

Senate met on April 19, 2022 and May 11, 2022. This report contains items which are presented to the Board of Governors for its consideration and information.

## **I. FOR ACTION BY THE BOARD OF GOVERNORS**

### **1. 512<sup>th</sup> Report of the Academic Policy Committee** [D21-58]

#### **1.1 Policy on Assessment of Student Learning** [D21-58]

Senate reviewed a recommendation of the Academic Policy Committee to approve the *Policy on Assessment of Student Learning*.

On May 2, 2022, the Academic Policy Committee reviewed and approved a proposal to revise the current University Student Assessment Policy (USAP), following a three-year-long University-wide review and consultation process. The updated Policy on Assessment of Student Learning (PASL) is principles-based, and less procedural than the USAP, while recognizing the importance of assessment for learning. It emphasizes the importance of feedback, accountability, equity, and is less exam-centric, with a broader understanding of modes of assessment. A separate document focusing on procedures and implementation is being prepared by Teaching and Learning Services (TLS) to complement the Policy. To reflect the extent of the revisions undertaken and give units and instructors sufficient time to adjust their assessment and potentially teaching strategies, the PASL will only come into effect in Fall 2024. TLS will provide guidance and support for a successful transition.

Following its review, Senate approved and recommended to the Board of Governors for approval the proposed policy included as Appendix A.

*Be it resolved that the Board of Governors, on the recommendation of Senate, approve the proposed Policy on Assessment of Student Learning included as Appendix A.*

#### **2.2 Policy on the Study and Care of Animals** [D21-58]

Senate reviewed a recommendation of the Academic Policy Committee to approve the *Policy on the Study and Care of Animals*.

At its meeting held on April 14th, 2022, the Academic Policy Committee reviewed and approved proposed revisions to the Policy on the Study and Care of Animals. In light of an assessment visit that will be conducted by the Canadian Council on Animal Care (CCAC) in Fall 2022 and given that the Policy on the Study and Care of Animals has not undergone any in-depth review since its inception in 2011, the Office of the Vice-Principal (Research and Innovation) has undertaken a two-phase review process of the Policy, which was approved by Senate. Phase 1 of the process has led to several administrative revisions, and Phase 2 will consist of a deeper review and subsequent updating of the Policy, and will follow the University's consultation and approval processes.

Following its review, Senate approved and recommended to the Board of Governors for approval the proposed policy included as Appendix B.

*Be it resolved that the Board of Governors, on the recommendation of Senate, approve the proposed Policy on the Study and Care of Animals included as Appendix B.*

**3. Report of the Senate Nominating Committee** [D21-50]

**3.1 Appointments to the Committee on Staff Grievances and Disciplinary Procedures** [D21-50]

Senate's recommendations concerning appointments to the Committee on Staff Grievances and Disciplinary Procedures are submitted for approval to the Board of Governors in accordance with the *Regulations Relating to the Employment of Academic Staff*.

*Be it resolved that the Board of Governors, on the recommendation of Senate, approve the appointments of the following Professors to the Committee on Staff Grievances and Disciplinary Procedures for terms beginning September 1, 2022 and ending August 31, 2025:*

- *Daniel Béland (Department of Political Science, Faculty of Arts)*
- *Lisa Münter (Department of Pharmacology and Therapeutics, Faculty of Medicine and Health Sciences)*

**3.2 Appointments to the University Appeals Committee** [D21-50]

Senate's recommendation concerning an appointment to the University Appeals Committee is submitted for approval to the Board of Governors in accordance with the *Regulations on Appeals of Tenure Decisions and the Regulations Relating to the Employment of Academic Staff*.

*Be it resolved that the Board of Governors, on the recommendation of Senate, approve the appointment of Jason Opal (Department of History and Classical Studies, Faculty of Arts) to the University Appeals Committee for a term beginning September 1, 2022 and ending August 31, 2025.*

## II. FOR THE INFORMATION OF THE BOARD OF GOVERNORS

### 1. Report of the Senate Nominating Committee

[D21-59]

On the recommendation of the Senate Nominating Committee, Senate approved appointments to Senate Standing Committees, Committees arising from University Regulations, Advisory Committees, and Advisory Boards. For the Board's information, the following individuals have been named by Senate to serve on the Advisory Committees:

#### Advisory Committee for the Selection of the Vice-Principal (Health Affairs) and Dean of the Faculty of Medicine and Health Sciences

- Melanie Dirks (Faculty of Arts)
- Gary Brouhard (Faculty of Science)
- Victoria Talwar (Faculty of Education)
- Alanna Watt (Faculty of Science)

#### Advisory Committee for the Selection of a Dean of Engineering

- Vijaya Raghavan (Faculty of Agricultural and Environmental Sciences)
- Jaye Ellis (Faculty of Law)
- John Zucchi (Faculty of Arts)
- David Stephens (Faculty of Science)

#### Advisory Committee for the Possible Reappointment of the Dean of the Faculty of Dental Medicine and Oral Health Sciences

- Laura Nilson (Faculty of Science)
- Luke McCaffrey (Faculty of Medicine and Health Sciences)
- Matthew Harrington (Faculty of Science) [alternate]

#### Advisory Committee for the Possible Reappointment of the Dean of the School of Continuing Studies

- Kevin Wade (Faculty of Agricultural and Environmental Sciences)
- Miranda Hickman (Faculty of Arts)
- Laura Pavelka (Faculty of Science) [alternate]

#### Advisory Committee for the Selection of the Vice-Principal (Research and Innovation)

- Nancy Heath (Faculty of Education)
- Andrew Kirk (faculty of Engineering)
- Daniel Bernard (Faculty of Medicine and Health Sciences)
- Salwa Karboune (Faculty of Agricultural and Environmental Sciences)

**2. Revisions to the Terms of Reference of the Council of the Faculty of Arts** [D21-60]

Senate approved the proposed revisions to the Terms of Reference of the Council of the Faculty of Arts.

In winter 2021, the Faculty of Arts constituted an ad hoc working group to review the procedures of the Faculty of Arts Council and to draft complete and clearly articulated Arts Council Terms of Reference. The Working Group consulted both within and outside the Faculty of Arts. The proposed Terms of Reference will encourage more transparent, inclusive and collegial governance in the Faculty of Arts.

**3. Proposed Calendar of Academic Dates for 2024–2025, 2025–2026, and 2026–2027** [D21-61]

Senate approved the proposed calendars for the upcoming academic years.

**4. Report of the Ad Hoc Committee on COVID Academic Planning and Policies** [D21-62]

Senate approved the recommendations for future academic planning and policies contained in the Ad hoc Committee on COVID Academic Planning and Policies' final report. The report included a total of five recommendations relating to the following areas: online and remote teaching and learning, accommodations and accessibility, final examinations, class scheduling and teaching spaces and communications. The full report may be consulted [here](#).

**5. Annual Report of the Committee on Staff Grievances and Disciplinary Procedures** [D21-63]

Senate received this report for information in accordance with the *Regulations Relating to the Employment of Academic Staff*. The Board of Governors will receive this report on May 19, 2022.

**6. Annual Report on the Policy on Safe Disclosure (“Whistle Blowing”)** [D21-64]

Senate received the annual Report on the *Policy on Safe Disclosure (“Whistle Blowing”)* for information. The Board of Governors will receive this report on May 19, 2022.

**7. Annual Report on Scholarships and Student Aid** [D21-65]

Senate received this report for information, in accordance with the Terms of Reference of the Committee on Enrolment and Student Affairs. The report contained information regarding awards and financial aid provided to McGill students. More particularly, the report indicated that in 2020-2021, the number of need-based recipients decreased by 8.3% over the prior year and the amount of government aid increased by 4.3%. The decline in government aid applicants across nearly all jurisdictions is likely COVID-related, as many

students studied remotely from their familial home, and/or had saved federal benefits such as CERB and CESB. As a result, the proportion of students receiving government aid to help fund their studies dropped to 23% of full-time degree students with access to Canadian or U.S. Government aid programs.

**8. Report from the Board of Governors to Senate** [D21-66]

Senate received this report for information. The report provided a summary of matters reviewed at the April 21, 2022 Board of Governors meeting, and the March 24, 2022 Executive Committee of the Board of Governors meeting.

**9. Report of the Honorary Degrees and Convocations Committee** [D21-67]

Senate approved, in confidential session, a recommendation of the Honorary Degrees and Convocations Committee concerning the conferral of an honorary degree.

**END**  
**May 2022**



## Policy on Assessment of Student Learning

### 1. PREAMBLE

Assessment plays an integral role in teaching and learning. Sound assessment practices help to shape and enhance student learning by:

- allowing for fair, meaningful, and effective assessment of a student's learning.
- creating a learning environment that is both healthy and rigorous.
- informing instructors and students as to the extent to which the planned learning outcomes are achieved.

Sound assessment practices exert a profound impact on students' ability to develop the knowledge, skills, and values appropriate for a given academic level. Further, such assessment practices can have a profound positive impact on students' wellbeing. Instructors are recognised as being domain experts, best positioned to evaluate the learning and assessment needs of their students and to manage the evolution of their courses, modes of teaching and evaluation.

Faculties, Enrolment Services, and other University units have the authority to and should develop local guidelines and procedures that are consistent with this Policy and any other McGill University regulations.

### 2. SCOPE

2.1. The purpose of this Policy is to provide a set of common principles to guide assessment of student learning throughout McGill University, recognizing the different needs of Faculties and academic units. In doing so, the Policy promotes equity, consistency, effective learning experiences, a healthy learning environment, and academic integrity under the Code of Student Conduct and Disciplinary Procedures.

2.2. This Policy shall apply to all undergraduate and graduate courses offered by McGill University for which credit is earned and students receive a final grade on an official McGill transcript. For courses which do not follow the standard course schedule identified in the Key academic dates approved by Senate annually, Faculties and academic units are expected to adapt the specified timelines to respect the Guiding Principles.

2.3. This Policy shall not apply to credit activities with their own policies and regulations, for example, comprehensive examinations and internships.

2.4. No provision in this policy should be understood as contradicting McGill's University Statement of Academic Freedom.

### 3. DEFINITIONS

- 3.1. “Assessment” means the process through which the progress and achievements of a student or students are measured or determined. Based on established criteria and standards, assessment provides ongoing feedback to the student about the quality and extent of their knowledge, understanding, and performance, and determines assigned grades.
- 3.2. “Student” means any person registered in the University for a course, courses, or research activities, whether or not they are a candidate for a degree, diploma, or certificate.
- 3.3. “Instructor” means the member of the academic staff responsible for instruction, the means of assessment, and the grades to be granted in a course.

### 4. GUIDING PRINCIPLES

The following guiding principles have been developed to inform the McGill University Policy on Assessment of Student Learning. They are intended as the foundation on which Faculties, Enrolment Services, and other University units can develop guidelines and procedures.

4.1 Assessment practices are aligned with and reflective of the commitment to healthy teaching and learning environments underpinning a McGill education.

- a) Assessment practices are conducted in a fair, reasonable, and equitable manner.
- b) Expectations are clearly communicated to students.
- c) Reasonable student concerns are heard and responded to in a prompt and thoughtful manner.
- d) Provisions are made for reasonable scheduling of completion of assessment tasks.
- e) Assessment tasks are sufficiently inclusive and diverse to permit reliable judgements of individual students’ knowledge, understanding, and performance.
- f) In setting assessment tasks for the course, students’ workloads, task due dates, and the credit value of the course are taken into account.
- g) Provisions are made for reasonable accommodation of student needs.

4.2 Assessment practices uphold high academic standards and promote academic integrity.

- a) Grades are determined based on high standards and are applied consistently.
- b) The instructor is ultimately responsible for the assessment of all students’ work, even if they are assisted-assessed by teaching assistants, graders, and-or external subject matter experts.
- c) Courses offered with multiple sections should have equivalent levels of workload and equivalent assessment tasks.
- d) Instructors are provided with support to develop effective and meaningful assessment and feedback strategies.

4.3 Assessment practices are pedagogically sound.

- a) Assessment tasks are aligned with planned learning outcomes.
- b) Assessment tasks may include individual and group work, with assessment criteria that explicitly address the basis for individual and group grades.
- c) Students have the opportunity to receive timely and ongoing feedback they can use to improve (formative assessment), and feedback used to judge students' knowledge, understanding, and performance at the end of a unit, course, or program to determine if they have achieved the learning outcomes (summative assessment).

4.4 Assessment practices allow for valid and reliable judgments about individual student learning.

- a) The grading system is criterion-referenced: it is designed to indicate an individual student's achievement of clearly stated learning outcomes.
- b) Ranking students is not the primary goal of assessment.
- c) The average grade and/or distribution of grades for any course, examination, or other academic assessment task is not predetermined.
- d) Normally, each course should have more than one graded assessment task, with the exception of single-project courses such as undergraduate/graduate thesis courses, internships, and individual reading courses.

## 5. RIGHT TO FAIR ASSESSMENT

5.1. It is the responsibility of instructors and students to exercise due diligence in familiarizing themselves with the provisions of this Policy and other relevant or applicable [University](#) and Faculty-level policies.

5.2. Regardless of mode of delivery, all forms of assessment shall be conducted in such a manner as to promote academic integrity, using strategies such as changing question content, or reordering questions or answers in different versions of the same assessment task.

5.3. Students must have the opportunity to receive some formative feedback before the University's official course withdrawal (without refund) deadline.

5.4. Students registering for courses during the add/drop period shall be provided alternative arrangements for missed assessment tasks (including attendance-based assessment tasks) that were due during the add/drop period.

5.5. Instructors must include in the course outline expectations for all assessment tasks, including for participation, detailing explicitly the variety of ways in which grades can be earned. Details include explicit criteria to describe the key elements of students' learning. Instructors are to provide in writing and a rating scale with concrete descriptors for each level of performance when the assessment task is formally assigned to students.

- 5.6. Graded assessment tasks, including third party rereads, must be available to the student at no financial cost. Access to assessment tasks must not require the payment of fees other than approved course fees.
- 5.7. Students may view and consult any written assessment, ~~recorded~~ oral assessment (if recorded), or other artifact they created for which a grade has been assigned, along with an explanation of the grade. This right is available until the end of the following term.
- 5.8. Successful completion of a specific assessment task may be required to pass a course. In such cases, the requirement and a pedagogical justification must be stipulated in the course outline and the assessment task must be worth at least 20% of the final course grade.

## 6. COMMUNICATION OF COURSE ASSESSMENT TASKS

- 6.1. During the first week of a course, students shall be provided with a course outline that includes a description of the means of assessment for the course, including assessment tasks taking place outside scheduled class time (such as during tutorials, conferences, and labs). This description shall include the due date, weight, structure, penalties for assessment tasks submitted after a specified due date, and mode of delivery of each assessment task contributing to the final grade. Students can be offered a choice of alternative assessment tasks, but these should be explicit and available to all students.
- 6.2. It is the responsibility of students to exercise due diligence in familiarizing themselves with the requirements and due dates for the assessment tasks for a course, as well as the circumstances that would permit academic accommodation.
- 6.3. In the event of extraordinary circumstances beyond the control of McGill University, assessment tasks in a course are subject to change, provided students are sent adequate and timely communications regarding the change.
- 6.4. If a means of assessment is modified after the add/drop period, students must be given the option to decide, by a specified date, whether the original or modified means of assessment should apply towards their individual final grade.
- 6.5. Students shall be permitted to use either English or French in completing any assessment task, except for courses in which acquiring proficiency in a particular language is one of the learning outcomes, and in-class oral presentations.
- 6.6. All assessment tasks must have a due date before the last day of ~~the term~~ Exams as specified in the University Calendar.

- 6.7. In-term assessment tasks must not have due dates scheduled in the last 10 working days of classes as specified in the University Calendar, except in these cases:
- Oral examinations in language courses
  - Take-home assessment tasks (such as essays, papers, examinations, problem sets, and lab reports) if the questions, topics, and/or instructions are given to students in advance (at least 15 working days before the end of classes)
  - Assessment tasks worth 10% or less of the final course grade
- 6.8. No assessment tasks shall be due during the University's official fall and winter reading breaks. All course content must be covered between the first and last day of classes, inclusive, as specified in the University Calendar.
- 6.9. Corrections or clarifications to instructions or content of any assessment task must be documented in a timely manner through University email or the learning management system.

## 7. REASONABLE ACCOMMODATION FOR STUDENTS

- 7.1. Students requiring disability-related academic accommodations have the right to request reasonable accommodation in fulfilling an assessment task in a course in accordance with the [Policy Concerning the Rights of Students with Disabilities](#). Students who because of religious commitment cannot undertake or submit an assessment task in a course have the right to request reasonable accommodation in fulfilling the assessment task in accordance with the [Policy for the Accommodation of Religious Holy Days](#). Pregnant students and students caring for dependants have the right to request reasonable accommodation in fulfilling an assessment task in a course in accordance with the [Guidelines for the Academic Accommodation of Pregnant Students and Students Caring for Dependants](#).
- 7.2. Students who for valid documented reasons (such as extenuating illness or serious personal circumstances) cannot undertake or submit an assessment task in a course may request academic accommodations within a timeframe that is in accordance with local guidelines and procedures, and instructor approval. Processes around academic accommodation vary by Faculty, and students should consult their academic advisor for the appropriate request pathway.
- 7.3. Students who wish to request an academic accommodation must do so before the ~~last day of the term as specified in the University Calendar~~ assessment task is submitted.
- 7.4. Exceptionally, if additional information becomes available after an assessment task has been submitted, a request for reasonable accommodation may be submitted within 7 working days.
- 7.5. Students who without a valid documented reason fail to submit an assessment task shall receive a grade of 0 or F for that task (or J in the case of a final assessment).

## 8. THIRD PARTY REREADS

- 8.1. Students may request an impartial and competent reread by a third party designated by McGill University for any assessment task, including oral assessment tasks that are recorded. Requests for rereads must be made within 10 working days of the date of the return of the graded materials to the student, and reassessments should normally be completed within 20 working days of the request, subject to reasonable administrative arrangements.
- 8.2. Before requesting a third party reread, the student must make a request to the course instructor for an explanation of the grade. This request must be in writing and include a rationale for any requested change of the grade. No penalty may be assessed for this request or for a formal reread request. If a third party reviewer deems the original grade to be inappropriate, it will be revised up or down accordingly. The reviewer's grade overrides the original grade.

## 9. EXAMINATIONS AND FINAL ASSESSMENT TASKS

- 9.1. In the interest of academic integrity, instructors should modify assessment tasks each time the course is offered to minimize the possibility of students obtaining answers from previous terms.
- 9.2. All examination questions are confidential and shall not be shared or reproduced unless otherwise permitted by the instructor, Department, and/or Faculty.
- 9.3. Instructors are responsible for creating at least two versions of each multiple-choice examination by scrambling the questions and/or responses, or using question pools.
- 9.4. Students must be provided with a high-level description of the format and content of examinations reasonably in advance of the scheduled date.
- 9.5. Regardless of where examinations take place, all students in the same course must be provided with the same access to examination instructions.
- 9.6. If instructors choose to hold an examination after the last day of classes as specified in the University Calendar, it shall be called a "final assessment" and be worth at least 25% and no more than 75% of the final grade.
- 9.7. Faculties are responsible for procedures for deferred, supplemental, and special examinations.

## 10. PROCESS FOR CONTESTING ASSESSMENT

- 10.1. In cases where a student believes this Policy is not being respected, they are advised to make their concern known by contacting the instructor and/or Program Director/Chair of the Department in writing. A response shall be provided to the student within 7 working days. If the matter is not resolved satisfactorily, any party may refer it to the Office of the Dean of Students or an Associate Dean of the Faculty where the course resides. A response outlining the process and indicating an expected resolution date will be provided within 7 working days. All parties should exercise discretion around the student's identity to maintain the integrity of the process.
- 10.2. Matters unresolved through these channels may be grieved through the [Code of Student Grievance Procedures](#) under the [Charter of Students' Rights](#) and students may avail themselves of an advisor as described in the procedures therein. The Office of the Ombudsperson for Students offers confidential, informal, independent, and impartial dispute resolution services.

## 11. POLICY REVIEW

The Policy shall be reviewed by the Office of the Dean of Students and Teaching and Learning Services every 5 years through a process that includes stakeholder consultation with both instructors and students. Proposed amendments are to be reviewed by Senate.





<b>POLICY NAME</b>	<b>POLICY ON THE STUDY AND CARE OF ANIMALS</b>
<b>Approving Body</b>	Senate Board of Governors
<b>Initial Approval Date</b>	Senate May 18, 2011 Executive Committee June 23, 2011
<b>Date of last review</b>	June 19, 2018
<b>Date of next review</b>	June 19, 2023
<b>Executive Sponsor</b>	Vice-Principal (Research and Innovation)
<b>Related Documents</b>	Appendix I: List of Affiliated Hospitals' Research Institutes

Current	Revisions
<p><b>1. Preamble</b></p> <p>The purpose of this policy is to outline the basic principles for the care of animals involved in research, teaching or testing at McGill University and affiliated institutions (1) (henceforth McGill University).</p> <p>McGill University recognizes the importance of animal research in our efforts to further our knowledge of natural processes, diseases and conservation. McGill University also recognizes that animal models are a valuable component of teaching.</p> <p>Research, educational and testing projects must be conducted with full commitment to the wellbeing of the animal subjects. In order to limit animal use to meritorious research or educational projects, McGill University relies on stringent peer review processes, along with assessment of ethical issues by the Animal Care Committee (ACC). Decisions of ACCs are of the utmost importance to the entire review process; the objective of ACCs is to keep a balance between the need for high quality research, teaching and</p>	<p><b>1. Preamble</b></p> <p>The purpose of this policy is to outline the basic principles for the care of animals involved in research, teaching or testing at McGill University <del>and affiliated institutions<sup>1</sup></del> (henceforth <del>McGill University</del>).</p> <p>McGill University recognizes the importance of animal research in our efforts to further our knowledge of natural processes, diseases and conservation. McGill University also recognizes that animal models are a valuable component of teaching.</p> <p>Research, educational and testing projects must be conducted with full commitment to the wellbeing of the animal subjects. In order to limit animal use to meritorious research or educational projects, McGill University relies on stringent peer review processes, along with assessment of ethical issues by the <u>relevant aAnimal Care-care Committee-committee</u> (ACC). <del>Decisions of ACCs</del> are of the utmost importance to the entire review process; the objective of ACCs is to keep a balance between the need for high quality research,</p>

<p>testing, and compassionate treatment of animal subjects.</p> <p>McGill University recognizes that the use of animals in research, teaching and testing carries significant responsibilities. McGill University will continue to develop and maintain guidelines and regulations, following the high standards established by the Canadian Council on Animal Care (CCAC).</p> <p>McGill University is committed to conducting the highest-quality research and to providing animals with the best care. At McGill University, all research, teaching and testing involving animals is guided by the Russell-Burch tenet of Replacement, Reduction and Refinement (2). A rigorous review by ACCs ensures that animals are used only when necessary and under humane conditions.</p> <p>McGill University regards the use of animals in research, teaching, and testing to be an integral component of continued progress in medicine, science, education, environmental sciences and agriculture, resulting in enormous potential benefits for human and animal health.</p>	<p>teaching and testing, and compassionate treatment of animal subjects.</p> <p>McGill University recognizes that the use of animals in research, teaching and testing carries significant responsibilities. McGill University will continue to develop and maintain guidelines and regulations, following the high standards established by the Canadian Council on Animal Care (CCAC).</p> <p>McGill University is committed to conducting the highest-quality research and to providing animals with the best care. At McGill University, all research, teaching and testing involving animals is guided by the Russell-Burch tenet of Replacement, Reduction and Refinement <a href="#">(3Rs)<sup>21</sup></a>. A rigorous review by ACCs ensures that animals are used only when necessary and under humane conditions.</p> <p>McGill University regards the use of animals in research, teaching, and testing to be an integral component of continued progress in medicine, science, education, environmental sciences and agriculture, resulting in enormous potential benefits for human and animal health.</p>
<p><b>2. Policy Statement</b></p> <p>All individuals involved in the oversight, care and use of animals:</p> <ol style="list-style-type: none"> <li>a. Have a responsibility to the scientific community and society as a whole for the proper stewardship of the animals under their care;</li> <li>b. Will be aware of their responsibilities in the use of animals in research, teaching and testing, as determined by public concerns, federal and provincial laws and regulations, and McGill University policies.</li> </ol>	<p><b>2. Policy Statement</b></p> <p>All individuals involved in the oversight, care and use of animals:</p> <ol style="list-style-type: none"> <li>a. Have a responsibility to the scientific community and society as a whole for the proper stewardship of the animals under their care;</li> <li>b. Will be aware of their responsibilities in the use of animals in research, teaching and testing, as determined by public concerns, federal and provincial laws and regulations, and McGill University policies.</li> </ol>
<p><b>3. Office and Committees Responsible for Monitoring the Care and Use of Animals</b></p> <ol style="list-style-type: none"> <li>a. Vice-Principal (Research &amp; International Relations) - VP (RIR)</li> </ol>	<p><b>3. Office and Committees Responsible for Monitoring the Care and Use of Animals</b></p> <ol style="list-style-type: none"> <li>a. Vice-Principal (Research &amp; <a href="#">InnovationInternational Relations</a>)- VP <a href="#">(RIR)</a></li> </ol>

<ul style="list-style-type: none"> <li>• The VP (RIR) has executive responsibility for the Animal Care and Use Program;</li> <li>• The VP (RIR) hears and decides appeals of administrative or Animal Care Committee actions and/or decisions.</li> </ul> <p>b. Animal Compliance Office (ACO)</p> <ul style="list-style-type: none"> <li>• The ACO is headed by its Director who reports directly to the VP (RI);</li> <li>• It works closely with the University Animal Care Committee (UACC) for establishing McGill University institutional policies on the care and use of animals;</li> <li>• It assists investigators, research staff, students, veterinary and animal care staff, FACCs, and administrators in remaining compliant with animal care and use regulations, policies and guidelines;</li> <li>• The ACO promotes University-wide understanding of the requirements for the ethical conduct of research, teaching, and testing involving animals.</li> </ul> <p>c. University Animal Care Committee (UACC)</p> <ul style="list-style-type: none"> <li>• The UACC is the institutional body responsible for ensuring the humane care and use of animal in research, teaching and testing, and has final authority to suspend any activity involving animals, which does not comply with applicable laws, regulations, policies and guidelines, where the Facility Animal Care Committee (FACC) refuses or fails to act. To that end, it has the right to investigate any area where animals are housed or used. When such inspections are deemed necessary by the UACC, efforts will be made to minimize the risks of compromising ongoing scientific investigations, and whenever possible, a collaborative approach will prevail;</li> <li>• The Committee works closely with the ACO;</li> <li>• The Committee's specific composition and function will accord with the requirements of the CCAC and are detailed in its Terms of Reference.</li> </ul> <p>d. Facility Animal Care Committees (FACC)</p>	<ul style="list-style-type: none"> <li>• The VP (RI)<del>R</del> has executive responsibility for the Animal Care and Use Program;</li> <li>• The VP (RI)<del>R</del> hears and decides appeals of administrative or <del>Animal Care Committee</del><u>ACC</u> actions and/or decisions.</li> </ul> <p>b. Animal Compliance Office (ACO)</p> <ul style="list-style-type: none"> <li>• The ACO is headed by its Director who reports directly to the VP <del>(RI)</del><u>R</u>;</li> <li>• It works closely with the <u>Animal Policy &amp; Welfare Oversight Committee (APWOC)</u><del>University Animal Care Committee (UACC)</del> for establishing McGill University institutional policies on the care and use of animals;</li> <li>• It assists investigators, research staff, students, veterinary and animal care staff, <u>Facility Animal Care Committees (FACCs)</u>, and administrators in remaining compliant with animal care and use regulations, policies and guidelines;</li> <li>• The ACO promotes University-wide understanding of the requirements for the ethical conduct of research, teaching, and testing involving animals.</li> </ul> <p>c. <u>Animal Policy &amp; Welfare Oversight Committee (APWOC)</u><del>University Animal Care Committee (UACC)</del></p> <ul style="list-style-type: none"> <li>• The <u>APWOC</u><del>UACC</del> is the institutional body responsible for ensuring the humane care and use of animal in research, teaching and testing, and has final authority to suspend any activity involving animals, which does not comply with applicable laws, regulations, policies and guidelines, where the Facility Animal Care Committee (FACC) refuses or fails to act. To that end, it has the right to investigate any area where animals are housed or used. When such inspections are deemed necessary by the <u>APWOC</u><del>UACC</del>, <u>reasonable</u> efforts will be made to minimize the risks of compromising ongoing scientific investigations, and whenever possible, a collaborative approach will prevail;</li> <li>• <del>The Committee</del><u>APWOC</u> works closely with the ACO;</li> </ul>
---	---

<ul style="list-style-type: none"> <li>• The FACCs are the local bodies responsible for ensuring the humane care and use of animals in research, teaching or testing, within its jurisdiction according to CCAC guidelines and policies;</li> <li>• The FACCs are responsible for the ethical review and certification of Animal Use Protocols (AUPs). The Committees are also responsible for monitoring compliance with approved protocols;</li> <li>• The FACCs, with the assistance of the Quality Assistant responsible for post-approval monitoring, have the authority to suspend any activity involving animals that does not comply with the applicable laws, regulations, policies and/or guidelines. The FACCs have the right to inspect areas where animals are housed or used. When such inspections are deemed necessary by the FACC, efforts will be made to minimize the risks of compromising ongoing scientific investigations and whenever possible, a collaborative approach will prevail;</li> <li>• The Committee's specific composition, jurisdiction and function will accord with the requirements of the CCAC and are detailed in its Terms of Reference.</li> <li>• The responsibility for ensuring compliance is shared with all the constituents of the program.</li> </ul>	<ul style="list-style-type: none"> <li>• <del>The Committee's</del>APWOC's specific composition and function will accord with the requirements of the CCAC and are detailed in its Terms of Reference.</li> </ul> <p>d. Facility Animal Care Committees (FACC)</p> <ul style="list-style-type: none"> <li>• The FACCs are the local bodies responsible for ensuring the humane care and use of animals in research, teaching or testing, within its jurisdiction according to CCAC guidelines and policies;</li> <li>• The FACCs are responsible for the ethical review and certification of Animal Use Protocols (AUPs). The <del>Committees</del>FACCs are also responsible for monitoring compliance with approved protocols;</li> <li>• The FACCs, with the assistance of the Quality Assistant<del>s</del> responsible for post-approval monitoring, have the authority to suspend any activity involving animals that does not comply with the applicable laws, regulations, policies and/or guidelines. The FACCs have the right to inspect areas where animals are housed or used. When such inspections are deemed necessary by the FACC, <u>reasonable</u> efforts will be made to minimize the risks of compromising ongoing scientific investigations and whenever possible, a collaborative approach will prevail;</li> <li>• The <del>Committee's</del>FACCs' specific composition, jurisdiction and function will accord with the requirements of the CCAC and are detailed in its Terms of Reference.</li> <li>• The responsibility for ensuring compliance is shared with all the constituents of the <u>Animal Care and Use Program</u><del>program</del>.</li> </ul>
<p><b>4. Use of Animals in Research, Teaching and Testing</b></p> <p>The use of animals in research, teaching and testing must be described in an Animal Use Protocol (AUP). At McGill University, all AUPs:</p> <ol style="list-style-type: none"> <li>a. Are peer-reviewed for scientific or pedagogical merit;</li> <li>b. Are approved by the Facility Animal Care Committee (FACC) before animals are</li> </ol>	<p><b>4. Use of Animals in Research, Teaching and Testing.</b></p> <p>The use of animals in research, teaching and testing must be described in an Animal Use Protocol (AUP). At McGill University, all AUPs:</p> <ol style="list-style-type: none"> <li>a. Are peer-reviewed for scientific or pedagogical merit;</li> <li>b. Are approved by the Facility Animal Care Committee (FACC) before animals are</li> </ol>

<p>purchased and/or used in laboratory or field studies;</p> <p>c. Comply with the CCAC policies and guidelines;</p> <p>d. Ensure that work with animals is performed in an area approved by the FACC and/or a CCAC certified institution's facility, which will consistently ensure the appropriate care of animals and the safety of staff through high standards of animal care and management.</p> <p>In addition, all AUPs conducted outside Canada by McGill individuals:</p> <p>a. Are ideally performed in an institution or facility accredited by the CCAC, the International Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) or other national or international accreditation organizations;</p> <p>b. Failing the existence of any official accreditation policy in the relevant location, it is the responsibility of the McGill researcher to obtain reasonable assurance that all work will be conducted in an environment where animals are treated humanely to the satisfaction of the FACC.</p> <p>The AUP will contain detailed explanations on:</p> <p>a. Alternatives: Whenever compatible with research, teaching or testing objectives, alternative methods for replacement (non-animal use), reduction in the number of animals, and refinement in procedures and husbandry will be applied for the proposed project;</p> <p>b. Animal numbers: Animal numbers will be minimized and justified based on a clear description of the objectives, the study design and/or on a statistical rationale;</p> <p>c. Endpoints: Any anticipated signs of morbidity will be clearly outlined and will warrant appropriate monitoring by trained individuals. Procedures which cause severe pain near, at, or above the pain tolerance threshold of unanesthetized conscious animals, or death and moribundity as clinical endpoints or study goals are not permitted.</p> <p>d. Pilot Project: The FACC may require a pilot study if the clinical signs, and their severity or</p>	<p>purchased and/or used in laboratory or field studies;</p> <p>c. Comply with the CCAC policies and guidelines;</p> <p>d. Ensure that work with animals is performed in an area approved by the FACC and/or a CCAC certified institution's facility, which will consistently ensure the appropriate care of animals and the safety of staff through high standards of animal care and management.</p> <p>In addition, all AUPs conducted outside Canada by McGill individuals:</p> <p>a. Are ideally performed in an institution or facility accredited by the CCAC, the International Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) or other national or international accreditation organizations;</p> <p>b. Failing the existence of any official accreditation policy in the relevant location, it is the responsibility of the McGill researcher to obtain reasonable assurance that all work will be conducted in an environment where animals are treated humanely to the satisfaction of the FACC.</p> <p>The AUP will contain detailed explanations on:</p> <p>a. <del>Alternatives</del><a href="#">The 3Rs – Replacement, Reduction and Refinement: On an annual basis and w</a>Whenever compatible with research, teaching or testing objectives, alternative methods for replacement (non-animal use), reduction in the number of animals, and refinement in procedures and husbandry will be applied for the proposed project;</p> <p>b. Animal numbers: Animal numbers will be minimized and justified based on a clear description of the objectives, the study design and/or on a statistical rationale, <a href="#">when applicable</a>;</p> <p>c. Endpoints: Any anticipated signs of morbidity will be clearly outlined and will warrant appropriate monitoring by trained individuals. Procedures which cause severe pain near, at, or above the pain tolerance threshold of unanesthetized conscious</p>
---	---

<p>frequency, are unknown. Results from this pilot study will be reported to the FACC before approval of the complete protocol. Animals will be removed from the study, treated or euthanized at the earliest possible endpoint consistent with the objective(s) of the proposal, and in accordance with the endpoints in the AUP accepted by the FACC;</p> <p>e. Long term housing and reuse of animals: These issues will be carefully considered by the FACC, taking into account the general welfare of the animals;</p> <p>f. Research, teaching, testing and husbandry procedures: These will be performed in conditions that consider both the welfare of the animals and the success of the procedures. They will be performed by trained individuals who are capable of ensuring appropriate care;</p> <p>g. Euthanasia: The method used will follow the recommendations of the CCAC. The euthanasia will be carried out by trained individuals and be performed in conditions which avoid unnecessary pain or distress to the animal;</p> <p>h. Source of animals: The source of animals will be legal, recognized and reputable. The FACC will approve the source of the animals before they are ordered or used;</p> <p>i. Hazardous materials: The use of hazardous agents (radioactive materials, recombinant DNA/RNA, human/plant/animal pathogens, toxins, chemical carcinogens, etc.) must be described in detail including the potential health risks to humans and animals, special animal care and containment requirements, precautions for individuals, animal disposal and related waste requirements as well as applicable emergency procedures. Individuals working with hazardous material must adhere to applicable environmental and safety guidelines.</p>	<p>animals, or death and moribundity as clinical endpoints or study goals are not permitted.</p> <p>d. Pilot Project: The FACC may require a pilot study if the clinical signs, and their severity or frequency, are unknown. Results from this pilot study will be reported to the FACC before approval of the complete protocol. Animals will be removed from the study, treated or euthanized at the earliest possible endpoint consistent with the objective(s) of the proposal, and in accordance with the endpoints in the AUP accepted by the FACC;</p> <p>e. Long term housing and reuse of animals: These <del>issues</del><u>matters</u> will be carefully considered by the FACC, taking into account the general welfare of the animals;</p> <p>f. Research, teaching, testing and husbandry procedures: These will be performed in conditions that consider both the welfare of the animals and the success of the procedures. They will be performed by trained individuals who are capable of ensuring appropriate care;</p> <p>g. Euthanasia: The method used will follow the recommendations of the CCAC. The euthanasia will be carried out by trained individuals and be performed in conditions which avoid unnecessary pain or distress to the animal;</p> <p>h. Source of animals: The source of animals will be legal, recognized and reputable. The FACC will approve the source of the animals before they are ordered or used;</p> <p>i. Hazardous materials: The use of hazardous agents (radioactive materials, recombinant DNA/RNA, human/plant/animal pathogens, toxins, chemical carcinogens, etc.) must be described in detail including the potential health risks to humans and animals, special animal care and containment requirements, precautions for individuals, animal disposal and related waste requirements as well as applicable emergency procedures. Individuals working with hazardous material must adhere to applicable environmental and safety guidelines.</p>
---	---

<p><b>5. Animal Care</b></p> <p>Animals will be maintained in an environment and using practices that will promote their health and psychological wellbeing in terms of housing, social, dietary and behavioural needs unless approved otherwise by the FACC for a specific AUP.</p>	<p><b>5. Animal Care</b></p> <p>Animals will be maintained in an environment and using practices that will promote their health and psychological wellbeing in terms of housing, social, dietary and behavioural needs unless approved otherwise by the FACC for a specific AUP.</p>
<p><b>6. Veterinary Care</b></p> <p>a. The veterinarians have the authority and responsibility to make determinations concerning animal wellbeing and to assure that this is appropriately monitored and promoted;</p> <p>b. The veterinarians participate in the development of policies and procedures for animal care, animal study, the training and qualification of animal users and animal care personnel, standards of husbandry, facilities and equipment, procedures for alleviation of unnecessary pain or distress; procedures for the proper and effective use of anesthesia and analgesia; standards for post-operative care and procedures for euthanasia;</p> <p>c. The veterinarians have the authority to remove an animal from a study, test, or teaching activity that is adversely affecting its wellbeing beyond a level reviewed and approved by the FACC;</p> <p>d. The veterinarians have the authority to use appropriate treatment or control measures, including euthanasia if indicated, following diagnosis of an animal disease or injury. Whenever possible, the veterinarian will discuss the situation with the principal investigator (PI) or designate to determine a course of action consistent with the study goals. However, if the PI or designate is not available, or if agreement cannot be reached, the veterinarian has the authority to act to protect the health and wellbeing of the animals;</p> <p>e. The veterinarian has the right to inspect areas where animals are being used or housed. Efforts will be made to minimize the risks of compromising ongoing scientific investigations</p>	<p><b>6. Veterinary Care</b></p> <p>a. The veterinarians have the authority and responsibility to make determinations concerning animal wellbeing and to assure that this is appropriately monitored and promoted;</p> <p>b. The veterinarians participate in the development of policies and procedures for animal care, animal study, the training and qualification of animal users and animal care personnel, standards of husbandry, facilities and equipment, procedures for alleviation of unnecessary pain or distress; procedures for the proper and effective use of anesthesia and analgesia; standards for post-operative care and procedures for euthanasia;</p> <p>c. The veterinarians have the authority to remove an animal from a study, test, or teaching activity that is adversely affecting its wellbeing beyond a level reviewed and approved by the FACC;</p> <p>d. The veterinarians have the authority to use appropriate treatment or control measures, including euthanasia if indicated, following diagnosis of an animal disease or injury. Whenever possible, the veterinarian will <del>discuss</del> <u>explain</u> the situation <del>with</del> <u>to</u> the principal investigator (PI) or designate to determine a course of action consistent with the study goals <u>and animal welfare standards</u>. However, if the PI or designate is not available, or if agreement cannot be reached <u>in a timely manner</u>, the veterinarian has the authority to act to protect the health and wellbeing of the animals;</p> <p>e. The veterinarian has the right to inspect areas where animals are being used or housed. Efforts will be made to minimize the risks of compromising ongoing scientific investigations</p>

<p>and whenever possible, a collaborative approach will prevail;</p> <p>f. Veterinarians providing professional services to McGill University will have an appropriate certification and training or experience. They will be knowledgeable in the care of the species being used or capable of identifying appropriate sources of expertise and be cognizant of concepts involved in animal-based research;</p> <p>g. External providers of veterinary services will have a contractual agreement in which their responsibilities and obligations are clearly outlined, according to the Canadian Association for Laboratory Animal Medicine (CALAM) Standards of Veterinary Care.</p>	<p>and whenever possible, a collaborative approach will prevail <u>that guarantees maintaining animal welfare standards</u>;</p> <p>f. Veterinarians providing professional services to McGill University will have an appropriate certification and training or experience. They will be knowledgeable in the care of the species being used or capable of identifying appropriate sources of expertise and be cognizant of concepts involved in animal-based research;</p> <p>g. External providers of veterinary services will have a contractual agreement in which their responsibilities and obligations are clearly outlined, according to the Canadian Association for Laboratory Animal Medicine (CALAM) Standards of Veterinary Care.</p>
<p><b>7. Education and Training</b></p> <p>a. Before undertaking a procedure or using and caring for a species, all individuals involved will have appropriate training and preparation in accordance with UACC policies;</p> <p>b. All classroom projects involving animals must be approved by an FACC. Students who are part of such projects and work under the direct and constant supervision of a certified animal user, will be instructed on the ethical care and use of animals but are not required to obtain individual training certification.</p>	<p><b>7. Education and Training</b></p> <p>a. Before undertaking a procedure or using and caring for a species, all individuals involved will have appropriate training and preparation in accordance with <del>UACC</del> <u>APWOC</u>- policies;</p> <p>b. All classroom projects involving animals must be approved by an FACC. Students who are part of such projects and work under the direct and constant supervision of a certified animal user, will be instructed on the ethical care and use of animals but are not required to obtain individual training certification.</p>
<p><b>8. Occupational Health</b></p> <p>a. Individuals who are exposed to animals, tissues, body fluids, wastes, bedding, living quarters or equipment involved in the care and use of animals are strongly encouraged to participate in an occupational health program. For individuals working with non-human primates, participation in the program is mandatory. Any costs related to mandatory compliance with this policy shall be borne by McGill University (or Affiliated Hospital when applicable).</p> <p>b. All individuals working with or exposed to non-human primates will be tested yearly for tuberculosis for their own safety and the safety of the animal colonies.</p>	<p><b>8. Occupational Health</b></p> <p>a. Individuals who are exposed to animals, tissues, body fluids, wastes, bedding, living quarters or equipment involved in the care and use of animals are strongly encouraged to participate in <del>an</del> <u>the</u> occupational health program <u>for animal related activities</u>. For individuals working with non-human primates, participation in the program is mandatory. Any costs related to mandatory compliance with this policy shall be borne by McGill University <del>(or Affiliated Hospital when applicable)</del>.</p> <p>b. All individuals working with or exposed to non-human primates will be tested <del>yearly</del> <u>and measles</u> for their own safety and the safety of the animal colonies.</p>

<p><b>9. Record Keeping</b></p> <p>a. The Principal Investigator is responsible for maintaining research records which should include pertinent information such as number of animals used, date of inoculations, history of surgical procedures, post-operative care and information on study procedures, etc.;</p> <p>b. Records documenting such activities as the provision of appropriate veterinary care and occupational safety as it pertains to animal research must conform to the recommendations of the CCAC and with commonly accepted standards;</p> <p>c. All records must be readily available for inspection by regulatory authorities, veterinary staff and animal care staff.</p>	<p><b>9. Record -Keeping</b></p> <p>a. The Principal Investigator is responsible for maintaining research records which <del>should</del> <u>must</u> include pertinent information such as <u>the</u> number of animals used, date of inoculations, history of <del>surgical</del> procedures, post-operative care, <u>monitoring logs, —and</u> information on study procedures, <del>etc. and any</del> <u>information requested by the FACC</u>;</p> <p>b. Records documenting such activities as the provision of appropriate veterinary care and occupational safety as it pertains to animal research must conform to the recommendations of the CCAC and with commonly accepted standards;</p> <p>c. All records must be readily available for inspection by regulatory authorities, <u>the FACC,</u> veterinary staff and animal care staff.</p>
<p><b>10. Physical Plant</b></p> <p>a. All housing and procedure facilities for animals involved in research, testing and teaching must be conducive to the wellbeing and safety of the animals, provide an appropriately appointed and safe workplace for personnel, and establish an appropriate research environment. All facilities will be maintained, managed and operated in compliance with all pertinent laws and regulations, including CCAC guidelines and policies. All of the institution’s facilities (including animal facilities and laboratories where live animals are studied) and their operations will be inspected and reviewed at least annually by the appropriate FACC;</p> <p>b. All major proposals, plans, and construction documents which are developed in order to create facilities, to accommodate or house new species, or to renovate existing animal facilities, must be developed in compliance with all applicable laws and regulations, including CCAC guidelines and policies, and will be reviewed and approved by the FACC and/or UACC as appropriate.</p>	<p><b>10. Physical Plant</b></p> <p>a. All housing and procedure facilities for animals involved in research, testing and teaching must be conducive to the wellbeing and safety of the animals, provide an appropriately appointed and safe workplace for personnel, and establish an appropriate research environment. All facilities will be maintained, managed and operated in compliance with all pertinent laws and regulations, including CCAC guidelines and policies. All of the institution’s facilities (including animal facilities and laboratories where live animals are studied) and their operations will be inspected and reviewed at least annually by the appropriate FACC;</p> <p>b. All major proposals, plans, and construction documents which are developed in order to create facilities, to accommodate or house new species, or to renovate existing animal facilities, must be developed in compliance with all applicable laws and regulations, including CCAC guidelines and policies, and will be reviewed and approved by the <del>v</del><u>Veterinarian,</u> FACC and/or <u>UACC-APWOC</u> as appropriate.</p>

<p><b>11. Procedure for Reporting Violations of this Policy</b></p> <p>a. Any individual who is aware of possible violations to existing animal care and use regulations must report this concern to the Chair of the relevant FACC or the Animal Compliance Office (ACO). If so desired, his/her name will be kept confidential.</p> <p>b. The ACO will inform the relevant FACC Chair, who will evaluate the situation, in conjunction with ACO, and, if warranted, will further investigate.</p> <p>c. If the charges are substantiated, the FACC may suspend a previously approved protocol, or a portion thereof. In addition, disciplinary measures may be taken, in accordance with applicable University regulations. These actions will be reported and discussed at FACC meetings.</p> <p>d. All individuals who are involved in any reporting and/or investigation process are obliged to maintain confidentiality of the proceedings. At the request of a party to the complaint, after the investigation has concluded and if warranted by the circumstances, the VP (RI) may release publicly and/or to the appropriate committees a summary notice of the case, the issue, and the resolution.</p> <p>e. Attempts by individuals to discredit others through inappropriate use of this policy are not permitted; such individuals will be considered for disciplinary action.</p> <p>f. For those not wishing to use the procedures outlined above, consult the Policy on Safe Disclosure.</p> <p>g. All individuals are to refer to the UACC's Policy on Animal Welfare and Compliance Concerns posted on the UACC Web site for information on resolution guidelines, authority and reporting.</p>	<p><b>11. Procedure for Reporting Violations of this Policy</b></p> <p>a. Any individual who is aware of possible violations to existing animal care and use regulations must report this concern to the Chair of the relevant FACC or the Animal Compliance Office (ACO). If so desired, his/her name will be kept confidential <u>and a report can be made</u> <a href="#">report via the McGill Safe Disclosure of Concerns Webform.</a></p> <p>b. The ACO will inform the relevant FACC Chair, who will evaluate the situation, in conjunction with ACO, and, if warranted, will further investigate.</p> <p>c. If the charges are substantiated, the FACC may suspend a previously approved protocol, or a portion thereof. In addition, disciplinary measures may be taken, in accordance with applicable University regulations. These actions will be reported and discussed at FACC meetings.</p> <p>d. All individuals who are involved in any reporting and/or investigation process are obliged to maintain confidentiality of the proceedings. At the request of a party to the complaint, after the investigation has concluded and if warranted by the circumstances, the VP <u>(RI)</u> <del>R</del> may release publicly and/or to the appropriate committees a summary notice of the case, the issue, and the resolution.</p> <p>e. Attempts by individuals to discredit others through inappropriate use of this policy are not permitted; such individuals will be considered for disciplinary action.</p> <p>f. For those not wishing to use the procedures outlined above, consult the <u>Policy on Safe Disclosure.</u></p> <p>g. All individuals are to refer to the <del>UACC</del> <a href="#">APWOC</a> <del>UACC's</del> <a href="#">Policy Guidelines on for Animal Welfare and Compliance Concerns</a> posted on the <del>UACC</del> <a href="#">APWOC</a> Web site for information on resolution guidelines, authority and reporting.</p>
<p><i>1 Refer to Appendix 1 for the list of Affiliated Hospital's Research Institutes</i></p>	<p><del><i>* Refer to Appendix 1 for the list of Affiliated Hospital's Research Institutes</i></del></p>

2 RUSSELL, W.M.S. and BURCH, R.L. <i>The principles of humane experimental technique.</i> Springfield, Charles C. Thomas, 1959.	<sup>21</sup> RUSSELL, W.M.S. and BURCH, R.L. <i>The principles of humane experimental technique.</i> Springfield, Charles C. Thomas, 1959.
---	---