IACUC Policy # 300: Review and approval of applications (protocols, amendments, and annual reviews) submitted to the IACUC

The IACUC must review all proposed teaching, testing or research activities using live vertebrate animals in accordance with Cornell Policy 1.4 and the regulatory requirements governing such animal use. This policy describes the review process and the essential elements of IACUC review.

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1) Policy

A. Responsibility of the IACUC

1. Cornell Policy 1.4 assigns the following specific responsibilities to the IACUC relative to the review and approval of animal related activities:
   - “Review and approve, require modifications in or withhold approval of those components of proposed activities related to the care and use of animals.”
   - “Review and approve, require modifications in or withhold approval of proposed significant changes regarding the care and use of animals in ongoing activities.”
   - “Conduct annual reviews of protocols.”

2. The IACUC has the authority to review applications involving the use of animals on an ongoing basis.

B. Scope of the IACUC review

1. Cornell Policy 1.4 applies to “All units of the university, excluding the Weill Cornell Medical College”. The following activities involving live vertebrate animals used for teaching, testing or research are subject to review by the IACUC prior to initiation:
   - Activities conducted by faculty, staff, or students affiliated with Cornell, as part of their Cornell responsibilities;
   - Activities performed on the premises of the University;
   - Activities performed with or involving the use of Cornell funds, facilities or equipment;
   - Activities satisfying a requirement imposed by the University for a degree program or completion of a course of study; and
   - Activities conducted on an award for which Cornell University is the awardee.
2. Examples of activities that require IACUC review (see exceptions below):
   • Research: The use of live animals in research, including medical, biological, behavioral, and agricultural research (such as the study of food and fiber production or diet manipulation), and research with free-ranging wildlife.
   • Teaching, demonstrations, exhibitions: The use of live animals in educational settings, for example: open houses with live animals, workshops using animals to teach agricultural techniques, animal husbandry, and medical or veterinary procedures, and other demonstrations.
   • Testing: The use of live animals for any testing, such as clinical tests, vaccine trials or tests, screening or diagnostic assays.
   • Projects conducted in collaboration with other institutions in the U.S. or in foreign countries: All projects with animals bought with Cornell funds or conducted by Cornell personnel, are subject to IACUC review, even if the projects are conducted in foreign countries or at other institutions. This includes the use of animals at foreign research institutions and fieldwork involving either domestic or wild animals. All animal work and procedures are subject to IACUC review under the terms of IACUC Policy 350: Animals Work Conducted at Non-Cornell Organizations.

3. Exceptions:
   • According to Cornell Policy 1.4, “Situations involving the clinical care of client-owned animals at the Cornell University Hospital for Animals are not covered by this policy.” Only clinically necessary procedures used to treat the current clinical condition of the animal are exempt from IACUC review. Clinical research projects with client-owned animals are reviewed on a case by case basis in the IACUC office to determine whether the project requires IACUC review.
   • Use of tissues, organs or other parts of dead animals if the animals were not euthanized for the collection of these tissues;
   • Observation of wild animals in their natural habitat without any capture or handling of the animals nor any manipulation of their habitat.

C. Types of Applications for IACUC Review
   1. New protocols
   2. 3-year renewals: A full de novo review is required for all protocols at least once every 3 years. The IACUC does not have the authority to extend the three year approval period.
   3. Amendments are required when any changes to an approved protocol are proposed. Proposed changes cannot be implemented prior to receiving written approval.
   4. Transfer of ownership of a protocol is considered a significant change and must be approved by the IACUC.
   5. Annual reviews are required for each protocol.

D. Application Review criteria
   1. The IACUC shall review all applications to determine that the proposed projects are in accordance with the provisions of the Guide for the Care and Use of Laboratory Animals, Public Health Service (PHS) Policy, Animal Welfare Regulations (AWRs), and the US Government Principles for the Utilization and Care of Vertebrate Animals used in Testing, Research, and Training. In all cases, the investigator must justify and explain the proposed animal use to the satisfaction of the IACUC before the application can be approved. If the IACUC does not have the scientific and technical expertise to evaluate all aspects of an application, it may
bring in external expert consultants to assist with fact-finding and/or deliberations. Such consultants must not have a conflict of interest with the research activity or researchers proposing it.

2) Procedures

A. Use of eSirius for application review and approval

1. All applications for use of animals are submitted, reviewed and approved using the online protocol management system eSirius. Information about gaining access to eSirius and starting an eSirius protocol can be found at [http://www.iacuc.cornell.edu/requirements/about-the-process.htm](http://www.iacuc.cornell.edu/requirements/about-the-process.htm). Application deadlines and IACUC meeting schedules are established well in advance (see [http://www.iacuc.cornell.edu/requirements/deadlines.htm](http://www.iacuc.cornell.edu/requirements/deadlines.htm)). An outline for the review process is available on the IACUC website: [http://www.iacuc.cornell.edu/requirements/IACUC%20timeline.pdf](http://www.iacuc.cornell.edu/requirements/IACUC%20timeline.pdf). The protocol application must include all the details required by the IACUC. The IACUC reviews the application by one of the processes outlined below in section B. The IACUC staff notifies the Principal Investigator (PI) of the review outcome for each application. Notifications are sent from eSirius after a decision has been recorded in eSirius. PIs are responsible for keeping a record of those notifications, reviewing the notifications carefully and adhering to the requirements of the IACUC outlined in the notification and pursuant to Cornell Policy 1.4. Under no circumstances can animal work be permitted to begin or resume until final approval is granted and the PI is notified.

2. Documentation in eSirius is used to track the following:
   - The PI’s proposed use of animals. The application must include all the details required by the IACUC. Any supplementary information required by the IACUC and provided by the PI, such as training certificates, Standard Operating Procedures (SOPs), justification of numbers, client consent forms, permits, etc. must be attached to the application in eSirius;
   - Pre-review comments by: IACUC staff, Center for Animal Resources and Education (CARE) veterinary staff, Animal User Health and Safety Program (AUHSP) working group, and IACUC members;
   - Modifications required by the IACUC in order to secure approval;
   - Responses by the PI, including any changes to the protocol, responses to questions, or additional clarification;
   - Training requirements and completion of training;
   - AUHSP Protocol risk level and Biosafety level;
   - Personnel information;
   - Notifications of assignment of the application to reviewers and to the PI;
   - Applications assigned to the IACUC Agenda for convened committee meetings;
   - Documentation of IACUC decisions (approval, required modifications for approval, non-approval, etc.)

B. Methods of application review

1. The procedural review requirements of the PHS Policy and/or AWRs are followed in all IACUC review procedures.
2. The PHS Policy and AWRs recognize two methods of application review: Full Committee Review (FCR) and Designated Member Review (DMR). The IACUC can conduct application reviews using the DMR method or a Full Committee Review (FCR), provided such reviews are done in accordance with the Public Health Service (PHS) policy.

3. Types of Applications and allowable methods of Application Review:

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* FCR: Full Committee Review
**DMR: Designated Member Review

4. Details of Application Review

- **Full Committee Review (FCR)**
  - Applications that require FCR are reviewed at a convened meeting of a duly constituted quorum of the IACUC members. The Committee has the authority to approve, require modifications in (to secure approval), disapprove, or defer any proposed activity to a future meeting. Applications must receive a majority vote of the quorum present, to be approved.
  - In many cases, the Committee requires modifications to secure approval and votes to allow the modified application to be reviewed and approved, using the Designated Member Review (DMR) process as described below.

- **Designated Member Review (DMR)**
  - When using the DMR method, all IACUC members receive a list of proposed animal use applications and access to the necessary information on the applications to be reviewed. Any member may make a request to send the application to FCR. If no member calls for FCR, at least one member of the IACUC, designated by the Chairperson, and qualified to conduct the review, shall review the application and have the authority to approve, require modifications to secure approval, or request full committee review of the application. DMR reviewers do not have the authority to withhold approval; in such cases the application is submitted for FCR. DMR approval has equal validity to full-committee review approval, and does not require subsequent re-approval or notification at a convened meeting.
**Types of DMR:**

- **DMR for Amendments:** Significant changes that may increase pain or distress to animals or increase the risk to personnel are submitted as amendments and normally reviewed by the DMR process as outlined ([http://www.iacuc.cornell.edu/requirements/Timeline%20for%20Amendment%20Workflow.pdf](http://www.iacuc.cornell.edu/requirements/Timeline%20for%20Amendment%20Workflow.pdf)) using at least one IACUC member and the Attending Veterinarian or his/her Alternate.

  Examples of such changes include:
  - Change resulting in greater pain, distress, or degree of invasiveness
  - Change from non-survival to survival surgery;
  - Change in housing and or use of animals in a location that is not part of the animal program overseen by the IACUC;
  - Addition of new species;
  - Change in study objectives or addition of new experiment;
  - Change in Principal Investigator (PI);
  - Changes that impact personnel safety.

- **DMR for Amendments with CARE approval** are amendments that can be approved with review by the Attending Veterinarian or designee. Examples of such changes include:
  - Deletion of an administered substance from a protocol;
  - Changes in anesthesia, analgesia, sedation, euthanasia, antibiotics or experimental substances. Changes include but are not limited to addition of drugs, alternate methods or routes, or modification of doses;
  - Addition of a non-surgical procedure that does not increase pain or distress;
  - Change in duration, frequency, type, or number of non-surgical procedures provided that the change does not increase pain or distress;
  - Refinement of a surgical procedure;
  - Change in transportation of animals;
  - Addition or change of an AVMA-approved euthanasia method;
  - Increase or decrease in animal numbers.

- **DMR approvals subsequent to FCR for any application:** IACUC members sign a proxy agreeing that a quorum of members present at a convened meeting may decide by unanimous vote to use the DMR process to secure approval for applications requiring modifications.

- **DMR with approval from the IACUC Chair:** New protocols or 3 year renewals may be reviewed by the DMR process with the approval of the IACUC Chair.

**Administrative Changes**

- Amendments submitted in eSirius proposing “Administrative Changes” that are not considered significant by the IACUC can be approved once the conditions set for approval are met.
• Examples of Administrative Amendments with only IACUC Staff Approval include:
  • Modification of personnel, other than the PI, provided personnel are qualified, adequately trained and meet other criteria as required by the IACUC;
  • Removal or addition of animal housing or procedure rooms, provided such rooms are approved by the IACUC and the facility manager concurs with the use of the space for the purposes of the protocol;
  • Correction of typographical errors.
• Examples of Administrative Amendments with Veterinary Approval (CARE) include:
  • Change in procedures a person listed on protocol will be performing;
  • Change in source of animals;
  • Addition or deletion of strains of animals on a protocol provided that additional strains do not have phenotypic problems that cause pain or distress;
  • Transfer of animals to other protocols or institutions (provided that transfer policy requirements have been met).

C. Responsibilities During the Application, Review, and Approval Process

1. The Principle Investigators (PIs)
   • prepare and submit applications in eSirius in a timely manner to meet deadlines;
   • make modifications in applications in order secure IACUC approval;
   • ensure adherence to approved protocols;
   • ensure that all personnel have completed required training;
   • report any adverse events to the IACUC.

2. The IACUC Administrative Staff: provide the following administrative support to the IACUC:
   • perform an administrative pre-review of all applications for completeness and consistency of information;
   • verify personnel training and suitability of rooms and facilities selected for housing and procedures;
   • determine if the application is eligible for processing as an administrative change and if so, complete the processing and approval;
   • manage the processes in the eSirius system which support application review and approval, (including the appropriate notifications to PIs and reviewers at each stage of the process):
     • route the application to the reviewers in eSirius;
     • consolidate reviewer comments in eSirius, and route the application back to the PI, if needed, to address the questions or comments posed by the reviewers;
     • ensure all applications are available to IACUC members for review as required by the AWR, PHS Policy, and Institutional policies;
     • for those applications that are reviewed at IACUC Committee meetings, document review comments in the meeting minutes;
     • throughout the review process, communicate with the PI and reviewers as needed to facilitate the review and approval process;
     • conduct a final administrative review to ensure that all concerns and queries from the IACUC and the requirements of the Cornell policy and regulatory bodies are met before processing final approval in eSirius.
3. **Center for Animal Resources and Education (CARE) Veterinarians**: At least one CARE Veterinarian performs a complete review of the application, with particular attention to animal health and welfare considerations raised by the animal use described in the application. This review includes, but is not limited to, the appropriateness of:

- the species and the number of animals proposed;
- the drugs and dosages used;
- procedures such as restraints, acclimatization, enrichment, and quarantine;
- pre-op, surgery, and post-op procedures and monitoring plan;
- any non-surgical procedures or experiments performed on the animals;
- monitoring and management of discomfort, distress, or pain to animals;
- euthanasia methods;
- exemptions from standards of care, if requested.

4. **Animal Users Health and Safety Program (AUHSP)**: The AUHSP Working Group reviews all applications. Specifically the AUHSP working group:

- assigns an Occupational Safety related Risk Level and Biosafety Level associated with the activities outlined in the protocol;
- makes recommendations for improvements, requests clarifications and suggests conditions for approval of the application;
- communicates with the PI as needed for clarification;
- assigns any required training to personnel on the protocol, conducts and documents training as required;
- requires selection of Animal Biosafety Procedures (ABPs) or completion of SOPs for Biosafety Levels (BSL) 2 and 3, and for other hazards use, approves the SOPs, documents the approval, and informs the IACUC office of such approval.

5. **IACUC Reviewers**: perform a complete review of the application, including the sections pre-reviewed by the IACUC Administrative staff, CARE Veterinarians and the AUHSP working group, with particular attention to:

- scientific design and the relevance of the species used;
- the justification for the use of animals and the number of animal numbers used to meet the purpose of the scientific design;
- appropriateness of the proposed procedures used to achieve the scientific goal of the project, while appropriately managing issues related to animal welfare;
- suitability of the alternatives suggested, when Pain Category D and E procedures are proposed.

One IACUC reviewer presents each application at duly convened IACUC meetings, and leads the review discussion.
3) Policies, Regulatory Mandates and Guidelines
   A. Cornell Policy 1.4
   B. IACUC policies
      http://www.iacuc.cornell.edu/policy/
   D. PHS Policy on Humane Care and use of Laboratory animals
      http://grants.nih.gov/grants/olaw/references/phspol.htm
   E. U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training
      http://grants.nih.gov/grants/olaw/references/phspol.htm#USGovPrinciples
   F. Possible methods of IACUC Approval
      http://grants.nih.gov/grants/OLAW/faqs.htm#proto_3

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