

## URBEST Internship Opportunity

- Company, Agency, Office or Division hosting this Internship: (with location)

UR Institutional Biosafety Committee (IBC)

- Title of Internship:

Science and Technology

- Description of the Internship:

This internship is appropriate for trainees interested in Science and Security, as well as Regulatory policies pertaining to recombinant or synthetic DNA or RNA and biohazard research. The NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acids state that “(a) as a condition for NIH funding of recombinant or synthetic nucleic acid molecule research, institutions shall ensure that such research conducted at or sponsored by the institution, *irrespective of the source of funding*, shall comply with the NIH Guidelines. Noncompliance may result in: (i) suspension, limitation, or termination of NIH funds for recombinant or synthetic nucleic acid molecule research..., or (ii) a requirement for prior NIH approval of any or all recombinant or synthetic nucleic acid molecule projects...” In addition, all violations of the NIH Guidelines must be reported to NIH even if the research is not NIH funded. The University is also required to provide the accompanying incident report to the public, if requested. The mission of the Institutional Biosafety Committee (IBC) is to ensure that, regardless of funding source, all recombinant or synthetic nucleic acid research activities at the University of Rochester comply with the NIH Guidelines. Furthermore, the IBC ensures that all research protocols at the University that use or produce biohazardous organisms or materials requiring Biological Safety Level 2 or higher containment, including but not limited to recombinant or synthetic nucleic acids, are reviewed and found to protect personnel, public safety, and the environment. The IBC is also involved with issues pertaining to security with high-risk pathogens, and is the initiation point for evaluation of Dual Use Research of Concern (DURC). Beyond evaluating laboratory research, the IBC also evaluates research involving animals and human subjects as they pertain to the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acids.

The intern will be required to read the training materials for IBC committee members, and attend several meetings as an observer. Finally, the intern will perform a review of a protocol and present it to the committee during a regularly scheduled meeting.

- Approximate length of time to be spent at this internship: (e.g., 2-4 weeks or 4-6 months)

Approximately 12 weeks. Two weeks of preparation, followed by five, two hour meetings over eight weeks.

- Approximate number of hours to be spent on a recurring basis: (e.g., 40hrs/week or 3-5hrs/week)

The IBC meets every other week for 2 hours each meeting (although some meetings take less time). The intern would then be expected to attend five meetings over a 10 week time period.

- What is the goal of this internship opportunity for the trainee?

Internship with the IBC will provide the trainee an understanding of the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acids, Biosafety levels, Biosecurity policies, DURC policies, and how individual protocols are evaluated by the IBC and the mechanisms by which the IBC assigns biosafety levels and practices to those protocols.

- What are the objectives for the participant during the internship opportunity? (add more if needed)
  1. Appreciate the complexities of the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acids and how they are used in the evaluation of research protocols
  2. Understand Biosafety Risk Groups and Biosafety levels
  3. Be aware of CDC/USDA Select Agent policies and basic biosecurity issues pertaining to high-risk pathogens
  4. Understand the difference between Dual Use Research and Dual Use Research of Concern.

- Will there be any formal training, coursework or examinations involved? If yes, please provide details:  
Reading the training materials provided on the IBC website to new committee members.

- Responsibilities and duties of the intern:

Reading the IBC training materials and attending IBC meetings.

- How will the participant be supervised throughout the internship? And how will they interact with their supervisor / mentor?

The IBC Chair will meet with the intern before initial training, and then once after training, prior to the first IBC meeting. Thereafter, the intern will attend the IBC meetings.

- Will there be any final project due from the intern at the completion of the internship opportunity? (e.g., summary memo, presentation, final paper)

After the fourth meeting, the intern will be assigned a protocol to review and will present it at the fifth and final IBC meeting of the internship.

- How will the Intern be evaluated during the program? (e.g., progress reports, periodic reviews)

A first progress report will be an “intake” document (when the student first arrives) and include goals and expectations for the internship. During the internship opportunity, the internship host and URBEST’s Tracey Baas will evaluate the intern using periodic monthly progress reports (what did they actually do). Each progress report will be written by the internship mentor and edited by the intern. The mentor and intern will then discuss the progress report, sign the document, and submit it to the URBEST office. Tracey will set up either a face-to-face meeting or a phone call with the mentor and intern, individually. Following progress reports will address performance, achievement of goals, areas for further development and any other information that the mentor and intern deem important.

- How will the Intern be evaluated at the conclusion of the program? (e.g., final report)

At the end of the internship, URBEST’s Sarah Peyre or Tracey Baas will assess the intern, using a final reflection/analysis of the experience. The intern will write the analysis piece, connecting the internship experience to their professional development. They will highlight content knowledge, acquisition of skills and understanding of the workforce, self-assessment of their performance and identification of areas that they

still need development. Tracey will set up a group meeting or conference call for a final debrief of both the mentor and the intern.

- If there is any additional information about your internship opportunity that you would like to provide, please include it here: