

OCCUPATIONAL HEALTH PROGRAM FOR INDIVIDUALS WITH ANIMAL CONTACT

San Francisco State University

Preface

As required by federal guidelines, an occupational health program is available for SFSU personnel who work with animals. 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 animals must review this information. It provides general rules for safe animal research and species-specific information. It also explains what to do in the event of an injury or in an animal-related health problem occurs.

The California State University does not discriminate on the basis of race, color, national origin, sexual orientation or disability. For more information, see www.sfsu.edu/~hrwww/directives/ndp.htm or the Supplemental Regulations and Procedures section of the SFSU Bulletin.

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

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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. 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.

C. HAZARD IDENTIFICATION AND NOTIFICATION (See Appendix 1 for program description brochure)

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 by notices and brochures at the entrance to the animal facilities. 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.

D. RISK ASSESSMENT/MEDICAL EVALUATION (See Appendix 2 for complete procedures, Initial and Periodic Health Questionnaires and Work Status Report)

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 high 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 facility personnel fall into this category due to their prolonged 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 the risk assessment process prior to their working with animals at SFSU. This includes a pre-assignment s assessment for employees. They must complete a health questionnaire that takes into consideration an individual's medical health history as well as their proposed animal work, including average amount of contact per week and the species. This form will be used to determine the participant's level of risk to animal allergies, zoonoses, illnesses, cuts/bites and physical injuries.

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; pregnant or become pregnant; have allergies/asthma; 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 (For complete details of the procedures and questionnaires, see Appendix II):

Enrollment: Animal handlers choosing or required to participate in the occupational health program shall complete a questionnaire before assignment or before coming in contact with animals, periodically thereafter as determined by the occupational health physician (at least every two years), and any time there is a change in health status or onset of symptoms. These questionnaires are returned for review by an SFSU-contracted occupational health physician.

Health questionnaires will be distributed by the Office for the Protection of Human and Animal Subjects, 254J Administration Building, 415.338-1093, protocol@sfsu.edu to all individuals required to participate in the program; other individuals can request a questionnaire from the Office. Questionnaires should be sent to the Office for the Protection of Human and Animal Subjects 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 this recommendation does not identify potential health risks, the participant will be cleared by the occupational health physician to work with animals as indicated on the questionnaire.

▪If this recommendation identifies potential health risks, after possible additional consultation, testing, and/or evaluation (After consultation with the Office about reimbursement procedures, the cost of this testing will be covered by the Office of Research and Sponsored Programs.), the occupational health physician 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 and 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 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. 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. This requirement is based upon the recommendations of the United States Department of Health and Human Services.

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 contact with animals. 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, and masks (respirators), 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 the 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 on line 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. 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 to the supervisor. All wounds require meticulous cleansing.

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 (See Appendix III): A common health hazard associated with rodents and rabbits, but which can occur with any animal, is the development of allergies. The symptoms of allergic reactions can be mild (runny nose, watery eyes, sneezing), especially during the first few exposures. With repetitive exposures, however, the allergy can progress to asthma that may require hospitalization. Direct contact with animal hair or skin may result in hives, wheals, or more serious skin rashes. Symptoms may be delayed for hours after the exposure. A history of allergies to animals increases the chances that a severe reaction will develop. Diagnosis of lab animal allergy is based on patient history, physical examination, and skin or blood testing. The use of gloves and protective clothing, particularly respirators, working in well-ventilated areas, and housing animals in filter-top cages will help minimize exposure to animal allergens. In some cases allergy shots may be necessary to desensitize an individual. Symptoms of allergic reaction should be treated by a physician.

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

Zoonotic Disease Risk: Zoonotic diseases are 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, 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, etc.) 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://research.ucsb.edu/connect/pro/disease.html> - zoonotic diseases listed by animal reservoir

<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.

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 become pregnant** while working with animals, certain precautions may need to be taken during your pregnancy. You are encouraged to discuss this 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.



Appendix I

Occupational Health Program for Individuals with Animal Contact at San Francisco State University

Introduction

The SFSU Occupational Health Program (see www.sfsu.edu/~protocol) is designed to protect the health of both personnel and laboratory animals. The Program addresses prevention, including utilizing correct personal hygiene techniques, and protective clothing/equipment, appropriate vaccines, and training. The Program also evaluates and addresses possible risks that may be associated with animal contact on the campus.

What risks are associated with animal contact at the SFSU Animal Facility?

● *Bites and scratches from small rodents and skin toxin exposure from some amphibians and reptiles.*

● *Allergies to small laboratory rodents.* The symptoms of allergic reactions can be mild (runny nose, watery eyes, sneezing), especially during the first few exposures. With repetitive exposures, however, the allergy can progress to asthma that may require hospitalization. Direct contact with animal hair or skin may result in hives (itchy rash or swelling) or more serious skin rashes. A history of allergies to animals increases the chances that a severe reaction will develop. Symptoms of allergic reaction should be treated by a physician.

● *Zoonotic diseases transmitted from small rodents or amphibians.* The risk of contracting a zoonotic disease can depend on many factors. Some of these include: personnel training, use of protective equipment, facilities, animal health status, and human health status.

Rabbits and rodents: All of the SFSU rabbits and rodents 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.

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

● *Exposure to chemicals, medications, latex, feed, or other materials used in animal husbandry or animal research.*

Who should participate?

Who is required to participate?

All animal facility personnel are required to participate in the Program. Currently, no species whose handling requires participation in the program can be housed at SFSU.

Who else may participate and what may influence their decision to participate?

- 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) may choose to participate in the Program.
- Special considerations may also be appropriate for individuals who are immunocompromised due to treatment of certain diseases or as a result of chronic viral illness; pregnant or become pregnant; have allergies/asthma; 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.**

What is included in participation?

- Individuals who participate in the Program must have a current tetanus shot and undergo training on the risks associated with animal contact at SFSU.
- Individuals will complete a health questionnaire at least bi-annually or when any changes in their health history occur, and, for animal facility staff, prior to assignment. This questionnaire will be evaluated by an occupational health physician, and individuals will be contacted by the physician if additional information or medical testing is needed. (After consultation with the Office about reimbursement procedures, the cost of this testing will be covered by the Office of Research and Sponsored Programs.)
- The occupational health physician will provide the Office for the Protection of Human and Animal Subjects with: a clearance for an individual to work with the animals indicated, or a recommendation for assistance/accommodations that would be necessary for this individual to work with the animals indicated, or a decision that this individual may not work with the animals indicated either temporarily or permanently or referral for additional tests.
- All medical information will be held in confidence by the above entities. The Office for the Protection of Human and Animal Subjects will only retain a record indicating that the individual completed the health form and the final decision from the occupational health physician. Personal health information will be stored at the SFSU Student Health Service.

How do you participate?

- Health questionnaires will be distributed by the Office for the Protection of Human and Animal Subjects, 254J Administration Building, 415.338-1093, protocol@sfsu.edu. to all individuals required to participation in the program; other individuals can request a questionnaire from the Office.
- Prior to working with animals, this form should be completed and submitted to the Office for the Protection of Human and Animal Subjects in a sealed envelope, signed across the flap. This sealed envelope will be forwarded to the occupational health physician.
- **Any individual not required to participate may decide at any time to participate in the program, even if they have not done so in the past.**

Appendix II: Risk Assessment Procedures

Protocol

I. Initial Occupational Health Screening

1. The “Laboratory Animal Occupational Health Screening - Initial Questionnaire” is to be completed for confidential review by the occupational health physician reviewer by all personnel who are either required or elect to participate in the program.

The questionnaire is used to document any prior history of animal (laboratory or domestic) exposure, allergies, current or past history of asthma and any other pertinent medical history. Upon review by the physician reviewer, some participants may be asked to complete a physical examination, vaccinations, and/or a spirometry (breathing) test based upon their work exposures and any positive answers to health conditions in this questionnaire.

Participants who require additional evaluation (including physical exam, spirometry, laboratory tests, vaccinations, fit-testing and any other appropriate tests recommended for working with animals at SFSU) will be referred to their personal physician for completion of evaluation for clearance to work with animals. (After consultation with the Office about reimbursement procedures, the cost of this testing will be covered by the Office of Research and Sponsored Programs.)

2. Participants with an unremarkable review (and any examination if done) will be reminded to use appropriate personal protective equipment, follow safe work practices, and continue in medical surveillance for work with laboratory animals. Some participants may voluntarily choose to use a respirator, even if not required by the occupational health physician (see #3 below). At this time, the frequency of follow-up review will be determined by the occupational health physician.
3. Some participants may be required by the reviewer to wear a respirator due to work exposures and an identified medical condition such as pre-existing animal allergies. Participants who are required to use a respirator for work around animals will need to complete the Cal-OSHA mandated Respirator Medical Evaluation Questionnaire (or equivalent) in accordance with CCR Title 8 Section 5144 as part of medical clearance for use of an N95 respirator or powered air purifying respirator (PAPR). Annual fit testing and respiratory protection training will be provided when respirators are required by a qualified entity identified by SFSU.

The designated occupational health physician will review all medical information and any test results with the participant, advise the participant regarding any abnormalities or risks, and recommend follow-up as needed with their personal health care provider.

When the initial evaluation reveals the presence of new or worsening allergy symptoms, the occupational health clinician may request further testing or referral to the participant's personal health care provider. The requested evaluation may include skin or serologic (e.g., RAST) testing as well as any other tests deemed necessary by the personal physician or the occupational health consultant to determine an individual's ability to work safely with laboratory animals and/or wear respiratory protection (N95 mask at a minimum).

II. Periodic Screening

Participants who work with or around laboratory animals including bedding or respirable particles will undergo periodic medical screening based upon their frequency of work exposure, or when the participant reports possible new or worsening allergy symptoms or health complaints to their supervisor, teacher-researcher or the SFSU Student Health Services.

- Participants who regularly handle live animals, used bedding, or perform cage cleaning and dumping should be screened annually or more frequently when medically indicated or requested by the supervisor, employee or clinician (e.g., employees with atopy or allergy symptoms, pre-existing impairment).
- Other participants should be screened at least biannually (every two years) based upon their frequency of animal handling (at least weekly contact with animals).

This re-evaluation will be used to identify any new or progressive laboratory animal allergy symptoms in existing employees and serve to monitor symptomatic participants, make appropriate work changes if necessary, and educate participants about preventing allergies including use of a particulate respirator if required.

The periodic evaluation will consist of:

1. Completion by all participants of the "Laboratory Animal Occupational Health Screening - Periodic Questionnaire" and forwarding to the occupational health physician reviewer for confidential review.

Some participants may be asked to complete a physical examination, vaccinations, and/or a spirometry (breathing) test based upon their work exposures, past surveillance results and/or their responses to this questionnaire after review by the physician reviewer.

Participants who require additional evaluation (including physical exam, spirometry, vaccinations, fit-testing and any other appropriate tests recommended for working with animals at SFSU) will be referred to their personal physician for completion of evaluation for clearance to continue work with animals. (After consultation with the Office about reimbursement procedures, the cost of this testing will be covered by the Office of Research and Sponsored Programs.)

2. In addition, certain participants may be required by the reviewer to wear a respirator due to work exposures and an identified medical condition such as

animal allergies. The participant will complete the Cal-OSHA mandated Respirator Medical Evaluation Questionnaire (or equivalent) in accordance with CCR Title 8 Section 5144 *if NOT previously done*, and undergo annual fit-testing and respiratory protection training.

The designated occupational health physician will review the evaluation and any test results with the participant, advise the participant regarding any abnormalities or risks, and recommend further follow-up and/or consultation.

When the periodic evaluation reveals the presence of new or worsening allergy symptoms, the occupational health physician reviewer may request further testing or consultation. The requested evaluation may include skin or serologic (RAST) testing as well as other tests deemed necessary by the physician to determine the participant's ability to continue working with laboratory animals. Evaluation may include pre- and post-shift spirometry, or peak flow monitoring before, during, and after work to determine if any lower airway findings and temporal relationship to work exposures exists.

If a participant becomes sensitized to laboratory animal(s) and remains symptomatic despite increased control measures (e.g., respiratory protection, job rotation), the individual may be permanently restricted from further exposure. Symptomatic participants with upper airway symptoms or dermatitis will be required to wear appropriate personal protective equipment. A particulate respirator (e.g., N95) or PAPR will be required for any participant with well-controlled allergic symptoms, and assistance in procuring a respirator may be provided by the Biology Department, College of Science and Engineering, Disability Programs and Resource Center, or Human Resources, Safety and Risk Management. However, this measure may only be a temporary solution as the ideal control measure is the avoidance of allergens. The use of a respirator for participants with laboratory animal asthma will be determined on a case-by-case basis by the participant's clinician in consultation with the SFSU occupational health physician.

Written Medical Clearance

A written recommendation (completed on the Work Status form) from the designated occupational health physician reviewer will be provided to the Office for the Protection of Human and Animal Subjects with:

- Clearance for an individual to work with the animals indicated OR
- Recommendation that this individual may not work with the animals indicated on either a temporary or permanent basis OR
- Any recommendations for referral for further testing or evaluation as outlined in the above Protocol section AND/OR
- Any recommendations for additional protective measures or assistance that would be necessary for this individual to work with the animals indicated (e.g., respirator medical evaluation and/or clearance).

The occupational health physician will also confidentially notify the individual directly of the results of any medical review or exam, and any recommended follow-up.

Appendix III: Allergic Reactions

Introduction

Allergic reactions to fur-bearing animals are among the most common conditions that adversely affect the health of workers involved in the care and use of animals in research. Between 10 and 40% of people who work regularly with laboratory animals may develop allergies including animal-induced asthma. The symptoms of laboratory animal allergy can range from mild reactions such as skin rashes, itchy/watery eyes, nasal congestion and sneezing to more severe reactions including cough, shortness of breath, chest tightness and wheezing. Allergic symptoms can develop in less than one year and up to several years after initial contact and sensitization from either domestic or laboratory animals. Once a laboratory animal allergy is established, the disease can be difficult to treat without eliminating the exposure and can progress even in the absence of continuing exposure thus affecting one's personal as well as professional life.

Reducing exposures and preventing the sensitization of exposed workers can be accomplished by utilizing various measures including engineering controls, training, work practices, and the use of personal protective equipment (See NIOSH Alert, Publication No. 97-116, January 1998 accessed at <http://www.cdc.gov/Niosh/animalrt.html>). When new or progressive symptoms occur, evaluation, referral, and job or school assistance may be necessary.

The incidence of zoonoses (infectious diseases of animals that may infect humans) transmitted from laboratory animals to workers is uncommon. Nevertheless, potential serious illnesses can result from multiple pathogens in laboratory or wild animals found in laboratory colonies. Appropriate screening of animals and proper hygiene and handling practices can prevent most of these infections from occurring in persons handling animals and animal specimens. It is important to decontaminate any exposures or wounds from an animal, and seek follow-up medical care if indicated.

Laboratory Animal Allergy Risk Categories and Recommended Work Practices (Modified from Reference 1, Chapter 4)

Attempts have been made to determine whether persons with allergic conditions, such as seasonal allergic rhinitis are at higher risk than normal persons for developing animal protein sensitivity when working with laboratory animals. Symptoms typically evolve over a period of exposure of one to two years but can be delayed for many years. Laboratory animal asthma, a more serious disorder, may develop in approximately 1 to 10% of persons who regularly work around laboratory animals. Laboratory animal asthma may lead to chronic symptoms and disability even after exposure ceases.

Workers exposed to laboratory animals can be categorized into different risk groups based on any history of allergic disease, and/or specific sensitization to animal proteins.

1. No pre-existing allergic disease
Important to follow all the recommendations noted above in the Policy Section.
2. Atopic Individuals (Pre-existing allergic disease)

Atopic individuals are more likely to develop IgE antibodies to allergens owing to an inherited tendency (autosomal dominant). These individuals often develop allergic diseases such as allergic rhinitis, asthma, and atopic dermatitis when chronically exposed to allergens. It is especially important to educate this population to take preventive measures and use recommended PPE to avoid lab animal allergies. The occupational health clinician may elect to follow these atopic individuals more frequently than on an annual basis. The employee should be informed of the potential for developing allergies and the necessity of reporting new symptoms to their supervisor or the clinic immediately. Symptomatic employees may be required to wear a particulate respirator or PAPR when working with or around animals or their bedding.

3. Pre-existing Lab Animal Allergy or LAA (excluding asthma)

When the initial evaluation indicates an employee has clinical findings for LAA, further evaluation before clearance to work with or around animals, bedding or tissue is appropriate. The clinician may choose to send the employee to a specialist for consultation. Evaluation may include skin or serologic (RAST) testing as well as any other tests deemed necessary by the health provider or consultant. The employee will be informed of the importance of reporting any recurrence or worsening of pre-existing LAA symptoms to their supervisor or the clinic immediately. All employees with LAA will be required to wear a particulate respirator or PAPR. Placement into a low-risk assignment may be considered if pre-existing symptomatic LAA is present.

4. Laboratory Animal Asthma

If the evaluation through the designated medical provider or specialist consultation reveals the presence of laboratory animal asthma, the employee may be permanently restricted from work in areas that require exposure to lab animals (including bedding or tissues) associated with this health condition. The use of a respirator for workers with well-controlled laboratory animal asthma will be determined on a case-by-case basis with the occupational health clinician and the SFSU medical consultant.

References

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3. Institute for Laboratory Animal Research journal "Laboratory Animal Allergy" Volume 42 (1). National Research Council 2001.
4. Institute for Laboratory Animal Research journal "Occupational Health and Safety in Biomedical Research" Volume 44 (1). National Research Council 2003.