London Regional Flow Cytometry Facility

# Biosafety Information Form

The London Regional Flow Cytometry Facility is a multi-user facility where many different samples from varied cell sources are investigated. These samples may contain known or unknown human pathogens. The safety of our flow cytometry facility staff and users is of utmost concern. Information about the sample sources and potentially infectious agents is critical for effective biosafety measures.

**Consequently, this Biosafety Information Form must be filled out completely for EACH cell type analysed or sorted in this facility, BEFORE beginning experiments.** This form must be completed electronically in Microsoft Word. It is the principal investigator's responsibility to confirm the completeness and accuracy of each form, and to return completed forms to the LR-FCF via email: flow@robarts.ca .

Upon receipt the form will be reviewed by the LR-FCF, and will be forwarded to the UWO Biohazards Sub-Committee if further risk assessment is deemed necessary. Upon approval, each cell type will be given a Biosafety Identifier particular to your lab. This identifier MUST be included on all FACSCalibur appointments (at http://flowcal.robarts.ca), and on all request for sorting forms. Failure to include this information will result in cancellation of your appointment(s), and may jeopardize future use of the facility.

## Applicant Information:

Application Date:

| Principal Investigator: | Email: | Phone: |
|---|---|---|

*Please list all users in your laboratory who are authorized to conduct these experiments.*
*To insert multiple users, press <RETURN> or <ENTER> key after each user's name:*

| Authorized user(s): | Email: | Phone: |
|---|---|---|

## Project Title:

**Summary/Description of Project** -- *Provide details related to cells that will be analysed or sorted (1 paragraph):*

**Has this project been approved by the appropriate institutional/safety review committee(s)?**

| Review Committee | Reviewed? | Approval / Protocol # | Date Approved |
|---|---|---|---|
| Biohazard Subcommittee: UWO Biohazardous Agents Registry Form | ☐ Yes ☐ No | | |
| Animal Use Subcommittee | ☐ Yes ☐ No ☐ N/A | | |
| Human ethics | ☐ Yes ☐ No ☐ N/A | | |

## Sample Information: Describes sample type and source

(*For example: mouse spleen cells; human peripheral blood mononuclear cells; tissues from animal engrafted with human cells; genomic DNA extracted from cell line*)

**** PLEASE COMPLETE A SEPARATE FORM FOR EACH SAMPLE TYPE ****

***Sample source:*** ☐ whole cells ☐ extra-cellular ☐ sub-cellular ☐ non-cellular

If other than whole cells, please describe source:

***Species:*** ☐ human ☐ mouse ☐ rat ☐ primate ☐ other (specify):

**Cell/tissue type:**

***Sample origin:*** ☐ Primary cells/tissue **OR** ☐ Established cell line → specify name:

**If an established cell line,** provide the ATCC designation or attach a .pdf of the paper describing the line's origin:
☐ ATCC no: ☐ PDF attached

Robarts Research Institute • 4th Floor, Room E4-07 • P.O. Box 5015, 100 Perth Drive, London, ON N6A 5K8
Schulich School of Medicine & Dentistry, The University of Western Ontario
Tel: 519 663-5777 ext. 24042 • Fax: 519 663-3789 • flow@robarts.ca

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## Biosafety Information:

**Please provide the UWO Biohazardous Agents Registry Form (BARF) Approval Number that contains the sample/cell source in this application:**

**NOTE:** It is the principal investigator's responsibility to ensure all samples to be analyzed or sorted in the LR-FCF be listed on your laboratory's BARF. Samples not listed on the BARF form will not be assigned a Biosafety Identifier.

**Information about established cell lines:**

If available, provide the **containment level (CL)** classification of the cell line: ☐ CL1 ☐ CL2 ☐ CL3 *

**Does the sample contain any known infectious agents?** ☐ Yes ☐ No ☐ Unknown

If yes, list the agents below:

| | **Health Canada/CFIA Containment Level →** | **1** | **2** | **3 *** |
|---|---|---|---|---|
| Infectious Agent 1: | | ☐ | ☐ | ☐ |
| Infectious Agent 2: | | ☐ | ☐ | ☐ |
| Infectious Agent 3: | | ☐ | ☐ | ☐ |

**Please describe the nature of the infectious agent(s) —** *for example: wild-type, attenuated, replication-competent, rendered defective for viral replication*:

**Were <u>human blood donors</u> screened for bloodborne pathogens (*for example: HIV, HBV, HCV*)?**

☐ Yes ☐ No ☐ N/A

| If yes, provide test results: | **Positive** | **Negative** |
|---|---|---|
| Test 1: | ☐ | ☐ |
| Test 2: | ☐ | ☐ |
| Test 3: | ☐ | ☐ |

**Could these samples contain other known human pathogens?** ☐ Yes ☐ No

If yes, please describe:

**Have <u>cell cultures</u> been tested for mycoplasma and/or viral infection (*for example: HIV, HBV, SIV*)?**

☐ Yes ☐ No ☐ N/A

| | If yes, provide test results: | **Positive** | **Negative** |
|---|---|---|---|
| Date: | Test 1: | ☐ | ☐ |
| Date: | Test 2: | ☐ | ☐ |
| Date: | Test 3: | ☐ | ☐ |

## Genetic modification:

**Were cells transformed using a virus or part of a virus genome such as EBV, HTLV-1, herpes saimirii, SV40, Adenovirus?** ☐ Yes ☐ No ☐ N/A

If yes, list virus:

**Were cells genetically engineered?** ☐ Yes ☐ No ☐ N/A

If yes, describe how they were engineered:

**Was a gene therapy virus used to transfer genetic information to the cells?** ☐ Yes ☐ No ☐ N/A

If yes, describe the method in detail:

Type of virus/viral vector (i.e. retrovirus, lentivirus, adenovirus, AAV, etc.):

Is the vector: ☐ replication competent or ☐ replication defective

If lentivirus, is the vector self-inactivating? ☐ Yes ☐ No

Describe the virus production system, show packaging line and attach vector maps (if available):

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**Will the samples be fixed such that any infectious agent(s) have been inactivated or rendered non-infectious?** ☐ Yes ☐ No

If yes, describe fixation method, concentration and exposure time:

**NOTES:**

Many common and effective chemical disinfectants, such as phenols and bleach, are not suitable for treatment of samples to be run through a flow cytometer. It is the principal investigator's responsibility to ensure that the fixation method used is effective for inactivation of the infectious agent while preserving sample integrity. The type of fixative (eg. formaldehyde, paraformaldehyde), concentration of fixative, and length of sample exposure time are all critical for proper inactivation of infectious agents. Please provide proof of inactivation if using a non-standard flow cytometric fixaton method.

* All samples containing CL3 agents MUST be fixed.

Samples containing CL2 agents should be fixed for analysis experiments.

Experiments requiring the use of unfixed samples **must** be discussed with the facility manager first and risk assessment approval must have been obtained from the UWO Biohazards Sub-Committee prior to initiation of the experiment.

**Please provide any additional information or comments that will help in assessing any biohazards associated with flow cytometric analysis of this sample type:**

☐ **I have read and understand the above questions, and certify that the information provided is correct.**

Principal Investigator: Date:

*Do not fill shaded area. LR-FCF use only*

Biosafety Identifier: ☐

*Rev 2 2009/03/04 KDC*

☐ Approved ☐ Declined (reason below) ☐ Approved with the following conditions:

Due to the nature of the infectious agents present, these samples must be brought to the core facility:

☐ in capped sample tubes

☐ inside a leak-proof secondary container with a secure lid to prevent spills during transport

*(For example, the Nalgene Bio-safe carrier, VWR catalogue number 56609-112)*

Comments:

Approved by: Date:

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