

**THE UNIVERSITY OF WESTERN ONTARIO  
BIOLOGICAL AGENTS REGISTRY FORM**  
Approved Biohazards Subcommittee: October 14, 2010  
Biosafety Website: [www.uwo.ca/humanresources/biosafety/](http://www.uwo.ca/humanresources/biosafety/)

This form must be completed by each Principal Investigator holding a grant administered by the University of Western Ontario (UWO) or in charge of a laboratory/facility where the use of Level 1, 2 or 3 biological agents is described in the laboratory or animal work proposed. The form must also be completed if any work is proposed involving animals carrying zoonotic agents infectious to humans or involving plants, fungi, or insects that require Public Health Agency of Canada (PHAC) or Canadian Food Inspection Agency (CFIA) permits.

This form must be updated at least every 3 years or when there are changes to the biological agents being used.

Containment Levels will be established in accordance with Laboratory Biosafety Guidelines, 3rd edition, 2004, Public Health Agency of Canada (PHAC) or Containment Standards for Veterinary Facilities, 1st edition 1996, Canadian Food Inspection Agency (CFIA).

Completed forms are to be returned to Occupational Health and Safety (Room 4190) for distribution to the Biohazards Subcommittee or to the Biosafety Officer at extension 81135 or [biosafety@uwo.ca](mailto:biosafety@uwo.ca). For a form (excluding grant title and funding agencies), contact Occupational Health and Safety. See website: [www.uwo.ca/humanresources/biosafety/](http://www.uwo.ca/humanresources/biosafety/)

as of NOV 1, 2011  
Haley Linklater (returns)

PRINCIPAL INVESTIGATOR Michael Midgley  
DEPARTMENT Anatomy & Cell Biology  
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EMERGENCY PHONE NUMBER(S) 226 927 5007  
EMAIL Michael.Midgley@schulich.uwo.ca

Location of experimental work to be carried out: Building(s) MSB / OSB Room(s) 485 / 4001

\*For work being performed at Institutions affiliated with the University of Western Ontario, the Safety Officer for the Institution where experiments will take place must sign the form prior to its being sent to the University of Western Ontario Biosafety Officer (See Section 15.0, Approvals).

FUNDING AGENCY/AGENCIES: N/A  
GRANT TITLE(S): N/A

List all personnel working under Principal Investigators supervision in this location:

| Name                                | UWO E-mail Address             | Date of Biosafety Training |
|-------------------------------------|--------------------------------|----------------------------|
| <u>Kevin Walker</u>                 | <u>kwalker@schulich.uwo.ca</u> |                            |
| <u>Dave Gifford</u>                 | <u>dgifford@uwo.ca</u>         |                            |
| <u>Plus the following students:</u> |                                |                            |
| <u>Kim 2221; PT, OT</u>             |                                |                            |
| <u>- Anat 560 + 319</u>             |                                |                            |
| <u>- 1st + 2nd year medcs</u>       |                                |                            |
| <u>- 1st year dents</u>             |                                |                            |
| <u>- PT 650</u>                     |                                |                            |
| <u>- PT 675</u>                     |                                |                            |
|                                     |                                |                            |

Please explain the biological agents and/or biohazardous substances used and how they will be stored, used and disposed of. Projects without this description will not be reviewed.

- individuals consent to having their bodies donated after death
- our contract embalmer ~~is~~ injects donors with a pre-mixed embalming fluid
- donors are pre-screened for infectious or contagious diseases (verbally with a health care provider)
- after student dissection has occurred the donors are sent for cremation and interment.

Please include a one page research summary or teaching protocol.

- we employ universal precautions when working with fresh tissue
- student dissections on embalmed / fixed tissues is supervised by teaching assistants, instructors, and /or lab supervisor.

## 1.0 Microorganisms

1.1 Does your work involve the use of biological agents?  YES  NO  
 (non-pathogenic and pathogenic biological agents including but not limited to bacteria and other microorganisms, viruses, prions, parasites or pathogens of plant or animal origin)? If no, please proceed to Section 2.0

Do you use microorganisms that require a permit from the CFIA?  YES  NO

If YES, please give the name of the species. \_\_\_\_\_

What is the origin of the microorganism(s)? \_\_\_\_\_

Please describe the risk (if any) of escape and how this will be mitigated:

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Please attach the CFIA permit.

Please describe any CFIA permit conditions:

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1.2 Please complete the table below:

| Name of Biological Agent(s)* (Be specific) | Is it known to be a human pathogen?<br>YES/NO         | Is it known to be an animal pathogen?<br>YES/NO       | Is it known to be a zoonotic agent?<br>YES/NO         | Maximum quantity to be cultured at one time?<br>(in Litres) | Source/Supplier | PHAC or CFIA Containment Level  |
|--|---|---|---|---|-----------------|---|
|  | <input type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input type="radio"/> No |   |                 | <input type="radio"/> 1 <input type="radio"/> 2<br><input type="radio"/> 2+ <input type="radio"/> 3 |
|  | <input type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input type="radio"/> No |   |                 | <input type="radio"/> 1 <input type="radio"/> 2<br><input type="radio"/> 2+ <input type="radio"/> 3 |
|  | <input type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input type="radio"/> No |   |                 | <input type="radio"/> 1 <input type="radio"/> 2<br><input type="radio"/> 2+ <input type="radio"/> 3 |
|  | <input type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input type="radio"/> No | <input type="radio"/> Yes<br><input type="radio"/> No |   |                 | <input type="radio"/> 1 <input type="radio"/> 2<br><input type="radio"/> 2+ <input type="radio"/> 3 |

\*Please attach a Material Safety Data Sheet or equivalent from the supplier.

## 2.0 Cell Culture

2.1 Does your work involve the use of cell cultures?  YES  NO

If no, please proceed to Section 3.0

2.2 Please indicate the type of primary cells (i.e. derived from fresh tissue) that will be grown in culture:

| Cell Type         | Is this cell type used in your work?               | Source of Primary Cell Culture Tissue | AUS Protocol Number |
|-------------------|--|---------------------------------------|---------------------|
| Human             | <input type="radio"/> Yes <input type="radio"/> No |                                       | Not applicable      |
| Rodent            | <input type="radio"/> Yes <input type="radio"/> No |                                       |                     |
| Non-human primate | <input type="radio"/> Yes <input type="radio"/> No |                                       |                     |
| Other (specify)   | <input type="radio"/> Yes <input type="radio"/> No |                                       |                     |

2.3 Please indicate the type of established cells that will be grown in culture in:

| Cell Type         | Is this cell type used in your work?               | Specific cell line(s)* | Containment Level of each cell line | Supplier / Source of cell line(s) |
|-------------------|--|------------------------|-------------------------------------|-----------------------------------|
| Human             | <input type="radio"/> Yes <input type="radio"/> No |                        |                                     |                                   |
| Rodent            | <input type="radio"/> Yes <input type="radio"/> No |                        |                                     |                                   |
| Non-human primate | <input type="radio"/> Yes <input type="radio"/> No |                        |                                     |                                   |
| Other (specify)   | <input type="radio"/> Yes <input type="radio"/> No |                        |                                     |                                   |

\*Please attach a Material Safety Data Sheet or equivalent from the supplier. (For more information, see [www.atcc.org](http://www.atcc.org))

2.4 For above named cell types(s) indicate PHAC or CFIA containment level required  1  2  2+  3

### 3.0 Use of Human Source Materials

3.1 Does your work involve the use of human source materials?  YES  NO  
If no, please proceed to Section 4.0

3.2 Indicate in the table below the Human Source Material to be used.

| Human Source Material                      | Source/Supplier /Company Name      | Is Human Source Material Infected With An Infectious Agent?<br>YES/UNKNOWN | Name of Infectious Agent (If applicable) | PHAC or CFIA Containment Level (Select one)   |
|--|------------------------------------|--|--|---|
| Human Blood (whole) or other Body Fluid    | Donated bodies (embalmed in-house) | <input type="radio"/> Yes<br><input checked="" type="radio"/> Unknown      |  | <input type="radio"/> 1 <input type="radio"/> 2<br><input type="radio"/> 2+ <input type="radio"/> 3 |
| Human Blood (fraction) or other Body Fluid | "                                  | <input type="radio"/> Yes<br><input checked="" type="radio"/> Unknown      |  | <input type="radio"/> 1 <input type="radio"/> 2<br><input type="radio"/> 2+ <input type="radio"/> 3 |
| Human Organs or Tissues (unpreserved)      | "                                  | <input type="radio"/> Yes<br><input checked="" type="radio"/> Unknown      |  | <input type="radio"/> 1 <input type="radio"/> 2<br><input type="radio"/> 2+ <input type="radio"/> 3 |
| Human Organs or Tissues (preserved)        | "                                  | Not Applicable   |  | Not Applicable  |

### 4.0 Genetically Modified Organisms and Cell lines

4.1 Will genetic modifications be made to the microorganisms, biological agents, or cells described in Sections 1.0 and 2.0?  YES  NO If no, please proceed to Section 5.0

4.2 Will genetic modification(s) involving plasmids be done?  YES, complete table below  NO

| Bacteria Used for Cloning * | Plasmid(s) ** | Source of Plasmid | Gene Transfected | Describe the change that results from transformation or tranfection |
|-----------------------------|---------------|-------------------|------------------|---|
|                             |               |                   |                  |   |

\* Please attach a Material Data Sheet or equivalent if available.

\*\* Please attach a plasmid map.

4.3 Will genetic modification(s) of bacteria and/or cells involving viral vectors be made?

YES, complete table below  NO

| Virus Used for Vector Construction | Vector(s) * | Source of Vector | Gene(s) Transduced | Describe the change that results from transduction |
|------------------------------------|-------------|------------------|--------------------|--|
|                                    |             |                  |                    |  |

\* Please attach a Material Safety Data Sheet or equivalent.

4.4 Will genetic sequences from the following be involved?

- ◆ HIV  YES, please specify \_\_\_\_\_  NO
- ◆ HTLV 1 or 2 or genes from any Level 1 or Level 2 pathogens  YES, specify \_\_\_\_\_  NO
- ◆ SV 40 Large T antigen  YES  NO
- ◆ E1A oncogene  YES  NO
- ◆ Known oncogenes  YES, please specify \_\_\_\_\_  NO
- ◆ Other human or animal pathogen and or their toxins  YES, please specify \_\_\_\_\_  NO

4.5 Will virus be replication defective?  YES  NO

4.6 Will virus be infectious to humans or animals?  YES  NO

4.7 Will this be expected to increase the containment level required?  YES  NO

### 5.0 Human Gene Therapy Trials

5.1 Will human clinical trials be conducted involving a biological agent?  YES  NO  
 (including but not limited to microorganisms, viruses, prions, parasites or pathogens of plant or animal origin)  
 If no, please proceed to Section 6.0

5.2 If YES, please specify which biological agent will be used: \_\_\_\_\_  
 Please attach a full description of the biological agent.

5.2 Will the biological agent be able to replicate in the host?  YES  NO

5.3 How will the biological agent be administered? \_\_\_\_\_

5.4 Please give the Health Care Facility where the clinical trial will be conducted: \_\_\_\_\_

5.5 Has human ethics approval been obtained?  YES, number: \_\_\_\_\_  NO  PENDING

### 6.0 Animal Experiments

6.1 Will live animals be used?  YES  NO If no, please proceed to section 7.0

6.2 Name of animal species to be used \_\_\_\_\_

6.3 AUS protocol # \_\_\_\_\_

6.4 Will any of the agents listed in section 4.0 be used in live animals  YES, specify: \_\_\_\_\_  NO

6.5 Will the agent(s) be shed by the animal:  YES  NO, please justify:  
 \_\_\_\_\_  
 \_\_\_\_\_

## 7.0 Use of Animal species with Zoonotic Hazards

7.1 Will any animals with zoonotic hazards or their organs, tissues, lavages or other body fluids including blood be used (see list below)?  YES  No If no, please proceed to section 8.0

7.2 Will live animals be used?  YES  No

7.3 If yes, please specify the animal(s) used:

- ◆ Pound source dogs  YES  NO
- ◆ Pound source cats  YES  NO
- ◆ Cattle, sheep or goats  YES, please specify species \_\_\_\_\_  NO
- ◆ Non-human primates  YES, please specify species \_\_\_\_\_  NO
- ◆ Wild caught animals  YES, please specify species & colony # \_\_\_\_\_  NO
- ◆ Birds  YES, please specify species \_\_\_\_\_  NO
- ◆ Others (wild or domestic)  YES, please specify \_\_\_\_\_  NO

7.4 If no live animals are used, please specify the source of the specimens:  
\_\_\_\_\_

## 8.0 Biological Toxins

8.1 Will toxins of biological origin be used?  YES  NO If no, please proceed to Section 9.0

8.2 If YES, please name the toxin(s) \_\_\_\_\_  
Please attach information, such as a Material Safety Data Sheet, for the toxin(s) used.

8.3 What is the LD<sub>50</sub> (specify species) of the toxin \_\_\_\_\_

8.4 How much of the toxin is handled at one time\*? \_\_\_\_\_

8.5 How much of the toxin is stored\*? \_\_\_\_\_

8.6 Will any biological toxins be used in live animals?  YES, Please provide details: \_\_\_\_\_  NO

\*For information on biosecurity requirements, please see:  
[http://www.uwo.ca/humanresources/docandform/docs/healthandsafety/biosafety/Biosecurity\\_Requirements.pdf](http://www.uwo.ca/humanresources/docandform/docs/healthandsafety/biosafety/Biosecurity_Requirements.pdf)

## 9.0 Insects

9.1 Do you use insects?  YES  NO If no, please proceed to Section 10.0

9.2 If YES, please give the name of the species. \_\_\_\_\_

9.3 What is the origin of the insect? \_\_\_\_\_

9.4 What is the life stage of the insect? \_\_\_\_\_

9.5 What is your intention?  Initiate and maintain colony, give location: \_\_\_\_\_  
 "One-time" use, give location: \_\_\_\_\_

9.6 Please describe the risk (if any) of escape and how this will be mitigated:  
\_\_\_\_\_  
\_\_\_\_\_



**13.0 Containment Levels**

13.1 For the work described in sections 1.0 to 9.0, please indicate the highest HC or CFIA Containment Level required.  1  2  2+  3

13.2 Has the facility been certified by OHS for this level of containment?  
 YES, permit # if on-campus \_\_\_\_\_  
 NO, please certify  
 NOT REQUIRED for Level 1 containment

**14.0 Procedures to be Followed**

14.1 Please describe additional risk reduction measures will be taken beyond containment level 1, 2, 2+ or 3 measures, that are unique to this agent.  
Universal precautions  
\_\_\_\_\_  
\_\_\_\_\_

14.2 Please outline what will be done if there is an exposure to the biological agents listed, such as a needlestick injury or an accidental splash:  
Wash station, seek medical treatment as required  
\_\_\_\_\_

14.3 As the Principal Investigator, I will ensure that this project will follow the Western Biosafety Guidelines and Procedures Manual for Containment Level 1 & 2 Laboratories (and the Level 3 Facilities Manual for Level 3 projects). I will ensure that UWO faculty, staff and students working in my laboratory have an up-to-date Hazard Communication Form, found at <http://www.wph.uwo.ca/>

SIGNATURE M. R. Date: July 6/2011

**15.0 Approvals**

1) UWO Biohazards Subcommittee: SIGNATURE: \_\_\_\_\_  
Date: \_\_\_\_\_

2) Safety Officer for the University of Western Ontario  
SIGNATURE: \_\_\_\_\_  
Date: \_\_\_\_\_

3) Safety Officer for Institution where experiments will take place (if not UWO):  
SIGNATURE: \_\_\_\_\_  
Date: \_\_\_\_\_

Approval Number: \_\_\_\_\_ Expiry Date (3 years from Approval): \_\_\_\_\_

Special Conditions of Approval:

----- Original Message -----

**Subject:**first call details

**Date:**Wed, 06 Jul 2011 12:06:43 -0400

**From:**Michael Midgley <Michael.Midgley@schulich.uwo.ca>

**To:**jstanle2@uwo.ca

**CC:**Tamara Stock <Tamara.Stock@schulich.uwo.ca>

Hi Jennifer,

Here is a written summary of the precautions we take prior to accepting a potential donor.

We initially receive a call from the hospital, funeral home, or family member notifying us that someone has died and wishes to bequeath their body to UWO. We then ask a series of questions to determine the donor's eligibility. This includes noting the time and location of death, obtaining the next of kin / executor contact information, and recording the physician and funeral home involved.

Most importantly, we inquire about infectious / contagious diseases (MRSA, VRE, TB, HIV, Hepatitis) and recent surgeries / wounds and lesions. If they are positive for any of these, we will deny acceptance to our program and the body will never even be delivered to the school.

Regarding our SOP, I have CC'd Tamara to this email. Unfortunately I don't know where to find this information. I am sure she will get back to you as soon as she can.

Thanks again and please let me know if you have any further questions.

Sincerely,  
Mike Midgley

Michael Midgley  
Anatomy Laboratory Supervisor  
Dept. of Anatomy and Cell Biology  
Schulich School of Medicine & Dentistry  
Medical Sciences Building, Rm 485  
The University of Western Ontario  
London, Ontario, Canada N6A 5C1  
Phone: 519.661.2111 x81540  
[Michael.Midgley@schulich.uwo.ca](mailto:Michael.Midgley@schulich.uwo.ca)

First Call Sheet

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Name of Deceased: \_\_\_\_\_

Location of Deceased: \_\_\_\_\_

Date of Death: \_\_\_\_\_

Time: \_\_\_\_\_

Cause of Death: \_\_\_\_\_

Autopsy? \_\_\_\_\_ Infectious/Contagious Disease? \_\_\_\_\_ Degenerative Brain Disease? \_\_\_\_\_  
(MRSA, TB, HIV, Hepatitis, etc)

Recent Surgery? \_\_\_\_\_ Obese? \_\_\_\_\_ Organ Donor? \_\_\_\_\_ Amputations? \_\_\_\_\_

Family in Agreement? \_\_\_\_\_

Estimated Height: \_\_\_\_\_ Estimated Weight: \_\_\_\_\_ Age: \_\_\_\_\_

Next of Kin: \_\_\_\_\_

Relationship: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Physician: \_\_\_\_\_

Local Inspector (Coroner): \_\_\_\_\_

Funeral Home: \_\_\_\_\_

Documents: Statement (Form 15): \_\_\_\_\_ Medical (Form 16): \_\_\_\_\_ Burial Permit: \_\_\_\_\_  
(Original)

Call Made By: \_\_\_\_\_

Relationship: \_\_\_\_\_

Call Received By: \_\_\_\_\_

Accepted?: \_\_\_\_\_