



Appendix VIII

Terms of Reference

April 2005
1st revision February 2008
2nd revision October 2009
3rd revision March 2011
4th revision April 2018

Bamfield Marine Sciences Centre

Animal Care Committee

Terms of Reference

INTRODUCTION

- 1) The Bamfield Marine Sciences Centre (BMSC) provides a research infrastructure for marine and coastal scientists from the five member Western Canadian universities and from other Canadian and international institutes. BMSC offers senior undergraduate and graduate courses and programs in marine and coastal sciences, especially biological. BMSC also provides training for graduate students, post-doctoral fellows and technicians in the practical aspects of marine and coastal research. Finally, BMSC offers residential programs in marine biology and general science training to schools, colleges, First Nation bands, and other public groups.
- 2) BMSC is committed to the humane and ethical care and use of animals and adheres to the principle that in order for animal use to be justifiable in scientific research and teaching, the research must have a reasonable expectation of providing a benefit to the health and welfare of humans or animals, or of advancing basic knowledge.
- 3) The BMSC has established an animal care committee (ACC) to facilitate research that complies with the Canadian Council on Animal Care Guidelines and Policies and with the Russell-Burch tenet of, "reduction, replacement and refinement". The BMSC ACC is responsible directly to the Director of BMSC.
- 4) BMSC works with the Animal Care Committee (ACC) to ensure that all animal users and caregivers are informed of and comply with institutional animal care and use policies.
- 5) The BMSC ACC operates in accordance with the following terms of reference:

MEMBERSHIP

- 1) BMSC will maintain an Animal Care Committee for so long as any research, teaching, testing or reproduction involving animals is conducted by BMSC personnel or in BMSC facilities.
- 2) All members of the ACC will be provided free and open access to all CCAC regulations and guidelines.
- 3) The Director, the Animal Care Coordinator and/or the Chair of the ACC will determine the number of members on the ACC and will be responsible for appointing members to the ACC or as directed by CCAC mandate. Membership changes must be voted on by current ACC members. The quorum for consensus is 50 % + 1 of the ACC members. The quorum for all

ACC meetings and decisions must include the Chair, Veterinarian and community representative. In compliance with CCAC regulations, the ACC will include the following members:

- a. BMSC scientist and/or teacher experienced in animal care and use,
 - b. An aquatic veterinarian experienced in experimental animal care and use, who is provided with continuing education/training opportunities in experimental animal care and use,
 - c. The BMSC Animal Care Coordinator, or designate,
 - d. One or more scientist and/or teacher from one of the five Western Canadian universities or visiting researcher from an accredited university who is experienced in the care and use of animals and may or may not be actively using animals during their term on the ACC,
 - e. A BMSC representative whose normal activities do not depend on or involve animal use for research, teaching or testing. This representative will act in place of the Animal Care Coordinator in their absence (designate),
 - f. At least one person representing community interests and concerns, who has no professional affiliation with BMSC, and who is not involved in animal use for research, teaching or testing;
 - g. The BMSC Research Coordinator, who shall serve as *ex-officio* and will have at least entry level animal care training;
 - h. An educational representative of the BMSC University Programs,
 - i. A student representation (graduate or undergraduate), currently or recently enrolled at a member university,
 - j. Membership reflecting animal user members from all departments involved in animal care or use of animals,
 - k. Any other person the Director, the Animal Care Coordinator and/or the Chair of the ACC may deem appropriate.
- 4) The Director will ensure continued support of all activities of the ACC in their duties at BMSC.
- 5) The Director, the Animal Care Coordinator and the Chair of the ACC will appoint all members of the ACC (except for continuing ACC positions) to a term of no fewer than two years, renewable at the discretion of the Director, Animal Care Coordinator and the Chair of the ACC. ACC members should normally not serve more than eight consecutive years, unless they are *ex officio* members of the ACC or requested to do so by the Director.
- 6) As a collective group, the ACC will nominate a new Chair of the ACC from among its members, who will serve a two-year term, which may be renewed at the Director's option. A member who is a BMSC veterinarian or who has a conflict of interest with the ACC may not act as Chair. The following will be considered as a conflict of interest:
- a. A direct involvement in the management of a BMSC animal care facility;
 - b. Involvement as an investigator in a significant number of the protocols presented to the ACC. If this situation arises, the Chair of the ACC will defer the role of Chair

to another member of the ACC.

- 7) The ACC may also appoint a standing sub-committee (the "Policy Committee"), which will consider questions of policy related to the ACC and any matters for which the ACC is responsible, including the development of SOPs. The ACC will consider any policies or guidelines recommended by the Policy Committee.

ACC AUTHORITY

- 1) On behalf of BMSC, the ACC has the authority to:
 - a. Stop any procedure if it considers that unnecessary distress or pain is being experienced by an animal,
 - b. Stop any animal use which deviates from any approved use or involves any non-approved procedure or which causes unforeseen pain or distress to an animal, and
 - c. Euthanize an animal humanely if considered necessary.
- 2) The Chair of the ACC, the Animal Care Coordinator and the veterinarian have access at all times to areas where animals may be held or used.
- 3) The ACC delegates authority to the BMSC veterinarian to treat, remove from a study or euthanize if necessary, an animal according to the veterinarian's professional judgment. The veterinarian must attempt to contact the animal user whose animal is in poor condition before beginning any treatment that has not previously been agreed upon, and must also attempt to contact the ACC Chair or Animal Care Coordinator, but the veterinarian must have the authority to proceed with any necessary emergency measures, whether or not the animal user and ACC Chair are available. A written report should be sent by the veterinarian to the animal user and to the ACC following any such event. The veterinarian and Animal Care Coordinator may also choose to delegate certain responsibilities to the BMSC Animal Care Coordinator.

RESPONSIBILITIES OF THE ANIMAL CARE COMMITTEE

Protocols

- 1) The ACC will ensure that all animal research, testing, reproduction and use of animals in teaching are undertaken only after written application via a BMSC Animal Use Protocol (AUP) has received ACC approval. In addition, no animals will be procured prior to such approval. However, the ACC holds an AUP to procure and hold animals intended for use prior to the arrival of visiting researchers under the condition that the researcher does not begin work using animals before the researcher's BMSC AUP has been approved.
- 2) The ACC will ensure that no animals are held for display or breeding purposes, or for eventual use in research, teaching or testing protocols, without prior ACC approval of a BMSC AUP. The ACC has authorized an AUP that assigns provisional responsibility to the Research Coordinator to hold animals that are assigned for educational purposes for transfer

to research purposes. The Research Coordinator cannot release the animals to a researcher until an AUP for the research has been approved. This provisional AUP preserves Russell-Burch tenet of, "reduction, replacement and refinement".

- 3) The ACC will be responsible for reviewing all AUPs. The ACC will only consider applications for animal use submitted on a current BMSC animal use protocol form. The current forms are located on the BMSC website and can be completed as a Microsoft Word document. Forms are to be submitted directly to the Animal Care Coordinator via email (acc@bamfieldmsc.com), FAX, post or personally. When reviewing AUPs, the ACC will consider the Canadian Council on Animal Care's Guide to the Care and Use of Experimental Animals, especially the stipulation that research projects are proven to possess scientific merit by peer review. The ACC will also adhere to the principles of Ethics of Animal Investigation and Guidelines on the review of Animal Utilization as well as all other CCAC guidelines and policy statements, and BMSC standard operating procedures.
- 4) All vertebrate and cephalopod AUPs will be subject to discussion and final approval at a full meeting of the BMSC ACC.
- 5) Interim protocol approvals will be used rarely in special circumstances where approval must be expedited. In these cases the deliberations can be done quickly by email and must involve the BMSC veterinarian, the external physiologist and the community representative. The AUP will be taken to the next ACC meeting in order for full committee approval to take place.
- 6) If a protocol does not have peer review then the home institution of the researcher is responsible for providing peer review. In cases where this is not possible (smaller universities, colleges or international researchers) BMSC will be prepared to provide peer review using two peer review experts. One peer reviewer will be completely external to the BMSC ACC who does not vote on AUPs.
- 7) The BMSC AUP forms for vertebrates and cephalopods will contain all of the requirements listed in section 3c)j-xviii of the CCAC Terms of Reference for Animal Care Committees (2006).
- 8) The BMSC ACC will encourage reference to current BMSC SOPs in submitted AUPs.
- 9) The ACC approval of an AUP is valid for a maximum of one year. If the work under an AUP is for longer than one year's duration, the ACC will require the investigator to submit a renewal application. The ACC will not grant more than two consecutive renewal applications. After two consecutive renewals of an AUP, an investigator must reapply for approval in a new AUP. A renewal application must emphasize:
 - a. The number of animals used in the preceding year,
 - b. Justification for number of animals needed,

- c. A brief progress report, describing any complications encountered relative to animal use (unpredicted outcomes, and animal pain, distress or mortality), any amendments to the original protocol, and any progress made with respect to replacement, reduction and refinement of animal use,
 - d. A brief report on the adequacy of the endpoints for the protocol, and on any complications encountered or refinements made relative to protecting animals from pain, distress or mortality, and
 - e. Any other changes from the original protocol.
- 10) The ACC will require any modifications to an approved AUP to be submitted and no changes to the work under an approved AUP can take place until the modification has been approved. If the modifications are, in the ACC's opinion, substantial, the ACC will require the submission of a new AUP.
 - 11) The ACC will ensure that any appeal processes will not include persons who participated in making the original decision. The investigator has the right to appeal if the final decision of the Animal Care Committee is to reject an AUP. The request for appeal is to be made to an Appeals Subcommittee composed of the BMSC's director, the alternate veterinarian, the second community representative and the external scientist peer review expert. These four individuals will make a second review of the protocol at arm's length of the ACC and will not view documentation or deliberations of the original ACC's decision.
 - 12) The ACC will encourage the use of pilot studies with a limited number of animals when new approaches, methods or products are being applied, rather than approving AUPs involving large numbers of animals.
 - 13) The ACC will keep written records of their discussions and decisions in the committee minutes and on attachments to the protocol forms. Written records of all discussion and decisions occurring between meetings will be kept and these can include comments/approvals received via email.
 - 14) The intent of the ACC is to resolve concerns of the Committee with the investigator. The Committee will therefore invite the investigator, if necessary, to appear before the Committee with his/her concerns.

Facilities and Animal Care

- 1) The ACC will be responsible for inspecting and approving all BMSC facilities for the housing, care and production of animals and a member of the ACC will inspect each facility every two weeks according to the BMSC site monitoring procedures for animal care.
- 2) All members of the ACC must participate in a site visit of all the BMSC animal care facilities at least once a year and these visits will be documented in the minutes of ACC meetings.

- 3) The contracted BMSC veterinarian will visit the animal facilities twice a year. These visits should take place during the times of the year most heavily used by researchers. The veterinarian will produce a site report from these visits which will be sent directly to BMSC's director with a copy to the Animal Care Coordinator.
- 4) The ACC will ensure that there is a person designated to be in charge of each BMSC facility for the housing, care and production of animals and that the animal care users and animal care personnel are qualified and properly trained according to the CCAC guidelines on: Institutional animal user training, 1999.
- 5) The ACC will be responsible for ensuring that reasonable security procedures are in place in all BMSC animal facilities.
- 6) The ACC will ensure that the appropriate care, including adequate veterinary care, is given to animals in all stages of life and in all experimental situations in compliance with Canadian Council on Animal Care ("CCAC") guidelines, applicable legislation and BMSC rules.
- 7) The ACC will ensure that up to date BMSC SOPs are always available to animal users by referring them to the BMSC animal care webpage.
- 8) Post Approval Monitoring (PAM) will take place in several ways:
 - a. A Face-to-Face meeting with the researchers listed on an AUP and two members of the ACC and will take place shortly after arrival at the BMSC. A set checklist of needs and assurances is established.
 - b. The veterinarian is permitted to view and comment on surgical procedures by viewing procedures as recorded video or real-time streaming from electronic devices. These events and reports stemming from them are considered PAM.
 - c. The researcher is responsible for checking animals daily and must initial a priority checklist.
 - d. Walk through visits by ACC members are considered PAM.
 - e. The coordinator of each area (research, university programs, public education) will do a site walk-through at least three times a week in order to monitor approved protocols. During these checks they will ensure that the researchers have been initialing their observation checklists.
 - f. The Animal Care Coordinator will visit each animal facility daily during working hours and monitor the welfare of the animals and ensure that researchers are adhering to approved protocols.
 - g. In addition, twice during the most heavily used by researchers, the veterinarian will visit the facilities.
- 9) The ACC will be available to render assistance to animal users and care givers in the event of any unanticipated problems, and to advise and educate animal users and care givers with respect to CCAC guidelines and ethics, any applicable legislation and BMSC rules, procedures

and recommendations with respect to animal use and animal care.

- 10) The ACC will establish standard operating procedures, commensurate with current veterinary standards, to ensure that:
 - a. Unnecessary pain or distress is avoided,
 - b. Anesthesia and analgesia are properly and effectively used in all cases where necessary,
 - c. Appropriate post-operative care is provided,
 - d. Appropriate means of euthanasia are used,
 - e. All procedures are carried out in the most humane and scientifically efficient manner, and
 - f. All due consideration is given to animal welfare, including environmental and habitat enrichment.
- 11) The BMSC ACC will work with the BMSC Occupational Health and Safety Committee to appropriately protect those affected by animal-based work at the BMSC.
- 12) The ACC will be responsible for setting the procedures for review and approval of BMSC AUPs. The ACC will meet no fewer than four times each calendar year with two of the meetings as Face-to-Face meetings. One meeting will be held prior to the beginning of the research season (usually summer) to discuss a minimum of 50% of the submitted AUPs and July to discuss ACC issues during the peak operating periods at BMSC. Minutes of each meeting will be recorded and distributed to all members of the ACC and the Director.
- 13) The quorum for consensus in ACC meetings is 50 % + 1 of the members, two at least being members appointed under paragraphs 2(a-f), present in person or by teleconferencing. The quorum for all ACC meetings and decisions must include the veterinarian and community representative. The Chair and the Animal Care Coordinator will ensure that new animal utilization proposals (AUPs) and other outstanding ACC issues will be discussed at each meeting.
- 14) The ACC may form one or more subcommittees to conduct any part of its business, provided that the decisions and actions of a subcommittee are subject to interim approval by the ACC at a meeting. Approval of the recommendations made by subcommittees will be granted by no less than 75% of the ACC with the Chair in agreement. The quorum for a subcommittee will be as considered appropriate by the ACC in each case, but it should include either the Chair or a veterinarian.
- 15) The ACC will be responsible for setting the procedures for review and approval of BMSC AUPs and the consensus necessary for any decision with respect to an AUP.

General

- 1) The ACC will regularly review and if necessary revise these Terms and Conditions annually to reflect changes in CCAC guidelines or community concerns.
- 2) The ACC will develop institutional animal care and use policies and standard operating procedures for animal care. SOPs will be accessible to all ACC members. The full ACC shall review all SOPs that may result in deleterious effects to animal health and welfare.
- 3) The Animal Care Coordinator, and the ACC Chair will liaise with the CCAC Secretariat on behalf of BMSC and provide such information to the CCAC that it may require from time to time, including the annual Animal Use Data Form (AUDF).
- 4) The ACC will develop a crisis management program for the facilities and for the animal care and use program, in conjunction with any general institutional crisis management plan(s).
- 5) The ACC will periodically sponsor seminars and/or workshops on the use of animals in science and the ethics of animal experimentation, and encourage as many animal users as possible to attend. The ACC will also be prepared to accept criticism that may periodically occur, and will be receptive to developing and maintaining communication with animal welfare organizations.
- 6) The ACC will act as a general resource to BMSC animal users and caregivers and will demonstrate its commitment to the welfare of animals in and around BMSC by maintaining a visible profile to researchers, students and the community of Bamfield.