Managing the risk from exposure to laboratory animal allergens

Scope

1. This standard applies to all work carried out at UCL by staff and post-graduate students on whole\(^1\) (mention tissues in footnote) laboratory animals, and covers activities carried out in any of UCL’s Biological Services Units and within Departmental Home Office registered rooms/areas.

2. It applies to work with any animal species, including invertebrates (but see also under “Risks”).

Definitions

**Biological Services Unit (BSU):** a centrally managed animal unit providing facilities and infrastructure for research.

**Departmental Registered Room/Area:** a room or area within a room used for procedures listed on the Home Office Establishment Licence Schedule of Premises that is not located within a Biological Services Unit.

**Individually ventilated cage (IVC):** a cage which can provide protection to both the animal and those working with animals.

**Laboratory animal allergy:** an allergic hypersensitivity response which may develop as a result of exposure to laboratory animal allergens.

**Local exhaust ventilation (LEV):** an engineering control system to reduce exposures to airborne contaminants such as dust, mist, fume, vapour or gas in a workplace.

**Occupational asthma:** respiratory symptoms (cough, wheeze, chest tightness, shortness of breath) caused by substances inhaled at work.

**Respiratory protective equipment (RPE)** - a particular type of personal protective equipment (PPE) designed to protect the wearer from breathing in harmful substances or from oxygen-deficient atmospheres when other controls are either not possible or insufficient on their own.

Legal requirements

3. The Control of Substances Hazardous to Health Regulations require UCL to:
   - Assess the risks of exposure to laboratory animal allergens (LAA).
   - Prevent or control exposure to LAA.
   - Ensure that identified control measures are used and also to maintain, examine and test those controls to ensure they are function as designed/intended.
   - Carry out health surveillance of those exposed to LAA.
   - Provide information, instruction and training to those working with animals to enable them to carry out this work safely.

4. Work with certain animals\(^2\) is also regulated the Animals (Scientific Procedures) Act (ASPA) for the purposes of protection of animal welfare. Recommendations made in this standard take account of the requirements of the Act to ensure protection of both animal and human health.

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\(^1\) Work on tissues, blood and other body fluids is not covered by this standard except where tissues still bearing fur or hair is are being handled.

\(^2\) ASPA covers protected animals – defined as all living vertebrates, other than man, and any living cephalopod. Fish and amphibia are protected once they can feed independently and cephalopods at the point when they hatch.
UCL requirements

5. Before any work with animals is carried out, individuals must:
   a. Undertake baseline health surveillance with UCL Occupational Health Service (OHS)
   b. Complete the online e-learning course on health and safety when working with animals;
   c. Be fit-tested for appropriate respiratory protective equipment (if required);
   d. Complete the relevant Home Office training.

Risks associated with exposure to LAA

6. If exposure is not controlled, approximately 20% of those working with laboratory animals experience some form of allergic symptoms due to contact with, or inhalation of animal allergens. Symptoms include:
   - Runny or stuffy nose (rhinitis)
   - Watery or prickly eyes (conjunctivitis)
   - Skin rashes

7. About 10% of all those who work with laboratory animals develop the more serious symptoms of asthma including tightness of the chest, wheezy or whistling chest; and attacks of shortness of breath.

8. The main sources of allergens from animals are proteins found in:
   - Urine
   - Fur
   - Hair
   - Dander
   - Saliva
   - Droppings
   - Serum

9. Most cases of allergy (and asthma) are associated with working with mice and rats but this is mainly because these are the most commonly used laboratory animals. Other species of animal including guinea pigs, hamsters, insects, fish and shellfish have also been associated with allergic symptoms.

Responsibilities

10. In addition to the general responsibilities set out in UCL’s [Organisation and Arrangements for Safety](#), Heads of Departments must ensure that all those working with animals are registered for health surveillance with UCL OHS, and appoint a named contact person to liaise with OHS in relation to health surveillance

11. In addition to the general responsibilities set out in UCL’s [Organisation and Arrangements for Safety](#), managers/supervisors must ensure that:
   - Any local exhaust ventilation (LEV) used to control exposure to LAA (or other airborne contaminants) is independently examined, tested and maintained every 14 months;
   - A local record of staff on the health surveillance programme and record of health surveillance outcomes is maintained; and
   - Adequate PPE is provided for those working with animals.

12. Estates Division is responsible for ensuring that the general room ventilation systems within Biological Services Units are examined, tested and maintained and that this is recorded.

13. The Director of Biological Services is responsible for:
   a. Ensuring that BS facilities are designed and managed so as to control exposure to laboratory animal allergens.
b. Ensuring provision of training in basic animal handling for those working with laboratory animals, including the provision of competency assessments in handling techniques for staff and students.

c. Ensuring the provision of adequate PPE for all those working in BSUs (including maintenance staff and contractors).

14. **Biological Service Unit Managers** are responsible for enforcing the use of the correct personal protective equipment within BSUs.

15. **Occupational Health Services** are responsible for:
   a. Provision of baseline and ongoing health surveillance and recall programmes;
   b. Provision of advice on adjustments to work to reduce exposure to LAA.
   c. Provision of advice on symptoms of sensitisation and the importance of early referral for occupational health advice
   d. Identification of suspected cases of sensitisation and occupational asthma
   e. Reporting occupational disease in line with RIDDOR 2013
   f. Referral for specialist investigation

16. **Staff and post graduate students** must maintain up-to-date health clearance for work involving exposure to animal allergens while they carry out this work and promptly report any symptoms of allergy to their manager and to UCL OHS.

17. **Safety Services**, with Biological Services, are responsible for the provision of advice in relation to request for new departmental registered rooms and ensuring that the appropriate arrangements are in place to protect human health and safety before the room is recommended for designation.

18. **The Departmental Designated Contact** is responsible for liaison with OHS on matters relating to staff health surveillance including advising line managers/supervisors of occupational health advice and non-attendance at appointments.

**Occupational health surveillance**

19. All staff and post-graduate students working with animals must be enrolled on the UCL health surveillance programme for animal allergens. Baseline screening must be undertaken before any exposure takes place. This is followed by a second screening at three months, a third at six months after the second, and a fourth six months after the third. Individuals will then be put onto an annual recall requiring either attendance at OHS for spirometry and a health questionnaire, or just the completion of a health questionnaire, depending on their level of allergen exposure.

20. Anyone experiencing any symptoms of allergy at any time must report this to their manager/supervisor and make any appointment with OHS for an assessment of their symptoms. Where sensitisation is suspected or confirmed, UCL OHS will advise managers on a case-by-case basis about appropriate control measures and adjustments to work that will allow an individual to continue work (in consultation with the employee regarding risk), whilst minimising their risk of developing disease. Where occupational asthma is diagnosed, UCL OHS will, in consultation with the employee regarding risk, advise managers/supervisors on control measures and adjustments to work that will allow an individual to continue work, as far as is reasonably practical.

21. Individuals must maintain an up-to-date health clearance by attending any follow-up appointments and returning their health questionnaires. Where individuals do not attend their recall appointments or complete questionnaires, OHS will advise their managers/supervisors that they should avoid exposure to LAA until satisfactory health surveillance has been undertaken.

22. Further information on the health surveillance programme at UCL can be found on the **[OHS website](#)**.

### Managing the risk from exposure to laboratory animal allergens

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