

Liberty University
Occupational Health and Safety Program for
Animal Research

PURPOSE & SCOPE

Liberty University is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this endeavor, this program has been developed to ensure that students, faculty and staff that work with animals (vivarium) or work in laboratories in which animal research or teaching is conducted are aware of potential hazards and know how to protect themselves and the animals used in the research.

PROGRAM OVERVIEW

The *Guide for the Care and Use of Animals* (Guide) (Institute of Laboratory Animal Resources, National Research Council) states that "An occupational health program is mandatory for personnel who work in laboratory animal facilities or have substantial animal contact." All persons who have contact with animals, unfixed animal tissue, or infectious organisms must be made aware of the potential hazards of working with animals and of the procedures available at the university to prevent and treat such hazards. It is the responsibility of the principal investigator (PI) of each Institutional Animal Care and Use Committee (IACUC) approved protocol to assure the IACUC that all workers under their supervision (co-investigators, staff, students and volunteers) who have contact with animals have been informed of the potential dangers involved and are aware of the procedures available to prevent and treat such hazards. Completing the tasks laid out in this program will fulfill that responsibility.

All animal handlers must be informed that occupational health services are available through Environmental, Health and Safety (EHS). Animal handlers may:

- Receive counseling about the availability of pre-exposure vaccines;
- Have routine tuberculosis testing performed when necessary;
- Have pre-contact and post-employment serum samples collected for titer evaluation when appropriate; and
- Receive treatment for symptoms or injury related to animal allergens, bites, scratches, etc.

Any individual who has been bitten or scratched while working with an animal, is experiencing signs and symptoms consistent with a work related exposure to an animal or an infectious organism being studied, or who has a known exposure to a zoonotic disease must report this information to his/her supervisor and to the appropriate health officials (EHS, Human Resources and any medical personnel providing treatment for the injury/exposure). In addition, the injured employee, or his or her supervisor, must fill out the Liberty University Report of Injury or Illness and submit it to Human Resources. The form can also be downloaded from

<http://www.liberty.edu/media/1312/workerscomp/Incident%20Report-0307.pdf> or be copied from Appendix A.

An IACUC protocol cannot be approved until all the requirements of this program are fulfilled by all associated study personnel, and no animals may be ordered for use with the protocol until the PI is in full compliance with the provisions of the program. Furthermore, at each annual review of a protocol, PI's will have to certify that, to the best of their knowledge, all animal handlers working under that protocol are in compliance with the provisions of this program.

APPLICATION, IMPLEMENTATION AND RESPONSIBILITIES

This program is prepared by the Department of Environmental Health and Safety (EHS) and is reviewed and approved by the Director Environmental Health and Safety, the Safety Program Manager, Human Resources and the Associate Vice President of Security and Public Safety under the department of Human Resources.

All animal research is assessed by conducting a risk assessment of the proposed research as well as any chemicals, biologicals, radioactive materials, controlled substances, etc. that will be utilized in the process of the research. Additionally, each project is assessed by EHS and when necessary a physical site assessment is conducted of the animal facility (vivarium and any other lab that is used) to determine hazards that may exist. During this assessment, potential exposures to investigators, clinicians, animal-care technicians, laboratory technicians, students, security and law enforcement personnel, facilities management personnel and material handlers are all taken into consideration to ensure everyone is adequately protected.

In assessing risks associated with the research, the Environmental Health and Safety department will utilize the hierarchy of controls to either eliminate or reduce the risk as much as possible. Elimination of a hazard is always the primary goal. However, when a hazard cannot be eliminated then substitution, engineering controls, administrative controls and personal protective equipment must be considered to eliminate or reduce the hazard.

As part of the process of this plan the EHS department works with the IACUC to plan, implement, and coordinate loss control measure to reduce or eliminate occupational injuries or illnesses in the vivarium or animal laboratories and facilities. Furthermore, the EHS department conducts facility inspections on a reoccurring basis to ensure that the implemented control measures are both adequate and being followed.

The occupational health and safety program for animal users at Liberty University is a collaboration among the following entities:

1. The Research Ethics Office: This office oversees the various research compliance committees at Liberty University, including the IACUC. Responsibilities include the management of IACUC protocol review, verification of personnel training status (occupational health and otherwise) and communication with IACUC members, faculty, and staff.
2. Physicians Treatment Center (PTC): Personnel will be referred to PTC for occupational health screenings. Clinic providers will review personal health information supplied by animal care and use personnel in the context of animal use and exposure. Any necessary precautions or follow-up recommendations shall be communicated during this review and on an as needed basis upon completing the initial health screening.

Personnel covered by this program include those directly working on PHS-funded animal research, teaching, or testing protocols. This program is offered to all personnel who have contact with or operate in close proximity to animals used in research, teaching, or testing.

Hazard Identification and Risk Assessment: Any use of hazardous agents on an animal use protocol must be reported by the Principal Investigator at the time of protocol submission. The Institutional Biosafety Committee (IBC) and the Environmental Health and Safety department will review protocols involving biohazardous materials to verify and/or assign the appropriate biosafety level and determine the level of risk to personnel. The occupational health screening serves to identify the potential for risks in the context of species-specific animal use for each individual. At the discretion of the healthcare provider and/or the IACUC, personnel may not be granted permission to access animal facilities or work on a given protocol if their risk of injury or disease is unacceptably high or if individuals refuse to take proper precautions including any necessary vaccinations or PPE.

Facilities, Equipment, Monitoring: Personnel safety in animal facilities is the responsibility of each individual animal-using department with additional oversight from Environmental Health & Safety. Each department is responsible for testing and calibrating its safety equipment (i.e., cabinets and hoods) at appropriate intervals. All testing of laboratory equipment, particularly exhaust hoods must be done by a third party that certifies the proper functionality of the equipment. Washing facilities (to include safety showers and eyewash stations) are provided in or in close proximity to all animal use areas. Considerations are made regarding the layout of each animal space to limit the potential for personal injury. Animal housing and other animal use equipment necessary for the proper protection of personnel is provided, including ventilated racks, cage change stations, cage dump stations, biosafety cabinets, and standard PPE.

Personnel Training: Personnel training is required for anyone working in an animal research area/laboratory. The level of or type of training depends on the level of risk identified and may encompass any of the following: identifying hazards, use of fire extinguishers, eye wash stations, spill kits, Safety Data Sheets (SDS), Personal Protective Equipment (PPE), signs and cautionary labels. Specialized training is required for personnel who work with hazardous materials, chemicals, physical hazards, compressed gas, volatile anesthetics, and/or biohazardous agents. Biohazard use training includes the review of 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. Training shall be performed by the following methods:

- Online Collaborative Institutional Training Initiative (CITI) Training: Training offered includes Risk Assessment, Risk Management, OSHA Blood-borne Pathogens, and Animal Biosafety.
- Laboratory or Facility-Based Training: This training shall be provided by the PI or laboratory/facility manager, specific to laboratory policies and procedures, laboratory safety, hazard management, standard operating procedures, proper use of biological safety cabinets, laboratory inspections, emergency awareness, and appropriate use of PPE.
- In-Person Training: Environmental Health & Safety or designee offers in-person trainings on relevant topics at various times throughout the year or at the request of departments.

Personal Hygiene: All personnel working in the vivarium or animal laboratories or facilities must adhere to the following guidelines regarding personal hygiene:

- Keep hands away from nose, mouth, and eyes.
- Do not eat, chew gum, smoke, drink, or handle cosmetics/contact lenses while in the animal facility.
- Use appropriate protective equipment as required, including gloves, goggles, scrubs, and/or lab coats.
- Wash hands frequently when handling animals, including after making contact with animals and prior to leaving the facility.
- After handling animals, carcasses, tissues, or fluids, promptly remove gloves and wash hands thoroughly.
- Maintain a clean and sanitary work area at all times and ensure that areas are cleaned and decontaminated thoroughly following any procedures.

Animal Experimentation Involving Hazards: Any work involving the use of hazardous materials requires additional training in safety and procedures. Biohazardous use is guided by the provisions outlined in *Biosafety in Microbiological and Biomedical Laboratories 5th Edition* (BMBL) to determine the necessary precautions and equipment required for safe execution of the protocol. Personnel who work with or have the potential to be exposed to biological hazards while working on an animal use protocol must complete laboratory specific training under the direction of the PI or the appropriate campus office. The IACUC will withhold approval for the individual until training status has been verified

with respect to the biosafety level, use of biohazard control equipment, the proper use of PPE, procedures for cleaning and disinfecting spills, and health status evaluation.

Personal Protection & PPE: All employees, students, and staff working in animal facilities must adhere to the following guidelines regarding personal protection:

- Wear personal protective equipment (PPE) as required by each specific laboratory or facility, including gloves, lab coats, safety goggles, and/or scrubs.
- Know how to handle the species being used by seeking appropriate training.
- Observe and obey all laboratory signs and warnings.
- Wash any animal bites or scratches immediately with disinfectant soap and notify the laboratory supervisor or PI.
- Seek medical attention following any injury or incident.

Medical Evaluation and Preventative Medicine for Personnel: All animal use personnel who will have contact (or the potential for contact) with animals on a PHS-funded protocol must participate in Occupational Health Training and Evaluation. This includes the completion of a hazard assessment and health screening form for the specific species used on the protocol. A healthcare provider will review the health history information on the individual's health screening form, providing any necessary precautionary or species-specific education.

Reporting and Treating Injuries: A notice for how to report and appropriately treat animal injuries is posted on the IACUC website and shall be made available for use in each animal facility. Personnel shall be instructed to properly cleanse any injured areas with soap and water and promptly report any injuries to the PI or laboratory manager. A [Report of Injury or Illness](#) form must be completed and submitted to Human Resources. As necessary, personnel will be referred to an appropriate health center for treatment.

Program Implementation

Responsibilities of Principal Investigators/Lab Supervisors

- Read this Occupational Health and Safety Program for Animal Handlers. Contact EHS or the Research Ethics Office with any questions about this program.
- Maintain this document readily available in vivarium, animal laboratories and the laboratories of any secondary investigators and make its contents available to all animal handlers working in those labs and for semi-annual IACUC laboratory inspections or post-approval monitoring visits.
- Make sure all animal handlers working in the vivarium, animal laboratories and the laboratories of any second investigators working under your protocol read this document.
- Complete the Personal Protective Equipment (PPE) [Hazard Assessment form](#). This form can be downloaded from www.liberty.edu/ehs under forms.
- Complete the Health Screening Form, available on the IACUC website or in Appendix E of this program. The purpose of this questionnaire is to obtain an individual health history for employees working with animals and/or potentially infectious material, including toxins of biological origin, unfixed tissue and microorganisms. It will be used in conjunction with individual protocol risk assessments to evaluate appropriate medical services needed and to determine appropriate individual personal protective equipment (PPE) needs. The link to the online risk assessment form can found at www.liberty.edu/ehs under forms. If you need a hard copy of this form, please contact EHS at 434-582-3389 for assistance. Once the questionnaire has been reviewed by EHS and the Occupational Health Physician, you will be notified about the recommendations for any testing or vaccinations to ensure your safety at work
- Train animal handlers on the signs and symptoms related to the infectious disease work you are doing or the zoonotic diseases that could potentially be transmitted by the species of animals that employees are working with. Notify EHS if any employees report any suspicious signs and symptoms.

- Complete the Risk Acknowledgement Form (found in appendix D or at www.liberty.edu/safety under forms). This form should be kept in the Occupational Health and Safety for Animal Handlers manual at the research site for semi-annual IACUC laboratory inspections.
- When you see your primary care physician (PCP) or other medical care provider for any illness always let him/her know about your work with animals and/or infectious organisms.

Responsibilities of Animal Handlers

- Read this Occupational Health and Safety Program for Animal Research. Contact EHS or the Office of Research Ethics with any questions about this program.
- Complete the Health Screening Form. If you need a hard copy of this form, please contact EHS at 434-583-3389 for assistance. Once the questionnaire has been reviewed by EHS and the Occupational Health Physician, you will be notified about recommendations for any testing or vaccinations to ensure your safety at work.
- Know the signs and symptoms related to the infectious disease work you are doing or the zoonotic diseases that could potentially be transmitted by the species of animals with which you work. Report any suspicious signs and symptoms to your PI or supervisor whether or not you recall an exposure incident.
- When you see your primary care physician (PCP) or other medical care provider for any illness always let him/her know about your work with animals and/or infectious organisms.

PROCEDURES

Initial or Changes of Duty

1. The PI or supervisor identifies at-risk personnel, notifies EHS with the name and contact information of the individual(s), and directs at-risk personnel to fill out the Health Screening Form. **Note: PI's must complete this step as soon as possible after a protocol is submitted for approval so that there is sufficient time for vaccinations to take effect before work begins.**
2. At-risk personnel complete the Health Screening Form and submit it to EHS.
3. EHS performs an initial work practice evaluation to determine if an individual needs medical services beyond a review of the questionnaire by the university's Occupational Health Physician, and follows up on documentation of previous vaccinations.
4. The Occupational Health Physician reviews the health screening form.
5. The Occupational Health Physician provides a written opinion to EHS documenting an individual's fitness for duty status.
6. EHS sends a list of people who have received medical surveillance services to the Research Ethics Office.
7. EHS sends a list of people who have received pertinent training to the Research Ethics Office.

Annual

1. At-risk personnel provide an annual update to the Health Screening Form **OR** completes a Health Screening Form if there have been any exposure, species, or job duty changes.
2. EHS reviews the annual update information.
3. If changes have occurred, EHS reviews work practices to determine if additional medical services are needed.
4. Annual updates and any new questionnaires are forwarded to the Occupational Health Physician for review.
5. The Occupational Health Physician provides a written opinion to EHS documenting an individual's fitness for duty status.

Occupational Health Considerations for Animal Users at Liberty University

Personnel working with animals in research or teaching programs are potentially at risk for a variety of illnesses or injuries. Personnel working with animals may be exposed to zoonotic diseases, animal bites and scratches, injury from heavy caging equipment, burns and scalds from cage washing activities, hearing loss from animal vocalizations or machinery noise (especially in cage wash areas), human pathogens introduced into the animals, toxins, carcinogens, or radioisotope use. The presence of immunocompromised or pregnant animals or personnel in the workplace is also a concern. See below for additional information on specific risks when working with animals.

All employees must complete the Health Screening Form to document their medical history and work related exposures. Based on the information provided on the questionnaire, the Occupational Health Physician and EHS may recommend vaccinations, medical tests (such as TB, pulmonary function or titer/other blood tests) and other assessments as needed.

Personnel should always wear personal protective equipment (PPE) when working with animals. Such clothing minimally includes a laboratory coat, gloves and eye protection. Additionally, respiratory protection may need to be worn when working with diseases that may be airborne, when working with species that are known to be highly allergenic, or when an individual is allergic to a specific animal species. All employees who utilize respiratory protection must be enrolled in EHS Respiratory Protection Program. Please contact EHS at 434-582-3389 if you use or need to use a respirator and are not enrolled in this program.

Zoonotic Diseases

Zoonotic diseases are capable of being transmitted between humans and animals. They often do not cause obvious signs and symptoms in one species but may cause significant illness in another species. Over 150 diseases may be classified as zoonotic. Many of these diseases are of great concern and include Rabies, Herpes B Virus, Tuberculosis, Hepatitis, Q fever and Cat Scratch fever.

Animal Allergies

Laboratory Animal Allergy (LAA) reactions are among the most common conditions affecting the health of workers involved in the care and use of research animals. It is a significant occupational health concern for many animal attendants, staff, scientists, and technicians engaged in the care and use of laboratory animals.

LAA is a hypersensitivity reaction from exposure to a laboratory animal or its fur, dander, urine, saliva, or other body tissues. The nature and intensity of the symptoms are dependent on the level of exposure to the laboratory animal allergen by the individual. Once the worker has been sensitized, symptoms generally occur rapidly (within minutes) of exposure. Continued daily exposure can result in chronic symptoms that may require daily treatment. Individuals with a history of asthma or allergies to pollens, animals, or cigarettes are at greater risk of developing sensitivity to laboratory species.

Several species of animals commonly used in animal research and teaching are also species that frequently cause allergic reactions in people. Among these species are the cat, rabbit, rat, mouse, dog and horse. Proper use of PPE can greatly reduce the allergenic effects of these species in sensitive persons. In addition, use of PPE can prevent sensitization in someone who is not currently allergic to laboratory animals. Contact EHS for guidance on the use of PPE to mitigate or prevent allergic reactions to the animals you are working with.

Animal-Related Injuries

Such injuries would include bites, kicks, scratches and similar animal-inflicted wounds. Proper training for those handling animals, plus proper use of PPE, is essential for reducing the frequency and severity of these types of injuries. Contact your PI or supervisor for additional training or PPE, especially when being re-assigned to a new area or species of animal. Supervisors and PI's should contact EHS at 582-3389 if guidance is needed.

Mechanical-Related Injuries/Other Physical hazards

Crush injuries from handling heavy caging, hearing loss from loud mechanical equipment or animal vocalizations, slip and fall injuries that occur while working in wet environments, sprains and strain injuries from heavy lifting or restraint of large animals are examples of this type of injury. Proper training of personnel and the use of appropriate work practices and use of PPE is very important to prevent harm to workers. Contact your PI or supervisor for information regarding appropriate PPE and safety procedures if you work in such areas. Supervisors and PI's should contact EHS at 434-582-3389 if guidance is needed.

Experiment Related Injuries and/or Illnesses

Experimental animals that have been exposed to human pathogens or zoonotic diseases, human cell lines, toxins, carcinogens, or radioisotopes that are excreted by the animal, whether via bodily fluids (including saliva and respiratory excretions) or bodily wastes, can present significant human health risk. IACUC protocols include questions to assess these risks and the protocols are also reviewed by EHS. Supervisors must train animal handlers and animal users to ensure appropriate practices. Animal handlers and users are expected to review the protocol before handling any animals that have been experimentally infected with any agent or may be excreting hazardous substances. Animal handlers and laboratory staff should know the signs and symptoms of the disease caused by the infectious organism or animal species they are working with or the signs of any toxic exposure and report any illness with similar symptoms to their supervisors and EHS by calling 434-582-3389.

Proper Work Practices

There are a number of work practices and personal hygiene issues that apply to all laboratories and all workers who are exposed to animals.

- There must be no eating, drinking, smoking or application of cosmetics in areas where animals are used. Food must be stored in a separate refrigerator maintained for this purpose only and located outside of the area where animals are used or housed.
- No animals may be kept overnight outside of the designated animal housing rooms.
- Appropriate PPE must be worn at all times when handling animals.
- All contaminated or infectious substances must be handled carefully in order to minimize the formation of aerosols or other type of exposure.
- Laboratory coats or coveralls must be worn over street clothes when animals are handled. This will decrease the contamination of the street clothes. The laboratory clothes must be left in the laboratory and must not be worn while eating.
- Additional specific precautions are necessary when handling biohazardous agents. Contact EHS at 434-582-3389 or at lusafety@liberty.edu for guidance on proper use of biohazardous agents in laboratories at Liberty University. A Biosafety for Laboratory Workers manual is in development and will be available on the EHS website soon.
- Mechanical pipetting must be used. Mouth pipetting is prohibited.
- All work surfaces must be decontaminated daily and after any animal use.

- Careful hand washing must be done after handling animals, after removing gloves or other PPE, and prior to leaving the laboratory for any reason. One of the most effective disease preventative methods available when treating any injury that breaks the skin is immediate and thorough washing of the injury with soap and warm water.
- Contaminated materials which will not be decontaminated in the laboratory itself must be placed in containers that are both leak proof and durable before they are removed from the laboratory.
- Anyone using respiratory protection must be enrolled in the Respiratory Protection Program. Contact EHS at 434-582-3389 if assistance is needed.
- Anyone exposed to excessive noise levels must be enrolled in the Hearing Conservation Program. For assistance with determining noise levels or selecting appropriate hearing protectors, please contact EHS at 434-582-3389.
- Manipulation of heavy cages or other equipment, and work in slippery or wet areas should be done as carefully as possible using proper PPE and proper techniques to avoid injury.

Instructions for a Potential Infectious Disease Exposure or Injury from an Animal Bite or Scratch

Any animal handler who has been injured by an animal or exposed to an infectious disease while working at Liberty University must notify his/her supervisor or PI and fill out a report of Injury or Illness. Anyone who has been exposed to human blood or other human material should get the contact information of the person or the source of the material (for example: the supplier of the cell line) so that EHS can follow up to determine whether there is a risk of a Bloodborne Pathogen or other human pathogen exposure. For a laboratory exposure to a known infectious agent, laboratory staff must provide an SDS or other data on the specific strain to which the individual was exposed. In the case of an animal handler's injury by an animal that may carry a zoonotic disease, the animal should be observed by veterinary staff and tested when appropriate to determine whether there is a risk of zoonotic disease transmission.

Exposure incident

For accidents not involving a known exposure to infectious agents:

1. Provide immediate first-aid. Stop the bleeding of wounds and wash the affected areas with soap and water. For field work where soap and water may not be readily available, use of baby wipes (available in small portable packages) or alcohol based cleansing gel is acceptable. Alcohol based gels are neutralized by organic matter so the first application should be wiped off to remove debris, or the area can be cleansed first with a baby wipe, and the next application of gel can be left on the skin.
2. Immediately report the incident to the PI and/or Facility Director or Manager.
3. Those individuals needing immediate medical treatment for serious injuries may visit an appropriate healthcare provider for treatment (e.g., emergency room or approved clinic (Worker Comp Panel)), primary care physician, students may be treated at a primary care physician or LU Health Services). Immediate medical treatment may be required if:
 - an individual's ability to breath properly is affected;
 - bleeding is excessive and difficult to control;
 - an injury clearly needs sutures; or
 - there is a loss of consciousness associated with the incident.
4. An individual seeking medical attention must take a Hazard Summary sheet or agent SDS and present them to the healthcare provider prior to receiving services. It is important that the healthcare provider be made aware of the hazards present in the facility in order to appropriately diagnose and treat an individual.

5. Employee's supervisor completes a Report of Injury or Illness. The Report of Injury or Illness form can be located at <http://www.liberty.edu/media/1312/workerscomp/Incident%20Report-0307.pdf> . The accident report must be submitted to Human Resources, as soon as possible but no longer than 24 hours of the incident. This document is specific to the Workers Compensation Program and is required prior to any follow-up medical services being provided. A hard copy is provided in Appendix A.

For accidents also resulting in a known or suspected exposure to an infectious agent:

1. In addition to completing the Liberty University Report of Injury or Illness and following the previous procedure, the PI and/or Facility Director or Manager must record the details of the known or suspected exposure (on the [EHS Exposure to Infectious Agents Report Form](#), see Appendix B) including:
 1. the infectious agent(s) involved;
 2. circumstances of the exposure;
 3. the possible route(s) of exposure;
 4. an estimate of the dose received by each individual exposed;
 5. whether or not the individual(s) is/are symptomatic and, if asymptomatic, what signs and symptoms to monitor; and,
 6. any known post exposure prophylaxis or treatment protocol.
2. Those individuals needing immediate medical treatment for serious injuries in conjunction with a known or suspected exposure may visit an appropriate healthcare provider for treatment (e.g., emergency room or clinic (worker compensation panel of doctors). Students may be treated by a primary care physician or by LU Health Services.
 - a. Prior to seeking medical treatment after any exposure incident, known or suspected, the individual must be decontaminated (i.e., contaminated clothing removed and affected areas washed) and the information from step 1 along with a Hazard Summary sheet and/or SDS must be presented to emergency response personnel, if summoned, and the healthcare provider.
 - b. In addition, the individual (or other informed person, if the individual is incapacitated) must notify the healthcare provider BEFORE they arrive that an exposure or suspected exposure has occurred. This allows the healthcare provider to designate the use of an alternate entrance to prevent contamination of primary receiving rooms or areas.
3. EHS must also be notified immediately of any exposure incident and provided the information recorded in step 1 to ensure proper evaluation and follow-up by the university's occupational health physician or a Worker's Compensation Panel Physician.
 - a. EHS Director or Designee, 582-3389, lusafety@liberty.edu
 - b. Research Ethics Office, 592-5530, iacuc@liberty.edu
 - c. After hours EHS can be contacted by calling Liberty University Police Department at 434-582-7641.
4. Following any incident, a review must be conducted by the PI, Facility Director, Facility Manager, and EHS to determine possible causes, review work practices, and determine preventative measures for future incidents. Documentation of incidents and corrective actions must be maintained.

Recommendations for Immunocompromised or Pregnant Employees Working with Mutagenic, Teratogenic and Infectious Agents

The purpose of this section is to establish guidelines to be followed when employees working with mutagenic, teratogenic and/or infectious agents are either immuno-compromised, become pregnant, or consider conception.

Any employee who has an autoimmune disease (no matter how well managed) or is taking immune suppressing medications or is pregnant or planning conception should be aware that working with mutagenic, teratogenic and/or infectious agents poses a special risk to them or a fetus. See NIOSH guides *Effect of Work place Hazards on Female Reproductive Health* and *Effect of Workplace Hazards on Male Reproductive Health* for more information. In addition, employees should consult with their PCP or Obstetrician regarding their work and the implications to their health or that of their unborn child. If an employee chooses to communicate this medical information to his/her supervisor, there are two options that can be offered to the employee. These options include:

1. Consultation with EHS and the Occupational Health Physician regarding the hazards in the employee's work place, evaluation of work practices, upgrades in PPE, changes to duties.
2. Consultation between the Occupational Health Physician and the employee's PCP or Obstetrician to thoroughly analyze the specific medical concerns for the employee in relation to the workplace hazards in order to make recommendations for accommodating the employee.

Consult with Human Resources as needed to facilitate implementation of recommendations made by the medical providers or EHS.

RESEARCH OCCUPATIONAL HEALTH PROGRAM (ROHP)

The Research Occupational Health Program (ROHP) provides medical monitoring for Liberty University employees whose job duties present specific, potential health risks. The monitoring performed helps the university assure that the controls that are being used to reduce employee exposure to these health risks are actually working as intended. This is accomplished by verifying that employees are not showing medical signs or symptoms of exposure. The program also provides necessary vaccinations and titers for individuals who have substantial animal contact or work with infectious agents including bloodborne pathogens. Finally, ROHP supports university compliance with Occupational Safety and Health Administration (OSHA) regulations, Centers for Disease Control standards and other authorities requiring medical surveillance.

Employees whose job duties present specific, potential health risks are provided medical examinations, medical tests, and immunizations and titers as required by regulation or standards. These services are provided at no cost to the employee. Employees are allowed to participate during normal work hours, whenever possible.

Employees that meet one or more of the program's Entrance Criteria, as outlined in this document, are provided services under this program.

ROHP Responsibilities

Environmental Health and Safety:

- Coordinates the Research Occupational Health Program at Liberty University;
- Provides or coordinates all medical monitoring and medical services for covered employees;
- Maintains records according to OSHA requirements; and,

- Provides exposure monitoring and evaluations to determine if employees are being exposed above legal limits that would make it necessary for them to participate in this program.

Departments are expected to:

- Assure supervisors know to communicate personnel changes such as new hires, terminations, and role changes to EHS by calling 582-3389;
- Implement recommendations of EHS monitoring and corrective action reports;
- Support supervisors with providing employees time away-from-work to attend scheduled appointments for medical tests and physician evaluations;
- Pay for all medical costs associated with physician appointments, including missed physician appointments; and,
- Request exposure monitoring services, as needed.

Supervisors/Principal Investigators are expected to:

- Notify EHS before an employee that participated in medical surveillance leaves the position either through retirement, transfer or role change;
- Promptly notify EHS when a new employee is hired into a position that historically participated in medical surveillance, and assures medical services are provided before the employee is exposed to the hazardous condition;
- Implement recommendations of EHS monitoring and corrective action reports.
- Assure employees keep scheduled appointments for medical tests and physician evaluations;
- Assure new employees are provided proper training on work practices and procedures necessary to reduce exposure to hazards requiring medical surveillance; and,
- Request exposure monitoring services, when a suspect overexposure condition exists, by calling 434-582-3389.

Employees are expected to:

- Keep all scheduled appointments for medical testing and physician evaluations;
- Implement recommendations of monitoring reports;
- Use personal protective equipment when required;
- Follow established worksite rules when working with or around hazards covered by this program;
- Request exposure monitoring services, as needed; and,
- Report any changes in personal health that might be related to a work place health hazard:
- If you are pregnant, seeking to become pregnant, immunocompromised, or have concerns related to your health based on your workplace exposure, discuss your concerns with your primary care physician and/or the occupational physician when an appointment is scheduled;
- If you develop signs or symptoms that you associate with exposures in your workplace or that are related to respirator use, contact EHS immediately by calling 582-3389 so that a consultation can be arranged with the occupational physician.

ROHP General Requirements

The medical testing schedule, entrance criteria, medical services and medical removal or reassignment criteria are outlined in this section.

Controls

If employees are exposed above allowable limits as established by the Occupational Safety and Health Administration (OSHA), EHS will work with the employees' department to determine if engineering, administrative, or work practice controls can be implemented to reduce employee exposures. Medical surveillance will be provided for affected employees while these controls are being implemented, or if they fail or are not feasible.

Entrance Methods

EHS is responsible for reviewing all new hires and all current employee exposure conditions to determine entrance eligibility. Departments have the responsibility of notifying EHS whenever changes are made to employees' job duties, and whenever employees, such as graduate student workers, are placed in exposure situations. EHS will determine if employees are or may be exposed above limits by performing workplace and process evaluations and/or by actually monitoring employee exposures.

Entrance Criteria

Medical surveillance services will be provided if employees are exposed above allowable limits to certain chemicals, dusts or physical agents. Medical surveillance services, including vaccinations and titers, will also be provided if employees are exposed to bloodborne pathogens, are employed as animal handlers or who have significant animal exposure, or if they work with infectious agents, select agents or toxins. The entrance criteria and medical services provided are listed in Table 1 and Table 2 below.

Frequency of Medical Evaluations

Depending on the Entrance Criterion, the evaluations will be offered by EHS at any combination of the following times:

1. **Time of Assignment** . "Time of Assignment" is the thirty day period following EITHER the first day of employment in a position, OR the first day of assignment to new working conditions where an employee will be exposed to a health hazard covered in Table 1.
2. **Periodic** . "Periodic" evaluation frequency is typically annual; however it may be greater or less. The frequency is specified in the applicable regulation for the hazard to which the employee is exposed and is generally outlined in Table 1 below.
3. **Emergency Exposure** . "Post Exposure" evaluations are to be given as soon as possible after a known exposure incident has occurred, or after an employee develops signs or symptoms of which may be related to a work-related exposure.
4. **Exit Evaluations** "Exit Evaluations" are required by many regulations and are to be provided within a sixty day period *before* the date that the employee leaves the position/work environment that posed the health risk. The supervisor is responsible for notifying EHS when an employee is planning to leave a position where an Exit Evaluation must be offered.

Table 1 - Entrance Criteria for Chemicals, Dusts and Physical Agents

Exposure of Concern is:	Occupations Where Exposures May Occur:	Employees are enrolled if:
Acrylonitrile	Manufacture of acrylic and mod acrylic fibers, acrylic plastics and resins, specialty polymers, nitrile rubbers, and other organic chemicals. Application as a fumigant.	They are exposed > the Action Level without regard for the use of respirators
Arsenic (Inorganic)	Use/manufacture of pesticides, rodenticides, or wood preservatives. Certain soldering operations. Can be formed by roasting or smelting of sulfide minerals.	They are exposed above the Action Level, without regard for the use of respirators, at least 30 days per year. (Other requirements may apply. Please contact EHS for further information.)
Asbestos	Remove or repair of asbestos materials including: cement, plaster, fire proofing, insulation, floor tile, floor tile glue, pipe, pipe insulation, brake and clutch linings, pipe and boiler insulation materials.	They are exposed above Permissible Exposure Limits
Benzene	Laboratory operations. Use or application of gasoline or certain lacquer solvents and paint removers.	They are exposed > the Action Level for 30 days per year or above the Permissible Exposure Limit for 10 days per year. (Other requirements may apply. Please contact EHS for further information.)
1, 3-Butadiene	Production of styrene-butadiene rubber and polybutadiene rubber, copolymer latexes, resins and polymers, and in the production of such chemicals as fungicides	They are exposed > the Action Level for 30 days per year or above the Permissible Exposure Limit for 10 days per year
Cadmium	Ore smelting operations, mist from cadmium-containing electroplating baths, drying of cadmium pigments, machining of cadmium coated or containing materials.	They are exposed > the Action Level for 30 days per year

Carcinogens (a)	Any operation using the materials listed in footnote (a), below.	They work in a location where covered materials (see footnote a, below) are handled, used or stored
Chromium (VI)	Chromate production, use of chromate pigment and chrome electroplating. Welding of stainless steel. Tanning of hides using Chromium (VI).	They are exposed > the Action Level for 30 days per year, or are experiencing signs or symptoms of exposure
1,2-Dibromo-3-chloropropane	Application as a soil fumigant or use outside of a laboratory fume hood.	They are exposed above the Permissible Exposure Limit
Ethylene Oxide	Manufacture of ethylene glycol, surfactants, ethanolamines, glycol ethers, and other organic chemicals outside of a laboratory fume hood. Used as a sterilant and fumigant.	They are exposed > the Action Level for 30 days per year
Formaldehyde	Embalming or preserving of biological specimens. Used in certain manufacturing operations. Used in textile manufacturing.	They are exposed > the Action Level or Short Term Exposure Limit, or develop sign or symptoms of exposure. (Other requirements may apply. Please contact EHS for further information.)
Hazardous Waste Operations	Non-laboratory scale chemical spill response. Employees involved in chemical bulking operations outside of a chemical fume hood.	Hazardous materials emergency response or waste management personnel; covered employees who develop signs or symptoms of exposure or who have a known exposure to a covered hazard (a)
Laboratory Exposure to Chemicals	Operations where chemicals found on this table are used outside of a fume hood or other control.	An employee develops signs or symptoms associated with a chemical used in a laboratory, or exposure is above permissible limits for a chemical where surveillance is required
Lasers (Non-Ionizing Radiation)	Research operations using covered laser systems.	They routinely use Class 3b, 3r or Class 4 lasers
Lead	Metal smelting, casting, refining. Soldering and	They are exposed > the Action Level for 30 days per year

	welding. Remove or apply lead paint or products.	
Methylenedi-aniline (MDA)	Manufacture of 4,4' Methylene-diphenyl diisocyanate; as a precursor in the manufacture of plastic fibers, antioxidants, dyestuff intermediates, corrosion preventatives, special polymers. Purified MDA: manufacturing epoxy resin curing agents, wire coating applications, polyurethane co-reactants, pigments/dyes, and defense applications.	They are exposed > the Action Level for 30 days per year or have dermal contact > 15 days per year
Methylene Chloride	Paint stripping, polyurethane foam manufacturing, cleaning/degreasing	They are exposed > the action level for 30 days/year, or at or above the Permissible Exposure Limit or Short Term Exposure Limit for 10 days/year. Above the 8-TWA PEL or STEL for any time period where an employee has been identified by a physician or other licensed health care professional as being at risk from cardiac disease or from some other serious MC-related health condition and such employee requests inclusion in the medical surveillance program;
Noise	Construction, shops, vehicle work areas, maintenance operations, mechanical shops or research	The exceed an 8-hour time weighted average of 85 decibels
Respiratory Protection	Any situation where employee exposures are not adequately controlled by other means	They wear a respirator of any type <i>including</i> N95, N99 and N100 filtering face piece. Note that single-strap disposable dust masks are <i>not</i> respirators.
Silica	Grinding, cutting or sanding of concrete, masonry, stone; abrasive blasting.	They are exposed above Permissible Limits
Vinyl Chloride	Manufacture of poly vinyl chloride.	Exposed > the action level without regard for the use of respirators

(a) Covered carcinogens include: 4-Nitrobiphenyl, alpha-Naphthylamine, methyl chloromethyl ether, 3,3'-Dichlorobenzidine (and its salts), bis- Chloromethyl ether, beta-Naphthylamine, Benzidine, 4-Aminodiphenyl, Ethyleneimine, beta-Propiolactone, 2-Acetylaminofluorene, 4-Dimethylaminoazo-benzene, and N-Nitrosodimethylamine. Certain exemptions apply. Please contact EHS for further information.

Table 2 – Entrance Criteria for Other Agents

Exposure of Concern is:	Occupations Where Exposures May Occur:	Employees are enrolled if:
Infectious organisms that can be transmitted between an animal and man (zoonotic disease). Exposure to animal dander or other tissue that are of allergenic importance.	Farm personnel; persons who work with unfixed animal tissue; veterinarians and support staff; persons who work with, trap or handle wild or domesticated animals including certain insects, fish and mammals.	They work with animals that may carry zoonotic diseases, that have been intentionally infected with zoonotic organisms, or that represent a serious risk for animal-related allergies.
Bloodborne Pathogens	Clinical staff; medical staff; housekeepers; plumbers; police; rescue squad personnel; athletic trainers and support staff.	They work with or are potentially exposed to unfixed blood, tissue or bodily fluids of human origin
Infectious Agents (Including Select Agents and Toxins)	Employees who work in BSL2 or BSL3 laboratories; employees who work with certain infectious organisms.	They work with organisms or agents that are capable of causing disease in humans. All employees working with BSL2 or BSL3 organisms must enroll in this program. Employees working with Tier 1 Select Agents or Toxins as defined by HHS or USDA will be provided expanded medical services as outlined in the written program to include a fitness for duty evaluation.
Field Research (Including international travel)	Employees who perform field research where a zoonotic disease is endemic or travel internationally to conduct research in a	They perform field research with animals where zoonotic diseases are a concern, in an area where certain zoonotic diseases are endemic, or travel to a country where

	country where vaccinations are recommended by the CDC	vaccinations are recommended or required by the Centers for Disease Control.
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ENFORCEMENT

Failure to follow the Liberty University Occupational Health and Safety Program for Animal Research can result in life threatening or serious injury situations to staff, faculty, students and visitors. Failure to follow the procedures established in this program can result in disciplinary action up to and including discharge.

APPLICABLE REGULATIONS, STANDARDS AND REFERENCES

Guide for the Care and Use of Laboratory Animals, Eighth Edition, National Research Council

Occupational Health and Safety in the Care and Use of Research Animals, National Research Council

Appendix A

Liberty University Injury/Illness Report

Report of Injury or Illness Return to Work Slip

Location	State	Dept.	Phone
Employee Name	DOB		Date & Time of Incident
Address		City	State Zip
SS#	Married	<input type="checkbox"/> Yes <input type="checkbox"/> No	Gender <input type="checkbox"/> Male <input type="checkbox"/> Female
Job Title		Hire Date	
Description of Incident:			

Employee Signature:	Date:
---------------------	-------

WORK STATUS

Name of Employee:

Signed: _____ (Work Supervisor)

- May return to work _____
- No Limitation _____
- Light Duty for _____
- Limited lifting for _____
- Limited standing or walking for _____
- Limited stooping or bending for _____
- Limited use of "R" or "L" extremity for _____
- Other Next Visit _____
- Referred to: _____

Physician

Date & Time

**This form is to be returned to your supervisor following receipt of medical treatment.
Attn: Supervisor, please send copy to Human Resources**

Appendix B

Exposure to Infectious Agent Report

Occupational Health and Safety for Animal Handlers

EXPOSURE to INFECTIOUS AGENT REPORT FORM (please return completed form to LU EHS at lusafety@liberty.edu)

EXPOSED EMPLOYEE INFORMATION			
Name:	LU ID No.:		
Job Title:	Home Department:		
Phone Numbers	Work:	Home:	
Brief Summary of Job Duties:			

HBV Vaccination Series?	Yes	No	Dates Received:
Previous Titer Analysis Performed?	Yes	No	Date: Results:
EXPOSURE INCIDENT INFORMATION			
Date of Incident: ____/____/____		Campus Location:	
Time of Incident: ____:____ am pm		Infectious Agent (if known):	
Route of Exposure (circle): Non-Intact Skin Mucous Membrane Puncture			
Circumstances of Exposure:			

SOURCE INDIVIDUAL INFORMATION (IF APPLICABLE)	
Name (if known):	SSN:
Consent For Testing Obtained?	Yes No
HBV Status:	HIV Status:

FOLLOW-UP	
Physician's Visit:	Yes No
Physician Name: _____	
Phone Number: _____	
Address:	

Please Check All That Apply		Comments
Baseline Blood Collection		
HIV Serological Status		
HBV Post-Exposure Series		
HBV Immune Globulin		
HBV Titer		
Counseling		
Other:		

If this is a Laboratory Exposure, please describe any modifications that have been made to the organism you are working with:

Appendix C

EHS Hazard Assessment Form

Department/Group:	Date:	I certify that the above inspection was performed to the best of my knowledge and ability, based on the hazards present on this date.
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<input type="checkbox"/> A worksite or task	Specify location or task:
<input type="checkbox"/> An employee(s) job description	Name of employee(s):
	Working title of position(s):
	Position Number(s):

EYE/FACE HAZARDS (Appendix A).

Check the box for each hazard:		Description of hazard(s):	Controls in place:	Identify required PPE.
Chemical/Biological	Yes <input type="checkbox"/>		<input type="checkbox"/> Fume hood/bio cabinet	<input type="checkbox"/> Safety glasses
Extreme Heat/Cold	Yes <input type="checkbox"/>		<input type="checkbox"/> Enclosure/guarding	<input type="checkbox"/> Goggles- chem or cutting
Dust or Flying Debris	Yes <input type="checkbox"/>		<input type="checkbox"/> Shielding	<input type="checkbox"/> Face shield (type)
Impact or Explosion	Yes <input type="checkbox"/>		<input type="checkbox"/> Safe work practices	<input type="checkbox"/> Welding helmet
UV Light (ex. welding)	Yes <input type="checkbox"/>		<input type="checkbox"/> Dust collection system	<input type="checkbox"/> Laser eyewear
Radiation (ex. lasers)	Yes <input type="checkbox"/>		<input type="checkbox"/> Distance	<input type="checkbox"/> Arc-flash hood

HEAD HAZARDS (Appendix B).

Check the box for each hazard:		Description of hazard(s):	Controls in place:	Identify required PPE.
Impact/low clearance	Yes <input type="checkbox"/>		<input type="checkbox"/> Canopy	<input type="checkbox"/> Hard hat – class
Electrical Shock	Yes <input type="checkbox"/>		<input type="checkbox"/> DE-ENERGIZATION	<input type="checkbox"/> BICYCLE HELMETS
Entanglement	Yes <input type="checkbox"/>		<input type="checkbox"/> Hair secured	<input type="checkbox"/> Other:

FOOT/LEG HAZARDS (Appendix C)

Check the box for each hazard:		Description of hazard(s):	Controls in place:	Identify required PPE.
Chemical/Biological	Yes <input type="checkbox"/>		<input type="checkbox"/> Substitution	<input type="checkbox"/> Work boots
Extreme Heat/Cold	Yes <input type="checkbox"/>		<input type="checkbox"/> Mechanical device used	<input type="checkbox"/> Steel-toed shoes/boots
Impact/Compression	Yes <input type="checkbox"/>		<input type="checkbox"/> Housekeeping	<input type="checkbox"/> Slip-resistant shoes
Puncture	Yes <input type="checkbox"/>		<input type="checkbox"/> Isolation/grounding	<input type="checkbox"/> Puncture-resistant shoes
Explosive/Flammable	Yes <input type="checkbox"/>		<input type="checkbox"/> Safe work practices	<input type="checkbox"/> Non-conductive
Slippery/Wet Surfaces	Yes <input type="checkbox"/>		<input type="checkbox"/> Appropriate clothing	<input type="checkbox"/> Metatarsal protection
Electrical	Yes <input type="checkbox"/>		<input type="checkbox"/> Other:	<input type="checkbox"/> Shin guards

HAND/ARM HAZARDS (Appendix D)				
Check the box for each hazard:		Description of hazard(s):	Controls in place:	Identify required PPE.
Chemical/Biological	Yes <input type="checkbox"/>		<input type="checkbox"/> Substitution (product)	<input type="checkbox"/> Chemical-resistant gloves
Extreme Heat/Cold	Yes <input type="checkbox"/>		<input type="checkbox"/> De-energization	<input type="checkbox"/> Thermal-protective gloves
Cuts or Abrasion	Yes <input type="checkbox"/>		<input type="checkbox"/> Elimination/isolation	<input type="checkbox"/> Cut-resistant gloves
Puncture or Pinch	Yes <input type="checkbox"/>		<input type="checkbox"/> Mechanical devices	<input type="checkbox"/> Leather gloves
Electrical Shock	Yes <input type="checkbox"/>		<input type="checkbox"/> Guarding/distance	<input type="checkbox"/> Voltage-rated-Class:
Radiation	Yes <input type="checkbox"/>		<input type="checkbox"/> Reduce time exposed	<input type="checkbox"/> Latex/nylon/nitrile gloves
Vibration/Grip	Yes <input type="checkbox"/>		<input type="checkbox"/> Other:	<input type="checkbox"/> Anti-vibration gloves
Blood borne Pathogens	Yes <input type="checkbox"/>		<input type="checkbox"/> Other:	<input type="checkbox"/> Other:
BODY/TORSO HAZARDS (Appendix F)				
Check the box for each hazard:		Description of hazard(s):	Controls in place:	Identify required PPE.
Chemical/Biological	Yes <input type="checkbox"/>		<input type="checkbox"/> Reduce time exposed	<input type="checkbox"/> Lab coat or coveralls
Extreme Heat/Cold	Yes <input type="checkbox"/>		<input type="checkbox"/> Guards/barriers	<input type="checkbox"/> Apron (type):
Radiation	Yes <input type="checkbox"/>		<input type="checkbox"/> Substitution (product)	<input type="checkbox"/> Flame-resistant clothing
Particulates/liquids	Yes <input type="checkbox"/>		<input type="checkbox"/> De-energization	<input type="checkbox"/> Aluminized clothing
Cut/Abrasion/Puncture	Yes <input type="checkbox"/>		<input type="checkbox"/> Mechanical devices	<input type="checkbox"/> Vest (high visibility)
Electrical Arc or Blast	Yes <input type="checkbox"/>		<input type="checkbox"/> Distance	<input type="checkbox"/> Tyvek suit
Low visibility	Yes <input type="checkbox"/>		<input type="checkbox"/> Other:	<input type="checkbox"/> Arc-flash suit- calorie
FALL HAZARDS (Appendix G). Work on a surface with an unprotected side or edge that is 4 feet or more above a lower level				
Check the box for each hazard:		Description of hazard(s):	Controls in place:	Identify required PPE.
Fall Hazard	Yes <input type="checkbox"/>		<input type="checkbox"/> Guardrail <input type="checkbox"/> Safe work practices	<input type="checkbox"/> Full-body harness
NOISE HAZARDS (Appendix G). Noise exceeding 90 dBA during an 8 hour work period				
Check the box for each hazard:		Description of hazard(s):	Controls in place:	Identify required PPE.
Excessive Noise	Yes <input type="checkbox"/>		<input type="checkbox"/> Noise reduction (design)	<input type="checkbox"/> Ear plugs
Ultrasonics	Yes <input type="checkbox"/>		<input type="checkbox"/> Reduced exposure	<input type="checkbox"/> Ear muffs

RESPIRATORY HAZARDS (Appendix G) Harmful dusts, mists, fumes				
<i>Check the box for each hazard:</i>		<i>Description of hazard(s):</i>	<i>Controls in place:</i>	<i>Identify required PPE.</i>
Chemicals/Pesticides	Yes <input type="checkbox"/>		<input type="checkbox"/> Fume hood	<input type="checkbox"/> Air-line or SCBA
Particulates	Yes <input type="checkbox"/>		<input type="checkbox"/> Biological safety cabinet	<input type="checkbox"/> PAPR
Nanoscale Particulates	Yes <input type="checkbox"/>		<input type="checkbox"/> Local exhaust ventilation	<input type="checkbox"/> Full-face
Confined Space Work	Yes <input type="checkbox"/>		<input type="checkbox"/> Increase air flow/outside	<input type="checkbox"/> Half-face
Welding/Cutting Fumes	Yes <input type="checkbox"/>		<input type="checkbox"/> Filtration	<input type="checkbox"/> N-95/100
Biologicals	Yes <input type="checkbox"/>		<input type="checkbox"/> Other	<input type="checkbox"/> Dust Mask

If there are any other potential exposure hazards or personal protective equipment not identified on the form that need to be addressed, please list below and return this form to LU Environmental Health & Safety at 434-582-3389.

APPENDIX D
RISK ACKNOWLEDGMENT FORM

RISK ACKNOWLEDGEMENT FORM

NOTICE REGARDING POSSIBLE RISKS ASSOCIATED WITH THE USE OF ANIMALS IN RESEARCH OR TEACHING AT LIBERTY UNIVERSITY

Any visitors conducting or observing animal research or teaching at Liberty University may be exposed to health risks, including (but not limited to):

- Animal allergens associated with exposure to animals or animal products, such as dander. These allergens may cause or worsen allergic reactions, including asthma and other serious conditions.
- Diseases transmittable between animals and humans (zoo noses). Biohazard signs are posted in locations where animals may harbor infectious agents.
- Diseases spread by mosquitos and ticks (if participating in field studies).
- Individuals that are immunocompromised may be at higher risk for illness when exposed to allergens or infectious agents.
- Noise (especially in cage wash areas).
- Hazardous chemicals, including disinfectants and sanitizing agents.

In general, as a visitor, any exposures that you may experience are likely to be very low risk to personal health, although pre-existing medical conditions could increase the potential for adverse reactions due to exposure. Considering the above risks and risk factors, the Liberty University IACUC strongly encourages you to participate in an Occupational Health Program. If no such program is available to you, it is recommended that you consult with a healthcare provider about any anticipated animal activities or exposures. Please direct any questions or concerns to the Liberty University IACUC office, 434-582-2827 or by email, iacuc@liberty.edu.

BY SIGNING THIS NOTICE, YOU ACKNOWLEDGE THE FOLLOWING:

- I understand that activities I might participate in involve certain risks to my health, and that my current health condition could worsen as a consequence of exposure.
- I understand that information about occupational health risks is available from the Liberty University IACUC Office, or from Health & Environmental Safety at my request.
- I understand and accept that Liberty University and its employees cannot guarantee my safety while performing activities associated with my animal research work or observations. I promise not to seek compensation or initiate legal action against Liberty University, or any of its employees, for any harm suffered by me in the course of conducting or observing animal research or teaching, unless such injury was caused by gross negligence, recklessness, or willful misconduct of officers or employees of Liberty University.
- I understand that I can obtain additional information related to animal use and associated requirements from the IACUC Office. I further understand that it may be necessary for me to be added to an existing IACUC protocol at Liberty University, or another collaborating institution.

Participant Name:	
Participant Signature:	
Email Address:	
Parent/Legal Guardian Signature:	
Institutional/Company Affiliation:	
LU Principal Investigator/Host:	
LU Principal Investigator/Host Signature¹:	
Protocol Number (if applicable):	
Purpose of Visit:	
Date(s)/Duration of Visit:	
Today's Date:	

**THIS FORM MUST BE RETURNED TO THE LIBERTY UNIVERSITY IACUC OFFICE PRIOR TO VISITOR
ENGAGEMENT IN ANIMAL RESEARCH OR TEACHING ACTIVITIES**

Liberty University IACUC
Green Hall, Suite 1887
P: 434-582-2827
F: 434-522-0506
iacuc@liberty.edu

¹As PI or Host, you are responsible for ensuring the participant receives adequate training for the procedures in which he/she will participate. If you believe that the participant should receive additional specialized training before or during participation, please refer them to the appropriate office, or to the IACUC Office.

APPENDIX E
HEALTH SCREENING FORM

ANIMAL CONTACT & HEALTH QUESTIONNAIRE

INSTRUCTIONS

1. This form must be completed prior to participating in any research or teaching involving the use of animals at Liberty University.
2. Complete and take this form to your primary care provider, or to the Student Health Center. They will go over this form with you, and will retain a copy in your health record.
3. DO NOT return the **questionnaire portion** of this form to the IACUC.
4. Obtain a signature on the certification form from your healthcare provider, indicating that you have been screened and approved for work involving animals.
5. Return the **signed certification portion** to the IACUC, iacuc@liberty.edu.

PERSONAL INFORMATION			
Last Name:		First Name:	
Mailing Address:			
City:	State:	Zip Code:	
Phone #:		Email:	
Department:		Flames Pass #:	
Date of Birth:		Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female	
Provider Name:		Provider Phone #:	

ANIMAL CONTACT LOCATION	
Indicate where you will be in contact with animals (<i>Check all that apply</i>):	
<input type="checkbox"/> Science Building Vivarium	<input type="checkbox"/> LUCOM Vivarium
<input type="checkbox"/> Classroom	<input type="checkbox"/> Field
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

ANIMAL CONTACT TYPE
Indicate the circumstances in which you will be handling animals:
<input type="checkbox"/> Contact with vertebrate animals (<i>Specify Common Name</i>):
<input type="checkbox"/> Contact with vertebrate animals in the field (<i>Specify Common Name</i>):
<input type="checkbox"/> Contact with animal tissues/fluids not treated with chemical preservatives.
<input type="checkbox"/> No direct animal contact, but working in a facility with animals/non-preserved tissues.

ANIMAL CONTACT FREQUENCY
Estimate animal contact in hours per week:
Estimate <i>non-direct</i> animal contact in hours per month:

MEDICAL HISTORY
Describe any ongoing medical problems:

Indicate whether you have had any of the following (Check all that apply):		
<input type="checkbox"/> Pneumonia	<input type="checkbox"/> Recurrent Bronchitis	<input type="checkbox"/> Tuberculosis
<input type="checkbox"/> Heart Disease	<input type="checkbox"/> Rheumatic Fever	<input type="checkbox"/> Heart Murmur
<input type="checkbox"/> Diabetes	<input type="checkbox"/> Kidney Disease	<input type="checkbox"/> Liver Disease
<input type="checkbox"/> Cancer	<input type="checkbox"/> Gastrointestinal Disorder	<input type="checkbox"/> Loss of Consciousness
<input type="checkbox"/> Seizures	<input type="checkbox"/> Arthritis	<input type="checkbox"/> Chronic Back/Joint Pain
<input type="checkbox"/> Cystic Fibrosis	<input type="checkbox"/> Emphysema	<input type="checkbox"/> Chronic Lung Condition
Have you ever contracted a disease from animals, or experienced an animal related injury (including bites, scratches, needle-sticks, etc.)?		
<input type="checkbox"/> No		
<input type="checkbox"/> Yes (Explain):		
Have you been told by a physician that you have an immunocompromising medical condition, or are you taking any medications that impair your immune system (steroids, immunosuppressive drugs, chemotherapy)?		
<input type="checkbox"/> No		
<input type="checkbox"/> Yes (Explain):		
Are you currently taking any medications?		
<input type="checkbox"/> No		
<input type="checkbox"/> Yes (Explain):		

ALLERGY HISTORY		
List any allergies to medications:		
Indicate whether you have had any of the following (Check all that apply):		
<input type="checkbox"/> Chronic Cough	<input type="checkbox"/> Asthma	<input type="checkbox"/> Itchy or Irritated Eyes
<input type="checkbox"/> Hay Fever	<input type="checkbox"/> Skin Rash	<input type="checkbox"/> Chronic Allergies
Indicate whether you are allergic to any of the following (Check all that apply):		
<input type="checkbox"/> Dog	<input type="checkbox"/> Cat	<input type="checkbox"/> Cattle
<input type="checkbox"/> Horse	<input type="checkbox"/> Bird (feathers)	<input type="checkbox"/> Hog
<input type="checkbox"/> Primates	<input type="checkbox"/> Rabbit	<input type="checkbox"/> Goat
<input type="checkbox"/> Sheep (wool)	<input type="checkbox"/> Rats or Mice	<input type="checkbox"/> Guinea Pig
<input type="checkbox"/> Alfalfa	<input type="checkbox"/> Weeds	<input type="checkbox"/> Trees
<input type="checkbox"/> Chemicals	<input type="checkbox"/> Latex	<input type="checkbox"/> Wood
<input type="checkbox"/> Grasses	<input type="checkbox"/> Animals at your Worksite	<input type="checkbox"/> Insect Stings or Bites
<input type="checkbox"/> Other:	<input type="checkbox"/> Other:	<input type="checkbox"/> Other:

IMMUNIZATIONS			
Indicate the date of most recent vaccination (If you are unsure, leave it blank):			
Measles	Mumps	Rubella	Hepatitis A
Hepatitis B	Rabies	CMV	Toxoplasmosis
“Q” Fever	Yellow Fever	Smallpox	Tuberculosis
Date of Last Tetanus Booster:			
Date of Last PPD (Tuberculin) Skin Test:			
<input type="checkbox"/> Negative			
<input type="checkbox"/> Positive (Answer questions below):			
Date of Last Chest X-Ray:			
Are you currently having any of the following symptoms (Check all that apply):			
<input type="checkbox"/> Fever			
<input type="checkbox"/> Chronic Cough			
<input type="checkbox"/> Bloody Sputum			
<input type="checkbox"/> Weight Loss			
<input type="checkbox"/> Shortness of Breath			

Please be informed that certain medical conditions increase your risk of potential health problems when working with animals, these can include: animal-related allergies, chronic back injury, pregnancy and immunosuppression. If any of these conditions apply, inform your personal physician/health care provider.

CERTIFICATION

My signature below indicates that the above information is true and accurate to the best of my knowledge. I understand that any associated costs or fees are my responsibility.

Patient Printed Name:

Patient Signature:

Date:

****PATIENTS:** PLEASE HAVE YOUR HEALTHCARE PROVIDER SIGN THE FOLLOWING PAGE, AND SUBMIT IT TO THE IACUC, IACUC@LIBERTY.EDU**

****PROVIDERS:** Please retain this document in the patient’s records**

CLEARANCE RECOMMENDATION PAGE

PATIENT CONSENT AND AUTHORIZATION

(This page should be returned to Liberty University IACUC: iacuc@liberty.edu)

I consent to and authorize the undersigned healthcare provider to release my approval status for work with animals and any applicable restrictions to Liberty University Institutional Animal Care and Use Committee and my supervising investigator. I understand this consent is revocable except to the extent action has already been taken. Further disclosure or release of my health information is prohibited without specific written consent of person to whom it pertains.

PATIENT ATTESTATION	
Patient Name:	
Patient Signature:	
Date:	

PROVIDER RECOMMENDATIONS

(Choose One from Each Table)

PROVIDER RECOMMENDATIONS	
<input type="checkbox"/> I am not aware of any contraindications toward participating in research or teaching involving the use of animals.	
<input type="checkbox"/> I believe the applicant can safely participate in research or teaching involving the use of animals with the following restrictions:	
<input type="checkbox"/> I do not recommend the patient participate in research or teaching involving the use of animals.	
<input type="checkbox"/> Recommend follow-up with primary care physician.	

FREQUENCY OF RE-EVALUATION	
<input type="checkbox"/> Re-evaluate when any changes in medical conditions/animal exposure intensity occur.	
<input type="checkbox"/> Re-evaluate annually.	

PROVIDER ATTESTATION			
Provider Name:		Provider Phone #:	
Mailing Address:			
City:	State:	Zip Code:	
Fax #:	Email:		
Provider Signature:			
Date:			

APPENDIX F
ANNUAL HEALTH SCREENING FORM

ANIMAL CONTACT & HEALTH QUESTIONNAIRE ANNUAL REVIEW

INSTRUCTIONS

6. This form must be completed annually, prior to participating in any research or teaching involving the use of animals at Liberty University.
7. Should the form prompt you to complete the risk assessment, you will need to complete the Health Screening Form and submit it to the health center for evaluation.
8. Return the **signed certification portion** to the IACUC, iacuc@liberty.edu.

PERSONAL INFORMATION		
Last Name:		First Name:
Mailing Address:		
City:	State:	Zip Code:
Phone #:		Email:
Department:		Flames Pass #:
Date of Birth:		Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female
Provider Name:		Provider Phone #:

ANIMAL EXPOSURE & REACTIONS
In the past year, have you had any concerns about your health related to the work you conduct with laboratory animals? <input type="checkbox"/> No <input type="checkbox"/> Yes (Complete and submit the Health Screening Form to the Health Center)
In the past year, have you experienced nasal congestion, runny nose, sneezing, skin rash, itchiness, wheezing, or shortness of breath related to the work you conduct with laboratory animals? <input type="checkbox"/> No <input type="checkbox"/> Yes (Complete and submit the Health Screening Form to the Health Center)

IF YOU ANSWERED NO TO BOTH QUESTIONS ABOVE, SIGN THE CERTIFICATION FORM BELOW AND SUBMIT IT TO THE IACUC. OTHERWISE, COMPLETE THE HEALTH SCREENING FORM AND SUBMIT IT TO THE HEALTH CENTER FOR REVIEW.

CERTIFICATION

My signature below indicates that I have reviewed the Occupational Health information provided by the IACUC, and have answered the above questions truthfully to the best of my ability. I am prepared to follow any guidance and/or recommendations provided from the health center regarding my work with laboratory animals at Liberty University.

Patient Printed Name:

Patient Signature:

Date:

Liberty University

Occupational Health and Safety Program for Animal Research

Revision Tracking

Revision Number	Revision Description	Revision Location	Date Originated/Revised	Policy Author/Reviser:	Policy Approvers
	Original		August 27, 2019	Greg Bennett Connor Bryant	Greg Bennett John Peterson Ronald Sloan