University of Central Florida

Animal Exposure Program (AEP) Manual

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Revision Table

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09/10/2019	Major changes to structure, wording, and formatting.		
10/28/2019	UCF website links updated.		
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1.0 INTRODUCTION

All universities receiving federal funding for research involving animals must have an occupational health and safety program that meets the guidance outlined by the National Institutes of Health (NIH) and the National Research Council (NRC). The Occupational Health and Safety in the Care and Use of Research Animals publication outlines how individuals are evaluated with respect to the type and extent of their animal contact, the inherent risks involved with animal research, and what medical procedures will be required to provide a healthy and safe work environment. At the University of Central Florida (UCF), the Animal Exposure Program (AEP) was developed to meet and exceed the health and safety requirements established by the NIH/NRC for all personnel who may be exposed to animals at UCF facilities or as part of research activities.

2.0 **DEFINITIONS**

Animal User: An individual that handles animals, animal tissues, and/or is involved in animal husbandry as part of their employment or educational program.

Casual Exposure: The indirect or potential exposure which can result from being in the vicinity where animal work is being conducted or coming into contact with animal wastes.

Decontamination: The use of physical or chemical means to remove, inactivate, or destroy pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles, and the item or surface is rendered safe for handling, use, or disposal.

AdventHealth Centra Care Authorization Form: Completed by the Principal Investigator or supervisor to identify to AdventHealth Centra Care the requested screenings and additional medical services.

Animal Exposure Medical Questionnaire (AEPMQ): Completed by the enrollee to provide Centra Care with personal medical history as it relates to animal exposure.

Occupational Health Clearance Form: Completed by AdventHealth Centra Care to document the enrollee's participation in the AEP, documentation of animal species and clearance for exposure.

Personal Protective Equipment (PPE): The special clothing and equipment worn by an employee to protect against a hazard. General work clothes (uniforms, pants, shirts, blouses) not intended to function as protection against a hazard, are not considered to be personal protective equipment. Employer (Principal investigator (PI) or the department) must provide PPE at no cost to the employees/students in the lab.

Zoonotic Diseases: Diseases transmitted between animals and humans.

3.0 ELIGIBILITY AND PARTICIPATION

All personnel who may be exposed to animals at UCF facilities or as part of research activities, including all UCF leased spaces and UCF affiliated field research, must enroll in the Animal Exposure Program. This includes all personnel listed on an Institutional Animal Care and Use Committee (IACUC) protocol. In special circumstances, personnel may be required to re-enroll in the Animal Exposure Program. Re-enrollment may occur when there is a change in personal health, job duties, or a change in animal species or taxonomic group.

4.0 RESPONSIBILITIES

The Animal Exposure Program at UCF is administered in conjunction with Environmental Health and Safety (EHS) department, licensed physicians at AdventHealth Centra Care, and Institutional Animal Care and Use Committee (IACUC) for UCF.

4.1 Environmental Health and Safety Department

Environmental Health and Safety department is responsible for the following:

- Administration and coordination of the Animal Exposure Program;
- Maintenance of Occupational Clearance Forms generated by the program (excluding medical and other Health Insurance Portability and Accountability Act (HIPAA) protected records); and
- Provide guidance and training to personnel on animal exposure safety.

Specific services provided by EHS include, but are not limited to:

- Educating UCF personnel about the Animal Exposure Program,
- Providing the necessary forms for enrollment in Animal Exposure Program,
- Providing information on additional Occupational Health Programs, and
- Providing Job Hazard Analysis consultations.

Questions concerning administration of the Animal Exposure Program at UCF should be directed to the Biosafety Officer at 407-823-1526.

4.2 AdventHealth Centra Care

AdventHealth Centra Care is responsible for the following:

- Answering participants questions regarding how to fill out the Medical Questionnaire;
- Evaluating medical questionnaires, providing medical examinations, and administering appropriate immunizations as necessary;
- Providing Occupational Clearance Forms to the EHS department; and
- Providing professional medical support services for continued medical surveillance.

4.3 Principal Investigators (PI), Supervisors, or Designated Contact Person

Principal Investigators (PI), Supervisors, or Designated Contact Person are responsible for the following:

- Identifying eligible participants;
- Informing the Biosafety Officer of new individuals who will need to be enrolled in the Animal Exposure Program;
- Ensuring enrollment of eligible participants in the Animal Exposure Program;

Note: Failure to enroll in AEP may result in delay of approval for new or renewal protocol submissions as well as significant changes to existing protocols. If the IACUC Committee determines that an individual working in an animal research area is not enrolled in AEP, the protocol or individuals may be suspended from animal work until such time as enrollment has been completed.

- Signing completed AdventHealth Centra Care Authorization Forms;
- Ensuring that all personnel have received Medical Clearance and have completed all mandatory training before being occupationally exposed to animals; and
- Providing timely notification to the Biosafety Officer and EHS department when previously cleared personnel have terminated or ceased their exposure or contact with animals.

4.4 IACUC

IACUC must communicate to EHS department and the Biosafety Officer all individuals approved on protocols or seeking approval through the submittal of IACUC protocols for hazard assessment.

4.5 Scientific Director of the Scientific Transgenic Facility

The Scientific Director of the Scientific Transgenic Facility approves access and oversees all personnel at the Scientific Transgenic Facility. This includes ensuring that all personnel at the Scientific Transgenic Facility have meet the requirements of the Animal Exposure Program before being occupationally exposed to animals.

5.0 ENROLLMENT IN THE ANIMAL EXPOSURE PROGRAM

5.1 Enrollment

All personnel who may be exposed to animals at UCF facilities or as part of research activities, including all UCF leased spaces and UCF affiliated field research, must enroll in the Animal Exposure Program prior to being occupationally exposed to animals. Enrollees shall not incur any costs or fees as part of their enrollment in the Animal Exposure Program. Cost of enrollment and medical surveillance will be managed by the EHS department under the supervision of the EHS Manager for Workplace Safety, while the Office of Research provides funding to support the cost of enrollment and medical surveillance for all personnel within the Animal Exposure Program.

All participants of the Animal Exposure Program must:

- Complete the Animal Exposure Program Enrollment Package;
 - o Animal Exposure Program Medical Questionnaire (AEPMQ)
 - o AdventHealth Centra Care Authorization Form
- Read the Animal Exposure Program Manual;
- Receive Medical Clearance from a licensed physician at AdventHealth Centra Care; and
- Complete EHS180 with a score of 80% or better.

Animal Exposure Program Medical Questionnaire (AEPMQ) and AdventHealth Centra Care Authorization Form may be submitted directly to the Occupational Health Physician at Centra Care by **encrypted email** to <u>Andrea. Flanagan@AdventHealth.com</u>. To obtain instructions on how to send encrypted documents, please visit <u>Animal Exposure Program Webpage</u>. The Occupational Health Physician will review the Medical Questionnaire and provide an Occupational Health Clearance Form. In the event the Physician is requiring further examination, immunization, testing, and/or evaluation, employees will be asked to go to make an appointment with AdventHealth Centra Care for further evaluation.

Note: Employees will be paid for the time required for the appointment(s) and reasonable travel to and from the appointment.

Note: For field research faculty, the Field Research Safety Plan will also need to be completed and signed by the appropriate Department Chair.

5.2 Enrollment Exceptions

Visitors entering animal facilities or vivarium to perform maintenance/repairs or observe research are not required to participate in the Animal Exposure Program Enrollment Package provided:

• Within a 30-day period of time, visitors will spend less than 5 days total occupationally exposed to animals.

Note: Additional requirements may apply in accordance with UCF facility rules and Standard Operating Procedures such as, but not limited to:

- Reading the Animal Exposure Program Manual,
- Completing EHS180 with a score of 80% or better, and
- Being aware that some individuals may be at greater risk from animal-associated diseases:
 - O Women who are pregnant or planning to become pregnant,
 - o Immune compromised persons, and
 - Individuals with known animal allergies should contact the Occupational Health Physician.

6.0 RECORDKEEPING

AdventHealth Centra Care will maintain permanent medical records for each individual evaluated under the Animal Exposure Program. Concerns or objections regarding how private medical information will be handled by AdventHealth Centra Care can be discussed directly with AdventHealth Centra Care. Any individual may request a copy of their medical information by completing the necessary forms with AdventHealth Centra Care.

Any personal information provided to UCF as part of enrollment in the Animal Exposure Program will be kept strictly confidential and accordance with applicable federal, state, and local regulations. The EHS department will only maintain a copy of the Occupational Clearance Form provided by AdventHealth Centra Care and will distribute a copy of this clearance to the Principal Investigator (PI), Supervisor, or Designated Contact Person to whom the employee will report to and the enrollee.

7.0 ACCIDENT AND ILLNESSES RELATED TO ANIMAL EXPOSURES

Individuals must promptly report any injuries or illnesses that resulted from animal exposure to the Principal Investigator (PI), Supervisor, or Designated Contact Person. These injuries include bites or scratches from animal contact without regard to how minor they may seem. The PI or supervisor should notify Human Resources as soon as possible to begin the process of submitting a workers compensation claim. Contact AmeriSys (1-800-455-2079) as soon as possible to initiate post-exposure evaluations and seek treatment. EHS also requires the incident be documented using the Incident Report Form available on the EHS website. All notifications must be completed and submitted within 24 hours of an incident occurring. Students and student volunteers should report to UCF Student Health Services for treatment in the event of injury.

7.1 Allergies

Animal care staff and others who handle animals may be sensitized to animal dander or other allergens. Individuals at risk of developing allergies or experiencing the onset of existing allergic reactions include those with preexisting allergies, asthma, seasonal rhinitis, or eczema. Individuals with preexisting allergies are encouraged to seek help from their family doctor. Likewise, individuals with work-related allergies are encouraged to seek advice from AdventHealth Centra Care Physicians. During the evaluation, the physician will offer counseling on prevention of work-related allergies. Preventing exposure to the allergens may require the use of personal protective equipment such as gowns, gloves, and respiratory protection.

Allergic reactions to animals are among the most common conditions that adversely affect the health of workers involved in the care and use of animals in research. The manifestations of animal allergies range from rhinitis and eye discomfort to respiratory distress. In the United States, 46% of the 90,000 laboratory animal workers develop allergies to laboratory animals. Of the laboratory animal worker who do develop symptoms, 10% of them develop occupationally-related asthma with symptoms that persist even after exposure ceases. For example, more than one third of laboratory animal workers at the National Institute of Health has reported loss time from work

due to their symptoms from laboratory animal allergies (Allergy to Laboratory Animals in Health Care Personnel. Bland SM, Evan R III, Rivera JC. 1987. Occupational Medicine 2:525-546).

7.2 Impairment of the Immune System

The risk of contracting a disease from animals (zoonosis) is minimal. However, individuals with an impaired immune system, due to medication or disease, may be at a significantly greater risk of acquiring a zoonotic disease. It is important for animal users to understand this and provide AdventHealth Centra Care Physician with any information related to such risk factors.

7.3 Tetanus Vaccination

A tetanus vaccination should be administered to all animal users at ten-year intervals. Tetanus is normally associated with wounds contaminated with dirt or the feces of some animals. All bite wounds, cuts, scrapes, abrasions, and punctures either in the laboratory or field study collections may carry the risk of tetanus and should be reported to the EHS department within 24-hours of it occurring.

Note: If seven to ten years has pasted since your last Tetanus vaccination, a booster may be administered at the time the person is seen for evaluation.

8.0 PREVENTIVE MEASURES

8.1 Primary Containment

For allergy prevention, the primary goal is to reduce or eliminate direct contact with the allergen by minimizing the presence of the allergen. Laboratory safety equipment provide a physical barrier for the protection of personnel. Laboratory safety equipment may include specialized exhaust and filtration containment systems. Types of primary containment include:

- Biological Safety Cabinets (BSC) containment devices that are designed for work involving biological procedures and microorganisms, and includes a high efficiency particulate air (HEPA) filtration system. BSCs provide excellent containment of animal allergens when used in accordance with the manufacturer's instructions. For additional information on the different types and classes, see "Biosafety in Microbiological and Biomedical Laboratories (BMBL), 5th ed., Appendix A."
- Local Exhaust Ventilation (LEV) System a ventilation system that is designed to capture contaminants at their source and exhaust directly out of the work area and into the outdoor atmosphere. LEV systems may help to reduce contact with animal allergens by decreasing the level of allergens in the macro environment.
- Chemical Fume Hood (CFH) most common LEV system; its primary goal is to provide personnel protection for work involving chemicals (e.g. gases, vapors, etc.).
- Downdraft Table table designed with ventilation slots on the table work surface with air exhausted from below the work surface.
- Downdraft Sink sink designed with ventilation slots around the sink surface and/or internal components.
- Snorkel flexible duct or hose designed to capture contaminants directly at the source.
- Micro Isolator Cage an animal cage composed of both a cage bottom and ventilated filter topped lid. When closed, animal allergens are contained within the microenvironment of

- the cage. When opened in a BSC using appropriate technique, environmental allergens can be eliminated or reduced if using a ventilated cage change station.
- Individual Ventilated Cages (IVC) A mechanical ventilated rack and micro-isolator caging system that provides and maintains a stable environment for the animals while producing a safe and comfortable working environment for staff and researchers. The supply and exhaust air are commonly high-efficiency particulate absorption (HEPA) filtered and maintain a single pass air stream through the individual cages. Ventilation of the cage may be either positive or negative to the macro environment of the animal holding room. In both situations, allergens leaving the cage are prevented from entering the macroenvironment of the animal holding room by exhausting the air into the outdoor atmosphere or HEPA-filtering the air leaving the cage into the animal holding room.
- Ventilated Cage Change Station a stand-alone product protection workstation which commonly contains a blower and filtration system to help in the capture and containment of particulates from spreading outside of the unit. Unlike a BSC, change stations are less efficient in the containment of animal allergens and can increase the level of animal allergens in the macro environment of the animal holding room. Some stations (Cage Dump Stations) commonly have a small opening inside the work area to permit the dumping of dirty bedding material into a waste disposal vessel.

8.2 Personal Hygiene

There are a number of personal hygiene issues that apply to all workers who are exposed to animals. Thorough hand washing must be done before and after handling the animals and prior to leaving the laboratory. All work surfaces must be decontaminated initially and after any animal-related contact or use. Laboratory coats must be worn over street clothes or employees may change into special designated clothing when working with animals. Personal protection equipment (PPE) must be used appropriately. There must be no eating, drinking, or applying of cosmetics in areas where animals are housed or handled.

8.3 Personal Protective Equipment (PPE)

Appropriate PPE should be provided at no cost to the individual with direct or potential animal contact and/or exposure. Appropriate PPE includes gloves, eye protection, scrubs, gowns, aprons, laboratory coats, or any other appropriate PPE. The department, laboratory, PI, or supervisor is also responsible for cleaning, laundering, disposal and replacement of the PPE.

Use of respirators (devices designed to protect the wearer from inhaling harmful dusts, allergens, fumes, vapors, or gases depending on the respirator and required protection) requires additional medical clearance by a licensed physician and annual fit testing by Occupational Safety and Health Administration (OSHA) regulations.

Failure to use appropriate PPE in the laboratory or in field studies may increase the chance of being exposed to potentially hazardous materials from animal contact and/or exposure. The use of proper PPE is required by UCF. PPE should be used accordingly whenever animals are handled, transported, or restrained, when cages are cleaned, or whenever animal contact and/or exposure could occur. For more information on the proper use of PPE, consult the Occupational Health and Safety in the Care and Use of Research Animals guide and the Guide for the Care and Use of Laboratory Animals.

APPENDIX A: LABORATORY ANIMAL & FIELD STUDY ALLERGENS INFORMATION GUIDE

Laboratory Animal Allergies (LAA) and Field Study Allergens (FSA) develop from occupational exposure to animal allergens and are the most common and serious occupational condition experienced by workers exposed to animals in research settings. Over a period of time, an individual may be exposed to sufficient amount of allergens to become sensitized. Once sensitized, this individual's next exposure to a specific allergen will cause an allergic reaction.

Symptoms of LAA & FSA:						
Sneezing	Skin rashes	Asthma				
Runny nose	Wheezing					
Itchy/irritated eyes	Shortness of breath					
Sources of LAA & FSA:						
Dander	Bedding	Dust				
Urine and feces	Serum	Molds				
Saliva	Plants	Mildew				
Hair	Pollen	Bacterial Spores				
Route of Exposure:						
Inhalation of animal allergens						
Direct contact of allergens with skin, eyes and mucous membranes						
Risk Factors for LAA &	FSA:					

Environmental: working in animal-associated areas without proper ventilation or potential

Exposure: working with & handling animals

Genetic: predisposal to developing allergies and asthma

inherent hazards associated with field study research

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Prevention of LAA &FSA:

Use a biological safety cabinet (BSC) when working with animals or manipulating them in a laboratory setting.

Wash hands before and after working with animals or their tissues.

Use ventilated animal cage racks or filter top animal cages.

Keep cages and work area clean.

Avoid high particulate producing bedding.

Wear proper PPE including long sleeve outer protective gown, gloves, and eye protection to reduce skin contact of animals and animal allergens.

Wear dedicated PPE; when working with animals, leave protective clothing at the workplace to be laundered.

Reduce inhalation of animal allergens by using a respirator. *Note: users who want to wear a respirator must contact the Biological Safety Officer at 407-823-1526 prior to using the respirator. The use of a respirator requires additional training and medical clearance.*

What to do if you are experiencing a LAA:

Discuss the symptoms with your supervisor.

If needed, seek medical counsel:

- Employees contact AdventHealth Centra Care.
- Students contact the UCF Student Health Services.

Report any incidents to the Biological Safety Officer at 407-823-1526 within 24-hours of it occurring.

APPENDIX B: ADVENTHEALTH CENTRA CARE AUTHORIZATION FORM

Employee / Applicant:		
University of Central Florida		
Medical Surveillance AEP (24501094)		
Available at these Centra Care locations		
Exams	Lab Tests	s
Animal Worker Medical Directorship questionnaire revie		
Respirator Examination Medical Directorship questionn		Panel (CMET Panel)
Dive Physical Examintion	HEMGPD	
Other:	Lipid Panel	
Other:	Other:	
Occupational Health Testing	Immunizati	
Spirometry - Pulmonary Function	Hepatitis B Vaccination	n
Audiometry	PPD - TB Test	
Titmus Vision Screening		w - Lake Nona, South Orange & Employer Ca
OSHA Respirator Questionnaire		n- call ahead to the center - this is special
Resting EKG	Influenza Vaccination	
Two View Chest X-ray	Meningitis - at Employ	
Exit Exam		the center - this is special order
	Pneumonia - at Emplo	
	Polio - at Employer Ca	
	Typhoid - at Employer	-
	Varicella - at Employe	
	Yellow Fever - at Emp	
	—	the center - this is special order
	Tdap	
	Tetanus	E
	Shingles (Zoster) - at I	Employer Care only
Supervisor:	Date:	Phone:

APPENDIX C: ANIMAL EXPOSURE PROGRAM MEDICAL QUESTIONNAIRE (AEPMQ)

AEP - Form 2 Animal Exposure Program

Animal Exposure Program Medical Questionnaire					
Name: UCF ID# Employee Studen	nt Volunteer				
Address: Phone:					
Email:Date of Birth:Cell Phone:					
Supervisor/PI:Department Name:D	ate:				
A. Immunization and Infectious Disease History Have you ever had or do you now have any of the following immunizations? You must supply for immunization.	most recent year				
If the answer is yes, you must supply a date. If the answer is no, check the 'no' column. unknown, select "Don't know."	. If the answeris				
Incomplete forms will be returned.					
Vaccination History	Incomplete				
Yes Date No Don't Know	(Hep. B only)				
Tetanus					
Hepatitis B (Series of 3)					
Will you be working with any biological materials?	Yes No				
If yes, please explain:					
Have you ever been diagnosed with an infectious, viral, bacterial, or parasitic illness that had been confirmed to have come from an animal? If yes, please explain:					
3. Have you ever suspected that you acquired an illness from an animal or animal materials/tissue at work or elsewhere, but were unable to confirm this? If yes, please explain: Yes I					
B. Medical History 1. Have you been told by a physician that you have an immune compromising medical condition or are you taking medication that impair your immune system (steroids, immunosuppressive drugs, or chemotherapy)? If yes, please explain:					
2. Have you been told by a physician that you have a chronic medical condition? If yes, please explain:	Yes No				
Are you currently taking any other medications? If yes, please explain:	Yes No				

AEP - Form 2

APPENDIX D: OCCUPATIONAL HEALTH CLEARANCE FORM

OHP - Form 2 University of Central Florida Occupational Health Program Occupational Health Clearance Form Enrollee must fill out the contact information below. UCF-ID Phone No: Name: E-Mail: Date: Department Name: Supervisor/PI: Employee Student Volunteer For Physician Use Only A. Respiratory Program The individual listed above was evaluated according to the requirements from the Occupational Safety and Health Administration (OSHA) 29 CFR 1019.134 Respiratory Protection Standard. No The result of the evaluation showed that the employee/student/volunteer Is capable of using a respirator without restrictions. Is capable of using a respirator with the following restrictions. Restrictions: B. Animal Exposure Program The individual listed above was evaluated using the UCF Animal Exposure Program Medical Questionnaires. Yes No The result of the evaluation showed that the employee/students/volunteer has No restrictions on animal exposure. Specific restrictions on animal exposure. >>Required: Applicable Species: Requires further medical evaluation. No restriction on field research. Restrictions: C. BSL3 Access Program The individual listed above was evaluated: Requires further medical evaluation. Is cleared to enter the BSL3 Laboratory. D. Hearing Conservation Program The individual listed above was evaluated according to the requirements from the Occupational Safety and Health Administration (OSHA) 29 CFR 1019.95 Occupational Noise Exposure. Audiogram was successfully conducted. Audiogram needs to be repeated. E. Other Occupational Exposure Evaluation Physician's Name and License # (Print) Date Signature

Occupational Health Clearance Form - Rev. 10/2018