

Guide to Services

Office of Laboratory Animal Care

University of California, Berkeley



OFFICE OF LABORATORY ANIMAL CARE

BERKELEY

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The OLAC website, <https://www.olac.berkeley.edu/>, has information such as:
(click on [blue](#) text for active links to website, forms, and info)

- [Per Diems](#) (Per diems, fee information, or recharge rates)
- [Training and Certification information](#)
- [Order forms](#) (plus more on the OLAC website in link)
 - [Cage Card Order Instructions](#)
 - [Transfer Request](#)
 - [Animal Import/Export Form](#)
 - [Special Services Request \(SSR\)](#)
- [PI Resources](#) (plus more on the OLAC website in link)
 - [Cage cards and stickies, June.2021](#)
 - [IACUC Policies & Guidelines](#)
 - [Safety and Emergency contact information](#)

OLAC Directory - Departmental contacts:

[OLAC Directory](#)

General questions: (510) 642-9232, olac@berkeley.edu

[OLAC Mission, Vision and Core Values](#)

OLAC Mission Statement

To support UC Berkeley's quality research program by promoting the highest standards of animal care, welfare, regulatory compliance, education, training and customer service.

OLAC Vision:

OLAC will strive to set a high standard for animal resource operations by developing and continuing a culture of excellence through education, training and teamwork.

OLAC Core Values

Respect

Transparency

Collaboration

Accountability

Communication

Accessing Animal Facilities

All individuals using the animal facilities require appropriate training and an activated card key and/or brass key to gain entrance, see the required steps here: [Quick Start for New Hires - OLAC Access](#). For facility access, individuals **must** complete all the required training and verification steps as listed on the forms. This includes CITI and EHS205 online courses, Occ. Health Risk Assessment, and be added to the Animal Use Protocol personnel list. These forms are available on the [OLAC Website](#), including forms for entry into the more restricted areas of the vivarium.

Please note: **No one should access the animal facilities unless they are listed on the investigators AUP, and have completed all steps required to activate the individual's card key.**

By fulfilling all of these requirements ensures that all personnel entering the facilities are part of the required Occupational Health Program, have some minimal safety training, have learned about what an IACUC is, and its purpose in ethical animal research. Remember, If

an individual is not on the protocol, then there is no reason for them to enter the animal facilities and they must never handle or touch an animal. Such actions would constitute a “non-compliance” concern, could be subject to disciplinary action by the IACUC (Institutional Animal Care and Use Committee) and could result in the suspension of a protocol.

Please note that "piggy backing" or "tailgating" is not allowed nor is it a good security practice. This includes allowing others to borrow your card key for access, or to bring in lab members who have not completed the orientation process. Research staff who allow this activity could be subject to having their card key deactivated from OLAC areas, and will need to retake the OLAC orientation.

Additionally, some areas require a higher level of security and training. If working in ABSL2, ABSL3, Bats, NHPs, or the High Barrier Facility, then additional training must be completed ([Card Key Access Form - Restricted](#)).

The [Card Key Access](#) form is provided by the OLAC staff at the time of the training on use of the facilities. Please ensure that you bring your **CAL ID card** and **other form of ID (Drivers License)** to the orientation in order to verify your card number and your identity. If you do not have your forms of identification you will be asked to reschedule your training. .

For brass keys, once the request form is processed, you will be contacted to pick-up the key at NAF203. A deposit of \$10.00 for each brass key must be paid at pick-up. If you leave the university, you are required to return this key to OLAC.

Building and Room Entry Procedures and Security

After the proper forms and training are completed and facility access is granted, it is imperative that individuals abide by security procedures. Individuals should ensure that others **do not “tailgate” or follow** them through the entry ways. Each individual **MUST** use their own key card for entry. All doors should close firmly behind individuals as they pass through the facility. Doors should not be propped open and any damaged doors, locks or readers should be promptly reported to the OLAC supervisor. **Individuals should only access animal rooms that house their animals.** Please report any unusual activity to either the OLAC supervisor or UC Berkeley Police at **(510) 642-3333** or **911**.

Hours of Operations and After Hours, Weekends, and Holidays

OLAC business office NAF203 is open Monday thru Thursday from 9:00am -12:00pm and 1:00pm - 3:00pm. The business office is closed on Fridays and the holidays listed in this link - <https://hr.berkeley.edu/hr-network/personnel-resources/holiday-sick-vacation/holiday-schedule>

The animal facility is available for use after hours. Most of the **animal room lights will be OFF from 7pm to 7am**. Plan your day to ensure you exit before the lights go off. If you must turn ON the animal room lights during the dark hours, please ensure that you turn the lights back OFF when you leave, including hoods. **REMEMBER:** turning on the lights (includes leaving the cage change station lights on), causes stress to the animals and may affect breeding and change research outcomes. Most often, you are not the only user of the animal housing rooms, so be considerate to others. When possible, use a red headlight.

Approved Vivarium Attire

Full length pants (or equivalent) and closed toe/heel shoe attire **MUST** be worn at all times by all students and researchers who are occupying or entering the animal facilities. The area of skin between the pants and shoe should not be exposed. [Personal Protective Equipment](#)

PPE Requirements

[Personal Protective Equipment \(PPE\)](#) functions to protect both human and animal health. It is extremely important that ALL door signs directing the use of PPE to be followed exactly as posted. Note that PPE may vary throughout the facility based on animal species, room health status, biosafety level, and procedures being conducted. Ensure that PPE is donned (put on) and doffed (removed) at the appropriate location for the area you are working in.

Food and Drink Policy

For your safety food and drinks are **not** allowed in the animal facility at any time. This includes water bottles. [ACUC Food and Drink Policy](#)

Health Status and Traffic Patterns

Different species and animal rooms have different health statuses and can potentially change due to disease outbreaks. Please read all door signs for notice of established disease status, light cycles, foot patterns and PPE requirements. Order of entry is as follows: High Level Barrier, Helicobacter/Norovirus free, standard room, ABSL-2/ABSL-3. Never go from a lower level health status room to a higher level to reduce the chance of disease transmission.

Animal Room Use: Procedures, Approved & Prohibited

Most procedures can be performed in the Animal Housing Rooms, as long as all other policies, safety procedures, and your AUP are followed. Rodent procedures should be performed in a biosafety cabinet or cage change station while using microisolator cage handling and/or aseptic practices. This is more important than PPE in preventing the spread of disease.

Sharps should be disposed of appropriately. Work areas are to be cleaned and disinfected after use. Bedding and fecal material should **never** be left on a workplace surface. If using a volatile anesthetic agent, a ducted biosafety cabinet or down draft table should be used for human safety.

Euthanasia **SHOULD NOT** be performed in the Animal Housing Rooms. Animal vocalizations and pheromones released during the process have been shown to cause stress and anxiety to the other animals housed in the room. Please utilize the appropriate locations for euthanasia.

Protocols, Policies and Relevant SOPs

It is **YOUR** responsibility to have read your AUP, and to know and seek out information related to your Protocol, to include ACUC and OLAC policies, and relevant facility and procedure SOPs. If you are not sure, please ask! Your PI or Lab Manager will be able to help you locate much of this information. The OLAC Training Coordinator at olactraining@berkeley.edu is also a resource for questions or concerns.

Below are some links that you may find helpful.

<http://www.acuc.berkeley.edu/guidelines.html>

<http://www.acuc.berkeley.edu/training.html>

Contact OLAC or the ACUC for further clarification or questions

[OLAC directory](#)

Rodent Breeding Policy/SOP's

[The Guide for the Care and Use of Laboratory Animals](#) aka “The Guide”, directs the standard amount of space a mouse should have without requiring an IACUC exception. For our caging systems, a cage is allowed to hold no more than 5 mice. The ACUC also has a policy on rodent breeding that should be used as a supplement to that housing standard, because it states a lower number for a dam with a litter, number of dams together etc. Please review. [Overcrowded Mouse Cage Guidelines](#)

Training and Certification Process for Animal Related Procedures

Personal training for animal care, husbandry, animal handling and basic procedure related activities can be requested through the OLAC trainer (e.g. restraint and handling, injections, blood collection, etc.).

It is **required**, by the ACUC, that OLAC perform training and **certification for anyone** listed on a protocol **that will be performing** any of the following tasks: **Euthanasia, Anesthesia, Surgery, and any other invasive procedures.**

Requests for OLAC orientations, training, and certifications can be requested through the OLAC website under the “Training” tab. <https://www.olac.berkeley.edu/training>

Please contact the OLAC Training Coordinator at olactraining@berkeley.edu for any further questions or concerns.

Any training by a member of a lab to other lab members, must be documented and available to the ACUC during semi annual facility inspections. This document is to include: date, training subject, trainer, person trained. [Example of Lab Training Record](#)

Use of Procedure Rooms and Scheduling

There are Shared Animal Procedure spaces available in most of the facilities. They are scheduled, specific to location, by signing up using the calendars from OLAC website (see link below). Please remember that these are **shared spaces**. If you no longer need to use the space, please return to the calendar, and remove your name, thus allowing other researchers to use the space.

OLAC Shared Room Calendars

Go to the OLAC website, under PI Resources tab - [OLAC Shared Room Calendars](#)

The **login** information is the **PI Last name Lab**

The **password** is the PI's last name only. Ex. - User name: **DoeLab** Password: **Doe**

Services Provided by OLAC

Standard of care for Rodents (mice, rats, voles) (link these)

Standard of Care for Gnotobiotics


Standard of Care for Guinea Pigs

Standard of Care for Egyptian Bats

Standard of Care for Primates

Standard of Care for TucoTuco

Standard of Care for Zebra Finch



Standard of Care for Chickens
Standard of Care for Xenopus Frogs
Standard of Care for Zebrafish
Standard of Care for Stickleback Fish
Standard of Care for Sea Lamprey
Standard of Care for Pupfish
Standard of Care for Cavefish
Standard of Care for Cichlids
Standard of Care for Reptiles

In coordination with the Animal Care and Use Committee (ACUC), OLAC works with investigators to ensure compliance of all state and federal regulations and provides information regarding training requirements. In addition, OLAC oversees security “key card” access to all animal facilities.

Requesting Services and Items from OLAC

Forms for all OLAC services (including facility key card access) are available on the OLAC website. <https://olac.berkeley.edu/forms>

Most forms are submitted directly online through the OLAC website. The Card Key Access paper form is submitted in person when you complete the “Facility Use” training. The form will be submitted directly to the supervisor providing that training. Please make sure to bring your **Cal ID and another form of ID**, otherwise you may be asked to reschedule the Facility Use training course and thus delay the overall process.

Enrichment and Non-pharmaceutical purchases - shopping list

Use this link to the [Non-Animal Purchase Request](#) form for additional cage **enrichment materials (shepherd shacks, nesting materials, ect.)** as detailed in the Lab Shopping list linked below, as well other services and items in other sections in this Guide.

- [Enrichment, Non-Animal Purchases, Lab Shopping List](#)

All orders placed by OLAC are confirmed with you via email. If there is a problem with the order, such as an incomplete form or delay by a vendor, the requestor will be notified before further action is taken.

Cage cards, stickers & Cayuse communications

[Cage Card Order Form](#) - Order cards in advance of need. This process is completed through the Cayuse management system. Personnel who need to order cards or animals need to be authorized by the PI. PI is to notify olacit@berkeley.edu with the names of the individuals and those individuals **MUST** be on the PI’s AUP.

Training on the use of “special requirements” cards and stickers can be accessed below (See link below for more details on cage cards as communication tools) or you can find them posted within each of the animal facilities. Please feel free to contact OlaTraining@berkeley.edu for any questions regarding the use of these special stickers and cards.

- [Cage cards and stickies, June.2021](#)
- [Google Groups listserv, Cayuse, & Animal Health Reports](#)

Use of OLAC Equipment and Scheduling

OLAC offers some specialized rental equipment including: Mobile Isoflurane

anesthetic machines, downdraft tables, as well as services for the sterilization of surgical equipment, tools & other devices: Steam Autoclave, Gas Sterilization. A [Research Service Request](https://olac.berkeley.edu/forms) (RSR) Form (<https://olac.berkeley.edu/forms>) for equipment rental. This form must be filed in advance of the requested rental. Equipment is in limited supply, thus availability is not guaranteed so plan ahead.

RSR: Technical Support Please give at least two weeks notice if requesting Technical Support from OLAC staff. This allows for scheduling, and at least 2 business days for equipment rental.

Link to RSR form: [RSR Form](#)

Billing and OLAC

Completed purchase orders are billed to the account indicated on the order form, so **ensure that this number is correct**. The monthly per diem charge is billed to the account the animals were originally purchased under, unless otherwise indicated. **Again, it is imperative that the correct recharge number is used**. Each form has a section for indicating a UCB chart string number/recharge number and an authorizing signature. **It is the responsibility of the requestor to indicate the correct billing chart string number.**

The account number used by each investigator must be registered as a Recharge Account with OLAC. Please submit a [Recharge Account Application](#) form to set this up. Update and resubmit form if the chart-string changes.

Charges are accumulated monthly for each investigator's account and submitted for automatic payment. Statements of charges are generated and e-mailed to the person indicated as the account manager.

A list of service [Per Diem Fees](#) are listed under PI resources titled "OLAC Per Diems"

Animal Purchases

All animals purchased for use in campus research must be acquired through the OLAC purchasing office. The animal purchasing service includes processing orders with vendors, receiving, on-campus delivery, housing set-up, and arrangement of standing orders. Standard orders are placed by submitting an [Animal Purchase Request](#) found on the OLAC Website under "Forms". The link will take you to the Cayuse online system. Personnel that need to order cards or animals need to be authorized by the PI (See Cage cards, stickers & Cayuse communications above). PI is to notify olacit@berkeley.edu with the names on the AUP who are allowed to order cards or animals.

Import/Export

Please note that animals from non-approved vendors, such as outside institutions or collaborators are required to fill out an ["Animal Import/Export"](#) form. Once complete, OLAC makes contact with the shipping or receiving institution and orchestrates the process. All animals imported from non-approved sources **MUST** be quarantined once received and undergo in house testing to confirm disease status. Please see the [UCB Quarantine Guidelines](#).

Animal Shipping

All animal shipments to or from the UCB campus must be coordinated through OLAC. Requests for animals from noncommercial sources are placed by submitting an [Animal Import/Export form](#). completed on the OLAC website. The completed form is automatically

submitted to the shipping coordinator who will coordinate the entire process. The health status of the originating colony and the incoming animals must be reviewed and approved by OLAC veterinarians prior to initiating any animal shipment to quarantine.

Quarantine

Rodents received from a non-approved vendor such as outside institutions or collaborators, must complete a period of quarantine, during which they will be directly tested for infectious agents. Unless a veterinary approved exception has been granted, only OLAC staff may have access to the animals in quarantine. Breeding of animals is not typically allowed in quarantine. However, for strains that are difficult to maintain or lose fecundity at an early age, exceptions can be made. Scheduling of shipments into quarantine is dependent upon:

- Animal health history
- Availability of space
- Approval by veterinary staff at both UCB and the originating institution
- Correct and timely identification of cages of animals to be shipped

Charges incurred for quarantine including diagnostic procedures will be charged directly to the investigator. Investigators wishing to bring field caught animals into animal facilities must first contact OLAC veterinarians to determine appropriate shipping and quarantine procedures.

Transfers

OLAC is responsible for the transfer of animals between facilities, with the exception of transfers between NAF and LKS. To request this service, submit a Transfer Request form to OLAC through the website: <https://olac.berkeley.edu/forms>

OLAC does not provide transport of animals to or from off-campus sites. If such services are required, OLAC will arrange for this service through an approved outside transportation service. If a lab person's vehicle is to be used to transport animals, the vehicle **MUST** be approved after a brief inspection by the IACUC. This transportation must be approved in the labs AUP.

Please place transfer requests at least 3 business days in advance, excluding weekends and holidays, and be sure animals are available for pickup at the requested time.

Veterinary Care

Veterinary Care is provided by OLAC veterinary staff. Veterinary supplies and non-campus services such as clinical and pathological lab work are charged to the investigator at cost. For non-emergencies or general questions please email the Vet Staff at vetstaff@lists.berkeley.edu

OLAC provides a **24-hour call line with veterinary support** for animal health problems and emergencies. For after hours veterinary assistance, please call **510-643-8387** (643-VETS, or just 3-VETS, ext.3-8387 if dialing from an internal landline), and you will be connected to an answering service that will connect you with the on-call veterinarian. The veterinarian may ask questions regarding the animals' medical history, research parameters, and current problem(s).

Pharmacy and Veterinary Supply Purchases

Investigators may purchase research related pharmaceuticals and veterinary supplies from

the OLAC Pharmacy as approved on your Animal Use Protocol (AUP). If an item is stocked in the OLAC Pharmacy it will be readily available, otherwise it will be ordered and received with the following shipment. Commonly stocked items include: triple antibiotic ointment, isoflurane, meloxicam, and more. To place an order to the Pharmacy, submit from the [OLAC Pharmacy Order Form](#), or for controlled substances, submit a controlled substance form.

Working with Controlled Substances

The Federal Drug Enforcement Administration (DEA) strictly regulates the purchase, use, and disposal of controlled substances. A complete [List of Controlled Substances](#) is available from the DEA.

Please note: isoflurane, meloxicam, and tricaine (MS-222) are not controlled substances.

Please visit <https://ehs.berkeley.edu/controlled-substances> for further instructions and forms regarding the use of controlled substances in research, or contact Environmental Health and Safety (EH&S) for assistance.

Disposal of Controlled Substances

The DEA strictly regulates the disposal of unwanted and outdated controlled substances. EH&S has prepared a step-by-step program for disposal. Following their guidelines will help ensure your unwanted or expired controlled substances are safely and legally managed.

Download forms and instructions for proper disposal at the EH&S website.
<https://ehs.berkeley.edu/manage-waste>

PI Care, Non-Standard Husbandry, & SSRs

Non-standard OLAC husbandry, PI care of limited numbers of cages, or other special needs, must first be added to your AUP and approved by the ACUC. This includes: maintaining animals on special diets, additives to water, fasting, special weaning practices, experimental monitoring of tumors, surgery, and hazardous agents used with animals. There are a variety of special cards that assist in communicating between the lab and OLAC when these special planned situations occur. [Cage cards and stickies, June.2021](#)

Before a study with special needs starts, OLAC must be notified via a [Special Services Request \(SSR\)](#) which will help OLAC staff to be aware of the special needs when the study begins.

ABSL2 and Viral Vectors

ABSL2 and Viral Vector use requires [additional training](#), (Online & In-Person).

Required Training:

- Must take [EHS 201 Biosafety in Labs](#) online via the UC Learning Center.
 - Confirmation of Course Completion must be printed and delivered to the In-Person ABLS2 Orientation training.
- An In-Person ABSL2 Orientation is required for anyone requesting access to an ABSL2 facility.
 - Please contact the EH&S Assistant Biosafety Officer James Baugh (jimbaugh@berkeley.edu) or visit <http://ehs.berkeley.edu> for more information.
 -

Rodent Imaging and Transgenic Resources

Investigators may utilize special equipment as shared by other labs, such as IVIS, MRI, and CT and biological irradiation.

[OLAC Resources: Imaging Rodents & transgenic production, w/ contact info.docx](#)

[Production of transgenic mice core:](#) 415 Weill Hall

UCB Transgenic core director: Angus Lee ayflee@berkeley.edu

Faculty director: Russell Vance rvance@berkeley.edu

UC Davis also has the Mouse Biology Program -

[Space Assignment Procedures](#)

Each investigator is only allotted a certain amount of square footage as set by CARSA (Committee on Animal Research Space Assignment). For any increased need for animal housing or procedure space, a [Facility Space Allocation Form](#) must be filled out. The form is automatically submitted to the OLAC Director who then submits the form with recommendations to CARSA. All final decisions are made based on space availability, animal housing availability and the amount of space the PI currently uses.

Visitor Access

UC Berkeley is committed to maintaining excellence in its animal care and use program. The access to animal facilities by visitors is restricted and monitored to protect the health and safety of both visitors and research animals and to avoid disrupting teaching or research activities. Visitors over the age of 18 may be permitted when approved by the Principle Investigator and the Director of OLAC as per the ACUC Policy on Admission of Visitors to Animal Facilities. For more information:

<https://acuc.berkeley.edu/policies/visitors.pdf> .

Cameras/Video Equipment

Use of cameras, video, or recording equipment is prohibited in any of the campus animal facilities without prior approval and authorization by the OLAC Director and campus legal services. See the IACUC's policy on media recordings.

https://acuc.berkeley.edu/policies/media_recordings.pdf

Emergency Procedures


All building occupants are required by law to evacuate when the fire alarm sounds. Animals should never be taken out of the building during an emergency. If animals are outside of their cage, return them to their enclosure and follow evacuation procedures. If you are in the middle of a surgery or other procedure, stop at once and return the animal to their enclosure or euthanize the animal, if necessary, and follow normal evacuation procedures. Human safety should always be your first concern.

Please refer to the OLAC Safety Manual and Building Emergency Plans on the OLAC website <https://olac.berkeley.edu/safety & emergency>.

A [disaster preparedness document](#) is divided by disaster type and facility. Each facility has different capabilities and capacities to weather a disaster.

Safety Equipment

ALL emergency equipment must be available and in working order. Do not obstruct or obscure, or block access to any emergency equipment (ex. eyewash and shower stations). Report broken or blocked equipment to the OLAC facility supervisor immediately. Safety



equipment is tested on a regular basis.

Animal Welfare and the OACU Whistleblower Contact Information

Animal Welfare for all species is a TOP priority at UC Berkeley. It is vital that everyone participates in the assurance of proper care of our animals. Please bring up any questions or concerns to Facility Veterinarians, Facility Supervisors, or your Principal Investigator.

You can also report any animal related concerns to the ACUC: Dr. Becky Armstrong, Director of OACU at 510-642-8855 or acuc@berkeley.edu

If for any reason you do not feel comfortable reporting to any of the above contacts, you can use the Confidential University-wide **Whistleblower Hotline** at **(800) 403-4744**, or contact www.universityofcalifornia.edu/hotline

Consequences for Non-Compliance

Access to OLAC areas can be revoked if there is non-compliance to safety, security, training or welfare procedures and policies.