Over 50 Years of Animal Care Oversight

Canadian Council on Animal Care
Annual Report 2018-2019
Acknowledgements

We would like to take this opportunity to thank our member organizations, as well as our funders, for their ongoing support and involvement.

Member Organizations

Agriculture and Agri-Food Canada (AAFC)
Association of Canadian Faculties of Agriculture and Veterinary Medicine (CFAVM)
Association of Canadian Faculties of Dentistry (ACFD)
Association of Faculties of Medicine of Canada (AFMC)
Canadian Association for Laboratory Animal Medicine (CALAM)
Canadian Association for Laboratory Animal Science (CALAS)
Canadian Bioethics Society (CBS)
Canadian Cancer Society (CCS)
Canadian Council of Departments of Psychology (CCDP)
Canadian Food Inspection Agency (CFIA)
Canadian Society for Ecology and Evolution (CSEE)
Canadian Society of Zoologists (CSZ)
Canadian Veterinary Medical Association (CVMA)
Defence Research and Development Canada (DRDC)
Environment and Climate Change Canada (ECCC)
Fisheries and Oceans Canada (DFO)
Health Canada (HC)
Heart and Stroke Foundation of Canada (HSFC)
Humane Canada™
Innovative Medicines Canada (IMC)
National Research Council Canada (NRCC)
Universities Canada

Funders

Canadian Institutes of Health Research (CIHR)
Natural Sciences and Engineering Research Council of Canada (NSERC)
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Message from the Chair

I am pleased to present the CCAC Annual Report 2018–2019. In 2018, we celebrated our 50th anniversary, a remarkable milestone in our mission to oversee animal ethics and care in Canadian science. We took the opportunity to revisit our history and reflect on our achievements and those of our vibrant community of volunteers, member organizations, and certified institutions.

Throughout the year, we have continued to work at reaching the goals identified in the CCAC Strategic Plan 2015–2020. Amongst many achievements, we have published two guidelines documents that reflect the most recent scientific evidence, we have solidified our commitment to the Three Rs with new policies, protocols and initiatives, and we have fostered a dialogue with the Canadian Council on Animal Care (CCAC) community on reproducibility and the importance of considering sex as a biological variable in experimental design. We have also published guidance documents to facilitate the work of animal care committees, and we will be directly involving our membership in the initial stages of developing our 2021–2026 strategic plan.

On behalf of the CCAC Board of Directors, I want to thank all of those who share our profound respect for animals for their help, support, and commitment to advancing animal ethics and care in Canada. With your collaboration, we will continue to set milestones for the next 50 years, and beyond.

Dr. Eileen Denovan-Wright
Chair, CCAC Board of Directors
It has been a very exciting and fulfilling first year for me as the CCAC’s new executive director, starting with the celebration of our 50th anniversary. I would like to thank the CCAC community across the country for its support and collaboration over the past year, and I want to express my sincere appreciation to our outstanding Secretariat team for its valuable guidance and advice.

Over the past year, the CCAC has been actively pursuing its strategic goals and listening to its stakeholders. In the fall of 2018, we conducted a stakeholder satisfaction survey to determine how we can better meet their needs, and a nationwide public opinion poll to get insight on what Canadians think of the CCAC and the use of animals in science. The results of these two surveys will help us establish our priorities in the coming years, measure the value of our programs and focus our resources on meeting the needs of our stakeholders, and to be more inclusive of the values, views, and expectations of Canadians.

As we approach the last phase of implementing our 2015–2020 strategic plan, this coming year will be pivotal for us. Guided by our mission and supported by our vast network of volunteer experts, we will be drawing from the work of our various working groups and task forces and consulting our stakeholders to identify the goals of our 2021–2026 strategic plan and to set the foundation for our 2021 funding application to the federal granting agencies. We have also set up two new task forces, one to review our confidentiality and transparency policies and practices, and the other to expand the scope and reach of our membership.

Every year, the CCAC relies on thousands of dedicated volunteers to effectively and collaboratively carry out its mandate, and I want to thank them for their relentless support and commitment. I invite you to read this report to find out more about their work, and ours, in improving the welfare of animals in Canadian science.
Our Vision

The highest standards of animal ethics and care are valued and assured in all animal-based science conducted throughout Canada.

Our Mission

The CCAC works to ensure that animal-based science in Canada takes place only when necessary and that the animals in the studies receive optimal care according to high-quality, research-informed standards.

Our Mandate

Acting in the interest of the people of Canada, the CCAC advances animal ethics and care in science by:

• developing science-informed standards that incorporate expert opinion, the values of Canadians, and strategies to reduce the need for, and harm of, animals in science, while promoting their well-being;

• encouraging the implementation of the highest standards of ethics and care for animals in science in collaboration with the animal-care community and scientists across Canada;

• providing assessment and certification programs that empower scientific institutions in achieving high standards of animal ethics and care; and

• providing education, training, and networking opportunities to support individuals, animal care committees, and institutions in implementing our guidelines and sharing best practices in the oversight of animal ethics and care in science.
Our Principles

Respect for Animal Life
Respect for animal life is the driving force behind all of CCAC’s standards development and assessment and certification activities.

Evidence
CCAC standards are based on expert peer advice and current interpretation of scientific evidence.

Transparency
The CCAC operates in a manner that is transparent and fair, and open to public scrutiny.

Partnership
The CCAC works in partnership with its member organizations, program participants, and stakeholders to advance animal ethics and care in science.

Inclusiveness
The CCAC works with all stakeholders, seeking advice and perspectives from peer experts and public representatives to achieve consensus on issues surrounding animal ethics and care in science.

Integrity
The CCAC conducts all activities and affairs with honesty and always acts in accordance with high ethical standards.
Our Programs

Assessment and Certification
The Assessment and Certification team collaborates with over 190 animal care committees and a strong network of volunteer experts to ensure appropriate and consistent implementation of CCAC standards across Canada. By providing independent, third-party quality assurance to ensure the proper implementation of CCAC standards of animal ethics and care, the Assessment and Certification team maximizes the opportunity for information exchange through peer review and stakeholder involvement, and promotes good animal practices, including Three Rs alternatives.

Standards
The Standards team is responsible for developing, reviewing, and revising guidelines. Together with its invaluable volunteer experts, the CCAC is working to ensure that its standards are timely and relevant, informed by expert peer advice, current interpretation of scientific evidence, and Canadian values. The Three Rs, a widely accepted tenet of animal ethics, is at the heart of CCAC guidelines and standards, encouraging institutions to implement replacement, reduction, and refinement solutions.

Training and Networking
The Training and Networking team supports animal care committees and personnel in CCAC-certified institutions by providing networking activities and resources. CCAC stakeholders have access to our online training tools and modules, which help institutions better tailor their programs to the specific training needs of their researchers and educators. The team is also responsible for the annual CCAC National Workshop which features plenary sessions, breakout sessions, and networking opportunities, fostering peer interaction and knowledge exchange on various challenges and best practices in animal ethics and care.
Over 50 Years of Animal Care Oversight

In the past 50 years, the CCAC has evolved into a strong, focused, and relevant national oversight organization. Our standards of animal ethics and care are recognized internationally, and our system is the only one in the world that delivers both standards development and assessment and certification through one integrated and interdependent structure. Over the years, we have relied on the expertise and commitment of thousands of volunteers – scientists, veterinarians, technicians, animal welfare experts, members of the public, and countless others – to ensure the highest standards of animal welfare are maintained in Canadian science.

As technology rapidly advanced and became more and more sophisticated and accessible, scientific, medical and veterinary research crossed new boundaries in finding treatments for human and animal diseases that were not even contemplated 50 years ago. Animals have played, and continue to play, an important role in that research, and the CCAC community has kept pace with this ever-changing research landscape, committed to ensuring the respectful treatment of animals in science and to advancing animal ethics and care.

In moving forward, we will continue to work with our stakeholders to adapt to new challenges and advances in research by developing new standards to support animal care committees in their work and examining our transparency policies to be more accountable to Canadians. Drawing on our 50 years of experience and on the views and advice of our community, we will continue to promote the principles of the Three Rs, always keeping in mind that good animal welfare practices result in good scientific research and reliable data.

Canada will continue to make advancements in the field of scientific research, and the CCAC and its community of dedicated volunteers have the experience and expertise needed to face the challenge of supporting and overseeing animal ethics and care in future Canadian scientific research activities.
2018 Harry C. Rowsell Award

The CCAC is pleased to announce that the recipients of the 2018 Harry C. Rowsell Award for Outstanding Service to the CCAC were Ms. Maria Lynn Macdonald, Ms. Marie Bédard, and the late Dr. Gilles Demers.

The award recognizes individuals who have made an outstanding contribution to both the goals of the CCAC and to the advancement of animal ethics and care in Canadian science through outstanding dedication, competence, exceptional performance, excellent service, and ingenuity. “As the CCAC relies on so many different experts across the country, it is fitting to celebrate its 50th anniversary with more than one recipient,” said Dr. Eileen Denovan-Wright, Chair of the CCAC Board of Directors. “All three award winners have played a pivotal role in shaping the CCAC in their own way. Their work, resourcefulness, and determination have had a significant impact not only on our organization, but on the improvement of animal-based science as a whole across Canada, and around the world.”

The CCAC would like to congratulate and thank all of the award recipients for their exceptional contributions which have left an indelible mark on the CCAC, and on its community. The winners were celebrated at the CCAC National Workshop Reception 2018 on Friday, May 4, 2018, in Québec City.

The Harry C. Rowsell Award for Outstanding Service to the CCAC was reintroduced in 2018 in honour of the CCAC’s 50th anniversary. It is named for the CCAC’s founding executive director, Dr. Harry C. Rowsell, who devoted his life to promoting optimal care for animals in Canadian science. Dr. Rowsell’s deep personal commitment to the humane treatment of animals, and his belief in our ethical responsibility for their well-being, are evidenced through the many significant contributions he made during his career. In 1988, he was appointed an Officer of the Order of Canada for his incalculable contribution to the establishment of ethically based animal research.
Ms. Maria Lynn Macdonald  
University of British Columbia

Ms. Macdonald dedicated her twenty-six-year career to the betterment of animal ethics and care not only at the University of British Columbia (UBC), but across the country. Her implementation of an animal care committee coordinator position at UBC, the first of its kind in Canada, became the basis for a model that would go on to be applied across all CCAC-certified institutions. Ms. Macdonald’s contributions to CCAC policies and standards related to animal care committees were invaluable, as was her leadership in fostering a network for animal care committee members across the country who now communicate and collaborate regularly. She has dedicated her career to the improvement of the animal care committee model, continually working to identify initiatives that advance the conditions under which animal-based research occurs.

Ms. Marie Bédard  
University of Ottawa

Dr. Gilles Demers (posthumous)  
Canadian Council on Animal Care

Nominated together, Ms. Bédard and the late Dr. Demers made a sustained difference in the world of animal ethics and care both from within the CCAC itself, and in the broader animal-based science community. Having dedicated their careers to ensuring that training and resources were available to all those involved in animal science, their tireless efforts to improve the assessment and certification process, and their involvement in the development of CCAC guidelines and policies, have significantly contributed to the CCAC’s evolution and improvement. Ms. Bédard’s passionate drive to advance animal ethics and care continues to be reflected in the countless hours she devotes to important initiatives at the University of Ottawa. For his part, Dr. Demers’ legacy lives on most notably through having spearheaded the creation and implementation of the CCAC Certificate of GAP – Good Animal Practice®, a cornerstone of the CCAC programs. His exceptional work on the international stage, where he promoted both the CCAC and the highest standards of animal ethics and care, undoubtedly also improved the standards of animal ethics and care well beyond Canadian institutions.
### Hearing What Canadians Have to Say

In fall 2018, the CCAC reached out to Canadians to find out what they think about the use of animals in scientific research. It commissioned Nanos Research to conduct a nationwide public opinion poll to gauge the public’s thoughts about the CCAC and animal-based science in Canada. This is the second such poll the CCAC has conducted in an effort to ensure that CCAC standards continue to reflect the values of Canadians. The following are highlights from the poll results.

**Is the welfare of the animals being tested important when deciding whether an animal should be involved in a research, teaching, or testing study?**

- 73% IMPORTANT
- 22% SOMEWHAT IMPORTANT
- 3% NOT IMPORTANT
- 1% UNSURE
- 1% NOT IMPORTANT

**Should all organizations in Canada that carry out animal-based research, teaching, or testing studies be subject to the standards and oversight of a body such as the CCAC?**

- 70% SUPPORT
- 18% SOMEWHAT SUPPORT
- 4% OPPOSE
- 4% UNSURE
- 3% OPPOSE
- 4% UNSURE

Nanos Research conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between October 27 and November 1, 2018 as part of an omnibus survey. The margin of error for a random survey of 1,000 Canadians is ±3.1 percentage points, 19 times out of 20.
## Acceptability of Animal Use in Medical and Scientific Teaching, Training, and Testing

Is it acceptable to use animals during **regulatory testing** to ensure the safety and effectiveness of medicine and drugs, such as treatments for cancer, Alzheimer’s, etc.?

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<thead>
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<th>Acceptability</th>
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<tbody>
<tr>
<td>Acceptable</td>
<td>41%</td>
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<tr>
<td>Some Acceptable</td>
<td>35%</td>
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<tr>
<td>Some Unacceptable</td>
<td>10%</td>
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<tr>
<td>Unacceptable</td>
<td>13%</td>
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<tr>
<td>Unsure</td>
<td>2%</td>
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Is it acceptable to use animals when **developing products or devices** for humans or animals, such as artificial organs, materials used in hip/knee replacements, etc.?

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<td>Acceptable</td>
<td>38%</td>
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<tr>
<td>Some Acceptable</td>
<td>36%</td>
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<tr>
<td>Some Unacceptable</td>
<td>12%</td>
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<tr>
<td>Unacceptable</td>
<td>11%</td>
</tr>
<tr>
<td>Unsure</td>
<td>3%</td>
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Is it acceptable to use animals when conducting **medical research** that relates to human or animal diseases or disorders, etc.?

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<th>Acceptability</th>
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<tr>
<td>Acceptable</td>
<td>44%</td>
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<tr>
<td>Some Acceptable</td>
<td>35%</td>
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<td>Some Unacceptable</td>
<td>10%</td>
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<tr>
<td>Unacceptable</td>
<td>9%</td>
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<td>Unsure</td>
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Is it acceptable to use animals during the **teaching or training of personnel** such as veterinarians?

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<thead>
<tr>
<th>Acceptability</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Acceptable</td>
<td>56%</td>
</tr>
<tr>
<td>Some Acceptable</td>
<td>32%</td>
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<tr>
<td>Some Unacceptable</td>
<td>7%</td>
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<tr>
<td>Unacceptable</td>
<td>4%</td>
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<tr>
<td>Unsure</td>
<td>1%</td>
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Is it acceptable to use animals in **agricultural studies** to evaluate the benefits of various types of animal feed and nutrients?

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<th>Acceptability</th>
<th>Percentage</th>
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<tr>
<td>Acceptable</td>
<td>48%</td>
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<tr>
<td>Some Acceptable</td>
<td>35%</td>
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<tr>
<td>Some Unacceptable</td>
<td>8%</td>
</tr>
<tr>
<td>Unacceptable</td>
<td>6%</td>
</tr>
<tr>
<td>Unsure</td>
<td>2%</td>
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Is it acceptable to study animals in order to understand how **different tissues and organs of the body work** (e.g., the brain)?

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<th>Acceptability</th>
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<tbody>
<tr>
<td>Acceptable</td>
<td>41%</td>
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<tr>
<td>Some Acceptable</td>
<td>34%</td>
</tr>
<tr>
<td>Some Unacceptable</td>
<td>11%</td>
</tr>
<tr>
<td>Unacceptable</td>
<td>11%</td>
</tr>
<tr>
<td>Unsure</td>
<td>3%</td>
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Is it acceptable to conduct **observational wildlife studies** in order to ascertain the health status of animal species?

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<th>Acceptability</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Acceptable</td>
<td>56%</td>
</tr>
<tr>
<td>Some Acceptable</td>
<td>32%</td>
</tr>
<tr>
<td>Some Unacceptable</td>
<td>7%</td>
</tr>
<tr>
<td>Unacceptable</td>
<td>4%</td>
</tr>
<tr>
<td>Unsure</td>
<td>1%</td>
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More detailed information on the results of this nationwide public opinion poll can be found on our website.  
[www.ccac.ca](http://www.ccac.ca)
In Canada and abroad, animals are studied in the wild, on farms, and in research facilities for Canadian science. From biomedical laboratories where researchers study fundamental science, to veterinary colleges where students learn to treat animals, to national parks where biologists study wildlife populations – wherever animals are being studied or handled – the CCAC and its network of volunteer experts are there to ensure the highest standards of animal ethics and care.
Our Five Goals

In 2015, we launched the *CCAC Strategic Plan 2015-2020: Working Together to Advance Animal Ethics and Care in Science*. This roadmap to 2020 set out five goals to attain over the course of five years. This annual report provides information on our progress in 2018–2019 towards achieving these goals, as well as our plans for the coming year.

Goal 1
Raising the Bar for Our Standards Development Process

Goal 2
Better Reflecting Canadian Society in Our Membership

Goal 3
Growing the Community of CCAC-Certified Institutions

Goal 4
Increasing Awareness of CCAC’s Mandate Amongst Stakeholders Including the Public

Goal 5
Strengthening Our Financial Viability and Stability
GOAL 1

Raising the Bar for Our Standards Development Process

The CCAC is committed to ensuring its guidelines are, and continue to be, relevant, timely, and based on expert peer advice and current interpretation of scientific evidence.

Our objectives in this area are twofold:

1. Optimize guideline development
2. Develop further Three Rs (replacement, reduction, and refinement) initiatives to enhance animal ethics in science

Steps Taken

In May 2018, the CCAC hosted a half-day interactive session at the Canadian Association for Laboratory Animal Science (CALAS) Symposium in Québec City for animal care committee members that focused on protocol review, husbandry, and its recent policy on pedagogical merit, all elements that will further its commitment to the Three Rs. The CCAC also sponsored a scientific session, entitled “Working Together to Refine Animal-Based Research,” which highlighted how community-based initiatives are leading the continuous refinement of animal-based research. As part of the 50th anniversary celebration, the CCAC National Workshop 2018 looked to the future and focused on the steps to be taken to further the Three Rs and improve animal ethics and care in Canadian science. Dr. Joseph Garner, Stanford University, and Dr. Jonathan Kimmelman, McGill University, also delivered inspiring plenary sessions on how good animal welfare translates into good science.

Concern about the reproducibility of scientific research has been increasing in recent years, with reports of failures to replicate findings detailed in scientific journals, as well as discussions in the mainstream media. In the summer of 2018, a round table meeting on issues related to reproducibility that are of specific concern to animal-based science was held with representatives from the CCAC, the CIHR Institute of Gender and Health and the Tri-Agency Secretariat on Responsible Conduct of Research. This lead to a fact sheet published in November 2018 by the CIHR in partnership with the CCAC, on accounting for sex in animal research, entitled *If I*
Include Female Animals, Do I Need to Double my Sample Size?
A discussion paper was also prepared as a thought starter, and was circulated to CCAC stakeholders in March 2019 for comments on the issues raised in the paper, and how these might best be addressed within the Canadian oversight system of animal-based science.

The CCAC guidelines: Nonhuman primates and Heating, ventilation, and air conditioning: Addendum to the CCAC guidelines on laboratory animal facilities – characteristics, design and development were published this year, and the CCAC guidelines: Mice have been approved for publication.

Four guidelines subcommittees were established to develop new guidelines for amphibians, reptiles, experimental procedures A (administration of substances and biological sampling), and experimental procedures B (analgesia, anesthesia, and surgical procedures). In December 2018, a new subcommittee was also established to develop fundamental ethics principles for animal-based studies based on expert peer advice and current interpretation of scientific evidence, as well as the literature, practices, and tools currently available to assist in consideration of animal ethics. This new document will combine two of the CCAC’s fundamental policies, namely the CCAC policy statement on: ethics of animal investigation (1989), and the CCAC policy statement on: social and behavioural requirements of experimental animals (1991).

Other documents in development included guidelines on: categories of invasiveness (based on the CCAC policy statement on: categories of invasiveness in animal experiments, 1991); zebrafish and other common, small, warm-water, laboratory fish; and animal welfare assessment. Revisions of the CCAC guidelines on: laboratory animal facilities – characteristics, design and development (2003), the CCAC guidelines on: the care and use of wildlife (2003), and the development of new guidelines on endpoints based on the CCAC guidelines on: choosing an appropriate endpoint in experiments using animals for research, teaching and testing (1998), are also well underway.

Guidelines

34 volunteer experts participated in the widespread review of the CCAC guidelines: Rats
7 guidelines documents were in development
- Categories of invasiveness
- Endpoints
- Zebrafish and other common, small, warm-water, laboratory fish
- Wildlife
- Facilities
- Rats
- Animal welfare assessment

1 guidelines document underwent expert review
- Zebrafish and other common, small, warm-water, laboratory fish

1 guidelines document was approved for publication
- CCAC guidelines: Mice
Next Steps

The CCAC guidelines: Rats, and the CCAC guidelines: Animal welfare assessment will soon be disseminated for widespread review. The CCAC guidelines: Identification of scientific endpoints, humane intervention points, and cumulative endpoints (working title), as well as the CCAC guidelines: Categories of welfare assessment (working title), will be sent for expert review in 2019.

We will continue to conduct in-house reviews of a number of animal-type guidelines to remove outdated information and broken links. This will ensure that all guidelines have updated content while they are in the queue to receive a full subcommittee review.

Planning is underway for the CCAC National Workshop 2019 which will include a number of Three Rs related topics that will also be the focus of the CCAC-sponsored scientific session at the 2019 CALAS Symposium. The national workshop program will include topics such as pedagogical merit review, welfare risks for aquatic facilities, and the benefits of transparency, and will feature breakout sessions and a hands-on exhibit on replacement alternatives.

Guidelines

5 guidelines documents were approved for development

- Amphibians
- Reptiles
- Experimental procedures A
- Experimental procedures B
- Ethics principles
GOAL 2
Better Reflecting Canadian Society in Our Membership

The CCAC’s membership is comprised of organizations from across the country with an interest in science, education, and animal ethics and care. To fulfill its mandatory requirement to act in the interests of the people of Canada, the CCAC is seeking to evolve and expand its membership to better reflect the values of Canadian society.

Specifically, the CCAC will strive to meet three key objectives in this area:
1. Clarify and communicate the benefits of membership
2. Expand the scope of membership
3. Engage members on a continuous basis

Steps Taken

A larger membership would allow the CCAC to draw on a wide range of perspectives and expertise, and be more inclusive of Canadian views and values. Building on the work accomplished in 2017 and early 2018, the CCAC discussed the results of a February 2018 survey with member organization representatives at the Annual General Meeting 2018 in Québec City. During this fruitful discussion, it was determined that a task force be set up to develop more formal criteria for membership expansion.

Member representatives strongly agreed that this task force should develop a value proposition for membership where the role and expectations for both the CCAC and its members are clearly defined. It was believed that if we are to increase the number of members, we must ensure that expectations are clearly set and that current members are also engaged and participating in our initiatives. The task force was assembled in fall 2018 and work began in early 2019. Its mandate includes determining how the CCAC’s membership composition can better reflect Canadian society, assessing the state of the current membership, reviewing the benefits of membership, and evaluating the members’ level of satisfaction and involvement. The task force is expected to complete its work in 2019.

Members indicated that a number of animal welfare groups should be considered as part of the initial recruitment process, in order
to have a more representative membership. This was identified as a priority and work has begun to establish a list of appropriate organizations to be brought to the task force for consideration.

The CCAC also changed the format of the quarterly publication to its member organizations, the *CCAC Report from the Chair*, to measure the click, open, and bounce rates. This will assist us in determining the level of engagement, and which articles interest our member organization representatives the most.

**Next Steps**

Members have stated that they appreciate our annual town hall meetings so we will continue to use this forum to connect with them over the coming years. Our next town hall meeting will be extended to a full day in order to involve our members in the initial stages of the *CCAC Strategic Plan 2021–2026*.

Starting in 2019–2020, in an effort to improve our lines of regular communication with our members, we will be looking into holding an annual teleconference with member representatives to discuss challenges and initiatives.

**Engaging Our Members**

32 standing committee meetings were held

56 subcommittee/task force/working group meetings were held

4 editions of the *CCAC Report from the Chair* were sent to member organization heads and representatives, as well as to our board and standing committee members.
GOAL 3
Growing the Community of CCAC-Certified Institutions

Achieving CCAC certification demonstrates an institution’s commitment to high standards in animal ethics and care. All institutions that conduct animal-based research and receive funding from the CIHR or NSERC must maintain a CCAC Certificate of GAP – Good Animal Practice®. Other institutions choose to be certified because they value animal ethics and care.

The CCAC has the following three objectives for this goal:

1. Demonstrate the value of program participation
2. Grow the number of program participants
3. Provide participants with training and tools, empowering them to ensure high standards of animal ethics and care

Steps Taken

We recognize the important role animal care committees, and their coordinators, play in ensuring that CCAC standards are appropriately implemented in certified institutions, while displaying great dedication to animal welfare and ethics. In late 2018, the Animal Care Committee Coordinator Working Group was created to propose collaborative initiatives between animal care committees and the CCAC. Priorities identified to date include increased communication materials, and training resources for animal care committee members such as webinars, Q&A teleconferences, and regional workshops.

The Zoos and Aquariums Certification Subcommittee presented its recommendations to the board in September 2018, where it was agreed to lift the moratorium on the certification of research facilities within Canada’s zoos and aquariums. The CCAC Secretariat will now focus on ensuring that all relevant guidelines, standards, policies, and procedures are in place before proceeding.

The Animal Data Working Group presented its recommendations to the board in September 2018, all of which were approved. The working group was created to examine the current system of animal data collection and analysis, and propose changes...
that would improve the annual reporting of animal data to the CCAC, while at the same time considering the impact these data requests have on certified institutions. A plan to implement the recommendations has been developed.

The Teaching Program Certification Subcommittee submitted its final recommendations to the board which, in turn, requested that the Assessment and Certification Committee further develop a number of points. The CCAC Secretariat has made good progress on these items, which include developing frequently asked questions documents on the subjects of pedagogical merit, animal-based projects involving two or more institutions, and the assessment and certification program as a whole.

On May 5, 2018, 190 participants gathered in Québec City to attend the CCAC National Workshop 2018, the theme of which was “50 Years of Animal Ethics and Care” in celebration of our 50th anniversary. The workshop explored the future of animal-based science through sessions focused on enrichment strategies and their impact on animal welfare and research results, reducing and replacing sentinel animals, implications of female animals in research, pedagogical merit, animal data, and study reproducibility, as well as animal-focused sessions on zebrafish and wildlife.

The CCAC also began the implementation of the recommendations made by the Task Force on Performance Measures and Impact Assessment through the creation of a number of key performance indicators, which will help us measure the organization’s overall performance and level of success.
Next Steps

Following the recommendations of the Animal Care Committee Coordinator Working Group, the CCAC will develop a number of training materials for new and prospective animal care committee members, which will help with the on-boarding and engagement of new members. Expectations related to animal care committee member training will also be clarified, making it easier for these committees to implement training requirements within their institutions, and creating consistency in training across the country.

More in-depth research on the organizations identified in the environmental scan of potential new program participants will be conducted over the coming fiscal year. Once a strong list of organizations has been established, the CCAC will communicate the features and benefits of certification to these organizations and encourage their participation.

The CCAC National Workshop 2019 will take place in Richmond, BC, and will once again be held in conjunction with the CALAS Annual Symposium. The board also determined that we will continue our partnership with CALAS for our 2020 national workshop in Toronto, ON.
GOAL 4
Increasing Awareness of CCAC’s Mandate Amongst Stakeholders, Including the Public

Canadians are generally supportive of animal-based science, as long as a credible system to oversee animal welfare is in place. Through its rigorous programs, the CCAC provides Canadians with the reassurance that all animals studied in research, teaching, and testing within its certified institutions receive care that meets the highest ethical standards. The CCAC is also committed to providing continuous opportunities for dialogue with Canadians about issues related to animal ethics and care in science.

The CCAC has set two objectives in this area:

1. **Speak with a clear and unified voice to stakeholders**
2. **Increase our visibility**

**Steps Taken**

To coincide with our 50th anniversary, a new CCAC logo was launched at the CCAC Annual General Meeting 2018 in Québec City. The new logo better reflects the CCAC’s mandate and aligns with its strategic vision.

A revised communication plan for 2018–2021 was created during the summer of 2018 that details an outreach strategy to inform stakeholders about the CCAC and animal ethics and care in Canadian science. The plan involves a number of activities that will be rolled out over the coming two and a half years, including a nationwide survey conducted in November 2018 by Nanos Research that gauged the general public’s thoughts about the CCAC and the use of animals in science. A stakeholder satisfaction survey to determine how to better meet stakeholder needs was also launched. A number of our new key performance indicators were integrated into this survey to measure our overall performance and level of success. Results of the Nanos poll, as well as a summary of the stakeholder satisfaction survey, will be disseminated to all stakeholders in 2019.

The CCAC has determined it should examine the level of transparency and confidentiality in regard to its processes, messaging, and interactions with certified institutions and the
public. The creation of the Transparency and Confidentiality Task Force was approved to study granting agency requirements, examine our risk management strategy, legal obligations, and public optics, and solicit opinions from our certified institutions. A call for membership was disseminated in fall 2018, and the task force began its work in early 2019 with the goal to provide recommendations to the board in 2020.

Next Steps
The CCAC communication plan proposes an eNewsletter as an initiative to provide additional information to animal care committees, which would address topics and challenges identified by animal care committees, assessment panels, and associate directors of assessment, as well as frequently asked questions.

Touchpoints

- 371,752 hits to the CCAC website
- 45 bilingual communiqués were sent to the CCAC community
- 22 mentions of the CCAC in the media
GOAL 5
Strengthening Our Financial Viability and Stability

In 2011, the CIHR and NSERC announced a 32% decrease in the CCAC’s funding allocations. In consultation with its stakeholders, the CCAC examined new program funding avenues, which, in 2014, resulted in the implementation of a diversified financial model that includes an annual program fee for participating institutions. After more stakeholder consultations, a fine-tuned fee structure went into effect in spring 2015.

The CCAC has the following three objectives for this goal:

1. Meet the needs of our program participants
2. Diversify our funding sources
3. Enhance our financial expertise

Steps Taken

On April 1, 2018, a 10% increase to the CCAC program participation fee came into effect for all CCAC-certified institutions. This increase is the only one anticipated during the 2016–2021 grant cycle, and ensures that the CCAC can maintain the same level of service in terms of assessment and certification, training, and standards development.

A Finance Committee, chaired by the CCAC’s new treasurer, was established following the CCAC Annual General Meeting 2018. This committee will assist the board in fulfilling its financial oversight, planning, and risk management responsibilities, and in ensuring the ongoing financial sustainability and stability of the organization.

In May 2018, the CCAC decided to take a proactive approach to risk management. The Finance Committee was mandated to develop a framework that would allow the board to identify, monitor, and manage potential risks in order to minimize the negative impact they may have on the CCAC. This framework will be reviewed and implemented in the upcoming fiscal year.
Next Steps

The upcoming fiscal year will be dedicated to setting the foundation for the CCAC’s next submission to the granting agencies and to preparing the 2021–2026 strategic plan. The CCAC will also start consulting certified institutions on the next phase of the program participation fee structure. The feedback received from program participants will inform the financial model that will be included in the CCAC’s 2021–2026 funding proposal to the granting agencies.

The CCAC will carry out a strategic market analysis in an effort to identify new business opportunities, with the goal to generate revenue from sources other than CIHR and NSERC grant funding and the program participation fees.
# Financial Statements

Year ended March 31, 2019, with comparative information for 2018.

## Statement of Financial Position

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
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<tr>
<td>Current Assets</td>
<td>584,403</td>
<td>570,230</td>
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<tr>
<td>Investments</td>
<td>673,539</td>
<td>706,312</td>
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<tr>
<td>Tangible capital and intangible assets</td>
<td>77,995</td>
<td>107,170</td>
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<tr>
<td><strong>Total Assets</strong></td>
<td>$1,335,937</td>
<td>$1,383,712</td>
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<tr>
<td><strong>Liabilities and Net Assets</strong></td>
<td></td>
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<tr>
<td>Current liabilities</td>
<td>118,996</td>
<td>128,486</td>
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<tr>
<td>Net assets</td>
<td>1,216,941</td>
<td>1,255,226</td>
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<tr>
<td><strong>Total Liabilities and Net Assets</strong></td>
<td>$1,335,937</td>
<td>$1,383,712</td>
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</tbody>
</table>

## Statement of Operations

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td>$1,750,000</td>
<td>$1,750,000</td>
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<tr>
<td>Program participation fees</td>
<td>946,447</td>
<td>856,052</td>
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<td>Workshops</td>
<td>57,780</td>
<td>22,603</td>
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<tr>
<td>Interest income</td>
<td>20,171</td>
<td>4,435</td>
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<tr>
<td>Miscellaneous</td>
<td>157</td>
<td>2,218</td>
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<tr>
<td><strong>Total Revenue</strong></td>
<td>$2,774,555</td>
<td>$2,635,308</td>
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<tr>
<td><strong>Expenses</strong></td>
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</tr>
<tr>
<td>Salaries and benefits</td>
<td>2,089,685</td>
<td>1,898,062</td>
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<tr>
<td>Rent</td>
<td>179,089</td>
<td>181,746</td>
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<td>Travel</td>
<td>168,379</td>
<td>186,526</td>
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<td>IT maintenance</td>
<td>91,675</td>
<td>83,455</td>
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<tr>
<td>Committee, board, and annual general meeting</td>
<td>69,157</td>
<td>86,243</td>
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<tr>
<td>Professional and consulting fees</td>
<td>37,772</td>
<td>114,992</td>
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<tr>
<td>Office and administration</td>
<td>116,301</td>
<td>100,361</td>
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<tr>
<td>Legal and audit</td>
<td>24,143</td>
<td>12,826</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$2,776,201</td>
<td>$2,664,211</td>
</tr>
<tr>
<td><strong>Deficiency of revenue over expenses before the undernoted</strong></td>
<td>$(1,646)</td>
<td>$(28,903)</td>
</tr>
<tr>
<td><strong>Other expenses (income)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortization of tangible capital and intangible assets</td>
<td>37,294</td>
<td>38,127</td>
</tr>
<tr>
<td>Unrealized loss (gain) on investments</td>
<td>(655)</td>
<td>(7,079)</td>
</tr>
<tr>
<td><strong>Total Other expenses (income)</strong></td>
<td>36,639</td>
<td>31,048</td>
</tr>
<tr>
<td><strong>Excess (deficiency) of revenue over expenses</strong></td>
<td>$(38,285)</td>
<td>$(59,951)</td>
</tr>
</tbody>
</table>
CCAC Governance

The CCAC could not carry out its mandate without the leadership of its Board of Directors, standing committees, and member organizations, the members of which generously volunteer their time and expertise, working closely with its Secretariat to help advance animal ethics and care in Canada.
Board of Directors

The CCAC Board of Directors is elected by the member organizations. As the CCAC’s leadership team, members of the board are charged with setting the direction of the organization in accordance with its mandate.

Chair
Dr. Eileen Denovan-Wright | Dalhousie University

Vice-Chair
Dr. Christopher R.J. Kennedy | University of Ottawa

Treasurer
Ms. Catherine Rushton, CPA, CA | Loyalist College (retired)

Directors
Dr. Denna M. Benn | Ontario Ministry of Agriculture, Food, and Rural Affairs
Dr. Michael Czubryt | University of Manitoba
Mr. Shawn Eccles | British Columbia Society for the Prevention of Cruelty to Animals
Dr. Alain Giguère | Agriculture and Agri-Food Canada
Dr. David Hanwell | University of Toronto
Dr. Scott A. MacDougall-Shackleton | University of Western Ontario
Ms. Adriane Porcin, Adm. A | Lecours, Hébert Lawyers

Note:
Drs. Mejid Ayroud, Lyne Létourneau, as well as Mtre Quentin Leclercq, completed their terms on the board. Dr. Patricia Turner and Mr. Robert Madziak left the board in May 2018. We would like to express our gratitude for their commitment to the board and for devoting countless hours of their time to the CCAC.
Standing Committees

Assessment and Certification

Dr. Martha J. Navarro, Chair  |  Health Canada
Dr. Catherine Breault  |  Charles River Laboratories Preclinical Services Sherbrooke Inc.
Dr. Philip Byrne  |  Fisheries and Oceans Canada
Ms. Ann Carlsen  |  Ann Carlsen & Company
Dr. Will Costain  |  National Research Council Canada
Ms. Mireille Focquet  |  DersamGlobal
Dr. James Gilchrist  |  University of Manitoba
Mrs. Karen Gourlay  |  McMaster University
Dr. Christopher Guglielmo  |  University of Western Ontario
Dr. Hélène Héon  |  Centre hospitalier de l’Université de Montréal
Dr. Ovidiu Jumanca  |  Montreal Clinical Research Institute
Mrs. Simmone Kerswell  |  University of Alberta
Mr. Bill McDonald  |  University of Manitoba
Dr. Thomas W. Moon  |  University of Ottawa (retired)
Dr. Shawn Petrik  |  Vivocore Inc.
Dr. David Hanwell  |  University of Toronto
Dr. Hugh Semple  |  Department of National Defence
Mr. Jacques Thibault  |  Collège communautaire du Nouveau-Brunswick

While the board is charged with setting the direction of the organization in accordance with the CCAC’s mandate, five standing committees play an invaluable advisory role by providing guidance and recommendations to the board on their areas of expertise.

Public Affairs and Communications

Dr. Craig Wilkinson, Chair  |  University of Alberta
Dr. Denna M. Benn  |  Ontario Ministry of Agriculture, Food, and Rural Affairs
Ms. Melinda Knox  |  Queen’s University
Dr. Francesco Leri  |  University of Guelph
Ms. Teresa McKernan  |  Animal Care Systems, Inc.
Dr. Owen Roberts  |  University of Guelph
Finance
Ms. Catherine Rushton, CPA, CA, Chair | Loyalist College (retired)
Dr. Eileen Denovan-Wright | Dalhousie University
Dr. Christopher R.J. Kennedy | University of Ottawa
Dr. Scott A. MacDougall-Shackleton | University of Western Ontario

Governance and Nominations
Dr. Christopher R.J. Kennedy, Chair | University of Ottawa
Mr. Shawn Eccles | British Columbia Society for the Prevention of Cruelty to Animals
Dr. Michael Czubryt | University of Manitoba
Ms. Adriane Porcin, Adm. A | Lecours, Hébert Lawyers

Standards
Dr. Andrew Winterborn, Chair | Queen’s University
Dr. Nicolas Devillers | Agriculture and Agri-Food Canada
Mr. Dan Fryer | Rural Animal Management Services
Ms. Lesley Howes | Canadian Wildlife Service
Dr. Scott A. MacDougall-Shackleton | University of Western Ontario
Dr. Joanna Makowska | University of British Columbia
Dr. Gordon Mitchell | Canadian Food Inspection Agency
Dr. Toolika Rastogi | Humane Canada™
Dr. Keith Sharkey | University of Calgary
The CCAC is comprised of 22 member organizations, which are drawn from both the scientific and animal welfare communities and reflect a wide range of interests, concerns, and objectives regarding animal-based science in Canada. Each appoints one representative to attend the annual general meeting with the authority to vote on the member organization’s behalf.

1. Dr. Gordon Mitchell | Canadian Food Inspection Agency
2. Dr. Rajinder Bhullar (proxy) | Association of Canadian Faculties of Dentistry
3. Dr. Toolika Rastogi | Humane Canada™
4. Ms. Teresa McKernan | Canadian Association for Laboratory Animal Science
5. Dr. Betty Zou | Canadian Cancer Society
6. Dr. Martha Navarro | Health Canada
7. Ms. Lesley Howes | Environment and Climate Change Canada
8. Dr. Jason Treberg | Canadian Society of Zoologists
9. Dr. Philip Byrne | Fisheries and Oceans Canada
10. Dr. Will Costain | National Research Council Canada
11. Dr. Keith Sharkey | Association of Faculties of Medicine of Canada
12. Dr. Dianne Godkin | Canadian Bioethics Society
13. Dr. Craig Wilkinson | Association of Canadian Faculties of Agriculture and Veterinary Medicine
14. Dr. Andrew Winterborn | Canadian Veterinary Medical Association
15. Dr. Hugh Semple | Defence Research and Development Canada

Not Pictured:
Dr. Nicolas Devillers | Agriculture and Agri-Food Canada
Dr. Francesco Leri | Canadian Council of Departments of Psychology
Dr. Shawn Petrik | Canadian Association for Laboratory Animal Medicine
Secretariat

Mr. Pierre Verreault | Executive Director

Assessment and Certification
Dr. Michael Baar | Director of Assessment and Certification
Dr. Sylvie Cloutier | Associate Director of Assessment
Dr. Jean Lavallée | Associate Director of Assessment
Dr. Patricia Lauzon | Associate Director of Assessment
Ms. Monica Séguin | Associate Director of Assessment

Operations
Ms. Deborah Biehler | Director of Operations
Ms. Barbara Couto | Administrative Assistant
Ms. Michelle Lavoie | Administrative Assistant

Public Affairs and Communications
Ms. Felicetta Celenza | Acting Director of Public Affairs and Communications
Ms. Louise Duhamel | Communications Specialist
Ms. Charlotte Tellier | Scientific Translator
Ms. Emilie Verlinden | Graphic Design and Editing Coordinator

Standards
Dr. Gilly Griffin | Director of Standards
Ms. Wendy Clarence | Research Analyst
Ms. Julie Dale | Standards Development Director
Dr. Michael Walker | Standards Development Director
Ms. Jumoke Fasoyinu | Standards Coordinator and Copy Editor

Training and Networking
Ms. Felicetta Celenza | Project Manager and Events Coordinator

The CCAC’s Ottawa-based Secretariat is comprised of a group of dedicated professionals who work with the board and various committees to conduct the daily activities of the CCAC related to certification, guidelines development, training, public affairs, and the overall administration of the organization.
CCAC Volunteers

Volunteers are essential to the CCAC’s success. Every year, thousands of scientists, instructors, veterinarians, animal health and welfare experts, and members of the Canadian public contribute their knowledge and skills to our mission. Their hard work enables us to carry out key aspects of our mandate related to guidelines setting and maintenance, assessment and certification, and training and networking. The CCAC would like to thank all of its volunteers for their dedication to animal ethics and care in science.
Participants from across the country gathered at the CCAC National Workshop 2018 in Québec City on May 5, 2018, to celebrate the CCAC’s 50th anniversary and explore the future of animal-based science.

This event would not have been possible without the dedication of the following member organization representatives, researchers, animal care committee members and coordinators, and animal health professionals who all contributed greatly to this event.

Mr. John Batt | Dalhousie University
Dr. Philip Byrne | Fisheries and Oceans Canada
Dr. Eileen Denovan-Wright | Dalhousie University
Dr. Marc Ekker | University of Ottawa
Dr. Joseph Garner | Stanford University
Dr. Jim Gourdon | McGill University
Dr. Hélène Héon | Centre hospitalier de l’Université de Montréal
Dr. Ovidiu Jumanca | Montreal Clinical Research Institute
Dr. Jonathan Kimmelman | McGill University
Mr. Claude Lalande | McGill University
Dr. Jennifer Lapierre | University of Toronto
Dr. Stéphane Ménard | Université de Montréal
Dr. Candace Miller | Canadian Institutes of Health Research
Dr. Lise Phaneuf | The Centre for Phenogenomics
Dr. Albrecht Schulte-Hostedde | Laurentian University
Dr. Tatiana Scorza | Université du Québec à Montréal
Dr. Adrian Smith | Norecopa
Dr. Yves Tremblay | Université Laval/CHU de Québec
Great conference/workshop, good venue. I will attend again.

Very interesting and exceptionally run. Thank you.

This was my first CCAC workshop and it was fantastic. Thank you!
Contributors to Guidelines Development

Subcommittee members are selected for their expertise on a specific animal, topic, or practice. These volunteer experts are drawn from both the scientific and animal welfare communities, and represent a wide array of knowledge and skills.

Air Quality of Laboratory Animal Facilities
Dr. Donald McKay, Chair | University of Alberta (retired)
Mr. Christopher Cosgrove | Animal Facility Design Consultant
Ms. Wilma Lagerwerf | Memorial University
Mr. Gordon Sharpe | Airquity Inc.
Dr. Ken Ugwu | Global Affairs Canada

Animal Welfare Assessment
Dr. Barbara Hildebrandt, Chair | Dalhousie University
Dr. Clover Bench | University of Alberta
Dr. Nicolas Devillers | Agriculture and Agri-Food Canada
Dr. Ian Duncan | University of Guelph
Mr. Andrew Hebda | St. Mary’s University
Dr. Andrew Iwaniuk | University of Lethbridge
Dr. Donald Miller | University of Manitoba
Dr. David Speare | University of Prince Edward Island
Dr. Patricia Turner | Charles River Laboratories

Amphibians
Dr. Frédéric Chatigny, Chair | Université de Montréal
Mr. Jason Allen | Trent University
Dr. Anne-Marie Catudal | Université Laval
Dr. Winnie Chan | Massachusetts General Hospital
Mr. Dan Fryer | Rural Animal Management Services
Categories of Invasiveness

Dr. Andrew Winterborn, Chair | Queen’s University
Dr. Denna Benn | Ontario Ministry of Agriculture, Food, and Rural Affairs
Dr. Renée Bergeron | University of Guelph
Dr. Philip Byrne | Fisheries and Oceans Canada
Dr. Marc Cattet | University of Saskatchewan
Dr. Mark Fry | University of Manitoba
Dr. Sherry Hannon | Feedlot Health Management Services
Ms. Murrin Leim | Dalhousie University
Dr. Elisabeth Ormandy | University of British Columbia
Dr. Shelley Pruss | University of Alberta
Ms. Evelina Smith
Dr. Suzanne Smith | McGill University

Endpoints

Dr. David Hanwell, Chair | University of Toronto
Dr. Ted Allison | University of Alberta
Dr. Philip Byrne | Fisheries and Oceans Canada
Dr. Mario Filion | Institut Armand Frappier
Mr. Ryan Hill | Trent University
Dr. Christine MacWillians | Fisheries and Oceans Canada
Ms. Annette Morrison | University of Guelph
Dr. Shawn Petrik | Vivocore Inc.
Dr. Karen Schwartzkopf-Genswein | Agriculture and Agri-Food Canada

Ms. Andrée Shore | University of Toronto
Dr. Ian Welch | University of British Columbia
Dr. Andrew Winterborn | Queen’s University
Experimental Procedures A
(Administration of Substances and Biological Sampling)

Dr. Shawn Petrik, Chair | Vivocore Inc.
Dr. Jamie Alhoy-Dallaire | Université Laval
Dr. Divakar Ambrose | Alberta Agriculture and Forestry
Prof. Rudy Boonstra | University of Toronto
Mr. Benoît Chambaron | Sunnybrooke Research Institute
Dr. Aurore Dodelet-Devillers | McGill University Health Centre
Dr. Mark Fast | University of Prince Edward Island
Dr. Leanna Grenwich | University of Alberta
Dr. Shereen Hamza | University of Alberta
Ms. Aline Hudon
Dr. Megan Jones | University of Prince Edward Island
Dr. Jason Treberg | University of Manitoba
Dr. Jamal Bennamane | ITR Laboratories
Dr. Danyel Bueno Dalto | Agriculture and Agri-Food Canada
Mr. Benoît Chambaron | Sunnybrooke Research Institute
Dr. Chereen Collymore | University of Ottawa
Ms. Kate Cooper | University of British Columbia
Dr. Will Cupples | Simon Fraser University
Dr. Shereen Hamza | University of Alberta
Dr. Jane Harms | Government of Yukon

Experimental Procedures B
(Anesthesia, Analgesia, and Surgical Procedures)

Dr. Eric Troncy, Chair | Université de Montréal
Dr. Jamie Alhoy-Dallaire | Université Laval
Dr. Djamil Bennamane | ITR Laboratories
Dr. Danyel Bueno Dalto | Agriculture and Agri-Food Canada
Mr. Benoît Chambaron | Sunnybrooke Research Institute
Dr. Chereen Collymore | University of Ottawa
Ms. Kate Cooper | University of British Columbia
Dr. Will Cupples | Simon Fraser University
Dr. Shereen Hamza | University of Alberta
Dr. Jane Harms | Government of Yukon
Dr. Hélène Héon | Centre hospitalier de l’Université de Montréal
Mr. Adam Hering | University of Saskatchewan
Ms. Sharon McCarthy
Dr. Keith Sharkey | University of Calgary
Dr. Don Stevens | University of Prince Edward Island (emiritus)

**Mice**

Dr. Tamara Godbey, Chair
Dr. Robert Gendron | Memorial University of Newfoundland
Dr. Hélène Héon | Centre hospitalier de l’Université de Montréal
Dr. René St-Arnaud | Shriners Hospitals for Children
Dr. Patricia Turner | Charles River Laboratories

**Nonhuman Primates**

Dr. Martin Paré, Chair | Queen’s University
Dr. Stefan Everling | University of Western Ontario
Dr. Stéphane Goulet | Primus Bio-Resources Inc.
Dr. Jim Gourdon | McGill University
Dr. Julio Martinez-Trujillo | University of Western Ontario
Dr. Andrew Winterborn | Queen’s University

**Rats**

Dr. Toni Bayans, Chair | University of Alberta
Dr. David Hanwell | University of Toronto
Dr. Lee Niel | University of Guelph
Dr. René St-Arnaud | Shriners Hospitals for Children
Ms. Evelina Smith
Dr. Patricia Turner | Charles River Laboratories
Dr. Chaowu Xiao | Health Canada
Reptiles
Dr. Jonathan Spears, Chair | University of Prince Edward Island
Ms. Christine Archer | University of Ottawa
Dr. Winnie Chan | Massachusetts General Hospital
Dr. Jacques Dancosse | Biodôme Montréal
Mr. Tom Eles | Brock University
Mr. Dan Fryer | Rural Animal Management Services
Dr. Andrea Gielens | Simon Fraser University
Dr. Claire Vergneau-Grosset | Université de Montréal
Dr. Matthew Vickaryous | University of Guelph
Dr. Adrian Walton | Dewdney Animal Hospital
Mr. Norman White | University of Toronto (retired)

Wildlife
Dr. Nigel Caulkett, Chair | University of Calgary
Dr. Sherri Cox | University of Guelph
Dr. Sara Dubois | British Columbia Society for the Prevention of Cruelty to Animals
Dr. Kyle Elliot | McGill University
Ms. Lesley Howes | Canadian Wildlife Service
Dr. Evelyn Merill | University of Alberta
Dr. Stacey Robinson | Environment and Climate Change Canada
Dr. Gregory Schmaltz | University of the Fraser Valley
Ms. Andrée Shore | University of Toronto
Dr. Owen Slater | University of Calgary
Dr. Lianna Zanette | University of Western Ontario
Zebrafish and Other Common, Small, Warm-Water, Laboratory Fish

Dr. Marc Ekker, Chair | University of Ottawa
Ms. Christine Archer | University of Ottawa
Dr. Chereen Collymore | University of Ottawa
Dr. Sarah Childs | University of Calgary
Dr. Paul Craig | University of Waterloo
Mr. Tom Eles | Brock University
Dr. Jessica Hutta | McGill University
Dr. Rosalind Leggatt | Fisheries and Oceans Canada
Mr. Matthieu Martin | Institut Maurice-Lamontagne
Dr. Jim Sherry | Environment and Climate Change Canada
Ms. Monica Yau | Hospital for Sick Children
Contributors to Other Projects

Subject matter experts are appointed to focus on specific issues and provide guidance to the board.

**Animal Care Committee Coordinator Working Group**

Mr. Christian Demers, Chair (French group) | Centre hospitalier de l’Université de Montréal
Dr. Jennifer LaPierre, Chair (English group) | University of Toronto
Mr. Louis-Philippe Auger | Université du Québec à Montréal
Ms. Chantale Charest | Fisheries and Oceans Canada
Ms. Valérie Deslauriers | TransBioTech
Ms. Karoline Fisher | St. Lawrence College
Ms. Édith Lanoue | Université de Sherbrooke
Ms. Geneviève Lauzon | Centre hospitalier de l’Université de Montréal
Ms. Amanda Plante | University of Saskatchewan
Ms. Catherine Méthot | Université du Québec à Rimouski
Ms. Susan Rivière | Simon Fraser University

**Animal Data Working Group**

Dr. Michael McDonald, Chair | University of British Columbia (emeritus)
Dr. Philip Byrne | Fisheries and Oceans Canada
Dr. Gillian Crozier | Laurentian University
Dr. Sara Dubois | British Columbia Society for the Prevention of Cruelty to Animals
Mr. Terry Germscheid | University of Manitoba
Mr. Claude Lalande | McGill University
Mr. Rhain Louis | University of Toronto
Dr. Toolika Rastogi | Humane Canada™
Dr. Guy Rousseau | Université de Montréal
Harry C. Rowsell Award Selection
Task Force
Dr. Eileen Denovan-Wright, Chair | Dalhousie University
Ms. Julie Dale | Canadian Council on Animal Care
Dr. Christopher R.J. Kennedy | University of Ottawa
Ms. Simmone Kerswell | University of Alberta
Dr. Francesco Leri | University of Guelph
Dr. Keith Sharkey | University of Calgary

Membership Task Force
Dr. Philip Byrne, Chair | Fisheries and Oceans Canada
Ms. Barbara Cartwright | Humane Canada™
Dr. Alain Giguère | Agriculture and Agri-Food Canada
Dr. Scott A. MacDougall-Shackleton | University of Western Ontario
Ms. Teresa McKernan | Animal Care Systems, Inc.

Transparency and Confidentiality
Task Force
Ms. Susan Babcock, Chair | University of Alberta
Dr. Lucie Côté | McGill University
Dr. Michael Czubryt | University of Manitoba
Ms. Linda Kamerman
Ms. Adriane Porcin, Adm. A | Lecours, Hébert Lawyers
Ms. Catherine Rushton, CPA, CA | Loyalist College (retired)
Dr. Ian Welch | University of British Columbia
Zoos and Aquariums Certification Subcommittee

Dr. Albrecht Schulte-Hostede, Chair | Laurentian University
Mr. Shawn Eccles | British Columbia Society for the Prevention of Cruelty to Animals
Dr. Martin Haulena | Vancouver Aquarium
Dr. Barbara Hildebrand | Dalhousie University
Dr. Gabriela Mastromonaco | University of Guelph/Toronto Zoo
Dr. David Rosen | Vancouver Aquarium
Members of CCAC Assessment Panels

CCAC assessment panels play the vital role of carrying out visits to institutions participating in the CCAC’s programs.

Community Representatives

Community representatives are not required to have any specialized knowledge of animal health or welfare, but rather represent the Canadian public.

- Mr. Donald Barton | Calgary, AB
- Mr. Tim P. Battle | Edmonton, AB
- Ms. Joyce Blond | Montréal, QC
- Ms. Diana Cline | Québec, QC
- Mr. Martin Cole | Beaverton, ON
- Ms. Mireille Focquet | Ottawa, ON
- Mr. Andrew Hebda | Halifax, NS
- Ms. Melissa Logan | Edmonton, AB
- Ms. Sharon McCarthy | Toronto, ON
- Mr. Bruce Moffat | Courtenay, BC
- Mr. Stephen E. Ormsby | Richmond, BC
- Mr. Don Seller | Edmonton, AB
- Ms. Pamela Tonary | Truro, BC

Scientists

Scientists are selected for their experience and expertise with specific types of animals or experimental procedures.

- Dr. Catherine B. Chan | University of Alberta*
- Mr. John Derksen | Lethbridge College
- Dr. Derek Haley | University of Guelph
- Dr. John P. Kastelic | University of Calgary*

* Identifies members who have served as chairperson on an assessment panel
Animal Health Professionals

Animal health professionals are selected for their experience and expertise with specific types of animals or experimental procedures.

Veterinarians

Dr. Mary-Jane Alcorn | University of Saskatchewan*
Dr. Toni Bayans | University of Alberta
Dr. Chereen Collymore | University of Ottawa
Dr. Lucie Côté | The Research Institute of the McGill University Health Center *
Dr. Kathleen Delaney | McMaster University*
Dr. Jacinda Flood | Canadian Food Inspection Agency
Dr. Heather Irene Fraser | Thompson Rivers University
Dr. Isabelle Gauthier | University of Lethbridge
Dr. Amanda Healy | University Health Network
Dr. Hélène Héon | Centre hospitalier de l’Université de Montréal*
Dr. Richard J. Hodges | University of Manitoba*
Dr. Corinna Kashuba | University of Saskatchewan
Dr. Martha J. Navarro | Health Canada*
Dr. Liane Nelson | Oulton College
Dr. Kerri Nielsen | University of Toronto*
Dr. Shawn Petrik | Vivicore Inc.
Dr. Jonathan Spears | University of Prince Edward Island*

* Identifies members who have served as chairperson on an assessment panel
Dr. Ian D. Welch | University of British Columbia*
Dr. Craig W. Wilkinson | University of Alberta*
Dr. Andrew Winterborn | Queen’s University
Dr. Debra Wright | Georgian College*

Technicians

Mr. Jason Allen | Trent University
Mr. John Batt | Dalhousie University*
Ms. Linda Campbell | Vanier College*
Mr. Matt Cornish | University of Guelph
Ms. Sheela Iyer | Sheridan College
Mrs. Simmone Kerswell | University of Alberta
Mr. Martin Ryan | University of Waterloo
Mr. George Innes Wilson | University of Guelph

* Identifies members who have served as chairperson on an assessment panel