Lehman College Animal Use Occupational Safety & Health Program

Medical Surveillance Program

The purpose of the Medical Surveillance Program is to provide baseline and ongoing (annual) medical surveillance for employees having occupational exposure to research animals at Lehman College.

Medical Surveillance

Medical surveillance will be provided:

- Prior to approval for individuals to be included on an IACUC animal use protocol (new protocol or renewal of a current protocol);
- Annually (As appropriate for emergency exposure;
- Prior to assignment to the animal facility (including maintenance staff);
- If an individual undergoes a change in medical status;
- If a new research circumstance changes that alters the species, environment, hazards, etc..

Medical surveillance will include:

- Baseline Health History questionnaire and review to be completed prior to protocol approval or renewal;
- Vaccinations and/or medical review will be based upon health information provided by participant.
- Annual health assessment

Individuals working within the animal facility may use their private health provider to complete the baseline and annual requirements; alternatively, the medical provider for the Program is the Bellevue/New York University Occupational & Environmental Medicine group, NYU School of Medicine (462 1st Avenue at 27th Street, A726, New York, NY 10016, (212) 562-4572). Medical Surveillance records are housed at Lehman College Student Health Services or at the individual's private physician.

Medical review by the physician includes:

- Review of relevant medical history;
- Physical examination, if indicated;
- Discussion of risk factors associated with animal contact, including allergens,
- Discussion of potential zoonotic agents, wound care, and potential hazards of field studies if applicable;
- Discussion of the health risk associated with compromised immune system (i.e., cancer, chemotherapy, radiation, steroid use, immunosuppressive medications after organ transplant) if applicable;
- Pregnant workers and their related animal work if applicable; this generally only pertains to working with cats which does not occur at Lehman College or when working on a field study with wild animals/rodents.
- Immunization status (e.g. tetanus-diphtheria).

Occupational Risk Assessment

It is the responsibility of the individual to facilitate the thorough assessment of Occupational Risk.

Occupational Risk= *potential* for exposure to hazards and is evaluated by a thorough review of all procedures, hazardous materials, techniques and species used in a specific animal-use protocol. Identified risks are mitigated using a combination of administrative controls (e.g. employee training, proper work practices), engineering controls (e.g. local exhaust ventilation) and personal protective equipment. Risk Assessments will also be performed whenever there are significant changes in animal-use protocols. Whenever possible, review/adjustment of existing hazard controls will occur before significant changes to animal use protocols are instituted. Occupation Risk Assessments will be performed by Environmental Health & Safety (EHS) personnel.

Recordkeeping:

- Completed medical questionnaires, results of medical examinations and medical records of employees participating in Medical Surveillance Program will be maintained by the private physician or Lehman College Student Health Services for the duration of employment plus thirty (30) years.

Administration

This program is administered and interpreted by the Director of Environmental Health and Safety in consultation with the IACUC. Review of completed medical questionnaires or communications from individual's private physician, will be performed by the Director of Student Health Services.

Appendix A: Summary of Requirements

Immunization/Tests

Procedure	Exposure Condition	Frequency
Tetanus Immunization	All individuals with animal contact	Current within 10 years
Rabies Immunization Series	All individuals who are at risk of rabies exposure (e.g. handling unvaccinated carnivores, bats, or their tissue)	Immunization, booster, or positive rabies titer current within 2 years
Respirator Clearance	When medically necessary to combat animal allergies and exposure cannot be reduced/eliminated through engineering controls; to be evaluated by EHS personnel	Medical clearance-before assignment
Respirator Fit Test		Annual fit test
Medical Consultation	When deemed necessary by Occupational Medical personnel	Before assignment and as determined by EHS and Occupational Medical personnel

Appendix B: Typical types of exposure in the Lehman College animal facility

The exposure to zoonotic diseases from rodents used in the facility is prevented by receipt of only specific pathogen free animals from IACUC approved vendors or institutions. Bacterial infections may be possible if personnel are bitten while handling a rodent because rodents do have a normal bacterial flora in their mouth. This is mitigated by using proper animal handling techniques and knowing what to do if a bite occurs.

The most common is Animal Allergies: Allergic reactions to animal hair, dander, skin debris, urine, saliva and fecal matter are common and therefore one of the most important occupational health effects occurring in workers exposed to animals. Allergic reactions include:

- allergic rhinitis (runny nose, sneezing; similar to hay fever);
- allergic conjunctivitis (irritation and tearing of the eyes);
- asthma, or atopic dermatitis (a skin condition which is caused by contact with a substance to which an individual is allergic).

Allergy to animals is particularly common in workers exposed to animals such as cats, rodents, birds. Exposure to animal allergens may occur either through direct contact/inhalation or (more commonly) by contact/inhalation of dust/particulate which has been contaminated with allergens.

Various studies show that 15 to 20% of workers exposed to animals will develop symptoms of allergy. Most reactions are of the allergic rhinitis and allergic conjunctivitis type; <50% of these will actually be asthma. Symptoms can develop months/years after a person begins working with animals. People who have a prior individual and/or family history of asthma, hay fever, or eczema will be more likely to develop asthma after contact with animals, but these people do not seem any more likely to develop rhinitis and conjunctivitis than do people without such individual/family history.

Prevention of animal allergies. Animals should be handled in well-ventilated areas (i.e. with engineering controls) to prevent buildup of various particles in the air. Wear gloves (i.e. personal protective equipment, PPE) to prevent direct (skin) exposure to the animals, animal urine and animal dander. N95 Dust masks (PPE) worn during cage cleaning/changing prevent inhaling contaminated material.