

2021 Animal Welfare Assurance for University of California, San Diego A3033-01 / D16-00020

I, Sandra A. Brown, as named Institutional Official for animal care and use at University of California, San Diego, 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:

Division of Biological Sciences
Division of Physical Sciences
Division of Social Sciences
Jacobs School of Engineering
School of Medicine
Skaggs School of Pharmacy and Pharmaceutical Sciences
Scripps Institution of Oceanography, including Center for Marine Biotechnology & Biomedicine
Ludwig Institute for Cancer Research, San Diego

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:

The Institutional Official (IO) is Sandra A. Brown, Vice Chancellor for Research.
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Campus Veterinarian Philip J. Richter reports directly to the IO and has direct program authority and responsibility for the Institution's animal care and use program and access to all animals in the animal care and use program.

IACUC Chairman Michael Gorman reports directly to the IO.

- B. The qualifications, authority, and percent of time contributed by the veterinarian(s) who will participate in the program are as follows:

Name/credentials	Qualifications/ Training/Experience
Philip J. Richter, DVM, PhD, DACLAM ACP Director & Campus Veterinarian	BS in Biological Sciences, UC Irvine (1984), DVM, University of California, Davis (1988). Laboratory Animal Medicine Resident, UC Davis (1991). Board Certified in Laboratory Animal Medicine, (1996); Ph.D., UC Davis, Comparative Medicine (1997). California licensed, USDA accredited DVM. Thirty years Laboratory Animal and Comparative Medicine Practice and Management, over five years' experience in private practice performing large animal medicine and surgery. Membership, service, leadership roles in multiple organizations including AVMA, ACLAM, CVMA, AAVMC, AALAS, ASLAP. Member of UCSD/ACP since June 1994.

(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, profession, titles or specialties, and institutional affiliations.

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:

The Program Review is conducted by the IACUC at least once every six months. The Program Review is performed by an IACUC subcommittee and then subsequently by the full committee at a regularly scheduled IACUC meeting with a quorum present. The committee reviews and discusses each aspect of the animal care and use program, including, but not limited to, Occupational Health and Safety, the Veterinary Care Program, and the Training Program, using a checklist that is based on the OLAW "Sample Semiannual Program Review Checklist." The *Guide* and PHS Policy are used as a basis for evaluation. The semiannual facility inspections are conducted prior to the program review so that observations and trends can be discussed. Any departures from the *Guide*, PHS Policy, and/or USDA regulations are noted. Each departure is further identified as either a minor or a significant deficiency. Members are encouraged to identify items to be addressed and minority views are recorded.

- 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:

Facility inspections are performed by the IACUC year round, with each facility being inspected at six month intervals. All IACUC members are encouraged to participate and each member may sign up for as many inspections as they wish. It is required that at least two voting IACUC members/alternates perform each inspection, but all who wish to participate are included. Areas inspected include all animal housing, satellite housing, procedure and surgical areas, cage-washing facilities, feed and storage areas, and transport vehicles. The *Guide* is used as a basis for the inspection; any deviations are recorded as either significant or minor and follow-up is done to assure corrective action is completed in a timely manner. Minority views on all aspects are incorporated into the review.

- 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:

The reports contain a description of the nature and extent of the institution's adherence to the *Guide* and PHS Policy. Reports identify any departures from the provisions of the *Guide* and PHS Policy, and they state the reasons for each departure. The reports distinguish significant deficiencies from minor deficiencies. A significant deficiency is one which is or may be a threat to the health or safety of the animals. If program or facility deficiencies are noted, the reports contain a reasonable and specific plan and schedule for correcting each deficiency. IACUC-approved departures from the PHS Policy and the *Guide*, with the reasons for each, are also included in the reports. The semiannual report to the Institutional Official is signed by a majority of the IACUC members.

- 4) Review concerns involving the care and use of animals at the Institution. The IACUC procedures for reviewing concerns are as follows:

UCSD faculty, students and staff are advised of procedures for reporting concerns to the IACUC through the Orientation to Animal Research at UCSD course, online refresher courses, and posters in the vivaria and laboratory areas. In addition, the IACUC's written "Policy on Reporting Animal Concerns", UCSD Policy 1, is available on the IACUC website and describes the process for reporting concerns. Reports may be made anonymously

through the UCSD whistleblower hotline. The complainant's identity will be kept confidential in accordance to the federal and state whistleblower laws and University policy. UCSD abides by federal and state whistleblower laws and University policy that prohibits discrimination or retaliation against complainants.

Reported concerns involving animal welfare are handled immediately. The attending veterinarian, or designee, assesses the reported animal's condition to ensure the immediate health and well-being of the animal. Following assessment of the animal's welfare, investigation of all aspects of the allegation is conducted as soon as possible. The IACUC Executive Subcommittee may request the investigation be led by the attending veterinarian and/or may create a subcommittee of the IACUC to lead the investigation. The Principal Investigator (PI) is notified of the content of the allegations. If the animal welfare allegation includes concern for biological, chemical, or radiological safety, the appropriate safety office is consulted.

The findings are presented to the IACUC Executive Subcommittee, and then to full IACUC Committee. The IACUC carefully reviews any concern which is reported and takes corrective actions as appropriate. Reports of the results of investigations and corrective actions are reported externally (e.g., OLAW, USDA) as appropriate.

- 5) Make 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:

Written reports and IACUC recommendations are submitted to the IO through the semiannual review and reporting mechanism. In addition, the IO (or her designee) meets monthly with the IACUC Chair, Vice Chair, IACUC Office staff, and Animal Care Program Director to discuss ongoing and important issues related to the animal care and use program.

- 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:

Animal use protocols are submitted to the IACUC Office. Each protocol is pre-reviewed by a veterinarian, an animal welfare specialist, and an Environmental Health & Safety (EH&S) specialist. Questions raised by these reviews are addressed to investigators through email. The PI is asked to make changes prior to full committee IACUC review.

One or more primary reviewers is assigned to present the protocol at the meeting, but all protocol materials are available to all IACUC members for review. The IACUC reviews each protocol application at a convened meeting of the full committee at which a quorum is present. IACUC decisions are made by a vote of a simple majority (51%) of the quorum.

Members recuse themselves (abstain from voting and absent themselves from the room during deliberation and vote) if there is a conflict of interest. The IACUC may invite consultants to assist in the review of complex issues arising out of its review of proposed activities. Consultants may not approve or withhold approval of an activity and may not vote with the IACUC.

The IACUC determines through deliberation whether the research project conforms with the institution's assurance and meets the following requirements: a) Procedures with animals will avoid or minimize discomfort, distress, and pain to the animals, consistent with sound research design; b) Procedures that may cause more than momentary or slight pain or distress to the animals will be performed with appropriate sedation, analgesia, or anesthesia, unless the procedure is justified for scientific reasons in writing by the investigator; c) Animals that would otherwise experience severe or chronic pain or distress that cannot be relieved will be euthanized at the end of the procedure or, if appropriate, during the procedure. A vote is taken following the discussion of the protocol. The vote will indicate the IACUC's decision to approve, require modifications

to secure approval, defer or withhold approval.

Following the IACUC meeting, the PI is notified in writing of the IACUC's decision and if approval is withheld, the PI is informed of the reasons for its decision. When substantive information is lacking from a protocol, and the committee has questions requiring a response from the PI, the IACUC may use designated member review (DMR) subsequent to full committee review (FCR). All IACUC members have consented in writing that the quorum of members present at a convened meeting may decide by unanimous vote to use DMR subsequent to FCR when 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.

In some circumstances DMR alone is utilized. In this case, the application is made available to each member of the Committee with an opportunity, generally two business days, for any member to call for a full review. If any member requests FCR the application is held for the next scheduled meeting with a full quorum. If no member requests a FCR, the DMR process may commence.

In either case of DMR, the Chair assigns at least one IACUC member as a designated reviewer for the protocol. DMR may result in approval, a requirement for modifications (to secure approval), or referral to the full committee for review. If a protocol is assigned to more than one designated reviewer, the reviewers must be unanimous in any decision. They must all review identical versions of the protocol and, if modifications are requested by any one of the reviewers, the other reviewers must be aware of and agree to the modifications.

- 7) 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 handles proposed significant changes in previously approved activities in the same manner as new protocol applications, including the methods used for submission, review and approval.

Amendments to protocols that do not involve a dog, cat or non-human primate may be processed administratively after veterinary verification and consultation (VVC) if they meet the following criteria per the UCSD IACUC Protocol Review Process (Policy 39):

- a. Change to Extended Release Buprenorphine as post-operative analgesia, with dosage and application schedule as recommended by the ACP veterinarian.
- c. Change of a euthanasia method that is acceptable (or conditionally acceptable when those conditions are met) according to the AVMA Guidelines for the Euthanasia of Animals.
- d. Replacement of an existing blood collection method when performed as described in the UCSD IACUC Blood Collection policy (Policy 5). The new method must not increase the potential risk and/or pain and distress level and at least one method must already be approved in the protocol.
- e. Change of an approved experimental or therapeutic compound or agent for a similar compound or agent, or a change of dosage, frequency or application route for a compound or agent, only after ACP veterinary consultation, and if the expected drug action and possible adverse effects are comparable.
- f. Requests for permission to photograph or video animals according to UCSD IACUC Policy 29, Video and Photography in Animal Use Areas.

In these cases, a veterinarian authorized by the IACUC serves as a subject matter expert to verify that compliance with the IACUC-reviewed and approved policy is appropriate for the animals in this circumstance. Consultation with the veterinarian is documented. The veterinarian may refer any request to the IACUC for review for any reason and must refer any request that does not meet the parameters of the IACUC policies.

- 8) Notify investigators and the Institution 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 and the Institution of its decisions regarding protocol review are as follows:

An emailed letter is sent to the PI identifying committee decisions. If the IACUC withholds approval, the investigator is given a chance to appeal in person or in writing. The Institutional Official is notified of all decisions through the IACUC meeting minutes.

- 9) 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:

Prior to the third anniversary of the protocol approval date, a de novo application is required and is handled in the same manner as a new protocol application.

Annual reviews of protocols for USDA-covered species are performed by the IACUC Office Director or their designee on behalf of the IACUC. IACUC members have access to all annual reviews performed each month.

Continuing review of protocols is also performed on behalf of the IACUC by the Animal Welfare Specialists. They perform periodic unannounced inspections (in addition to IACUC Semiannual Inspections) and for-cause inspections.

- 10) 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:

The Institutional Animal Care and Use Committee may suspend a previously approved activity when it has determined that there is a significant deviation from the approved protocol by a majority vote at a convened meeting with a quorum present. In the event of an acute animal welfare issue, work on a protocol can be immediately and temporarily halted by the Attending Veterinarian and/or the IACUC Chair or Vice Chair. If the IACUC needs to suspend a previously approved activity, the IO, in consultation with the IACUC, shall review the reasons for suspension, take appropriate corrective action, and report that action with a full explanation to OLAW.

- E. The risk-based occupational health and safety program for personnel working in laboratory animal facilities and personnel who have frequent contact with animals is as follows:

UCSD's Occupational Health and Safety Program (OHSP) is administered by the Center for Occupational & Environmental Medicine (COEM) and EH&S. The program is designed to promote a safe work environment by minimizing the risk of illness or injury associated with working with or around research animals and research-related hazards.

The program covers all individuals who work with animals directly as well as those who may be exposed to animals or animal dander in common areas or laboratories. OHSP enrollment is required for campus personnel, students, visiting scholars and other campus affiliates who have direct contact with animals, animal waste, and animal tissue. It is also required for campus service personnel that may enter a vivarium, have indirect exposure to animals and enter animal research areas such as

Campus Police, EH&S, Custodial Services, and Facilities Management. Persons who have no direct contact with research animals and do not enter vivaria but may have incidental or infrequent exposure to research animals at work are encouraged to participate in the OHSP.

Personnel who work directly with animals are required to complete a Medical History Questionnaire and a Risk Assessment Questionnaire. These forms are reviewed by an occupational health nurse to evaluate and prescribe appropriate medical surveillance. Individuals with significant animal contact are unable to opt-out of this requirement.

The program currently provides the following services:

- Medical screening and risk assessment for all individuals who work with animals
- Vaccinations and immunization verification based on assessed risk
- Health surveillance programs
- Employee education (allergies, zoonotic diseases, hygiene, immune compromised)
- Urgent care for injuries or exposures including post exposure prophylaxis as applicable.

Additional monitoring may also include tuberculosis screening and serum banking as appropriate for the species (i.e., non-human primates). For those assigned to work in areas designated as requiring hearing protection, baseline audiograms are provided for all new employees and annually thereafter.

Enrollment into the OHSP is a requirement prior to receiving access into a vivarium on campus.

Personnel who work in laboratory areas or in any vivarium must complete the following EH&S training requirements: Online UC Lab Safety Fundamentals Training (refresher training every three years), Annual Laboratory Hazards Training, New Lab Worker Orientation, Hazard Control Plans (HCP) for individuals working with hazardous chemicals, biologicals, equipment or hazardous process. Our HCP and Laboratory Hazard Assessment Tool (LHAT) applications along with our training sessions identify types of hazards and requirements and safety equipment in the research environment; Medical assessment requirements, hazards of the materials, safe handling, use of fire extinguishers, eye wash stations, spill kits, Safety Data Sheets (SDS), Personal Protective Equipment (PPE), signs and cautionary labels. Specialized training is also required for all personnel who work with hazardous materials, chemicals, physical hazards, compressed gas, volatile anesthetics, and/or biohazardous agents. Biohazard use training includes Bloodborne Pathogen Training, Aerosol Transmissible Disease Training, and Recombinant or Synthetic Nucleic Acid Training. These trainings review signs and symptoms of exposure to the biohazardous agent; appropriate pre/post-exposure prophylaxis; type and frequency of required medical surveillance; donning, doffing and maintenance of PPE; procedures to follow when working with the agent; spill and/or exposure procedures; and disinfection and waste and carcass disposal methods. Additional specialized trainings are provided for work with high hazard biological materials in animals requiring animal biosafety level 3 containment. Depending on the assessed risk, additional training may be required before the individual may start work.

If work involves the use of an agent in animals that is considered biosafety level 2 or 3, a safety considerations meeting that is customized to the individual protocol and includes Animal Care Program Staff, Laboratory Staff and EH&S Biosafety staff will be held prior to beginning work. Personnel working with animals receive training on the program during Orientation to Animal Research. Topics covered include who should participate, what is included, risks and hazards associated with animal exposure, including physical hazards, allergies, zoonotic diseases, and prevention methods.

Any persons working with non-human primates receive specialized training and monitoring (e.g. TB screening/serum banking) under the program. Only technicians trained in primate husbandry, handling and potential zoonotic diseases will be allowed

to work in primate rooms.

If an injury, illness, or exposure occurs while working in a vivarium or around animals, personnel should seek medical treatment. Employees seek medical treatment at COEM, UC San Diego emergency rooms, or additional treatment options if needed. Students should seek medical treatment through Student Health Services or their personal health care provider.

Work-related injury, illness, or exposures are required to be reported to supervision and to the campus through an online reporting system. This includes chemical splashes, splashes to the eyes, animal bites or scratches, needle sticks, slips, trips, falls, allergic reactions, or any other accident or health problems related to the work environment. Near misses are encouraged to be reported to EH&S through the online Safety Concern Form.

Non-emergency injuries and exposure are treated on campus through the UCSD Student Health or the UCSD COEM. Information on campus injury reporting and treatment is on our campus web pages as well as training classes, hazard control plans, and posted Emergency Response Guide. Emergency medical needs are directed towards the UCSD hospital and emergency rooms. All injuries must be reported to EH&S and Risk management through our online reporting form. Injury forms are then routed to EH&S specialists and or departments for review and corrective actions.

- 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 is provided in the attached Facility and Species Inventory table (Attachment A).
- G. The training or instruction available to scientists, animal technicians, and other personnel involved in animal care, treatment, or use is as follows:

"Orientation to Animal Research at UCSD" is required for new personnel and includes topics such as laws and regulations affecting animal research; the Institutional Animal Care and Use Committee; the protocol review process; methods to report animal welfare concerns; tips on completing the UCSD animal use application; alternatives considerations, including reduction, refinement, replacement; topics related to Occupational Health and Safety including exposure to animals, animal allergies, and zoonotic diseases; recognition of pain and distress in laboratory species; pre-and post-operative care and record keeping requirements; animal acquisition; order of room entry; basic husbandry requirements of species.

The IACUC Office provides "New IACUC Member Orientation" training for all new IACUC members. This class has topics such as laws and regulations affecting animal research; the role and responsibilities of the Institutional Animal Care and Use Committee and specific member requirements; AAALAC accreditation; protocol review procedures and process; primary reviewer responsibilities; avoiding conflict of interest; literature searches and alternatives. IACUC members are also provided access to the PHS Policy, USDA Animal Welfare Regulations, the Guide for the Care and Use of Laboratory Animals, OLAW/ARENA IACUC Guidebook, UCSD's Animal Welfare Assurance and all UCSD policies and standard operating procedures related to animal care and use.

All personnel who wish to use animals must complete a Personnel Qualifications Form. Training, education and experience are evaluated by professional staff in the IACUC Office. Additional training may be required for individuals who are identified as needing further training. Personnel may be trained by qualified ACP trainers either through one-on-one training and/or by classes offered by the Animal Care Program.


The Animal Care Program offers training classes, seminars, and wet labs routinely throughout the year. In addition to regularly scheduled programs, individual or customized training is available as needed. New animal care personnel are encouraged to attend specialized or group training sessions with the ACP Technical Training Specialist to

learn proper handling, restraint, observation and clinical techniques on the species with which they will be working.

All personnel on active animal protocols must complete a refresher course once every three years.

IV. Institutional Program Evaluation and Accreditation

All of this Institution's programs and facilities (including satellite facilities) for activities involving animals have been evaluated 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.

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, Sandra A. Brown, Vice Chancellor, Research.
 - 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 from October 1 - September 30. The IACUC, through the Institutional Official, will submit an annual report to OLAW by 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, Sandra A. Brown.
 - 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

A. Authorized Institutional Official	
Name: Sandra A. Brown, PhD	
Title: Vice Chancellor for Research	
Name of Institution: University of California, San Diego	
Address: <i>(street, city, state, country, postal code)</i> University of California, San Diego 9500 Gilman Drive (b) (4) La Jolla, CA 92093	
Phone: (b) (6)	Fax: (b) (6)
E-mail: sandrabrown@ucsd.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: August 4, 2021

B. PHS Approving Official <i>(to be completed by OLAW)</i>	
<div style="display: flex; justify-content: space-between;"> <div> <p>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</p> </div> <div> <p>Nicole L. Lukovsky- akhsanov -S</p> <p>Digitally signed by Nicole L. Lukovsky-akhsanov -S Date: 2021.08.04 15:57:34 -04'00'</p> </div> </div>	
Signature:	Date:
Assurance Number: D16-00020(A3033-01)	
Effective Date: 8/4/2021	Expiration Date: 6/30/2025

VIII. Membership of the IACUC

Institution: University of California, San Diego			
IACUC Chairperson			
Name: Michael Gorman, PhD			
Title: Professor		Degree/Credentials: PhD	
PHS Policy Membership Requirements***: Chair, Scientist			
IACUC Roster <i>[Provide below or attach]</i>			
Name of Member/ Code*	Degree/ Credential	Position Title/ Occupational Background**	PHS Policy Membership Requirements***
(b) (6)			Scientist
			Scientist
			Member
			Scientist
			Nonscientist
			Member
			Scientist
			Nonaffiliated
			Scientist
			Scientist
Michael Gorman	PhD	Professor	Scientist
(b) (6)			Scientist
			Scientist
			Scientist
			Scientist
			Member
			Scientist
			Scientist
			Scientist
			Scientist
			Scientist
Philip Richter	DVM, PhD	Director, Animal Care	Attending Veterinarian
(b) (6)			Member
			Scientist

(b) (6)			Scientist
			Scientist
			Scientist
			Alternate Scientist and Member
			Alternate Veterinarian
			Alternate Veterinarian
			Alternate Veterinarian

* Names of members, other than the chairperson and veterinarian, may be represented by a number or symbol in this report to OLAW. Sufficient information to determine that all appointees are appropriately qualified must be provided and the identity of each member must be readily ascertainable by the institution and available to authorized OLAW or other PHS representatives upon request.

** List specific position titles for all members, including nonaffiliated (e.g., banker, teacher, volunteer fireman; not "community member" or "retired").

*** [PHS Policy](#) Membership Requirements:

<i>Veterinarian</i>	veterinarian with training or experience in laboratory animal science and medicine or in the use of the species at the institution, who has direct or delegated program authority and responsibility for activities involving animals at the institution.
<i>Scientist</i>	practicing scientist experienced in research involving animals.
<i>Nonscientist</i>	member whose primary concerns are in a nonscientific area (for example, ethicist, lawyer, member of the clergy).
<i>Nonaffiliated</i>	individual who is not affiliated with the institution in any way other than as a member of the IACUC, and is not a member of the immediate family of a person who is affiliated with the institution. This member is expected to represent general community interests in the proper care and use of animals and should not be a laboratory animal user. A consulting veterinarian may not be considered nonaffiliated.

[Note: all members must be appointed by the CEO (or individual with specific written delegation to appoint members) and must be voting members. Non-voting members and alternate members must be so identified.]

If there are other individuals within the Institution who may be contacted regarding this Assurance, please provide information below.

(b) (6)

Name: Philip J. Richter DVM	
Title: Director, Animal Care Program, Campus Veterinarian	
Phone: (b) (6)	E-mail: pjrichter@ucsd.edu

Facility and Species Inventory

Date: 02/2021			
Name of Institution: University of California, San Diego			
Assurance Number: A3033-01 /D16-00020			
Laboratory, Unit, or Building*	Gross Square Feet [include service areas]	Species Housed [use common names, e.g., mouse, rat, rhesus, baboon, zebrafish, African clawed frog]	Approximate Average Daily Inventory
(b) (4)	14,231	Mice, rats, rabbits, hamsters, fish, chinchillas	Mice 17,564 Rats 452 Rabbits 9 Hamsters 17 Fish (racks) 2 Chinchillas 2
	7,451	Mice, rats	Mice 3,772 Rats 118
	4,395	Mice	Mice 12,212
	2,462	Mice, rats, hamsters	Mice 972 Rats 98 Hamsters 18
	12,310	Mice	Mice 13,824
	5,265	Mice, rats, fish, axolotls	Mice 7,360 Rats 270 Fish (racks) 42 Axolotls 12
	4,769	Mice	Mice 5,116
	13,709	Mice	Mice 35,332
	9,800	Mice	Mice 3,740
	8,086	Mice, rats, cats	Mice 2,612 Rats 102 Cats 2
	38,233	Mice, pigs, birds	Mice 168 Pigs 23 Birds (enclosure) 4
	6,072	Mice, rats, fish	Mice 7,216 Rats 88 Fish (racks) 44
	3,568	Mice	Mice 7,076
	5,717	Mice, jerboas, fish	Mice 7,544 Jerboas 14 Fish (racks) 1
	948	Frogs, jerboas	Frogs 7 Jerboas 67
	2,266	Mice, marmosets, birds	Mice 872 Marmosets (encl.) 14 Birds 36
	303	Rats	Rats 78
	2,000	Fish, sharks, rays	Fish 192

(b) (4)			Sharks 15 Rays 9
	100	Fish	Fish (racks) 21
	14,260	Mice, rats	Mice 11,552 Rats 92
	230	Mice	Mice 512
	16,200	Mice	Mice 30,980
	15,189	Mice, rats, rabbits	Mice 8,308 Rats 104 Rabbits 48

*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.