

STANDARD OPERATING PROCEDURE

Establishing a Biological Safety Level 2 (BSL-2) Laboratory

Scope

The scope of this standard operating procedure (SOP) is to give step-by-step instructions for the University of Texas at Arlington (UTA) Principal Investigator (PI) and/or laboratory supervisor to establish a Biological Safety Level 2 (BSL-2) laboratory area with appropriate registration, inspection, documentation, trainings, and other requirements while improving safety and ensuring compliance with local, state, and federal regulations.

Registration

The UTA Environmental Health & Safety Office (EH&S) maintains a registry of all laboratories and personnel working with pathogens, toxins, and/or human (or other primate) blood, certain body fluids, and cells/tissues. UTA complies with the Centers for Disease Control and Prevention (CDC) recommendations for Biosafety in Microbiological and Biomedical Laboratories ([BMBL](#)), 5th Edition, revised 2009. For purposes of this registration, a pathogen is defined as any organism known to or suspected of causing infection in humans, and a toxin as a proteinaceous poison that is highly toxic to humans. The CDC considers human/primate blood, some body fluids, and cells/tissues to be potentially infectious and work with these materials also needs be registered with EH&S.

The [Human Pathogen Registration \(HPR\)](#) (Form CO-LS-F7) is used for registration of materials potentially infectious to humans. The PI/laboratory supervisor is responsible for completing this document appropriately and forwarding it to EH&S. The PI and/or laboratory supervisor is also responsible for notifying EH&S when the project has been terminated or when other significant changes occur using the [Human Pathogen Registration Update](#) (Form CO-LS-F8).

Inspection & Documentation

After receiving Human Pathogen Registration, EH&S will conduct a laboratory inspection which starts the BSL-2 commissioning. EH&S checks compliance in the following areas: laboratory facilities, containment equipment, standard microbiological laboratory practices, special practices, and training compliance. EH&S documents the findings using [Biosafety Level 2 \(BSL-2\) Commissioning Checklist](#) (Form CO-LS-F27). The completed BSL-2 commissioning report is sent to the PI and/or laboratory supervisor to review and take action when indicated.

Training

On-Line Training

The link to the EH&S Training Management site is <https://uta-ehs.org>.

The following on-line training courses are required depending on the work that will be conducted in the future BSL-2 laboratory area:

HAZARD COMMUNICATION & WASTE MANAGEMENT – ACADEMIC

- This training must be completed by all faculty, staff and students who will work in laboratories and handle any type of hazardous chemicals.

BIOSAFETY LEVEL 2 (BSL-2)

- This training is required for all faculty, staff and students who will work in BSL-2 laboratories.

BOODBORNE PATHOGENS FOR RESEARCH LABORATORY PERSONNEL

- This training must be completed by all faculty, staff and students who will work in BSL-2 laboratories where human/primate blood, other potentially infectious materials (OPIM), tissue, cell lines/cancer cell lines are worked with and/or stored.

New employees or anyone who has never completed any EH&S safety training courses should click the “Log In” tab and set up an account using their UTA email address. Users should fill in all the profile information and create their own password at the bottom of the screen.

Current employees or anyone who has taken any EH&S safety training courses may already have an account. Choose the "Click here to retrieve your log-in information" button and a temporary password associated with the UTA email address will be sent. Once logged in, users may go to the Profile tab to reset their password.

The courses are listed under the “Online Courses” tab. Click on the course title to register.

If message: “This course is only available on the UTA campus” is displayed, this means that the course must be completed using a computer on campus with a UTA IP address. The course cannot be taken at home or off campus—unless one is able to log in using the virtual private network (VPN). More information about the VPN: <http://www.uta.edu/oit/cs/software/vpn/>.

Contact ehsafety@uta.edu if you encounter any problems or have questions concerning the EH&S Training Management site.

Site-Specific Training

The PI and/or laboratory supervisor must conduct the appropriate site-specific training for research laboratory personnel. The training should cover specific hazards worked with in the

laboratory area, the engineering controls to minimize the hazards, and personal protective equipment (PPE) requirements. EH&S requires that documentation of the laboratory site-specific training is maintained on the [Laboratory Site-Specific Training Sign-in Sheet](#) and a copy forwarded to EH&S.

Other Requirements

Hepatitis B Immunization or Hepatitis B Vaccine Waiver

A requirement for a person who will work in BSL-2 room(s) and handle human/primate blood/OPIM/tissue/cells:

Hepatitis B Immunization: Proof of vaccination and dates vaccinations were administered must be sent to EH&S at Box 19257 or ehsafety@uta.edu.

OR

An employee declining hepatitis B vaccination shall sign a [Hepatitis B Vaccine Waiver](#). The original signed statement can be scanned and sent to EH&S, where this record is maintained, at Box 19257 or ehsafety@uta.edu.

Exemption

This requirement is for a person who will be involved with a laboratory area where human/primate blood, OPIM, tissue/cells are worked with or stored, but is currently exempt from handling any of these materials as part of his/her duties or line of study: An [Exemption](#) shall be signed by the person, and the form sent to EH&S at Box 19257 or ehsafety@uta.edu.

More information: [UT Arlington Exposure Control Plan for Bloodborne Pathogens](#)

Completion of BSL-2 commissioning

The PI or laboratory supervisor will inform EH&S when the necessary actions and requirements documented in [Biosafety Level 2 \(BSL-2\) Commissioning Checklist](#) (Form CO-LS-F27) have been completed for EH&S to confirm.

EH&S verifies that:

- All deficiencies noted on the [Biosafety Level 2 \(BSL-2\) Commissioning Checklist](#) (Form CO-LS-F27) from the initial laboratory commissioning inspection have been addressed.
- Applicable on-line trainings have been completed by laboratory personnel.
- Hepatitis B immunization proof with dates of vaccinations or [Hepatitis B Vaccine Waiver or Exemption](#) has been received by EH&S.
- PI/laboratory supervisor has conducted and documented [site-specific training](#) for research laboratory personnel.

BSL-2 commissioning is completed by EH&S attaching appropriate signage to laboratory entrance(s). The signage includes the biohazard sign and the following information:

- Biosafety level
- List of infectious biological agent(s)
- Required PPE that must be worn in the laboratory
- Name(s) and telephone number(s) of the PI(s)
- Emergency contact information

EH&S notifies the PI and/or laboratory supervisor. The BSL-2 materials can then be purchased/obtained.

