THE UNIVERSITY OF TENNESSEE CHATTANOOGA

Institutional Biosafety Committee Registration Form Tips: Research Protocols

Technical Tips

1. Always download the most current IBC Registration Form from the IBC website.
2. Do not edit the form in the browser. Instead, work on the downloaded form in the Microsoft desktop application.
3. When downloaded, the form is *Restricted for Editing* to the indicated fields, for user convenience. However, you may unlock the form to fully edit the document, if needed. No password is required. (See side bar for instructions.)

When completing the form…

1. Make sure to carefully read through the form and answer all applicable questions. Sections include a *N/A* checkbox if the section is not relevant to your project.
2. Please answer each question with a detailed explanation. Keep in mind that the IBC includes members of many disciplines; your description should be easily understood by all members and not just those in your area of study.
3. Include additional attachments or documents if it would be helpful to the committee to fully understand your project.
4. If you have questions as you are completing the form, contact an IBC member or the Office of Research Integrity (ORI) for help. It's easier and more efficient to address any questions regarding your registration before submission to the IBC.

How to unlock the form and add additional rows to tables

For Windows:

To unlock the form: Select the *Review* tab. Then click on *Restrict Editing.* Select *Stop Protection* at the bottom of the menu.

To add a row: Now, right-click in a cell above where you wish to add a new row. Select *Insert* and then *Insert Rows Below*. Proceed with inserting additional personnel information.

For Mac:

To unlock the form: Go to *Tools* > *Protect Document*. Uncheck the box next to *Protect document for:* Finally, click *OK.*

To add a row: Right-click (or control-click using a single-button mouse) in a cell above where you wish to add a new row. Select *Insert* and then *Rows Below*. Proceed with inserting additional personnel information.

Section Specific Guidance

Section A: Basic Protocol Information

A2: List all faculty, key personnel, and university or student research assistants here (include both paid and unpaid students). If you need to add more personnel than can fit, add an additional row to the table (see side bar) or attach a separate sheet. ORI will certify that appropriate CITI Training has been completed for all personnel listed on the Registration.

A6: Include room names and numbers where all activities (including prep, research, and disposal) occur.

Section C: Blood, Body Fluids, Tissues, & Biological Samples

C2: Example description drawn from approved Registration:

> *For two of the lab exercises we use TSA agar to which Sheep Blood has been added at 5%. This medium is purchased from media suppliers ready made in a sterile form. An example of the type of Blood Agar we purchase would be the Thermo Scientific, Remel, Blood Agar (Thermo Scientific, R02053), which has Certifications/Compliance from USDA, and APHIS. Students are not exposed to the blood in the medium.*

C3: Example description drawn from approved Registration:

> *As the Sheep Blood is incorporated directly into culture media that we buy from a supplier, and it is sterilized before it arrives here at UTC, there is no link between the blood and any students, technicians, or faculty. Thus, there is no need for any sort of containment plan, practice, or inactivation/decontamination procedure.*

IBC reviewers look for details about the safety of lab supplies that include blood or other potentially pathogenic substances. If the supplies are certified sterile and students will have no exposure to pathogens, please be sure to note these details.

Section D: Biological Agents

D1-D5: *****Note: Responses are only required to the human/animal/plant checkboxes if BSL-2 hazards will be present.*** If more agents/toxins are involved than can be listed in the provided number of rows, add more rows (see side bar) or attach an additional sheet.

D6: Be sure to address all three parts of the question in your response – Design, Work Practices, and Containment Plan. IBC reviewers look for specific details that help them assess whether practices and plans are appropriate. It is often best to describe the activities and corresponding safety practices (e.g., PPE, disinfection/deactivation methods) in the sequence in which they will occur, from preparation through experimentation to disposal. Noting where activities will occur, e.g., on the benchtop or in a biological safety cabinet / laminar flow hood, is also advised.

Example description drawn from approved Registration:

> *Routine protocols involving BSL-2 agents involve preparation of broth and agar cultures using aseptic technique. Students are trained on proper aseptic technique using a benchtop flame (Bunsen burner) to maintain purity of cultures, safety of the researcher, and sterility of materials used for experiments. Examples of bacterial manipulation include pipette resuspension, transfer of broth culture for spectrophotometric measurement and inoculum preparation, incubation of cultures in static and shaking incubators, and multichannel pipetting of inoculum into 96-well microtiter plates. The general procedure for these experiments is 1) media preparation, 2) inoculum preparation, 3) growth of bacteria, 4) preparation of antimicrobial dilutions, 5) collection of grown bacteria and preparation of inoculum, 6) setting up MIC assay in the Biological Safety Cabinet, 7) incubation of the 96-well plate, 8) analysis of the plate using a microplate reader, and 9) decontamination of the cultures in the 96-well plate.*

Bacterial cultures on agar will be parafilmed and stored in the refrigerator no more than 10 days before being placed in biohazard boxes for decontamination. Used liquid cultures will be chemically decontaminated with Decon disinfectant for at least 40 minutes before pouring down the sink. Contaminated disposable plastics (centrifuge tubes, pipette tips, filters, etc.) will be placed in biohazard waste. Glass waste will be disposed of in glass waste boxes (benchtop and floor). Eyewash stations and showers are located in the primary research space.

The primary research space (Holt 304) is a single entry room with a self-closing, lockable door and requires key access requested by the principal investigator and approved by the department. Keycard access must also be approved for students to enter the autoclave room (Holt 306) and the Microbiology Prep Laboratory (Holt 305D) [305D single entry is self-closing and lockable]. Researchers performing MIC experiments must walk approximately 50 feet down the hallway with cultures (double containment) to the Microbiology Prep laboratory that houses the Biological Safety Cabinet. Use of this room is also approved by the prep lab manager before students are allowed to have keycard access and work alone. Students working with BSL-2 organisms that could cause infection from aerosols or splashes (e.g., Aeromonas hydrophila) will double glove and perform all work in the Biological Safety Cabinet. For analysis of results, students must place the 96-well plate(s) in a containment box to walk approximately 100 ft to the room housing the microplate reader. Students will be trained in standard BSL-2 practices (in addition to completing CITI biosafety training) and wear PPE (lab coats, gloves, and eye protection). Pipettes and surfaces will be decontaminated using 70% ethanol and/or a 1:10 dilution of household bleach. Solid contaminated waste will be disposed of as biohazard waste (burn boxes) or autoclaved for at least 40 min. Liquid waste will be decontaminated with Decon disinfectant or autoclaved for at least 40 min.

Section G: Recombinant DNA

III-E Miscellaneous – Other category: This is a catch-all for rDNA activities that are not exempt (see Section H for exemption categories) but also not in one of the higher-risk categories (A-D), nor specified elsewhere in category III-E. If you determine that specific activities do not qualify as exempt, but also do not fit in any of the above categories, this box should be checked.

Supplemental Questions: This has limited applicability – pay close attention to the "skip" instructions.

Section H: Determination of Exemption from *NIH Guidelines* and IBC Review

Complete this section only if your project involves recombinant DNA or synthetic nucleic acids, and you have NOT checked a box in Section G: Recombinant DNA.