Standard Operating Procedure

Acquisition, storage, analysis and disposal procedures for human blood and body fluid samples for research projects at the PERFORM Centre

PC-SOP-CA-002-v03

Revision History

Version	Reason for Revision	Date
01	New SOP	25-Feb-2013
02	Changes throughout the SOP regarding responsibility and procedure	4-Jun-2015
03	Title of SOP, Section 5 added for drawing blood procedures and minor changes.	24-Oct-2017

Summary

The content of this standard operating procedure (SOP) provides guidelines for acquisition, storage, analysis and disposal of biological (human body fluids) samples from research projects in a safe and environmentally sound manner at the PERFORM centre of Concordia University.

Table of Contents

1. Definition of Terms and Abbreviations

Principal Investigator (PI)	Head researcher that is responsible for all aspects of a given research project or program at PERFORM
Biological Materials	Pathogenic and non-pathogenic microorganisms, proteins and nucleic acids, as well as any substance or material that may contain them. Examples include bacteria, viruses, fungi, prions, toxins, genetically modified organisms, cell cultures, environmental samples, and tissue, blood and body fluids of human or animal origin. Biological Materials include Biohazardous Materials.
Biohazardous Material	Material of biological origin that may be potentially hazardous to humans, animals, plants, the economy or the environment. Biohazardous material includes: • Pathogenic microorganisms such as viruses, fungi, parasites and bacteria; • Biological toxins from microorganisms, plants and animals; • Materials that may contain the above-mentioned agents (e.g. cell cultures; tissue, blood and body fluids from humans and animals; environmental samples); • Certain proteins, nucleic acids (siRNA, miRNA, DNA from pathogenic organisms, oncogenes); • Genetically modified organisms (GMO) that may be hazardous to the environment if released.
Laboratory workers	Individuals who operate in the clinical analysis laboratory and similar spaces containing chemical and/or potentially hazardous substances.
CAS	Clinical Analysis Supervisor at the PERFORM Centre
Personal Protective Equipment (PPE)	Specialized clothing or equipment worn for protection against health and safety hazards. Lab coats, gloves, safety goggles, face shields, long pants, closed toe shoes etc.
WHMIS	The workplace hazardous materials information system (WHMIS) is a component of the hazard communication scheme in laboratory. WHMIS regulations set out requirements for workers training, hazardous materials labeling, and provision of Material Safety Data Sheets (MSDSs).

SDS	Safety Data Sheets
PSDS	Pathogen Safety Data Sheet
EHS	Concordia University Environmental Health & Safety
BSO	Bio Safety Officer from EHS
BSC	Biological Safety Cabinet
MSSS	Ministère de la santé et des services sociaux
UPLC	Ultra performance liquid chromatography
ELISA	Enzyme-linked immuno sorbent assay
PCR	Polymerized chain reaction
User	Person using space or equipment at the PERFORM Centre that has received adequate technical and safety training.

2. Introduction

2.1 Background

This SOP was created to describe the procedure for the acquisition, storage, use and disposal of human body fluid samples for research projects in the clinical analysis suite at the PERFORM Centre. Successful implementation of the SOP will ensure that all research involving human samples from external researchers is carried out in compliance with this SOP, the Concordia Biosafety Policy (VPS52), Concordia Policy for the Management of Hazardous Materials (VPS47), Concordia's Biosafety Manual and Human Pathogens and Toxins Act. It is important that the research community and the public have confidence that all human blood and body fluid samples for research are acquired lawfully and with appropriate consent, and are stored, handled, used and disposed of respectfully, sensitively and responsibly.

All users of biological materials, including their supervisors, are required to follow specific rules and regulations regarding safe handling, storage, and disposal.

2.2 Purpose

The purpose of this Standard Operating Procedure (SOP) is to ensure that all faculty members, staff and students understand the requirements and procedures to acquire (receive or import) or transfer (despatch or export) biohazardous samples for their storage and use in research. Other requirements for waste disposal are detailed in EHS procedures https://www.concordia.ca/campus-life/safety/Hazardous-Waste-Disposal.html

2.3 Scope

This SOP pertains to the safe acquisition, use, storage and disposal of biological (human blood and body fluids) samples for research projects at the PERFORM Centre. The scope of this SOP is limited to only human blood and body fluids samples not containing bloodborne pathogens and no further approval from EHS is required for the analysis of these types of samples for research projects.

However, human blood and body fluids containing bloodborne pathogen as well as other biological materials such as cells, tissues, biopsies, bacteria, viruses etc. still require a prior approval from EHS, as long as the project is covered with a valid Biohazard Permit.

2.4 Responsibility

It is the responsibility of the laboratory workers to use biological materials in a safe and responsible manner. It is the responsibility of the principal investigator, with the assistance of the Clinical Analysis Supervisor to ensure any of their research team (faculty members, staff, students, collaborators, etc.) obtains the necessary training e.g. WHMIS 1988, WHMIS 2015, Hazardous Waste Disposal for Lab Personnel, Biosafety, Safe use of biological safety cabinets, Safe handling of blood from EHS, Transportation of Dangerous Goods (TDG) 6.2 and instructions and designation from the Supervisor or the delegate to comply with appropriate documentation of PERFORM.

Finally it is the responsibility of the Assistant Director, Research and Strategic Initiatives to oversee the application of Biosafety program, to ensure that workplace inspections are performed on a regular basis to ensure compliance with Concordia University regulatory requirements and recommended corrections are followed.

2.5 Location

The handling and processing of biohazardous material will be performed at the following locations of the Clinical Analysis Suite:

PC 2.229, PC 2.230, PC 2.233, PC 2.234, PC 2.235, PC 2.236, PC 2.241, PC 2.242, PC 2.243

The access to the above areas is restricted and the users are required to undergo a lab orientation training with the CAS and the mandatory safety trainings by Concordia EHS office prior to work in the area.

2.6 Trainings required

Before working with any biological samples at PERFORM, all laboratory users are required to have an orientation from the CAS or delegate at the PERFORM Centre and the training mentioned below by Concordia EHS department:

- WHMIS 1988 and WHMIS 2015
- Hazardous Waste Disposal for Lab Personnel
- Biosafety
- Safe Use of Biological Safety Cabinets
- Safe Handling of Blood
- Transportation of Dangerous Goods Class 6.2 –Biological/infectious substances

The training record history for each user will be kept in file at the PERFORM Centre by the CAS.

2.7 In Case of Injury or Exposure

- Contact the security at 3717, or from a cell phone at 514-848-3717.
- Emergency phone numbers are posted in the clinical analysis suites.
- Report the incident/accident verbally or in writing to the CAS or delegate (at extension 4029).
- Report the incident/accident to EHS (ext. 4877 or website: concordia.ca/campus-life/safety/injury.html). Forms are available in the first aid kit or on line at http://www.concordia.ca/campus-life/safety/injury.html

2.8 Injury/Exposure response procedure

If the splash of blood and body fluids is on intact skin, than the exposure is not significant, and the person will clean as follows:

Wash exposed area with mild soap and water for 5 minutes without rubbing the area, then go to health services for a follow up.

Follow the steps below if there is a significant exposure to blood and body fluids:

- Wash exposed area with soap and water for 5 minutes without rubbing the area
- Mucous membrane: rinse under running water
- Eyes: flush with water 5-10 minutes using the eyewash station

- Report the incident to the CAS and Security
- File an incident report

In case of broken skin (needle prick):

- Bleed the wound without traumatizing the skin around it
- Report the incident to the CAS and Security
- Fill-in the "quick assessment of exposure to blood" in the designated first aid kit from the CAS
- File an incident report
- Report for medical evaluation at the Emergency Department of nearest hospital as soon as possible preferably within 2 hours of injury (per MSSS guidelines). If no risk is deemed present, no further action is taken and the person will be discharged.
- If a risk is deemed present then a full investigation is required such as blood tests and immunization status assessed; treatment may be required such as antibodies and/or vaccinations and/or medications.

2.9 Relevant documents

This SOP is governed by the following Concordia University policies and PERFORM SOPs:

VPS 40	"Environment Health and Safety"
VPS 41	"Policy on Personal Protective Equipment"
VPS 47	"Policy for the Management of Hazardous Materials"
VPS 52	"Biosafety Policy"
PC-SOP-GA-001	"Guidelines for preparing Standard Operating Procedures and PERFORM Operating Documents."
PC-SOP-CA-001	"Clinical Analysis Suite-Access, Use and Safety Rules"
PC-SOP-GA-002	"Handling of Biological Materials at PERFORM"
EHS-DOC-001	"Laboratory Safety Manual"
EHS-DOC-052	"Biosafety Manual"

Pathogen Safety Datasheets available online at http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/index-eng.php

Please refer to these policies and manuals, or contact Concordia EHS Department for further clarifications (ehs@concordia.ca).

3. General Rules

Apply the basic rules of Biosafety. Refer to Concordia's Biosafety Manual and PERFORM's SOPs mentioned above for additional information. General safety rules are:

- It is the responsibility of the laboratory user to handle biohazardous materials in a safe manner to protect themselves and those around them. This means wearing lab coats, safety glasses or face shields, gloves, closed toe shoes and where required face masks or respirators, as described in the Biosafety Manual, PC-SOP-CA-001 and VPS-41. Wash hands following all laboratory activities, following the removal of gloves, and immediately following contact with infectious materials. Decontaminate work surfaces before and after use and immediately after spills. Do not pipette by mouth.
- Blood and blood products must be handled using all the precautions since they may contain blood borne pathogens. Biological safety cabinets must be used when aerosols or droplets could be created.
- Transport of agent between labs and/or buildings requires safe handling procedures to reduce the risk of spills or leaks (secondary containment and appropriate absorbent material). Use a closed secondary container with the ability to hold the volume of the material in the event of a leak or a spill. Never use passenger elevators for the transport of biological and other hazardous materials. Always use the freight elevator at the back of the PERFORM Centre (connected to the loading dock).
- It is the responsibility of the CAS or the delegate to provide the appropriate waste container for handling biological waste. They will maintain an inventory on site that will handle the needs of the end users.
- Solid waste such as disposable or a badly soiled lab coat, gloves, sample tubes, pipette tips etc. will be collected in solid waste autoclave bags and stored in biohazardous solid waste containers.
- Biologically contaminated sharps and glass blood tubes will be disposed of using specialized red or yellow sharps containers for biological contamination. Such sharps containers are not to be used for heavily contaminated chemical sharps waste.
- All users must wash their hands after handling biohazardous materials.

Consult detailed procedures for disposing of hazardous materials on EHS website: www.concordia.ca/campus-life/safety/Hazardous-Waste-Disposal.html

4. Hazards

Blood, body fluid, body tissues and any other biological samples derived from a human source are considered biohazards. Blood and certain body fluids are considered potentially infectious for HIV, Hepatitis B virus, and other blood borne pathogens.

Universal precaution standards should be followed to prevent the transmission of blood borne pathogens when performing laboratory procedures using human biological sources, as well as when providing first aid or health care.

The materials and/or equipment in the clinical analysis suite at the PERFORM Centre are associated with different sample preparation and analysis procedures may present exposure hazards, and/or physical hazards.

5. Drawing blood

PERFORM Centre requires that all individuals implicated in drawing blood be registered as an active member of a recognized health order in QuebecSuch registration is compulsory. The information on the registration form will be used to initiate and maintain appropriate health surveillance. People from Concordia who perform blood draws will be included in the Occupational Health Screening coordinated by EHS.

6. Storage/disposal of biohazard material

- Concordia University Biohazards Permits are required for all research and teaching activities involving all risk group agents including group 1. Risk Group 1 is agents that are unlikely to cause disease in healthy humans or animal and pose low risk to public health, livestock or poultry. Risk Group 2 is pathogens that are unlikely to be a serious hazard to laboratory workers, the community, livestock or poultry. Effective treatments and preventive measures are available and the risk of spread is limited.
- Purchases of Biohazard materials may only be done by people who have received the authorization from the BSO for their projects in the form of a biohazard permit and have successfully taken required biohazard training.
- All biohazard samples received must have a chain of custody indicating the origin of these samples.
- Items purchased or sent to PERFORM by outside sources must be addressed to and received in Room PC 2.233 of clinical analysis suite.
- All the samples must be logged in a biological material/sample log form by the receiver (APPENDIX I). The information for each sample must be entered on the form. Any accompanied paperwork must be stapled to this form for reference. The total number of samples received must be verified. A freezer space (Fridge/Freezer Id, shelf number/ rack number) must be assigned to each set of samples. If the sample tubes are broken, empty or with no label, the PI of the study must be informed immediately via e-mail. The samples must be transferred in sample boxes or freezer bags labeled with PI's name and study. These must be stored in fridge or freezers (-

20° and -80°C) located inside the clinical analysis suite. The Model numbers of the Fridge and Freezers are provided in the list of equipment in APPENDIX 11.

- Prior to sending samples out or receiving samples from abroad, the CAS or delegate has to ensure with EHS that proper permits to send and receive biological material are in place, including a Biohazardous Agent Transfer Notification when applicable.
- The processed samples during experiments can be disposed in a biohazard waste container. The original sample tubes should only be disposed with caution once the research project is complete with an approval (in writing) from PI.

7. Engineering controls

The clinical analysis suite is equipped with various equipment suitable for different types of techniques in analytical chemistry and molecular biology. Appropriate equipment must be used when carrying out any procedure (biological safety cabinet, chemical fume hood, sealed centrifuge rotors and/or safety cups, etc.). Lab staff must be trained by the CAS or delegate prior to using the equipment to minimize the risk of contamination and aerosols.

The clinical analysis suite ventilation is specific and distinct from the offices ventilation system. At no time should a sample leave the clinical analysis suite.

8. Protective equipment

The following personal protective equipment must be worn when performing any procedure:

- All laboratory workers should wear personal protective equipment (closed laboratory coats, gloves, and safety glasses or goggles, face shields, if required for a particular task, long pants or additional clothing may be required in order to provide maximum protection and to cover most of the skin). Skirts, dresses, short clothes and sandals are not allowed.
- Gloves are to be worn by anyone directly handling potentially infectious material or who may come into contact with contaminated surfaces.
- Gloves are to be changed routinely and hand washing is required upon completing any work.
- Gloves must be inspected routinely and replaced whenever they are soiled, torn, punctured, or contaminated.
- All gloves that may have contacted biohazards are to be discarded in biohazard bags (not regular lab waste).
- Gloves should never be worn outside the laboratory; a new pair of gloves should be worn **only** to move hazardous materials between laboratories. Wash hands with soap before wearing gloves, after removing gloves, or after suspected contamination.

- Laboratory coats or disposable ones are to be worn by all personnel manipulating potentially infectious materials. If these garments are suspected of being contaminated they are NOT to be worn outside of the laboratory area (i.e. travelling from lab to lab). Disposable protective garments are to be discarded in the biohazard bags.
- Safety glasses/goggles are required for all manipulations of potential biohazards. Potentially contaminated glasses should be promptly removed and decontaminated.
- Whenever there is a risk of splash, face shield is required on top of glasses/googles.

9. Additional special handling and transport procedures

Unless the specified substance is exempt or is present in a limited quantity, any transportation of hazardous material by road vehicle between buildings or campuses related to university activities must be done following the requirements of the TDG regulations. Appropriate documentation and box labelling depend on the mode of transport and type of goods being shipped, please contact EHS for further information. Any person who handles, transport dangerous substances must be adequately trained and possess training certificate. If the sample is transported on dry ice you will need to add the appropriate label and use a Styrofoam box to release carbonic gas. If the transport is by car, please do not forget to open the window for fresh circulation. Sublimation of dry ice in a vehicle can result in the accumulation of dangerous concentrations of asphyxiating carbon dioxide vapor.

10. Decontamination/clean-up procedures

For decontamination, 1% daily prepared household bleach solution (1/10 dilution of household bleach) in water must be used for work areas, cabinets, etc. after each use. Care should be taken for cleaning the equipment as 1% bleach could be harmful to the surface of some equipment. Inform the CAS or delegate if equipment has been contaminated by a spill before cleaning. Soap and warm water are used as a clean-up procedure only on equipment previously decontaminated with a chemical disinfectant according to the manufacturer's specifications. Use a non-corrosive agent to disinfect the working surface of a biological safety cabinet (i.e. quaternary ammonium or 70% ethanol solution). For spills in the centrifuge, bring the rotor to BSC prior to decontamination. The lab area must be cleaned after each use.

11. Spill response procedure

General guidelines for handling a small spill will be provided to all end-users by EHS during the biosafety training. All spills involving biological materials must be cleaned immediately. All larger spills must be reported to security immediately by dialing extension 3717. In case of a significant exposure to blood, follow instructions outlined in EHS-DOC-033.

For cleaning small spills, a spill kit should be available which consists of the following:

- Disinfectant material (Daily prepared 10% bleach and 70% EtOH).
- Absorbant material (paper towel can be used)
- PPE
- Appropriate biowaste container

The waste collected should be disposed of as chemical waste.

A solution of 70% ethanol is NOT always effective against bacterial spores and cannot penetrate protein-rich materials (eg., dried blood/plasma). Bleach (10% household bleach solution in water) or other disinfectants such as BacDown must be used. Use a non-corrosive agent to disinfect the working surface of a BSC (i.e. 70% ethanol solution).

When sample volumes are less than 1 ml: wipe-up with disposable wipes (Kim wipes) moistened with 10% bleach solution and dispose of in biohazard bag. Soak contaminated area with a 10% bleach solution; allow 20 minutes for disinfection and wipe-up puddle and dispose of in biohazard bag. Notify the CAS or delegate.

When the volumes are larger than 1 ml: use dry paper towels to cover the spill. Use a cup or dipper to pour bleach solution on spill area. Apply 10% bleach solution concentrically beginning at the outer perimeter of the spill area and towards the center. Take care to prevent drops or splashes of the body fluids reaching anyone when pouring bleach solution on the spill. Allow 20 minutes for disinfection and wipe-up puddle and dispose of in a biohazard waste container. Notify the CAS or the delegate.

For very large spills such as >250 mL of blood, blood products, and body fluids contact Security at extension 3717 and immediately notify the CAS or delegate.

Inform the CAS or delegate for help in getting the spill under control if it is safe to do so.

The CAS or delegate will fill out an incident report on the EHS website and request a subsequent follow-up if EHS so advised.

12. Disposal of biohazardous waste

- Biohazardous solid waste is disposed in autoclave bags, placed into 20L designated grey bins.
- Objects contaminated by biological material (e.g. contaminated sharps, needles, syringes, pasteur pipettes and scalpel etc.) are disposed of in the small red or yellow biohazard waste container; these container will be placed into the above mentioned autoclave bags when containers are full.
- When a solid waste container is almost full and ready to be picked up, the end-user will advise the CAS or the delegate, and get a replacement. All users must give 24h notice to the CAS or the delegate to provide a new container from EHS, or from Central stores.
- The CAS or the delegate will request the removal of the full container by contacting distribution and EHS at hazardouswaste@concordia.ca.
- EHS is responsible for the removal of biological waste from the PERFORM Centre clinical analysis suite to the freezer inside the locked waste room in PC01.139 (the loading dock).

13. Description of the experiments/procedures

Basic analytical chemistry and molecular biology techniques (UPLC, mass spectrometry, ELISA, LUMINEX, cell culture, PCR, Hematology and Urine Analyzers etc.) will be used for various experiments. Sample processing procedure for these techniques will be specific to individual protocols. For sample processing, the following may be used:

- Pipetting- Mouth pipetting is strictly forbidden, use a proper liquid delivering device, air must not be blown through liquid that might contain infectious agents to avoid generating aerosols; do not forcibly expel liquids.
- Centrifugation- Must be done in closed cups and balanced rotor. Operate centrifuge according to manufacturer's instructions. At the end of process, let sit for 30 seconds then open centrifuge carefully, if there is a spill, bring the rotor under a BSC prior attempting to clean it; then proceed with cleaning;
- Shaking and vortex
- Filtration
- Separation
- Aliquotting and transfer- Must be done in a BSC
- Extraction of analyte using protein precipitation, liquid-liquid extraction and solid phase
- Hydrolysis
- Derivatization

- Sonication: this process generates aerosols and therefore must be done under a BSC when the solution contains biological material.

In addition to the above, other techniques may also be used for analysis. Clean-up and decontamination is required for all the work areas. Products generating dangerous aerosols and particulates must be manipulated in a properly functioning BSC. Wash hands upon completion of laboratory procedures and remove all personal protective equipment including gloves and lab coats inside the laboratory. The laboratory area shall be cleaned as soon as possible after usage.

Other techniques will also be used and potential exposures may be encountered during sample preparation and/or experimental manipulation, aerosol generation during mixing, centrifugation or sonication, use of sharps, etc. The procedures performed in the clinical analysis suite may involve any of the equipment provided in the list in APPENDIX II.

14. Unattended operations

Electrical instruments must be turned off once the experiments are complete. All vials, tubes and containers will be sealed when experiments are left unattended.

15. Overnight unattended experiments.

Leaving experiments unattended should be avoided as much as possible.

If this is unavoidable, the PI must be informed and safety measures must be planned according to the following guidelines:

- The PI must be notified and approve the experiment;
- Ensure that all containers and equipment are labeled according to WHMIS regulations;
- Post the "Overnight Unattended Experiment" form near the experiment (e.g. on fume hood sash);
- Provide secondary containment and shielding of the material/experiment in the event of containment failure;
- Keep laboratory door window unobstructed.

16. SOP training records

SOP training record form is in APPENDIX III. Once the SOP is read by the users, it will be signed by them.

APPENDIX I

Biological Sample/Material Log Form

Université Concordia University
PERFORM Centre

Biological Sample/Material Log Form

Name: _____ **Department/Institution:** _____

Type of samples/Materials (Matrix, Anticoagulant): _____

Date of sample receipt: _____ **Total No. of samples received:** _____

Storage Temp _____ **Freezer Id:** _____ **Shelf No:** _____ **Rack No:** _____ **Box No:** _____

Participant ID #	Date Collected	No. of Sample Aliquots	Date of storage	Date of disposal	Comments	Signature

APPENDIX II

Clinical Analysis Equipment List

Clinical Analysis Equipment List

Equipment description	Supplier	Model No.
LCMS/MS	Agilent	G 6460A
UPLC	Waters	Acquity
ELISA Reader	Biotek	Synergy H1
ELISA Plate washer	Biotek	ELX 405
Luminex Multiplex Analyzer	Millipore	Luminex 200, XYP,Luminex SD
CFX 96 Real time system C1000 Thermal cycler	BIO-RAD	CFX96 Optics Module,Thermal cycler base
Spectrolinker XL-100 UV Cross linker	Spectronics Corp.	XL-1000
Gel Doc XR+ with Image Software	BIO-RAD	Universal Hood
Allegra 64 R Centrifuge	Beckman Coulter	64 R
Eppendorf Centrifuge5415 R	Eppendorf	5426
Standard Analog Shaker	VWR	N/AP
Digital Analog dry block heater	VWR	N/AP
Digital Hot Plate	VWR	VMS-C7S1
Sonicator	Q Sonica LLC	XL-2000
Spectrafuge 24 D Centrifuge	Labnet International	C2480
Mini Centrifuge 6 tubes	Fisher Scientific	NAP
Digital vortex Mixer	Fisher Scientific	NAP
Liquid Scintillation Analyzer Tri-Carb	Perkin Elmer	2910 TR
Hematology Analyzer	Beckman	AcTDiff 2
Digital water bath	VWR	890392-226
Allegra X-22R Centrifuge	Beckman Coulter	392187
Microscope	Leica	DMI 6000B
Microscope	Leica	DM 2000
Ultracentrifuge Optima	Beckman Coulter	L-100 XP
Centri Vap	Labconco	7812013
Pipette 2-20 mcL	Eppendorf Research	Not applicable
Pipette 20-200 mcL	Eppendorf Research	Not applicable
Pipette 0.5-10 mcL	Eppendorf Research	Not applicable
Pipette 100-1000 mcL	Eppendorf Research	Not applicable
Multichannel Pipette 10-100 mcL	Eppendorf Research	Not applicable
Multichannel Pipette 30-300 mcL	Eppendorf Research	Not applicable
Multichannel Pipette 0.5-10 mcL	Eppendorf Research	Not applicable
Repeater pipette	Eppendorf Research	Not applicable
Electronic Top load balance 0.01 g	Shimadzu	UX2200 H
Balance Analytical (0.1 mg to 210 mg)	OHAUS	EP 214 C
pH meter/Ionometer	Thermo Scientific Orion	3115001
Pipet-aid	Eppendorf Research	Not applicable
Nanodrop Spectrophotometer	Thermo Scientific	2000 C
Ice Maker	Scotsman	Not applicable
Dishwasher	VWR	82100-004
Freezer -80°C	Thermo Scientific	956
Freezer -20°C	Thermo Scientific	3767A
Freezer -20°C	VWR	SCBMF 2020
Fridge	Thermo Scientific	3566 A
Freezer -20°C	MARVEL scientific	17 CAF001
Fridge (SMALL)	Thermo Scientific	3751FS
Fridge Glass sliding door	Thermo Scientific	FRGL4504A23
Autoclave	Tuttnauer	2540 E
Oven	Thermo Scientific	Precision
Urine Analyzer	SIEMANS	CLINITEK Status+
Digital water bath	VWR	890392-226
Nutating Mixer	VWR	Not applicable
Homogenizer (manual)	VWR	AHS 200
CO2 incubator	Fisher scientific	3120
Rapid Vap	Labconco	44-2210-241 1205
Stainless steel cart	VWR	Not applicable
Cryo Pro 20.5L Liquid Nitrogen Dewar	VWR	Not applicable
Ultrasonic Bath	Fisher	FS 60
Blood Chemistry Analyzer	Abaxis	Piccolo xpress
Biosafety Cabinet	Labconco	Logic

APPENDIX III

SOP Training Record Form

PERFORM Centre

SOP Title

Acquisition, storage, analysis and disposal procedures for human blood and body fluid samples for research projects at the PERFORM Centre

SOP Code

Ownership	Document type	Area	SOP Number	Version
PC	SOP	CA	002	03

Training Record

Full Name	
Institution/PI	
Contact (email or phone number)	

Signature

Sign here (Trainee)	Date
Sign here (Clinical Analysis Supervisor)	Date