

Standard Operating Procedures BSL-09 Pathogen Inventory Control

1. Scope:

This SOP applies to all those with collections of pathogenic agents at UNBC whether the agents are actively being used or are in long term storage. Pursuant to best practices in biosafety stewardship and in order to avoid stockpiles of unknown or abandoned pathogenic agents at UNBC, an inventory of all pathogenic agents in their possession at UNBC is to be maintained.

A biological inventory is required by the Public Health Agency of Canada as identified in the Laboratory Biosafety Guidelines from 2004. The inventory keeps track of pathogen storage and who has responsibility for them. A biological inventory is required for all Level 2 and Level 3 biological agents, and recommended for all biological agents.

Inventories must include new additions as a result of receipt from other locations. After use, transfers or appropriate inactivation and disposal, a record should be in the inventory.

2. Responsibilities:

Principal Investigators who will be authorizing use of a pathogen by any member of the lab (e.g. undergraduate student, graduate student, principal investigator), should read the generic SOP and following that, generate a pathogen-specific SOP.

3. Materials:

- a. Log book.

4. Safety:

I. GENERAL PRACTICES

- Individual pathogens should be handled according to specific SOPs, following the attached template, highlighting the specific hazards of that pathogen.
- A Biosafety Permit must be approved prior to any new pathogen usage, to be accompanied with appropriate SOPs.

5. Procedure:

A. Definitions

Pathogenic agents:

Any microbiological agent or biological toxin that is capable of causing disease in humans, animals or plants. Lab-adapted strains of microbes are not included under this definition; examples include K12-derived *E. coli* strains and *S. cerevisiae*

B. Inventory Requirements

An inventory listing all pathogenic agents in the possession of a faculty or staff member must be maintained by the faculty or staff member. The inventory must be kept current and accurate at all times. An updated copy of the inventory must be submitted to the Biosafety Officer

whenever new agents are added/removed or at least annually. The inventory must at minimum contain the following information:

- a. Genus and species of microbiological agents; or name and species of origin for biological toxins
- b. Strain information: list all strains of the agents possessed. (If known, please include the genotype of the microbe indicating all antibiotic resistance genes and any mutations that may increase virulence, host range or pathogenicity)
- c. Location of agent
- d. Status of agent (e.g., long-term storage, active use, etc.)
- e. Amount present
- f. Form stored (e.g. lyophilized/suspension/stab)

A sample example inventory form is attached.

If the inventory has not changed in the 12 months after initial submission of an inventory document, an email indicating as such can be submitted.

C. Lab Decommissioning

When you are preparing to leave UNBC, please submit a final inventory approximately one month prior to your lab shutting down. This will allow sufficient time for the Biosafety Officer to review your inventory and advise on the following:

- Requirements for shipping your inventory to your new institution
- Best disinfection methods for disposing of the inventory; or
- Procedures for transferring your inventory to another faculty member

D. Disposal of Pathogenic Agents

Follow the procedures outlined in the SOP for the specific pathogen.

6. Records:

- a. Log book

7. List of attachments:

Example of basic inventory

8. History:

Created by Andrea Gorrell, November 3, 2015.

9. Approval:

Basic Inventory of infectious Material and Toxins

Name:

Contact:

Infectious material (genus species)	Risk Group	Location	#/volume	Form (lyophilized/suspension/stab)	Notes/Comments (subtype)