



Stanford University
Department of Comparative Medicine – Veterinary Service Center

This VSC document provides information useful in completing NIH grant applications and proposals. Questions should be directed to VSC Training Coordinator (vsc_training@lists.stanford.edu) or Valerie Fratus (723-4550; valerie.fratus@stanford.edu).

Grant Writing Tips

Completing the Research & Related Other Project Information Section: *Facilities & Other Resources (Animal)*:

In this section of your application, you'll need to convince reviewers you have the equipment, space, staff, and facilities to conduct the research, including essential resources such as **Animal Facilities**:

All animal facilities (~110,000 sq ft) at Stanford are managed by the Veterinary Service Center (VSC) in the Department of Comparative Medicine (DCM). The VSC is part of a centralized system for laboratory animal care and complies with federal, state, and local guidelines for laboratory animal care and is accredited by the Association for the Assessment and Accreditation of Laboratory Animal Care, International (AAALAC, Int'l). Round-the-clock, 7-days/week veterinary care is provided by on-site veterinary staff consisting of veterinarians specialized in laboratory animal medicine, pathology, internal medicine, anesthesiology and preventive medicine, and veterinary technicians with experience in laboratory animal care and surgical support. The VSC veterinarians oversee health surveillance; diagnosis, treatment and control of diseases; emergency care; anesthesia and analgesia; surgery and post-surgical care; and euthanasia. The veterinarians also are available for consultation for animal model selection, animal husbandry techniques, experimental methodologies, anesthesia/analgesia, surgical techniques, and euthanasia.

In addition to animal husbandry facilities the VSC contains 3 Surgical Suites, a Surgery Preparation Room, and 2 Intensive Care Units (ICU) for postoperative care. The Surgical Suites are equipped with ceiling mounted surgical lights, stainless steel surgical tables, inhalation gas anesthetic machines, ventilators, electrocautery and suction machines, and anesthetic monitoring equipment (capnographs, pulse oximeters, EKG, apnea monitors, dopplers, blood gas analysis machine, glucometer, and access to an automated electrolyte analyzer). Circulating water blankets and Bair Huggers, instrument and IV stands, and fluid pumps are provided in all surgical areas. The ICUs provides comprehensive care for surgical patients recovering from anesthesia after invasive experimental procedures, or for patients with spontaneous illness requiring intensive care. The veterinary staff has extensive experience with life-support monitoring methods, mechanically assisted ventilation, analgesia, and resuscitative techniques adapted to accommodate a wide range of species. Surgical and ICU support services are available.

Completing Specific Research Plan, *Vertebrate Animals*:

Peer reviewers (Scientific Review Groups) must evaluate your responses to the five points in the Vertebrate Animal Section of your NIH application or proposal. Please download the Worksheet for Review of the Vertebrate Animal Section (VAS) at: <http://grants.nih.gov/grants/olaw/VASchecklist.pdf>. Here is some basic information about veterinary care at Stanford University that you can use for Point 3: **Veterinary Care**:

Animal care at the Stanford University School of Medicine is under the care and supervision of the Department of Comparative Medicine's Veterinary Service Center (VSC). The Stanford animal facilities meet federal, state, and local guidelines for laboratory animal care and are accredited by the Association for the Assessment and Accreditation of Laboratory Animal Care International (AAALAC Int'l). Veterinary staff are on-site during normal business hours and are available on-call 24 hours a day, 7 days a week. Veterinary staff consists of approximately 13 veterinarians specialized in laboratory animal medicine, pathology, internal medicine, anesthesiology and preventive medicine, and 5 veterinary technicians with experience in laboratory animal care and surgical support.

Animal husbandry staff conducts routine husbandry procedures (e.g., cage changing/cleaning, feeding/watering) and monitors research animals daily 7 days a week. Any animal showing clinical signs of disease, pain, discomfort, or distress, either spontaneously or after an experimental procedure, is examined by a veterinary technician and/or veterinarian within 24 hours of the initial morbidity report. The veterinarian, through the veterinary technicians, makes a written recommendation to the Principal Investigator's research staff for appropriate treatment or, if alleviation of the pain/distress is not possible, a recommendation for euthanasia. If response from the research staff is not obtained in a timely manner, the veterinary staff is empowered to initiate treatment. If attempts to contact the research staff fail, euthanasia will be carried out by the veterinary staff for any animal experiencing severe pain or distress based upon animal welfare concerns.