

Good Animal Practice in Science

Canadian Council on Animal Care
Canadian Federation of Humane Societies

Manual for Community Representatives



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Preamble



Are you thinking about how you can contribute to the welfare of animals used in science? Have you been invited to join, or just recently joined, an institutional Animal Care Committee (ACC) or Canadian Council on Animal Care (CCAC) assessment panel? Or are you an experienced community representative who simply wants to be able to put your finger on the information that you need when you need it?

Whatever your situation, this *Manual for Community Representatives*, developed jointly by the CCAC and the Canadian Federation of Humane Societies (CFHS), is meant to be a comprehensive, user-friendly resource for you. We know how sincerely you wish to contribute to animal welfare, and how hard so many of you work to contribute to sound animal care and use, to master large amounts of complex information, and to often be one of the few non-scientists in a largely scientific group. We want to provide you with the tools and support to help you accomplish this work.

Your work is essential and sincerely appreciated, and we hope that this Manual will become a faithful companion to you as you negotiate the many aspects of your role. We welcome any questions you may have at any time, as well as your comments on this Manual to help make it a living document that is as relevant and useful as possible to community representatives now and into the future.

As new scientific knowledge and information becomes available, the Canadian Council on Animal Care, the Canadian system overseeing animals used in research, teaching and testing, evolves to reflect these changes. New policies and guidelines are created regularly, and existing documents are updated periodically to reflect the most current information and developments.

Please consult the website of the CCAC at www.ccac.ca for the most recent version of all publications, including policies and guidelines referenced in this manual, and also to obtain further information about the CCAC and its work.

This information is also available on CD and in print format. Please refer to our website for the complete lists of available material.

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1 Introduction



Ever since animals have been used for scientific purposes, the public has expressed concerns about their well-being. Every country has evolved a different system to address these concerns and oversee the use of animals in science. In Canada, it is the Canadian Council on Animal Care (CCAC) that is the national peer review agency responsible for setting and maintaining standards for the care and use of animals in research, teaching and testing. The Canadian Federation of Humane Societies (CFHS), which represents over 100 member societies and branches across the country, is a national charitable organization working to improve conditions for all animals across Canada.

The CCAC and CFHS strongly believe that any system for the oversight of the care and use of animals in science must include community representation, to involve members of the public in the decision-making process for the care and use of animals, to provide scientific institutions and the CCAC with an external perspective, and to provide a means of identifying and addressing public concerns regarding the use of animals in science. The CCAC and CFHS work closely together to ensure effective community representation at all levels in the Canadian system.

1.1 Community Representation at Three Different Levels in the Canadian System – the Role of the Community Representative

The Canadian system of oversight of the care and use of animals in science ensures community representation at all levels. Community members serve on:

- institutional Animal Care Committees (ACCs), which are responsible for ensuring the ethical use of animals and compliance with CCAC guidelines and policies within institutions;
- CCAC assessment panels, which are responsible for evaluating animal care and use programs in Canadian institutions. CCAC assessment directors choose community representatives for assessment panels from the CFHS list of nominees; and
- the CCAC Council. The CFHS appoints three of its representatives to the CCAC Council as community members.

1.2 What is the Role of a Community Representative, Generally Speaking?

The role of a community representative is to:

- participate actively in decision-making on the care and use of animals, whether through:



- working with the members of an institution and its ACC to ensure good animal care and use at the institutional level;
- working with CCAC assessment panels to fairly and constructively evaluate institutional animal care and use programs;
- approving new policies and guidelines at the level of the CCAC Council, working on the development or review of guidelines with the CCAC Guidelines Committee, or working with the CCAC Assessment Committee to ensure a fair and appropriate use of standards for evaluating institutions across Canada;

- provide an external, community perspective to scientific institutions and to the CCAC; and
- help identify and address the public's opinions and concerns regarding the use of animals for research, teaching or testing conducted in Canadian institutions and by their members at other sites.

1.3 Who are Community Representatives?

Community representatives come from all walks of life: they can, for example, be members of a humane society, retirees, lawyers, homemakers, business people, teachers, ethicists, or members of the clergy. Community representatives can have any background as long as they do not use animals for scientific purposes, they are not affiliated in any way with the institution that they will be working with or assessing, and they do not have any conflict of interest that would compromise their role.

Their most important qualifications are to be actively interested in the care and use of animals, to be willing and able to work constructively with the members of animal care and use programs, and to be ready to undertake a certain amount of work and learning, depending on the size and complexity of the institution that they will be working with. It is useful, although by no means mandatory, for community representatives to have some understanding of scientific terminology.

1.4 What are the Roles and Mandates of the CCAC and the CFHS?

1.4.1 The Canadian Council on Animal Care

Every year in Canada, approximately two million animals are involved in research, teaching and testing. Close to ninety percent of these two million animals are rats, mice, fish and fowl. The remaining ten percent include other mammals, birds, reptiles and amphibians both in captivity and in the wild ("wildlife"). Most Canadians support the use of animals in science, provided it is scientifically justified and is conducted in accordance with humane principles.

The CCAC, established in 1968, is the national peer review agency responsible for setting and maintaining standards for the care and use of animals (specifically, vertebrates and cephalopods) for research, teaching and testing throughout Canada. Its

mission statement underlines the focus of the CCAC on the ethical principles of animal-based experimentation:

> *"The purpose of the Canadian Council on Animal Care is to act in the interests of the people of Canada to ensure through programs of education, assessment and persuasion that the use of animals, where necessary, for research, teaching and testing employs optimal physical and psychological care according to acceptable scientific standards, and to promote an increased level of knowledge, awareness and sensitivity to relevant ethical principles."*

1.4.2 The Canadian Federation of Humane Societies

A founding member of the CCAC, the CFHS is a national body whose purpose is to promote compassion and humane treatment for all animals.

Members of CFHS include over 100 humane societies, shelters and Societies for the Prevention of Cruelty to Animals (SPCAs) from all provinces and territories in Canada, as well as organizations that address specialized animal welfare issues.

CFHS strives to:

- prevent cruelty to animals, recognizing that all animals have intrinsic value, remarkable complexity, inherent dignity, and are subjects of moral concern;
- proceed from the principle that no one has the right to cause physical or mental pain or suffering to any animal;
- work within the law and in cooperation with government, scientific, and industry bodies to achieve practical and positive solutions to pressing animal welfare issues; and
- promote, through programs of advocacy and humane education, a more balanced and caring relationship between humans and animals in our society.





2 What is the CCAC?

2.1 The Canadian System of Oversight

In 1963, the Medical Research Council (MRC) requested that the National Research Council (NRC) establish a Committee to investigate the care and use of experimental animals in Canada. The CCAC was established in 1968, following the Committee's recommendation to create a voluntary control program exercised by scientists in each institution, subject to peer review and committed to implementing the guiding principles of an independent advisory body. The CCAC was incorporated as a non-profit, autonomous and independent body in 1982.

There is no federal legislation on the use of animals in science, as this is of provincial jurisdiction, as defined in the Canadian Constitution. However, Sections 444 to 447 of the federal Criminal Code protect animals from cruelty, abuse and neglect. These sections of the Criminal Code have been under review for several years.

While all of the provinces have legislated in the area of animal welfare in some form or another, only six provinces have legislation dealing specifically with animals acquired and/or used for research, teaching and testing purposes. These provinces are Alberta, Manitoba, New Brunswick, Nova Scotia, Ontario, and Prince Edward Island (for further information, please visit the CCAC website at www.ccac.ca).

Alberta, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island make specific reference to the CCAC Guide, guidelines and policies in their legislation, and similar references are under consideration by other provinces. Provincial programs and the CCAC Program are complementary.

Canadian institutions that carry out animal care and use for scientific purposes, and that receive funding from federal granting agencies (the Canadian Institutes of Health Research, CIHR, and the Natural Sciences and Engineering Research Council, NSERC), are subject to mandatory oversight by the CCAC, and must adhere to CCAC guidelines and policies in order to retain their research funding. In addition, the federal government voluntarily includes all of its scientific animal-using units in the CCAC Program, and it requires that those institutions that receive its contracts follow CCAC guidelines.

One of the general concerns about the "voluntary" nature of the national CCAC Program has been that some private and provincial government units have not subscribed to the CCAC Program, and thus may not be subject to external assessment of their animal care and use. However, an increasing number of private and government-funded provincial scientific organizations have embraced the CCAC Program, recognizing the scientific, ethical and social benefits of a monitored animal care and use program. As well, an increasing number of government and other programs make

participation in the CCAC Program mandatory, and an increasing number of scientific journals require a statement to be made by authors confirming compliance of all procedures with CCAC guidelines. The CCAC also provides tangible evidence, through the CCAC Certificate of GAP-Good Animal Practice®, of the quality of animal care and use programs that operate in accordance with CCAC guidelines and policies.

The CCAC is striving to achieve universal oversight of animal care and use in all institutions in Canada that use animals for research, teaching, testing or other biological or medical purposes, and works with the CFHS, other associations and the various levels of government to this end.



2.2 Structure of the CCAC

The CCAC comprises 25 member organizations, whose representatives include scientists, veterinarians, educators, and delegates from industry and the animal welfare movement. The CCAC is financed primarily by Canada's two major granting councils, CIHR and NSERC, and also by a system of cost recovery from government facilities and private institutions.

The CCAC, in the pursuit of its mandate, has established a Board of Directors and five Standing Committees:

- **Assessments** – responsible for reviewing and evaluating the Assessment Program and reviewing institutional assessment and implementation reports;
- **Guidelines** – responsible for identifying the need for CCAC guidelines and for coordinating their development;
- **Education, Training and Communications** – responsible for identifying educational and training needs and priorities, and for developing and operating an educational resource program;
- **Finance** – responsible for financial oversight and long-term financial planning; and
- **Planning and Priorities** – responsible for long-term planning and management evaluation.

Additional expertise, not available from Council, is achieved by the appointment of observers on Council and ad hoc members to any Standing Committee and subcommittee as needed. Over 2000 volunteers across the country, including representatives of the public, participate in the CCAC programs of assessment, guidelines development and education, and serve on over 220 institutional Animal Care Committees.

The CCAC Secretariat, based in Ottawa, is composed of a staff of 15 members, who coordinate the various CCAC programs and provide management, administrative, research, writing, editing, publication and distribution services, under the direction of an Executive Director. Three assessment directors oversee the Assessment Sector, the Guidelines Program Director oversees the Guidelines Program and the Director of Communications oversees the Education, Training and Communications Sector. The members of the Secretariat also provide information and guidance on experimen-



tal animal care and use matters to institutions participating in the CCAC Program and to individuals requesting information.

2.3 How is the CCAC Accountable to the Canadian Public?

The CCAC must keep information relative to individual institutional animal care and use programs confidential (see Section 2.6 on Confidentiality) for reasons of security and to foster openness between individual institutions and the CCAC.

The CCAC is accountable to the Canadian public in five main ways:

- There is community representation at all levels of the CCAC system, on institutional Animal Care Committees, on CCAC assessment panels, and on the CCAC Council and its committees.
- The CCAC's operations are thoroughly reviewed approximately every three years by the Canadian Institutes of Health Research and the Natural Sciences and Engineering Research Council of Canada.
- It provides a section on its website in which institutions that hold the CCAC Certificate of GAP-Good Animal Practice® can choose to post their name, to indicate that they participate fully in the programs of the CCAC, have been assessed by expert panels composed of scientists, veterinarians and community representatives, and have been found by the panel and by the CCAC Assessment Committee to have standards of experimental animal care and use which satisfy CCAC guidelines and policies.
- It compiles and publishes detailed annual statistics on the numbers of animals used in science in Canada, according to the purpose of their use and the level of invasiveness of the procedures employed.
- It provides extensive information on animal care and use in Canada and internationally, which it makes freely available through its website (www.ccac.ca) and which can be ordered in printed form, and it answers questions from individuals and institutions in Canada and around the world.

2.4 CCAC Programs

2.4.1 Assessment Program

Surveillance of the care and use of animals used for scientific purposes in Canada is achieved through the CCAC Assessment Program, a peer review process operated by the CCAC, working with the CFHS. The CCAC conducts assessment visits to evaluate animal care and use in Canadian universities, colleges, hospitals, and government and private sector facilities. Assessments are based on the CCAC's current guidelines and policies, including the *CCAC Guide to the Care and Use of Experimental Animals*, as well as other relevant documents (see Section 2.5 on CCAC Publications).

The primary objective of the Assessment Program is to provide quality assurance for the care and use of experimental animals on a national basis. Effective surveillance

protects animals, promotes animal welfare and ensures the quality of science that uses animals.

Each participating institution is subject to regular peer review by the CCAC, which involves an assessment of the composition, functioning and effectiveness of the institutional ACC and the appropriateness of its animal care facilities, practices and procedures.



The following types of visits are carried out by CCAC:

- **Orientation visit** – an institution wishing to join the CCAC Program may request an orientation visit, which is conducted by one CCAC assessment director in order to explain the CCAC Program and to briefly assess the institution's plans and its strengths and weaknesses with respect to animal care and use.
- **Initial visit** – an initial visit is undertaken by one CCAC assessment director at institutions that already have a good working knowledge of the CCAC Program, in preparation for the first full assessment visit.
- **Full assessment visit** – a full assessment visit of institutions that have joined the CCAC Program is normally scheduled approximately every three years at a date that is mutually convenient for the institution and the assessment director responsible for the institution. Before an assessment visit, the institution must fill out the Animal Care and Use Program Review Form, to review its own program thoroughly and provide a detailed accounting of each aspect of the program to the CCAC assessment panel members who will assess it.
- **Interim visit** – institutions having achieved two consecutive statuses of Compliance (see below), and having identified no significant change or concern in their Program Review Form, will receive an "interim" assessment visit three years after a full assessment and three years before the next full visit. The interim visit will be less formal, scaled down, and will normally involve only one CCAC assessment director, rather than a full panel.
- **Special visit** – special visits to an institution by an assessment director, with or without panel members, may be undertaken between full assessments if conditions at an institution warrant it, or following a request by the institution.

Following each CCAC assessment visit, the institution is provided with an assessment report, which usually contains commendations for the institution's strengths, and recommendations for improvements in the institution's animal care and use program, based on CCAC guidelines and policies and the observations of panel members during the visit. Institutions respond to these recommendations by sending implementation reports to the CCAC, in which they detail the steps that have been taken to ensure that their animal care and use programs comply with CCAC guidelines and policies.

The assessment panel and CCAC Assessment Committee members review first the draft assessment report, and then the institutional implementation report(s). Their findings following review of the implementation report(s) are used to assign a CCAC status to the institution.



Statuses and the CCAC Certificate of GAP - Good Animal Practice®

There are four CCAC statuses, Compliance, Conditional Compliance, Probation and Non-compliance, which are defined in the *CCAC policy statement on: Compliance and Non-compliance.* Institutions that have been assigned a status of Compliance or Conditional Compliance are awarded a CCAC Certificate of GAP-Good Animal Practice® to recognize their efforts in maintaining a quality animal care and use program. CCAC standards are recognized internationally to be as high as, or superior to, standards developed in other countries.

Further details on CCAC assessments and assessment panels can be found in Section 4.

2.4.2 Guidelines Program

The Guidelines Program is operated by the CCAC Secretariat, led by the Guidelines Program Director, and overseen by the CCAC Guidelines Committee.

The *CCAC Guide to the Care and Use of Experimental Animals*, Vol. 1, 2nd ed., 1993 lays down the fundamental principles for good animal care and use. In addition, the *CCAC Guide to the Care and Use of Experimental Animals*, Vol. 2, 1984 provides information on the husbandry of experimental animals on a species-by-species basis.

Since 1997, guidelines have been developed and revised in response to the current and emerging needs of the research community, advances in laboratory animal care and in conjunction with the needs of the CCAC Assessment Program. These guidelines are listed in Section 2.5, Overview of CCAC Publications, and all of the guidelines are posted on the CCAC website (www.ccac.ca).

For each new guidelines document, the CCAC Guidelines Committee is responsible for establishing a subcommittee of experts on the topic. These experts work together with members of the Guidelines Sector of the CCAC to produce a first draft of the guidelines. Once the first draft is acceptable to the Guidelines Committee, it is circulated to a select group of experts for review. Feedback from these experts is reviewed by the subcommittee members and incorporated to produce a second draft, which is posted on the CCAC website for widespread review. During this review, comments are requested from all interested parties, including national and international experts, CCAC constituents likely to be affected by the guidelines, and CCAC Council members. All community representatives are invited to consult the CCAC website regularly and comment on any new draft guidelines that are posted. For complex guidelines, a third review stage may be held in which the final draft is sent to those reviewers who provided substantial feedback during the previous reviews. This review ensures that the reviewers' comments are adequately addressed and that any new issues that have arisen in the preparation of the final draft are also addressed.

When revisions have been completed to the satisfaction of the Guidelines Committee, with a view to ensuring relevant, balanced and constructive guidelines, the CCAC Council approves the final document for publication and distribution.

2.4.3 Education, Training and Communications Program

The Education, Training and Communications (ETC) Program is operated by the CCAC Secretariat and overseen by the CCAC ETC Committee (ETCC). It develops information and training materials and tools in response to the needs of CCAC constituents and the requirements of the CCAC Assessment and Guidelines programs. This Manual, for example, is an information document produced by the ETCC, in collaboration with the Assessment Committee.



The main tool used by the ETCC is the CCAC website, where all CCAC publications are available (see following section), and other relevant information is posted. You are invited to visit the CCAC website often to keep abreast of new developments, and to refer to existing guidelines and policies.

The ETCC also organizes presentations and workshops for CCAC constituents, including community representatives. In addition, it publishes the CCAC's newsletter *RESOURCE* which is available free of charge to anyone interested in receiving it.

Finally, the ETCC provides resource material for the CCAC National Institutional Animal User Training Program, including 12 modules for the Core Components of the Recommended Syllabus of the *CCAC guidelines on: institutional animal user training*. This material is available on the CCAC website, and CCAC constituents, including community representatives, are invited to use it, in whole or in part, to familiarize themselves with various aspects of animal care and use.

2.5 Overview of CCAC Publications

The CCAC publishes a variety of documents, from its guidelines and policies that give clear direction to institutional animal care and use programs and that are used by CCAC to assess institutions, to informational and educational resources, including its newsletter, *RESOURCE*.

CCAC Policy Statements

- *CCAC policy statement on: ethics of animal investigation* (1989)
- *CCAC policy statement on: social and behavioural requirements of experimental animals* (1990)
- *CCAC policy statement on: categories of invasiveness in animal experiments* (1991)
- *CCAC policy statement on: definitions of recommendations made in CCAC reports* (1996)
- *CCAC policy statement on: assessment panels* (1999)
- *CCAC policy statement on: confidentiality of assessment information* (1999)
- *CCAC policy statement on: the Assessment Program of the CCAC* (2000)
- *Canadian Institutes of Health Research and Natural Sciences and Engineering Research Council (CIHR/NSERC) Policy on Non-compliance* (2000)



- *CCAC policy statement on: the importance of independent peer review of the scientific merit of animal-based research projects* (2000)
- *CCAC policy statement on: Compliance and Non-compliance* (2000)
- *CCAC policy statement on: animal-based projects involving two or more institutions* (2003)
- *CCAC policy statement on: terms of reference for animal care committees* (2006)

CCAC Guidelines

- *CCAC Guide to the Care and Use of Experimental Animals*, Vol. 1, 2nd Edn., 1993.
- *CCAC Guide to the Care and Use of Experimental Animals*, Vol. 2, 1984
- *CCAC guidelines on: animal use protocol review* (1997)
- *CCAC guidelines on: transgenic animals* (1997)
- *CCAC guidelines on: choosing an appropriate endpoint in experiments using animals for research, teaching and testing* (1998)
- *CCAC guidelines on: institutional animal user training* (1999)
- *CCAC guidelines on: antibody production* (2002)
- *CCAC guidelines on: the care and use of wildlife* (2003)
- *CCAC guidelines on: laboratory animal facilities – characteristics, design and development* (2004)
- *CCAC guidelines on: the care and use of fish* (2005)

In addition to these policies and guidelines, CCAC assessments are also based on the following documents:

- the *CALAM/ACMAL Standards of Veterinary Care* of the Canadian Association for Laboratory Animal Medicine;
- the *Report of the American Veterinary Medical Association (AVMA) Panel on Euthanasia*;
- the L*ivestock Codes of Practice* of the Canadian Agri-Food Research Council;
- the *Laboratory Biosafety Guidelines* of Health Canada.

CCAC policies and guidelines are made available to community representatives serving on institutional Animal Care Committees and on CCAC assessment panels, and can also be ordered from the CCAC Secretariat (see www.ccac.ca).

2.6 Confidentiality and Conflict of Interest

2.6.1 Confidentiality of Assessment Information

The CCAC assures institutions participating in its programs that all information divulged to the CCAC, and all CCAC letters and reports concerning the institution, remain in confidence. The only exceptions to this are:

- the annual animal use data provided by institutions, which are compiled on a national basis and are published without the names of animal users or institutions;
- the disclosure of the status of an institution placed into Non-compliance to the relevant granting Agencies and government ministries and departments.

Institutions are encouraged to foster community awareness regarding animal use in research, teaching and testing. However, assessment reports and any other documents resulting from an assessment visit are confidential (as defined in the *CCAC policy statement on: confidentiality of assessment information*), and are written for the information of the institution, the institution's Animal Care Committee(s), and the CCAC Assessment Committee.

All assessment information must be treated as confidential in order to foster frank and open discussions of all animal care and use issues by assessment panel members and institutional representatives, and to protect the security and privacy of the institution. Assessment information includes pre-assessment documentation, information obtained during the assessment visit, assessment reports and all other post-assessment documentation.

All members of CCAC assessment panels are required to sign the *CCAC Policy on Confidentiality and Conflict of Interest for Members of CCAC Assessment Panels* before carrying out each assessment visit. If, for any reason, a nominated assessment panel member cannot comply with the CCAC's policy on confidentiality, the individual must withdraw from the panel.

2.6.2 Confidentiality of Animal Care Committee Matters

All ACC members including community representatives must respect the confidentiality of ACC matters and the privacy of the proposed work and intellectual property that they are reviewing. In some cases, ACC members must sign a confidentiality agreement. The ACC, institution and animal users must work together to ensure that the ACC has all the information necessary to conduct an appropriate ethical review of the proposed projects, while ensuring that confidentiality is maintained.

2.6.3 Conflict of Interest on Assessment Panels

The CCAC must make every effort to ensure that its assessments, recommendations and decisions are not only fair and objective, but also that they are seen to be so. Every effort is made to select assessment panel members who have no conflicts of interest with respect to the institution to be assessed, and potential panel members are asked to declare any possible conflict of interest. Assessment panel members and CCAC Assessment Committee members must work together to avoid situations where conflicts of interest, or lack of objectivity, might arise and influence the assessment process.

2.6.4 Conflict of Interest on Animal Care Committees

It is the responsibility of the institution and its ACC to ensure that the use of animals within an institution and by its members reflects the standards of the society within





which that institution exists. An entire community cannot possibly review every animal use project, but a well-balanced ACC making decisions on animal use with a sufficiently broad perspective is a good approximation of the community making informed decisions. Therefore, every effort must be made to have good diversity on the committee and to avoid conflicts of interest in order to keep the ACC's decisions balanced and fair. This is true for each category of member on the ACC:

- **ACC Chair** – the Chair of an ACC must be in as neutral a position as possible. S/he should not be the veterinarian, the manager of the institutional animal facilities or a scientist who is actively involved in a considerable proportion of the animal use of an institution. There should also ideally be a Vice-Chair, who can take over the chairmanship of the ACC as necessary, in particular if the Chair is the author of some animal use protocols. The Chair must be very careful to remove him/herself entirely from any decisions on his/her own protocols.
- **Animal user representatives** – scientists using animals must remove themselves entirely from any decision-making on their own animal use protocols.
- **Community representatives** – community representatives should not be affiliated in any way with the institution, nor have any conflict of interest with any of the other members of the ACC or of the institution that would compromise their role.
- **Student representatives** – it is preferable for the students on the ACC not to be the students of other members of the ACC, in order to bring as broad a perspective as possible to the ACC and to enhance the learning experience for the students.
- **The institutional non-animal user representative** – the non-animal user representative can be from any part of the institution, as long as his/her role does not involve animal use in any way. As is true for the other ACC members, conflicts of interest must be avoided.
- **Veterinary and technical staff representatives** – because the veterinary and technical staff representatives are the persons who are paid to ensure that the animal care and use program operates appropriately, they play a very important, yet sensitive, role on the ACC. They must contribute their experience and expertise to the committee, and report completely and accurately on all the activities in the animal facilities, as well as on activities taking place outside the institution (e.g., at field sites). At the same time, it is very important that they take care not to overwhelm or "take over" the ACC, since the committee must remain balanced and must make decisions based on a consensus of all committee members.

In order to promote a balanced, broad and informed perspective and to avoid conflicts of interest, the ACC should also consider recruiting specialized members such as ethicists and statisticians, who can be extremely helpful in working with the ACC, particularly on more sensitive animal use protocols.

3 What are Animal Care Committees?



3.1 Role of Animal Care Committees

The CCAC requires that each institution conducting animal-based research, teaching or testing establish an Animal Care Committee (ACC), which must be functionally active and operate according to formal Terms of Reference based on the most current version of the *CCAC policy statement on: terms of reference for animal care committees*.

The ACC must be at the centre of any animal care and use program: it is the body on which all parties (the public, animal users, veterinary and animal care staff, students and others) are represented. It must be directly involved in all significant decisions with respect to animal care and use, and must report directly to the senior administrator responsible for all animal care and use in the institution. It is responsible for ensuring ethical animal care and use by the institution and compliance with CCAC guidelines, and must evaluate the ethical acceptability of any proposed animal use protocol before the study is allowed to commence. The ACC must have the authority, delegated by the senior administration, to control and in some cases restrict animal use, as necessary. It must also work with the administration, the animal users and the veterinary and animal care staff to ensure that appropriate human resources, facilities, equipment, and policies, practices and procedures are in place for the animal care and use program.

3.2 Composition of Animal Care Committees

The composition of ACCs is, to a large extent, determined by the needs of the institution, but must include (as listed in the *CCAC policy statement on: terms of reference for animal care committees*):

- scientists and / or teachers experienced in animal care and use, who may or may not be actively using animals during their term on the ACC; there should be a minimum of two such members, and representation of all the major animal-using divisions of the institution must be ensured;
- a veterinarian, normally experienced in experimental animal care and use;
- an institutional member whose normal activities, past or present, do not depend on or involve animal use for research, teaching or testing;
- at least one, and preferably two or more, person(s) representing community interests and concerns, who has (have) had no affiliation with the institution, and who has (have) not been involved in animal use for research, teaching or testing; community representation must be ensured for all ACC activities throughout the year;



- technical staff representation (either an animal care, an animal facility or an animal research technician) if there is (are) (a) technical staff member(s) actively involved in animal care and / or use within the institution;
- student representation (graduate and / or undergraduate), in the case of institutions that have programs where students use animals;
- the ACC coordinator (the institutional employee who provides support to the ACC).

One of these members (not the veterinarian, facility manager or an animal user responsible for a considerable proportion of the animal use in the institution) should be the Chair, and it is also useful to have a Vice-Chair. ACC members should be appointed for terms of no less than two years, and no more than four years (renewable once, normally). Other members, such as ethicists, statisticians, members of the administration, etc. can be recruited or consulted as necessary.

3.3 Community Representation on Animal Care Committees

How are community representatives selected for ACCs, and what is their general role?

Community representatives are selected either by the members of institutional ACCs, or by the institution itself in collaboration with the ACC. The role of community representatives on ACCs is to work with the other members of the committee and of the institution to ensure appropriate animal care and use within the institution.

What are the characteristics of an ACC community representative?

In addition to the characteristics listed in Section 1.3 of this Manual, the community representative, ideally:

- has an active interest in animal care and welfare;
- has an active interest in science, and in the interaction of science and society;
- can give perspective to questions of animal use;
- is willing to work to address ethical dilemmas posed by science involving animals;
- works to support the animals' interests in a constructive manner;
- is willing to gradually develop a network of resources and contacts to help him / her conduct his / her work.

The community representative also respects the confidentiality of ACC matters, and must participate in all aspects of the ACC's work.

What is the role of the institution?

The institution must actively welcome and support the community representative(s) on its ACC, since community representatives typically invest a considerable amount

of time and effort in a volunteer capacity. ACC meetings and activities must be held at times that are convenient for the community representative, since community representation is essential for ACC operations and decisions. While the institution does not employ the community representative, the institution should reimburse the community representative for any 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. The institution should also offer the community representative, and the other members of the ACC, some tokens of appreciation for their extensive volunteer work such as opportunities to meet informally and socially with other community representatives, ACC and institutional members, providing meals during ACC activities, etc.



The institution must provide the new community representative 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;
- opportunities to learn more about his / her role, ACC functioning and animal care and use in science.

These opportunities can include:

- spending time in the animal facility with veterinary and animal care staff, and animal users;
- spending time at other facilities or sites;
- having access to journals and on-line information on animal care and use;
- attending courses, training opportunities or workshops on ACC functioning or animal care and use topics that are relevant to the institution.

What does the community representative do?

A new community representative must invest time to:

- learn about the ACC's functions, by reviewing:
  - the Terms of Reference of the ACC;
  - minutes of the past year's meetings;
  - institutional policies and procedures relating to the animal care and use program;
- become knowledgeable about:
  - the mandate of the institution and its organization;
  - the type of research, teaching or testing carried out at the institution;
  - CCAC policies and guidelines.



The role of community representative on an ACC requires a considerable time commitment and is usually non-remunerative. Well-functioning ACCs meet frequently; some meet as often as once a month. The responsibilities of the community representative include:

- reviewing all animal use protocols and other ACC documents;
- being present at ACC meetings and other activities;
- participating actively in the protocol review process;
- touring the animal facility at least once a year;
- participating in the development and review of institutional animal care and use policies and procedures;
- being present for CCAC assessment visits.

3.4 General Responsibilities of Animal Care Committees

Institutional ACCs are responsible for ensuring ethical animal care and use, and compliance with CCAC guidelines and policies within their institutions. This is achieved through five main activities:

- animal use protocol review and approval;
- visits of animal facilities;
- development and implementation of policies and procedures on institutional animal care and use;
- planning exercises, with the administration, animal users and veterinary and animal care staff, to ensure that there are and will continue to be appropriate and sufficient human resources, as well as appropriate, sufficient and well-equipped animal facility space, for all of the animal-based work; and
- reporting to the CCAC, through annual animal use data reports and by filling out the Animal Care and Use Program Review Form every three years.

3.4.1 Animal Use Protocol Review

General considerations

ACCs are responsible for ensuring that no research, testing or teaching involving animals (including field studies) commences without the prior approval by the ACC of a written animal use protocol.

With respect to the community representative's role during protocol review, the CFHS and CCAC have always encouraged community members to simply ask straightforward, honest questions, and not to worry about being less informed, scientifically speaking, than other members around the table. "The Community member should make no apologies for not being a 'scientist', for asking questions, or for expressing

honest opinions. Diplomacy, tolerance of disagreement and persistence are virtues" (Frances Rodenburg, former Executive Director, CFHS).

The community representative should ensure that the project that is to be carried out is sufficiently justified. This requires questioning the value of the project in terms of its goals, the extent of discomfort or distress that may be experienced by the animals, as well as the competence of the investigators and technical staff to conduct the procedures.



Appendix I includes lists of typical questions that community representatives can ask to ensure that the research adheres to the principles of the Three Rs, i.e., replacement, reduction and refinement. In summary, these questions involve asking whether:

- the same information could be obtained without the use of animals;
- the same information could be obtained by using fewer animals;
- the procedures and housing can be adapted to maximize the animals' comfort and minimize any distress or discomfort.

What guidance is available from the CCAC for protocol review?

The *CCAC guidelines on: animal use protocol review* provides specific guidance on protocol review, including the following topics:

- the potential benefit of the research;
- replacement alternatives to animal use;
- animal species or model selection;
- reduction of animal use and/or animal numbers;
- refinement of experimental technique;
- setting endpoints;
- physical restraint;
- invasive/stressful procedures;
- euthanasia;
- hazardous materials;
- teaching protocols;
- wildlife studies.

Other current CCAC guidelines and policies should be used by ACCs as a basis for protocol review, according to the subject matter of the protocol (see Section 2.5).

What elements should be included in an animal use protocol?

The elements that are required in an animal use protocol form are listed in the *CCAC policy statement on: terms of reference for animal care committees*, and include:



i) project title and descriptive procedural keywords or brief description of the procedures to be conducted on animals, as defined in the *CCAC Animal Use Data Form*;

ii) principal investigators / teachers, and all personnel (post doctoral fellows, research staff, graduate and undergraduate students) who will handle animals, along with their training and qualifications with respect to animal handling; in the case of undergraduate students, who may have very little training, close supervision is required;

iii) departmental affiliation;

iv) proposed start date, proposed end date (if the study is to take place over more than 1 year, the work and numbers of animals for the first year only should be approved, and further work can then be approved in yearly protocol renewal(s) or new protocols);

v) for research or testing projects, funding source(s) and status of funding approval;

vi) for research projects, an indication of whether the project has received peer review for scientific merit;

vii) for teaching programs, a course number and an indication of whether the course has been reviewed with respect to the pedagogical merit of using live animals; institutional or departmental curriculum committees can be called upon to provide a review of pedagogical merit to the ACC; a specific appendix or separate protocol form can be used to better capture information relevant to the ethical review of teaching programs (see Section 12 of the *CCAC guidelines on: animal use protocol review)*;

viii) for testing projects, an indication that the testing has been 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*; that the planned animal use not exceed the requirements of the regulatory authorities – if it does, justification for the additional animal use must be provided;

ix) lay summary;

x) an indication of the use of biohazardous, infectious, biological, or chemical or radioactive agents in animal-based projects; and, if so, an indication of institutional approval of this use;

xi) category(ies) of invasiveness as defined in the *CCAC policy statement on: categories of invasiveness in animal experiments*, and Purpose of Animal Use (PAU) as defined in the *CCAC Animal Use Data Form*;

xii) information with regard to the Three Rs (**replacement**, **reduction** and **refinement** alternatives) of animal use, to include:

xii.1 a description of why sentient animals must be used for the project, of how the applicant arrived at this conclusion (e.g., searches of databases on alternatives), and of possible **replacement alternatives** (non-animal methods, cell / tissue culture, computer simulations, audio-visual teaching methods, the replacement of sentient animals with animals of lower sentiency, etc.) and justification if these are not to be employed;

xii.2 justification of the species and numbers of animals to be used over the course of the year, to emphasize **reduction** of animal use within an appropriate experimental design, while ensuring that sufficient numbers of animals will be used to fulfill requirements for statistical significance / scientific validity in the case of research projects, or for acceptance of regulatory tests;

xii.3 a description of all of the **refinements** to be employed to protect and enhance animal health and welfare, which may include:

xii.3.1 anesthesia and analgesia, including dosages and methods of use, for all invasive protocols; strong scientific justification must be provided for not using anesthesia or analgesia in the case of invasive protocols;

xii.3.2 other medical treatments as appropriate, as indicated through veterinary consultations;

xii.3.3 housing and husbandry methods, and environmental enrichment as a means to refine animal care; any limitations on environmental enrichment from that normally offered to animals in the institution, based on CCAC guidance, must be justified to the ACC;

xii.3.4 refinements to the procedures to be employed on the animals;

xii.3.5 refinements to the length of time that animals will be held / used;

xii.3.6 any other possible refinements;

xiii) a clear description detailing the procedures that are carried out on the animals (referring to appropriate standard operating procedures (SOPs) as much as possible); the use of graphic representations is encouraged;

xiv) a description of the endpoint(s) of the experimentation, selected according to the *CCAC guidelines on: choosing an appropriate endpoint in experiments using animals for research, teaching and testing*, 1998 (refer to institutional SOPs, if available and relevant); the person(s) responsible for monitoring the animals and applying endpoints should be identified, and the schedule for monitoring animals and any relevant checklists of signs and symptoms to be used when evaluating the animals should be included; all protocols, even non-invasive ones, must identify endpoints, to ensure that any animals requiring treatment are treated and that animals are not simply kept indefinitely; relevant information for identifying and applying endpoints must be readily available, preferably posted, in the area where the animal-based work is taking place;

xv) a description of capture, restraint, transportation and / or housing of animals used in field studies, as well as any other information pertinent to field studies, such as capture of non target species, ecological impacts and potential injuries or mortality during capture or transportation, if relevant; wildlife studies should be addressed in either a separate section or appendix of the protocol form, or can have their own protocol form, especially where a significant number of wildlife studies are undertaken (see the suggested wildlife protocol form in Appendix B of the 2003 *CCAC guidelines on: the care and use of wildlife*);





xvi) the method of euthanasia, if used; justification for any physical euthanasia methods, or for any methods that deviate from those described in the most recent CCAC guidance on euthanasia;

xvii) a description of the fate of the animals if they are not to be euthanized, including the length of time that they are to be held;

xviii) any other information considered important or necessary and pertinent, including information or results derived from any relevant previous protocols; the description and use of previous relevant results is particularly important to ensure that methodologies are not simply re-used without learning from any animal welfare problems that were encountered in the past, that the protocol continues to have relevant goals and methodology, and that appropriate refinements to protect and enhance animal welfare are sought and implemented.

How should the ACC proceed to review protocols?

The ACC must require that all animal users complete an animal use protocol form, and must ensure that no animals are acquired, held for display or breeding purposes or used for research, testing or teaching before an animal use protocol is approved.

All ACC members, including the community representative(s), must be able to clearly understand each protocol. Protocol authors must therefore be careful to make protocols clear and avoid scientific jargon, and this should regularly be re-emphasized by the ACC. A summary of the primary aims and proposed use of animals must always be provided in lay terms. This should include a description of procedures designed to ensure that animal suffering will be prevented or at least minimized.

All protocols must be reviewed by the ACC, to ensure that the proposed animal use complies with CCAC policies and guidelines. Discussions and decisions about protocols must be made during full committee meetings, which must be held at least twice per year, but are more frequent in many institutions. ACCs are also responsible for annual reviews of all animal use protocols, and for approving any modifications to protocols before they are implemented.

Protocol review: what is involved?

The ACC attempts to reconcile public demands for medical, scientific and economic progress with demands for reduction in animal use, pain, and suffering (see the *CCAC policy statement on: ethics of animal investigation*). The cost, in terms of animal welfare and integrity must be measured against the expectation of a proportional contribution to the understanding of fundamental biological or ecological principles, or to improvement of human or animal health and welfare. Protocol review by the institutional ACC provides a mechanism for achieving this "cost/benefit assessment" which involves consideration of relevant ethical, scientific, and social issues.

Investigators who wish to carry out animal-based research, testing or teaching must complete animal use protocols, and these protocols must supply a complete and accurate description of the proposed animal use.

Approval of a protocol by an ACC does not guarantee that a benefit will be realized, but does mean that there will be a cost imposed on the animals. The ACC must therefore be convinced of the need for animal use, and that the expected benefit will outweigh the cost.



The objective review of protocols is based on the following principles (see the *CCAC guidelines on: animal use protocol review*):

- that the use of animals in research, teaching and testing is acceptable only if it promises to contribute to the understanding of environmental principles or issues, to fundamental biological principles, or to development of knowledge that can reasonably be expected to benefit humans, animals or the environment;
- that optimal standards for animal health and care result in enhanced credibility and reproducibility of experimental results;
- that acceptance of animal use in science critically depends on maintaining public confidence in the mechanisms and processes used to ensure necessary, humane and justified animal use; and
- that animals should be used only if the researcher's best efforts to find an alternative have failed. A continuing sharing of knowledge, review of the literature, and adherence to the Russell-Burch "Three Rs" tenet of "replacement, reduction and refinement" are also requisites. Those using animals should employ the most humane methods on the smallest number of appropriate animals required to obtain valid information.

The intensity of protocol review should depend on the level of invasiveness of the procedures (see the *CCAC policy statement on: categories of invasiveness in animal experiments*), with the most invasive procedures subject to the most intense level of review.

3.4.2 Visits of Animal Facilities

ACCs should regularly (at least once a year) visit the animal care facilities and areas in which animals are used, in order to:

- better understand the work being conducted by and within the institution;
- ensure that the facilities, equipment and human resources are appropriate and sufficient for the work being undertaken and being planned;
- meet with those working in the animal facilities and animal use areas;
- observe any procedures that there have been questions about; and
- make recommendations and commendations to those responsible for the facilities and for animal use.

For small institutions, the full ACC may tour the facilities as a group; for larger institutions, visits to animal care facilities, and to areas in which animals are used, may be divided between the various members of the committee. Each member of the ACC should participate in at least one facility visit every year.

Written reports must be produced for each site visit, with any recommendations/commendations, and these must be forwarded to the senior administration. The senior administration, the ACC and those responsible for the facilities must jointly follow up on any recommendations. This mechanism is very important to ensure that any



concern is attended to, and that the ACC's work to keep animal care and use standards high is effective.

3.4.3 Developing and Implementing Policies and Procedures for Animal Care and Use

There are two types of documents that are important for any animal care and use program: institutional policies on animal care and use, and SOPs for animal care and use.

What are institutional policies for animal care and use?

Institutional policies define the broad framework within which animal care and use takes place within an institution. These include the Terms of Reference of the Animal Care Committee, the obligation for animal users to submit written protocols for any proposed animal use and the general process to be followed, as well as any other overall guidance for animal care and use by and within the institution (e.g., the institution's mandate with respect to animal-based studies, scope of the types of work undertaken, etc.).

Institutional policies should also be accompanied by information that helps the members of the animal care and use program accomplish their work: these include a practical description of the protocol review process including the dates at which ACC meetings will be held and instructions for protocol authors.

What are standard operating procedures (SOPs), and why are they important?

An SOP is a document that defines, in practical, user-friendly terms, specific animal care or use or facility management procedures. In particular, SOPs are important as a tool to ensure that procedures involving animals are consistently carried out according to the most appropriate and current standards, and to limit variations and errors due to changes in personnel or due to different persons, e.g. staff, students, weekend staff, etc. carrying out procedures at different times.

Standard operating procedures are necessary for:

- basic animal husbandry (feeding and cleaning procedures, and the provision of appropriate housing and environmental enrichment (see Chapters IV, V and VI of Vol. 1 of the *CCAC Guide to the Care and Use of Experimental Animals* and the *CCAC guidelines on: the care and use of fish*));
- facility management (cleaning of the facility, work traffic patterns, management of specialized areas, etc. (see Chapters II, III, IV, V and VI of Vol. 1 of the *CCAC Guide to the Care and Use of Experimental Animals*, the *CCAC guidelines on: laboratory animal facilities – characteristics, design and development* and the *CCAC guidelines on: the care and use of fish*));
- animal care and use procedures, according to the nature of the institutional program: these can include pain management in animals during and after an invasive procedure, appropriate techniques for carrying out blood sampling, administra-

tion of substances, surgery or other procedures, appropriate methods for limiting animal distress (endpoints of animal use), appropriate methods for carrying out the euthanasia of animals, etc. (see Chapters VII, IX, X, XI, XII of Vol. 1 of the *CCAC Guide to the Care and Use of Experimental Animals*, and the *CCAC guidelines on: choosing an appropriate endpoint in experiments using animals for research, teaching and testing*);

- work with animals outside institutional facilities, such as farm animals and free-ranging wildlife.



What is the role of the ACC and community representative with respect to SOPs?

While the veterinary and animal care staff and the animal users typically produce and review standard operating procedures (SOPs) for specific elements in the animal care and use program, it is very important for the ACC and all its members to be involved in ensuring that appropriate, current SOPs are in place for all aspects of animal care and facility management, and for the animal use procedures that will be used repeatedly.

Reviewing new or revised SOPs is an excellent time for ACC members to ensure that they understand what is taking place in the animal facilities, and to make suggestions for refinements if they have any.



4 CCAC Assessment Panels

General information on the CCAC Assessment Program can be found in Section 2.4.1 of this Manual. In this section, the role of CCAC assessment panels is discussed.

CCAC assessment panel members are all volunteers, who carry out their duties without remuneration, but their expenses are entirely covered by the CCAC.

4.1 Role of Assessment Panels

Assessment visits are the basis for the quality assurance system of the CCAC Assessment Program, and assessment panel members represent the CCAC, providing peer expertise to review all aspects of the care and use of animals for research, teaching and testing by an institution. Through this work, the panel members both support the accomplishments of the institutional ACC and animal care and use program members who work to implement the CCAC guidelines and policies within their institutions, and make recommendations for improvements, as necessary, to ensure that the animal care and use program meets the standards of the CCAC Program (see the *CCAC policy statement on: assessment panels*).

While research on free-ranging animals (wildlife) must also comply with the guidelines of the CCAC, it may not be possible (in fact most frequently is impossible) for assessment panels to visit field sites of investigators from an institution. This work can usually be assessed remotely by the institutional ACC and then conveyed to the assessment panel. Remote assessment by the ACC is usually possible through detailed descriptions by, and perhaps meetings with, the individual investigators.

4.2 Composition of Assessment Panels

Full assessment visits are carried out by CCAC assessment panels, each composed of:

- a community representative;
- scientific and veterinary representatives; and
- a CCAC assessment director, as an *ex officio* member.

A CCAC assessment director organizes, and is present at every assessment visit as an ex officio member of the assessment panel. Each assessment director selects veterinary and scientific panel members according to their expertise, experience and ability to assess each institution, and community representatives are selected from the CFHS register of community representatives. The community representative chosen for an assessment visit is usually from the geographical area of the institution. All

panel members are selected for their experience and ability to be actively involved in the process, and to communicate clearly and constructively with their peers on the panel and in the institution to be assessed.



4.3 Who are Community Representatives on Assessment Panels?

Community representatives on assessment panels come from many different backgrounds, but are typically either employees or members of humane societies or SPCAs affiliated with the CFHS, or are community representatives on other institutional ACCs. Employees and members of humane societies or SPCAs often bring solid, practical experience with regard to animal housing and care to the panel, and community representatives on ACCs bring a great deal of valuable experience with regard to ACC functioning, protocol review, animal care and use program functioning, etc.

Community representatives who are interested in participating as volunteers on CCAC assessment panels may contact the CFHS and / or CCAC; they will be asked to fill out a questionnaire to indicate their interests and experience, and to indicate any ACCs that they are presently serving on.

What do assessment panels do?

CCAC assessments consist of several distinct phases, which take place over several months or sometimes years. Panel members participate as a team in each of these phases:

Preparing for an assessment visit:

- review of pre-assessment documentation;
- panel pre-assessment meeting.

During the assessment visit:

- an initial meeting with representatives of the administration, ACC and animal care and use program of the institution;
- site visit(s);
- a summary meeting.

After the assessment visit:

- assessment report production;
- review of implementation report(s) from the institution.

4.4 What are the General Responsibilities of Assessment Panel Members?

The panel Chair is responsible for leading discussions at the initial and summary meetings of the assessment visit, with the active participation of the other members



of the panel. The Chair should work towards achieving a consensus by panel members on all issues related to the assessment, in collaboration with the CCAC assessment director.

Panel members should not act as inspectors, but rather as unbiased, informed advisors to the institutional ACC, veterinary and animal care staff, researchers and administration in the institutions they visit. All panel members should:

- be familiar with the CCAC guidelines and policies;
- understand the reason and basis for the CCAC Assessment Program;
- carefully read and become familiar with the pre-assessment documentation supplied by the institution, and use this information to evaluate the ways in which the institutional ACC and the animal care and use program function;
- be respectful and collegial in discussions with members of the institution;
- respect any reasonable institutional concerns regarding intrusions into animal rooms or procedures, and therefore be as calm and quiet as possible when near animals, recognizing that any unfamiliar intrusions into animal rooms can disturb the animals;
- be prepared to discuss with the institutional ACC and individual investigators the procedures used on animals, as well as the use of SOPs;
- be prepared to take sufficient notes to contribute to a meaningful report, and to be able to make comments on the institutional response to the CCAC's recommendations;
- understand that the information received by panel members during an assessment is privileged and its confidentiality should be respected; and
- understand that any difficulties pertaining to any aspect of the assessment and report should normally be resolved through discussions within the panel.

4.4.1 Preparing for an Assessment Visit

What does the CCAC do prior to a visit?

The CCAC first confirms the date of the visit with the institution, ensures that the institution understands the pre-assessment documentation that it needs to provide, and confirms the composition of the panel. Prior to an assessment visit, the CCAC assessment director who will be accompanying the assessment panel as an ex officio member will contact all panel members. The assessment director will ensure that any necessary travel and accommodation arrangements are made and paid for through the CCAC Secretariat. The assessment director will also arrange for panel members to be provided with copies of all relevant pre-assessment documentation, including:

- an *Animal Care and Use Program Review Form*, recently completed by the institution (including supporting documentation such as the ACC's Terms of Reference, minutes of ACC meetings, protocol forms, etc.);

- copies of the previous assessment report and implementation report(s) of the institution.

What do panel members do prior to a visit?

Panel members should review all relevant pre-assessment documentation before the assessment visit, and be prepared to discuss any specific concerns that they may identify.



Panel members should ensure that they are familiar with the policies and guidelines of the CCAC. In particular, assessments are based on standards set forth in the policies, guidelines and additional documents listed in Section 2.5 of this Manual, according to the nature of the animal care and use program to be assessed. The CCAC assessment director conducting the visit will be available to provide information on CCAC policies and guidelines to the panel members at any time.

Pre-assessment meeting

A pre-assessment meeting of panel members is held at a convenient time prior to the visit (often the night before the visit), to review the goals of the assessment, the institution's pre-assessment documentation, the results of the previous assessment visit, and any other issues related to the visit. The panel Chair and assessment director will use this time to answer any questions that the panel members may have, and to build consensus on how the assessment panel will function and the assessment will take place. If there are specific animal use protocols that panel members want to review, or specific scientists / teachers that they would like to meet during the assessment, they should make this known during the pre-assessment meeting. Every effort is always made to make all panel members, including the community representative, feel that they are an integral part of the process, and to ensure that they have the opportunity to have their questions and concerns clearly addressed.

4.4.2 During the Assessment Visit

Initial meeting

An initial meeting between the CCAC panel, members of the institutional ACC, senior institutional representatives, members of the veterinary and animal care staff, and researchers is conducted at the institution. During this meeting, the assessment director briefly outlines the CCAC's mandate and purpose of the visit, as well as any recent changes to the CCAC Program.

The panel members, led by the Chair, then ask questions based on the information provided by the institution in the *Animal Care and Use Program Review Form*, in order to cover the following topics:

- an overview of the institution's research and / or teaching mandate as it pertains to animal use, and the structure of the animal care and use program, including the involvement of, and support for the program by, the senior administration;



- the implementation of previous CCAC recommendations;
- changes in the animal facilities, personnel or types of animal use since the previous assessment;
- the functioning of the ACC, including its documentation (i.e. its Terms of Reference, animal use protocol form, minutes of committee meetings, site visit reports, policies and procedures, etc.), the protocol review process, and the frequency of ACC meetings and ACC site visits of animal facilities;
- current animal use (the panel may review selected protocols, meet with or arrange to meet with investigators / teachers during the site visit, and discuss the scientific merit review and / or pedagogical merit review mechanisms in place at the institution);
- veterinary supervision and care;
- the provision of animal care by qualified personnel, including on weekends, holidays and after hours;
- qualifications and continuing education programs for animal care and research technicians, investigators and teachers, and ACC members, and the provision of training courses on the care and use of animals within the institution;
- the occupational health and safety program;
- the security of the facilities and the crisis management program;
- any concerns of the institution (regarding animal care, CCAC programs, etc.).

Site visit

During the site visit, the panel members tour the various animal facilities, including animal holding rooms, procedure rooms (which may include investigators' laboratories), and support areas (e.g., washing areas, storage areas, etc.). Panel members should not hesitate to ask any questions concerning any aspect of animal care or use. Discussion with investigators and / or teachers is highly encouraged.

A checklist of elements to review for site visits to animal facilities is available on the CCAC website (www.ccac.ca).

Summary Meeting

Following the site visit, and prior to the final meeting with the institutional representatives, the assessment panel meets (in camera) to discuss any concerns resulting from the visit and to finalize the recommendations that will be presented verbally at the final meeting. For multi-day assessment visits, the panel meets following each day of assessment to discuss its findings and prepare any recommendations to improve animal care and use. Recommendations are intended to improve animal care and use to a standard that is in keeping with CCAC guidelines, and are categorized as follows according to the *CCAC policy statement on: definitions of recommendations made in CCAC reports*:



- **Major**: Apply to deficiencies in an animal care and use program that demand immediate appropriate action by the institution and where failure to take such action would further jeopardize animal welfare and could place the institution in a status of Non-compliance;
- **Serious**: Apply to deficiencies in an animal care and use program that must be addressed expeditiously in order for the institution to comply with CCAC guidelines;
- **Regular**: Apply to lesser deficiencies in the animal care and use program that must be addressed, but that normally can be accommodated within the routine program. Such recommendations should be implemented prior to the next scheduled assessment;
- **Minor**: Apply to changes aimed at enhancing an already acceptable or even commendable animal care and use program;
- **Commendatory**: Apply to excellent conditions, practices or personnel in an animal care and use program.

The final meeting with the institutional ACC and administrative representatives includes a summary of the panel's observations and should also detail any problems that require immediate attention. Commendatory remarks, as well as the most important recommendations, particularly any Major or Serious recommendations that will be contained in the final, written report, are presented verbally at this time, along with the reasons for these recommendations and potential ways and means of addressing them.

4.4.3 Assessment Reports

Following the assessment visit, the CCAC Secretariat, under the direction of the assessment director, prepares a detailed report of the visit, based on the recommendations of the assessment panel, written notes from the visit, the institution's pre-assessment documentation, and, if necessary, further correspondence with panel members. This draft report is then circulated to the panel members and to the members of the CCAC Assessment Committee for comments and approval. Once the assessment report is finalized, it is forwarded to the institution, normally within 10 weeks of the date of the assessment visit, in order to maintain the efficiency and credibility of the CCAC Assessment Program.

4.4.4 Implementation Reports

The senior administrator in charge of the animal care and use program in the institution must submit an implementation report or reports to address the recommendations contained in its assessment report (see Instructions for submitting implementation reports, available on the CCAC website (www.ccac.ca)). Time lines for responses to any Major recommendations are specified when the recommendations are forwarded to the institution. A response to any Serious recommendations must be sent to the CCAC within three months of receipt of the assessment report, while a response to Regular recommendations is due within six months.



Once they are received, implementation reports are circulated to the assessment panel members and to the CCAC Assessment Committee for information and comment. The CCAC, through its Assessment Committee, will then assign a CCAC status to the institution, based on the implementation report(s).

5 Animal Care and Use Programs in Canadian Institutions



Are all animal care and use programs similar?

There are a wide variety of animal care and use programs across the country, from the very small to the very large, and from those using a small number of animals and species for one or two purposes, to those using large numbers of various species for many different purposes. These differences must be acknowledged and practical means of ensuring that different types of programs all work well must be found.

This section of the Manual presents the general categories of animal care and use programs and what can be expected for each of them. While there are obvious differences, there are also broad principles that must be met for each type of institution.

5.1 Structure of the Animal Care and Use Program

All programs must have a **senior administrator** responsible for animal care and use (see *CCAC policy statement on: senior administrators responsible for animal care and use*, in preparation). S/he must be in a position to either provide directly, or work with his/her colleagues to provide, the necessary human, physical and financial resources for appropriate animal care and use, and to oversee animal users and animal care personnel.

The ACC, the person responsible overall for animal care services, and the person responsible overall for regulatory compliance services (if these are two different individuals) must all report directly to the senior administrator with respect to animal welfare matters.

The structure must have clear **communication lines** between the individuals involved in the program to ensure that information flows well, as well as clear **management lines** for employees, and clear **reporting lines** for concerns related to animal care and use.

The structure must be stable and solid, not resting unduly on only one or two individuals. It must be stronger than the individuals who fill the positions within it, and must be based on the institution's goals and requirements.

Overall, it is the **ACC** which must take responsibility for all significant decisions regarding animal care and use. For large programs, there may be more than one ACC.

The institution must then ensure that there are sufficient and qualified personnel members, which match the nature and scope of the program, to:



- provide animal care services: this is the **service component**; and
- oversee the appropriate care and use of animals: this is the **regulatory component**.

The institution must also ensure that there are sufficient amounts of good quality animal facility space which also match the nature and scope of the program. A team approach must be used to analyze existing facilities and plan for new ones.

5.2 Human and Other Resources

The resources needed for each program vary widely. A very small program with just a few animals may only require one qualified staff member (who may work part time) and a consulting veterinarian, while larger programs may involve several veterinarians and a large number of animal care technicians.

5.3 Animal Care Committees and Protocol Forms

Most institutions have a single ACC, but for large programs, there may be more than one ACC.

The protocol forms and protocol review processes are based on the policies and information included in Section 3.4.1, and are tailored to the nature of the institution and the scope of the work undertaken.

5.4 Types of Facilities

Are all animal facilities similar?

The size and nature of animal facilities vary very widely, from one room to facilities that cover thousands of square feet, and from simple housing areas to highly specialized surgical and other procedure areas.

Animal facilities are expensive and complex to design, build, maintain, operate and renovate, and should be highly valuable institutional resources run according to institutional animal care and use policies and procedures.

Institutions may hold laboratory animals, farm animals, fish and / or wildlife.

Animals may be housed in:

- **conventional facilities**, for studies which do not involve animals that need particular protection, and which do not involve animals that carry pathogens (viruses, bacteria or parasites that cause disease);
- **exclusive barriers**, for studies in which animals do need protection from pathogens, which are physically "excluded" from the barrier animal facility;
- **inclusive barriers**, for animals that carry pathogens, where the pathogens are kept enclosed within the barrier.

(see the *CCAC guidelines on: laboratory animal facilities – characteristics, design and development*).

What measures must be taken to visit animal facilities?

The majority of animal facilities have specific procedures that must be followed for persons wishing to enter the facility, in order to protect animals from external pathogens and changes of conditions, and to avoid exposure of staff and visitors to animal allergens and other hazardous substances.

In order to visit the animal facilities, which is an essential part of the work of community representatives, you may be asked to put on different footwear, a labcoat or coveralls, a mask and gloves, or even to shower and change clothes completely, depending on the type of facility and the microbiological status of the animals in the facility.



5.5 Large Universities

5.5.1 What Animals are Used and Why?

Large universities have the broadest spectrum of types of animal use, with a wide variety of species (laboratory rodents, rabbits, fish, amphibians, birds, farm animals, wild animals and in certain cases cats, dogs and non-human primates) often used for a wide variety of studies (health sciences, biosciences, environmental sciences, ecology and ecological physiology, psychology, agriculture, etc.).

These animals are used primarily for basic research purposes, to understand fundamental mechanisms in living organisms. A few animals are also used for teaching (generally in the more advanced courses, or for students who need to learn technical skills for their future profession), and some animals are used for research of a more applied nature, particularly when universities collaborate with the private sector. Animals may also be used in studies, both in captivity and in the wild, to provide insight into the health and management of wild animal populations or the protection and preservation of species and diversity.

5.5.2 How is the Animal Care and Use Program Structured?

A solid program structure for a large university is essential, to ensure evenly high standards of animal care and use throughout the diverse units and facilities of the institution.

The Vice-President (or Vice-Principal) of Research is generally the senior administrator in charge of the program overall, since s/he is in a position to require that all those who care for and use animals follow institutional requirements, which should be based on, but not limited to, CCAC guidelines and policies. Within the animal care and use program, the VP Research works with his/her colleagues to ensure that both the regulatory component (ACC(s) and compliance personnel) and the service component (veterinary and animal care personnel and animal facilities) function appropriately.



5.5.3 What Human and Other Resources are Involved?

a) Regulatory component

The regulatory component of the animal care and use program is composed of ACCs and compliance officer(s). Some institutions choose to have a single ACC, to enhance consistency and fairness in the system, while others have several ACCs to match the volume and diversity of the animal-based work. Either system can work, as long as all ACCs are provided with skilled and sufficient administrative support, and that in systems with several ACCs, there are mechanisms and resources to ensure consistency between the ACCs and appropriate functioning of all ACCs, and to set institutional policies and practices. This is often achieved through an appropriately supported and structured university ACC. The ACC(s) in a large university should also, through their site visits and meetings, examine and report on any concerns related to the facilities, equipment and human resources necessary to meet institutional and CCAC standards.

In order to address these concerns and plan appropriately for the entire institution, the institution needs to hold regular meetings of those responsible for budgets (often the deans of faculties / colleges / schools) and for decision-making (the VP Research, the deans, the chair of the university ACC, the directors of facilities and services, the compliance officer(s) and other administrators as needed). In some universities, these decision-makers work within a committee responsible for allocating all necessary resources to the animal care and use program.

b) Service component

The services can either be centralized, with one veterinary director of animal resources overseeing all animal resource staff members, or can be divided into several units. Where there is division into several units, those responsible for these units should meet regularly to ensure that there is sound collaboration between the units and sharing of best practices and standard operating procedures, particularly where there is movement of animals or personnel between the units. There also need to be sufficient numbers of well qualified staff to cover all animal care and use appropriately.

5.5.4 Who is on the ACC?

The composition of the ACC(s) responsible for protocol review must include the members indicated in the *CCAC policy statement on: terms of reference for animal care committees*, with particular emphasis on ensuring that:

- There is sufficient community representation for all ACC activities, for mutual support and for the workload;
- Animal users in various fields and the various animal-using parts of the institution are represented on the ACC(s);
- Major animal users do not control ACC operations;
- Facility managers and animal care staff have the opportunity to serve on the ACC(s);

- Veterinarians are members of the ACC(s);
- There is student representation;
- There are good links with other institutional committees (occupational health and safety, hazardous substances, etc.).

5.5.5 What do(es) the Animal Use Protocol Form(s) Emphasize?

Because of the wide variety of types of animal use undertaken in a large university, there can either be several protocol forms, or several sections / appendices within one large form, to address the following areas, among others:

- Research within institutional facilities;
- Research / teaching in the field;
- Teaching;
- Replacement alternatives to animal use for teaching purposes, as well as reduction and refinement alternatives for all studies;
- Endpoints for different types of studies;
- Use of various categories of animals (e.g., invertebrates);
- Use of genetically engineered animals;
- Breeding of animals.

5.5.6 What about the Animal Facilities?

There are typically several laboratory animal facilities within a large university, generally one or two large central facilities and smaller facilities in various departments and units.

There may also be fish facilities, farm animal facilities and even facilities for holding wildlife.

Animal facilities in some cases "belong" to individual departments or units, and this makes it more difficult to ensure that the entire network of animal facilities works well in large universities, that each facility is appropriately maintained and managed according to institutional standards, and that planning takes into account the entire network and makes the best possible use of all facilities. Such general, collaborative planning is all the more important in large universities.

5.6 Small/Medium-sized Universities and University Colleges

5.6.1 What Animals are Used and Why?

These institutions can also have quite a broad spectrum of types of animal use, with many species (laboratory rodents, rabbits, fish, amphibians, birds, farm animals, wild



animals and in certain cases cats and dogs) potentially used for a variety of studies (health sciences, biosciences, environmental sciences, ecology and ecological physiology, psychology, agriculture, etc.).

These animals are used primarily for basic research purposes, to understand fundamental mechanisms in living organisms. A few animals are also used for teaching (generally in the more advanced courses, or for students who need to learn technical skills for their future profession) and some animals are used for research of a more applied nature, particularly when universities collaborate with the private sector. Animals may also be used in studies, both in captivity and in the wild, to provide insight into the health and management of wild animal populations or the protection and preservation of species and diversity.

5.6.2 How is the Animal Care and Use Program Structured?

A solid program structure for these institutions is also important, to ensure evenly high standards of animal care and use throughout the diverse units and facilities of the institution.

The Vice-President (or Vice-Principal) Research and/or Academic is generally the senior administrator in charge of the program overall, since s/he is in a position to require that all those who care for and use animals follow institutional requirements, which should be based on, but not limited to, CCAC guidelines and policies. Within the animal care and use program, the VP Research/Academic works with his/her colleagues to ensure that both the regulatory component (ACC(s) and compliance personnel) and the service component (veterinary and animal care personnel and animal facilities) function appropriately.

5.6.3 What Human and Other Resources are Involved?

a) Regulatory component

The regulatory component of the animal care and use program is composed of the ACC, working with the veterinary/animal care staff. There is usually a single ACC, to enhance consistency and fairness in the system. The ACC must be provided with skilled and sufficient administrative support. The ACC, through its site visits and meetings, examines and reports on any concerns related to the facilities, equipment and human resources necessary to meet institutional and CCAC standards. In order to address these concerns and plan appropriately for the entire institution, the institution needs to hold regular meetings of those responsible for budgets (often the deans of faculties/colleges/schools) and for decision-making (the VP Research, the deans, the chair of the ACC, the directors/managers of facilities and services, the veterinarian(s) and other administrators as needed).

b) Service component

With respect to services, there is typically one veterinarian (full or part time, or consulting, depending on the size of the program), or, in the case of institutions with a variety

of species used or types of animal use, there may be several veterinarians involved in the program in which case one veterinarian should be designated as the person with overall responsibility for animal health and welfare. The veterinarian(s) typically have to cover both regulatory requirements and service to animal users, but working out a division of the regulatory and service components can strengthen the program.

With respect to the animal care staff, there is typically one technician for the smallest programs, whereas several are present to provide service in the various facilities in larger programs. Where there is division into several units, those responsible for these units should meet regularly to ensure that there is sound collaboration between the units and sharing of best practices and standard operating procedures, particularly where there is movement of animals or personnel between the units. There also need to be sufficient numbers of well qualified staff to cover all animal care and use appropriately.



5.6.4 Who is on the ACC?

The composition of the ACC(s) responsible for protocol review must include the members indicated in the *CCAC policy statement on: terms of reference for animal care committees*, with particular emphasis on ensuring that:

- There is sufficient community representation for all ACC activities, for mutual support and for the workload;
- Animal users in various fields and the various animal-using parts of the institution are represented on the ACC(s);
- Major animal users do not control ACC operations;
- Facility managers and animal care staff have the opportunity to serve on the ACC(s);
- The veterinarian(s) is (are) members of the ACC(s);
- There is student representation;
- There are good links with other institutional committees / officers (occupational health and safety, hazardous substances, etc.).

5.6.5 What do(es) the Animal Use Protocol Form(s) Emphasize?

Because of the variety of types of animal use undertaken in these institutions, there can either be several protocol forms, or several sections / appendices within one large form, to address the following areas:

- Research within institutional facilities;
- Research / teaching in the field;
- Teaching;
- Replacement alternatives to animal use for teaching purposes, as well as reduction and refinement alternatives for all studies;
- Endpoints for different types of studies;



- Use of various categories of animals (e.g., invertebrates);
- Use of genetically engineered animals;
- Breeding of animals.

5.6.6 What about the Animal Facilities?

There may be one or several animal facilities.

These may be laboratory, fish or farm animal facilities, or even facilities for holding wildlife.

For these smaller institutions, a central animal facility is often an excellent way to ensure high standards of animal care and use, as well as the most cost-effective solution. However, many of these institutions have several smaller facilities, and it is essential to ensure that the entire network of animal facilities works well, that each facility is appropriately maintained and managed according to institutional standards, and that planning takes into account the entire network and makes the best possible use of all facilities.

5.7 University Hospitals

5.7.1 What Animals are Used and Why?

These institutions usually have a more limited range of species used (mostly laboratory rodents and rabbits, some amphibians and fish and in certain cases larger species such as cats, dogs or non-human primates) used for health science oriented research. There may be extensive use of genetically engineered mice, and extensive mice breeding colonies.

These animals are used for basic and applied research purposes, to understand fundamental mechanisms in living organisms and develop new therapeutic approaches for health problems. A few animals are also used for teaching (generally for medicine / nursing / health sciences students who need to learn technical skills for their future profession). The research of a more applied nature may involve collaboration with the private sector.

5.7.2 How is the Animal Care and Use Program Structured?

These programs are typically simpler and more straightforward, but a solid program structure remains important, to ensure evenly high standards of animal care and use throughout the institution.

The Director of the Research Centre / Institute or Vice-President of Research is generally the senior administrator in charge of the program overall, since s / he is in a position to require that all those who care for and use animals follow institutional requirements, which should be based on, but not limited to, CCAC guidelines and policies.

Within the animal care and use program, the senior administrator works with his / her colleagues to ensure that both the regulatory component (ACC(s) and compliance personnel) and the service component (veterinary and animal care personnel and animal facilities) function appropriately.



5.7.3 What Human and Other Resources are Involved?

a) Regulatory component

The regulatory component of the animal care and use program is composed of the ACC, working with the veterinary / animal care staff. There is usually a single ACC, to enhance consistency and fairness in the system. The ACC must be provided with skilled and sufficient administrative support. The ACC, through its site visits and meetings, examines and reports on any concerns related to the facilities, equipment and human resources necessary to meet institutional and CCAC standards, and should meet with the senior administrator frequently to address these concerns.

b) Service component

With respect to services, there is typically one veterinarian (full or part time, or consulting, depending on the size of the program). The veterinarian(s) typically have to cover both regulatory requirements and service to animal users, but working out a division of the regulatory and service components can strengthen the program.

With respect to the animal care staff, there is typically a head technician, who may be the manager of the animal facility, and several technical animal care staff members. Where there is division into several units, those responsible for these units should meet regularly to ensure that there is sound collaboration between the units and sharing of best practices and standard operating procedures, particularly where there is movement of animals or personnel between the units. There also need to be sufficient numbers of well qualified staff to cover all animal care and use appropriately.

5.7.4 Who is on the ACC?

The composition of the ACC(s) responsible for protocol review must include the members indicated in the *CCAC policy statement on: terms of reference for animal care committees*, with particular emphasis on ensuring that:

- There is sufficient community representation for all ACC activities, for mutual support and for the workload;
- Animal users in various fields and from the various animal-using parts of the institution are represented on the ACC;
- Major animal users do not control ACC operations;
- The veterinarian(s) is (are) members of the ACC;
- The Facility Manager(s) is (are) a member of the ACC;
- Animal care staff have the opportunity to serve on the ACC;



- There is student representation;
- There are good links with other institutional committees / officers (occupational health and safety, hazardous substances, etc.).

5.7.5 What do(es) the Animal Use Protocol Form(s) Emphasize?

There is typically a single protocol form which generally emphasizes:

- Reduction and refinement alternatives;
- Use of genetically-engineered animals;
- Breeding of animals;
- Surgical and other invasive procedures;
- Appropriate endpoints.

5.7.6 What about the Animal Facilities?

There is typically one central animal facility, but there may be several for larger centres. These facilities are usually divided into highly specialized areas, for example areas for the creation of genetically-engineered animals, surgical procedures, the housing of larger species, etc.

Where there are several facilities, it is essential to ensure that the entire network of animal facilities works well, and that planning takes into account the entire network and makes the best possible use of all facilities.

5.8 Community Colleges

5.8.1 What Animals are Used and Why?

These institutions teach their students using cats, dogs, rodents, rabbits, birds, amphibians and sometimes fish and / or farm animals. Not all animals are housed on site, students may go outside of the institution to learn, or animals (pets) may simply be brought in for a few hours.

These animals are rarely used for purposes other than teaching.

5.8.2 How is the Animal Care and Use Program Structured?

A solid program structure for these institutions is also important, to ensure evenly high standards of animal care and use throughout the institution.

Either the President or the Vice-President Academic is generally the senior administrator in charge of the program overall, since s / he is in a position to require that all those who care for and use animals follow institutional requirements, which should

be based on, but not limited to, CCAC guidelines and policies. Within the animal care and use program, the senior administrator works with his/her colleagues to ensure that both the regulatory component (ACC) and the service component (veterinary and animal care personnel and animal facilities) function appropriately.



5.8.3 What Human and Other Resources are Involved?

a) Regulatory component

The regulatory component of the animal care and use program is composed of the ACC, working with the veterinary/animal care staff. There is usually a single ACC, which must be provided with skilled and sufficient administrative support. The ACC, through its site visits and meetings, examines and reports on any concerns related to the facilities, equipment and human resources necessary to meet institutional and CCAC standards, and must meet frequently with the senior administrator to address any such concerns.

b) Service component

With respect to services, there are typically one or several veterinarian(s) (full or part time) teaching within the program. There should be one veterinarian designated to oversee and coordinate animal health and welfare matters.

With respect to the animal care staff, animal health technicians also often teach as well as being responsible for the care of the animals. There also need to be sufficient numbers of well qualified staff to cover all animal care and use appropriately.

5.8.4 Who is on the ACC?

The composition of the ACC(s) responsible for protocol review must include the members indicated in the *CCAC policy statement on: terms of reference for animal care committees*, with particular emphasis on ensuring that:

- There is sufficient community representation for all ACC activities, for mutual support and for the workload;
- Teachers from various areas are represented on the ACC(s);
- Major animal users do not control ACC operations;
- Facility managers and animal care staff have the opportunity to serve on the ACC(s);
- There is student representation;
- There are good links with other institutional committees/officers (occupational health and safety, etc.).

5.8.5 What do(es) the Animal Use Protocol Form(s) Emphasize?

The protocol form emphasizes:



- Teaching;
- Replacement alternatives to animal use for teaching purposes, as well as reduction and refinement alternatives;
- Limits on the length of time animals are held, and on the frequency with which they are used for teaching purposes.

5.8.6 What about the Animal Facilities?

There is usually one animal facility used for all species, except in colleges where work with farm animals is taught. The danger for colleges is to try to cover a wide variety of species with limited space, funds and personnel – colleges must adapt their programs to the availability of resources.

5.9 Private Institutions

5.9.1 What Animals are Used and Why?

These institutions usually use specific species (rodents, rabbits and occasionally larger species) for very specific applied research or testing.

5.9.2 How is the Animal Care and Use Program Structured?

These programs are typically simpler and more straightforward, but a solid program structure remains important, to ensure evenly high standards of animal care and use throughout the institution.

The CEO or Vice-President Research is generally the senior administrator in charge of the program overall, since s/he is in a position to require that all those who care for and use animals follow institutional requirements, which should be based on, but not limited to, CCAC guidelines and policies. Within the animal care and use program, the senior administrator works with his/her colleagues to ensure that both the regulatory component (ACC(s) and compliance personnel) and the service component (veterinary and animal care personnel and animal facilities) function appropriately.

5.9.3 What Human and Other Resources are Involved?

a) Regulatory component

The regulatory component of the animal care and use program is composed of the ACC, working with the veterinary/animal care staff. There is a single ACC, to enhance consistency and fairness in the system. The ACC must be provided with skilled and sufficient administrative support. The ACC, through its site visits and meetings, examines and reports on any concerns related to the facilities, equipment and human resources necessary to meet institutional and CCAC standards, and should meet with the senior administrator frequently to address these concerns.

b) Service component

With respect to services, there is typically one veterinarian (full or part time, or consulting, depending on the size of the program). The veterinarian(s) typically have to cover both regulatory requirements and service to animal users, but working out a division of the regulatory and service components can strengthen the program. There may be several veterinarians for private institutions conducting testing.

With respect to the animal care staff, there is typically a head technician, who may be the manager of the animal facility, and several technical animal care staff members. Where there is division into several units, those responsible for these units should meet regularly to ensure that there is sound collaboration between the units and sharing of best practices and standard operating procedures, particularly where there is movement of animals or personnel between the units. There also need to be sufficient numbers of well qualified staff to cover all animal care and use appropriately.



5.9.4 Who is on the ACC?

The composition of the ACC(s) responsible for protocol review must include the members indicated in the CCAC policy statement on: terms of reference for animal care committees, with particular emphasis on ensuring that:

- There is sufficient community representation for all ACC activities, for mutual support and for the workload;
- Animal users from various parts of the company are represented on the ACC;
- Major animal users do not control ACC operations;
- The veterinarian(s) is (are) members of the ACC;
- The Facility Manager(s) is (are) a member of the ACC ;
- Animal care staff have the opportunity to serve on the ACC;
- There are good links with other institutional committees / officers (occupational health and safety, hazardous substances, etc.).

5.9.5 What do(es) the Animal Use Protocol Form(s) Emphasize?

There is typically a single protocol form which generally emphasizes:

- Reduction and refinement alternatives;
- Refinement of invasive procedures;
- Appropriate housing and environmental enrichment;
- Appropriate endpoints.

Animal-based work is often quite standardized within a private institution, and extensive use is made of SOPs, particularly for companies undertaking testing. It is



the refinement of these SOPs that is the focus for improving animal welfare within these companies.

5.9.6 What about the Animal Facilities?

There is typically one central animal facility, but there may be several for larger centres.

5.10 Government Units

5.10.1 What Animals are Used and Why?

These institutions can use a variety of animals (usually either laboratory rodents and rabbits, farm animals, fish or wildlife) for either research or testing purposes.

The research may involve collaboration with the academic or private sector.

5.10.2 How is the Animal Care and Use Program Structured?

A solid program structure, well supported by the government department, agency or ministry, is essential for these institutions, to ensure evenly high standards of animal care and use throughout the institution and throughout the department, agency or ministry.

The Director of the Research Centre / unit is generally the senior administrator in charge of the program overall, since s / he is in a position to require that all those who care for and use animals follow institutional requirements, which should be based on, but not limited to, CCAC guidelines and policies. Within the animal care and use program, the senior administrator works with his / her colleagues to ensure that both the regulatory component (ACC(s) and compliance personnel) and the service component (veterinary and animal care personnel and animal facilities) function appropriately.

5.10.3 What Human and Other Resources are Involved?

a) Regulatory component

The regulatory component of the animal care and use program is composed of the ACC, working with the veterinary / animal care staff. There is normally a single ACC, to enhance consistency and fairness in the system. The ACC must be provided with skilled and sufficient administrative support. The ACC, through its site visits and meetings, examines and reports on any concerns related to the facilities, equipment and human resources necessary to meet institutional and CCAC standards, and should meet with the senior administrator frequently to address these concerns.

b) Service component

With respect to services, there is typically one veterinarian (full or part time, or consulting, depending on the size of the program). The veterinarian(s) typically have to

cover both regulatory requirements and service to animal users, but working out a division of the regulatory and service components can strengthen the program.

With respect to the animal care staff, there is typically a head technician, who may be the manager of the animal facility, and several technical animal care staff members. Where there is division into several units, those responsible for these units should meet regularly to ensure that there is sound collaboration between the units and sharing of best practices and standard operating procedures, particularly where there is movement of animals or personnel between the units. There also need to be sufficient numbers of well qualified staff to cover all animal care and use appropriately.



5.10.4 Who is on the ACC?

The composition of the ACC(s) responsible for protocol review must include the members indicated in the *CCAC policy statement on: terms of reference for animal care committees*, with particular emphasis on ensuring that:

- There is sufficient community representation for all ACC activities, for mutual support and for the workload;
- Animal users in various fields and from the various animal-using parts of the institution are represented on the ACC;
- Major animal users do not control ACC operations;
- The veterinarian(s) is (are) members of the ACC;
- The Facility Manager(s) is (are) a member of the ACC ;
- Animal care staff have the opportunity to serve on the ACC;
- There are good links with other institutional committees / officers (occupational health and safety, hazardous substances, etc.).

5.10.5 What do(es) the Animal Use Protocol Form(s) Emphasize?

There is typically a single protocol form which generally emphasizes:

- Replacement, reduction and refinement alternatives;
- Appropriate housing and environmental enrichment;
- Appropriate endpoints.

5.10.6 What about the animal facilities?

There is typically one central animal facility, but there may be several for larger centres. Where there are several facilities, it is essential to ensure that the entire network of animal facilities works well, and that planning takes into account the entire network and makes the best possible use of all facilities.



Appendix I

Suggestions of questions that community representatives can ask during animal use protocol review

- Why do animals need to be used for this project?
- What will be accomplished in practice by using animals?
- Is this study a repetition of work using the same species? If yes, why is it being repeated?
- How were the proposed numbers of animals determined?
- Are you confident that enough animals will be used for the project to be valid scientifically / pedagogically / for regulatory purposes, and that the number of animals proposed does not exceed what is needed for the project to be valid?
- Where will the animals be obtained from, or in what geographical area will they be studied?
- Will they be transported in a standard way or will this project require an unusual form of transport requiring special precautions?

Wild animals

- Will wild animals be chased, trapped, handled, manipulated, released?
- Are all of the persons who will be handling the animals well trained and protected for this type of animal and this type of project?
- How will these procedures take place in practice, and what level of discomfort are the animals likely to feel? For how long?
- Can the procedures themselves, the number of procedures, the way in which the animals are caught / held or the length of time that the animals are held be further refined to better protect the animals' health and welfare? Has there been veterinary input to this end?
- Are appropriate anesthesia / analgesia / other therapies, chosen with veterinary input, being used for invasive procedures? Will animals be manipulated and monitored by competent personnel?
- How likely is it that animals will be injured or killed by accident? What will happen in case of injury?
- What are the animal welfare endpoints for this project? Who will apply them, and is this person able to apply them promptly and appropriately?
- What is (are) the method(s) of euthanasia and is (are) it (they) the most appropriate?

- When will the Animal Care Committee receive a report about what happened in practice in the field?

Laboratory animals

- Where and how will the animals be housed?
- Are all of the persons who will be handling the animals well trained and protected for this type of animal and this type of project?
- Can these new animals be appropriately received and housed in the institution's existing facilities, with no concerns for animal groups currently being housed?
- Will the animals have the best possible housing conditions and environmental enrichment?
- What will happen to the animals in practice, day to day, once they arrive in the facility?
- What procedures will be undertaken on the animals? At what frequency? What level of discomfort are the animals likely to feel? For how long?
- Can the procedures themselves, the number of procedures, the way in which the animals are housed or the length of time that the animals are held be further refined to better protect the animals' health and welfare? Has there been veterinary input to this end?
- Are appropriate anesthesia / analgesia / other therapies, chosen with veterinary input, being used for invasive procedures? Will animals be manipulated and monitored by competent personnel?
- Will animal facility / veterinary and not only research personnel be monitoring the animals regularly?
- How likely is it that the animals' health / welfare will be compromised by the procedures?
- What are the animal welfare endpoints for this project? Who will apply them, and is this person able to apply them promptly and appropriately?
- What is (are) the method(s) of euthanasia and is (are) it (they) the most appropriate?

