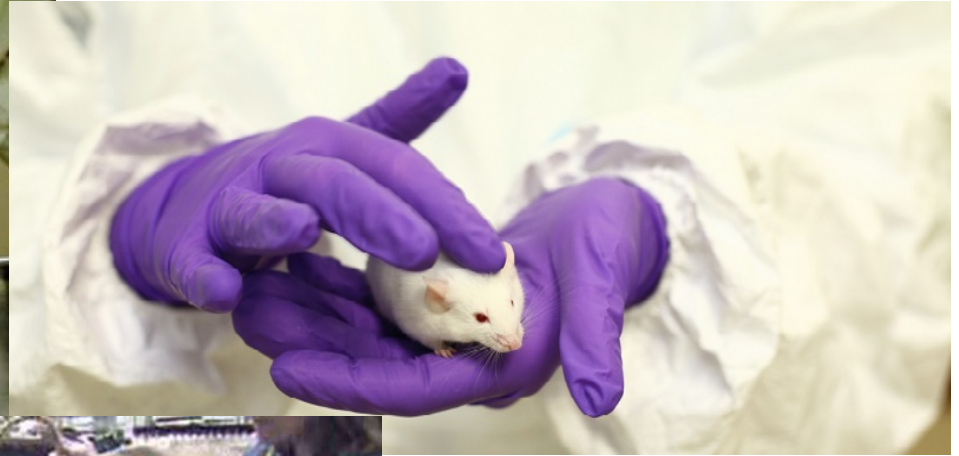


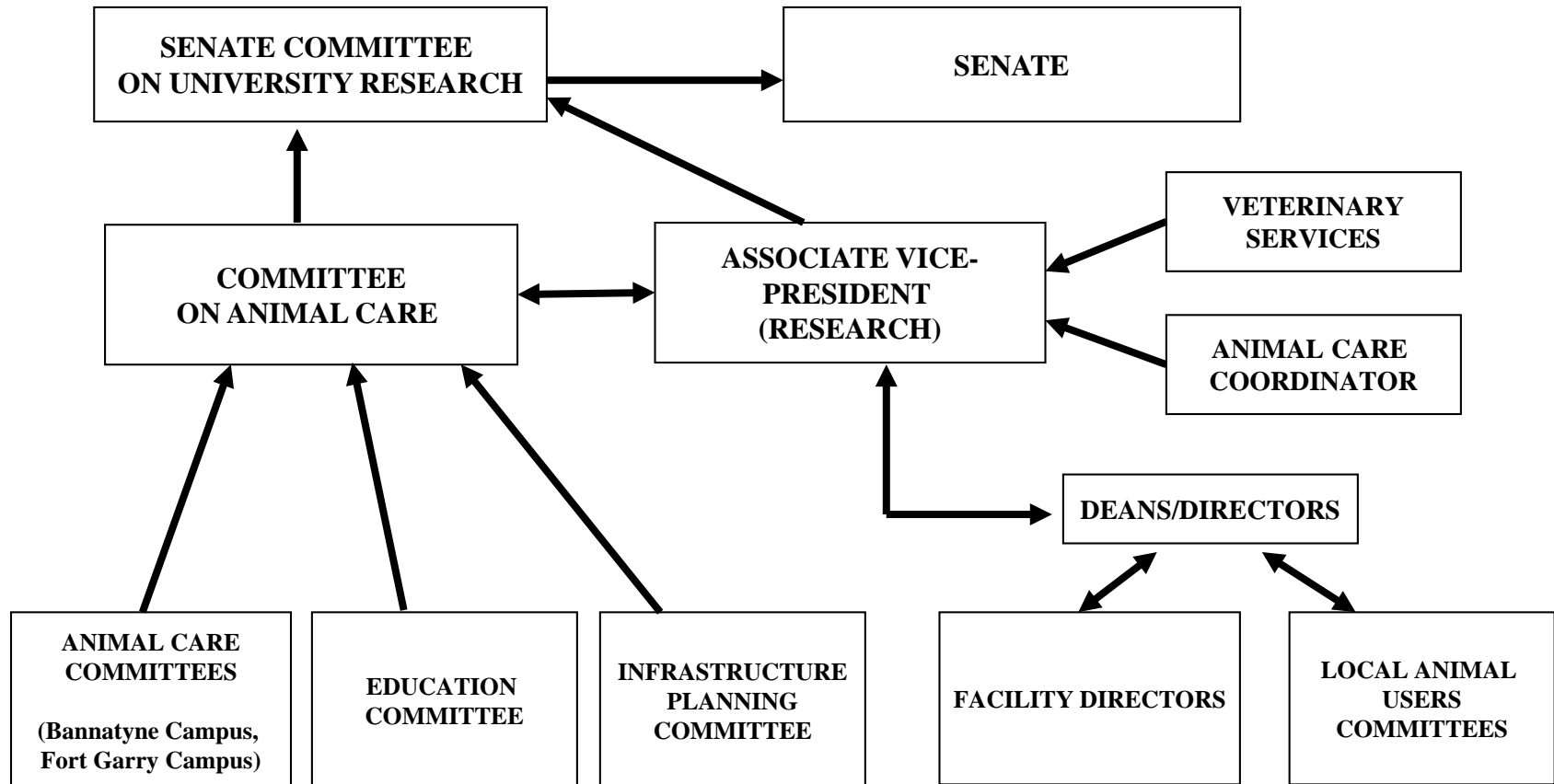
Animal Care and Use Handbook 2020



**University
of Manitoba**



Animal Care Organizational Flow Chart



Director, Animal Care and Use Program

Dr. Richard Hodges, DVM Cert. LAM

- Crop Technology Centre 208-194 Dafoe Road or
053 Apotex Building
- Phone: (204) 474-6557
- Fax: (204) 269-7173
- E-mail: richard.hodges@umanitoba.ca

Oversees the Animal Care and Use Program
and Veterinary Services

Animal Users e-mail list

- Add your name to the list for updates

Animal Care and Use

- U of M adheres to the voluntary assessment program of the Canadian Council on Animal Care (CCAC).
- Approval by CCAC of the University's animal care and use program is required in order for the University to be eligible for continued research support from national granting agencies and foundations.
- Granted a Certificate of Good Animal Practice (GAP) indicating Compliance.

Animal Care & Use Policy

- The use of animals in research, teaching or testing is a privilege that is extended when a justifiable need is established
- The care and use of animals in research, teaching or testing are to be carried out in accordance with federal and provincial legislation and regulation
- Provincial regulation requires compliance with CCAC guidelines
- The University requires that all animal users adhere to this policy and to the procedures that are derived from it

[http://umanitoba.ca/admin/governance/media/Animal_Care_and_Use_Policy - 2013 07 02 RF.pdf](http://umanitoba.ca/admin/governance/media/Animal_Care_and_Use_Policy_-_2013_07_02_RF.pdf)

[http://umanitoba.ca/admin/governance/media/Animal_Care_and_Use_Procedures - 2013 07 02 RF.pdf](http://umanitoba.ca/admin/governance/media/Animal_Care_and_Use_Procedures_-_2013_07_02_RF.pdf)

Animal Care Committee (ACC)-Responsibilities

- Reviews all research protocols annually for compliance with ethical and other applicable requirements including CCAC standards and then approves the protocol. The review includes:
 - Number of animals required and their justification
 - Species and model used
 - Procedures being undertaken
 - Can the 3Rs (replacement, reduction, refinement) be applied
 - Is adequate anesthesia and analgesia being provided
 - Are humane endpoints outlined and have steps been taken to provide safeguards to prevent or alleviate unnecessary pain and distress
 - Consideration of the “burden” being place on the animals – harm versus benefit
 - Are the personnel performing the procedures adequately trained and competent

ACC-Responsibilities

- Ensures that there are appropriate standard operating procedures in place for the animal care and use program and that these are regularly reviewed and updated
- Conducts inspections of all animal laboratory, service and housing facilities at least annually to ensure that the areas used for animal care and use by the institution are appropriate and meet institutional and CCAC standards

Animal Care Committee (ACC)-Composition

- at least three (3) faculty members experienced in animal research, care and use, particularly in reference to the types of anticipated requests for animal utilization;
- Veterinarian;
- faculty member who does not use animals;
- a minimum of two community members, representing community interests and concerns;
- one graduate student, preferably involved in animal based research;
- one animal facilities director, ex officio, or designate;
- one technical staff person (either an animal care, an animal facility or an animal research technician); and
- the Animal Care Occupational Health Analyst ex officio (non-voting)

Veterinary Services

- Assist with protocol submissions and pre-review
- Train laboratory animal researchers and personnel
- Animal health including animal welfare and humane use of animals and appropriate humane endpoints
- Licensed dealer for controlled substances used on animals in research

Veterinary Care

- Weekly to bi-weekly scheduled animal facility visits with additional visits to review animal health and welfare
- Staff available 24 hours for consultation or review of animal concerns
- Reporting of concerns to PI and research technicians
- Staff providing veterinary care to the Fort Garry Campus rotate on an approximately 2 week basis

Controlled Substances

- Examples – ketamine, buprenorphine, pentobarbital
- Requires that the Investigator obtain an Exemption 56 from Health Canada to use these in research
- Researcher indicated a source on the application and then purchases and holds their own supply
- It is not supplied by the facility, however, Veterinary Services is a licenced dealer and can be named as the source

http://umanitoba.ca/research/orec/media/Instructions_for_Appl_for_Exemption.pdf

http://umanitoba.ca/research/orec/media/Health_Canada_Exemption_Appl_Form.pdf

Veterinary Care

Provided by:

Animal Health Technician Practitioners

- Sue Blair
- Shelley Germscheid

Clinical Veterinarians:

- Dr. Patricia Johnson
- Dr. Leo Kenny

And assisted by:

- Dr. Richard Hodges, Director, Animal Care and Use Program

If you have a concern about your animal, email:

veterinaryservices@umanitoba.ca

Research Grant Submission

- Office of Research Services
<http://umanitoba.ca/research/ors/index.html>
- Funding Application Approval Form, (FAAF) formerly form 58/59
Link to the form and its guidelines:
http://umanitoba.ca/research/ors/research_forms_online.html
5 - Tick off yes beside vertebrate animal use and approval pending
- Not sure? – Abbreviated protocol for minimal animal involvement:
http://umanitoba.ca/research/orec/media/Abbreviated_Protocol_For_Minimal_Animal_Involvement.pdf

Animal Use Protocol Approval

Animal use in Research/Teaching requires:

- A protocol be written that outlines the research
- Submitted to Animal Care Committee
- Review process and approval

Animal Care Committee Protocol Approval Letter allows for:

- Release of research funding
- Ordering of Animals

Animal Care Protocol Form

- Protocol form available from:

http://umanitoba.ca/research/orec/animal_care/animalcare_for_ms.html

- Always go to website to ensure you have the most current form
- Protocol form also includes 15 schedules some of which may need to be included depending on the nature of your research
- Instructional appendix available

https://umanitoba.ca/research/orec/media/Protocol_Appendix_Current_July_2020.pdf

Protocol Pre-Review

- Designed to provide dialogue between the institutional veterinarians and the researcher – particularly on Schedules 2, 3 & 4: Anesthesia, surgery, and humane endpoints
- Email entire protocol and schedules to tracy.vanosch@umanitoba.ca by date of protocol submission deadline and the reviewing veterinarian will contact you

Dialogue can start informally by phone call or an in person meeting

Protocol Submission

- Following pre-review (if applicable) provide one signed electronic copy of the protocol to Tracy VanOsch (tracy.vanosch@umanitoba.ca)
- All protocols are reviewed by the Animal Care Committee. Allow 6-8 weeks for the review process.
- Deadlines:

<http://umanitoba.ca/research/orec/ac.html>

links to deadlines under “Mtg Dates/Deadlines” hub

Animal Care Coordinator

Coordinates protocol review and approval

- **Tracy Van Osch**

Phone: 474-6182

E-mail: tracy.vanosch@umanitoba.ca

Research Ethics & Compliance, VP Research

Crop Technology Centre, 208-194 Dafoe Road

- **Charlene Hennessey** – Assistant to Animal Care Coordinator

Phone: 474-6402

E-mail: charlene.hennessey@umanitoba.ca

Categories of Invasiveness (COI)

- E protocols
 - Protocols containing E COI procedures are only approved in exceptional cases
 - Whenever possible, protocols will be refined to a lower invasiveness level
 - Additional requirements for merit and ethical review

Following Review

Protocol is assigned one of the following categories:

- **Approved**
 - Animals can be ordered and research can begin
 - **Approved subject to**
 - Animals can be ordered. The committee requires minor administrative clarifications
 - **Conditional approval**
 - Animals cannot be ordered. The committee sends questions to the applicant
 - **Hold**
 - Animals cannot be ordered. Insufficient information for committee to evaluate. The protocol must be resubmitted.
 - **Denied**
-
- PI response is provided electronically to the reviewers who indicate their approval or if additional information is required

Following Approval

Renewal of protocol required on a yearly basis

- Allows for continuation of work and ordering of animals for the next year
- 3 renewals allowed before submission of a new long form protocol is required
- Submit 5 weeks prior to the protocol expiry date. Normally takes 3-5 weeks to process a renewal.

Amendments

- Additional personnel
- Change in procedures
- Additional animals required within the year after approval
- Amendments must be approved prior to changes being implemented. Allow 2 weeks for processing.

Post Approval Monitoring

- The PAM program is designed to assist researchers in ensuring that research is being conducted in compliance with the approved animal protocols
- It consists of in person visits to review procedures, surgeries, animals while on study, and compliance with approved endpoints
- Carried out on behalf of the Animal Care Committee
- It is carried out by the PAM coordinator and members of Veterinary Services

Post Approval Monitoring

Post Approval Monitoring Coordinator - Teri LaFlèche 789-3730

- Phone: 789-3730
- E-mail: Teri.LaFleche@umanitoba.ca
- Main Office: Bannatyne, O53 Apotex Center

Post Approval Monitor - Rachelle Mariash

- Phone: 789-3258
- e-mail: Rachelle.Mariash@umanitoba.ca
- Main Office: Bannatyne, O53 Apotex Center

Education and Training

Animal User Training Course:

- Mandatory for all research personnel, staff and students involved in animal based work
- Delivered on-line in UM Learn
- Self-registration for U of M staff and students. Non-U of M personnel must submit a request for a sponsored account to access the course.

Further details available from Research, Ethics, Animal Care website:

http://umanitoba.ca/research/orec/ethics/animalcare_education_training.html

Wet Labs

- Hands on component
- Attendance requirement assessed on an individual basis by LATC, PI and the ACC
- Considering factors:
 - species being used
 - type of work being done
 - level of independence required
- Just-in-time training
 - Procedures taught as needed close to when personnel will be performing them

Education and Training

On-going Education:

New information related to changes in guidelines, best practices and any other information the Education Committee believes to be pertinent to all Animal Users will be delivered via email messages and hard copy documents.

Live face-to-face professional development opportunities will also be offered when a relevant issue warrants such.

Education and Training

Lab Animal Training Coordinator - Denise Borowski

- Bannatyne, main office, 053 Apotex Ctr.
- Phone: 789-3960, Fax: 789-3914
- e-mail: denise.borowski@umanitoba.ca
- General inquiries: autp@umanitoba.ca

Education Technician - Rachelle Mariash

- Phone: 789-3258
- e-mail: rachelle.mariash@umanitoba.ca
- Bannatyne, main office, 053 Apotex Ctr.

Safety in Animal Research

- Biosafety Officer / Animal Care Occupational Health Specialist –
Steven Cole
 - Phone: 789-3675
 - Fax: 789-3906
 - E-mail: steven.cole@umanitoba.ca
- Schedule 10 - Protocol review and risk assessment
- Biosafety Permitting – may be required for work which leads up to or follows animal use protocols
- General lab safety inspection services

The Human/Animal Relationship

2 aspects of the human/animal relationship that can have significant impact on research with animals

#1 - Individual differences in comfort levels when working with animals

#2 - Compassion satisfaction/compassion fatigue

1 – Individual Comfort Levels

Individual comfort levels can be impacted by a wide variety of factors including but not limited to:

- Past experiences handling/interacting with animals
- Fear of animals
- Religious or philosophical beliefs
- Cultural influences

Personal Factors Present a Wide Spectrum of Impact

Individuals will vary significantly in how these factors impact their relationship with and ability to work with animals.

- Negative past experiences with animals may be overcome with training & exposure to positive outcomes
- Fear of animals due to uncertainty may be overcome with training and exposure but overcoming deep seated fear will be difficult
- Religious or philosophical beliefs and cultural influences may make it very difficult for some to work with animals

Need to Consider – Recruiting & Evaluating Personnel

- Training Program – Observing situations more frequently
- Trainers are patient and invest time and follow up appropriate to individual needs
- Some personnel may not be able to obtain required training certification
- Continued exposure of a person who is fearful or extremely uncomfortable to animal handling/manipulation duties is dangerous

Persons not Psychologically or Emotionally Capable of Working Comfortably with Animals

This can have serious negative consequences on your research

- Impacts on animal welfare due to poor handling/manipulation
- Impacts on variability/quality of the science
- Impacts on the emotional and psychological well being of the person

Consider, Monitor and Deal with this Issue

Be attentive to the comfort levels of lab personnel

Be ready to help and offer support/mentors

Work with Lab Animal Trainers and Facility Staff

Be ready to accommodate/change duties

2 – Compassion Satisfaction/Fatigue

The cost of caring can affect all persons involved in animal work

Those working closely to animals used in research are particularly susceptible due to human animal bond

Resources

- AALAS Webinar – Compassion Fatigue and Compassion Satisfaction in the Workplace: Is the Cost of Caring Affecting Me?
- To view video you will be asked to register on the GoToWebinar website (with name and email address)
- <https://attendee.gotowebinar.com/recording/7406560281194855938>

Resources Continued

- Resources identified in that webinar (last page of webinar hand out)
- Employee & Family Assistance Plan (HR Web Page)
- Student Counselling Centre
 - Fort Garry – 474 UC – drop in
 - Bannatyne – S207 – call 474-8592 or drop in

Facilities

- Fort Garry
 - Biological Sciences Animal Holding
 - Psychology Animal Holding
 - Animal Science
 - Animal Science Building
 - TK Cheung Centre
 - Glenlea Research Station
 - Poultry Units
- Bannatyne
 - Central Animal Care Services
- St. Boniface Research Centre

Biological Sciences Animal Holding

- W100 Duff Roblin Bldg,
- Rodent Housing, Fish, Reptiles, Amphibians
- Facility Manager: Dr. Jason Treberg
- Order forms, green sheets, submitted to:
Jackie Nelson (474-6873)
 - Orders can be placed Monday-Thursday
 - CACS orders arrive on a Wednesday
 - Allow 1 week notice for incoming animals
 - Arrival dates will vary with other orders
 - Card access

Psychology Animal Holding

- Fort Garry Campus
- P100 Duff Roblin Bldg
- Facility Manager: Matt Hamaberg, 474-8866
E-mail: Mathew.Hamaberg@umanitoba.ca
- Surgical Suite with gas anesthetic machine available

Animal Science

- Animal Science Bldg, basement
 - Chick studies
- T.K. Cheung, Centre for Animal Research
 - Swine and cattle research
 - Surgical suite for cattle
- Animal Science Surgery
 - Gas anesthesia swine surgery
- Animal Science Annex
 - Indirect Calorimetry chambers (swine)

Animal Science

- Small Animal Research Facility, Animal Science Building
Director: Dr. Anna Rogiewicz, 474 9527
Anna.rogiewicz@umanitoba.ca
- T.K. Cheung, Centre for Animal Research
Director: Dr. Nyachoti, 474-7323
martin.nyachoti@umanitoba.ca
- Animal Science Surgery
Contact: Atanas Karamanov, 474-6376
atanas.karamanov@umanitoba.ca

Glenlea Research Station

- Poultry Unit
 - Laying hens
 - Broiler studies
 - Fertilized egg production
- Ruminant Unit
 - Dairy herd, rumen cannulated cows
 - Beef holding facilities
- Swine Unit
 - Farrow to finish pigs
 - Source of pigs for nutrition studies

Glenlea Research Station

Operations Manager: Jason Bourcier, (204) 712-6000
jason.bourcier@umanitoba.ca

Research Coordinator: position currently vacant, contact
Operations Manager

- Poultry Unit
Facility Manager: Gemmar Maramot, 297-7217
gemmar.maramot@umanitoba.ca
- Ruminant Unit (Dairy & Beef)
Facility manager: Michael Hummell 883-2649
michael.hummel@umanitoba.ca
- Swine Unit
Facility manager: Don Chaput 770-2137
donald.chaput@umanitoba.ca

Bannatyne Campus: Central Animal Care Services

GEMM Services

- Model creation
- Cryopreservation and Recovery
- Chimera Generation/Crisper
- Cell Line Preservation

Imaging Services

- Optical Imaging
- Micro-CT
- Micro-PET
- MRI, PET-MRI
- Ultrasound
- SPECT-CT

Mouse and Rat Quarantine

We're here to help





**University
of Manitoba**