

# Modification Form for Permit BIO- UWO-01 74

**Permit Holder: Vincent Morris**

**Approved Personnel**

**(Please stroke out any personnel to be removed)**

Nicole Hague

Ian MacDonald

**Additional Personnel**

**(Please list additional personnel here)**

Dr. Joaquin Madrenas

	<b>Please stroke out any approved Biohazards to be removed below</b>	<b>Write additional Biohazards for approval below. *</b>
<b>Approved Microorganisms</b>	E.coli - dh5 Alpha	
<b>Approved Cells</b>	rodent (C57B/6), rodent (mmpq), rodent (C57B1/6), mouse melanoma, B1 6F1, B16F10, MDAMB 231	Cloudman S91 mouse melanoma cells purchased from American Type Culture Collection. Noninfectious.
<b>Approved Use of Human Source Material</b>		
<b>Approved GMO</b>	pcDNA 3.1 Hygro, pcDNA 3.1 neo	
<b>Approved use of Animals</b>	mice	
<b>Approved Toxin(s)</b>		

*\* PLEASE ATTACH A MATERIAL SAFETY DATA SHEET OR EQUIVALENT FOR NEW BIOHAZARDS.*

*\*\* PLEASE ATTACH A BRIEF DESCRIPTION OF THE WORK THAT EXPLAINS THE BIOHAZARDS USED AND HOW THEY WILL BE USED.*

**As the principal investigator, I have ensured that all of the personnel named on the form have been trained. 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 of Permit Holder:** Vincent Lamoni

**Classification:** 1

**Date of Last Biohazardous Agents Registry Form:** Aug 24, 2007

**Date of Last Modification (if applicable):** Jul 10, 2009

**BioSafety Officer(s):** \_\_\_\_\_

**Chair, Biohazards Subcommittee:** \_\_\_\_\_

Cloudman mouse melanoma cells are used as allogenic cells to investigate immunosuppression by melanoma cells.



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## Product Description

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## Cell Biology

**ATCC® Number:** CCL-53.1™

**Price:** \$323.00

**Designations:** Clone M-3 [Cloudman S91 melanoma]

**Depositors:** G Sato

**Biosafety Level:** 1

**Shipped:** frozen

**Medium & Serum:** [See Propagation](#)

**Growth Properties:** adherent

**Organism:** *Mus musculus* (mouse)

**Morphology:** epithelial

**Source:** **Organ:** skin  
**Strain:** DBA  
**Disease:** melanoma  
**Cell Type:** melanocyte;

**Cellular Products:** melanin

**Permits/Forms:** In addition to the [MTA](#) mentioned above, other [ATCC and/or regulatory permits](#) may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please [click here](#) for information regarding the specific requirements for shipment to your location.

**Virus Susceptibility:** herpes simplex; vaccinia; pseudorabies; vesicular stomatitis (Indiana)

**Virus Resistance:** poliovirus 1

**Tumorigenic:** Yes

**Reverse Transcript:** positive

**Cytogenetic Analysis:** Stemline number is hypertetraploid. Karyotype is stable within stemline number. Marker chromosomes: A medium size chromosome with a submedian centromere and a smaller chromosome with a median centromere., The remaining 81 chromosomes have terminal centromeres, the first one is larger than normal. A minute chromosome was noted in 20% of the cells.

**Gender:** male

**Comments:** Clone M-3, a melanin-producing cell line was adapted to cell culture by Y. Yasumura, A.H. Tashjian and G. Sato from a Cloudman S91 melanoma in a (C X DBA) F1 male mouse obtained from the Jackson Memorial Laboratory, Bar Harbor, Maine.  
Tested and found negative for ectromelia virus (mousepox).

**Propagation:**

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We will also be including the mouse cell line Cloudman S91 melanoma cells. These cells will be purchased from American Type Culture Collection and are pathogen free. We are using these cells because they are allogenic to the mice listed above and allow use to determine the immunosuppressive ability of the melanoma cells in an allogenic host.

**Modification Form for Permit BIO-UWO-0174**

**Permit Holder: Vincent Morris**

**Approved Personnel**  
(Please stroke out any personnel to be removed)

Nicole Hague  
Ian MacDonald

**Additional Personnel**  
(Please list additional personnel here)

Please stroke out any approved Biohazards to be removed below

Write additional Biohazards for approval below. \*

*See e-mail attached V.*

Approved Microorganisms

*E. coli - dH5alpha*

Approved Cells

*rodent (C57B/6), rodent (mmpq), rodent (C57B1/6), mouse melanoma, B16F1, B16F10*

*MDAMB 231*

Approved Use of Human Source Material

Approved GMO

*pcDNA3.1 Hygro,  
pcDNA3.1 neo*

Approved use of Animals

*mice*

\* PLEASE ATTACH A MATERIAL SAFETY DATA SHEET OR EQUIVALENT FOR NEW BIOHAZARDS.  
\*\* PLEASE ATTACH A BRIEF DESCRIPTION OF THE WORK THAT EXPLAINS THE BIOHAZARDS USED AND HOW THEY WILL BE USED.

Classification: 1

Date of last Biohazardous Agents Registry Form: Aug 24, 2007

Signature of Permit Holder: *Vincent Morris*

BioSafety Officer(s): *Itanley* *July 10/09*

Chair, Biohazards Subcommittee: *G.M. Kidd*

Tuesday, May 12, 2009

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**Modification Form for Permit B10-UWO-0174**

**Permit Holder: Vincent Morris**

Approved Toxin(s)

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- PLEASE ATTACH A MATERIAL SAFETY DATA SHEET OR EQUIVALENT FOR NEW BIOHAZARDS.
- \*\* PLEASE ATTACH A BRIEF DESCRIPTION OF THE WORK THAT EXPLAINS THE BIOHAZARDS USED AND HOW THEY WILL BE USED.

Classification:   1  

Date of last Biohazardous Agents Registry Form:   Aug 24, 2007  

Signature of Permit Holder:   Vincent Morris  

BioSafety Officer(s):   Stacey     July 10/09  

Chair, Biohazards Subcommittee:   G.M. Keddler  

Tuesday, May 12, 2009

Re: [Fwd: Re: MOfidication form: MOrris]

**Subject:** Re: [Fwd: Re: MOfidication form: MOrris]  
**From:** Vincent L Morris <vmorris@uwo.ca>  
**Date:** Thu, 25 Jun 2009 20:11:02 -0400  
**To:** Jennifer Stanley <jstanle2@uwo.ca>

To Jennifer Stanley:

The MDAMB 231 cell line is an established breast tumor cell line. We are using it to determine how breast tumor cells spread to and grow in lymph nodes.

Thanks,  
Vince

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

From: Jennifer Stanley <jstanle2@uwo.ca>  
Date: Thursday, June 25, 2009 3:10 pm  
Subject: [Fwd: Re: MOfidication form: MOrris]  
To: Vincent L Morris <vmorris@uwo.ca>

> Hi Dr. Morris  
> OK - cloning strains of E. coli (ie dH5 alpha)  
> Can you provide some details on the use of the MDAMB 231 cell line?  
> Thanks  
> Jennifer  
>

> ----- Original Message -----

> Subject: Re: MOfidication form: MOrris  
> Date: Wed, 27 May 2009 20:25:12 -0400  
> From: Vincent L Morris <vmorris@uwo.ca>  
> To: Jennifer Stanley <jstanle2@uwo.ca>  
> References: <4A159F0C.1050800@uwo.ca>  
> <fc24e515711e.4a1a5723@uwo.ca>  
> <4A1A99FF.5030208@uwo.ca> <4A1BFDD1.7080800@uwo.ca>

>  
>  
>

> Thanks,

>

> Vince Morris

>

> ----- Original Message -----

> From: Jennifer Stanley <jstanle2@uwo.ca>  
> Date: Tuesday, May 26, 2009 10:33 am  
> Subject: Re: MOfidication form: MOrris  
> To: Vincent L Morris <vmorris@uwo.ca>

>

> > Dr. Morris

> > I will also put on it E.coli and the plasmids you use in the



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## Cell Biology

<b>ATCC® Number:</b>	HTB-26™	<input type="button" value="Order this Item"/>	<b>Price:</b>	\$256.00
<b>Designations:</b>	MDA-MB-231		<b>Depositors:</b>	R Cailleau
<b><u>Biosafety Level:</u></b>	1		<b>Shipped:</b>	frozen
<b>Medium &amp; Serum:</b>	<a href="#">See Propagation</a>		<b>Growth Properties:</b>	adherent
<b>Organism:</b>	<i>Homo sapiens</i> (human)		<b>Morphology:</b>	epithelial
				
<b>Source:</b>	<b>Organ:</b> mammary gland; breast <b>Disease:</b> adenocarcinoma <b>Derived from metastatic site:</b> pleural effusion <b>Cell Type:</b> epithelial			
<b>Permits/Forms:</b>	In addition to the <a href="#">MTA</a> mentioned above, other <a href="#">ATCC and/or regulatory permits</a> may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please <a href="#">click here</a> for information regarding the specific requirements for shipment to your location.			
			<a href="#">Related Cell Culture Products</a>	
<b>Applications:</b>	transfection host ( <a href="#">Nucleofection technology from Lonza</a> <a href="#">Roche FuGENE® Transfection Reagents</a> )			
<b>Receptors:</b>	epidermal growth factor (EGF), expressed transforming growth factor alpha (TGF alpha), expressed			
<b>Tumorigenic:</b>	Yes			
<b>DNA Profile (STR):</b>	Amelogenin: X CSF1PO: 12,13 D13S317: 13 D16S539: 12 D5S818: 12 D7S820: 8,9 TH01: 7,9.3 TPOX: 8,9 vWA: 15,18			
<b>Cytogenetic Analysis:</b>	The cell line is aneuploid female (modal number = 64, range = 52 to 68), with chromosome counts in the near-triploid range. Normal chromosomes N8 and N15 were absent. Eleven stable rearranged marker chromosomes are noted as well as unassignable chromosomes in addition to the majority of autosomes that are trisomic. Many of the marker chromosomes are identical to those shown in the karyotype reported by K.L. Satya-Prakash, et al.			
<b>Isoenzymes:</b>	AK-1, 1 ES-D, 1 G6PD, B GLO-I, 2 Me-2, 1-2 PGM1, 1-2 PGM3, 1			
<b>Age:</b>	51 years adult			

Use of MDAMB 231 cells by Vincent L. Morris

We are investigating the spread of mammary tumor cells to lymph nodes and other tissues and how these cells can colonize lymph nodes and other organs. Metastasis of mammary tumor cells and their ability to evade the body's immune system is the main reason mammary tumor cells are so deadly. If we can determine the factors affecting the spread of mammary tumor cells and how they evade the bodies immune defenses, we can reduce the number of deaths from this form of cancer. We wil also compare the metastasis of mammary tumor and melanoma cells to assist in determining how both types of tumor cells spread.

*Vincent L. Morris*

1.15. Will genetic modifications be made to the microorganisms or biological agents described in 1.1.1.?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>1.15.1. PLASMIDS</b>					
Bacteria Used for Cloning	E. coli				
Plasmid(s)	pcDNA3.1Hygro;pcDNA3.1 neo				
Plasmid Source	Invitrogen				
Gene Transfected	Tdtomato;beta galactosidase:mko2hcdfl;mAGhGem				
Describe Resulting Change	marks cells with a staining or fluorescent tag				
Is this expected to increase the invasiveness, toxicity, or tumorigenicity of the agent in the animal?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>1.15.2. VIRAL VECTORS</b>					
Virus Used for Transfection					
Vector(s)					
Vector Source					
Gene Transfected					
Describe Resulting Change					
Is this expected to increase the invasiveness, toxicity, or tumorigenicity of the agent in the animal?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>9.1.2. Risk Control Measures – List the control measures required to eliminate or further minimize the risk.</b>					
<b>RISK CONTROL MEASURES/ACTION</b>					
1.2.1. What will you do if someone is bitten or scratched?	injected cells or microspheres pose no added threat to humans, Follow workplace health procedure for bites and scratches (see attached)				
1.2.2. How are contaminated materials to be treated prior to disposal?	decontamination by incineration, chemical disinfection or autoclaving				
1.2.3. How are the contaminated carcasses to be disposed of?	incineration				
1.2.4 List all preventative measures to be taken to minimize the risk of exposure to RESEARCH STAFF handling the material	<input checked="" type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Gloves <input checked="" type="checkbox"/> Lab coat or equivalent <input checked="" type="checkbox"/> Mix solutions and handle agent(s) in the fumehood <input type="checkbox"/> Contact Workplace Health regarding the medical surveillance required to handle these agents. <input checked="" type="checkbox"/> N95 Fit-tested Respirator, specify type: <input type="checkbox"/> Other, please specify:				
1.2.5. List all preventative	<input checked="" type="checkbox"/> Safety Glasses				

**Subject:** Re: MODification form: MORris  
**From:** Jennifer Stanley <jstanle2@uwo.ca>  
**Date:** Tue, 26 May 2009 10:33:53 -0400  
**To:** Vincent L Morris <vmorris@uwo.ca>

Dr. Morris

I will also put on it E.coli and the plasmids you use in the animal protocol, just for the sake of completion (no safety concerns). I assume that you use cloning E.coli (ie dH5 alpha or something like that)?  
Jennifer

Jennifer Stanley wrote:  
Got it - thanks!

Vincent L Morris wrote:  
To Jennifer:

I have faxed a copy of the modification to you. I hope you received it.

Thanks,  
Vince

----- Original Message -----  
From: Jennifer Stanley <jstanle2@uwo.ca>  
Date: Thursday, May 21, 2009 2:35 pm  
Subject: MODification form: MORris  
To: Vincent L Morris <vmorris@uwo.ca>

> Hi Dr. Morris  
> Please update this paperwork as soon as possible - your AUS  
> protocol can  
> not be approved without it.  
> Thanks  
> Jennifer  
>

> ----- Original Message -----  
> Subject: MODification form: MORris  
> Date: Tue, 12 May 2009 13:57:46 -0400  
> From: Jennifer Stanley <jstanle2@uwo.ca>  
> To: Vincent L Morris <vmorris@uwo.ca>  
>

> Dr. Morris:  
> I received an AUS protocol for you which uses the cell line MDA  
> MB231 cell line. Please complete the attached Modification  
> form to add this to your existing permit. For more  
> information, please see:

> [http://www.uwo.ca/humanresources/docandform/forms/ohs/bio\\_modification\\_info.pdf](http://www.uwo.ca/humanresources/docandform/forms/ohs/bio_modification_info.pdf)

> Thanks!  
> Jennifer  
>

>  
>  
>  
>  
>

# Summary of Approvals for Permit BIO-UWO-0174

## Permit Holder: Vincent Morris

Approved Personnel (Please stroke out any personnel to be removed)

Additional Personnel

Dr. Ian McDonald  
Nicole Hague

	Please stroke out any approved Biohazards* to be removed below	Write additional Biohazards for approval below.
Approved Microorganisms*		
Approved Cells*	rodent (C57B/6), rodent (mmpq)	Rodent (C57B1/6) mouse melanoma B16F1 and B16F10
Approved Use of Human Source Material*		
Approved GMO*		
Approved use of Animals*	mice	
Approved Toxin(s)*		

Date of last Biohazardous Agents Registry Form Aug 24, 2007

Signature of Permit Holder: Vincent Morris

BioSafety Officer(s): Itaney March 28/07

Wednesday, February 29, 2008

Page 1 of 1

Chair, Biohazards Subcommittee:

G.M. Kadder

28 March 2008

THE UNIVERSITY OF WESTERN ONTARIO  
BIOHAZARDOUS AGENTS REGISTRY FORM  
Revised Biohazards Subcommittee: January, 2007

This form must be completed by each Principal Investigator holding a grant administered by the University of Western Ontario where the use of biohazardous infectious agents are described in the experimental work proposed. The form must also be completed if animal work is proposed involving the use of biohazardous agents or animal carrying zoonotic agents infectious to humans. Containment Levels will be required in accordance with Laboratory Biosafety Guidelines, 3rd edition, 2004, Health Canada (HC) or Containment Standards for Veterinary Facilities, 1<sup>st</sup> edition 1996, Canadian Food Inspection Agency (CFIA).

Completed forms are to be returned to Occupational Health and Safety (Stevenson-Lawson Building, Room 60) for forward to the Biohazard Subcommittee. For questions regarding this form, please contact the Biosafety Coordinator at extension 81135. If there are changes to the information on this form (excluding grant title and funding agencies) modifications must be completed and sent to Occupational Health and Safety. See website: [www.uwo.ca/humanresources](http://www.uwo.ca/humanresources)

PRINCIPAL INVESTIGATOR Vincent L. Morris  
SIGNATURE [Signature]  
DEPARTMENT Microbiology & Immunology  
ADDRESS 3014DSB  
PHONE NUMBER 83452  
EMAIL vmorris@uwo.ca

Location of experimental work to be carried out: Building(s) HSA Room(s) 312A  
\*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 it being sent to Occupational Health and Safety (See Section 12.0, Approvals). For research being done at Lawson Health Research Institute, London Regional Cancer Centre, Child and Parent Research Institute or Robarts Research Institute, University Biosafety Committee members can also sign as the Safety Officer.

TITLE OF GRANT(S):  
Role of Matrix Metalloproteinases in Cell Movement  
Coordinated regulation of epidermal growth factor and integrin-stimulated migration of primary keratinocytes)a

PLEASE ATTACH A BRIEF DESCRIPTION OF YOUR WORK, SUCH A THE RESEARCH GRANT SUMMARY(S) THAT EXPLAINS THE BIOHAZARDS USED. PROJECTS SUBMITTED WITHOUT A SUMMARY WILL NOT BE REVIEWED.

FUNDING AGENCY/AGENCIES NSERC

Names of all personnel working under Principal Investigators supervision in this location:

- i) None
- ii) \_\_\_\_\_
- iii) \_\_\_\_\_
- iv) \_\_\_\_\_
- v) \_\_\_\_\_

## 1.0 Microorganisms

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

1.2 Please complete the table below:

Name of Biological agent(s)	Is it known to be a human pathogen? YES/NO <input type="checkbox"/> Yes <input type="checkbox"/> No	Is it known to be an animal pathogen? YES/NO <input type="checkbox"/> Yes <input type="checkbox"/> No	Is it known to be a zoonotic agent? YES/NO <input type="checkbox"/> Yes <input type="checkbox"/> No	Maximum quantity to be cultured at one time?
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

1.3 For above named organism(s) or biological agent(s) circle HC or CFIA Containment Level required.

1 2 3

1.4 Source of microorganism(s) or biological agent(s)? \_\_\_\_\_

## 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 (ie. derived from fresh tissue) that will be grown in culture in the table below

Cell Type	Is this cell type used in your work? <input type="checkbox"/> Yes <input type="checkbox"/> No	Source of Primary Cell Culture Tissue
Human	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Rodent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CS7Bl6 of MMP9- 2day old pups
Non-human primate	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Other (specify)		

2.3 Please indicate the type of established cells that will be grown in culture in the table below.

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

2.4 For above named cell type(s) circle HC or CFIA containment level required: ① 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 if the following will be used in the laboratory

- ◆ Human blood (whole) or other bodily fluids  YES  NO If YES, Specify \_\_\_\_\_
- ◆ Human blood (fraction) or other bodily fluids  YES  NO If YES, Specify \_\_\_\_\_
- ◆ Human organs (unpreserved)  YES  NO If YES, Specify \_\_\_\_\_
- ◆ Human tissues (unpreserved)  YES  NO If YES, Specify \_\_\_\_\_

3.3 Is human source known to be infected with and infectious agent  YES  NO  
If YES, please name infectious agent \_\_\_\_\_

3.4 For above named materials circle HC or CFIA containment level required. 1 2 3

**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 sequences from the following be involved:

- ◆ HIV  YES  NO  
if YES specify \_\_\_\_\_
- ◆ HTLV 1 or 2 or genes from any CDC class 1 pathogens  YES  NO  
if YES specify \_\_\_\_\_
- ◆ Other human or animal pathogen and or their toxins  YES  NO  
if YES specify \_\_\_\_\_

4.3 Will intact genetic sequences be used from

- ◆ SV 40 Large T antigen  YES  NO If YES specify \_\_\_\_\_
- ◆ Known oncogenes  YES  NO If YES specify \_\_\_\_\_

4.4 Will a live vector(s) (viral or bacterial) be used for gene transduction  YES  NO  
If YES name virus \_\_\_\_\_

4.5 List specific vector(s) to be used: \_\_\_\_\_

4.6 Will virus be replication defective  YES  NO

4.7 Will virus be infectious to humans or animals  YES  NO

4.8 Will this be expected to increase the Containment Level required  YES  NO

**5.0 Human Gene Therapy Trials**

5.1 Will human clinical trials using the viral vector in 4.0 be conducted?  YES  NO  
If no, please proceed to Section 6.0

If YES attach a full description of the make-up of the virus.

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

5.3 How will the virus 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  NO

**6.0 Animal Experiments**

6.1 Will any of the agents listed be used in live animals?  YES  NO  
If no, please proceed to section 7.0

6.2 Name of animal species to be used mice 90

6.3 AUS protocol # 2005-017-04 renewed May 1/07 90

6.4 If using murine cell lines, have they been tested for murine pathogens?  YES  NO

**7.0 Use of Animal species with Zoonotic Hazards**

7.1 Will any of the following animals or their organs, tissues, lavages or other bodily fluids including blood be used:

- ◆ Pound source dogs  YES  NO
- ◆ Pound source cats  YES  NO
- ◆ Sheep or goats  YES  NO
- ◆ Non- Human Primates  YES  NO If YES specify species \_\_\_\_\_
- ◆ Wild caught animals  YES  NO If YES specify species \_\_\_\_\_  
colony # \_\_\_\_\_

**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 \_\_\_\_\_

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

DESCRIPTION MUST BE ATTACHED TO THIS FORM OR PROJECT WILL NOT BE REVIEWED

9.0 Import Requirements

9.1 Will the agent be imported?  YES  NO  
If no, please proceed to Section 10.0  
If yes, country of origin \_\_\_\_\_

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

9.3 Has an import permit been obtained from CFIA for animal pathogens?  YES  NO

9.4 Has the import permit been sent to OHS?  YES  NO  
If yes, Permit # \_\_\_\_\_

10.0 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

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

SIGNATURE Vincent Lomura

11.0 Containment Levels

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

11.2 Has the facility been certified by OHS for this level of containment?  YES  NO  
*oh action*

11.3 If yes, please give the date and permit number: N/A

12.0 Approvals

UWO Biohazard Subcommittee

Signature GM Kelder Date 24 Aug. '07

Safety Officer for Institution where experiments will take place

Signature Stanley Date Aug 24/07

Safety Officer for University of Western Ontario (if different than above)

Signature \_\_\_\_\_ Date \_\_\_\_\_