

Canadian Council on Animal Care



***policy statement for:  
senior administrators  
responsible for  
animal care and  
use programs***

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## SUMMARY

# MAIN RESPONSIBILITIES OF THE SENIOR ADMINISTRATOR

1. The main responsibilities of the senior administrator responsible for an institutional animal care and use program are summarized below, and are detailed in Appendix I (section D) and sections 3 through 10 of this document. Institutions using animals for scientific purposes must have a CCAC Certificate of GAP - Good Animal Practice® to meet eligibility criteria for receiving and keeping federal and other research funds (see Appendix I).
2. The senior administrator must ensure that:
  - a) there are mechanisms in place to ensure that the proposed animal-based work has merit (see Appendices II and III);
  - b) one or more appropriately composed and structured and well-functioning **Animal Care Committee(s)** (ACC(s), see Section 5 and Appendix IV) is (are) in place for the institution, according to the most recent version of the *CCAC policy statement on: terms of reference for animal care committees*, and that this (these) committee(s) is (are) provided with sufficient, qualified human resources (ACC coordinator(s), see Section 5.5) to function appropriately and effectively and ensure compliance with all relevant animal care and use standards;
  - c) there are sufficient and well structured (see Sections 4 and 7) **veterinary and animal care staff** resources, knowledgeable with regard to the species used and types of animal use undertaken by the members of the institution, and skilled with regard to communicating with animal users and the ACC. The veterinarians and animal care staff must have access to continuing education and training in their field;
  - d) **animal users** (see Section 6 and Appendix V) are well informed with regard to all aspects of the animal care and use program, and understand that using animals is a privilege that is granted with the understanding that institutional, provincial and national standards with respect to animal care and use, including CCAC policies and guidelines, are followed;
  - e) a **sound structure** is in place to support a solid program and foster good communication between the animal users, ACC and veterinary and animal care staff (see Section 4), and to normally have them address differences of opinion without calling upon the senior administrator. However, where serious differences of opinion cannot be resolved, the senior administrator must be prepared to address this (see Section 5.7).
  - f) where animals will be held within an institution, **appropriate and sufficient animal facilities** are in place for the species to be held and the types of work to be undertaken (see Section 8).
  - g) institutional measures are in place to protect all those who may be exposed to animals from related hazards, to implement a complete **occupational health and safety program** and a **crisis management program** (see Sections 9 and 10).
  - h) the institution **prepares appropriately for every CCAC assessment visit**, and ensures that it has each of the elements listed above in place. The senior administrator should also ensure that the members of the animal care and use program, including him/herself, are available to answer the CCAC's questions, and that comprehensive responses are provided in a timely manner to address CCAC recommendations about institutional program deficiencies (see Appendix I, section D).







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# SENIOR ADMINISTRATORS RESPONSIBLE FOR ANIMAL CARE AND USE PROGRAMS

## 1. Introduction

This first Canadian Council on Animal Care (CCAC) policy for senior administrators of animal care and use programs has been written primarily as guidance for the senior administrators responsible for the animal-based programs of Canadian scientific organizations and institutions. The Canadian public, federal Granting Agencies, federal and provincial governments, national and international regulatory and scientific organizations expect that, where animals have to be used for scientific purposes, they will be cared for and used ethically and appropriately, within well structured and administered programs, with sufficient human, financial and physical resources.

Senior administrators play a crucial role in meeting these expectations and ensuring that appropriate standards of animal care and use, as defined by the CCAC, are met. The CCAC works consultatively and collaboratively with organizations and institutions to help them meet these expectations and standards. The CCAC bases its work on the fact that appropriate, ethical animal care and use is an essential and integral part of good quality, sound animal-based science. The CCAC has produced and will continue to review and produce guidelines and policies that address specific components of animal care and use programs. This policy is meant to provide an overall framework within which institutional programs should operate, with references to guidance for each component of the program.

The use of animals in science is the subject of external questions and concerns by the public and of internal ones, in particular by members of the institution who do not use animals. The structure that institutions put in place to ensure appropriate animal care and use, including the animal care committee (ACC) and qualified veterinary and animal care staff, allow institutions to demonstrate that they are taking seriously their responsibility to meet national standards on animal care and use.

This policy provides information on the CCAC Program, on all main components of an institutional animal care and use program, and on the role of the senior institutional administrator in ensuring appropriate animal care and use in partnership with institutional members and with the CCAC. It is left to the discretion of each institution to find an animal care and use program structure that is appropriate and functions well for it, given its size, nature, history, objectives and constituents. The CCAC does not impose specific program structures. The elements outlined in this policy are meant to guide each institution as it defines and reviews its own program. Institutions are free to define the ways in which they will implement the elements outlined in this policy, but must be able to demonstrate to CCAC assessment panels and the CCAC Assessment Committee that their program functions well, is well structured and meets the principles outlined in this policy.

## 2. The Canadian Council on Animal Care

The Canadian Council on Animal Care (CCAC) is the national, peer review organization responsible for overseeing the care and use of animals in science. The CCAC works with academic, government and private institutions across Canada to ensure appropriate animal care and use in research, teaching, testing and production (of animals and biologics for scientific purposes). Further information on the CCAC is available in Appendix I.

## 3. Senior Administrators of Institutional Programs

While it is the organization/institution itself that bears responsibility for its animal care and use program, a single, senior institutional official must be appointed to coordinate efforts and ensure that all organizational/institutional



responsibilities are met. This official must be the person to whom the institutional animal care committee (ACC) reports and must be identified as such in the terms of reference of the ACC. This person must both ensure that appropriate animal care and use operations are in place to meet the institution's scientific goals of research, teaching, testing or production (of animals or biologics for scientific purposes) and that all animal care and use is conducted appropriately, according to institutional and CCAC policies and guidelines.

Funds for research, teaching, testing or production using animals are administered by institutions, including the funds used to acquire animals. **Therefore, animals acquired by/held in institutions are, except in specific pre-defined circumstances, the property and the responsibility of the institution.** There must be solid safeguards in place, through designated institutional personnel and appropriate management tools, to ensure that no funds are released to acquire or use animals until the ACC has approved the use of animals described in the relevant protocol. In turn, before it can provide final approval to a protocol, the ACC counts on one or more designated institutional official(s) to confirm that each protocol has been found to have either scientific, pedagogical or regulatory merit (see Appendix II).

Senior administrators are the CCAC's main contact with institutions, receive all formal CCAC communications, and must send all formal institutional responses to CCAC recommendations. Senior administrators delegate day-to-day basic responsibilities for the operations of the animal care and use program to the veterinarian(s), facility managers or animal care technician(s) (in the case of small programs) responsible for animal care and use, and delegates day-to-day compliance responsibilities to the ACC. Senior administrators must be in a position to oversee the entire animal care and use program, not only one part of it, and to take action where concerns are noted in the program, whether related to structure, personnel, animal care committee functioning, policies/procedures or facilities. They can delegate day-to-day administrative responsibilities to another senior administrator who is in an appropriate position to assume them. Where the person who would normally serve as senior administrator is an animal user, serious consideration should be given to appointing a superior as

senior administrator, in particular if the senior administrator's use of animals accounts for a considerable part of total animal use. As a minimum, questions related to animal use by a senior administrator should be referred to a superior.

### 3.1 Senior Administration Structures

**Where the senior administrator responsible for the animal care and use program does not control the entire budget for the program, a structured process for ensuring that appropriate budgets are allocated to the human and physical resources necessary for animal care and use, working with the administrators responsible for those budgets, must be defined and used, for example through the regular meetings of senior administrator, executive or management committees.**

#### 3.1.1 Academic Sector

##### 3.1.1.1 Universities

For universities, the senior administrator is normally the Vice-President, Research, who works with the President/Principal and fellow VPs and Deans. Day-to-day administration of the program may be delegated to an Associate VP Research or other senior administrator in a similar position.

Where the position of VP Research does not exist, the senior administrator may be the President/Principal, or the VP Academic.

##### 3.1.1.2 Hospitals

For hospital-based research centres, the senior administrator is normally the Director of the research centre. If not, the Vice-President, Research or the Scientific Director may be the senior administrator.

##### 3.1.1.3 Colleges

For colleges, the senior administrator may be the President, the VP Academic or another senior official occupying a similar position.

#### 3.1.2 Private Sector

For private institutions, the senior administrator is normally either the CEO, the VP Research & Development or VP Discovery.





### 3.1.3 Government Sector

For government research or testing centres, the senior administrator is normally the Director of the centre or of the relevant national or provincial program. The director must work with the government department or agency not only to ensure sufficient resources for the entire animal care and use program, but also to ensure that issues that may be more appropriately dealt with at the national or provincial level, such as peer review of scientific merit and resources for the training of staff and animal users, are dealt with at that level.

## 4. Ensuring an Appropriate Structure for the Animal Care and Use Program

Each animal care and use program must have a solid, balanced structure, to ensure that appropriate animal care and use does not rest only on one or a few specific individuals. In fact, it must be the institution as a whole that is committed to the ethical care and use of animals, with a structure that is stronger than the sum of its parts and that is strong enough to compensate for the potential loss of a key individual.

In any animal care and use program, there are two main components that must be covered appropriately:

- **Compliance:** which entails ensuring that all animal care and use is appropriately conducted, as overseen by the ACC working with the veterinarian(s) and animal care staff, according to all relevant guidelines, policies, procedures and regulations;
- **Operations:** which entail providing complete services (in particular appropriate, well-equipped animal facilities and well qualified veterinary and animal care services) to animal users.

In smaller institutions, the veterinary and animal care staff generally provide both services to animal users and oversight of animal use for the ACC. However, some larger programs have begun to divide their personnel between those responsible for operations and those responsible for oversight of the program. In some cases, this has been found

to allow for greater clarity, effectiveness, efficiency and accountability in the system.

~~Examples of animal care and use program structures for the various categories of institutions will be provided in the CCAC interpretation bulletin on: human resources for animal care and use programs.~~ The CCAC does not mandate specific structures for individual animal care and use programs, nor division of compliance and operations components. However, where problems in animal care or use are noted and the structure of the program is contributing to these problems, the CCAC Assessment Program works with the institution to assist it in finding solutions.

Each institutional program includes:

- a) a senior administrator, responsible for the entire program (see Section 3);
- b) at least one animal care committee (ACC) (see Section 5), which is the keystone of the program and the main compliance body for animal care and use, representing all interested parties;
- c) animal users (see Section 6), whether researchers, scientists, teachers, students or study directors, whose primary goal is the advancement of science or learning and who also actively participate in protecting animal health and welfare; and
- d) veterinary and animal care personnel (~~Section 7 and the CCAC interpretation bulletin on: human resources for animal care and use programs~~), who may be full- or part-time employees, or consultants, depending on the size and nature of the institution; these personnel must cover operations and compliance requirements.

## 5. Compliance and Animal Care Committees

The animal care committee (ACC) is at the heart of any animal care and use program. In overseeing the program, it must represent interested parties from the entire animal care and use program and provide quality control services with respect to animal care and use. It must function according to Terms of Reference based on the



most recent version of the *CCAC policy statement on: terms of reference for animal care committees* and on the institution's own program. Where there is more than one ACC in large institutions, an appropriate structure for ACCs must be defined to ensure that there is one institutional ACC with overall responsibility for animal care and use.

The ACC is responsible for overseeing all animal care and use undertaken by members of the institution, and ensuring compliance with institutional and CCAC standards. In practice, the ACC works side-by-side with the institutional veterinarian(s) and animal care staff to oversee the ethical and appropriate care and use of animals. There may be a veterinarian and/or other personnel specifically appointed to act as compliance officers, and this may help clarify the structure of the program and help members of the program in knowing who to turn to for assistance with compliance, and for assistance with operations. However, for many programs, especially the smaller ones, the same veterinary and animal care staff provide service to animal users and work with the ACC to ensure that animal care and use is appropriate in practice. ~~Examples of compliance staff and structures will be given in the CCAC interpretation bulletin on: human resources for animal care and use programs.~~

### 5.1 Conflicts of Interest and Confidentiality

The ACC(s) must be structured to avoid any real or perceived conflicts of interest, with each ACC having a broad perspective to ensure that it can undertake ethical review of animal use with as few biases as possible, and without potential intimidation of ACC members because of hierarchical or other considerations (see also section 1 of Appendix IV).

### 5.2 Composition, Authority and Responsibilities of the ACC

These are defined in the *CCAC policy statement on: terms of reference for animal care committees*, and are summarized in sections 2, 3 and 4 of Appendix IV.

### 5.3 ACC Reporting and Communication Lines

The institutional ACC must report directly to the senior administrator responsible for animal care

and use. This must not be only a theoretical reporting line; all ACC meeting minutes and site visit reports must be readily available to the senior administrator (see also section 5.4).

The institutional ACC must also work very closely with the veterinarian(s) and animal care staff to ensure that all aspects of the animal care and use program are appropriately covered.

With respect to communication lines, the ACC must communicate frequently with the animal care and use community as a whole with respect to general matters (explanations of the role of the ACC and of practical animal care and use matters including information for protocol submission and ACC meeting schedules, policies, standard operating procedures (SOPs), training opportunities, etc.), and with animal users, veterinary and animal care staff, hazardous substances committees, occupational health and safety groups and officials and others as often as needed to ensure that the program is functioning appropriately.

## 5.4 ACCs and the Senior Administration

In order to function appropriately, the institutional ACC depends on the strong support of the senior administrator and his/her colleagues in the administration. ACC members are volunteers who give considerable amounts of time and effort to providing ethical review and approval of animal use proposals, and overseeing the animal care and use program. However, since they are not responsible for institutional programs or budgets, they can only be fully effective by working closely and constructively with those who are.

The senior administrator, working with his/her delegate(s) and colleagues as appropriate, must support the role and responsibilities of the ACC as a whole by:

- ensuring that the ACC has a high profile within the institution, and that institutional animal care and use policies and procedures are easily accessible to, well known by and followed by all interested parties, including newcomers to the institution. In order to do this, there should be regular communications



from the senior administrator to the entire animal care and use community about the importance of appropriate animal care and use;

- ensuring that the ACC has a well-respected chair;
- ensuring that the ACC has a coordinator or other employee(s) who can provide the support necessary for the committee to function appropriately;
- ensuring that all ACC members, and in particular newcomers, have access to orientation materials about their role and training opportunities to better understand their role and ensure optimal functioning of the ACC;
- ensuring that any ACC concerns that cannot be addressed by the committee alone, whether related to compliance, staffing or facility issues, are appropriately addressed in a timely manner;
- meeting, as often as needed, with at least the Chair of the ACC (of the main institutional ACC where there are several committees) and the person(s) with overall responsibility for animal care services to discuss concerns and ways of addressing them, and to ensure that there are appropriate planning processes in place for any changes to the program, as well as for maintenance, renovation and replacement of animal facilities, as needed; and
- ensuring that individual members of the ACC are well supported, as detailed in sections 5 and 6 of Appendix IV.

## 5.5 ACC Coordinator

Because ACCs are committees composed of volunteers, the institution must provide active support by assigning staff preferably familiar with animal care and use to assist in ensuring the appropriate functioning of the ACC. **Each ACC must have sufficient support from one or more qualified personnel members.** One employee working part-time for the ACC may be sufficient in the case of smaller institutions, whereas larger institutions will need to assign one or more employee(s) to this work (see also

section 7 of Appendix IV). As defined in the CCAC *policy statement on: terms of reference for animal care committees*, “The ACC coordinator must support the ACC by ensuring that animal use protocols are well managed, that committee minutes and reports are promptly produced and distributed, that all exchanges between the ACC and animal users are well documented and filed in a timely manner, and that animal users and ACC members are provided with necessary information.”

## 5.6 ACCs and Animal Users

**The link between ACCs and animal users is an essential one of trust**, since animal users count on professional, trustworthy service from the ACC in order to ensure that their animal-based work is appropriately reviewed and can then normally be undertaken in a timely manner and in good conditions. In turn, the ACC counts on animal users to be trustworthy and professional in carrying out their animal-based work, according to institutional and ACC instructions.

The organization/institution, senior administrator and ACC must therefore work together to ensure that all animal users:

- **are clearly informed of institutional animal care and use policies and procedures, and of the importance of following these policies and procedures;**
- are clearly informed about how to complete institutional animal use protocol form(s), renewal and amendment forms, as well as about how and when to submit their proposals, and have access to assistance in this regard (from the ACC coordinator or another member of the ACC or veterinary/animal care staff);
- **have received appropriate training in animal care and use and an orientation with respect to using the animal facilities** (see the most recent CCAC *guidelines on: institutional animal user training*); and
- are clearly informed about reporting on their animal use as directed by the ACC, and about how to report any changes or concerns with



respect to their animal use, and any concerns with respect to animal health or welfare.

**There should be representation from all of the major animal-using departments, sectors or units of the institution on the ACC.** Institutional animal users on the ACC should be encouraged to assist their colleagues in presenting animal use protocols to the committee and in understanding the institution's animal care and use program, policies and procedures. In turn, animal users in general should be encouraged to consult with their representative on the ACC should they have any questions or concerns about any aspect of the program. Animal users should be discouraged from bringing their animal care and use concerns directly to the senior administration until they have made efforts to work with the ACC. In fact, it can be very useful for investigators to meet directly with the ACC to explain and answer questions about their protocols; they must however leave during the decision-making process.

## 5.7 Appeals of ACC Decisions

Senior administrators must encourage animal users and the ACC to work constructively together to arrive at the most appropriate means of using and caring for animals for scientific/ pedagogically valid ends.

The senior administrator must ensure that there is an institutional appeal mechanism in place, to address the eventuality of an animal user disagreeing with an ACC decision despite extensive discussions and attempts to find agreement. As defined in the *CCAC policy statement on: terms of reference for animal care committees*, "this mechanism should include appropriate expertise and ensure a separate, fair and impartial process. The CCAC may be called upon for information purposes; however, appeals cannot be directed to the CCAC."

## 5.8 ACCs and Post-approval Monitoring

ACCs do much of their work when protocols are still in the planning stages. However, they are also responsible, along with the animal users, veterinarian(s) and animal care staff and senior administrator, for ensuring that **animal care**

**and use takes place in practice according to ACC decisions and institutional and CCAC standards.** While collegial working relationships must always be protected and promoted, there must also be safeguards in place to ensure that difficulties experienced with any aspect of animal care or use can be effectively identified and addressed. These safeguards are known collectively as 'post-approval monitoring'. Post-approval monitoring is defined in section 8 of Appendix IV, and information is provided on ways and means to apply it.

**No matter what the exact structure of the animal care and use program is, the ACC must remain at the centre of the program and play an active part in ensuring that animal use in practice takes place as approved in principle. The veterinary and animal care staff must not be left to address problematic situations alone — the ACC or its delegate(s) must be part of the solution and must be assisted by the senior administration as needed.**

## 6. Animal Users

Animal users encompass a great range of scientists, teachers, technicians and students. They can be highly experienced and expert animal handlers or novices, and their work may be based almost entirely on animal studies or may only involve animals in a minor way. This means that institutional programs must be flexible enough to adapt to a variety of animal user needs.

The work of the ACC and veterinary and animal care staff with animal users is presented in Sections 5.6 and 7. Animal users' responsibilities with respect to animal care and use are summarized in Appendix V.

The role of senior administrators with respect to animal users is twofold: they must ensure that animal users can successfully undertake their research, teaching, testing or production work, while also ensuring that they are protecting animal health and welfare and meeting institutional and CCAC standards. When a new animal user is hired or a new type of animal use is to take place in an institution, the veterinarian(s) and animal care staff must be informed and must



report as to whether this new animal use can be successfully accommodated, and if not, what is needed to do so.

## 7. Animal Care and Use Operations Headed by Veterinarians and Animal Care Staff

In order for scientists and teachers to have animals that are healthy subjects for research, teaching, testing or production, and for the institution to meet its obligations to protect the health and welfare of the animals, **there must be competent veterinary and animal care service providers whose numbers and expertise match the nature and scope of the institutional program** (see *CCAC interpretation bulletin on: human resources for animal care and use programs*).

Veterinarians must have well defined authority to exercise their professional judgment to treat or euthanize animals as needed, as defined in the Canadian Association for Laboratory Animal Medicine (CALAM) *Standards of Veterinary Care*. As stated in the *CCAC policy statement on: terms of reference for animal care committees*: “The veterinarian must attempt to contact the animal user whose animal is in poor condition before beginning any treatment that has not previously been agreed upon, and must also attempt to contact the ACC Chair, but the veterinarian must have the authority to proceed with any necessary emergency measures, whether or not the animal user and ACC Chair are available. A written report should be sent by the veterinarian to the animal user and to the ACC following any such event.”

Institutions that place animal care and use for research, testing or production purposes entirely, or almost entirely, in the hands of well trained and experienced animal health professionals can obtain very high quality research, testing or production results, while protecting animal health and welfare very effectively. While having animal care and use undertaken exclusively by animal health professionals is not possible for many academic and some other institutions, it is necessary to have well-structured and complete animal care services, offered by professionals, in all cases.

While it is understood that researchers and study directors can be experts in animal use, and that teamwork involving the sharing of best practices by scientists and animal health professionals is essential for optimal results, as a general principle, animal care cannot simply be left up to research/testing teams. Research/testing teams have research/testing as their primary goal; **animal care needs to be the responsibility of animal health professionals whose primary goal is animal health and welfare in the service of high quality science**. While some animal care may be entrusted to well trained students or other members of research/testing teams with the approval of the ACC, these persons’ work must always be overseen by animal health professionals. There are fewer opportunities for qualification as an animal health professional for aquatic animals and some other species, and therefore those working with aquatic animals are more likely to come from a research background. However, the same basic principle should apply: the person caring for the animals should preferably not also be a member of a research team, except in the case of very small institutions or specialized types of work, where research teams may provide care with the approval of the ACC and oversight by veterinary/animal health staff/ACC.

### 7.1 Reporting, Management and Communication Lines for the Director/Manager and Staff of the Animal Facilities

For larger institutions, there should be one or several veterinary director(s) of animal care/animal resources/animal care services, with animal care staff members typically reporting to this/these director(s) through managers/supervisors. The veterinary director(s) must work within a reporting structure where final responsibility for animal welfare related matters lies with the senior administrator responsible for animal care and use. Veterinarians in Canadian scientific institutions must work according to the most recent Canadian Association of Laboratory Animal Medicine CALAM/ACMAL *Standards of Veterinary Care*, and all elements in these standards must be covered by the veterinary services in place.

While individual managers may report to a department head or faculty administrator for



budgetary and human resource purposes, the manager must also report and be accountable to the veterinary head of services for animal health and welfare related matters.

In smaller institutions where there is a facility manager and consulting veterinarian, they must work together and both must report to the senior administrator responsible for animal care and use for all animal health and welfare related matters.

The director(s) and facility manager(s) must communicate effectively with all animal users to ensure that the services offered are well understood and taken advantage of, and to ensure that facility users understand and respect institutional animal care and use and facility management practices and procedures. In cases where director(s) and facility manager(s) have not been appointed to act as compliance officers, they must also communicate effectively with those responsible for compliance, and in particular with the ACC, to ensure that both groups are working with the most up to date information and are working collegially and effectively with animal users to foster best practices in animal care and use.

## 7.2 Qualifications and Continuing Education for Veterinarians and Staff

Veterinarians providing clinical services and/or compliance oversight must normally be licensed to practice as veterinarians in one or more Canadian provinces. They must also have the experience/expertise necessary to appropriately evaluate the health and welfare of the species used, in the context of the work being carried out by the institution. All veterinarians must have access to continuing education opportunities relevant to their work, and opportunities to better understand the research, teaching, testing or production that is undertaken in their institution. Appendix VI provides the CCAC continuing education requirements for consulting and newly hired institutional veterinarians working for scientific animal care and use programs.

Laboratory animal care technical staff members should normally be animal health technicians/

veterinary technicians who have graduated from college or university programs, especially those accredited by the Canadian Veterinary Medical Association, to ensure appropriate monitoring of animal health and welfare at the cage level on a day-to-day basis. Less formally trained persons can be employed for basic husbandry tasks (cleaning, cage changing) in animal facilities. Staff members should have experience/expertise in the area in which they will be working, or at least basic training for the routine tasks. The main source of certification and continuing education and training in laboratory animal science for technical staff in Canada is the Canadian Association for Laboratory Animal Science (CALAS). There are also some provincial associations that provide some continuing education, along with opportunities in the US through the American Association for Laboratory Animal Science (AALAS), among others. Where technicians are working with animals other than laboratory animals (farm animals, fish, wildlife), good use should be made of time spent in institutions with appropriate expertise and courses offered through specialized institutions.

Those responsible for compliance should be provided with continuing education opportunities, with an emphasis on compliance structures and procedures (CCAC workshops, Public Responsibility in Medicine and Research (PRIM&R) meetings, etc.).

## 8. Construction/Renovation and Maintenance of Appropriate Animal Facilities

**Animal facilities are expensive and complex to plan, design, build, manage and maintain.**

Existing and planned facilities must meet CCAC guidelines, as described in Appendix VII.

## 9. Occupational Health and Safety

All institutions must have occupational health and safety (OHS) programs in place, according to provincial, federal and municipal requirements. In the case of animal-based work, the institution



must ensure that those caring for and using animals, and those in the general vicinity of animal-based work, are not put at risk because of this work, as described in Appendix VIII.

## 10. Crisis Management

As defined in the *CCAC policy statement on: terms of reference for animal care committees*, the institution and its ACC must have in place “a crisis management program for the animal facilities and for the animal care and use program, in conjunction with any general institutional crisis management plan(s).”

**This program** (see Appendix IX for more information) **should detail plans in the event of:**

- **power outages (short and prolonged);**
- **work stoppages;**

- **conditions (such as severe weather or pandemics) that interfere with many staff members’ ability to come to work;**

- **fires;**

- **natural disasters;**

- **large chemical spills and other similar crises;**

**and include a communications plan for addressing public and media inquiries about animal use.**

With respect to work stoppages, “Animal Care is a Continuous and Daily Responsibility” (see Section D4b), Chapter V, Volume 1 (2<sup>nd</sup> Edition) of the *CCAC Guide to the Care and Use of Experimental Animals*). All institutions must have measures in place to ensure the availability, through any strikes or work stoppages, of daily animal care by qualified and experienced personnel.



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## APPENDIX I

# WORK OF THE CANADIAN COUNCIL ON ANIMAL CARE (CCAC)

The CCAC has three main programs:

- the Guidelines Program, which publishes regularly updated Canadian guidelines on animal care and use in science, written and reviewed by peers ([http://www.ccac.ca/en/CCAC\\_Main.htm](http://www.ccac.ca/en/CCAC_Main.htm));
- the Education, Training and Communications Program, which provides information and training materials (primarily through the CCAC website at [www.ccac.ca](http://www.ccac.ca)); and
- the Assessment Program, through which the animal care and use programs of participants in the CCAC Program are evaluated by panels of peers, based on CCAC guidelines, policies and associated documents ([http://www.ccac.ca/en/CCAC\\_Programs/Assessment/intro.htm](http://www.ccac.ca/en/CCAC_Programs/Assessment/intro.htm)).

When institutions become participants in the CCAC Program and successfully complete the assessment process (see Section D of this appendix), the institution receives a CCAC Certificate of GAP – Good Animal Practice®, [http://www.ccac.ca/en/CCAC\\_Programs/Assessment/gap.htm](http://www.ccac.ca/en/CCAC_Programs/Assessment/gap.htm). This Certificate is recognized by federal and other granting agencies, federal and provincial governments, and national and international regulatory and scientific bodies, among others, as a confirmation that the institution meets appropriate standards of animal care and use. Canadian standards of animal care and use are recognized to be among the highest in the world.

### A. Work With the Academic Sector

For the academic sector, the CCAC works with the federal Tri-Council Granting Agencies, as defined in the *Memorandum of Understanding on the Roles and Responsibilities in the Management of Federal Grants and Awards* (and in particular in Schedules

3 and 8 of this MOU, which is signed by all institutions receiving funds from the agencies) to ensure that all institutions receiving their funds meet CCAC standards ([http://www.nserc.ca/institution/mou\\_e.htm](http://www.nserc.ca/institution/mou_e.htm)). Participation in the CCAC Program and the resulting CCAC Certificate of GAP – Good Animal Practice® is therefore mandatory for any institutions receiving or hoping to receive federal funding for animal-based work. The CCAC Certificate also has the same value for academic institutions as it does for all other institutions, in terms of confirming to the public, regulatory agencies, stakeholders, collaborators and others that the institution meets Canadian standards of animal care and use.

### B. Work With the Private Sector

For private institutions that use animals for research, testing or production, the CCAC Certificate of GAP – Good Animal Practice® is a confirmation, for regulatory agencies, government, clients, stakeholders, collaborators and others, that the institution meets Canadian standards of animal care and use. Through its Assessment Program, the CCAC provides quality assurance services to these institutions for their animal care and use programs.

### C. Work With the Government Sector

For the government sector, federal government departments and agencies that have units in which animals are used for research or testing are all participants in the CCAC Program. In addition, the 'Experimental Animals (A9015C)' clause governing "Research and Development" of the *Standard Acquisition Clauses and Conditions (SACC) Manual of Public Works and Government Services Canada (PWGSC)* requires that "any



work performed under the (federal government) Contract involving the care and use of experimental animals must be carried out in compliance with the Canadian Council on Animal Care (CCAC) programs and only by an institution holding a CCAC Certificate of GAP – Good Animal Practice®.” Several provincial department units using animals also choose to be part of the Program. As is the case for other institutions, holding the CCAC Certificate confirms to the public, clients, collaborators and others that the institution meets Canadian standards of animal care and use.

## D. The Assessment Process

When an institution wishes to join the CCAC Program, it receives an orientation and/or initial visit, during which a CCAC Assessment Director explains the CCAC Program and reviews the institution’s planned program according to CCAC standards. Following this preliminary work, which is adapted to the needs and goals of the institution, the institution receives a first, full CCAC assessment visit followed by visits every three years (see the *CCAC policy statement on: the assessment program of the CCAC*, [http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/POLICIES/ASSESS.HTM](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/POLICIES/ASSESS.HTM) and the *CCAC policy statement on: assessment panels*, [http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/POLICIES/PANEL.HTM](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/POLICIES/PANEL.HTM)).

The senior administrator needs to ensure that the institution prepares appropriately for every CCAC assessment visit, and ensures that it has all of the necessary elements for a complete animal care and use program in place once regular CCAC visits begin. Institutions analyze all aspects of their own program before CCAC visits by completing the *CCAC Animal Care and Use*

*Program Review Form*, and provide this as pre-assessment documentation to the CCAC. The senior administrator should also ensure that the members of the animal care and use program, including him/herself, are available to answer the CCAC’s questions during and between visits.

The institution is normally provided with a written report within 10 weeks of a regular CCAC visit. These reports generally include CCAC recommendations, which are categorized as Major, Serious or Regular, as well as commendations (see *CCAC policy statement on: definitions of recommendations made in CCAC reports*, [http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/POLICIES/DEFINI.HTM](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/POLICIES/DEFINI.HTM)).

**Major recommendations** are rare, and signal large and fundamental deficiencies in the animal care and use program which must be thoroughly addressed with utmost urgency. The senior administrator must answer any Major recommendations within the timeframe specified by the CCAC.

**Serious recommendations** are more common, but still signal important deficiencies which must be thoroughly and promptly addressed. The senior administrator must answer any Serious recommendations within three months of receiving the CCAC report or letter.

**Regular recommendations** are the most common type of CCAC recommendation, and signal deficiencies that can normally be addressed through the processes already in place within the institution. The senior administrator must answer any Regular recommendations within six months of receiving the CCAC report or letter.

**Commendations** are also common and are used by the CCAC to emphasize the strengths in the institution’s program.



## APPENDIX II

# SCIENTIFIC, PEDAGOGICAL AND REGULATORY MERIT

### A. Scientific Merit of Animal-based Research

It is the institution's responsibility (or, in the case of departments/agencies/organizations with multiple sites, the organization's responsibility) to have in place a mechanism to ensure that proposed animal use for research is independently peer-reviewed for its scientific merit before it is given final approval by the animal care committee (ACC) (see the *CCAC policy statement on: the importance of independent peer review of the scientific merit of animal-based research projects*, [http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/POLICIES/PEER.HTM](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/POLICIES/PEER.HTM)). The institutional office of research services, the office of the vice-president or associate vice-president of research or similar body should be responsible for this mechanism. The ACC coordinator or other administrator can help facilitate the process, and close links must be maintained between the ACC and the office of research so that:

- the ACC receives confirmation that each animal-based research protocol has been found to have scientific merit before it is given final approval; and
- the office of research receives confirmation of protocol approval from the ACC before releasing funds for animal-based work for the corresponding project.

Where funding sources for research projects have competitive peer review processes with appropriate independence and expertise (e.g. federal granting agencies and others), the institution and ACC can choose to accept these as providing evidence of scientific merit. Institutions can compile lists of such funding sources to which the institution/ACC can refer when checking whether a research project has received appropriate peer review.

For projects that are either internally funded or for which the source of funding does not have in

place a peer review mechanism with appropriate independence and expertise, it is recommended that the institution constitute a pool of reviewers with expertise in the fields in which the members of the institution work. The various departments and researchers may be called upon to assist in identifying reviewers, including as many external scientists as possible, especially in the case of smaller institutions. Two independent reviewers (at least one of whom must be external to the ACC) can then be selected for each project. They should be asked to produce written reviews that should include the elements shown in the appended generic scientific merit review form (Appendix III). The reviews should be provided (without identifying the reviewers) to the author of the protocol and any questions or concerns addressed before the relevant information is forwarded to the ACC.

### B. Pedagogical Merit of Animal-based Teaching

ACCs work closely with teachers to encourage them to carefully justify any use of animals and to use alternatives as much as possible. While this should be encouraged, the institution and its departments also have an important role to play by ensuring that, when curriculum reviews and other individual course reviews take place, the value of using animals for the various courses is thoroughly examined and documented. This documented review can then be provided to the ACC.

### C. Regulatory Merit of Animal-based Testing

With respect to the merit of proposed regulatory tests using animals, it is the responsibility of the institution to ensure that either the study director, a regulatory affairs official or other institutional representative has ascertained what data sets are acceptable to the regulatory authorities for each compound or device to be tested (do the



regulatory authorities require animal-based tests and if so, what are the species, numbers of animals and types of procedures that are required?). In Canada, the onus is on the institution submitting data to ask for a waiver if it wants to use an alternative test method (that is less invasive, uses a less sentient species or uses fewer animals), or if it opts to not produce a data set it believes unnecessary. This discussion should take place before the protocol is submitted to the ACC, and resulting information shared with the ACC.

As stated in the *CCAC policy statement on: terms of reference for animal care committees*, the testing must be “planned according to the most current regulatory requirements, using guidelines acceptable to the regulatory agency(ies) and

which meet the requirements of the *CCAC policy statement on: ethics of animal investigation*.” In addition, the planned animal use must “not exceed the requirements of the regulatory authorities - if it does, justification for the additional animal use must be provided”.

Because regulatory agencies do not always clearly require animal-based tests, and are themselves looking for alternatives to live animal-based tests in several cases, institutions and their ACCs are encouraged to work with regulatory agencies towards reducing animal distress in tests, and to provide data whenever possible to the regulatory agencies to help work towards peer-reviewed validation of less invasive tests, as well as tests that involve fewer animals or animals of lower levels of sentience.

## APPENDIX III SAMPLE PEER REVIEW FORM



*senior administrators responsible for animal care and use programs, 2008*

### PEER REVIEW FORM

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The Canadian Council on Animal Care, which oversees animal use for research, teaching and testing, requires that all animal-based research projects receive scientific peer review from at least two independent experts prior to their approval by an Animal Care Committee.

The following set of questions will serve as a guideline for this review (please attach additional pages if necessary).

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#### Protocol #

- 1) Please comment on the objectives and potential contribution(s) of this study to scientific knowledge.
  
  
  
  
  
  
  
  
  
  
- 2) Please comment on the:
  - a) hypotheses of the study and appropriateness of the experimental design involving animals
  
  
  
  
  
  
  
  
  
  
  - b) animal-based methods

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Signature \_\_\_\_\_ Date \_\_\_\_\_

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Name and title (please print) \_\_\_\_\_



## APPENDIX IV INFORMATION ON ANIMAL CARE COMMITTEE OPERATIONS

### 1. Conflicts of Interest and Confidentiality

In large institutions, ACCs representing only a small proportion of animal users must be avoided, to ensure that the ethical review process is based on broad input and not simply on a small number of close colleagues approving one another's animal use protocols. In small institutions, consideration should be given to including additional external members whose abilities complement those of the internal members. There must be regular turnover of all ACC members except for those who must be on the committee because of the nature of their work (veterinarian, facility manager, ACC coordinator). Other ACC members, including the chair, may not serve more than eight consecutive years on the committee, except in the case of very small institutions (those with three animal users or less).

The senior administrator to whom the ACC reports must not be a member of the ACC, although it can be useful to have a representative of the administration on the committee to facilitate communication and address any concerns in a timely manner.

All ACC members must understand that all of the information from individual animal users that they are privy to must be kept entirely confidential, along with the ACC's discussions and decisions on animal use. Animal use proposals, in particular in a research setting, are intellectual property and must be treated as such. Several institutions choose to have ACC members sign confidentiality agreements, and this can be useful to reassure animal users that their proposals will not be used by ACC members for any purposes other than ethical review and decision-making. Agreements can be worked out, at the discretion of the institution, to keep individual protocols confidential, while allowing ACC members to be more open about the general processes that the ACC uses.

### 2. Composition of the Animal Care Committee

As defined in the CCAC *policy statement on: terms of reference for animal care committees*, the composition of ACCs must include:

- scientists/teachers experienced in animal use;
- at least one veterinarian with experience/training with regard to the species being used and the types of work;
- an institutional member who does not use animals in his/her work;
- a minimum of one community representative with no links to the institution or to animal use in science (most institutions' workloads require more than one community representative);
- the director/manager of the animal facilities; where there are several directors or managers, their representation on the ACC should be worked out in a manner consistent with the program structure;
- technical staff representation;
- student representation in the case of academic institutions; and
- the ACC coordinator, or person paid by the institution who assists the ACC in its work.

### 3. Authority of the ACC

As defined in the CCAC *policy statement on: terms of reference for animal care committees*, "the ACC must have the authority, on behalf of the senior administrator responsible for animal care and use for the institution, to:



- a) Stop any objectionable procedure if it considers that unnecessary distress or pain is being experienced by an animal.
- b) Stop immediately any use of animals which deviates from the approved use, any non approved procedure, or any procedure causing unforeseen pain or distress to animals.
- c) Have an animal killed humanely if pain or distress caused to the animal is not part of the approved protocol and cannot be alleviated."

## 4. Main Responsibilities of the ACC

The main responsibilities of the ACC (see Sections 3, 4 and 5 of the most recent version of the *CCAC policy statement on: terms of reference for animal care committees* for more details on this) are to:

- provide ethical review and approval of animal use proposals (known as protocols) once they have been found to have scientific, pedagogical or regulatory merit, and ensure that they are carried out in practice as they have been approved in principle;
- ensure that there are appropriate policies and standard operating procedures (SOPs) in place for the animal care and use program, that these are regularly reviewed and updated with appropriate expertise and that they are widely communicated to all members of the program;
- ensure, through regular site visits and work with institutional officials, that the animal facilities and areas used for animal care and use by the institution are appropriate and meet institutional and CCAC standards; and
- ensure, through work with institutional officials, that there are sufficient numbers of well qualified veterinary and animal care staff members receiving relevant continuing education and training, and that the animal users in the institution have also been trained to work with animals appropriately.

## 5. ACC Chair

The Chair of the ACC is typically an animal user with good experience in animal care and use, as this facilitates his/her understanding of the animal care and use program and his/her ability to effectively meet the challenges involved in overseeing it. However, in several cases non animal users have successfully chaired their committee. Each institution must decide who can best chair its ACC at any given time. It is important that the chair not have any conflict of interest or appearance of conflict of interest in his/her role, and therefore should not be the author of a large proportion of protocols within the institution, nor be directly involved in the management of the institutional animal facilities, nor be a clinical veterinarian for the institution, nor be an animal health or veterinary personnel member charged with ensuring compliance with CCAC guidelines.

The role of the chair of the ACC should be well defined, according to institutional and CCAC policies, and once the chair is selected (either by the senior administrator, by the ACC itself, or preferably by both working together, often with others) this person should be well supported by the institution. Chairing an ACC requires considerable commitments of time and effort, and the ACC itself provides an essential service to the institution in terms of quality control and risk management for the animal care and use program. Therefore, the ACC chairmanship should be a high profile position, which individuals should have the time to undertake and for which they should be recognized by the institution.

## 6. Institutional ACC Members

The other members of the ACC from within the institution should be similarly well supported and recognized.

### 6.1 External ACC Members

All ACCs must have community representatives as external committee members, and may have other external members as well.



## Community Representatives

These members play a key role in providing a perspective that is external both to the institution and to the use of animals in science, and provide considerable balance and credibility to a process that would otherwise be strictly institutional. The role and responsibilities of the community representative are described in the CCAC – Canadian Federation of Humane Societies (CFHS) *Manual for Community Representatives* ([http://www.ccac.ca/en/CCAC\\_Programs/Assessment/CCAC-CFHS\\_Manual\\_e.pdf](http://www.ccac.ca/en/CCAC_Programs/Assessment/CCAC-CFHS_Manual_e.pdf)).

It is essential for institutions to make community representatives feel welcome, and to provide them with:

- an orientation session, including a site visit and an opportunity to meet with at least the key players in the animal care and use program;
- all material relevant to the animal care and use program of the institution;
- all material published by the CCAC; and
- opportunities to learn more about their role, ACC functioning and animal care and use in science.

ACC meetings and activities must be held at times that are convenient for the community representative, particularly since community representation is essential for ACC operations and decisions (they must be part of the committee quorum). While the institution does not employ the community representative, the institution must reimburse the community representative for expenses incurred for ACC work, including travel and parking expenses, any expenses related to receiving and sending materials relevant to the ACC's work, and expenses related to continuing education and training as an ACC member. Many institutions also provide meals during ACC activities and try to provide opportunities for community members to meet informally and socially with other members of the animal care and use community, ACC and institutional members.

## Other External ACC Members

Institutions that have consulting veterinarians who are responsible for providing services for all

or a large proportion of the animal care and use program will need to include them as ACC members (see also section 7).

Depending on the size and nature of the institution, other external members may be useful as well. Smaller institutions or institutions new to the CCAC Program, in particular, may benefit from including external members familiar with animal care and use in science.

As is the case for the community representatives, other external ACC members should be made to feel welcome to the committee and valued by the institution, and should be provided with an orientation to the institution's program and with all relevant documentation.

## 7. ACC Coordinators

ACC coordinators have very varied backgrounds. They should be chosen to match the needs of the institution according to their own experience and the size and nature of the institution. In some cases, institutions have assigned animal health technicians to be ACC coordinators: this can work well since they are well versed in animal care and use and can therefore assist animal users and the ACC very effectively, as well as play an active role in monitoring protocols following their approval by the ACC. In some cases, the ACC coordinator is an animal health technician who is also the training coordinator, and this can also work well in terms of keeping standard operating procedures up to date, along with managing protocols and potentially contributing to post-approval monitoring, as long as the program is not too large. An animal health technician who already has extensive responsibilities in providing services within the animal facilities should not also be asked to serve as ACC coordinator.

## 8. Post-approval Monitoring

As defined in the CCAC *policy statement on: terms of reference for animal care committees*:

Each institution must establish procedures for post-approval monitoring of animal





use protocols, and must define the roles and responsibilities of the members of the animal care and use program in the monitoring process. The institutional ACC is the body responsible for determining and working to correct breaches of compliance with approved animal use protocols and SOPs. Breaches of compliance that cannot be corrected by the ACC working with the concerned animal users and veterinary/animal care staff must be referred to the senior administration, which must inform all members of the animal care and use program about sanctions that will be taken by the administration in the event of serious breaches of compliance.

As the ACC is generally not present when animal use protocols are being undertaken, the committee must work with the members of the veterinary and animal care staff to ensure compliance with its decisions and with the conditions set out in approved protocols. The veterinary and animal care staff must work in a collegial manner with animal users and attempt to correct deficiencies collaboratively. Where there are persistent breaches of compliance or threats to the health and safety of personnel or animals, these must be reported back to the Chair of the ACC, and the Chair and ACC must promptly address these issues, through communications with the animal user(s), meetings and site visits, and eventually communications with the senior administrator, as necessary.

In order to undertake post-approval monitoring in practice, the ACC needs partners.

The most important partner is the animal user: s/he agrees to undertake his/her protocol in practice as approved in principle by the ACC when s/he signs the final version of the protocol. The veterinarian(s) and animal care staff are also essential partners as they provide day-to-day

assistance and information with respect to animal care and use, and provide training as well.

Post-approval monitoring procedures must not be cumbersome or intrusive. In fact, the ACCs, veterinarians and animal care staff in most Canadian institutions successfully identify and address most difficulties without 'policing', and this collaborative approach must be retained in any post-approval monitoring program. While flexibility is important, the program should not be left solely to good will. Each institution should develop and implement its own post-approval monitoring program based on the following elements:

- a) day-to-day collegial work of the veterinarian(s) and animal care staff to help animal users remain compliant with approved protocols and institutional and CCAC standards, focusing more specifically on ensuring that:
  - i) individual animal users are comfortable handling animals and carrying out procedures successfully, and that they are able to do so in appropriate conditions;
  - ii) endpoints are applied as approved by the ACC to avoid unnecessary distress to the animals.
- b) availability of the ACC coordinator or other ACC members to assist animal users with their work, and to facilitate the process of amending a protocol when it cannot be successfully continued in practice as originally approved for technical or logistical reasons;
- c) site visits and discussion of protocols with animal use teams by ACC members or other colleagues, to address concerns through good communication;
- d) careful assistance and follow-up for new procedures and for procedures more likely to result in animal pain or distress.



## APPENDIX V RESPONSIBILITIES OF ANIMAL USERS

Scientists, teachers, technicians and students all have the responsibility to:

- not use animals if a replacement alternative is available and appropriate;
- work with the animal care committee (ACC) and veterinary and animal care staff in a collegial and respectful manner when animal use is necessary;
- treat all animals with respect and dignity;
- respect institutional and CCAC standards.

Authors of animal use protocols have responsibility for all aspects of the protocol, including:

- a) ensuring that the ACC receives all the information required to conduct an informed review of the proposed animal use, and that it is approved before any animal use begins;
- b) considering the Three Rs (replacement, reduction and refinement of animal use) and

documenting that the proposed animal use is necessary, that the requested animal numbers are justified and that all appropriate refinements will be made (more information on the implementation of the Three Rs is available from the CCAC's Three Rs microsite located at <http://ccac.ca/en/ThreeRs>);

- c) ensuring that any amendments to the protocol are submitted to and approved by the ACC in a timely manner;
- d) reporting back to the ACC on the work on at least an annual basis;
- e) ensuring that all those in their team who will handle animals are appropriately trained and competent to undertake the procedures, and that they understand what is in the approved protocol;
- f) ensuring that the work is undertaken in practice as approved in principle by the ACC, and meets institutional and CCAC standards.



## APPENDIX VI

# CONTINUING EDUCATION (CE) FOR CONSULTING AND NEWLY HIRED INSTITUTIONAL VETERINARIANS WORKING IN SCIENCE

The CCAC recommends that veterinarians working with animals used in research, teaching, testing or production fulfill a requirement for continuing education (CE) in their field of practice. In order to identify appropriate levels of CE for veterinarians, and recognizing that veterinary requirements differ for the type of institution involved, the CCAC has categorized animal care and use programs into three general types: small, medium and large (based mostly on the number of days required for each CCAC assessment). The types of veterinarians that would typically provide clinical services to these programs are identified below:

### A) Small program

- a) Consulting (attending) veterinarian

### B) Medium program

- a) Multi-species consulting veterinarian
- b) Newly hired institutional veterinarian(s)
- c) Experienced institutional veterinarian(s)

### C) Large program

- a) Species-specific consulting veterinarians
- b) Newly hired institutional veterinarians
- c) Experienced institutional veterinarians

Consulting or attending veterinarians typically practice large, small or mixed animal medicine, in private practice. Large animal practitioners work mostly with farm animals; small animal practitioners work mostly with pets, including birds, reptiles and pocket pets (rodents for the most part); and mixed animal practitioners work with all common species. They typically dedicate

a relatively small portion of their professional time to working with scientific institutions and their animal care committees (ACCs). However, some consulting veterinarians are experienced experimental animal medicine veterinarians who divide their time between several different institutions; they therefore do not need introductory CE in their field, but need more advanced CE on topics most relevant to them.

Institutional veterinarians spend most of their time working for and in one academic or non-academic institution. In Canada, the majority of CCAC participants employ institutional veterinarians to work with common species of laboratory animals.

The CCAC has also identified a number of different types of CE available to Canadian veterinarians:

1. Subscriptions to relevant scientific journals
2. On-line resources and other distance learning modalities
  - *Introduction to Lab Animal Medicine*, University of Guelph: <http://www.open.uoguelph.ca/offerings/program.cfm?PID=59>
  - *The Experimental Fish – Institutional Aquatic Animal User Training*, Canadian Aquaculture Institute, <http://www.upei.ca/cai/experimentalfish.htm>
  - COMP-MED (an electronic discussion group on comparative medicine and laboratory animals): [http://www.aalas.org/online\\_resources/listserves.asp](http://www.aalas.org/online_resources/listserves.asp)
3. **Membership in professional associations** (Canadian Association for Laboratory Animal Medicine (CALAM, <http://www.uwo.ca/>



animal/website/CALAM/), Canadian Association for Laboratory Animal Science (CALAS, <http://www.calas-acsal.org/>), American Society of Laboratory Animal Practitioners (ASLAP, <http://www.aslap.org/>), American Association for Laboratory Animal Science (AALAS, <http://www.aalas.org/index.aspx>))

4. **Conferences** (CALAM, AALAS, CALAS and others)
5. **Workshops** (CCAC national, regional and others)
6. **Practicum in other institutions** (one-week stay in an institution with a well-established animal care and use program and expert personnel)
7. **Short Courses**
  - Charles River: [http://www.criver.com/about\\_charles\\_river/events/short\\_course/](http://www.criver.com/about_charles_river/events/short_course/);
  - Jackson Laboratory: <http://www.jax.org/research/vet.html>;
  - Canadian Aquaculture Institute: <http://www.upei.ca/cai/training.html>;
  - and others.
8. **Certificate Course**
  - Certificate in Laboratory Animal Medicine, University of Guelph: <http://www.open.uoguelph.ca/offerings/program.cfm?PID=59>
9. **Diploma Course**
  - University of Guelph: <http://www.ovc.uoguelph.ca/PathoBio/graduate.shtm#Diploma>

After many discussions with various stakeholders, the CCAC recommends that veterinarians pursue the following CE as listed for the various categories of programs\*:

#### **Consulting veterinarian in a small program**

- Introduction to Laboratory Animal Medicine: within first year

- Short Course: within second year
- Conference, workshop: at least one every three years
- Membership in a relevant professional association: highly recommended
- At least one journal subscription

#### **Multi-species consulting veterinarian in a medium program**

- Same as above, plus
- Practicum: at least one every five years

#### **Newly hired institutional veterinarian in a medium or large program**

- Certificate course: once, within first year
- Workshop/conference: at least once, within first three years
- Short course/practicum: once, within first four years
- Membership in relevant professional association: highly recommended
- Journal subscriptions

\* *Equivalencies to the stated requirements will be considered.*

The CCAC minimum requirements for CE currently apply only to consulting (attending) veterinarians who spend most of their time in private practice and newly hired institutional veterinarians. However, experienced veterinarians who consult on or work/teach with less familiar species are expected to fulfill the minimum CCAC requirements for CE in the species they are less familiar with. For example, small animal veterinarians teaching rodent care in an animal health technician program would require minimum CE if they didn't have much experience with rodents. Similarly, experienced laboratory animal veterinarians working in or consulting for an institution that is beginning to use fish would require minimum CE in fish care if they have little experience in aquatics. The same would apply for other species, including non-human primates

for which thorough and specialized training is needed.

Consulting veterinarians whose consulting work mirrors the work of their regular practice (generally large animal practitioners, or those working with cats and dogs, or with fish) currently meet the minimum CCAC CE requirements through their provincial licensing requirements. However,

they are encouraged to keep up to date with CCAC guidelines and policies, attend CCAC workshops and make good use of CCAC resources such as the 12 web-based training modules for animal users, so that they are entirely familiar with the Canadian system of oversight of animal care and use. They should also benefit from veterinary CE in areas most relevant to their work.



*senior administrators responsible for animal care and use programs, 2008*



## APPENDIX VII ANIMAL FACILITIES

Animal facilities must meet CCAC guidelines, as follows:

- Laboratory animal facilities need to be planned for and maintained according to the most current version of the *CCAC guidelines on: laboratory animal facilities – characteristics, design and development* ([http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/GDLINES/Facilities/PDFs/Facilities\\_Gdlines\\_Eng.pdf](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/GDLINES/Facilities/PDFs/Facilities_Gdlines_Eng.pdf))
- Farm animal facilities need to be planned for and maintained according to the most current version of the *CCAC guidelines on: farm animals* ([http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/GUIDES/ENGLISH/V1\\_93/CHAP/CHIV.HTM](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/GUIDES/ENGLISH/V1_93/CHAP/CHIV.HTM))
- Fish facilities need to be planned for and maintained according to the most current version of the *CCAC guidelines on: the care and use of fish in research, teaching and testing* ([http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/GDLINES/Fish/Fish%20Guidelines%20English.pdf](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/GDLINES/Fish/Fish%20Guidelines%20English.pdf))
- Wildlife facilities need to be planned for and maintained according to the most current version of the *CCAC guidelines on: the care and use of wildlife* ([http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/GDLINES/Wildlife/Wildlife.pdf](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/GDLINES/Wildlife/Wildlife.pdf)).

While funds for new animal facilities are often tied to specific programs/projects, **efforts to plan for appropriate facilities for the institution as a whole are essential to the quality of the animal-based work undertaken in the institution, and to making the best possible long term investments for the institution and its members.**

Institutional master plans should emphasize:

- taking stock of the strengths and weaknesses of existing animal facilities, examining all facil-

ities within the institution (and within the general area), and the current and potential future roles of each facility within the network;

- making the best use of each existing facility, to avoid having underused or overcrowded facilities, and to plan for the sharing of certain specialized and other facilities such as quarantine, exclusive or inclusive barriers or surgery facilities;
- ensuring that maintenance/renovation plans are in place for existing facilities that are likely to continue to be used for animal-based work, to prevent deterioration and additional costs;
- planning for flexible and appropriate new facilities for current and future animal care and use requirements;
- planning for facilities that will incorporate not only animal housing areas, but also complete service and procedural areas, to avoid having to transport animals/equipment between separate areas, as this is inefficient and creates concerns with respect to security, biosafety, biosecurity, animal stress, quality of animal-based work, laboratory animal allergies and oversight of animal care and use.

Institutions should avoid conducting master planning with only a few individuals — expensive mistakes can result from limited perspectives. The administration, animal users, the ACC and the veterinary and animal care staff should all be involved in planning for appropriate facilities for current and future needs. Institutions also benefit greatly from working with consultants who are well experienced in animal care and use in science and in animal facility design. Project managers, architects and engineers should also preferably have previous experience with animal facilities since this type of building is highly specialized and complex.

Section D of the CCAC *guidelines on: laboratory animal facilities – characteristics, design and development* provides guidance on the process for planning, design and development of a laboratory animal facility, and includes general principles that can be used for developing facilities for other types of animals.



*senior administrators responsible for animal care and use programs, 2008*



## APPENDIX VIII OCCUPATIONAL HEALTH AND SAFETY

There are general regulatory requirements that govern the use of animals and dangerous compounds at the federal and provincial levels and that include:

- the federal *Health of Animals Act* (<http://laws.justice.gc.ca/en/H-3.3/index.html>), which governs the control of animal diseases and toxic substances;
- the Workplace Hazardous Materials Information System (WHMIS, [http://www.hc-sc.gc.ca/ewh-semnt/occup-travail/whmis-simdut/index\\_e.html/](http://www.hc-sc.gc.ca/ewh-semnt/occup-travail/whmis-simdut/index_e.html/)), which requires that each employer provide safe working conditions and that employees be informed about all hazards that they will face;
- the federal *Controlled Drugs and Substances Act* and its related regulations (<http://laws.justice.gc.ca/en/C-38.8/index.html>), which governs the use of narcotics and other controlled substances.

**In addition to the precautions that need to be taken to protect people from the usual hazards of workplaces, the use of animals entails taking additional precautions.** These precautions are primarily the responsibility of the institution and its occupational health and safety (OHS) office/officer/committee.

In order to develop and implement complete and appropriate precautionary measures, those responsible for OHS should work with the institutional veterinarian(s) and the ACC to ensure that they understand and have identified and are covering all risks adequately. In addition to having these measures in place, usually in the form of standard operating procedures (SOPs), regular visits should be conducted to areas where animals are cared for and used to ensure that OHS measures are being well implemented in practice and that all risks are being appropriately covered. These visits should preferably be undertaken jointly by those responsible for OHS and by ACC delegates. It is also very useful for there to

be cross-appointments between the ACC and OHS committee so that both committees are aware of any concerns that need to be addressed and can work together to address them.

The most recent CCAC guidance on occupational health and safety should be consulted ([http://www.ccac.ca/en/CCAC\\_Programs/Guidelines\\_Policies/GUIDES/ENGLISH/V1\\_93/CHAP/CHVIII.HTM](http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/GUIDES/ENGLISH/V1_93/CHAP/CHVIII.HTM)).

**In order to fully implement OHS measures, all those involved in animal care or use must be thoroughly trained to fully understand how to protect themselves from animal-related risks.** Institutions are encouraged to make this training and the implementation of OHS measures a high priority, particularly given the considerable liabilities that may be involved.

Before specialized training is given, basic training related to appropriate, general handling of the species that will be used is essential, so that those who will handle animals understand how they are likely to react and take appropriate measures to protect themselves and the animals.

### A. Hazards Related to Animal-based Work

#### A.1 Zoonoses (Infections That Can be Secondarily Transmitted From Animals to Humans)

Those who handle wild animals or non-human primates are at the greatest risk of contracting dangerous infections from the animals, but all animal use carries some degree of risk. The institutional veterinarian(s) can provide information with regard to the zoonoses that can be contracted from the species used by the institution, and to the measures needed (personal protective equipment, vaccinations, etc.) to protect animal handlers. Those responsible for OHS and for the





animal facilities can then use this information to develop and implement complete and appropriate measures to protect all those who may be exposed to zoonoses.

## A.2 Biological Hazards

In addition to the hazards associated with the pathogens that animals may 'naturally' carry, there are also the hazards related to the pathogens (bacteria, viruses, parasites, fungi, prions) used for specific studies in some institutions. Where such agents are used, the most recent federal guidance should be followed (<http://www.phac-aspc.gc.ca/ols-bsl/lbg-ldmbl/index.html> and [http://www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/index\\_e.html](http://www.hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/index_e.html)). Those responsible for OHS and the animal facilities should use this and any other relevant guidance to appropriately inform, train and protect all those potentially exposed to these pathogens.

## A.3 Allergies

Allergies to animals, and in particular to laboratory animals, are common. Those who are exposed to laboratory animal allergens, even if they do not handle the animals directly, run a considerable risk of developing allergies. Therefore, those responsible for OHS and the animal facilities must develop protective measures not only for those who will directly handle animals but also for those who may be exposed to their allergens. These measures include:

- appropriate environmental control and air handling systems to limit exposure to allergens;
- personal protective equipment including masks and gloves, as well as clothing worn only in animal rooms;
- appropriate equipment such as filtered bedding disposal units and vented hoods; and
- use of filtered transfer cages and containment of animal allergens in the areas where animals will be used, where transportation of animals outside of the animal facility is necessary.

Special measures must also be taken in agricultural facilities, to protect those working there

from allergic reactions to animals, feed, bedding and dust.

## A.4 Physical Injuries

Those who conduct animal-based work may be exposed to several physical hazards including:

- bites/scratches inflicted by animals;
- other types of injuries directly related to animal handling, including those related to capturing/holding/lifting animals, or being cornered, kicked, stepped on or crushed by larger animals;
- electrical dangers, particularly in wet areas;
- repetitive stress related injuries;
- injuries related to lifting large weights;
- injuries related to working with potentially dangerous equipment/substances, in laboratory and agricultural facilities and field settings;
- burns related to sterilizing/washing equipment or other sources of heat;
- potentially explosive or toxic accumulations of gases, in laboratory and agricultural facilities;
- injuries related to steps and other differences in floor levels, e.g. the pits around cage washers; and
- injuries related to pipes and other conduits at head-level, or to other objects (hoses, etc.) obstructing passageways.

Once again, all of the potential risks present in each facility must be identified, and those responsible for OHS must work with those responsible for the facilities to ensure that everyone is well-informed, well-trained and appropriately protected from the risks.

## A.5 Chemical Injuries

There are several potentially hazardous materials involved in almost all animal-based work, including:



- veterinary drugs: anesthetics, anesthetic antagonists, analgesics, euthanasia agents, tranquilizers, sedatives, neuromuscular blocking agents, etc.;
- cleaning agents, detergents and disinfectants; and
- a large variety of chemical compounds used for research, teaching or testing purposes.

Narcotics and other controlled drugs and substances must be handled, stored and used according to the Controlled Drugs and Substances Act and its related regulations (<http://laws.justice.gc.ca/en/C-38.8/index.html>). It is essential to keep these substances secure since some are sought by those considering suicide and many are highly sought as street drugs. Either a veterinarian or a scientist must have a license to purchase and use these substances, and is responsible and liable for their use. Veterinarians must ensure, working with their ACC, that veterinary drugs are appropriately used to minimize pain and distress and protect animal health and welfare.

The Workplace Hazardous Materials Information System (WHMIS) is applied by the federal government in its laboratories, and elsewhere WHMIS is applied under provincial legislation through ministries of labour. All those who will be

handling any potentially dangerous compounds must receive WHMIS training, and all potentially hazardous substances must have Material Safety Data Sheets that are readily available to those using them. Those responsible for OHS and for the animal facilities must ensure that those using chemicals are well-informed of their properties and are protecting themselves appropriately.

## A.6 Radiation

Where radioactive materials are to be used, radioisotope licenses from the federal Canadian Nuclear Safety Commission must be held. A Radiation Safety Officer must be designated within the institution to be responsible for radioactive material use. S/he is an *ex officio* member of the institutional OHS committee and should also work closely with the ACC and those responsible for the animal facilities, in particular where radioisotopes are administered to animals. In these cases, strict measures must be in place to limit and contain radioactive contamination and to protect those working with animals, animal wastes and carcasses from radiation.

Personal dosimeters must be used by all those working in proximity to radiation, including x-rays. The use of x-rays is governed by provincial OHS acts, and institutional measures must be in place to appropriately protect those likely to be exposed to x-rays.



## APPENDIX IX CRISIS MANAGEMENT

In order to implement a crisis management program, the senior administration, ACC and veterinary and animal care staff must work together to ensure that all categories of potential crises are well covered in practical, comprehensive plans that are readily available to all who may need them. Information on crisis management can be found at [http://www.ccac.ca/en/CCAC\\_Programs/Assessment/crisis.htm](http://www.ccac.ca/en/CCAC_Programs/Assessment/crisis.htm).

### A. Elements of a Crisis Management Program

#### A.1 Crisis Management Team or Task Force

This team should include:

- a senior administrator (e.g., VP Research or Academic);
- deans/heads of faculties/departments/units in which animals are used;
- director/supervisor of animal care services;
- chair of the animal care committee(s);
- communications/public relations officer;
- head of security; and
- other representatives as needed, including, for example, the chair of the Occupational Health and Safety Committee and possibly a lawyer.

A communications plan should be established by the team to ensure that:

- a) telephone numbers are available so that the members of the crisis management team can be reached easily during regular working hours as outside of normal working hours;

- b) emergency telephone numbers are available for:

- medical assistance
- police
- fire
- assistance with hazardous materials spills; and

- c) information can be efficiently processed and communicated at any time to:

- members of the institution
- the media (through a single spokesperson, preferably the person responsible for public relations for the institution)
- the public (through the same spokesperson or delegate).

The local police must be informed of any serious incidents. The CCAC should also be informed of any serious incidents, in order to coordinate the response of the institution and of the CCAC to any queries related to the incident.

#### A.2 Emergency Power

All animal facilities must have access to emergency power in case of power outages. Generators must be regularly tested to ensure that they will work well when needed. In case of prolonged power outages, a standard operating procedure should be in place to determine the fate of the animals, either through evacuation to another facility or euthanasia.

#### A.3 Links with Police and Fire Departments

Before the crisis management program is finalized, local police and fire department officials should be invited to tour the animal facilities and



provide recommendations on ways to improve security/safety in the facilities.

Plans should be made with respect to if, when and how animals will be evacuated in the event of a fire, natural disaster or large chemical spill.

#### **A.4 Public Relations**

The crisis management plan should include a general policy statement on the care and use of animals by the institution. This statement can be used for general inquiries on experimental animal care and use, or can be incorporated into a press release following an incident.