

# UofL Minors in Laboratories and Animal Facilities Guidelines and Procedure

## Department of Environmental Health and Safety

1. Purpose: The purpose of this document is to (a) outline when it is permissible for minors to work or conduct research in laboratories, and/or animal facilities; and (b) identify the responsibilities of Principal Investigators/Faculty/Sponsors/Supervisors and Department Heads for minors working or conducting research in laboratories, and/or animal facilities. By adhering to this document, the exposure of minors to chemical, physical, biological, animal and radiation hazards will be minimized.
2. Scope: This document covers all UofL clinical and research laboratories, and animal facilities. This document includes any persons under the age of 18, whether students (unless enrolled as a UofL student), employees, or volunteers. Minors under the age of 14 may not enter laboratories, and/or animal facilities at UofL. An exception is permitted for minors who are part of a UofL program designed for youth under age 14 who are observers of the laboratory or animal facility.

All Minors are prohibited from working or conducting research in the following areas:

- Any laboratory or facility designated as BSL-3, ABSL-3 or higher for recombinant or infectious organisms.
- Any laboratory or facility where select agents or explosives are used or stored.
- Radioactive materials or radiation (X-rays)
- Acutely toxic and highly hazard chemicals (including air and water reactive chemicals)

For detailed information and additional restrictions please refer to Section 4d.

Minors who work in any capacity with animals must be added to an Animal Care and Use protocol currently approved by the IACUC. Minors who are students must review the Periodic Animal Contact Health Survey. IACUC Level II training, appropriate to the species of animal handled, is mandatory. Contact the Research Resources Facility (RRF), 852-4605 for help with these items. Successful completion of these requirements allows the minor access to animals in the animal care areas.

**The Department Chair must be notified of any minor who will be in a laboratory. Minors will not be permitted in the lab until all proper training and consent forms are completed.** This includes children of U of L employees and students.

**Laboratories and animal facilities must be in compliance with all applicable federal, state, local, and university environmental health, and safety regulations and meet university environmental health and safety requirements in order to allow minors to work within their facility.**

### 3. Definitions:

- a. Minor – Any person under the age of 18.
- b. Laboratory – Any room, suite, or part of a building used to conduct research, academic, animal, clinical, other technical work or scientific experimentation which may pose potential chemical, physical, biological, or radiation hazards.
- c. Animal facility – Any UofL property where animals are housed or used for research purposes.
- d. CDC/USDA Select Agent or Toxin – Biological agent or toxin listed in 73 CFR part 4 and 9 CFR part 121.4.
- e. Visitor – Any person who enters a laboratory, or animal facility with the express or implied invitation of the laboratory director or supervisor.
- f. Volunteer – Any person who freely and willingly provides services to UofL for civic, charitable, or humanitarian reasons without promise, expectation or receipt of compensation.

### 4. Responsibilities and Procedures:

#### a. Supervision -

- i. The PI/Lab Supervisor/Sponsor is responsible for the health and safety of minors working in his/her laboratory. This includes the provision for and enforcement of correct use of engineering controls, work practices, and personal protective equipment (PPE).
- ii. The PI/Lab Supervisor/Sponsor may delegate daily supervision of minors to trained and knowledgeable lab personnel. However, the PI retains primary responsibility for providing a safe and healthy activity.
- iii. The Minor/Minor's Guardian are responsible for -
  - a. Thoroughly reading and understanding the consent form and the Minors in Laboratories and Animal Facilities Guidelines and Procedure.
  - b. Thoroughly reading and understanding the written description of the minor's research project, the risks involved and the steps required minimize exposure to those risks. When working in the lab minors must sign off on all relevant safe operating procedures, policies, and plans including Exposure Control Plans.
  - c. Completing all training prior to beginning laboratory activities.
  - d. Complying with all safety standards and practices as provided in training.
  - e. Wearing all required personal protective equipment.

#### b. Training -

- i. Lab-Specific or Animal Facility-Specific Training - Minors working in laboratories or animal facilities must complete all appropriate safety training before beginning work with hazardous materials. The PI is responsible for making sure minors are provided with lab-specific training which includes review of the specific hazards that exist in

the lab and the procedures, equipment, and resources available for working safely with these hazards.

- ii. DEHS-provided Training – The PI is responsible for ensuring minor completes all DEHS training applicable prior to beginning any laboratory activity. For training requirements and information see - <http://louisville.edu/dehs/training/training-requirements-for-research-lab-personnel>
- iii. Hazard Assessment for Personal Protective Equipment: [PPE Hazard Assessment -PDF.pdf](#)

- c. Documentation: The PI/Sponsor intending to have minors work in their lab are responsible for preparing the following documents which are to be completed by the PI, minor, and minor’s parent/guardian:
  - i. [minors in labs consent form.pdf](#)
  - ii. Minors in Research Lab or Animal Facility Consent Form

\*Note: all required IACUC protocols and IBC registration documents must include any minors that will be working on the research.

- d. Prohibited Activities: If the proposed work in a lab or animal facility includes hazards addressed in this table, contact DEHS 852-6670 for more information.

| Hazard                 | PROHIBITED ACTIVITIES  |
|------------------------|--|
|                        |  |
| Biohazardous materials | <p>Entering a BSL-3 or ABSL-3 lab or working with materials that are Risk Group 3 (i.e. associated with serious or lethal human disease for which therapeutic interventions may be available).</p> <p>Working with:</p> <ul style="list-style-type: none"> <li>• Unfixed human cells, tissue, and blood known to be infectious, oncogenic or genetically engineered to express a toxin with an LD<sub>50</sub> &lt; 100ng. (Infectious means contaminated with HIV, HCV or other Bloodborne pathogens.)</li> <li>• Unfixed cells, tissue, and blood from Macaque species which may be infected with Herpes B virus.</li> <li>• Any cells or tissues that are oncogenic or genetically engineered to express a toxin with an LD<sub>50</sub> &lt; 100 ng.</li> <li>• Toxins with an LD<sub>50</sub> &lt; 100 ng.</li> <li>• Sheep, goats, and field studies involving wild animals and birds (excludes mice/rats purchased from vendors).</li> <li>• CDC/USDA Select Agents or Toxins.</li> </ul> |

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|--|--|
|  | <p>*** Permissible activities:</p> <p>Working with:</p> <ul style="list-style-type: none"> <li>• Human cells, tissue, and blood that are <b>not</b> known to be infectious. (Universal Precautions must always be followed – For definition of Universal Precautions see - <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/00000039.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/00000039.htm</a>).</li> <li>• Unfixed cells, tissue, and blood from non-human primate species <u>other than</u> Macaque (i.e., Vero cells).</li> </ul> <p>Contact Biological Safety Office, 852-6670, if research involves biological materials.</p> |
| Chemicals and Gases                            | <p>Working with highly hazardous chemicals, <b>including air and water-reactive, potentially explosive</b>, carcinogens, reproductive toxins, or highly, acutely toxic chemicals (<b>LD50 oral(rat) ≤50 mg/kg; LD50 contact ≤ 200 mg/kg or LC50 inhalation ≤ 200 ppm</b>)</p> <p>Entering a laboratory where explosive chemicals are used or stored.</p> <p>Contact Lab Safety Coordinator, 852-2830, if any research in the laboratory involves highly hazardous chemicals.</p>   |
| Lasers   | <p>Class IIIB and Class IV lasers shall not be used by minor; contact the Radiation Safety Office, 852-5231 if there are questions concerning laser use</p>  |
| Packaging and shipping of hazardous materials. | <p>Packaging and shipping of biological samples, chemicals, dry ice, and radioactive materials</p>   |
| Radioactive materials                          | <p>Minors shall not work with radioactive material or x-rays; contact the Radiation Safety Office at 852-5231 if there are questions concerning radioactive material use.</p>  |

**e. RULES FOR MINORS WORKING IN LABORATORIES AND ANIMAL FACILITIES**

1. Never work alone in any laboratory environment without direct, immediate adult supervision from the sponsor or someone designated by the sponsor.
2. Always follow the instructions of the sponsor or laboratory supervisor.
3. Always report any accident (regardless of severity) immediately to the sponsor or laboratory supervisor.
4. Always wear the personal protective equipment as directed and dispose of it appropriately. This personal protective equipment includes glasses, gloves, coats/gowns, and other face/body protection as dictated by the hazard being worked with or around.
5. Always keep your hands away from your face and wash them well with soap and water prior to leaving any laboratory area.
6. Never eat, drink, chew gum, apply lip balm, or touch contact lenses while in any laboratory environment.
7. Always wear closed-toe shoes while in any laboratory.
8. Always tie back long hair to keep it out of all the hazards listed above.
9. Always wear clothing that reduces the amount of exposed skin. Shorts and sandals are prohibited in the laboratory.
10. Always ask questions if you don't understand the safety requirements.