

Laboratory Animal Allergen Exposure Control Guidance

I. Purpose and Introduction

The intent of this guidance document is to describe control measures for preventing exposure to laboratory animal allergens. Laboratory Animal Allergy (LAA) is an occupationally acquired condition that affects approximately one third of personnel that work with laboratory animals. Researchers and technicians that provide animal care can be exposed to laboratory animal allergens which can lead to LAA. The sources of laboratory animal allergens are hair, dander, urine, saliva, and serum from various species including, but not limited to, mice, rats, guinea pigs, rabbits, cats, and dogs. Exposure to laboratory animal allergens can result from inhalation, contact with skin, and ingestion. The most common symptoms of LAA include runny nose, sneezing, stuffy nose, red eyes, hives, and asthma. Individuals who work with laboratory animals should reduce exposure levels to as low as reasonably achievable.

II. Scope

This guidance document is intended for use by all individuals who work with laboratory animals.

III. Control Measures to Reduce Human Exposure to Laboratory Animal Allergens

A. Local Exhaust Ventilation

- i. Biological Safety Cabinet (BSC)
- ii. Animal Transfer Station (ATS)

Note: Local exhaust ventilation should be utilized whenever there is potential for contact with animals. Maintain equipment in good working order and have your BSC and/or ATS certified annually.

B. Personal Protective Equipment (PPE)

- i. N95 Respirator (unless a higher efficiency filter is required for site specific work)
- ii. Gloves
- iii. Scrubs or Lab Coat

iv. Protective Sleeves

v. Safety Glasses

Note: PPE should be utilized whenever there is potential for contact with animals. The PPE listed above is not a comprehensive list. Always ask your supervisor/principal investigator if you are unsure about PPE requirements needed to enter a laboratory or animal area.

C. Work Practices

i. Utilize a HEPA vacuum for cleanup of animal bedding and waste.

ii. Avoid dry sweeping because it can contribute to increased air particulate concentrations. If sweeping cannot be avoided, use a spray bottle to slightly wet the bedding before sweeping in order to control dust.

iii. Work in a well-ventilated area with the doors to the room closed

iv. Wash hands after handling animals.

v. Do not bring personal items into animal areas (e.g. backpacks, bags, coats)

IV. Safety and Occupational Health

A. For medical emergencies: Call 911

B. For engineering control and PPE consultation contact the Environmental & Occupational Health (EOH) Unit at 608.890.1992 or eah@fpm.wisc.edu. Website: <https://ehs.wisc.edu/workplace-safety/occupational-health/>

C. Personnel who may be allergic to laboratory animals should consult with their personal physician or UHS Occupational Medicine at 608.265.5610. Website: <https://ehs.wisc.edu/workplace-safety/occupational-medicine-2/>

V. References

Bush, R. K., and G. M. Stave. "Laboratory Animal Allergy: An Update." *ILAR Journal* 44.1 (2003): 28-51.

Darcey, Dennis J., Stave, Gregg M. (May 2012). Prevention of Laboratory Animal Allergy in the United States; *Journal of Occupational and Environmental Medicine* Volume 54, Number 5

US Department of Labor. 29 CFR 1910.132 *Occupational Safety and Health Administration (OSHA) Personal Protective Equipment*

US Department of Labor. 29 CFR 1910.134 *Occupational Safety and Health Administration (OSHA) Respiratory Protection*

University of Wisconsin – Madison Environmental & Occupational Health Unit. *Guidance for the Control of Animal Allergens*

