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	<b>Animal Prep and Surgery Suite</b> Location: Preclinical Imaging Research Centre, Room 3232	


## 1. Introduction

- 1.1. Robarts Preclinical Imaging Research Centre (“PIRC”), located on the third floor of the Robarts Research Institute, houses specialized Micro-Ultrasound (Micro-US), IVIS Bioluminescence (BLI) and Fluorescence imaging system, and Micro-Computed Tomography (Micro-CT) equipment for high resolution *ex vivo* imaging of biological specimens, and *in vivo* imaging of small animals.
- 1.2. In addition, the PIRC houses a dedicated surgical suite for small animal manipulations and surgical interventions.
- 1.3. The following SOP is to describe guidelines for use of the Animal Prep and Surgery Suite.
- 1.4. These guidelines were developed and approved by the PIRC User Committee and may be amended from time to time.

## 2. Animal Prep and Surgery Suite

- 2.1. The PIRC's Animal Prep and Surgery Suite is a shared facility designed for use by Robarts's scientists, collaborators, and their research staff. Access to the facility is limited to approved facility personnel (PIRC-SOP-200.02).
- 2.2. All personnel wishing to use the Animal Prep and Surgery Suite for animal manipulations must have taken the "Basic Animal Care and Use - Course" plus any appropriate specialty training courses through ACVS at Western University.
- 2.3. The PIRC has been designated a Biosafety Containment Level 2 (CL2) work area. All personnel and visitors entering the facility will adopt standard laboratory procedures consistent with a CL2 laboratory and Western Guidelines for Good Laboratory Practice<sup>1</sup>.
- 2.4. Studies using research animals or materials classified as CL2 must be performed using CL2 procedures approved by Western Biosafety Committee as outlined on the PIs approved biological agent permit application (BAPA) using appropriate handling and containment procedures.
- 2.5. All PIRC personnel and visitors are required to wear clothing appropriate for the duties they perform. Minimum PPE is lab coats, and safety glasses, additional PPE may be required dependent on activity. Personnel must take necessary personal sanitation and health precautions designed to avoid contamination and reduce the risk of personal injury or infection.
- 2.6. It is each user's responsibility to clean and disinfect their work area in the surgical suite after any use. Detailed procedures for cleaning and disinfecting work surfaces and the

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general facility are outlined in PIRC-SOP-500.02 (Cleaning and Decontamination Procedures).

2.7. As this space is a shared core facility, it is each user's responsibility to provide his/her own equipment and supplies required for the research study (e.g. vaporizer, anesthetic, gloves, needles, etc.). At the end of the study, equipment and supplies should be removed from the surgical benches and biosafety cabinet and stored in the designated space in the surgical suite. The room should be left in good condition.

2.8. Failure to follow the above guidelines will result in a loss of access rights to the PIRC.

### 3. Animal Transport and Handling

3.1. Users bringing research animals into the facility must follow PIRC-SOP-400.02 (Animal Transport to and from the PIRC) and species-specific Animal Care Committee transport SOPs.

3.2. All rodents in the PIRC must be kept in their micro-isolator cages (with lid on) on the animal holding rack while waiting to be used.

3.3. Animal cages should only be brought into the surgical suite "as needed". Cages of animals waiting for prep or surgery should be left on the holding rack in the general facility until ready for use.

3.4. Care should be taken to limit the time animals are out of their cages. Animals should only be removed from their cages for imaging preparation, handling, or surgical intervention, and returned quickly thereafter.


3.5. Level 2 Biological Safety Cabinets have been installed in the surgical suite for special procedures involving CL2 animals or materials requiring higher containment standards.

3.6. Animals recovering from surgery and/or an imaging session can be placed (in their micro-isolator cages) on the recovery table in the surgical suite (under heat lamps, blair-haggard heating pad, water-jacketed heating pads or simply being wrapped within a blanket) until the animal awakes and the full recovery has been achieved. After recovery, animals within their cages should be returned to the animal holding rack in the general facility until it is time for removal from the PIRC.

3.7. The surgical suite and PIRC in general are **NOT approved animal housing facilities**. At **NO TIME** are animals to be left in the facility overnight.

3.8. Sacrificed animals must be disposed in accordance with Robarts policies for animal disposal.

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#### 4. Revision History

Version Number	Date	Changes	Author
SOP#105	June 15, 2011	Initial version	Hemanth Varghese, PhD
PIRC-SOP-100.02	Oct 15, 2024	Included IVIS machine, renamed: BSL2 as BCL2, SOP #105 and PIRC-SOP-105.02, used PIRC logo, etc.	Joseph Umoh, PhD

#### 5. Reference

- <sup>1</sup> Western University **Biosafety Guidelines and Procedures Manual For Containment Level 1 & 2 Laboratories**, Section 6.2: Containment Level 2—Physical and Operational Requirements. Approved by Biosafety Committee, October 2019. Available from [https://www.uwo.ca/hr/form\\_doc/health\\_safety/doc/manuals/biosafety\\_manual.pdf](https://www.uwo.ca/hr/form_doc/health_safety/doc/manuals/biosafety_manual.pdf) 20 September 2024.

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