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Constituents' Engagement in CCAC's Long-Term Planning

By Jim Thornhill, PhD, Chair of CCAC Council (2009-2010), and Clément Gauthier, PhD, Editor and CCAC Executive Director



Stakeholders and constituents participation has always been an essential aspect of the Canadian Council on Animal Care (CCAC). In keeping with this principle, 28 CCAC Council members and a cross-section of 30 constituents, selected for their sustained volunteer participation in the CCAC oversight system over the years, were invited to participate in a one-day forum that examined key questions relating to the development of the CCAC 2009-2014 strategic plan. This initiative, titled *CCAC Forum 2008 – Building on Strength*, was held in Ottawa on October 3, 2008.

In May 2008, the CCAC, assisted by the Natural Sciences and Engineering Research Council (NSERC) and the Canadian Institutes of Health Research (CIHR), broadly distributed the *CCAC Strategic Planning (2009-2014) Questionnaire* to the research community across Canada. The Questionnaire sought constituent opinions on the most important issues facing institutions and individuals using animals for scientific

purposes, and facing the CCAC Program. A total of 184 responses were received (154 English and 30 French) and tabulated in a confidential manner by an external communications consultant.

In addition, academic institutions in Canada were invited to submit an open assessment of the CCAC as part of the review of the CCAC 2008-2011 grant submission to the granting Agencies. NSERC and the CIHR provided anonymous versions of 13 letters (8 English and 5 French) to the CCAC, further augmenting the pool of constituent feedback.

The issues identified from the letters and the Questionnaire formed the basis of questions addressed by the Forum attendees in a 'brainstorming' exercise to explore possible courses of action regarding those issues. The significant strengths of the CCAC were described by participants to be:

- peer-review;
- public engagement on all committees and levels – public trust;
- management style that is becoming more and more efficient;
- open communication to improve its mission;
- awareness of accountability for the ethical use of animals;
- balance of assessments, guidelines and education & training; and

- a sense of purpose to ensure client satisfaction.
- The following key points were made by guest speakers:
- Assessments should be a seamless process that is as constructive as

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Mark your calendar!

CCAC National Workshop 2010

May 13-14, 2010

Crowne Plaza Hotel, Ottawa, ON

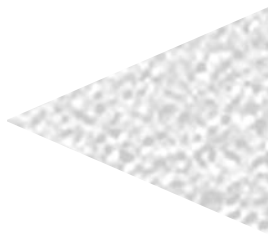
Visit www.ccac.ca for more information.

8th World Congress on Alternatives & Animal Use in the Life Sciences

August 21-25, 2011

Fairmont Queen Elizabeth
Montréal, QC

ASSESSMENTS



Streamlining the Assessment Process: Reduced and Tailored Documentation Requirements and Focused Interactions at All Levels

In the past year, the Assessment Program hired a fourth assessment director to meet the large and growing workload of institutions to be certified.



Dr. Denis Rainville,
CCAC Assessment Director

Dr. Denis Rainville was hired in December 2008, completing the assessment director team whose other members are Dr. Michael Baar, Dr. Gilles Demers and

Ms. Marie Bédard. Dr. Rainville graduated from the Faculté de médecine vétérinaire of the Université de Montréal in 1982. After practicing farm animal medicine for 23 years, he moved to laboratory animal medicine in 2005, and was Manager of Veterinary Care and Services at Charles River Preclinical Services Montreal Inc. for three and a half years before joining the CCAC. With the recent publication of the *CCAC guidelines on: the care and use of farm animals in research, teaching, and testing* (2009) and the addition of an assessment director with extensive experience in farm animals, our ability to assess and help scientists and institutions working with farm animals has greatly improved.

The primary role of the Assessment Program is to ensure, through a peer review assessment and certifi-

cation process, that the care and ethical use of animals for scientific purposes by Canadian institutions complies with CCAC guidelines, policies and associated documents. Toward this end, 89 visits were conducted from April 2008 through March 2009, the majority being regular, full assessment visits. During the same period, three new academic institutions and two private institutions joined the program, and a total of 64 CCAC Certificates of GAP – Good Animal Practice® were issued.

The *CCAC policy statement for: senior administrators responsible for animal care and use programs* was published online and distributed to institutions in October 2008. This new policy is divided into sections describing the various components of a complete animal care and use program, and provides guidance and references to relevant existing guidelines and policies for each component. It has been introduced for implementation by institutions between October 2008 and October 2009. Existing policies and guidelines have been applied during this period, and participants in the CCAC Program have been assessed based on the few new requirements in the policy for senior administrators beginning in October 2009.

The past twelve months also provided the opportunity to receive very useful input from CCAC constituents through the CCAC Forum 2008 and the CCAC National Workshop 2009, and we are actively in-

cluding this feedback in our planning and operations.

The main issues raised during the Forum were the need to:

- apply guidelines with a sensitivity to institutional size, scope, fiscal constraints and past performance, while reducing documentation and administrative burden;
- check information with more than one institutional source (before, during and after assessments) and to avoid any tendencies to view and apply guidelines prescriptively; and
- ensure consistency in application of CCAC standards from one assessment panel to the next.

Members of the Assessment Sector have already started to address those issues through better communication and, in particular, through the following measures:

- an *Animal Care and Use Program Review Form* (PRF) tailored to a variety of types of programs while keeping the same general principles and standards for all programs (used by all assessment panels);
- a much shorter PRF for interim visits for institutions having achieved Compliance twice in a row;
- regular assessment directors and Assessment Sector meetings;
- more focused interactions between the four assessment directors and other members of the Assessment Sector and Assessment Committee as needed, designed to ensure that each component of animal care and use programs is being assessed in a consistent and constructive way; and
- focused efforts designed to ensure that active exchanges are maintained with the Guidelines Program with respect to the prioritization, production and implementation of new and revised guidelines.

The two day CCAC National Workshop 2009 also provided a platform for very intense and useful exchanges on many assessment-related topics, with tremendous participation from across the country. A topic

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EDUCATION, TRAINING & COMMUNICATIONS

Building on Strength

The mandate of the Education, Training and Communications (ETC) Program is to deliver educational resources to participating institutions to ensure the effective operation of animal care committees (ACCs), to develop and realize the benefits of the extensive network of participants and volunteers, and to inform Canadians on the use of animals in science in order to maintain public and political confidence in the humane care and ethical use of animals in science and in the effectiveness of the CCAC system.

The CCAC Forum 2008 was a great opportunity to receive feedback from the CCAC's constituents and identify opportunities for improvement to the ETC Program. Additional perceived needs were identified in the ETC section of the *CCAC Five-Year Plan 2009-2014*. Suggested improvements to the ETC Program included:

- developing training modules for animal types that are not covered by existing laboratory animal-based training modules, and regularly reviewing existing modules;
- increasing the quantity and duration of CCAC annual workshops;
- using webinars as a means to educate, train, and communicate with ACC members, scientists and other CCAC constituents;
- developing an integrated communication strategy that would ensure tailored communications with targeted audiences; and
- renewing the design and structure of the CCAC website to meet expectations of visitors and successfully deliver the CCAC's message, while including comprehensive educational resources

on the use and care of animals used in science.

The CCAC has already begun addressing these needs through the expansion and forthcoming revision of the National Institutional Animal User Training (NIAUT) Program, the new and improved format of the CCAC national workshops, the development and future implementation of a CCAC webinars series, and the on-going redesign of the CCAC website.

NIAUT Program

In collaboration with the Guidelines Committee, which recently published the *CCAC guidelines on:*

the care and use of farm animals in research, teaching and testing (2009), the ETC Committee is working on expanding the education and training resources available for farm animal users by developing a new core module on farm animals to become part of the National Institutional Animal User Training (NIAUT) Program. The development of this module was initiated in June 2009 as per the *CCAC Five Year Plan 2009-2014*. It will cover all the basic principles and fundamentals concerning the care and use of all farm animals in science. The ETC Committee has also initiated the revision of existing NIAUT Program training modules in Fall 2009.

issues they face in their respective institutions with regards to the type of institutions they work in, the type of animal care and use programs they are developing, the type of animals they take care of and use, and allowed them to share successful solu-

CCAC National Workshop 2009

The annual CCAC national workshops provide members of institutional ACCs with an opportunity to interact with peers. This forum allows the exchange of information on challenges and best practices, and usually features presentations by experts concerning various aspects of the work of ACC members. As a follow-up to feedback received from participants in previous national workshops and in the CCAC Forum 2008, and as identified in the *CCAC Five-Year Plan 2009-2014*, the format of the CCAC National Workshop 2009 (held in Ottawa on May 7-8, 2009) was expanded to a two-day format to permit greater opportunity for interaction between CCAC constituents.

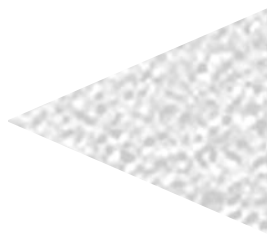
The workshop included plenary sessions given by invited international and national speakers and breakout sessions facilitated by workshop participants with insight and expertise relevant to the topic of discussion. By allowing participants to choose from a variety of breakout group discussions, they had the opportunity to specifically address is-



Dr. Michael Festing facilitating a breakout session on Scientific Merit Review.

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GUIDELINES



Peer Involvement – A Critical Element of Guidelines Development & Implementation

The production of high quality guidelines documents that provide a solid base for an effective system of oversight of animal care and use in science depends on the involvement of scientific experts and other peers in the field, including veterinarians, members of the animal welfare community, and laboratory animal care personnel. Their collective input balances the welfare of animals used in science with scientific goals and societal requirements. CCAC guidelines are therefore developed by subcommittees of volunteers whose expertise spans all major topic areas to be covered by the guidelines document. The draft guidelines documents undergo peer review two to three times, depending on their complexity, and all comments received are reviewed by the subcommittee members electronically and through face-to-face consensus meetings. Presentations are also given at relevant meetings to further this collaborative effort.

Participants of the CCAC Forum 2008 emphasized the importance of input from the research community, noting that having guidelines written and reviewed by people with experience in the field is a necessary condition for buy-in from researchers, which is critical to acceptance and implementation of the guidelines documents. One of the questions addressed at the CCAC Forum 2008 was “How can institutions and researchers have more input as new guidelines documents proceed through the drafting process?” The suggestions included targeting individual experts at insti-

tutions as opposed to sending out a general invitation to review drafts, and producing executive summaries of guidelines to help deal with their lengthy content. These and other initiatives are being considered by the Guidelines Program.

The involvement of peers does not end when the guidelines documents are published. Questions received during the development of guidelines and communications with users of the guidelines following publication contribute to the design of implementation tools. These tools are intended to assist the Assessment Program, ACCs, scientists and animal care personnel in the application of best practices in complying with CCAC guidelines documents, and include overarching guidance on how to interpret concepts as well as best practice information particular to a species or a situation.

Participants in the CCAC Forum 2008 recommended that an impact analysis also be conducted in relation to the development of new guidelines. In line with the CCAC *Five Year Plan 2009-2014*, the Guidelines Program is following up on this recommendation as part of its implementation strategy. Identifying areas where institutions and investigators may experience financial or human resource impacts and proposing measures to deal with them will promote greater cooperation and help facilitate the implementation of new guidelines documents.

The strength of the CCAC Guidelines Program lies in the contributions of so many individuals associated with the care and use of animals in

science. We encourage you to continue to have your say in the guidelines documents we are producing together, to send us any new best practice information you come across, and to ask questions so that we may assist in the effective implementation of the guidelines documents.

Keeping Pace with the Science

Participants of the CCAC Forum 2008 requested that clear statements be made to identify individual guidelines where there was little or no latitude for interpretation. To some extent, the CCAC has been doing this through the careful use of the terms ‘must’ and ‘should’. During the development of any guidelines document, the subcommittee undertakes a critical evaluation of the use of these terms in each of the individual guidelines statements. The basis for their evaluation is the Must versus Should statement agreed upon by the CCAC Guidelines Committee at their March 2008 meeting, which is provided below.

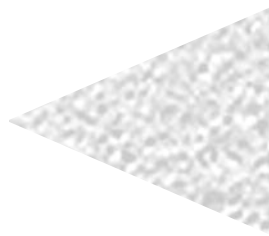
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Must versus Should

CCAC guidelines are intended to provide assistance in the implementation of best practices and the achievement of Russell and Burch’s Three Rs for use of animals in science. The CCAC recognizes that guidelines with the term ‘should’ may be subject to interpretation by properly constituted ACCs, and that in some cases, an ACC may accept a lesser standard of practice on the basis of adequate evidence and in keeping with the principles of the Three Rs. This discretion is not extended to any other parties. Where regulatory requirements are involved or where the CCAC considers that no lower standard of practice could be accepted, the term ‘must’ has been used.

CCAC Guidelines Committee
March 8, 2008

THREE RS



Renewed Focus: Three Rs & Canadian Science

CCAC as Canada's National Centre for the Three Rs

The Three Rs tenet (Replacement, Reduction and Refinement) provides a set of guiding ethical principles that help to minimize harms to animals used in science¹. It is widely accepted internationally as the ethic of animal experimentation and is embedded in the conduct of animal-based science in Canada and throughout many countries in the world.

Since its inception, the CCAC Program has been based on the Three Rs², so it was fitting that the CCAC marked its 40th anniversary by renewing focus on the Three Rs and formally launching a Three Rs Program in July 2008.

The encouragement to establish a Three Rs Program came from several sources:

- Previous Canadian Institutes of Health Research/Natural Sciences and Engineering Research Council evaluation committees who, while reviewing the CCAC program, recommended that CCAC do more in the area of the Three Rs;
- The CCAC is viewed globally as Canada's Three Rs Centre, invited to participate in international meetings of Three Rs centres (November 2006 in Baltimore, and August 2007 in Tokyo) and a member of the international project team for Altweb³, a compre-

hensive web-based Three Rs resource; and

- In 2007 the CCAC Board of Directors, under the leadership of Andy Tasker (CCAC Chair 2005-2006), struck a task force to examine the role that CCAC should play in the promotion and implementation of the Three Rs in Canada. One of the task force recommendations resulted in the establishment of a new Three Rs Committee, now the fifth CCAC standing Committee.

Three Rs Program

The CCAC strategic planning exercise (2008/2009) provided an opportunity for constituents to have early input into the development and direction for the newly formed Three Rs Program. There are two primary focuses for the Three Rs Program, namely:

- promoting the Three Rs through communication of the CCAC's ethic of animal experimentation, the maintenance of an up-to-date Three Rs microsite, and the consolidation of CCAC's role as Canada's national centre for the Three Rs; and
 - supporting the implementation of the Three Rs in all areas relating to the use of animals in science covered by the CCAC Program.
- During the next five years the Program has been charged with establishing the theoretical basis for its work and prioritizing its future ac-

tivities. At the Secretariat, the work of the Three Rs Program is carried out by staff in the Guidelines and Three Rs Sector. This arrangement operationalizes the connections between the two programs. So far, work of the Three Rs Program has focused on the promotion of the Three Rs through the creation of web-based resources.

Three Rs Microsite

Just prior to the launch of the Three Rs Program, Ms. Nicole Fenwick, a graduate of the University of British Columbia's Animal Welfare Program, was hired to develop a Three Rs information component of the CCAC website. The result – the CCAC Three Rs Microsite – was rolled out in four phases over the course of the past year. The microsite can be accessed directly from the CCAC homepage, or directly through its own home page (<http://www.ccac.ca/en/alternatives/index.html>).

The goal of the microsite is to provide easy access to high quality information relating to the Three Rs. Although there is a wealth of information available on the web, it can be difficult for investigators and members of animal care committees to quickly source relevant information. The microsite provides what we believe are the most useful resources for CCAC constituents.

For example, from the home page of the Microsite each of the Three Rs alternatives is introduced with examples, including a description of opportunities and challenges to their implementation. A list of resource materials with links is also provided. The web pages "Special Topics" and "Additional Resources" were created to offer more information for particular types of use of animals in science. To date, "Special Topics" includes sections on: agricultural re-

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¹ Fenwick N., Griffin G. & Gauthier C. (2009) The welfare of animals used in science: How the "Three Rs" ethic guides improvements. *Canadian Veterinary Journal* 50(5):523-30.

² Canadian Council on Animal Care (CCAC; 1989) *CCAC policy statement on: ethics of animal investigation*, p2. CCAC: Ottawa ON. Available at: http://www.ccac.ca/en/CCAC_Programs/Guidelines_Policies/POLICIES/ETHICS.HTM

³ <http://altweb.jhsph.edu/>

CCAC Survey of Animal Use – 2007

The annual survey of animal use for scientific purposes in Canada has been published by the CCAC for the twelfth consecutive year using data collected through the *Animal Use Data Form* (AUDF). This comprehensive survey was made possible by individuals who compiled and submitted animal use data on behalf of their institution. The CCAC would like to extend its sincere thanks to these individuals for their hard work.

In 2007, 2,054,909 animals were used in research, teaching, testing and production of biological prod-

ucts for scientific purposes (see Table 1). This number represents a 19% reduction relative to the 2006 numbers. This decrease is mostly attributed to an important reduction of the number of fish used (843,881 in 2006 ; 424,510 in 2007) for the development and evaluation of integrated aquaculture systems and in studies on the ecology of fish populations (purpose of animal use (PAU) 1; see definition on page 7).

In general, the distribution of the animals used according to their purpose of use has remained relatively stable since 1998 and most animals

were used for PAU 1 and PAU 2 (see Table 2). The 2007 distribution of animal use according to the categories of invasiveness (CI; see definition on page 7) is similar to the 2006 distribution. However, the tendency towards an increase in CI D procedures and a decrease in CI B procedures is greater in 2007. These proportions were almost equal in 2006 (33% for CTI B and 32% for CTI D) but in 2007 CI B procedures represented 26% of all animal use, whereas CI D procedures represented 37% of all animal use. These changes mainly result from a decrease in the number of fish used in aquaculture studies (CI B).

In 2007, 6% of animals were used in studies which can cause severe

Table 1: Animal Use Surveys – 2001, 2002, 2003, 2004, 2005, 2006 and 2007

Main Species (MSP)	Total in 2001	Total in 2002	Total in 2003	Total in 2004	Total in 2005	Total in 2006	Total in 2007
Amphibia	49,350	43,980	55,000	39,654	29,674	35,727	38,222
Cats	4,093	3,561	3,530	3,906	3,480	3,919	4,243
Purpose-bred	735	750	697	829	534	726	1,073
Random source	3,348	2,811	2,833	3,077	2,946	3,193	3,170
Source not specified	10	0	0	0	0	0	0
Cephalopods	18	91	6,920	13	4	24	14
Chinchilla	37	48	29	21	30	62	96
Dogs	8,512	9,518	9,501	9,445	10,737	9,552	11,483
Purpose-bred	4,111	5,359	4,808	4,587	4,797	4,267	5,478
Random source	4,401	4,154	4,693	4,858	5,940	5,285	6,005
Source not specified	0	5	0	0	0	0	0
Domestic Birds	217,408	117,958	108,769	83,473	111,412	116,691	83,036
Farm Animals	98,395	130,504	92,204	59,017	85,756	82,255	69,025
Fish	623,698	607,367	988,784	683,164	640,569	843,881	424,510
Fur Animals	590	452	1,059	1,109	1,208	2,047	2,463
Gerbils	1,316	2,147	1,446	1,705	1,651	1,516	906
Guinea Pigs	34,595	28,659	28,902	32,932	33,135	27,246	29,111
Hamsters	7,776	5,100	6,471	5,345	6,204	6,402	5,808
Marine Mammals	739	402	2,085	1,897	733	3,660	3,047
Mice	725,778	759,790	789,061	964,141	942,346	910,540	956,661
Miniature Swine	27	16	52	95	112	267	122
Non-Human Primates	1,883	2,109	2,866	2,379	3,713	4,363	3,509
Rabbits	14,167	14,374	14,858	12,729	11,602	18,152	8,838
Rats	289,542	332,065	314,871	329,894	335,021	331,560	310,594
Reptiles	3,292	2,875	4,951	3,405	6,368	6,019	2,574
Canadian Wild Species	54,764	41,659	57,483	71,990	91,788	131,858	99,979
Other Non-Canadian Species	349	460	377	918	742	248	668
Total	2,136,329	2,103,135	2,489,219	2,307,232	2,316,285	2,535,989	2,054,909

pain near, at, or above the pain tolerance threshold of unanaesthetized conscious animals (CI E). The proportion of animals used for this type of procedures had increased from 2004 (4%) to 2005 (7%), following an increase in fish use in studies on the aquatic toxicity of industrial effluents. Animals used at a level E of invasiveness in 2007 were primarily (65%) used for regulatory testing, as has been the case since 1996. No non-human primates, dogs or cats were used for CI E procedures. Exceptionally, CI E procedures were performed on 87 animals for teaching purposes (PAU 5) in 2007. This situation was punctual and necessary in order to allow animal health professionals to recognize certain exotic diseases and intervene rapidly if they occurred in Canada.

It is important to specify that animals used for research, teaching,

testing or production protocols are assigned a CI based on a precautionary approach. Protocols are assigned a CI by protocol authors and animal care committees (ACCs) according to the potential level of pain and distress that animals may experience. The CCAC requires institutional ACCs to ensure that any potential pain and distress are minimized. Anesthetics and analgesics must be used; any exceptions require scientific justification and ACC approval. It is also a CCAC requirement that appropriate endpoints be defined for each instance of animal use, to minimize any pain or distress.

As in 2006, the five most used categories of animals were, in decreasing order of importance, mice, fish, rats, wild Canadian species and domestic birds. The five main categories of animals used in 2007 represent 91% of the total number of

animals used. Mice represented 47% of the total number of animals used.

The total number of cats and dogs used has remained relatively consistent in recent years. Veterinary medicine and animal health technology are often taught using random source animals obtained through agreements with local humane societies/pounds; by the end of the academic year, these abandoned animals are generally in excellent health and are very good candidates for adoption. Purpose-bred cats were used mainly to test new diets (PAU 4) and purpose-bred dogs for regulatory testing of products for the protection of humans, animals, or the environment (PAU 3).

Over the last three years, the number of non-human primates used varied only slightly: after a moderate increase in 2006 (4,363), it decreased in 2007 (3,509) to numbers just below those of 2005 (3,713). In 2007, 69% of all non-human primates were used in regulatory studies (PAU 3) and 77% in experiments causing minor stress or pain of short duration (CI C). ●

Table 2: Numbers of animals used in 2007 per PAU and per CI

	PAU 1	PAU 2	PAU 3	PAU 4	PAU 5	Total per CI
CI B	337,639	86,532	30,761	30,260	57,004	542,196
CI C	316,590	142,052	79,992	49,779	22,683	611,096
CI D	304,931	349,721	16,048	91,433	7,153	769,286
CI E	3,317	24,842	85,771	18,314	87	132,331
Total per PAU	962,477	603,147	212,572	189,786	86,927	2,054,909

Definitions

Purpose of animal use (PAU)

PAU 0—Breeding Colony/Stock - Animals held in breeding colonies (e.g., fish, rodents) that have not been assigned to a particular research, teaching or testing protocol.

PAU 1—Studies of a fundamental nature in sciences relating to essential structure or function (e.g., biology, psychology, biochemistry, pharmacology, physiology, etc.).

PAU 2—Studies for medical purposes, including veterinary medicine, that relate to human or animal disease or disorders.

PAU 3—Studies for regulatory testing of products for the protection of humans, animals, or the environment.

PAU 4—Studies for the development of products or appliances for human or veterinary medicine.

PAU 5—Education and training of individuals in post-secondary institutions or facilities.

Categories of Invasiveness (CI)

CI B—Experiments which cause little or no discomfort or stress.

CI C—Experiments which cause minor stress or pain of short duration.

CI D—Experiments which cause moderate to severe distress or discomfort.

CI E—Experiments which cause severe pain near, at, or above the pain tolerance threshold of unanaesthetized conscious animals.

The CCAC requires institutional animal care committees (ACCs) to ensure that any potential pain and/or distress are minimized. Anesthetics and analgesics must be used; any exceptions require scientific justification and ACC approval.

The results of the CCAC Survey of Animal Use — 2008 will be available on the CCAC Website in December 2009.

For more information...

Additional tables and statistics from 1996 to 2007 are available on the CCAC website (www.ccac.ca) under the section 'Facts and Figures on Animal Use'. Trends in animal use per species from 1975 to 2007 are also available.

Constituents' Engagement...

(continued from page 1)

possible, and cognizant of the fiscal restraints that the G-13 institutions face. Additionally, CCAC guidelines should be more adaptable to the specific institutions that they are meant for. [Dr. Ted Hewitt for academic institutions]

- There is recognition of the importance of CCAC guidelines and the necessity of ensuring that the guidelines are recognized internationally. Efforts should be focused on the animals at the cage-level. [Dr. Simon Authier for industry]
- The CCAC falls under the scrutiny of 'public law' requirements, i.e. scrutinized for the process of how it does its work. Public law standards require the CCAC to be independent, objective, free of bias, transparent and fair. There are limitations in what the CCAC can promote – it can promote good animal practice but not animal-based research in general. [Ms. Pat Wilson, CCAC Legal Advisor]

Publications/forum/Forum_2008_report_%20EN.pdf). The Forum, as well as the Questionnaire and the open letters to the granting Agencies, have been a valuable contribution towards ensuring the relevance of the *CCAC Five-Year Plan 2009-2014*, elements of which are discussed in the following sections, and building a future that resonates with stakeholders and constituents, including the Canadian public. ●

Streamlining the Assessment Process...

(continued from page 2)

of particular concern was scientific merit review. Discussions subsequently held with the federal granting Agencies, led to the agreement to issue a joint CCAC/Tri-Council statement on scientific merit review of animal-based projects in the coming months.

The CCAC Assessment Committee (AC) held its semi-annual meetings on October 4, 2008 and February 28, 2009. The AC has had six members for several years – scientists, veterinarians and community representatives appointed from the representatives of CCAC Council member organizations. The role of the AC is to ensure consistency and fairness in the Assessment Program by reviewing all assessment and implementation reports, and to award institutions that satisfy CCAC requirements with their Certificate of GAP-Good Animal Practice®. Given the growing number of participants in the CCAC Program, this had become

too large a task for only six persons. In implementation of a key action item of the *CCAC Five-Year Plan 2009-2014*, the AC membership has

been expanded to 12 volunteers, including two community representatives, four veterinarians and six scientists from across the country.

With this significant increase in personnel, both at the Secretariat and Committee levels, the Assessment Program is now in the best position it has ever been in to fully meet its main objective: to provide high quality, timely assessment services to participating institutions in the CCAC Program, as well as to those institutions that wish to join. More specifically, our goals are to issue assessment reports within ten weeks of the assessment visit, and to process institutional implementation reports and updates within eight weeks of receipt. We therefore aim to provide institutions that forward satisfactory answers to CCAC recommendations with their Certificate of GAP-Good Animal Practice® within 15 months of the assessment visit, and generally sooner where institutions can provide satisfactory information early on.

Over the longer term, we are also working towards ensuring that all animal-based science in Canada is covered through CCAC certification. While the vast majority of science is already covered, we are working to identify areas not presently covered and examining how these areas can effectively be overseen to ensure the universal application of high standards of animal welfare in Canadian science.

We also wish to provide more resources for the training and continuing education of members of animal care committees (ACCs) throughout Canada. To achieve this, we will be working closely with the Education, Training and Communications Program to develop and offer training sessions to a wider audience, possibly in the form of webinars, focusing on the different roles and responsibilities of ACC members.

We are also planning on producing more interpretation bulletins to explain or clarify some aspects of CCAC documents that raise questions and comments from our constituents. These new interpretation bulletins



The October 2, 2008 CCAC 40th Anniversary Symposium, From Vision to Implementation of Good Animal Practice in Science, was opened by strong words of support for CCAC's mandate and achievements from the President of the NSERC, Dr. Susanne Fortier and the Vice-President, Research of the CIHR, Dr. Pierre Chartrand. First row, from left to right: Mr. Stephen Bjarnason, Chair of Council (2008-2009), Dr. Susanne Fortier and Dr. Pierre Chartrand.

A report containing the highlights and key events of the CCAC Forum 2008 was published on the CCAC website (<http://ccac.ca/en/>

will be made available on the CCAC website as they are published.

With all this on our agenda, the coming months should keep us all very busy, but never too busy to answer your phone calls and e-mails. So keep them coming, we always appreciate hearing from you. ●

Building on Strength

(continued from page 3)

tions their ACCs have implemented. The second day of the workshop was opened by a half-day regulatory update by representatives of the granting Agencies, Environment Canada, and the Public Health Agency of Canada who addressed and answered questions from the floor concerning the funding of animal-based research, and new regulations under development regarding the New Substances Notification for Organisms and the proposed Human Pathogens and Toxins Act (Bill C-11), respectively.

Feedback from workshop participants has demonstrated that the new format was both efficient and well-received. The ETC Committee would like to thank all the invited speakers and facilitators who participated in the 2009 workshop and made this event such a success. The CCAC National Workshop 2010 will be held in Ottawa on May 13-14, 2010.

CCAC Participation in the CALAS 48th Annual Symposium

The CCAC actively participated in the Canadian Association for Laboratory Animal Science (CALAS)

April 2009 Symposium by offering education and training opportunities to the participants through a workshop and a scientific session. The ACC 201 workshop, now a yearly tradition at the symposium, targets ACC members working with more complex scientific protocols, and was a success, thanks to the participation of the invited speakers: Dr. Nicolas Herrenschmidt, Director, Centre de primatologie de l'Université de Strasbourg, Dr. Denyse Lévesque, Researcher, Yerkes National Primate Research Center of Emory University, Dr. Michelle Letarte, Senior Researcher, Hospital for Sick Children, Dr. Jim Gourdon, Director, McGill University's Animal Resources Centre, Dr. Stéphane Goulet President, Primus Bioresources Inc., and Dr. Gilly Griffin, Three Rs and Guidelines Programs Director at the CCAC.



*Drs. Stéphane Goulet, Andrew Winterborn, Gilly Griffin, Tamara Godbey, and Georgia Mason.
Absent from this picture: Dr. Penny Hawkins.*

The scientific session "Back to Basics: Housing and Husbandry of Common Laboratory Species" also offered participants the insight of an impressive panel of experts, including Dr. Penny Hawkins, Senior Scientific Officer, Royal Society for the Prevention of Cruelty to Animals, UK, Dr. Georgia Mason, Canada Research Chair in Animal Welfare, University of Guelph, Dr. Tamara Godbey, Clinical Veterinarian, University of British Columbia, Dr. Andrew Winterborn, University Veterinarian and Director, Animal Care Services at Queen's University, and Dr. Stéphane Goulet, President, Primus Bioresources Inc.

CCAC Website Redesign

The CCAC website is undergoing a complete redesign in order to make it more user friendly to visitors, and to communicate directly with targeted audiences (members from the general public, the scientific community, and participating institutions).

CCAC Webinars

The first of a planned series of webinars is currently under development by the ETC Program. The accessibility of these distance education tools will greatly increase the impact of regional and national workshops, seminars and training, and will offer an affordable alternative, although of much reduced scope, to attending events in person while still allowing participants to contribute to discussions. The first CCAC webinar will focus on the Three Rs and will be held on January 12, 2010. More information and registration details will be available on the CCAC website in December 2009. ●

Published in 2008-2009...

CCAC Annual Report 2008-2009

CCAC guidelines on: the care and use of farm animals in research, teaching and testing (2009)

CCAC Survey of Animal Use — 2007

CCAC Survey of Animal Use — 2008

CCAC policy statement for: senior administrators responsible for animal care and use programs (2008)

Report: CCAC Forum 2008 – Building on Strength

CCAC Five-Year Plan 2009-2014

All CCAC publications are available at www.ccac.ca.

Peer involvement...

(continued from page 4)

Guidelines development is based on the available scientific evidence and adherence to the principles of humane experimental technique: Replacement, Refinement and Reduction (Russell & Burch, 1959). In instances where the available science provides unified support for a particular practice that has strong welfare implications for the animals, the guideline will be a 'must'.

Science is a dynamic field, and it must be acknowledged that the refinement of animal care and use is a continuous process. Because the development of a guidelines document necessitates the transfer of knowledge at discrete points in time, the guidelines should be seen as a framework for the implementation of best practices. One means by which guidelines remain relevant throughout their lifespan, given evolving scientific concepts, is to ensure that emphasis is placed on performance outcomes for the animals, rather than measurable standards.

We cannot emphasize strongly enough the essential role that scientists play in the development and review of guidelines to ensure they are based on sound scientific evidence, and that as new evidence becomes available, it is communicated to the CCAC and ultimately to those involved in the care and use of animals in science.

Publication of the Farm Animal Guidelines

The CCAC *guidelines on: the care and use of farm animals in research, teaching and testing* was published on the CCAC website in July, 2009. This document applies to farm animals used by institutions for scientific purposes, and aims to provide information that will assist in improving the care given to farm animals and the manner in which experimental procedures are carried out.

Peer Involvement

Extensive comments were received during the development of this guidelines document through three external reviews and presentations made at scientific meetings. The reviews resulted in 43, 28 and 22 sets of comments, respectively, amounting to input from 71 different reviewers from Canadian and international institutions. The draft guidelines were presented at the Canadian Society of Animal Science (CSAS) annual

meeting in Cincinnati on July 26, 2005, and in Halifax on August 3, 2006; and at the Canadian Association for Laboratory Science (CALAS) annual meeting in Calgary on June 4, 2007. The tremendous response to these reviews and presentations

helped shape the document into a comprehensive set of guidelines with supporting context to facilitate the implementation of best practices. The final farm animal guidelines document was launched at the joint meeting of the CSAS, the American Society of Animal Science and the American Dairy Science Association in Montreal on July 13, 2009.

Challenges

The scientific use of farm animals in the agricultural industry presented a unique challenge to the development of these guidelines. The guidelines take the position that research and teaching institutions should provide leadership in the exploration, development and implementation of best practices for the agricultural industry, and that for institutions involved in teaching, students should graduate fully aware of the current best practices. However, it is also recognized that for some animal projects, housing and husbandry need to be in line with commercial animal production so that the research results can be directly translated to the agricultural industry. The guidelines note that in

such cases, the best industry standards should be used, with the approval of the animal care committee.

Another challenge in the development of these guidelines was in striving to replace measurable standards for housing with recommendations that are based on current farm animal behaviour and welfare research, in view of the demand for defined standards from those building facilities. Farm animals in general have changed over time (e.g.,

the average size of cattle has increased), making it difficult to set measurements that will continue to be valid. Through the various drafts and reviews, it was determined that a mixed approach was needed. While minimum space requirements for various types of ani-

mals are given, the document focuses more on requirements for the animals to be able to perform behaviours important to their welfare.

Implementation

The CCAC *guidelines on: the care and use of farm animals in research, teaching and testing* (2009) will begin to be fully implemented by the CCAC Assessment Program in September 2010, after an introductory period of one year. In the meantime, any questions concerning further clarification of the guidelines should be directed to the CCAC Guidelines Program. ●

The CCAC guidelines on: wildlife (2003) were found to be the best available worldwide by the UK Royal Society for the Prevention of Cruelty to Animals (RSPCA) representative at a May 2008 international meeting on Harmonization of the Care and Use of Animals in Field Research held in Norway.

Coming in 2010...

CCAC guidelines on: laboratory animal procedures – adopted guidelines on euthanasia

CCAC guidelines on: the care and maintenance of marine mammals

Renewed Focus...

(continued from page 5)

search; animal supply; animal use oversight; genetically engineered animals; production of animals and biologicals; species selection; teaching; testing; and wildlife research. Each of these sections describes Three Rs strategies, and points to useful resources to support the implementation of these strategies. "Additional Resources" includes the Alternatives Methods Table (see below); relevant information for animal care committees on ethical review and the Three Rs; and lists of humane science courses, relevant journals, species-specific resources and Three Rs Centres worldwide.

We are most grateful to all those who contributed to the development and review of the various sections of the microsite, ensuring that the information presented is as relevant and up-to-date as possible. The Microsite will always be a work in progress and we will continue to update content and look forward to hearing from constituents with suggestions and requests for new resources to be included on the site.

Three Rs Search Guide

Prior to carrying out any animal-based work, investigators are required to complete an animal use protocol which outlines how the Three Rs will be implemented. To find the most up-to-date information on the Three Rs, investigators typically conduct a structured information search. To assist investigators with this search, the Three Rs Program has also produced the Three Rs Search Guide (<http://searchguide.ccac.ca/>), also accessible through the Three Rs Microsite. For those looking to access the search information more rapidly, a series of quick links are provided. Detailed instructions are provided in the systematic "Step-by-Step" search strategy.

The Search Guide also contains a series of questions to check that the search for Three Rs –alternatives has

been adequately completed. These may be useful as *aide memoire* for investigators as well as for animal care committee members when reviewing animal use protocols.

Alternatives Methods Table

The most recent addition to the microsite (July 2009) is the *Alternative Methods Validation and Regulatory Status Table*. The Alternative Methods Table (<http://www.ccac.ca/en/alternatives/ATM-table-MRE/intro.html>) provides a resource for investigators and regulators on the validation and regulatory status of alternatives to animal-based regulatory test methods. The CCAC table builds on the work of similar web resources based in the US and Europe (Alttox <http://www.alttox.org/ttrc/resources/databases.html> and TSAR <http://tsar.jrc.ec.europa.eu/>, respectively). The CCAC Alternative Methods Table is a reference that brings together methods grouped by category of use (i.e. carcinogenicity, skin irritation, etc.), and the name of the "conventional test method" (i.e. the test that the alternative proposes to supplant). Only methods which have at least reached the stage of being considered for a validation study are posted.

As far as we are aware, this is the only resource of its type also to be offered in French. Preparation of the table involved considerable work by CCAC's research fellows, Ms. Allison Guy (2006-2008) and Ms. Mara Long (2008-), as well as Ms. Nicole Fenwick (Three Rs Program Coordinator) and Ms. Charlotte Tellier (translator / research assistant). We are also grateful to Dr. Simon Authier (LAB Research Inc.) who undertook to proof read the French translation as well as to fact-check the information for us.

Three Rs Program Next Steps

While maintaining an emphasis on promotion of the Three Rs in Canadian science, the Three Rs Program will begin to work on its second area of priority – the implementation of the Three Rs. In the area of Refinement, a survey to determine the scope of analgesia-withholding

in protocols that use painful animal models has already been circulated to animal care committee coordinators. This will provide CCAC with empirical data to determine the extent of analgesia-withholding in protocols involving painful outcomes for the animals, and under what conditions this occurs. Findings may then be used by the CCAC to encourage funding of pilot projects to study the effects of using analgesia in protocols where analgesia would ordinarily be withheld ("top-up funding"). In addition, a second survey to determine the level of Three Rs awareness of Canadian investigators is in preparation. Results from this survey will be used to benchmark and to provide direction for implementation of the Three Rs in research.

Finally, the CCAC will be hosting the 8th World Congress on Alternatives and Animal Use in the life Sciences in Montréal on August 21-25, 2011. The close involvement of the CCAC in planning the Congress provides CCAC constituents with an excellent opportunity to present and highlight Canadian contributions to animal welfare and the Three Rs in science. These activities and others ensure that the CCAC will maintain its present focus on promotion and implementation of the Three Rs and continued improvements to the welfare of animals used in Canadian science. ●

Cette édition de *RESOURCE* est également disponible en français au www.ccac.ca



News from the Secretariat



Dr. Craig Bihun, NRC-IRAP Veterinary Scientist; Ms. Pascale Belleau, Education, Training and Communications Coordinator, CCAC; Mr. Bob Milling, ACC Community Representative, NRC-IRAP; Ms. Patricia Mortimer, Vice-President, Technology and Industry Support, NRC; Dr. Tony Rahilly, DG, NRC-IRAP; Dr. Janet Panford, ACC Chair, NRC-IRAP; and Mr. Michael Barré, former ACC Chair, NRC-IRAP

CCAC Welcomes French Laboratory Animal Health Students

A group of five French laboratory animal health students and their supervisor visited the CCAC Secretariat on January 22, 2008 during their educational trip to Canada to learn about the Canadian standards in the care and use of animals.

A GAP Certificate Unveiling

The CCAC was invited to attend the unveiling of the GAP—Good Animal Practice® Certificate awarded to the National Research Council Canada — Industrial Research Assistance Program (NRC-IRAP) on December 16, 2008 (see photo). ●

Congratulations!



Effective July 2008, Dr. Gilly Griffin was promoted to the new position of Guidelines and Three Rs Programs Director.



Effective September 2009, Dr. Michael Baar was promoted to the new position of Assessment Program Director.

Changes to Council

Effective April 1, 2009

The Canadian Society for Ecology and Evolution joined the CCAC Council as a limited term member.

CCAC Board of Directors 2009–2010

Dr. Jim Thornhill (Chair)

Mr. Henrik Kreiberg (Vice-Chair)

Mr. Stephen Bjarnason (Past Chair)

Dr. Denis Beauchamp (Chair, Assessment Committee)

Dr. Marina von Keyserlingk (Chair, Guidelines Committee)

Dr. Marilyn Keaney (Chair, Education, Training and Communications Committee)

Mr. David Buffet (Chair, Planning and Finance Committee)

Dr. François Auger (Chair, Three Rs Committee)

The CCAC would like to thank Dr. Mark Evered for his remarkable contribution to the CCAC during the last six years. Dr. Evered joined the Council in April 2003 as a member of the Assessment Committee, was then appointed Chair of that committee in April 2004, elected Vice-Chair of Council in April 2006, became Chair of Council in April 2007 and finished his term as Past Chair in March 2009. We wish him success in his career as the President of the University of the Fraser Valley. ●



CCAC Board of Directors 2009–2010 (left to right): Drs. Denis Beauchamp, Mark Evered (Past Chair 2008–2009), François Auger, Marilyn Keaney, Mr. Henrik Kreiberg, Mr. David Buffet, Mr. Stephen Bjarnason, and Dr. Jim Thornhill. Absent from this picture: Dr. Marina von Keyserlingk



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