Mandate

“The purpose of the CCAC is to act in the interests of the people of Canada to ensure through programs of education, assessment and persuasion; 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.”

CCAC By-Laws, (art. 4), May 27, 1998
Distributed Management

Council
- Members represent 24 national organizations

Secretariat
- 24 employees in Ottawa

> 220 institutional animal care committees
- 2000 volunteers
- veterinarians, scientists, technicians, community representatives
CCAC Organizations

**Animal Users**
- Agriculture and Agri-Food Canada
- Department of National Defence
- Environment Canada
- Department of Fisheries and Oceans
- Health Canada
- National Research Council

**Other Organizations**
- Association of Canadian Faculties of Dentistry
- Association of Faculties of Medicine of Canada
- Association of Universities and Colleges of Canada
- Canada's Research-Based Pharmaceutical Companies
- Canadian Council of Departments of Psychology
CCAC Organizations

- Canadian Society of Zoologists
- Confederation of Canadian Faculties of Agriculture and Veterinary Medicine
- National Cancer Institute of Canada

Welfare Organizations
- Canadian Federation of Humane Societies
- Canadian Association for Laboratory Animal Medicine

Research Funders
- Canadian Institutes of Health Research
- Natural Sciences and Engineering Research Council
- Heart and Stroke Foundation of Canada

- Canadian Association for Laboratory Animal Science
- Canadian Bioethics Society
- Canadian Veterinary Medical Association
The CCAC includes 4 integrated, interdependent programs, which involve community representatives and the animal welfare movement in addition to veterinarians, scientists and animal health technicians.
Education, Training & Communications

- CCAC website and yearly National Workshops (April 26-27, 2012)

- The CCAC guidelines on: institutional animal user training: 12 web-based modules are provided by the CCAC as resource material. New fish modules!

- Webinars, and other resources and training materials provided on the CCAC website

- Annual Animal Use Data
CCAC guidelines on:

- choosing an appropriate endpoint (1998)
- institutional animal user training (1999)
- antibody production (2002)
- laboratory animal facilities (2003)
- care and use of fish (2005)
- animal procurement (2008)
- care and use of farm animals (2009)
- euthanasia (2010)
Guidelines Under Development

UPDATES

- genetically engineered animals
- care and use of rats
- institutional animal user training
- non-human primates
Guidelines Under Development

NEW

- the care and maintenance of marine mammals in captivity
- air quality in laboratory animal facilities
Three Rs Program

Two main focuses:

- Promotion of the Three Rs
- Implementation of the Three Rs
Three Rs: Replacement, Reduction, Refinement

- Three Rs microsite on CCAC website
- Three Rs Search Guide
Consultative and collaborative peer review process through participation of volunteers
Same Criteria Used for All Assessments

- CCAC guidelines, policies and recognized standards

- Standard *Animal Care and Use Program Review Form* (PRF), filled out by the institution as pre-assessment documentation, to ensure consistency between assessments and equally thorough assessments
Elements Assessed

- Animal care committee
- Infrastructure of animal housing facilities
- Animal care and facility management
- Veterinary care
- Training and continuing education
Animal Care Committees (ACCs)

ACC: KEYSTONE OF THE CCAC SYSTEM

- Function: Quality Control
- Responsibilities: ensure optimal levels of animal care and ethical animal use

Must be at the centre of any animal care and use program, working with all stakeholders
Animal Care Committee

- Reporting line
  - Report to the institutional senior administrator (VP Research)

- Composition:
  - Animal users from all main parts of the institution
  - Veterinarian(s)
  - Community representative(s)
  - Facility manager(s)/representative(s) from animal care staff
  - Institutional non-animal user
  - Student representative(s) (graduate/undergraduate, user or non)
  - ACC coordinator
Responsibilities of the ACC

Main responsibilities are:

- Protocol review, approval
- Follow-up (post-approval monitoring)
- Annual site visit
Tools for Protocol Review

- An animal use protocol form
- CCAC guidelines and policies and associated documents
- Institutional policies and standard operating procedures (SOPs)
- The expertise, judgment and common sense of committee members
- Additional resources and expertise as necessary
Animal Use Protocol Form

- Each institution must develop an animal use protocol form that suits the nature and culture of the institution, while including all elements required by the CCAC for a complete ethical review.

- All elements must be presented by scientists/teachers in a language that is easily understood by all ACC members, including community representatives.
General Identification

- Project title and descriptive keywords, or brief protocol description
- Author and all personnel who will handle animals (students, staff)
- Training and qualifications
General Identification

- Departmental affiliation
- Proposed start date
- Proposed end date
- Lay summary
General Identification

- Funding source(s) and status of funding approval
- Peer review of scientific merit for research projects
- Pedagogical merit for teaching protocols
- Current regulatory guidelines for testing protocols
Specific Information

- Use of hazardous agents
  - institutional approval of this use

- Categories of invasiveness (cumulative)

- Purpose of animal use
Specific Information

Alternatives:

- Replacement
- Reduction
- Refinement (including environmental enrichment)

Species and numbers of animals to be used per year, and justification thereof
Procedures

- A description detailing the procedures that are carried out on the animals (flow charts)

- Anesthesia and analgesia, including:
  - dosages
  - methods of use (when to start, how often)

- Justification for not using anesthesia or analgesia, if relevant
Procedures

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
Procedures

- A description of capture, restraint, transportation and/or housing of animals used in field studies

- Any other information pertinent to field studies, such as capture permits, capture of non-target species and potential injuries or mortality during capture or transportation, if relevant
Procedures

The method of euthanasia, if used
- justification for any physical euthanasia methods
- or for any methods that deviate from those described in the CCAC guidelines on: euthanasia of animals used in science (2010)

A description of how the animals will be disposed of if they are not to be euthanized
**Procedures**

- Any other information considered important or necessary and pertinent
  
  - including information or results derived from any relevant previous protocols
Responsibilities of the ACC

Main responsibilities are:

- Protocol review, approval
- **Follow-up** (post-approval monitoring)
- Annual site visit
Post-Approval Monitoring (PAM)

Objective

To ensure animal use protocols and standard operating procedures are applied in practice as approved in principle by the Animal Care Committee (ACC).
How to meet the objective?

- Having a formal, documented and effective PAM program in place

- PAM Program: combination of policies, practices and procedures designed to manage risk

- Risk: probability of a certain event X impact of that event
Risk factors

- communication between stakeholders
- training/support of animal users
- animal facilities and laboratories
- new or difficult projects, protocols or procedures
An ounce of prevention…

… is worth a pound of cure!!

Create conditions for ethical and successful animal-based projects:

- Solid structure for animal care and use program
- Effective ACC
- Complete veterinary and animal care services
- Comprehensive training and evaluation of competency
- Sufficient and appropriate facilities and equipment
- Frequent and open communications
Best practices

- ACC at centre of PAM
- Tailored to meet the needs of your institution
- Goldilocks rule: not too complex or too simple
- Based on risk assessment: Pareto’s principle
Best practices

- Support of senior administration
- Involve peers in lab visits (ACC members)
- Shelter clinical veterinarians
- Think about non-compliance issues
Responsibilities of the ACC

Main responsibilities are:

- Protocol review, approval
- Follow-up (post-approval monitoring)
- Annual site visit
Annual Site Visits Help the ACC...

- Better understand the work being conducted within the institution
- Ensure that the facilities, equipment and human resources are appropriate and sufficient
- Meet with those working in the animal facilities and animal use areas
- Observe any procedures identified as potential issues by ACC
- Make recommendations and commendations to those responsible for the facilities and for animal use
- Ensure compliance with approved protocols (as part of PAM)
Site Visits Should:

- Be conducted at each facility at least once a year
- Be documented through ACC minutes, or preferably through written reports
- Include each ACC member on at least one site visit a year
- Include all holding, procedure and service areas of the animal facilities, and researchers’ laboratories where procedures are done (even if only acute procedures)
- Include off-site or off-campus facilities
Canadian Council on Animal Care

guidelines on:
laboratory animal facilities—
characteristics, design
and development

Canadian Council on Animal Care

guidelines on:
the care and use of fish in research,
teaching and testing

Canadian Council on Animal Care

guidelines on:
the care and use of farm animals in research, teaching and testing

Canadian Council on Animal Care

guidelines on:
the care and use of wildlife
Four Pillars

- Strategic planning
- Management
- Staffing
- Infrastructure
Strategic Planning

Facilities should:

- Serve the needs and interests of the institution as a whole
- Be flexible and adaptable to evolving research
Strategic Planning

Facilities should:

- Be conducive to the well-being and safety of the animals
- Provide an appropriately-appointed and safe workplace for personnel
- Establish a stable research environment
Management

- Consistency and excellence through the uniform application of best practices (SOPs)
- Well trained and competent managers with effective and unencumbered reporting lines to avoid any potential conflict of interest
- Opportunities for ongoing and relevant continuing education
**Staffing**

- Sufficient numbers of well trained and competent veterinary and animal care staff with effective and unencumbered reporting lines to avoid any potential conflict of interest
- Continuing educational opportunities
- Animal care staff responsible for health and welfare of animals in the service of high quality science
Infrastructure

- Housing space
- Procedure space
- Service and storage areas
Before You Enter an Animal Facility

1. Do you have allergies?
2. Will you be exposed to any risks (biological, chemical etc)?
3. When were you last in another animal facility?
4. Will you enter barrier areas?
5. Are sensitive protocols under way?
6. Will you be using a checklist?
7. Be prepared to ask a lot of questions!
Upon Entering

STOP → follow PPE requirements, log in procedures

SMELL → Ventilation problems?

LOOK → General conditions, sanitation

LISTEN → Noise, vibrations?
Animal Identification and Records

- Individual animals identified
- Cage/rack/pen/tank cards contain required information in standard format
- Clinical records accessible and appropriate
- Genetic records & monitoring procedures
- Records to be kept for a period of one year after final disposition of animal
Before Leaving
After the Visit

- Document visit
- Forward any recommendations or commendations
- Expect a written formal response
- Joint follow up (paper trail in meeting minutes)
ACC 101

Special thanks to Dr. Ronald Charbonneau

Questions?