



Laboratory Animal Facilities Occupational Health & Safety Plan

1. Purpose & Scope

The purpose of the Laboratory Animal Facilities Occupational Health & Safety Plan (H&S Plan) is to protect animal care workers from the associated hazards of working with laboratory animals. *Animal Care Workers*, for the purpose of this document, are personnel, including DU students and any volunteers, who work directly or indirectly with laboratory animals in which a potential personal exposure from laboratory animals may exist. This plan is written in accordance with the University of Denver *Assurance of Compliance with Public Health Service Policy on Humane Care and Use of Laboratory Animals*.

2. Responsibilities

- a. Principle Investigator (PI) is responsible for:
 - i. assuring compliance with the H&S Plan
 - ii. identifying employees who are considered Animal Care Workers and ensuring those employees maintain qualification as Animal Care Workers
 - iii. performing hazard assessments of tasks and activities by identifying potential hazards and implementing applicable controls, i.e., the use of a lab hood or personal protective equipment (PPE), to reduce the risk of personal exposures.
- b. Medical Services Provider (contracted by DU) is responsible for:
 - i. medically certifying DU employed Animal Care Workers with a baseline health assessment
 - ii. administering immunizations to DU employed Animal Care Workers, as needed.
- c. DU Health Services
 - i. medically certifying DU student Animal Care Workers with a baseline health assessment
 - ii. administering immunizations to DU Animal Care Workers, as needed.
- d. Biological Hazards Trainer is responsible for:
 - i. providing training on the applicable biological hazards (see below)
 - ii. providing technical assistance to Principle Investigators.
- e. Environmental Health & Safety Manager is responsible for:
 - i. providing training on relevant chemical hazards
 - ii. providing technical assistance to Principle Investigators
 - iii. performing incident investigations.



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- f. Animal Care Workers are responsible for:
 - i. complying with the H&S Plan.
- g. Institutional Animal Care and Use Committee (IACUC) is responsible for:
 - ii. monitoring adherence with the plan while conducting facility reviews and audits
 - iii. assuring training is available for all animal program participants.

3. Hazards

- a. **Biological hazards** include allergies and zoonotic diseases caused by the animal. Allergies, which are the result of hypersensitive reaction to a chemical or physical substance, are a common health hazard caused by rodents. Symptoms may include runny nose, watery eyes, sneezing, shortness of breath, and asthma. Hives or skin rashes have also occurred from direct contact with animal hair or skin. Personnel who have a history of allergies are at a higher risk of developing symptomatic reactions. Allergies to lab animals can be diagnosed based on patient medical history, physical examination, and skin testing.

Zoonotic diseases are diseases transmitted between animals and man. The risk of disease with laboratory rodents is very low. Reputable vendors provide protective measures and environments for their animals. As a result, laboratory rodents are practically free of human and most animal pathogens. Potential pathogens that can cause disease are the Lymphocytic choriomeningitis virus (LCMV) and the *Leptospiral* bacterium.

- b. **Chemical hazards** depend on numerous factors, including the chemical toxicity, the amount used, physical properties, i.e., vapor pressure, flammability, and application. Exposure, which can result from inhalation or skin contact, can cause various health effects depending on toxicity.
- c. **Radiological hazards** may be present from the use of radioisotopes. The associated hazard depends on the amount used and the type of emitter.
- d. **Physical hazards** include animal bites or scratches. Exposure to these hazards can cause adverse health affects, including pain, respiratory distress, infection, or disease transmission.

4. Hazard Controls

- a. **Engineering controls** – Local exhaust ventilation (lab hoods) and general room dilution ventilation will be used as necessary to control airborne contaminants.



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- b. **Personal Protective Equipment (PPE)** – Personnel will use PPE such as paper face masks, aprons, smocks, and impervious gloves, as needed.
- c. **Medical screening** – Medical services provider will provide medical screening to Animal Care Workers who are employed by DU.
- d. **Safe practices** – Animals will be monitored for infection or anomalies. Personnel will comply with established laboratory rules and practice appropriate personal hygiene.
- e. **Institutional programs** – The DU Chemical Hygiene Plan (CHP), which has been implemented in accordance with the Occupational Safety & Health Administration (OSHA) regulation, *Occupational exposure to hazardous chemical in laboratories*, 29 CFR 1910.1450 provides for appropriate control measures for chemical hazards for laboratory workers. Through the Colorado Department of Public Health and Environment (CDPHE) Radiation Service Division, DU maintains radioactive materials licenses, which apply for all personnel using radioactive material. The DU Radiation Safety Officers (RSO) oversees radiological hazards issues including personnel training and the use and disposal of radioisotopes.

5. Training

- a. DU Hazard Communication training, in accordance with 29 CFR 1910.1200, *Hazard Communication*, is required for any worker handling chemicals. Training is provided by the EH&S Manager or approved by the EH&S Manager if completed elsewhere.
- b. DU Lab Safety training, in accordance with the CHP, is required for laboratory workers who directly handle animals. (Note, this training includes Hazard Communication training.) Training is provided by the EH&S Manager or approved by the EH&S Manager if completed elsewhere.
- c. DU Bloodborne Pathogen training, in accordance with 29 CFR 1910.1030, *Bloodborne Pathogens*, is required for personnel who are potentially exposed to other workers' blood. This would include all laboratory workers. Training, which is required annually, is provided by the EH&S Manager.
- d. Biological hazard training is required for workers who are potentially exposed to biological hazards, including allergens. (Note, this includes all Animal Care Workers.)
- e. Radiological training is required whenever the user handles radiological material. Training is provided by the RSO or approved by the RSO if completed elsewhere.
- f. Specific “on-the-job” training on the hazards associated with direct contact, i.e., being bitten or scratched, is provided to animal handlers. Training is provided by the Principle Investigator (PI) or representative of the PI.



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6. Requirements

- a. All persons working in rooms containing animals, including personnel not handling the animals, must be qualified as animal care workers. Qualification includes medical screening and appropriate training on applicable hazards.
- b. Medical screening will be provided for the worker to assess any potential pre-disposing allergies that would prevent the employee from performing the duties of handling laboratory animals. DU employed Animal Care Workers will obtain medical screening from the DU subcontracted medical services provider. Students will receive medical screening from the DU Health Services. Volunteers, who are neither employed by DU, nor students at DU, are required to obtain medical screening from their personal physician and provide documentation of medical screening to the applicable PI.
- c. Training will consist of information on the hazards associated with handling animals and other applicable chemical, biological, and physical hazards in accordance with OSHA.
- d. All visitors to the rooms containing animals will acknowledge, by signing a declaration (see appendix 1), that they understand the associated hazards of laboratory animals.
- e. A qualified medical practitioner shall provide a baseline health assessment to determine if the worker is medically qualified. The health assessment shall consist of a medical examination and the completion of a medical questionnaire.
- f. Animal handlers will use appropriate gloves, gowns, goggles, or masks to reduce the potential for contact with contaminated tissues and being bitten or scratched. Each room holding animals has a listed protocol for entry and the required PPE.
- g. All personnel will maintain good personal hygiene: hand washing, changing PPE, as necessary, and washing affected areas that may have become contaminated with animal blood, urine, etc.
- h. Animal handlers will use proper animal restraint techniques and dispose of animal carcasses as instructed by supervision.
- i. Personnel qualification records shall be maintained by supervision, identifying the worker, his job description or duties, date of training, and date of medical certification. Recordkeeping shall be maintained in accordance with 29 CFR Part 1904, *Recording and Reporting Occupational Injuries and Illnesses* and 29 CFR 1910.1020, *Access to employee exposure and medical records*.
- j. Any person who experiences allergy symptoms or illness that they believe is occupationally related should notify their management immediately. Any person who is bitten or scratched by an animal should thoroughly clean and disinfect the wound and



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report to medical services, as soon as possible for treatment. The injured person should report to the nearest emergency room hospital, if the DU subcontracted medical services provider is unavailable. The animal must be quarantined for veterinary assessment and review. All injuries should be reported to supervision and to the Loss Control Manager in the Department of Risk Management within 24 hours (see Worker' Compensation Procedure on Risk Management web page: <http://www.du.edu/risk/jobrelatedinjury.html>).



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Appendix 1 Acknowledgement of Animal Room Visitor

Laboratory animals can potentially cause an allergic reaction in some people. Symptoms may include runny nose, watery eyes, sneezing, shortness of breath, and asthma. Personnel who have a history of allergies are at a higher risk of developing symptomatic reactions. Allergies to lab animals can be diagnosed based on patient medical history, physical examination, and skin testing.

If you have any known allergies related to the subject animals or if you believe you may experience allergic reactions caused by your presence in the animal rooms then your visit is not advised. If you believe your visit would not present any health issues and would like to visit the animal rooms, please acknowledge below.

I wish to visit the DU animal rooms with the understanding that laboratory animals can cause allergic reactions.

Print name: _____ Signature: _____ Date: _____