hospital in the absence of prior written approval of the chair.

4. RESEARCH DATA

4.1 A Researcher shall collect Data concerning human and animal subjects in accordance with the Regulatory Framework governing the use of such subjects.

4.2 A Researcher shall respect the laws governing access to personal information and privacy in his or her collection and use of Data.

4.3 A Student may engage in Research in which use of certain kinds of Data, in the custody of a government or Person, is restricted provided that:

- (i) the eventual publication of Research based on the Data is permitted; and
- (ii) subject to section 4.3.1, any delay in publication does not exceed one (1) year.

4.3.1 A request by a third party for a delay in publication of Research undertaken by a Student for his or her thesis that exceeds one (1) year may be agreed to only in exceptional cases and shall require:

- (i) the written consent of the Student; and
- (ii) the written approval of:
 - (a) the Deputy Director (Research and International Relations); and
 - (c) the Dean of Graduate and Postdoctoral Studies.

4.4 A Researcher shall not use or publish Data which he or she knows to be, or has reasonable grounds to believe are, false or of unknown provenance unless it is so identified.

4.5 A Researcher shall organize his or her Data in a manner that allows for its verification by third parties.

4.6 Retention of Research Data

4.6.1 A Researcher shall retain Data in conformity with best practice in his or her discipline and for:

- (i) the period specified by the Agency supporting the Research; or
- (ii) in the absence of an Agency specification, a period of seven (7) years from publication of the Data.

4.6.2 Each department or research unit shall establish procedures appropriate to its needs for the retention and recording of Data.

4.6.2.1 Data shall be retained by a Principal Investigator or the department or research unit in which they were generated as agreed to by the Principal Investigator and his or her Chair.

4.6.2.2 A Researcher who ceases to be a member of the School of Anaesthesia, 37 Military Hospital shall deposit his or her Data with the department or research unit where the Data were generated unless alternative written arrangements are made with his or her Chair.

4.6.3 In the event that Data obtained from a limited access database or under a Research Related Agreement cannot be retained by a Principal Investigator; the Principal Investigator must provide the Chair in writing with the location of the Data or the limited-access database.

4.7 Access to Research Data

4.7.1 Subject to exceptions based on a duty of confidentiality and the laws respecting intellectual property and access to information, a Researcher shall make his or her Data available after publication to an Agency or established scientific or scholarly journal presenting a reasonable and legitimate written request to examine the Data.

4.7.2 Where there is a disagreement between the Researcher and the Agency or journal requesting the Data, the disagreement shall be referred for resolution:

(i) first to the Chair;

(ii) then, if necessary, to the Director; and

(iii) finally, if necessary, to the Office of the IRB (Institutional Review Board, 37 Military Hospital).

4.8 Collaborative Data

4.8.1 Research collaborators, at the commencement of their collaboration, shall make all reasonable efforts to reach agreement, preferably in writing, that is consistent with the law and the Regulatory Framework relating to intellectual property, on their rights to, and future use of, Data.

4.8.2 In the absence of an agreement between Research collaborators, their rights to and future use of the Data shall be governed by the law and the Regulatory Framework relating to intellectual property.

4.8.3 In the event that a dispute should arise between Research collaborators concerning rights to and future use of the Data, the School of Anaesthesia, 37 Military Hospital shall assist in facilitating the resolution of dispute in accordance with that of the IRB, 37 Military Hospital.

5. USE OF OTHERS' WORK

5.1 A Researcher shall not knowingly engage in Plagiarism.

5.1.1 Upon the demonstration that a Researcher has engaged in Plagiarism it shall be presumed that the Researcher did so knowingly and he or she shall bear the burden of rebutting the presumption by evidence satisfying the Person or body investigating the matter that no such knowledge existed.

5.2 A Researcher shall obtain the prior permission of another Person before using, even with proper attribution, the unpublished work or Data of the other Person.

5.2.1 Notwithstanding section 5.2, where a Researcher has obtained access to unpublished information, concepts or Data through access to confidential information or documents, including material obtained by the Researcher as part of processes such as peer review, the Researcher shall not use such information, concepts or Data without the prior written permission of the author.

5.3 A Researcher shall not enter into, or participate in, any arrangement whereby an Agency or other Person may have exclusive use of, or access to, the Data of a Research collaborator, whether with or without proper attribution, without the Research collaborator's prior written informed consent.

5.4 A Researcher shall use archival material in accordance with the rules of the archival source.

6. COLLABORATIVE RESEARCH

6.1 A Researcher shall recognize in an appropriate form or manner in his or her publications the substantive contributions of all Research collaborators including Students.

6.2 AUTHORSHIP

6.2.1 A Researcher shall ensure that authorship of published work includes all those and only those who have made significant scholarly contributions to the work and who share responsibility and accountability for the results.

6.2.2 A Researcher shall ensure that where a co-authored publication is based primarily on the work of a student, including a dissertation or thesis the Student is granted due prominence in the list of co-authors in accordance with the established practices of the discipline.

6.2.3 In the absence of an agreement between Research collaborators, the following rules shall govern the order of attribution of authorship:

- (i) authorship shall be attributed to all those Researchers who have made significant scholarly contributions to the work and who share responsibility and accountability for the results;
- (ii) attribution of authorship shall be determined according to:
 - (a) the quality and quantity of a Researcher's contribution;
 - (b) the extent of a Researcher's responsibility and accountability for the results; and
 - (c) the best practices of the discipline;
- (iii) the order of attribution of authorship shall not be affected by whether a Researcher was paid for his or her contribution or by his or her employment status.

6.2.4 A person who provides only administrative and/or managerial services to a collaborative Research endeavour shall not qualify for co-authorship.

6.3 RESPONSIBILITIES OF CORRESPONDING AUTHOR

6. 3.1 Prior to the submission of a manuscript for publication, the Corresponding Author shall:

- (i) ensure all persons who are entitled to co-authorship are included as co-authors;
- (iii) Make a reasonable attempt to obtain the consent of the co-authors to the order of attribution of authorship;
- (iii) Ensure that persons who have made useful contributions to the Research which do not qualify them for co-authorship are appropriately acknowledged in accordance with the standards of the discipline and the publisher;
- (iv) Provide each co-author an opportunity to comment on the manuscript prior to its submission for publication; and
- (v) provide each co-author with a copy of the manuscript submitted for publication.

6.4 OWNERSHIP OF INTELLECTUAL PROPERTY

6.4.1 Subject to section 6.4.3, Research collaborators shall endeavour to reach an agreement, consistent with the Regulatory Framework concerning the allocation of intellectual property.

6.4.2 Subject to section 6.4.3, in the absence of agreement between Research collaborators, the allocation of copyright shall be governed by the law and the Regulatory Framework relating to intellectual property.

6.4.3 In the event that an external Person has an interest in the Research, the Research collaborators, the School of Anaesthesia, 37 Military Hospital and such Person shall, following negotiations establish by contract:

- (i) ownership of intellectual property arising out of any Research Related Agreement;
- (ii) the rights and obligations of the parties to seek patents; and
- (iii) the entitlement of the parties to share in any associated royalties.

6.5 DISPUTES RESOLUTION IN COLLABORATIVE RESEARCH

6.5.1 The School of Anaesthesia, 37 Military Hospital shall assist in facilitating the resolution of disputes between Research collaborators (“the disputants”), in accordance with section 6.5.

The School of Anaesthesia, 37 Military Hospital, however, has no obligation to ensure that such disputes are resolved.

6.5.2 Disputants shall first seek to resolve their dispute amicably between themselves using the good offices of the Principal Investigator if he or she is not a party to the dispute.

6.5.3 In the event that an amicable resolution of the dispute is not or cannot be achieved in accordance with section 6.5.2, the disputants shall refer the dispute to the Chair or the Dean of the faculty, if it is one without departments, who shall attempt to resolve the dispute.

The Chair or Dean, as the case may be, may appoint a senior member of the academic staff of the department or Faculty to act in his or her stead.

6.5.4 In the event that the dispute is not resolved in accordance with section 6.5.3, the disputants shall seek the assistance of the Deputy Director (Head of research committee) in achieving a resolution. The Vice-Principal (Research and International Relations) may appoint a senior member of the academic staff to act in his or her stead.

6.5.5 The Deputy Director or appointee, may assist the disputants in selecting an internal or external mechanism for the resolution of their dispute on the understanding that their involvement in any of these processes is without prejudice to the disputants’ rights in any subsequent internal or external process.

6.5.6 Notwithstanding section 6.5.5, in the event that a resolution acceptable to the disputants is reached:

- (i) it shall be acknowledged by them in writing and in sufficient detail to allow for its implementation; and

(ii) it shall be deemed to be final and the disputants thereby waive any further internal and external recourse based on the facts having given rise to the dispute.

6.5.7 Sections 6.5.1 through 6.5.6 do not apply to disputes that may arise because of alleged Research Misconduct or disagreement as to the ownership of intellectual property rights which disputes shall be resolved respectively in accordance with the Regulatory Framework relating to:

(i) the investigation of research misconduct; and

(ii) intellectual property.

7. RESEARCH FUNDS

7.1 A Researcher shall ensure that all research funds administered by him or her are used with honesty, integrity and accountability.

7.2 A Researcher, and those with oversight of funds and their use, shall comply with the Regulatory Framework and applicable Agency policies and guidelines relating to the management and disbursement of funds and reimbursements for expenses.

7.3 A Researcher shall not approve payment from any Agency or School of Anaesthesia, 37 Military Hospital funds to, or the use of any School of Anaesthesia, 37 Military Hospital personnel or any School of Anaesthesia, 37 Military Hospital administered resources, services or materials for, a Person developing or using a Researcher's invention, software or other discovery unless such payment or use is expressly authorized in writing by the Agency and the School of Anaesthesia, 37 Military Hospital.

7.4 A Researcher shall acknowledge, in all published works resulting from his or her Research, all Agencies and other public and private funding sources which supported his or her Research.

8. RESEARCH INVOLVING HUMAN SUBJECTS

8.1 A Researcher conducting Research involving human subjects shall:

(i) conduct such Research in accordance with the highest ethical standards;

(ii) respect the legal and moral rights of the persons who are the subjects of the Research; and

(iii) comply with the Regulatory Framework governing such Research.

8.2 A Researcher shall not use the premises, facilities or publications of the School of Anaesthesia, 37 Military Hospital to recruit in any manner a member of the School of Anaesthesia, 37 Military Hospital community as a participant in medical testing or in clinical

trials involving human subjects related to non-School of Anaesthesia, 37 Military Hospital Research projects.

8.3 A Researcher shall obtain the prior approval of a research ethics board before engaging in self-experimentation involving any element of risk to the Researcher whether or not the Researcher is the sole or one of the human subject participants.

8.4 A Researcher shall not accept any personal benefit (including a bonus or milestone payment) for:

(i) enrolling a particular number of patients or for meeting a deadline in recruiting human subjects;

(ii) a particular number of human subjects successfully completing the study or trial or for successfully completing it within a specific timeframe;

(iii) assessing potential recruits for a study or a clinical trial in which the Researcher is involved.

9. SECRET RESEARCH

9.1 A Researcher shall not enter into any arrangement with any Person to conduct any Research under the auspices of the School of Anaesthesia, 37 Military Hospital, or on School of Anaesthesia, 37 Military Hospital premises or using Students, academic, administrative or support staff, or School of Anaesthesia, 37 Military Hospital resources or facilities on the understanding that the conduct of the Research is to be kept secret.

10. HAZARDOUS RESEARCH

10.1 A Researcher proposing to engage in Research activities that pose a recognizable inherent risk of accidental injury to persons or property shall:

(i) comply with the Regulatory Framework governing the conduct of such activities;

(ii) obtain all necessary approvals before accepting delivery of hazardous materials, or embarking on the activities in question; and

(iii) prior to the commencement of the activities, notify those who it is reasonably foreseeable may be placed at risk.

10.2 A Researcher engaged in a Research activity which poses a significant recognizable inherent risk of physical injury to persons or property who has reasonable cause to believe that injury to person or property has occurred or is imminent shall:

- (i) take appropriate measures to address the situation in accordance with the School of Anaesthesia, 37 Military Hospital's emergency policies and guidelines; and
- (ii) report the incident or potential threat to the Researcher's chair.

11. COMMERCIALIZATION OF RESEARCH

11.1 Without prejudice to the rights of a Researcher's collaborators or sponsors of Research, a Researcher shall not be obliged to seek commercial development of his or her invention, software or other discovery.

The School of Anaesthesia, 37 Military Hospital shall respect the decision of a Researcher not to commercialize his or her invention, software or other discovery.

11.2 A Researcher who elects not to seek the commercial development of an invention, software or other discovery may, in accordance with the Regulatory Framework governing intellectual property, permit its commercial development by his or her collaborators.

11.3 A Researcher who elects to develop an invention, software or other discovery or to become involved directly in its commercial application shall comply with the Regulatory Framework governing intellectual property.

12. NEGOTIATION OF RESEARCH RELATED AGREEMENTS

12.1 All Research Related Agreements must be approved and executed according to the Regulatory Framework relating to the conclusion of such agreements

13. CONFLICT OF INTEREST

13.1 A Researcher shall comply with the Regulatory Framework governing conflicts of interest, and consulting activities.

13.2 A Researcher shall disclose to all relevant Persons (including other institutions, Agencies, conference organizers and participants, and journals and publishers) any conflict of interest that might influence such Persons' decisions such as whether a Researcher should be asked:

- (i) to review Research proposals, funding applications or manuscripts;
- (ii) to test inventions, software or other discoveries;
- (iii) to present Research results; or
- (iv) to be permitted to undertake Research sponsored by outside Persons.

14. RESEARCH MISCONDUCT

14.1 Any action that is inconsistent with integrity, honesty or the Regulatory Framework, including this Regulation, may constitute a disciplinary offence and, where appropriate, shall be investigated in accordance with the Regulatory Framework relating to the investigation of research misconduct or, where appropriate, the Code of Student Conduct and Disciplinary Procedures.

14.2 Nothing in the provisions of this Regulation is intended to impugn a Researcher for honest errors or for differences of interpretation or judgment relating to Data or results that are reasonable in light of the circumstances in which they are made or reached.

16. REVIEW OF REGULATION

16.1 This Regulation shall be reviewed at the end of the third full year of its operation by the a working group composed of three members appointed by the Director of the School, chairperson of the research committee, institutional review board (IRB) -37 Military Hospital representative; three members of the academic staff nominated by the academic Nominating Committee; and two students nominated by the School Representative council (SRC).