THE UNIVERSITY OF WESTERN ONTARIO
BIOLOGICAL AGENTS REGISTRY FORM
Approved Biohazards Subcommittee: October 14, 2010
Biosafety Website: 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 Safe
Room 4190) for distribution to the Biohazards Subcommittee. For qu
the Biosafety Officer at extension 81135 or biosafety@uwo.ca. If the
form (excluding grant title and funding agencies), contact Occupation
See website: www.uwo.ca/humanresources/biosafety

As of Nov 1, 2011
Haley LinKlater (returns)

PRINCIPAL INVESTIGATOR	Michael Midgley
DEPARTMENT	Anatomy & Cell Biology
ADDRESS	MSB 485
PHONE NUMBER	x 81540
EMERGENCY PHONE NUMBER(S)	226 927 5007
EMAIL	Michael.Midgley@schulich.uwo.ca

Location of experimental work to be carried out: Building(s) MSB / DSB 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
Kevin Walker	Kwalke56@uwo.ca	
Dave Gifford	dgifford@uwo.ca	
Plus the following students:		
- Kin 2221; PT, OT		
- Anat 5100+319		
- 1st + 2nd year meds		
- 1st year dents		
- PT 650		
- PT 675		

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 injects donors with a pre-mixed embalming fluid
- donors are pre-screened for infectious or contageous diseases (verbally with a health care providor)
- 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? O 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? O YES O 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:

_____
_____
_____

Please attach the CFIA permit.
Please describe any CFIA permit conditions:

_____
_____
_____

1.2 Please complete the table below:

Name of Biological Agent(s)* (Be specific)	Is it known to be a human pathogen? YES/NO	Is it known to be an animal pathogen? YES/NO	Is it known to be a zoonotic agent? YES/NO	Maximum quantity to be cultured at one time? (in Litres)	Source/ Supplier	PHAC or CFIA Containment Level
	O Yes O No	O Yes O No	O Yes O No			O 1 O 2 O 2+ O 3
	O Yes O No	O Yes O No	O Yes O No			O 1 O 2 O 2+ O 3
	O Yes O No	O Yes O No	O Yes O No			O 1 O 2 O 2+ O 3
	O Yes O No	O Yes O No	O Yes O No			O 1 O 2 O 2+ O 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? O 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	O Yes O No		Not applicable
Rodent	O Yes O No		
Non-human primate	O Yes O No		
Other (specify)	O Yes O 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	O Yes O No			
Rodent	O Yes O No			
Non-human primate	O Yes O No			
Other (specify)	O Yes O No			

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

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

3.0 Use of Human Source Materials

3.1 Does your work involve the use of human source materials? ☒ YES O 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? 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)	O Yes ☒ Unknown		O 1 O 2 O 2+ O 3
Human Blood (fraction) or other Body Fluid	"	O Yes ☒ Unknown		O 1 O 2 O 2+ O 3
Human Organs or Tissues (unpreserved)	"	O Yes ☒ Unknown		O 1 O 2 O 2+ O 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? O YES ☒ NO If no, please proceed to Section 5.0

4.2 Will genetic modification(s) involving plasmids be done? O YES, complete table below O 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?
O YES, complete table below O 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 O YES, please specify _____ O NO
- HTLV 1 or 2 or genes from any Level 1 or Level 2 pathogens O YES, specify _____ O NO
- SV 40 Large T antigen O YES O NO
- E1A oncogene O YES O NO
- Known oncogenes O YES, please specify _____ O NO
- Other human or animal pathogen and or their toxins O YES, please specify _____ O NO

4.5 Will virus be replication defective? O YES O NO

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

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

5.0 Human Gene Therapy Trials

5.1 Will human clinical trials be conducted involving a biological agent? O 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? O YES O 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? O YES, number: _____ O NO O PENDING

6.0 Animal Experiments

6.1 Will live animals be used? O 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 O YES, specify: _____ O NO

6.5 Will the agent(s) be shed by the animal: O YES O 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)? O YES ☒ No If no, please proceed to section 8.0

7.2 Will live animals be used? O YES O No

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

- Pound source dogs O YES O NO
- Pound source cats O YES O NO
- Cattle, sheep or goats O YES, please specify species _____ O NO
- Non-human primates O YES, please specify species _____ O NO
- Wild caught animals O YES, please specify species & colony # _____ O NO
- Birds O YES, please specify species _____ O NO
- Others (wild or domestic) O YES, please specify _____ O 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? O 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_{50} (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? O YES, Please provide details:_____ O NO

*For information on biosecurity requirements, please see:
http://www.uwo.ca/humanresources/docandform/docs/healthandsafety/biosafety/Biosecurity_Requirements.pdf

9.0 Insects

9.1 Do you use insects? O 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? O Initiate and maintain colony, give location: _____
O "One-time" use, give location: _____

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

_____

_____

9.7 Do you use insects that require a permit from the CFIA permit? O YES O NO
If YES, Please attach the CFIA permit & describe any CFIA permit conditions:

_____

_____

10.0 Plants

10.1 Do you use plants? O YES ☒ NO If no, please proceed to Section 11.0

10.2 If YES, please give the name of the species. _____

10.3 What is the origin of the plant? _____

10.4 What is the form of the plant (seed, seedling, plant, tree...)? _____

10.5 What is your intention? O Grow and maintain a crop O "One-time" use

10.6 Do you do any modifications to the plant? O YES O NO
If yes, please describe: _____

_____

10.7 Please describe the risk (if any) of loss of the material from the lab and how this will be mitigated:

_____

_____

_____

10.8 Is the CFIA permit attached? O YES O NO
If YES, Please attach the CFIA permit & describe any CFIA permit conditions:

_____

_____

11.0 Import Requirements

11.1 Will any of the above agents be imported? O YES, please give country of origin_____ ☒ NO
If no, please proceed to Section 12.0

11.2 Has an Import Permit been obtained from HC for human pathogens? O YES O NO

11.3 Has an import permit been obtained from CFIA for animal or plant pathogens? O YES O NO

11.4 Has the import permit been sent to OHS? O YES, please provide permit # _____ O NO

12.0 Training Requirements for Personnel Named on Form

All personnel named on the above form who will be using any of the above named agents are required to attend the following training courses given by OHS:

- Biosafety
- Laboratory and Environmental/Waste Management Safety
- WHMIS (Western or equivalent)
- Employee Health and Safety Orientation

As the Principal Investigator, I have ensured that all of the personnel named on the form who will be using any of the biological agents in Sections 1.0 to 9.0 have been trained.

SIGNATURE M. M.

* all staff have been trained in above but students have not

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. M. 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

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?: _____

THE UNIVERSITY OF WESTERN ONTARIO

SCHULICH SCHOOL OF MEDICINE AND DENTISTRY
DEPARTMENT OF ANATOMY AND CELL BIOLOGY

Laboratory Procedures To Be Followed When Embalming Donors To The Body Bequeathal Program

Involves the handling of unfixed human blood tissue, tissues or body fluids (HBBF)

(with information taken from "Recommended Guidelines for the Implementation of Universal Precautions in the Funeral Service Profession", Board of Funeral Services, Ontario Funeral Service Association)

When a call is received, it is essential to elicit all information pertaining to the health of the individual in addition to the official cause of death.

All human source material can potentially transmit infection. The agents of primary concern are MRSA, VRE, c.diff., hepatitis viruses a, b, c, HIV, tuberculosis, and Creutzfeld-Jacob Disease. However any infectious disease present can be transmitted by handling infected material. Blood represents the body fluid of highest risk but all body fluids should be handled as if they have the potential to transmit disease. Any donors with these conditions should be declined.

If any donors have had very recent major surgery where the wounds or incisions have not had a chance to heal, the donor should be declined.

If a donor is accepted, the body will be placed in the cooler in the morgue. The embalming process must take place within 48 hours of the time of death.

When embalming for medical education, the first priority is long term preservation. Embalming fluids that contain concentrated formaldehyde and phenol are used.

1. ALWAYS WEAR GLOVES WHEN HANDLING HUMAN SOURCE MATERIAL

2. Changes gloves between procedures. Do not wash and reuse gloves. Know the correct procedure for removing used gloves. Individuals having any open cuts, lesions, or severe dermatitis should take extra precautions. The use of double gloves or stronger glove material is recommended

3. WASH YOUR HANDS THORUGHLY WITH SOAP AND WATER WHEN CHANGING OR DISCARDING GLOVES OR WHEN WORK IS COMPLETED

4. Wear safety glasses or face shield

5. Wear a long sleeved lab coat (fastened). A plastic apron may also be necessary

6. All materials used must be disposable, or be able to be cleaned and disinfected or sterilized. Place in a readily accessible area the items, equipment and materials required for the entire procedure

7. Use special care when handling sharps – needles, scalpels, glassware- to avoid cuts and stab wounds. Try to keep sharp instruments such as scalpel blades and scissors to a minimum. Use blunt end scissors

8. Prepare approved containers for contaminated waste

9. Before lifting the body, check under shoulders and legs for sharps, such as syringes and IV lines

10. The shroud or body pouch covering the donor should be disposed of once transfer to embalming table is complete. Those not taking part in the preparation should wash with antiseptic all areas in contact with the remains and leave prior to embalming

11. Slowly unwrap the remains to avoid splashing, and discard the material into a waste container

12. Care should be taken to avoid placing pressure on the abdomen or thorax, to prevent expulsion of substances from nasal, oral, and genitor-urinary orifices

13. Spray any areas of blood or blood mixed fluids with a topical disinfectant solution. Completely wash the remains with a germicidal soap and rinse thoroughly, being extremely careful to avoid splashing. Keep water pressure and flow at a low rate at all times

14. Disinfect facial orifices with a disinfectant solution and cotton swab. Eyes should not be swabbed with a formalin based solution as the result may be post embalming dehydration of the eye balls or eye lids. Pack all orifices with cotton saturated with a disinfectant

15. If using a needle injector, use a damp disposable cloth to cover the area to prevent backsplashing. If using the suture method, extreme caution should be exercised and locking forceps should be used

16. If purging should occur during the embalming operation, remove any nasal or oral packs and swab the area with cotton saturated with a disinfectant solution

17. It is recommended that an aspirator be selected that minimizes the risk of splashing. All fluids must be recovered and treated, prior to disposal. The drainage port of the aspirator should be covered to prevent a backsplash. Aspirating should be carried out in a careful and thorough manner.

18. Thoroughly bathe the body with disinfectant and rinse carefully. Completely dry the body and dispose of any towels in a waste container.

19. All materials in contact with or contaminated by blood must be disposed of into designated biohazard containers

20. NO HUMAN SOURCE MATERIAL OR ANYTHING CONTAMINATED BY IT IS TO BE DISCARDED INTO THE REGULAR GARBAGE

21. All equipment and work surfaces must be disinfected after use. Each instrument used to enter a body which, when withdrawn, could puncture or come into significant contact with non-intact skin has the potential to provide a mode of transmission for infectious agents. Sort items which require additional handling. Soak using a disinfectant. Wash with a detergent. Rinse each item thoroughly. Dry to prevent rusting and corrosion.

22. NO FOOD OR DRINK IN THE LAB AREA

23. If blood is spilled it must be cleaned up immediately

    a. SMALL SPILLS: Wearing gloves, wipe up spill with paper towel soaked in disinfectant and discard into a designated container. Discard gloves and wash hands thoroughly
    b. LARGE SPILLS: Wearing gloves cover the spill with paper towel or other absorbent material and gently pour bleach onto the spill being careful not to splash. Allow 10 minutes for inactivation then scoop up absorbed blood and disinfectant and discard into a designated container. Remove and discard gloves and wash hands thoroughly.

24. If you cut or stab yourself with items contaminated with blood, wash the wound with soap and running water immediately and continue for 5 minutes. Squeeze or scrub the wound to induce bleeding if possible.
    GET MEDICAL ADVICE IMMEDIATELY BY REPORTING TO STUDENT OR STAFF/FACULTY HEALTH SERVICES IN UCC, ROOM 11 OR 25

    For eye exposures, flush eyes under eyewash for 10-15 minutes and get medical assistance

    If source of the contaminating blood is known take this information with you to the medical office

25. Personnel must receive biosafety training before starting laboratory procedures.

26. Hepatitis B immunization is recommended. Position hazard forms are up to date.

Now Workplace ? Health, UCC 25 ?