

# OCCUPATIONAL HEALTH PROGRAM FOR INDIVIDUALS WITH ANIMAL CONTACT

## San Francisco State University

### Preface

This information was based on the National Research Council publication *Occupational Health and Safety in the Care and Use of Research Animals*.

All personnel who work with live animals in the lab animal facility or in fieldwork must review this information. It provides general information and rules for safe animal research and species-specific information. It also explains what to do in the event of an injury or an animal-related health problem occurs. All field researchers and students must review the Field Research Safety Guidelines and any associated field research safety plans for their work.

The California State University does not discriminate on the basis of race, color, national origin, sexual orientation or disability. For more information, see <http://hr.sfsu.edu/content/race-color-national-origin-sexual-orientation-or-disability>.

**SFSU will make every effort to provide necessary assistance/accommodations to permit all interested and qualified faculty, staff and students to interact with laboratory animals on the SFSU campus.**

# **OCCUPATIONAL HEALTH PROGRAM FOR INDIVIDUALS WITH ANIMAL CONTACT**

## **San Francisco State University**

### **A. PURPOSE**

Protecting the health and safety of the faculty, staff and students working in or using the Laboratory Animal Care Facility is an overriding principle of all Animal Care Facility activities. Health and safety is also an important element in fieldwork involving animals. An occupational health program for individuals with animal contact is an essential element in achieving this goal. Hazard identification, risk assessment, medical evaluation and preventative medicine programs are all essential components of an effective occupational health program.

### **B. REGULATORY OVERSIGHT**

The San Francisco State University (SFSU) Institutional Animal Care and Use Committee (IACUC) operates under an Assurance from the Public Health Service Office of Laboratory Animal Welfare. They base their evaluation of animal care and use programs on the requirements set forth in the Guide for the Care and Use of Laboratory Animals (<http://www.nap.edu/readingroom/books/labrats/>) and the National Research Council report, Occupational Health and Safety in the Care and Use of Laboratory Animals (<http://www.nap.edu/books/0309052998/html>).

Questions regarding the Occupational Health Program for Individuals with Animal Contact can be directed to the SFSU IACUC: (415) 338-1093 or [protocol@sfsu.edu](mailto:protocol@sfsu.edu).

### **C. HAZARD IDENTIFICATION AND NOTIFICATION**

All individuals having contact on the SFSU campus with animals or unfixed animal tissues through any of the research and teaching programs or who may reasonably be expected to come into contact with animals/tissues during their work at SFSU (e.g., security, custodial, repair, facilities personnel) are included in this program. Individuals are identified through review of animal care and use protocols and by the Biology Department (for animal facility personnel). Incidental visitors are informed of the hazards and the Occupational Health Program. Employees who require medical evaluation will be informed of the Occupational Health Program in the job description before hiring. Students who are only exposed to animals through observation in a classroom setting are not included in this program.

Refer to the Field Research Safety Guidelines for information on the hazards and safety planning for field researchers and students.

### **D. RISK ASSESSMENT/MEDICAL EVALUATION**

The level of participation in the Occupational Health Program is based on an individual's potential risk as determined by risk assessment.

**Risk categories:** Two risk categories exist at SFSU:

**Risk category 1** is considered higher risk due to: a) the species involved or b) the frequency and duration of animal contact. Currently, no species that that would give this level of risk can be accommodated at SFSU. All animal care facility personnel and faculty who support and regularly work in the facility fall into this category due to their potential for prolonged or frequent contact with animals.

**Risk category 2** is for all individuals who do not fall into risk category 1.

**Risk category 1:** All individuals in risk category 1 must complete an initial risk assessment prior to their working with animals at SFSU. In addition to understanding the potential hazards of lab animal work at SFSU, they must complete a confidential occupational health screening questionnaire. This medical screening focuses on an individual's medical history with regards to their proposed animal work, including average amount of contact per week, personal protection, immunizations, and the species being handled. This initial screening will be used to help determine the participant's level of risk to animal allergies, zoonoses, and other potential work exposures that might require additional health protections or job accommodation.

**Risk category 2:** All individuals in risk category 2 are provided with information on potential health and safety issues associated with the particular animal species or research material with which they come in contact. Further participation in the Occupational Health Program is voluntary for these individuals. If, after learning about the program, they wish to participate, they will follow the same process as outlined for risk category 1 individuals.

Special considerations may be appropriate for individuals who are immunocompromised due to treatment of certain diseases or as a result of chronic illness; pregnancy or family planning; have pre-existing allergies/asthma; or have contracted a serious illness from working with animals.

**Students who are only exposed to animals through observation in a classroom setting are not included in this program.**

### **Procedures**

**Enrollment:** Animal handlers choosing or required to participate in the occupational health program shall be given the Laboratory Animal Occupational Health Screening Initial Questionnaire before assignment or coming in contact with lab animals. Any referrals for additional evaluation or routine periodic medical screenings will be

determined by the occupational health physician at the time of initial review., Additional medical evaluations may be requested by the employee or student whenever there is a significant change in their health status that might affect their ability to work safely with lab animals or the onset of an illness or injury that might be work-related. These questionnaires are returned for a confidential review by an SFSU-contracted occupational health physician or designated clinic.

Health questionnaires will be distributed by ORSP - Human and Animal Protections, 471 Administration Building, 415.338-1093, [protocol@sfsu.edu](mailto:protocol@sfsu.edu) to all individuals required to participate in the program; other individuals can request a questionnaire or medical exam from the Office. Questionnaires should be sent directly to the designated medical provider or given to ORSP - Human and Animal Protections in a sealed envelope with the participant's signature across the flap for forwarding to the occupational health physician.

**Outcome:**

A written recommendation from the occupational health physician will be provided to the Office for the Protection of Human and Animal Subjects on a work status (or equivalent) form.

▪If the initial medical review (and any exam/referral) does not identify any significant health risks or need for accommodation/restrictions for this work, the participant will be cleared by the occupational health physician or designated medical provider to work with animals as indicated on the questionnaire.

▪If the initial medical review identifies a potentially significant health risk or possible need for accommodation/restrictions for this work, they will be recommended for additional medical evaluation through SFSU or their personal medical provider before being medically cleared for work with lab animals and/or any requirement for the use of respiratory protection for this work. (After consultation with the Office about reimbursement procedures, the cost of any additional medical exams, testing will be covered by the Office of Research and Sponsored Programs. Please note that some testing or exams may be covered by your Worker's Compensation insurance or personal insurance [if not related to work]).

Based upon any additional evaluations and testing the occupational health physician or designated medical provider will either: Clear the participant to work with animals as indicated; Provide recommendations for additional protective measures or accommodations that would be necessary for the participant to work with the animals indicated. The Office will direct the participant to the appropriate on-campus agencies for advice on possible assistance/accommodations that may be available (Biology Department, College of Science and Engineering, Disability Programs and Resource Center, Human Resources, Safety, and Risk Management); or affirm that the participant may not work with the animals as indicated on either a temporary or permanent basis.

The occupational health physician and/or any referred medical providers will also notify the participant directly with the results of any medical review or exam and any recommended follow-up.

**Recordkeeping and confidentiality:** All medical questionnaires, examinations and surveillance will be kept confidential between the participant and the occupational health physician and any additional health care providers enlisted for the assessment. The Office for the Protection of Human and Animal Subjects will only retain a record indicating that the participant completed a health questionnaire and a copy of the participant's work status form from the occupational health physician.

Personal health information will be stored by the SFSU Student Health Service (initial and any periodic medical questionnaires) or designated medical facility for additional exams. Certain injuries or illnesses must be entered into the OSHA 300 Recordkeeping Log by SFSU. Information concerning any medical conditions will not be released unless written consent has been given by the participant (or their designate/parent/guardian if under age 18) to discuss any evaluations or recommendations with their personal health care provider or other designated persons, as required by law.

## **E. PREVENTATIVE MEDICINE/RECOMMENDATIONS**

General preventive strategies include:

**Tetanus immunizations:** All individuals with animal contact are required to be current regarding tetanus immunization status. This requires all personnel to be immunized within the last 10 years.

**Personal hygiene:** Persons working with animals are required to maintain a high standard for personal cleanliness to reduce the risk of contracting diseases transmitted by animals. Protective clothing suitable for use with laboratory animals is to be worn by all persons coming into direct contact with animals or used equipment. Protective clothing must not be worn outside of the facility and should be made available for users by the university. Disposable gear, such as gloves, hair covers, masks, and eye protection should be used where appropriate. Hands should be routinely washed after handling animals or cage accessories to reduce the risk of disease transmission.

Never eat, drink, smoke, or apply cosmetics or contacts when working with animals. Wash your hands after all procedures involving animals or animal equipment. Never touch your hands to your face before washing your hands. Hand to mouth contact is the most common means of zoonotic disease transmission.

**Proper work practices:** Cage-emptying practices that decrease the aerosolization of allergens or infectious particles and proper cleaning and disposal of soiled bedding should be employed. Access to animal rooms should be limited. Ventilation should be in accordance with the Guide for the Care and Use of Laboratory Animals.

**Education and training:** Persons working with animals should be fully informed as to the nature of possible risks associated with their potential animal contact. These include laboratory animal allergies and infections, and recognition of their new and progressive symptoms, and preventative measures. It is the responsibility of each

principal investigator and facility supervisor to inform personnel of the specific risks involved and the applicable safety procedures and ensure appropriate training. All animal facility staff must complete mandatory training by the animal facility manager and complete the on line animal subjects course. All researchers must complete the online animal subjects course. Additional training for work with specific species may be required. If you feel uncomfortable handling the animals you are working with or are unsure of certain procedures or precautions, contact your supervisor.

All personnel are reminded to be knowledgeable regarding the safety policies and procedures outlined in the SFSU Department of Biology Health and Occupational Safety Policy and the School of Science and Engineering Safety, Health and Hazardous Materials Policy. These include general information on biohazards, radiation safety and chemical hazards.

**When visiting your health care providers:** Tell them that you work with animals. Even if you do not think an illness is work related, it is essential that your physician be informed of all risks in your environment. If you become ill or are injured while working with animals, you should report it to your supervisor and seek medical attention immediately.

## **F. RISKS ASSOCIATED WITH ANIMAL CONTACT**

**Bites, Scratches and Contact:** Bites and scratches pose a significant hazard to personnel working with laboratory animals. Effects of bites and scratches can include pain, anxiety, wound disfigurement, wound infection, and disease transmission. Wound infections can be caused by a number of pathogenic bacteria, which are indigenous in animals or your normal skin organisms. Most zoonotic diseases of importance in laboratory animal science are transmitted via animal bites or scratches.

The skin glands of some amphibians and reptiles secrete toxic substances. Protective clothing and gloves should be worn and good hygiene should be practiced when handling these species.

All animal bites and scratches and exposure to natural toxins should be reported immediately to the supervisor. All wounds require meticulous cleansing with soap and water. It is also important to be up-to-date on tetanus immunization (every 10 years or within 5 years if severe and dirty wound).

**Physical Injury Risk:** Supervisors must also ensure that all personnel are familiar with the procedures to follow in the case of a work related injury. These are outlined in the SFSU Department of Biology Health and Occupational Safety Policy and the School of Science and Engineering Safety, Health and Hazardous Materials Policy.

**Laboratory Animal Allergies:** One of the most common health hazards associated with working with lab animals, particularly rodents and rabbits, is the development of allergies. Exposure to animal allergens occurs by inhalation, skin or eye contact,

needlesticks, cuts or bites. The symptoms of allergic reactions can range from runny nose, watery eyes, and sneezing to asthma and anaphylactic shock. Direct contact with animal hair or skin may result in hives or more serious skin rashes. Most allergies develop within the first three to four years of working with lab animals. Symptoms typically begin shortly after an exposure occurs, but may be delayed for hours in a few cases. A history of pre-existing allergies to animals (including pets) and multiple other allergens (dust, pollens, grasses) increases the chances that a lab animal allergy might develop without proper protection (such as a respirator).

Working in well-ventilated areas, using local exhaust systems and housing animals in filter-top cages will help minimize exposure to animal allergens. The use of gloves, lab coat or coveralls, and hair covers is also important to minimize exposure.

Reference link: Preventing Asthma in Animal Handlers - (NIOSH)  
<http://www.cdc.gov/niosh/docs/97-116/>

**Zoonotic Disease Risk:** Zoonotic diseases are infectious diseases that can be passed from animals to humans. The risk of contracting a zoonotic disease can depend on many factors. Some of these include: personnel training, use of protective equipment, facilities maintenance, animal health status, and human health status.

**If you work with rodents or rabbits:** Practically all of the smaller laboratory animals (e.g., mice, rats, rabbits, hamsters, guinea pigs) are procured from vendors having animal colonies free of human and most animal pathogens. Thus the chance of contracting an infectious disease from a laboratory bred rodent or rabbit is very small. The most significant hazard associated with these animals is the possibility of developing or exacerbating an allergy or being bitten.

**If you work with reptiles, amphibians, or fish:** Reptiles, especially turtles, may be carriers of Salmonella sp. Amphibians and reptiles may also carry leptospirosis and atypical tuberculosis. Aquarium water can also transmit disease. Transmission can be avoided by the use of protective clothing (including gloves) and good hygiene.

The following web sites list information on zoonotic diseases:

<http://www.absa.org/pdf/ZoonoticFactSheet.pdf> - OSHA Alliance Program with ABSA

<http://www.cdc.gov/healthypets> - Centers for Disease Control and Prevention

**Exposure to chemicals, medications, latex, feed or other materials used in animal husbandry or animal research:** Exposure to these items may pose a risk for some individuals. All handlers should be aware of possible risks associated with these agents.

Refer to Occupational Health and Safety in the Care and Use of Research Animals book for additional information.

## G. GENERAL HEALTH INFORMATION

1. **If you are immunocompromised** due to treatment of certain diseases or as a result of chronic viral illness, special considerations may need to be made for your safety. You are encouraged to confidentially discuss your condition with the occupational health physician or your personal physician.
2. **If you are pregnant or actively planning a family** while working with animals, certain precautions may need to be taken during your pregnancy. You are encouraged to discuss any concerns with the occupational health physician or your personal physician.
3. **Bites and scratches:** It is important that you report all bite wounds and scratches to your supervisor. Wounds should be cleansed immediately before seeking treatment. Appropriate care should be taken to prevent infection.
4. **Ergonomics:** Animal care is a physical job. It is important to perform tasks in a manner to prevent injury. When lifting, bend your knees, not your back, and get help with loads that are heavier than you can handle. If you are performing a repetitive task, take short breaks to allow yourself to stretch or perform some other activity that will use a different set of muscles. If you are concerned about a physical aspect of your job, consult with your supervisor. It may be possible to modify the work environment or provide equipment that will assist you.