

<b>WAYNE STATE UNIVERSITY</b> <b>DIVISION OF RESEARCH</b>	<b>Office of Environmental Health and Safety</b>
	Animal Contact Occupational Health and Safety (AniCon) Standard Operating Procedure (SOP)
<b>Title: Animal Allergen Exposure Reduction SOP</b>	
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## 1. PURPOSE and SCOPE

- 1.1. This SOP provides animal research personnel and animal husbandry personnel practical guidelines on how to reduce exposure to animal allergens in order to decrease the risk of developing and/or exacerbating animal allergy symptoms.
- 1.2. This SOP applies to Wayne State University (WSU) staff, students, and volunteers, who come in contact with animals for purposes of animal husbandry and/or animal research.

## 2. MEDICAL HAZARD

- 2.1. WSU personnel handling research animals are at risk of developing animal allergies as a result of exposure to protein allergens in animal's urine, saliva, blood, dander, etc... Exposures occur by way of needle sticks contaminated with animal proteins, inhalation, skin, eyes, and mucous membrane contact with animal allergens. All species of laboratory animals can cause allergy symptoms or trigger severe allergic reactions. However in the animal research setting allergies to mice, rats, rabbits, guinea pig, cats, and dogs are common. Risk factors for becoming allergic to laboratory animals include; medical history, frequency and intensity of exposure, and smoking.
- 2.2. Animal allergy symptoms can develop into asthma or other chronic respiratory illnesses, and can also result in acute life threatening conditions, such as, status asthmaticus: an acute exacerbation of [asthma](#), or anaphylactic shock: a severe systemic allergic reaction that requires emergency medical treatment. Thus it is important to decrease or prevent exposure to animal allergens.

## 3. ANIMAL ALLERGY SYMPTOMS

- 3.1. Animal allergy symptoms include but are not limited to the following;

- “Runny” Nose
- Cough or Wheezing
- Itchy or Watery Eyes
- Shortness of Breath
- Nasal Congestion
- Facial Swelling
- Chest Congestion
- Skin Rash or Itchiness

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#### 4. WHEN TO SEEK MEDICAL ATTENTION

4.1. Seek medical attention if you develop new onset allergy symptoms, worsening allergy symptoms, or worsening asthmatic symptoms. Notify WSU Occupational Health Specialist: 313-577-5917 of your concerns. One may seek medical attention for an initial N95 Mask fit test, for an annual N95 Mask fit test, and for medical evaluation of animal allergy symptoms. Also seek medical attention due to animal bites, scratches, and other injuries resulting from handling animals.

#### 5. ENGINEERING CONTROLS

5.1. The most important element of protection involves engineering controls; maintain appropriate environmental conditions, i.e., adequate ventilation and humidity in animal care facilities. Animals must be housed in negative pressure rooms. Use filter top cages and periodically upgrade to state of the art caging systems. Provide Biosafety Cabinets for animal manipulation and 'Bio-bubble' dumping stations with "High Efficiency Particulate Air Filters" (HEPA). Use corncob bedding or absorbent pads in animal cages. Ensure hand-washing sinks, eyewash stations, showers, and laundry machines are available for use at animal care facilities.

#### 6. ADMINISTRATIVE CONTROLS

6.1. Entrance to animal housing facilities must be restricted. Personnel must participate in allergy educational sessions, allergy surveillance programs, and animal husbandry training programs. Rotate jobs frequently and only schedule cage changes when necessary to reduce intensity of exposure. Restrain animals properly to reduce the risk of bites and scratches. Avoid eating, drinking, or handling personal items in animal care areas. Laundry lab coats and scrubs at work.

6.2. Practice good hygiene; wash hands after removing gloves, between serving animal rooms, before and after personal care, and before leaving animal facilities. Shower before leaving work or immediately after work. Practice good housekeeping; wet clean surfaces frequently, use wet mops on floors. Ensure properly functioning HEPA filters, and Biosafety Cabinets. Regularly monitor room ventilation, cage top filters, and animal waste dumping stations for proper function.

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## 7. PERSONAL PROTECTIVE EQUIPMENT (PPE)

7.1. PPE in conjunction with engineering and administrative controls significantly reduces exposure to animal allergens. Signage posted on entry doors to animal rooms must indicate specific PPE highly recommended before servicing or handling animals therein.

7.2. Reduce exposure to allergens by minimally donning a mask, gloves, and long-sleeve protective clothing when handling animals. A properly fitted N95 Mask filters out approximately 95% of airborne particles as small as micrometers. Use additional PPE, such as, goggles and head-covers to increase protection. Personnel with asthma or animal allergies can be **required** to don an N95 Mask and other PPE to decrease exacerbation of asthma or allergy symptoms. PPE include;

- N-95 Mask (other Masks)
- Ear Protection
- Nitrile Gloves, Kevlar (other Gloves)
- Sleeves
- Laboratory Coats or Scrubs
- Shoes-covers, Boots (other Shoes)
- Goggles or Face-shields
- Bonnets (other Head-covers)

## 8. ACUTE INJURY

8.1. If an animal bite, scratch, or sharp injury occur: apply pressure to bleed out the wound, wash with soap and water **for 5 minutes**, then cover with a bandage. If an injury involves a splash to eyes: irrigate the eye(s) for **15 minutes** at an eyewash station or sink. After initial first aid treatment of acute injuries promptly proceed to UHC-Occupational Health Services-4K clinic: Monday - Friday, 6:30 am to 5:00 pm. After hours, proceed to Detroit Receiving Hospital Emergency Department, 4201 St. Antoine. Inform the Supervisor or PI, and WSU Occupational Health Specialist of injuries. Call WSU Public Safety: 313-577-2222 for emergency transportation.