

# **Animal Welfare Assurance for Domestic Institutions**

***The Board of Trustees of the Leland Stanford Junior University  
(650) 736-7065  
Stanford, CA 94305***

A3213-01

THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY  
ANIMAL WELFARE ASSURANCE  
in accordance with the PHS Policy for  
Humane Care and Use of Laboratory Animals

I, Kathryn A. Moler, PhD., as named Institutional Official for animal care and use at The Board of Trustees of the Leland Stanford Junior University, hereafter referred to as Institution, by means of this document, provide assurance that this Institution will comply with the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals (Policy).

## **I. Applicability of Assurance**

This Assurance applies whenever this Institution conducts the following activities: all research, research training, experimentation, biological testing, and related activities involving live vertebrate animals supported by the PHS, NSF, HHS, and NASA. This Assurance covers only those facilities and components listed below.

- A. The following are branches and components over which this Institution has legal authority, included are those that operate under a different name:

"Institution" includes the following branches and components of the Leland Stanford Junior University: 1) SLAC National Accelerator Laboratory.

- B. The following are other institution(s), or branches and components of another institution: n/a

## **II. Institutional Commitment**

- A. This Institution will comply with all applicable provisions of the [Animal Welfare Act](#) and other Federal statutes and regulations relating to animals.
- B. This Institution is guided by the "[U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training](#)."
- C. This Institution acknowledges and accepts responsibility for the care and use of animals involved in activities covered by this Assurance. As partial fulfillment of this responsibility, this Institution will ensure that all individuals involved in the care and use of laboratory animals understand their individual and collective responsibilities for compliance with this Assurance, and other applicable laws and regulations pertaining to animal care and use.
- D. This Institution has established and will maintain a program for activities involving animals according to the *Guide for the Care and Use of Laboratory Animals* ([Guide](#)).
- E. This Institution agrees to ensure that all performance sites engaged in activities involving live vertebrate animals under consortium (subaward) or subcontract agreements have an Animal Welfare Assurance, and that the activities have Institutional Animal Care and Use Committee (IACUC) approval.

### III. Institutional Program for Animal Care and Use

- A. The lines of authority and responsibility for administering the program and ensuring compliance with the PHS Policy are as follows: **Attachment One**
- B. The qualifications, authority, and percent of time contributed by the veterinarian(s) who will participate in the program are as follows:

The veterinarians carry out their duties as part of the program of the Veterinary Service Center (VSC). The VSC is a division of the Department of Comparative Medicine (DCM). Therefore, as indicated in this Assurance, section IIIA, the authority of the veterinarians is derived from the Board of Trustees, through the President, through the Provost, through the Dean of the Medical School, to the Chair of the Department of Comparative Medicine, to the veterinarians. The Attending Veterinarian also has a reporting relationship with the Institutional Official.

- **Stephen Felt, Attending Veterinarian; Professor, DCM**

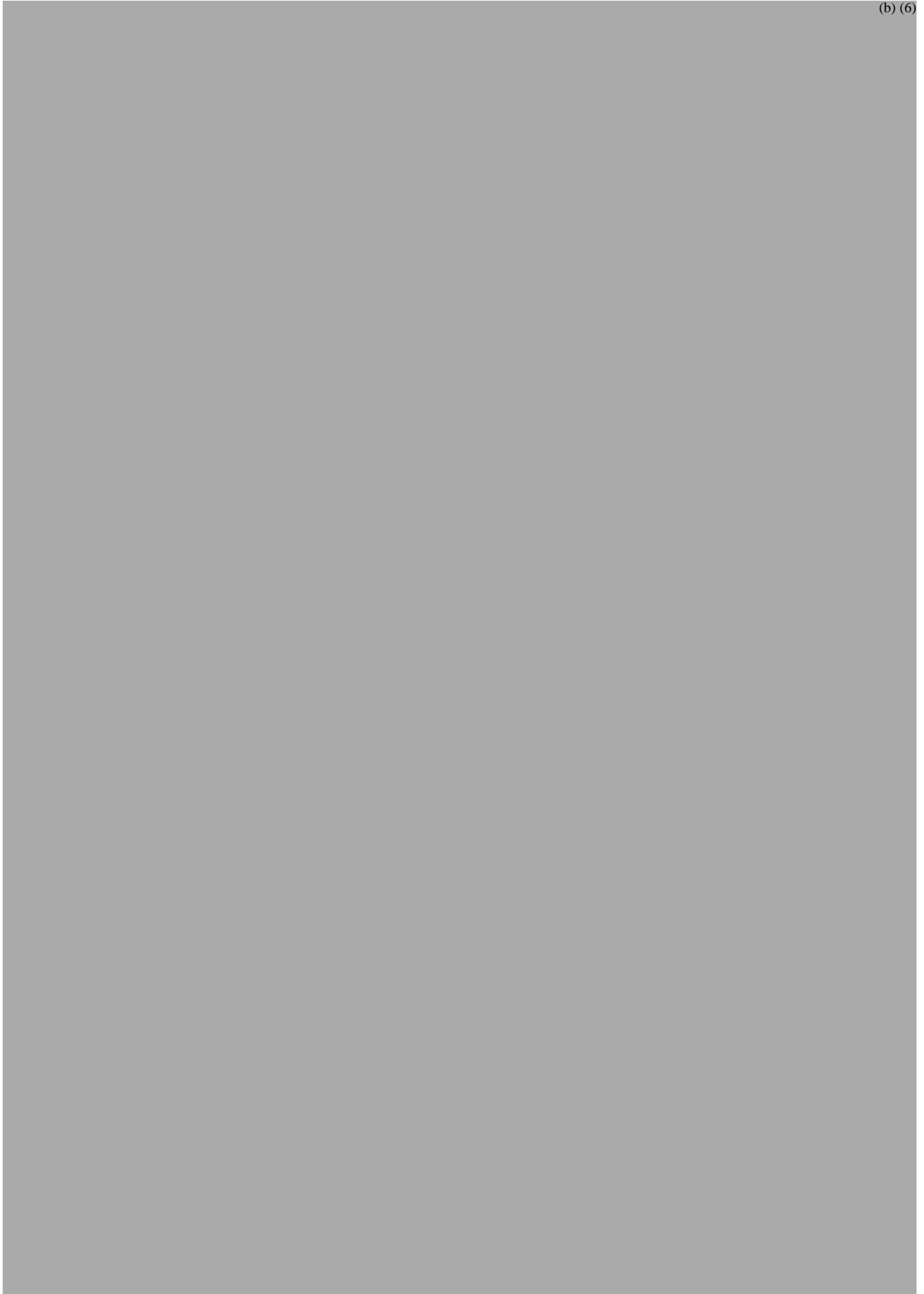
Qualifications

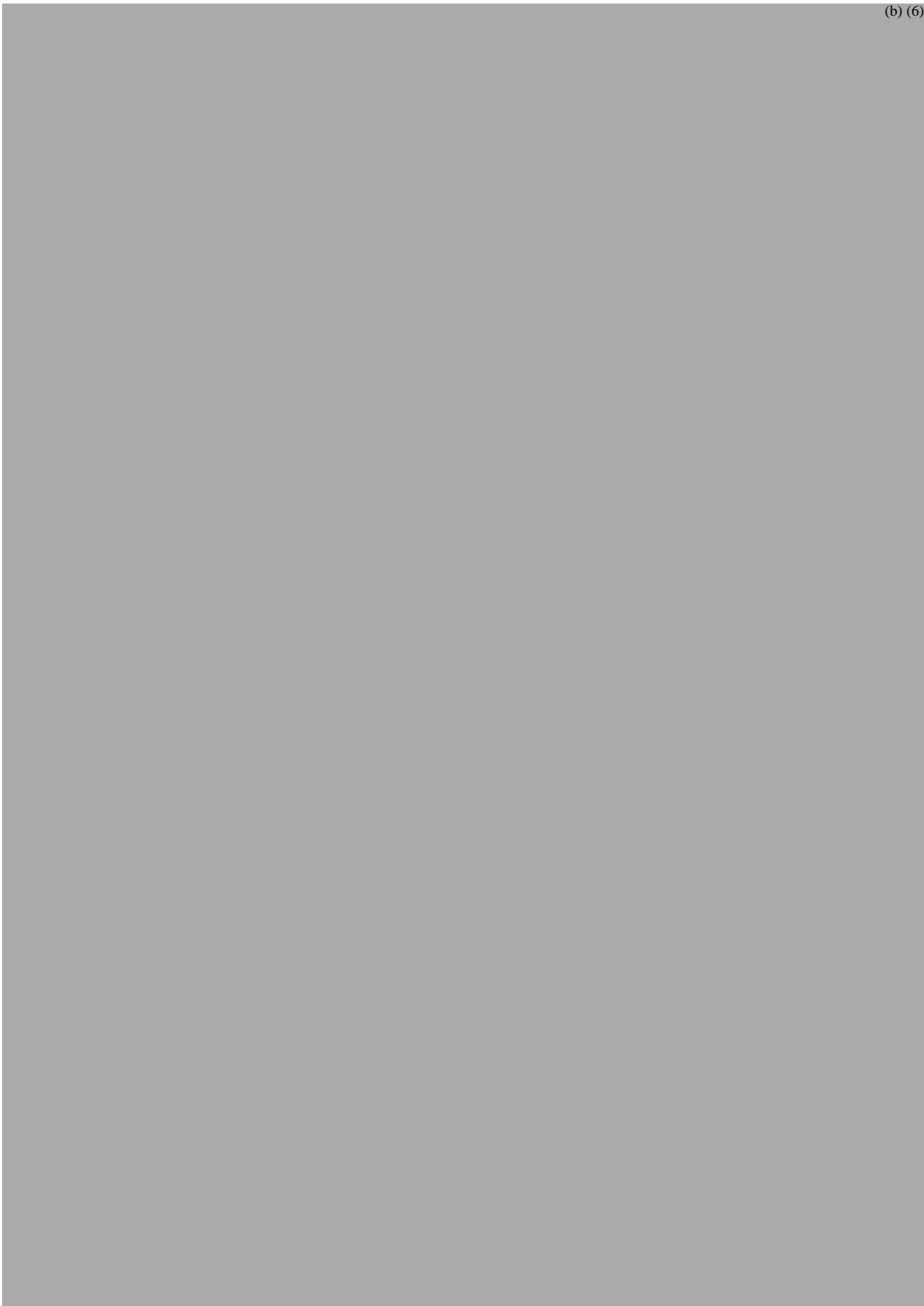
- Degrees: DVM, University of Wisconsin, 1993; MPH, Uniformed Services University, 2003; Diplomate, American College of Veterinary Preventive Medicine (DACVPM), 2003; Diplomate, American College of Laboratory Animal Medicine (DACLAM), 2005.
- Training or experience in laboratory animal medicine and in the use of the species at the Institution: AV 2008-present: Assistant Professor, DCM, 2008-2015; Associate Director, VSC, 2008-2018; Director LAMRP, 2008-2019; Associate Professor, DCM, 2015; Professor, DCM, 2020.

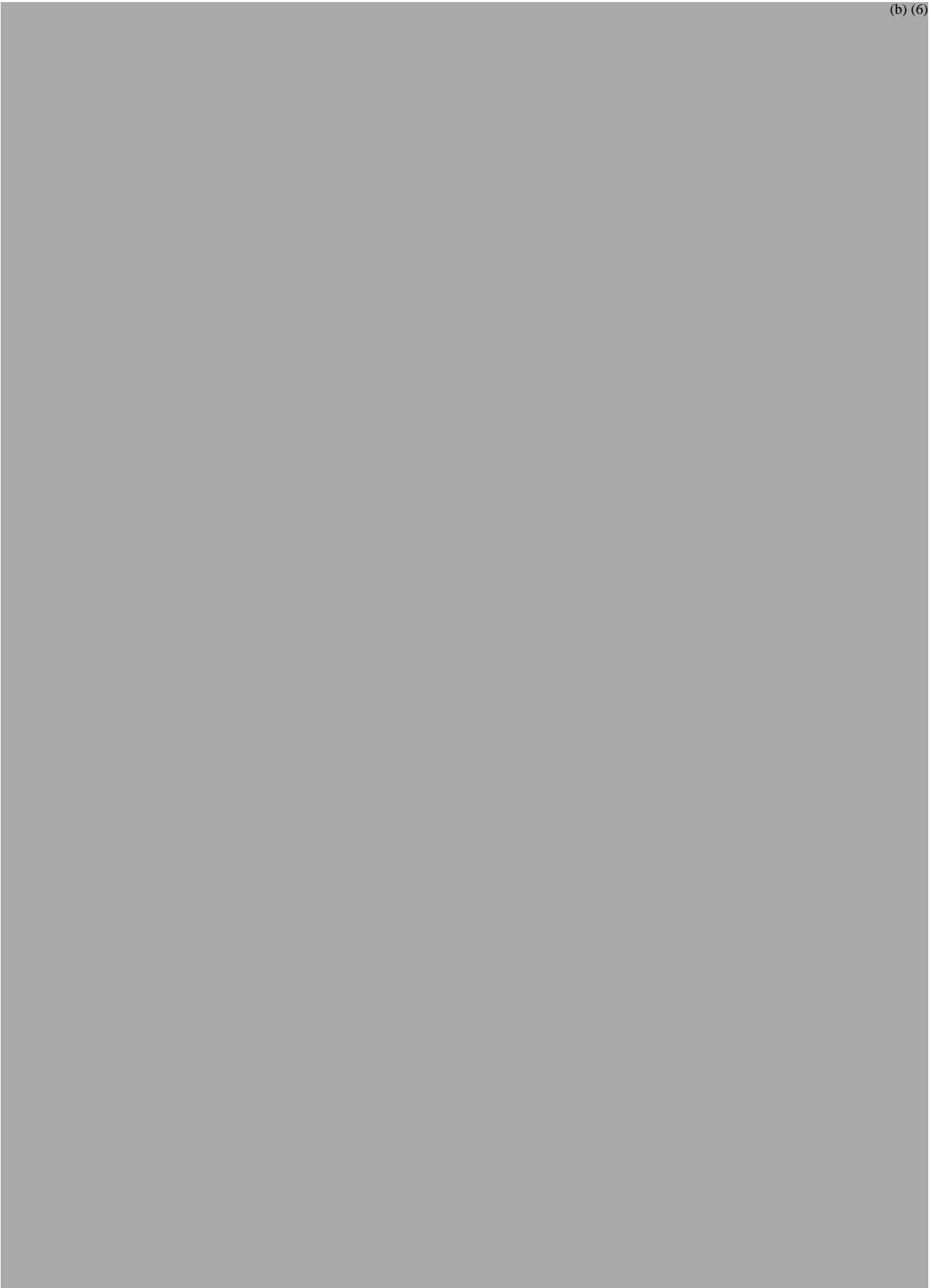
Responsibilities: Dr. Felt has direct program authority and responsibility for the Institution's animal care and use program, including access to all animals. Dr. Felt supervises staff veterinarians and technicians, and provides clinical, teaching, and research services. Also trains investigative staff, assists researchers with protocol preparation, performs protocol review, and is a voting member of the IACUC. Participates in laboratory animal medicine resident (post-doctoral) training.

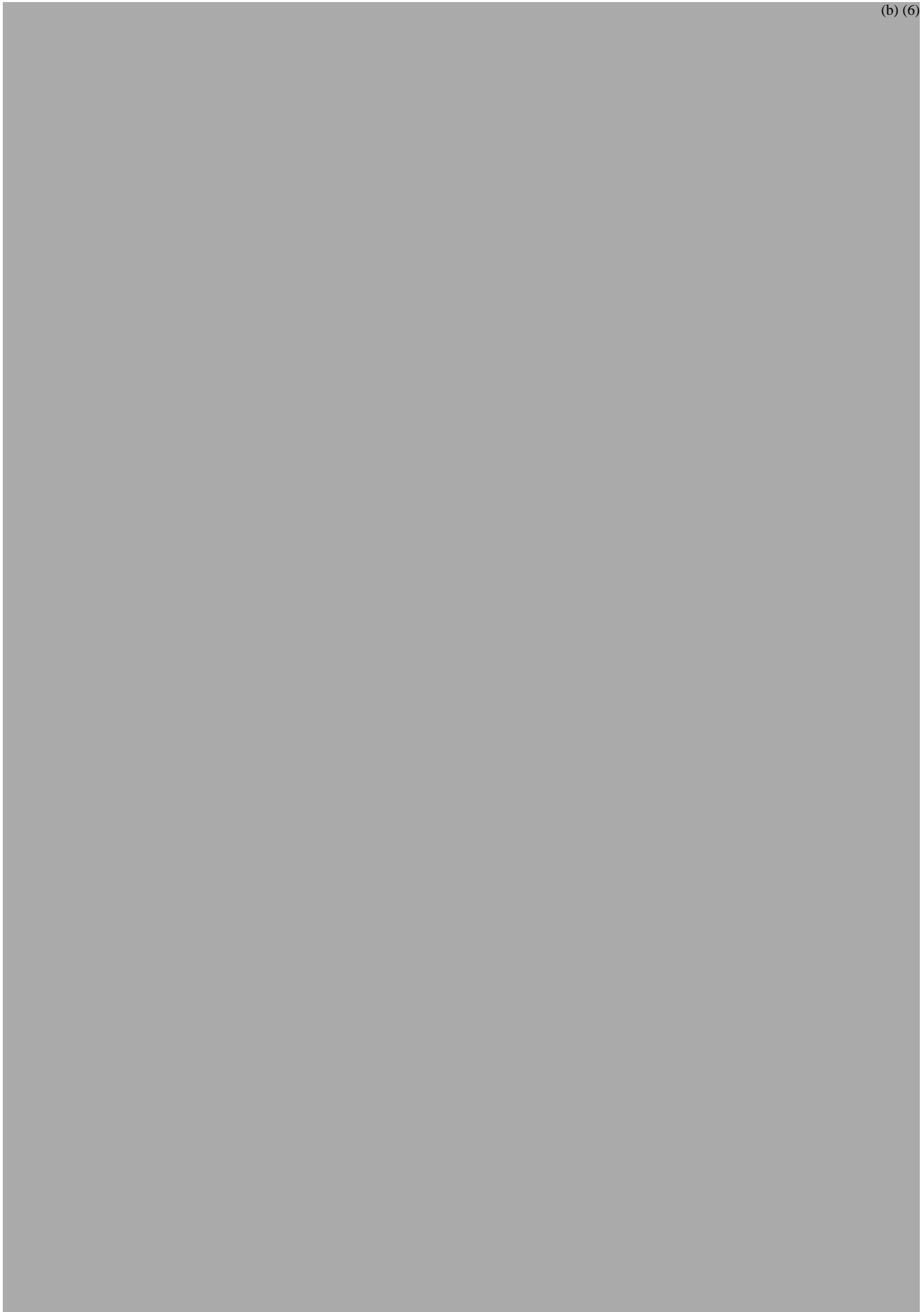
Time contributed to program: Full time employee. Percentage of time contributed: 100%.

(b) (6)









C. The IACUC at this Institution is properly appointed according to PHS Policy IV.A.3.a. and is qualified through the experience and expertise of its members to oversee the Institution's animal care and use program and facilities. The IACUC consists of at least 5 members, and its membership meets the composition requirements of PHS Policy IV.A.3.b. Attached is a list of the chairperson and members of the IACUC and their names, degrees, professions, titles or specialties, and institutional affiliations. **Attachment Two.**

D. The IACUC will:

- 1) Review at least once every 6 months the Institution's program for humane care and use of animals, using the *Guide* as a basis for evaluation. The IACUC procedures for conducting semiannual program reviews are as follows:
  - a) The IACUC will conduct semiannual reviews of the University's Program for Laboratory Animal Care and Use at convened meetings utilizing the sample *Semiannual Program Review Checklist*, the most recent edition of the *Guide*, the Policy, and as applicable, 9 CFR Chapter I, subchapter A, as a basis for evaluation. The "Semiannual Program Review Checklist" is distributed to the IACUC well in advance of the convened meeting. Approximately one week prior to the convened meeting, a meeting invitation is sent to all Panel members informing them that the Semiannual Animal Care and Use Program Review will be taking place during the next two convened IACUC meetings. It urges them to familiarize themselves with the *Semiannual Program Review Checklist* and formulate any questions or concerns they may have regarding the process and/or specific areas for discussion during these meetings. When the review is conducted, the IACUC Chair encourages all members to participate in the discussion.
  - b) During these convened meetings, IACUC members will evaluate selected program items from the checklist, categorize any program deficiencies as minor or significant, and develop a plan and schedule for correction for any deficiencies.
- 2) Inspect at least once every 6 months all of the Institution's animal facilities, including satellite facilities and animal surgical sites, using the *Guide* as a basis for evaluation. The IACUC procedures for conducting semiannual facility inspections are as follows:
  - a) The IACUC will inspect every six months all of the University's animal facilities, including satellite holding facilities and areas in which surgical manipulations are performed, using

- the most recent edition of the *Guide*, the Policy, and as applicable, 9 CFR Chapter I, subchapter A, as a basis for evaluation. The sample "Semiannual Facility Inspection Checklist" is used for conducting facility inspections.
- b) Facility inspections are conducted with at least two IACUC members inspecting all facilities where USDA regulated species are housed or studied, and at least one IACUC member and/or ad hoc consultant inspecting areas where non-USDA regulated species are housed or studied. All IACUC members are invited to participate in semiannual facility inspections or other evaluations of the facilities.
  - c) Remote methods such as live stream or prerecorded videos, photographs, or written descriptions may be used when normal processes are not feasible (e.g., during pandemics or other emergency situations).
  - d) Facility inspection findings are presented at convened IACUC meetings.
- 3) Prepare reports of the IACUC evaluations according to PHS Policy IV.B.3. and submit the reports to the Institutional Official. The IACUC procedures for developing reports and submitting them to the Institutional Official are as follows:
- a) A majority of the IACUC members review and sign the IACUC semiannual evaluation reports after they have been presented at convened IACUC meetings; the IACUC then submits these reports to the Institutional Official via the IACUC office.
    - i. The IACUC will develop reports of the IACUC evaluations, addressing the requirements outlined in the sample format for the "Semiannual Report of the Program Review and Facility Inspection" for the Institutional Official, and as applicable, 9 CFR Chapter I, subchapter A. This report lists the dates when program evaluation and facilities inspections were conducted, provides any minority views, or contains a statement that there were no minority views.
    - ii. The IACUC will identify and discuss departures from the *Guide*, the Policy, and as applicable, 9 CFR Chapter I, subchapter A, during its program evaluations, facilities inspections, and protocol reviews. Any departure is recorded and reported to the Institutional Official in the IACUC evaluations report.
    - iii. The IACUC will ensure through its facility inspection and program evaluation processes that any deficiencies are characterized as significant or minor, and will assign reasonable and specific plans and schedules for the correction of each deficiency.
- 4) Review concerns involving the care and use of animals at the Institution. The IACUC procedures for reviewing concerns are as follows:
- a) The IACUC will facilitate and enable individuals to report concerns involving animal care and use by 1) posting the telephone number for reporting concerns in multiple locations throughout the main animal facilities where the majority of animal users pass through, and in animal use areas; 2) posting information on how to report concerns on the IACUC website; and 3) providing information in the general animal care and use seminar on how to report concerns. Anyone reporting concerns related to the care and use of animals may do so anonymously. Raising such concerns is a service to the University and does not in itself jeopardize employment. Stanford University and Animal Welfare Regulations (9 CFR § 2.32.c.4) prohibit retaliation of any kind against a person who, acting in good faith, reports a concern or a suspected violation of animal care and use regulations or standards.
  - b) The IACUC will review all concerns involving the care and use of animals with safeguards to protect the individual's identity, and if needed, will appoint a subcommittee to perform an IACUC investigation. Noncompliance that is believed to be serious or continuing will be referred to the convened IACUC meeting for review. Appropriate actions will be taken if warranted, up to and including suspension of a protocol.
  - c) The IACUC will report concerns and related IACUC findings and recommendations via the IACUC Chair, Attending Veterinarian, or IACUC office to the Institutional Official.

An additional way to report concerns is through the *Ethics and Compliance Helpline*. This can be done anonymously via a form on the website. The existence of this site is discussed during orientation of new Stanford Employees and signage exists on campus. Additionally, there is a PDF sign on the website for download and posting:

"Members of the Stanford community who have concerns may report them, anonymously if desired, and a resolution will be made by knowledgeable individuals. Raising concerns is a service to Stanford. Stanford policy prohibits retaliation against an individual who in good faith reports or provides information about concerns or suspected violations".

One other source of confidential (rather than anonymous) reporting when someone does not wish to submit a formal complaint is the University Ombuds link (it is an external link). There is also a School of Medicine Ombudsperson (also external). This offers assistance as a confidential resource for faculty, staff, postdocs, students or other members of the Stanford community. Discussing your concerns with these offices will NOT constitute "notice" to the University, nor will it create a record of your concerns with the University.

- 5) Provide written recommendations to the Institutional Official regarding any aspect of the Institution's animal program, facilities, or personnel training. The procedures for making recommendations to the Institutional Official are as follows:
  - a) The IACUC will evaluate, usually by subcommittee, a particular aspect of the University's animal program, facilities, or personnel training.
  - b) Written recommendations developed by the subcommittee will be reviewed and approved by the IACUC at a convened meeting.
  - c) IACUC-approved reports of written recommendations are submitted to the Institutional Official via the IACUC office.
- 6) Review and approve, require modifications in (to secure approval), or withhold approval of PHS-supported activities related to the care and use of animals according to PHS Policy IV.C.1-3. The IACUC procedures for protocol review are as follows:

**Receipt of protocols and initial screening:** Protocols are received in the IACUC office (online electronic protocol management system, hereafter referred to as "eProtocol"). IACUC staff performs an initial screening of all protocols for completeness and adherence to animal welfare standards, and composes routine comments to comply with federal regulations and University policies/practices.

**Notification of members:** A list of protocol activities requiring review is made available to all IACUC members in eProtocol prior to any IACUC action. IACUC members are notified via an email from eProtocol when they have been assigned IACUC protocols to review.

**Distribution:** Protocol activities are made available in eProtocol for IACUC review as either: 1) Full Committee Review, or 2) Designated Member Review (descriptions below under "Methods of Protocol Review"), based on established criteria. All IACUC members have full online access to the proposed research protocols to be reviewed, or they may request a written description of those protocols from the IACUC office. As long as no member requests Full Committee Review of a research protocol that meets the criteria for Designated Member Review, the protocol becomes eligible for review and approval by the Designated Member Review process, as described below.

**Meeting Conduct:** The IACUC meets at least monthly; the IACUC proceedings are confidential. A quorum of the IACUC must be present to conduct its business. Alternates are encouraged to attend all meetings. Minutes are sent to all IACUC members, and a copy is sent to the Institutional Official.

## Methods of protocol review

### a) Full Committee Review:

Protocol activities that have been referred for Full Committee Review are assigned to IACUC reviewers (a minimum of two IACUC members); the IACUC staff assigns other expert reviewers to protocols when applicable, e.g., Radiation Safety when a project involves radioisotope use, and/or Biosafety when a project involves a biological agent or recombinant DNA vectors.

- i. The IACUC, and expert reviewers as needed, review the protocol in the eProtocol system.
- ii. IACUC reviewers submit their comments and requests for modification to the IACUC office within eProtocol.
- iii. The IACUC office reviews all comments and requests for modification that are received for consistency and any duplication, and then sends the comments and requests for modification to the Protocol Directors.
- iv. Protocol Directors are notified via an auto-generated email that comments have been sent regarding their protocols. All comments and requests for modification are sent without referencing the author, thus preserving IACUC reviewer anonymity. Comments and requests for modification are sent out with a request for response within three business days.
- v. Upon receipt of the Protocol Directors' responses to the comments and requested modifications to the protocol, the IACUC staff reviews the responses and modifications, then forwards responses and modifications to the IACUC reviewers. If additional questions arise or further modifications need to be made, another round of comments is generated and sent to the Protocol Directors for their response. This process is repeated as often as necessary until all reviewer questions have been answered and requested modifications to the protocol have been made. The protocol is then assigned to a convened IACUC meeting agenda.
- vi. Approximately 5 days prior to any convened meeting, a list of all protocol activities is sent to every IACUC member via an auto-generated email list. Complete written descriptions of these protocols are available to all IACUC members within the eProtocol system.

Designated Member Review (DMR) procedure for modifications subsequent to Full Committee Review (FCR):

A protocol assigned to FCR will be presented at a convened meeting by IACUC reviewers and/or discussed collectively at the meeting with direction from the IACUC Chair, prior to a vote to approve, require modifications to secure approval, or to withhold approval. If approval is withheld, the IACUC will provide written notification to the Protocol Director, and will provide the Protocol Director with an opportunity to respond in person and/or in writing. If substantive modifications are required, the IACUC will vote to: 1) notify the PI of the modifications necessary to secure approval post-meeting and 2) determine whether the modified protocol will need to return for FCR or can be reviewed via DMR (by the initial reviewer(s)), as described below in the DMR section. If these modifications are properly addressed, re-reviewed by the chosen reviewer(s) and deemed acceptable, the protocol can be approved at that time.

If DMR is selected, then all IACUC members will have the modified research protocol available to them. As long as no member requests FCR, the modified protocol becomes eligible for review and approval by the DMR process. All IACUC members have agreed in advance, in writing, that the quorum of members present at a convened meeting may decide to use DMR subsequent to FCR when a modification is needed to secure approval. However, any member of the IACUC may at any time request to see the revised protocol/and or request FCR of the protocol.

b) Designated Member Review (DMR):

All IACUC members are provided a list of proposed research protocols eligible for DMR via an auto-generated email list. Complete written descriptions of these protocols are available to all IACUC members within the eProtocol system. As long as no member requests FCR of a research protocol that meets established criteria for DMR by the end of the predetermined time period (three days or more), the protocol becomes eligible for review and approval by the DMR process. Once it is determined that the protocol is eligible for review via the DMR process, then the reviewer(s) assumes the responsibility for the full committee in granting unanimous approval, requiring modification, or sending the protocol for full review. In an emergency situation, the predetermined time period for review may be shortened, but the procedures for designated review will be followed.

Protocols eligible for DMR will be assigned to at least one IACUC member, designated by the IACUC Chair (or the Vice-Chair in their absence) as qualified to conduct the review. Other expert consultants may be assigned when applicable (e.g., Radiation Safety when a project involves radioisotope use, and/or Biosafety when a project involves a biological agent or recombinant DNA vectors), but only an IACUC designated reviewer is authorized to take action on the protocol.

- i. The IACUC designated reviewer(s) and expert consultant(s) review the protocol in the eProtocol system.
- ii. IACUC reviewers submit their comments and requests for modification to the IACUC office within eProtocol.
- iii. The IACUC office reviews all comments and requests for modification that are received for consistency and any duplication, and then sends the comments and requests for modification to the Protocol Directors.
- iv. Protocol Directors are notified via an auto-generated email that comments have been sent regarding their protocols. All comments and requests for modification are sent without referencing the author, thus preserving IACUC reviewer anonymity. Comments and requests for modifications are sent out with a request for response within three business days.
- v. Upon receipt of the Protocol Directors' responses to the comments and requested modifications to the protocol, the IACUC staff reviews the responses and modifications, then forwards responses and modifications to the IACUC reviewer(s). If additional questions arise or further modifications need to be made, another round of comments is generated and sent to the Protocol Directors for their response. This process is repeated as often as necessary, until all reviewer questions have been answered and requested modifications to the protocol have been made. All IACUC designated reviewers assigned to a particular protocol review identical versions of the protocol, including all comments and modifications. All reviewers must be aware of and agree to the modifications before indicating the protocol activity is ready for approval. If a reviewer decides that the protocol activity requires Full Committee Review, they may call for this at any time prior to approving. Designated review may not result in withholding of approval.

**Conflicts of Interest:** Protocol activities that disclose a potential Investigator Conflict of Interest or potential Institutional Conflict of Interest are referred to the appropriate campus entities for follow-up review.

The IACUC requires members to decline participation in any type of IACUC review and/or voting in which the member has a conflicting interest. The definition of Conflict of Interest includes participation in the project, involvement in competing projects, a financial interest, a personal relationship, or other situation giving rise to a conflicting interest as defined in the "Guidelines for APLAC Members on Conflicting Interests" (available on the IACUC website).

Any member having a conflicting interest must leave the meeting during the discussion of, and vote on, the protocol. No member leaving the room because of a conflicting interest or any other reason will be counted as part of the quorum for any vote taking place while the member is out of the room.

**Voting:** The IACUC requires a quorum to conduct its business. Voting occurs after IACUC review and deliberations at a convened meeting. An approval vote of a majority of the quorum present is needed for any IACUC action.

The IACUC may invite consultants to assist in the review of complex issues. Consultants may not vote on an activity.

### **Alternate Processes/Procedures for Review:**

**Special Meetings:** In an emergency situation, the predetermined time period for a review may be shortened, but the procedures for designated review or Full Committee Review, including access to all materials, will be followed as described above. When needed, telecommunication devices will be used by IACUC members to facilitate participation in a special meeting. Telecommunication participation will only be conducted by methods consistent with the OLAW published "Guidance of the Use of Telecommunication for IACUC Meetings under the PHS Policy on Humane Care and Use of Laboratory Animals."

Procedures that are eligible for administrative review (all categories listed in this section are included in our IACUC-approved policy titled *Modifications that Are Eligible for Administrative Review*): (1) a proposed change in an ongoing activity that involves the addition or removal of personnel other than the Protocol Director will be eligible for administrative approval by the IACUC office staff following an appropriate review mechanism. The review will be performed in accordance with the NIH Guide for Grants and Contracts NOT-OD-03-046, and will ensure that all such personnel are appropriately identified, adequately trained and qualified, enrolled in applicable occupational health and safety programs, and meet other criteria as required by the IACUC; (2) the addition of funding sources that do not require review of congruency with the protocol (e.g., gift or departmental funding); (3) less than a 10% increase of currently approved numbers of non-USDA regulated rodents; (4) correction of typographical errors; (5) correction of grammar; (6) contact information updates; and (7) change in study location (if the space has been previously inspected and approved by the IACUC or is in the Veterinary Services Center's centralized space). These changes will be submitted to the IACUC office as revisions to the protocol in order to ensure that they are appropriately incorporated into the existing IACUC protocol.

### 7) Veterinary Verification and Consultation (VVC):

Per OLAW guidance NOT-OD-14-126 *Guidance on Significant Changes to Animal Activities*, significant changes to animal activities that are part of a protocol that was previously reviewed and approved by Full Committee Review (FCR) or Designated Member Review (DMR) may be handled via the Veterinary Verification and Consultation (VVC) process.

In this process, the VSC veterinarian, in consultation with the research team, verifies that the requested changes are in compliance with the APLAC-approved policies and appropriate for the specific situation and animal(s). The veterinarian may refer any request to the APLAC for review for any reason and must refer any request that does not meet the parameters of the APLAC-approved policies.

The APLAC has designated the categories of changes that may be made via the VVC process, as long as the changes do not increase the potential for the animals' welfare to be compromised:

- Changes within Pre-Approved Procedures that are included in the currently approved protocol;
- Changing euthanasia to any method listed as acceptable or acceptable with conditions in the AVMA Guidelines for Euthanasia of Animals: 2020 Edition;
- Changing anesthesia, analgesia, and/or sedation using the formularies listed below:

- <http://med.stanford.edu/vsc/veterinary-consults-and-services/formulary.html>
- **APV formulary** - <https://www.primatevets.org/education—resources> or [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjHy7Owz4HdAhVvBjQIHbTEB\\_0QFjAAegQIABAC&url=http%3A%2F%2Fwww.euprimatevets.eu%2Fuploads%2Fpublic%2FNonhuman%2520Primate%2520Formulary.xls&usg=AOvVaw3nUESwZnZOI0hEyXjDZ5VZ](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjHy7Owz4HdAhVvBjQIHbTEB_0QFjAAegQIABAC&url=http%3A%2F%2Fwww.euprimatevets.eu%2Fuploads%2Fpublic%2FNonhuman%2520Primate%2520Formulary.xls&usg=AOvVaw3nUESwZnZOI0hEyXjDZ5VZ)
- **ACLAM website** (All veterinary formularies on this website)- <https://www.aclam.org/publications>
- **Lane Medical Library Website** (All veterinary formularies on this website)- <http://lane.stanford.edu/portals/comp-med.html>

The VVC process **may not** be used to add new procedures to a previously approved protocol, or when the modification includes changes:

- from non-survival to survival surgery;
  - resulting in greater pain, distress, or degree of invasiveness;
  - in housing and/or use of animals in a location that is not part of the animal program overseen by the IACUC;
  - in species;
  - in study objectives;
  - in Principal Investigator (PI); and that impact personnel safety.
- 8) Review and approve, require modifications in (to secure approval), or withhold approval of proposed significant changes regarding the use of animals in ongoing activities according to PHS Policy IV.C. The IACUC procedures for reviewing proposed significant changes in ongoing research projects are as follows: The IACUC processes significant changes for IACUC review under either Full Committee Review or Designated Member Review, as described above.
  - 9) Notify investigators in writing of its decision to approve or withhold approval of those activities related to the care and use of animals, or of modifications required to secure IACUC approval according to PHS Policy IV.C.4. The IACUC procedures to notify investigators of its decisions regarding protocol review are as follows:
    - a) The IACUC notifies Protocol Directors by auto-generated email reports of IACUC decisions regarding protocol review.
    - b) If approval is withheld, the IACUC will provide written notification to the Protocol Director and a statement of the reasons for its decision, and will provide the Protocol Director with an opportunity to respond in person and/or in writing.
  - 10) Conduct continuing review of each previously approved, ongoing activity covered by PHS Policy at appropriate intervals as determined by the IACUC, including a complete review at least once every 3 years according to PHS Policy IV.C.1.-5. The IACUC procedures for conducting continuing reviews are as follows:

The IACUC procedures for conducting continuing review of each previously approved, ongoing activity require:

- a) Annual Continuing Review of USDA regulated species activities, and those involving the injection of human embryonic stem cells (ESC) or induced pluripotent stem cells (iPSC) into nonhuman embryos.
  - i. For protocols requiring Annual Continuing Review (USDA regulated species activities, and those involving the injection of human ESC or iPSC into nonhuman embryos), Protocol Directors must complete a standard form containing basic protocol information (within the eProtocol system) and submit to the IACUC office in order for the IACUC to conduct an annual review of each previously approved, ongoing activity. Any proposed significant changes to the currently approved protocol would need to be approved by the IACUC prior to implementation.
- b) Triennial de novo review of these (above) and all other protocol activities. It is noted, however, that an IACUC reviewer can recommend a shorter approval period for these activities if they deem it appropriate. The IACUC performs a complete review of each

previously approved protocol at least every three years (within the eProtocol system), ensuring that it conforms to the *Guide*, PHS Policy, and as applicable, 9CFR Chapter I, subchapter A, under either Full Committee Review or Designated Member Review, as described above.

- i. IACUC staff monitors all modifications made to protocols throughout the 3-year approval period to determine whether or not they will require Annual Continuing Review (i.e., if the injection of human ESC or iPSC into nonhuman embryos has been added).

Additionally, the IACUC monitors ongoing activities through its post-approval monitoring program, including:

- a) Veterinary walk-throughs or veterinary assignments to animal use areas where protocol activities take place;
- b) Assignment of protocols (during the protocol review process) for specific veterinary or IACUC Compliance Manager in-person monitoring, with post-approval monitoring visits prioritized to labs with past compliance issues and increased inherent risk. This monitoring is followed up by subsequent reporting during IACUC meetings;
- c) Subsequent reporting of post-approval monitoring during IACUC meetings when deemed relevant;
- d) IACUC semiannual inspections and follow-up visits.

11) Be authorized to suspend an activity involving animals according to PHS Policy IV.C.6. The IACUC procedures for suspending an ongoing activity are as follows:

- a) Suspension of any protocol or approved activity involving animals after review of the matter at a convened meeting of a quorum of the IACUC, and through a vote of a majority of the quorum present;
- b) Review of the reasons for suspension with the Institutional Official and implementation of appropriate corrective action;
- c) Submission of a full report to the Institutional Official, who then submits a written report to OLAW for PHS-supported research, USDA, and other relevant entities.

E. The risk-based occupational health and safety program for personnel working in laboratory animal facilities and personnel who have frequent contact with animals includes a combination of the administration of core health and safety programs through Stanford's Department of Environmental Health & Safety (EH&S), as well as the provision of the University's occupational health services.

1) The Animal Research Occupational Health and Safety Program (AROHSP) is administered through the Research Safety group at EH&S and serves as a central point of contact for all animal-related EHS queries, assessments, or trainings. This program operates in conjunction with the Laboratory Animal Occupational Health Program (LAOHP), administered through EH&S in the onsite Stanford University Occupational Health Center (SUOHC), in close cooperation with the VSC and the IACUC. LAOHP provides medical surveillance and oversight for all those working with animals at Stanford. The AROHSP and the LAOHP together provide information and safeguards for personnel working with laboratory animals and hazardous agents in the following areas:

- a) Personnel Hygiene includes handwashing after performing work activities, as well as no eating/drinking or application of cosmetics allowed in any animal housing or procedure areas. The provision or requirement of appropriate clothing and/or personal protective equipment (PPE) depends on the area in which animal care personnel are working and the species they are working with, such as: gloves, safety glasses or face shields, disposable gowns or jumpsuits, masks, hoods/hair covers, booties or shoe covers, hearing protection, chemical resistant aprons, steel-toed boots, and steel mesh or leather gloves. Appropriate protective equipment and/or clothing are provided at the

entrance to all area biohazard containment rooms and other rooms where specialty PPE is required. Dedicated work clothing and/or PPE may be worn outside a facility in some circumstances if the employee is in transit to another campus facility, but work clothing is not to be worn home, or from home.

b) Hazardous Agent Handling

i. **Biohazardous Agent Use**

Oversight is provided by the Administrative Panel on Biosafety (APB) through the Biosafety Manager, who is part of the University's EH&S program. The APB is responsible for the review of this Institution's teaching projects, research activities, and facilities involving the acquisition, use, storage, and disposal of biohazardous agents. The Biosafety Manager, biosafety staff, and SUOHC and EH&S industrial hygiene professionals work closely with the veterinary staff to provide training in the safe handling and management of biological agents used in studies with laboratory animals. Detailed biosafety requirements and safety procedures are contained in the Biosafety Manual (revised 2018) available online at the EH&S website, or in hard copy from the EH&S offices. Additionally, the Biosafety Manager (or qualified designee) is an IACUC member, and the Attending Veterinarian (or qualified designee) serves on the APB to review the prospective use of hazardous agents and outline safeguards for affected personnel. The AROHSP Program Manager also serves on both panels. Biohazardous projects involving animals can only be performed in areas approved by the Attending Veterinarian. Stanford has special containment suites for projects involving specific biohazardous agents, and access to these facilities is granted only upon VSC and EH&S approval of the appropriate protocols that detail how the biohazard agent will be handled and disposed of, and what safeguards will be followed by research personnel.

ii. **Ionizing and Non-ionizing Radiation**

Possession and use of radioisotopes must be authorized under the radioactive materials license issued to Stanford University by the State of California. All machines that produce ionizing radiation for which State registration is required must be registered centrally through EH&S. All projects must comply with pertinent regulations and relevant terms of licenses. The Administrative Panel on Radiological Safety (APRS) monitors compliance with regulations, license conditions and policies utilizing the Health Physics staff of EH&S. All regulated radiation activities are subject to approval by the APRS and are subject to inspection by the Health Physics staff.

Detailed policies and procedures governing the acquisition, use, and disposal of radiation sources are found in the Radiation Safety Manual (updated 2018), available online or from Health Physics. The Manager of Health Physics, i.e., the Radiation Safety Officer (RSO), is designated in all licenses. The RSO may deny or withdraw approval to use a radiation source where an imminent threat to health and safety, noncompliance, or unsafe practice is found, pending review by the APRS.

iii. **Hazardous Chemical Use**

Stanford has developed and implemented a written Chemical Hygiene Plan that is directed at controlling exposures to hazardous chemicals in laboratories. The Plan sets forth procedures, equipment, personal protective equipment, and practices that are capable of protecting employees from health hazards presented by hazardous chemicals used in laboratories and are capable of keeping chemical exposures below regulatory limits. The plan is administered through the Department of Environmental Health and Safety (EH&S). Managers and supervisors of researchers, animal care technicians, and husbandry/cage washing staff are responsible, with assistance from SUOHC and EH&S, for evaluating the potential exposures risks of hazardous chemicals/drugs to staff during chemical preparation, animal dosing, and cage handling and washing. A guidance document entitled "Animal Research Protocols Involving Hazardous Chemicals" addressing the use of known or suspected carcinogens, reproductive toxins, or other highly toxic substances and

nanomaterials in laboratory animals, along with operation-specific exposure controls for occupational exposures to hazardous chemicals in chemical preparation, chemical administration, animal care and transport, and cage cleaning, has been developed and is available on the EH&S webpage. Whenever agents administered to laboratory animals by research personnel are potentially hazardous, the Facility Operations Manager and/or the Attending Veterinarian discuss the aspects of safety and containment with both the research staff and the animal care staff.

- c) Personnel Protection for personnel working with laboratory animals includes the issuance of appropriate clothing either as part of their employment or at their request. The provision of appropriate facilities for maintaining personal hygiene, first aid equipment, and training in safe techniques including emergency responses in the event of an incident are also provided. This Institution has policies in place for the use of biologic, chemical, and physical agents; these policies are viewable via the EH&S website @ <https://ehs.stanford.edu/>.
- d) Preemployment Medical Evaluation is required for all Veterinary Service Center employees as a condition of employment.
- e) Required Immunizations are managed by the medical providers in the SUOHC (under the supervision of the Medical Director) who review LAOHP health questionnaires and determine what immunizations are necessary. Immunization requirements may include tetanus, hepatitis B, rubeola, vaccinia virus, etc., depending upon the specific circumstances, identified risk factors, and determined medical need.
- f) Preventive Medicine Program is managed by the medical providers in the SUOHC (under the supervision of the Medical Director) who review LAOHP questionnaires and determine what follow-up is needed. A medical records database in EH&S provides the ability to manage occupational health information for personnel. Pertinent and specific occupational health and safety information can be distributed directly to the animal handler/users. In-service information and training on preventive medicine issues are also periodically provided.
- g) Zoonosis Surveillance is managed by screening animals for select pathogens during the procurement process and routine testing following arrival at our facility. This Institution has appropriate quarantine facilities and procedures in place to prevent zoonoses. All personnel working with animals are provided general information on zoonotic agents, and personnel working with higher-risk species (e.g., nonhuman primates, pregnant sheep) are required to receive additional species-specific safety-related training.
- h) Procedures for Reporting and Treating INJURIES include instructing personnel involved in emergency situations to determine whether it is life threatening or not. If it is, they dial 911 or activate the nearest fire alarm if a phone is unavailable. Appropriate authorities, including the Protocol Director, are notified. For a situation that isn't life threatening, medical treatment and follow-up are sought as needed through the SUOHC. EH&S is consulted for clean-up assistance in instances involving hazardous materials. Personnel are instructed to report accidents/exposures to their supervisor as soon as possible. Injuries are treated by SUOHC medical professionals during office hours (Monday-Friday 8:00 a.m. to 5:00 pm) or in the Stanford Hospital Emergency Room during nights or weekends. The Medical Director of SUOHC remains on-call to assist ER staff with the management of occupational illness/injuries as needed. An investigation team consisting of an industrial hygienist, chemical safety specialist, chemical waste specialist, environmental specialist, Biosafety specialists, radiological safety specialist, occupational health professional, and fire marshal is available as appropriate for follow up.
- i) Covered Personnel are faculty, staff, students and visiting scholars who work directly with vertebrate animals, unfixed animal tissues or body fluids, and those who work in or routinely visit animal housing areas. Personnel participate via a risk-based program. The level of participation is dependent upon their level of risk through their assignment to Risk Category 1 (RC1) or Risk Category 2 (RC2).

- i. Risk Category 1 is considered higher risk and encompasses VSC employees, other dedicated animal care staff, and individuals who work with nonhuman primates (including unfixed tissue and bodily fluids), hoofed mammals (e.g., swine, goats, sheep, and cows), wild rodents, and certain field studies. Specific risk factors are variable and dependent upon specific uses and handling identified in the animal care and use application. Personnel in RC1 must complete and submit a LAOHP questionnaire prior to IACUC approval of an individual to work on a protocol. Each LAOHP questionnaire will be evaluated by the occupational health professional to determine the level of potential exposure and whether further steps are necessary.
  - ii. Risk Category 2 is for all individuals involved in protocols that do not fall within the RC1 participation group. All individuals in this group are provided with risk information, educational materials, and periodic updates on health and safety issues associated with the particular animal species or research material with which they work. These individuals are strongly encouraged to complete the LAOHP questionnaire, but the LAOHP questionnaire completion and submittal is optional for members of the RC2 participation group.
  - j) Procedures for Hazard and Risk Assessment involves input from: the medical providers in the SUOHC (under the supervision of the Medical Director) who review the LAOHP questionnaires and perform the medical evaluation; the IACUC by review of the protocol; VSC by review of equipment, protective clothing and procedures; and EH&S by evaluation of specific and general risk factors.
  - k) Training of Personnel, e.g., on Zoonoses, Allergies, Hazards, Special Precautions for Pregnancy, Illness, Immune Suppression is provided through targeted in-service training and information programs, seminars, and education programs by the SUOHC staff and other specialized personnel. These programs, in addition to educational materials sent via email, emphasize the specific risks associated with different types of research with laboratory animals and provide guidance to research and support personnel on appropriate methods of exposure control and protection.
  - l) Special Precautions for Personnel Working with Nonhuman Primates, e.g., Tuberculosis Screening, Training and Procedures for Bites and Scratches, and Education Regarding Macacine Herpesvirus 1 (formerly *Cercopithecine herpesvirus 1* or Herpes B) are managed by requiring that personnel actively working with nonhuman primates be screened annually for tuberculosis and participate in training specific to the prevention of illness/injury with this species. Those researchers working *only* with non-fixed NHP tissue will still fall into the RC1 category; however, the oversight/training of these researchers will be commensurate with their level of expected exposure. Each nonhuman primate housing area is equipped with injury/exposure kits. Follow-up and treatment procedures specific to nonhuman primate exposure have also been developed and disseminated to personnel actively working with nonhuman primates. Additionally, both the SUOHC and the Stanford Emergency Department have special and specific medical Standard Operating Procedures to follow for evaluation and treatment of nonhuman primate bites/scratches.
- F. The total gross number of square feet in each animal facility (including each satellite facility), the species of animals housed there, and the average daily inventory of animals, by species, in each facility are provided in the attached Facility and Species Inventory table, **Attachment Three**.
- G. The training or instruction available to scientists, animal technicians, and other personnel involved in animal care, treatment, or use is as follows:

#### Animal Care Staff

- 1) Training of VSC animal care personnel consists of in-house continuing education instruction by VSC staff members, Stanford faculty members, and guest speakers, using monthly departmental meetings as the primary forum. Presentations are made on various husbandry, veterinary care, health and safety, and animal research-related topics.

- 2) VSC staff participate in a matrix of relevant Stanford training courses based on their duties, including the Animal Care and Use Training Program, Working Safely with Nonhuman Primates, health and safety courses, supervisory courses, etc. The Departmental Human Resources Manager, Training and Compliance Coordinators, Assistant Operations Manager, and hiring Supervisor coordinate a new employee orientation process which identifies training needs and supports new employees through the onboarding process.
- 3) VSC staff participate in a comprehensive training program using Standard Operating Procedures (SOPs). SOPs cover relevant VSC functions (i.e., animal husbandry, veterinary care, diagnostic and pathology procedures, administrative procedures, occupational health and safety, computer operations, etc.). All SOPs for the VSC are centralized, both in hard copy and electronic form. Both current and historical files are maintained.
- 4) Participation in the Northern California Branch (NCB) of the American Association for Laboratory Animal Science (AALAS) is encouraged for animal care personnel, including workshops and symposiums. VSC animal care personnel take advantage of AALAS Learning Library accounts available through the branch. AALAS certification is strongly encouraged, and VSC supports attendance to NCB-AALAS ALAT, LAT, and LATg training classes.

#### Scientific/Research Staff

##### 1) **General**

Training in all topics in 9CFR, Part 2, Subpart c, section 2.32(c) is provided either as part of formal or organized training sessions described below or is available in the form of individualized training sessions given on an as-needed basis as indicated during the protocol review process.

This Institution provides faculty/staff/student access to AGRICOLA and the online resources available through AWIC/NAL. Trained librarians within the School of Medicine library are available to assist with literature searches, and advice can also be obtained from the faculty and staff of the Department of Comparative Medicine (DCM) who have experience with literature searches for alternatives to the use of animals, as well as methods and refinements to limit animal pain and distress.

Available resources on research or testing methods that minimize the number of animals required to obtain valid results can be found on the IACUC website. Faculty, staff, and students can also request a biostatistical consultation with biostatisticians at the Stanford Center for Clinical and Translational Education and Research (Spectrum).

##### 2) **Specific Training Courses (required per IACUC protocol)**

###### a) Animal Care and Use Training Program

This training program is an introduction to the care and use of animals in research and teaching at Stanford University. All faculty, staff, and students who will be involved in the use of laboratory animals are required to complete this training. The program was launched as a web-based course in 2011 (replacing the classroom course) and consists of reviewing a training module and passing a quiz. The content is a customization of the AALAS Learning Library course, "Working with the IACUC," and includes the following lessons:

- Working with the IACUC
- Endpoint Criteria
- Animal Housing
- Federal Mandates
- Introduction to Surgery & Anesthesia
- Prolonged Restraint
- The Veterinary Consultation
- Antibody Production
- Euthanasia
- The Animal Use Protocol
- Collecting Blood Samples
- Using Human Patient Care Areas

- Alternatives to the Use of Animals
- Personnel Training & Experience
- Making Post-Approval Changes
- Avoiding Unnecessary Duplication
- Occupational Health & Safety
- Reporting Misuse, Mistreatment, or Non-compliance
- USDA Pain/Distress Categories
- Using Hazardous Agents in Animals

b) Working Safely with Nonhuman Primates (NHPs)

All individuals who come in contact with NHPs and/or their unfixed tissues or body fluids as part of an animal research protocol are required to attend this training seminar. Individuals are not given access to primate areas until this course is completed and they have received clearance from the Stanford University Lab Animal Occupational Health Program (LAOHP) to work with NHPs. The lecture course may be taught to small groups or individuals. The course outline is shown below:

- Bacterial, viral, and protozoal pathogens that may infect humans
- Human diseases that can be anthroponotic
- Proper handling of NHPs and appropriate personal protective equipment
- Procedure for dealing with a bite, scratch, needlestick, or other exposure involving primates
- Proper waste disposal and decontamination procedures
- Stanford's Plan to Promote the Psychological Well-Being of NHPs

c) Working Safely with Pregnant and Neonatal Sheep

All individuals who may come into contact with pregnant or neonatal sheep housed at Stanford (i.e., potential for Q Fever exposure) must attend a training seminar. Individuals are not given access to pregnant sheep areas until this course is completed and they have received clearance from the Stanford LAOHP to work with pregnant or neonatal sheep. Stanford research personnel conduct these studies at collaborating institutions (i.e., UC Davis) and must enroll in Stanford's LAOHP (including annual respirator fit-test training at Stanford for clearance to wear an N95 particulate respirator). They are also given general information on Q fever from the Stanford Occupational Health Center as well as the collaborating institution.

d) Working Safely with Biohazardous Agents in Laboratory Animals

This program includes an online component (courtesy of the American Biological Safety Association) and face-to-face meetings with laboratory, biosafety, veterinary, husbandry, and training personnel. All laboratories that initiate new biohazard work in animals at Stanford are required to complete this training. Additionally, the training is being offered to laboratories which began in vivo biohazard work prior to 2010.

e) Stem Cell Research Building Animal Facility Orientation

The orientation to this restricted access mouse barrier facility consists of a web-based course followed by a small group facility orientation tour. Completion of this training program is required for anyone requesting access to the Stem Cell Research Building Animal Facility.

f) Research Animal Facility 1 & 2 Animal Facility Orientation

The orientation to this multi-species facility consists of a web-based course followed by a small group facility orientation tour. Completion of this training program is required for anyone requesting access to the both Research Animal Facility 1 & 2 Animal Facilities.

g) Small Animal Imaging Facility Training

Rodent care and anesthesia training is provided monthly for new In Vivo Imaging System (IVIS) users and as needed for MRI users (approximately quarterly). Training topics include: protocol compliance, transportation, handling and restraint (physical and/or chemical), anesthesia and monitoring, and post-anesthetic recovery. Approximately 100-120 individuals receive this training annually.

h) Rodent Aseptic Surgery Techniques Workshop and Aseptic Surgery Refresher Course

All personnel identified as rodent surgeons performing survival surgical procedures are required to take an aseptic surgery training class or hands-on workshop. Rodent surgeons listed on a protocol prior to March 1, 2016 are required to take the Aseptic Surgery Refresher Course. All new rodent surgeons are required to take the Rodent Aseptic Surgery Techniques workshop. Topics covered include requirements for the preparation of surgical facilities, instruments, animal, and surgeon; application of proper aseptic technique; appropriate handling of instruments; acceptable incision closure; expectations for post-operative care and record keeping; appropriate pharmacologic and non-pharmacologic pain management; and recognition of positive and negative health and welfare. In addition, in the hands-on workshop, participants are required to demonstrate proficiency in aseptic technique and wound closure.

### 3) **Additional Courses Offered:**

The following courses are not generally required, unless requested by the IACUC, but are available to all Stanford faculty, staff, students and affiliates.

- i) Mouse Handling and Basic Techniques Workshop  
In this hands-on workshop, researchers learn to handle mice, assess health, and perform basic blood sampling and dosing techniques. In addition, they learn about appropriate, approved methods of anesthesia and euthanasia. The workshops are limited to twelve students and are scheduled at least once per month.
- j) Mouse Breeding Workshop  
This hands-on workshop instructs researchers on mouse reproductive physiology and behavior, mouse breeding systems, and weaning criteria according to Stanford's guidelines for housing and weaning mice. The didactic portion is followed by a wet-lab, where students receive practice in sexing pups, checking for plugs in bred females, and performing tail biopsies for genotyping. This workshop is limited to twelve students and is currently scheduled on a monthly basis.
- k) Rat Handling and Basic Techniques Workshop  
In this hands-on workshop, researchers learn to handle rats, assess health, and perform basic blood sampling and dosing techniques. In addition, they learn about appropriate, approved methods of anesthesia and euthanasia. The workshops are limited to twelve students and are scheduled on an as-needed basis, usually quarterly.
- l) Introduction to Stereotaxic Surgery in Rodents  
This workshop includes demonstration and hands-on practice for basic stereotaxic surgery technique in rodents. Topics include identifying brain coordinates, setting up and using the stereotaxic device, and aseptic technique. This workshop is limited to four students and is currently scheduled on an as-needed basis.
- m) VSC AnimalTrax Computer Lab  
This hands-on computer lab for researchers reviews requisitions, transfers, bar-coded cage card stickers, and reporting using the AnimalTrax electronic animal ordering, billing and census system. For those users with a financial role, there is a special version of the class with a financial focus that goes over PTA management in AnimalTrax. This course is scheduled on an as-needed basis.

### 4) **Other Training Methods:**

- a) Email Lists  
Both the IACUC and the VSC maintain email lists to proactively provide researchers information on a variety of topics including compliance updates, upcoming training opportunities, changes in policies, facility maintenance schedules, etc. The IACUC email list, Lab Partners, includes at least one representative from each PI's lab. The VSC maintains email lists that target researchers using specific species or facilities.
- b) Individual Training  
VSC veterinary staff provide individual (one-on-one) hands-on training for a variety of research procedures. Documentation of this training is maintained by the VSC. Animal

husbandry personnel also provide individual training to research staff on various aspects of animal facility operation.

c) Reference Materials

Reference materials (books, journals, newsletters, bibliographies, videos, brochures, etc.) are maintained in the DCM library. Items are cataloged and available for review by DCM personnel and other individuals. The DCM library comprises over 1,000 volumes and employs a part-time medical librarian who maintains the library and performs literature searches.

d) Web Resources

The VSC maintains a website (<http://vsc.stanford.edu>) that includes information on VSC resources, policies, training opportunities, etc. The Office of the Dean of Research maintains a website (<http://labanimals.stanford.edu>) that provides information on institutional policies and practices. EH&S maintains a website ([www.stanford.edu/dept/EHS](http://www.stanford.edu/dept/EHS)) that provides information on safety, health and environmental practices and procedures.

### IACUC Members

- 1) New members appointed to the IACUC are provided an introductory training session that includes information pertinent to responsibilities of the committee in regards to animal care and use (e.g., federal regulations, PHS requirements, University policy, and the concerns of the public). Supplementary reference information that is provided to new committee members can be found on the IACUC website and includes regulatory information and University policies and practices.
- 2) Additional training is provided at regularly convened meetings in the form of discussions or as presentations on specific topics (e.g., regulatory updates, NHP enrichment strategies).
- 3) IACUC members are sponsored by the University to attend local and National meetings on IACUC-related topics.
- 4) IACUC members are requested to complete the online Animal Care and Use Training Program.
- 5) An agenda item at IACUC meetings is reserved for IACUC member education. Topics include laboratory animal welfare, refreshers on policies and procedures, regulatory updates, and conference announcements.

Stanford University supports continuing education of staff by providing partial or full reimbursement of the cost of job-related courses, seminars and workshops. The Stanford Training and Registration System (STARS) is a campus-wide learning management system that maintains centralized training records of most Stanford-sponsored training. This centralized system facilitates promotion of VSC training programs and documentation of training participation by research and VSC personnel.

## **IV. Institutional Program Evaluation and Accreditation**

All of this Institution's programs and facilities (including satellite facilities) for activities involving animals have been evaluated (facility inspections only as permitted by the constraints of the current pandemic per our approved OLAW waiver) by the IACUC within the past 6 months and will be reevaluated by the IACUC at least once every 6 months according to PHS Policy IV.B.1.-2. Reports have been and will continue to be prepared according to PHS Policy IV.B.3. All IACUC semiannual reports will include a description of the nature and extent of this Institution's adherence to the PHS Policy and the *Guide*. Any departures from the *Guide* will be identified specifically, and reasons for each departure will be stated. Reports will distinguish significant deficiencies from minor deficiencies. Where program or facility deficiencies are noted, reports will contain a reasonable and specific plan and schedule for correcting each deficiency. Semiannual reports of the IACUC's evaluations will be submitted to the Institutional Official. Semiannual reports of IACUC evaluations will be maintained by this Institution and made available to the OLAW upon request.

- (1) This Institution is Category 1 — accredited by the [Association for Assessment and Accreditation of Laboratory Animal Care International \(AAALAC\)](#). As noted above, reports of the IACUC's semiannual evaluations (program reviews and facility inspections) will be made available upon request.

## **V. Recordkeeping Requirements**

- A. This Institution will maintain for at least 3 years:
- 1) A copy of this Assurance and any modifications made to it, as approved by the PHS
  - 2) Minutes of IACUC meetings, including records of attendance, activities of the committee, and committee deliberations
  - 3) Records of applications, proposals, and proposed significant changes in the care and use of animals, and whether IACUC approval was granted or withheld
  - 4) Records of semiannual IACUC reports and recommendations (including minority views) as forwarded to the Institutional Official, Kathryn Ann Moler, PhD.
  - 5) Records of accrediting body determinations
- B. This Institution will maintain records that relate directly to applications, proposals, and proposed changes in ongoing activities reviewed and approved by the IACUC for the duration of the activity, and for an additional 3 years after completion of the activity.
- C. All records shall be accessible for inspection and copying by authorized OLAW or other PHS representatives at reasonable times and in a reasonable manner.

## **VI. Reporting Requirements**

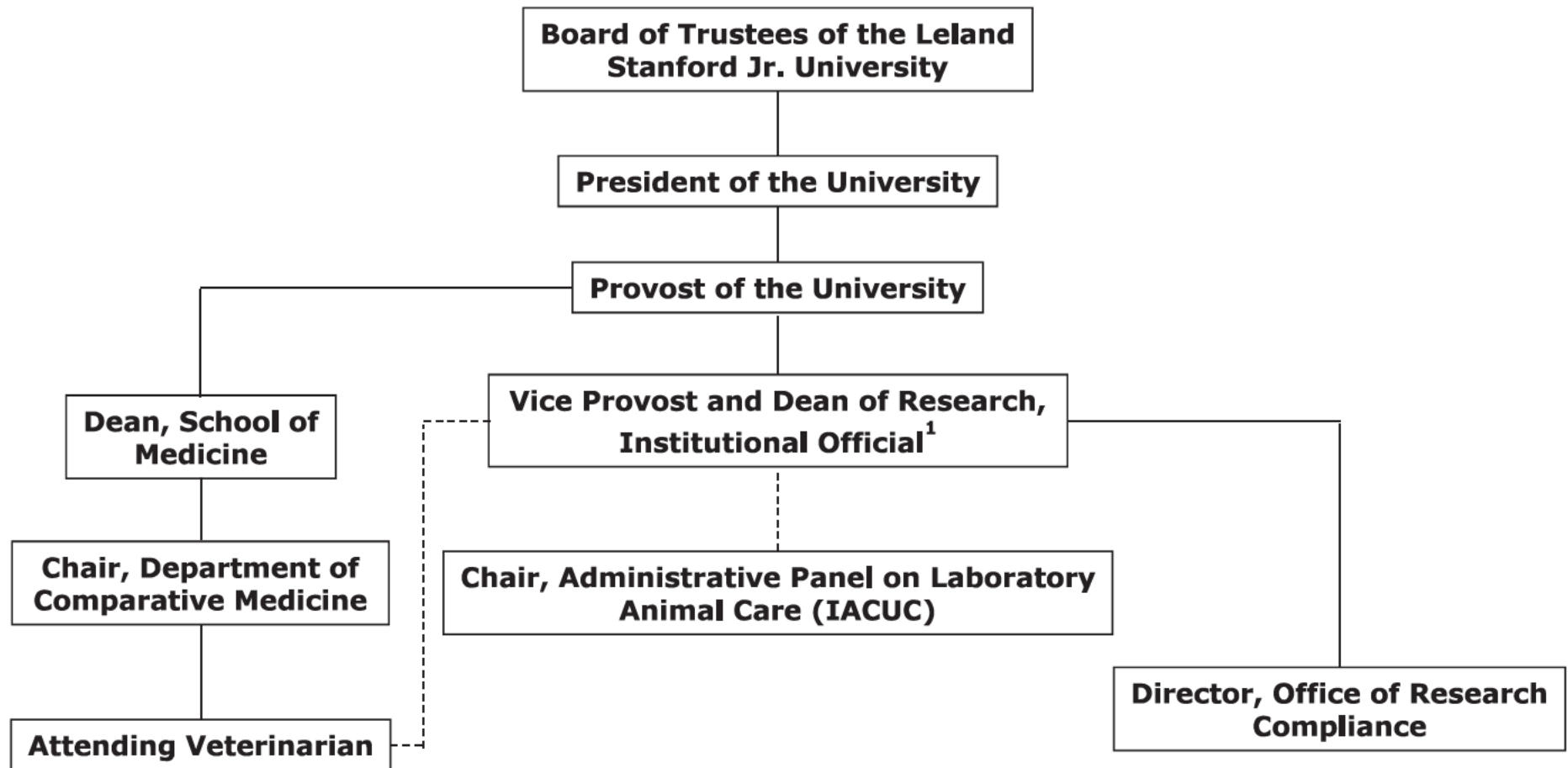
- A. The Institutional reporting period is the federal fiscal year (October 1 - September 30). The IACUC, through the Institutional Official, will submit an annual report to OLAW after September 30, but on or before December 1 of each year. The annual report will include:
- 1) Any change in the accreditation status of the Institution (e.g., if the Institution obtains accreditation by AAALAC or AAALAC accreditation is revoked)
  - 2) Any change in the description of the Institution's program for animal care and use as described in this Assurance
  - 3) Any change in the IACUC membership
  - 4) Notification of the dates that the IACUC conducted its semiannual evaluations of the Institution's program and facilities (including satellite facilities) and submitted the evaluations to the Institutional Official, Kathryn A. Moler, Ph.D.
  - 5) Any minority views filed by members of the IACUC
- B. The IACUC, through the Institutional Official, will promptly provide OLAW with a full explanation of the circumstances and actions taken with respect to:
- 1) Any serious or continuing noncompliance with the PHS Policy
  - 2) Any serious deviations from the provisions of the *Guide*
  - 3) Any suspension of an activity by the IACUC
- C. Reports filed under VI.A. and VI.B. above should include any minority views filed by members of the IACUC.

## VII. Institutional Endorsement and PHS Approval

<b>A. Authorized Institutional Official</b>	
Name: Kathryn A. Moler, PhD (b) (6) (b) (6) Designated Signer for Kathryn A. Moler)	
Title: Vice Provost and Dean of Research	
Name of Institution: The Board of Trustees of the Leland Stanford Jr. University (Stanford University)	
Address: c/o Stanford University Research Compliance Office 1705 El Camino Real, MC 5579 Palo Alto, CA 94306	
Phone: (b) (6)	Fax: (b) (6)
E-mail: (b) (6)@stanford.edu	
Acting officially in an authorized capacity on behalf of this Institution and with an understanding of the Institution's responsibilities under this Assurance, I assure the humane care and use of animals as specified above.	
Signature: (b) (6)	Date: 5/20/2021

<b>B. PHS Approving Official</b> <i>(to be completed by OLAW)</i>	
<div>Name/Title: Office of Laboratory Animal Welfare (OLAW) National Institutes of Health 6700B Rockledge Drive Suite 2500 Bethesda, MD USA 20892-7982 (FedEx Zip Code 20817) Phone: +1 (301) 496-7163 Fax: +1 (301) 915-9465</div> <div> Nicole L. Lukovsky-akhsanov-S Digitally signed by Nicole L. Lukovsky-akhsanov-S Date: 2021.05.28 10:46:37 -04'00'</div>	
Signature:	Date:
Assurance Number: D16-00134 (A3213-01)	
Effective Date: 5/24/2021	Expiration Date: 5/31/2025

# Authority and Responsibility for Stanford's Animal Care and Use Program



<sup>1</sup>The "Institutional Official" responsible for Stanford's Program of Animal Care and Use has been designated, in writing, by the President of the University with the authority to appoint IACUC members. The dotted line represents direct access to the IO through standing or ad hoc meetings where the AV and IACUC Chair clearly and regularly communicate the program needs.

## ATTACHMENT TWO

### Membership of the IACUC

Date: January 31, 2021			
Name of Institution: The Board of Trustees of the Leland Stanford Jr. University (Stanford University)			
Assurance Number: A3213-01			
<b>IACUC Chairperson</b>			
Name*: Michael E. Moseley, Ph.D.			
Title*: Professor, Radiology		Degree/Credentials*: PhD	
Address*: c/o Stanford University Research Compliance Office 1705 El Camino Real Palo Alto, CA 94306			
E-mail*: (b) (6)@stanford.edu			
Phone*: (b) (6)		Fax*: (b) (6)	
<b>IACUC Roster</b>			
Name of Member/ Code**	Degree/ Credentials	Position Title***	PHS Policy Membership Requirements****
Stephen A. Felt	DVM, MPH	Professor	Attending Veterinarian; Scientist
(b) (6)			Non-scientist
			Scientist, Vice Chair
			Veterinarian; Scientist
			Veterinarian; Scientist
			Scientist
			Scientist
			Scientist
			Non-affiliated member
			Non-affiliated member
			Veterinarian; Scientist (Alternate)
			Veterinarian; Scientist (Alternate)
			Scientist (Alternate)
			Scientist (Alternate)

## ATTACHMENT TWO

Name of Member/ Code**	Degree/ Credentials	Position Title***	PHS Policy Membership Requirements****
(b) (6)			Scientist (Alternate)
			Non-affiliated member (Alternate)
			Non-Scientist (Alternate)
			Scientist (Alternate)
			Scientist (Alternate)
			Scientist (Alternate)
			Scientist (Alternate)
			Veterinarian; Scientist (Alternate)
			Veterinarian; Scientist (Alternate)
			Veterinarian; Scientist (Alternate)
			Scientist (Alternate)
			Scientist (Alternate)
			Scientist (Alternate)
			Non-voting member, Ex-officio
			Non-voting member, Ex-officio
			Non-voting member, Ex-officio
			Non-voting member, Ex-officio
			Non-voting member, Ex-officio
			Non-voting member, Ex-officio
			Non-voting member, Ex-officio
			Non-voting member, Ex-officio
			Non-voting member, Ex-officio

# ATTACHMENT THREE

## Facility and Species Inventory

Date: January 31, 2021			
Name of Institution: The Board of Trustees of the Leland Stanford Jr. University (Stanford University)			
Assurance Number: A3213-01			
Laboratory, Unit, or Building* (b) (4)	Gross Square Feet (includes service areas)	Species Housed (common names)	Approximate Average Daily Inventory
	19,287	Mice	4,500
		Rats	100
		Hamsters	25
		Guinea Pigs	10
		Monkey, Cynomolgus	5
		Monkey, Rhesus	15
		Monkey (mouse lemur)	5
	27,375	Mice	41,000
		Rats	325
		Dogs	1
		Salamanders - Axolotls	15
		Fish, Killifish (Turquoise)	5800
		Fish, Killifish (Aphyosemion spp.)	100
		Pigs	12
		Rabbits	25
		Rodent (voles)	1,200
		Octopus	5
		Sheep	5
	35,632	Mice	37,500
		Rat	1,250
		Gerbil	18
		Hamster	40
	4,125	Mice	8,500
	3,724	Mice	100
		Monkeys, Rhesus	4
		Monkeys, Marmosets	20
		Salamanders	20
	6,547	Mice	1,100
		Birds	14

# ATTACHMENT THREE

## Facility and Species Inventory

Laboratory, Unit, or Building*	Gross Square Feet ( <i>includes service areas</i> )	Species Housed ( <i>common names</i> )	Approximate Average Daily Inventory
(b) (4)		Fish (Zebrafish)	400
	5,422	Fish (Zebrafish)	8,000
		Fish (Stickleback)	8,500
		Frogs (African Clawed)	1,500
		Turtles	80
	2,056	Fish (Zebrafish)	21,200
	116	Fish (Zebrafish)	450
	89	Fish (Zebrafish)	3,000
	5,990	Mice	2,800
		Rats	500
		Pigs	5
		Sheep	5
	2,651	Mice	5,000
		Rats	100
	100	Mice	15
	3,705	Mice	400
		Hamsters	200
		Toad	35
		Frog	1,675
		Fish (Swordtail)	2,550
		Fish (Platyfish)	100
	673	Mice	2,500
	2,880	Mice	5,250
		Rats	125
		Fish (Zebrafish)	750
	4,940	Mice	2,050
		Rat	125
	1,962	Mice	1,625
		Rat	85
	8,410	Mice	7,700
		Rats	225

# ATTACHMENT THREE

## Facility and Species Inventory

Laboratory, Unit, or Building*	Gross Square Feet ( <i>includes service areas</i> )	Species Housed ( <i>common names</i> )	Approximate Average Daily Inventory
(b) (4)		Fish (Zebrafish)	700
		Fish (Turquoise Killifish)	300
	6,847	Monkey, Rhesus	2
		Monkey, Cynomolgus	2
	16,200	Mice	48,300
	5,422	Mice	8,725
	10,182	Mice	11,750
		Rat	115
		Fish (Turquoise Killifish)	500
	8,901	Frogs (African Clawed)	10
		Frogs (Leopard)	18
		Fish (Goldfish)	200
		Fish (Blue Marlin)	33
		Fish (Black Marlin)	9
		Fish (Bluefin Tuna)	51
		Fish (Longjaw Mudsucker)	200
		Fish (Pacific Mackerel)	25
		Fish (Rockfish)	25
		Fish (Sand-dab)	15
		Fish (Prickleback)	5
		Fish (Zebrafish)	200

\*Institutions may identify animal areas (buildings/rooms) by a number or symbol in this submission to OLAW. However, the name and location must be provided to OLAW upon request.