Preventing Allergies to Lab Animals

Marilyn Hallock

Allergies are common in animal handlers and also research personnel who work with them. Lab animals have proteins on their skin and in their urine and saliva that cause allergic symptoms such as rashes, itchy eyes, sneezing, and runny nose. In some cases allergies can progress to asthma.

The EHS Office has completed a study of airborne mouse allergen proteins in several DCM facilities. Normal background levels (during no cleaning activities) are very low, less than recommended levels. Activities such as dry sweeping or using poorly maintained vented stations increased allergen exposures above recommended levels. Good work practices, preventing skin contact by wearing disposable gloves, and use of surgical masks or N95 respirators are critical to the prevention of allergies to lab animals. Please see the EHS web site page on Animal Allergens for more details about the best practices for working with animals to minimize allergen exposure: http://ehs.mit.edu/site/content/preventing-animal-allergies

What to Wear and Why in the Lab

Emily Ranken

A researcher dropped a bottle of hydriodic acid on the floor. His footwear was socks and sandals.

A researcher splashed a few drops of phenol/chloroform from a micro-centrifuge tube on her chest when the lid popped open. She had no lab coat on.

A bit of formalin squirted into a researcher’s eye while she observed another perform a procedure. She was not wearing safety glasses.

These things happened at MIT. Fortunately, these individuals had minimal injuries because they followed good emergency response procedures, e.g. used the emergency eyewash or a shower, and went to MIT Medical for care.

The standard requirements (see side bar on Page 2) for lab attire and personal protective equipment are based on many years of experience with incidents such as those described above. Things don’t happen all the time, but when they do, it helps to have the basic protection to prevent exposure or injury.

Depending on what you are doing, you may need more PPE like a plastic apron, face shield, or goggles, or better PPE like a fire resistant lab coat, or thicker chemical resistant gloves of a special material. Assess what hazardous materials you are using and how you are using them to determine if the basic PPE is adequate, and to determine what else you might need for your safety.
Standard Requirements:

- Basic lab attire is long pants or equivalent to cover the legs, clothing that covers the arms, and closed toe shoes that cover the foot.
- Basic lab personal protective equipment (PPE) is a labcoat, fully buttoned, disposable gloves and safety glasses for handling hazardous chemicals, radiotopes and biological materials at BL2 or greater. Working near or observing others handling hazardous materials may warrant the same protection. Some labs at MIT require eye protection at all times when in the lab.

Some labs have PPE assessments for common procedures. Review those. For a new experiment, the lab specific SOP form (http://ehs.mit.edu/site/content/chemical-hygiene-program) is a good tool for making a comprehensive assessment, and for sharing the information with others.

The EHS Office is available to assist you with selecting appropriate PPE for your work. We have a web page with details about PPE options and information to help you make a PPE assessment at: http://ehs.mit.edu/site/content/personal-protective-equipment-ppe.

For more details on labcoats, visit: http://labcoats.mit.edu/

Contact EHS for assistance, when needed, so that we can work with you to prevent injury or exposure.

For details on some incidents at MIT, visit: http://ehs.mit.edu/site/incident_report

Spotlight

TRAVEL WITH CARE AMID TRANSFORMATION

EMILY RANKEN

Everywhere I turn, lately, a new building is going up! MIT and the surrounding area are in the middle of a building boom. What this means for traveling on and around campus is chaos—changing routes, more activity, and more moving parts, such as big construction trucks and equipment adding to the existing melee of buses, delivery trucks, cars, bikes and pedestrians. In the game of travel, concrete trucks trump dump trucks trump delivery trucks trump buses trump cars trump bicyclists trump pedestrians. Pedestrians have the right of way, but if you are not seen, you might be dead right.

Bicyclists have certain rights of way, but must stop for pedestrians, stay off sidewalks, and follow the rules of the road. Everyone, but especially bicyclists sharing the road needs to be aware of vehicle blind spots. The bigger the vehicle, the greater the blind spot.

Travel defensively. Slow down. Be patient. Allow more time to get where you are going. Catch the eye of drivers or bicyclists or pedestrians. Listen for back up alarms and watch for back-up lights, and opening car doors. Tune in to what is going on around you, not your I-pod or smart phone. An incredible transformation is happening. Observe and take care to stay safe as we move into the future.

Questions? Comments? We'd love to hear from you!
Please email environment@mit.edu

Diagram of truck blind spots taken from NYC Bike Smart brochure available at nyc.gov/bikes

Former post-doc, Jeremy Wilusz, wearing standard PPE while pipetting P-32 labelled samples.