

The Animal Care Committee and the Role of Its Members

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The animal care committee is an essential part of every animal care and use program, and has a duty to:

- make informed, ethical decisions with regard to the appropriateness of including animals in research, teaching, or testing projects;
- work in a respectful and inclusive environment where all perspectives are encouraged to contribute to ethical decision-making;
- oversee its institution's animal care and use program to ensure high standards of animal welfare; and
- act as a strong and visible advocate for the ethical and humane treatment of animals under its care.

The animal care committee must be at the centre of the animal care and use program as it represents all stakeholders' perspectives (researchers, instructors, study directors, veterinary and animal care staff, students, other personnel involved in animal-based scientific activities, and the public).

Large and diverse animal care and use programs may be overseen by multiple animal care committees. In such a case, there should be a structure in place to ensure appropriate functioning and consistency among the animal care committees, and to establish institutional policies and practices. This is often achieved through an appropriately supported and structured overarching institutional committee.

The animal care committee works in a collegial manner with the senior administration, veterinarians, animal care staff, teaching/research personnel, and other personnel (e.g., post-approval monitoring officers, and biosafety/security officers) to ensure that all elements of the animal care and use program are in place and comply with institutional and CCAC policies/guidelines, other recognized standards (e.g., Canadian Association of Laboratory Animal Medicine), and federal and provincial regulations.

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The Animal Care Committee and the Three Rs

The Three Rs—replacement, reduction, and refinement—are widely recognized and accepted ethical decision-making principles of animal-based science in Canada and internationally. They were first proposed in W.M.S. Russell and R.L. Burch's 1959 book, *The Principles of Humane Experimental Technique*. The Three Rs provide a framework for examining how decisions should be made about animals in science. As such, they form the cornerstone of the CCAC's programs. By implementing the Three Rs, animal care committees can fulfill their primary duty of determining if the use of animals in a project is ethical and ensure that every effort is made to:

- find suitable replacement alternatives for the use of live animals (replacement);
- use the smallest number of animals compatible with obtaining valid, reproducible data or achieving intended learning outcomes (reduction); and
- enhance animal welfare and ensure that all reasonable safeguards are in place to minimize any pain or distress (refinement).

Despite the importance given to the Three Rs in the ethical review process of animal-based scientific activities, evidence suggests that replacement, reduction, and refinement are not equally considered by animal care committees (Schuppli and Fraser, 2005). While refinement seems to be the focus of animal care committees' discussions (Schuppli and Fraser, 2005), replacement and reduction should also be addressed. Detailed justification for using live animals should be provided to animal care committees which should review and discuss them to ensure suitable, appropriate replacement alternatives have been considered. Animal care committees' discussions about reduction typically focus on sample size or animal numbers. However, reduction may be better implemented by ensuring the most appropriate experimental design and statistical tests are used. Discussions on refinement often focus on procedures, endpoints, skill of personnel working with animals, and pain mitigation, but they should also encompass housing and husbandry, including handling and environmental enrichment, as they can impact research quality (Schuppli and Fraser, 2005). Discussions should also take into account conflicts arising from the application of the Three Rs, in particular reduction and refinement. For example, does a significant reduction in animal numbers justify increased suffering for each individual?



Ethical Frameworks

The Three Rs have limitations in supporting the decision process used to determine the relevance of using animals in scientific activities (Schuppli et al., 2004). They are a good harm mitigation strategy. However, the ethical framing of animal-based science should not be simply to minimize harm. Russell and Burch themselves argued that we should “aim at well-being rather than at mere absence of distress” (Russell and Burch, 1959). Thus, other ethical frameworks and theories are useful for reflecting on animal involvement in scientific activities and informing decisions. Details on some of the key ethical theories and frameworks used in animal-based science are presented in the *CCAC fundamental principles: Ethics of animal-based scientific activities* (in preparation).

The decision process used by a person to determine the appropriateness of animal-based activities need not be based on only one framework, it may derive from one or more ethical theories, and it is also influenced by one’s experiences, culture, knowledge, and expertise. Animal care committee discussions must be open and should reflect and promote the ethical diversity of its membership.

Ethical, Scientific, and Pedagogical Merit

The focus of the animal care committee is the ethical use of animals within a project. Once the scientific or pedagogical merit of a project has been confirmed, the animal care committee can use the information on likely harms (provided in the animal use protocol) to make an informed, ethical decision. Thus, scientific and pedagogical merit evaluations inform ethical merit; they do not supersede it. If a project or activity has been found to have scientific or pedagogical merit, it does not necessarily mean that animal use within the project will have ethical merit.

Decision-Making

Animal care committees should attempt to reach decisions by consensus. A reasonable quorum, such as a simple majority of the members, should be established for animal care committee meetings, and the quorum should include community and veterinary representation.

Conflict of Interest

Measures should be in place to avoid potential conflicts of interest. Animal care committee members should not participate in scientific or pedagogical merit review of projects unless their expertise is required. In these cases, they should recuse themselves from the ethical review of the same animal-based project. Similarly, animal care committee members should recuse themselves if they are collaborators on the project. Animal care committee members submitting projects for ethical review can participate in discussions, but must not be involved in the decision phase.

Composition

Committee composition should integrate equity, diversity, and inclusion.

OVERARCHING INSTITUTIONAL COMMITTEE

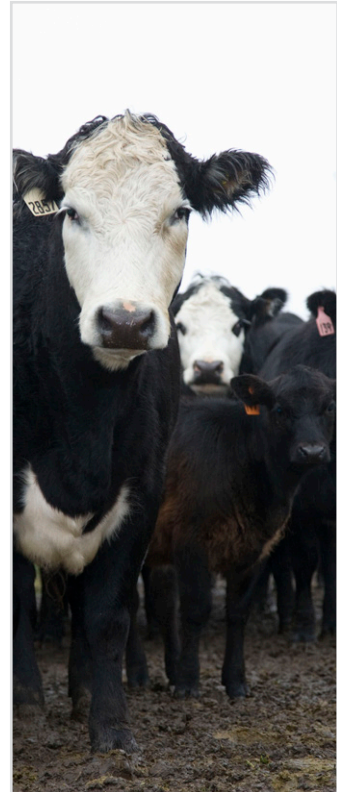
In programs with multiple animal care committees, the composition of the overarching committee should be tailored to the role and responsibilities of this committee, and should include (but not be limited to) stakeholders from all the animal care committees to ensure the structure, policies, and practices put in place are adapted to all participants and activities of the program.

ANIMAL CARE COMMITTEE

The following members should be present on an animal care committee (this list includes required core members only):

- representation from researchers, instructors, and study directors involved in animal-based activities;
- facility managers;
- representatives from animal care or technical staff;
- representation from institutional personnel not involving animals in their work;
- student representatives (if students are involved in the program);
- community representatives;
- veterinarians; and
- an animal care committee coordinator.

Additional members may join the committee, especially in large and diverse animal care and use programs, to help meet all of the program's needs. Examples include occupational health and safety representatives, biosafety/security representatives, post-approval monitoring officers, biostatisticians, ethicists, or representatives of the senior administrator.



Terms of Service

Animal care committee members should be appointed for terms of no less than two years and no more than four years, renewable only up to a maximum of eight consecutive years. This maximum should not be exceeded, except in the case of very small animal care and use programs (i.e., those having three or fewer researchers/teachers). This does not apply to animal care committee members who must be part of the animal care committee because of their role within the institution (*ex-officio* members): the animal care committee coordinator, the veterinarian, the animal facility manager/representative, and other possible key figures. There should be an orderly succession of animal care committee members to support knowledge transfer between members. Respecting terms of service is a CCAC requirement and an important part of keeping ethical perspectives fresh.

Selection of Animal Care Committee Members

The senior administrator responsible for the animal care and use program determines the selection process for animal care committee members.



Role of Each Animal Care Committee Member

Each animal care committee member brings different perspectives and concerns to discussions about the ethical merit of including animals in research, teaching, or testing activities because of their unique combination of work, life experiences, and expertise. While discussions often centre around “how” questions, such as “how did the researcher arrive at the number of animals requested, how can we refine the procedures to minimize pain and distress, how is this animal going to be euthanized”, animal care committee members should also be asking the ethical, moral “why” questions, as in “why are animals involved in this project, why are there so many animals used, why does an animal have to be reused so many times, and why does this animal have to suffer or die?” Each member should feel supported and valued, and able to fulfill their principal role as outlined below.



CHAIR OF THE ANIMAL CARE COMMITTEE

Principal Role: To work with all animal care committee members to reach consensus on informed decisions.

Animal care committee chairs should strive to maintain a respectful and inclusive environment conducive to discussing different ethical perspectives. Chairs should not dominate discussions, nor allow one individual or group to overshadow or marginalize another. They should ensure that all members provide their perspective on the issues discussed.

To function appropriately, the animal care committee depends on the strong support of the senior administrator. As the spokesperson for the animal care committee, the chair ensures that the senior administration is kept informed of issues facing the animal care committee. Meetings between the chair and the senior administration should be planned as often as needed, based on the workload and the number and complexity of issues before the animal care committee, not just when there is a specific issue. They should be seen as an opportunity to keep the senior administrator in the loop on an ongoing basis. In some institutions, once a year may be sufficient, whereas in other institutions, once a month might be more reasonable. Apart from chairing animal care committee meetings, the chair should also be involved in the interim approval process, if such a process is used, and in the annual renewal process. The chair must have access at all times to all areas where animals are, or may be, held, or where procedures on animals may be undertaken.

The chair is selected by the senior administrator or by consensus among animal care committee members. To avoid potential conflicts of interest and other challenges, care must be taken to ensure the chair:

- is not directly involved in the management of the institutional animal facilities;
- is not a clinical veterinarian for the institution;
- is not an animal health or veterinary personnel member charged with ensuring compliance with CCAC guidelines;
- is not involved in the preparation of a significant number of the protocols to be reviewed by the committee;
- has easy access to all the documents and information relevant to the program; and
- can easily contact and meet with researchers and instructors if needed.



RESEARCHERS, INSTRUCTORS, AND STUDY DIRECTORS INVOLVED IN ANIMAL-BASED ACTIVITIES

Principal Role: To contribute scientific and practical knowledge and expertise, including the assessment of animal-based methods described in protocols, especially in the area of experimental and statistical design.

They should represent and liaise with the divisions/departments of the institution where most animal-based activities take place, and there should be a minimum of two representatives¹ who are currently, or have been, involved in animal-based research, teaching, or testing activities. They can be a resource for protocol authors and other animal users regarding animal care committee matters, and can act as a liaison between protocol authors and the animal care committee.



FACILITY MANAGERS

Principal Role: To contribute facility management expertise, and report on all activities in the animal facilities.

The person with overall responsibility for the animal facilities, whether a veterinarian, a scientist or a technical staff member, must be part of the animal care committee.

¹ For small institutions with one or a few researchers, more information is available in the *CCAC policy statement on: terms of reference for animal care committees* (CCAC, 2006) and the *CCAC policy statement for: senior administrators responsible for animal care and use programs* (CCAC, 2008).



REPRESENTATIVES FROM ANIMAL CARE OR TECHNICAL STAFF

Principal Role: To contribute technical and animal husbandry and care expertise, and report on all activities in the animal facilities, and in the field, if relevant.

Depending on the size of the program, representation of the animal care or technical staff can be assumed by one or several individuals.



REPRESENTATIVES FROM INSTITUTIONAL PERSONNEL NOT INVOLVED IN ANIMAL-BASED ACTIVITIES

Principal Role: To provide the perspective (including opinions and concerns) of the institutional community regarding animal-based research, teaching, or testing.

An institutional representative not involved in animal-based activities is a member of the faculty or staff whose normal activities, past or present, do not depend on, or involve, animals for research, teaching, or testing.



STUDENT REPRESENTATIVES

(GRADUATE / UNDERGRADUATE / COLLEGIAL, IF STUDENTS ARE INVOLVED IN THE PROGRAM)

Principal Role: To represent the perspective and concerns of the student community and younger members of the population in general, and that of students involved in research, and to enhance the learning experience of these students.

Student representatives come from the divisions/departments of the institution where most students are involved in animal-based activities and are preferably not students of other animal care committee members.



COMMUNITY MEMBERS

Principal Role: To represent general community interests, opinions, and concerns regarding animal-based research, teaching, or testing, and to provide balance and credibility to a process that would otherwise be strictly institutional.

Community representation should be ensured for all animal care committee activities, and is required at animal care committee meetings to meet quorum. Community members must be involved in the interim approval process of protocols, if such a process is used, and in annual renewals.

Community representatives can be any local resident over 18 years old and can have any background as long as they have never worked with animals for scientific purposes, are not affiliated in any way with the institution that they will be working with, and do not have any conflict of interest that would compromise their role. Below are some examples, although not an exhaustive list, of who cannot be a community representative:

- current or former employees of the institution;
- someone with a real or perceived conflict of interest;
- someone who has exceeded eight continuous years of service on an animal care committee;
- someone (currently or in the past) involved in, or whose position is (was) directly related to, animal-based research, teaching, or testing (e.g., graduate student working with animals); and
- former undergraduate (who has pursued further studies or work experience directly or indirectly involving animals in research, teaching, or testing).

For additional information, please see the [*CCAC frequently asked questions: Assessment and Certification*](#) and the [*CCAC/CFHS Manual for Community Representatives*](#).

Community representatives bring valuable lay perspectives to animal-based scientific activities, and their thoughts and concerns should be respected. As shown by animal care committee member surveys from various countries (Canada, United States, Germany, and Sweden), community representatives have reported at times feeling alone, intimidated, not taken seriously, and that certain personalities (e.g., shy, quiet) or a perceived lack of knowledge or experience (e.g., newly appointed members) can lead to exclusion from discussions, resulting in feeling less influential and less content (Tjärnström et al., 2018; Schuppli and Fraser, 2007). Other animal care committee members should support and value the contribution of community representatives, and encourage them to ask questions. Questions should always be answered to the satisfaction of the community members.

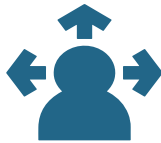


VETERINARIANS

Principal Role: To contribute animal health and welfare expertise, and report on all the activities in the animal facilities and in the field, if relevant.

Veterinarians should be present at animal care committee meetings to ensure quorum and must be involved in the interim approval process, if such a process is used, and in annual renewals. Veterinarians must have the authority to intercede on behalf of animals and must have access at all times to all areas where animals may be held, or where procedures on animals may be undertaken.

The veterinarian also serves as an expert advisor and animal advocate to the animal care committee. The veterinarian's expertise on strategies to address the Three Rs, animal health and welfare, husbandry, care, and use can be used to help animal care committee members make informed ethical decisions. This includes advice on anesthesia and analgesia, creation and suitability of animal models, establishment of humane endpoints, and evaluation of zoonoses, biohazards, and occupational health and safety as they relate to the housing, care, and use of animals.



COORDINATOR OF THE ANIMAL CARE COMMITTEE

Principal Role: To support the proper functioning of the animal care committee and assist animal care committee members in fulfilling their responsibilities.

Animal care committee coordinators provide administrative support to the animal care committee for protocol management, committee minutes and reports, other program documents (e.g., standard operating procedures and policies), and to protocol authors. They also ensure that all stakeholders and animal care committee members are provided with necessary information (e.g., updates on new CCAC guidelines or policies). They often act as a liaison between protocol authors and the animal care committee, between the senior administration and the animal care committee, as well as between the animal care committee and subcommittees (if any) and other stakeholders (see Appendix A for more information on the coordinator's tasks). Animal care committee coordinators are also well placed to facilitate administrative processes, such as for pedagogical and scientific merit review. Coordinators should be institutional employees who are preferably familiar with animal care and animal-based research, teaching, and testing. As an integral member of the animal care committee, and in the absence of any real or perceived conflict of interest, coordinators should be part of the animal care committee decision-making process.

For more information check the [CCAC policy statement on: terms of reference for animal care committees](#) (2006) and the [CCAC fundamental principles: Ethics of animal-based scientific activities](#) (in preparation).

References

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Appendix A

The following is a list of tasks that can be performed by the animal care committee coordinator. Note that in large animal care and use programs, some of the tasks can be performed by one or more individuals. The list includes, but is not limited to, the following:

- organizing animal care committee activities (e.g., meeting, site visits);
- contributing to the orientation and training of animal care committee members and providing relevant resources and information;
- providing relevant resources and information and contributing to the orientation and training of animal users and protocol authors on animal care committee functioning;
- serving as liaison between the animal care committee, researchers, and their team members;
- receiving new animal use protocols, amendments, and renewals, and assisting protocol authors;
- producing animal care committee documentation (e.g., meeting minutes, site visit reports);
- drafting letters to animal users (e.g., letters on animal care committee decisions, protocol renewal reminders);
- managing protocols, including renewals and amendments;
- contributing to the process of producing and updating animal care committee policies, forms, and other documents;
- contributing to the process of distributing and implementing new CCAC guidelines;
- contributing to the institutional post-approval monitoring process;
- contributing to the process of producing and updating standard operating procedures (SOPs);
- tracking the training of animal users; and
- contributing to animal tracking and compilation for annual animal use data reporting.