Modification Form for Permit BIO-UWO-0018

Permit Holder: Peeyush Lala

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

Vic Mohindra

Additional Personnel
(Please list additional personnel here)

Xiping Xin, Rabindra Bhattacharjee, Girish Gannareddy, Neena Lala

	Please stroke out any approved Biohazards to be removed below	Write additional Biohazards for approval below. *
Approved Microorganisms		
Approved Cells	human (established), Rodent (established), C3L5 mouse, HTR-8/SVneo human, RSUT2/C human, MD2-MB-231 human, MCF-7 human, HS578T human, SKBR3 human, MDA-MB-468 human, T47D human, JEG-3	
Approved Use of Human Source Material		Human placenta. (2007-036) For complementary studies made with HTR-8/SV neo cell line (a placental cell)
Approved GMO	SV 40 Large T antigen (HTR8/SV neo cell line)	
Approved use of Animals	C3H/HeJ mice (2007-057-04, 2007-036-02)	BALB/c nude mice (2007-05) (2007-036) For transplantation human tumor cell lines above
Approved Toxin(s)		

** 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: 2

Date of last Biohazardous Agents Registry Form: Jul 4, 2007

Signature of Permit Holder: P Lala

BioSafety Officer(s):

Chair,Biohazards Subcommittee:

To Jennifer Stanley
Biosafety office
UWO
Support Services Building
Room 4190-C

26 May, 2009

Dear Jennifer:

Thanks for sending me the Biohazard renewal certificate BIO-UWO-0018. I appreciate it very much, since I have to send a copy of the approval to some of the granting agencies funding my research. I am including the modification form
(a) To include the names of personnel whose names are missing in this form. They are all trained in Biosafety.
(b) To include materials/animal strains which are also missing in my approval form:
.
(1) Human placenta: Tissues and cells derived from healthy human placenta are being used in my CIHR funded project (also related to current animal protocol number 007-036) upon appropriate approval since 1983 in an intermittent manner, along with placenta- derived cell lines (HTR-8/SVneo, RSVT-2C) produced in my lab in early 1990s. Some years ago, the Institutional Ethic Review Board (human ethics committee at UWO) had decided that I don't need their approval, since we use tissue samples sent for pathology. We use a small part of the materials sent for routine pathology by the Department of Obstetric and Gynecology according to the ethics guidelines set up by OB/Gyn department, which had approved this usage for our research.
Using placental tissue and placenta-derived cell lines, we have been investigating molecular mechanisms regulating placental invasion of the pregnant uterus and its blood vessels. This invasion is essential to provide nutrients to the fetus. Poor placental invasion leads to a life-threatening pregnancy-associated disease called preeclampsia, whereas excessive invasion is feature of placental cancer (choriocarcinomas). This is why our study is very important. My lab has pioneered the research and many discoveries in this field. We have also shared our placental cell lines to many scientists all over the world for their own research. In fact, you have recently approved some of the shipments to scientists outside Canada as nonhazerdous.

Personnel who have used placental tissues have always been vaccinated for Hep B. Currently no one is using placental tissues, but if someone does, he/she will be sent for vaccination before handling placenta.

(2) BALB/C nude mice are being used for transplantation of human tumor cells, as approved in my animal protocols 2007-05 and 2007-036

If you have any further question please call me at ext 83015

Sincerely

P.K.Lala, MD,PhD
Professor, Department of Anatomy and Cell Biology, and
Professor, department of Oncology, UWO
MSB Room 434
Tel 661-3015
Email: pklala@uwo.ca

B10-UWO-0167
0018

THE UNIVERSITY OF WESTERN ONTARIO
BIOHAZARDOUS AGENTS REGISTRY FORM
Revised Biosafety Committee: October 25, 2004

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, 2nd edition, 1996, Health Canada (HC) 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 (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

PRINCIPAL INVESTIGATOR PEEYUSH K LALA
SIGNATURE [signature]
DEPARTMENT Anatomy and Cell Biology
ADDRESS Medical Sciences Bldg Rm 433
PHONE NUMBER 83015
EMAIL pklala@uwo.ca

Location of experimental work to be carried out: Building(s) MSB Room(s) 433
*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): (1) Natural host cellular defense in neoplasia and its manipulation for immunotherapy (2) The role of VEGFC in breast cancer progression & metastasis (3) COX-2/Her2/neu axis in VEGF-C upregulation and breast cancer ~~progression~~ therapy (4) Human placental trophoblast as model for tumor progression

PLEASE ATTACH A BRIEF DESCRIPTION OF YOUR WORK, SUCH A THE RESEARCH GRANT SUMMARY(S) THAT EXPLAINS THE BIOHAZARDS USED. attached

FUNDING AGENCY/AGENCIES (1) CIHR (2) CBCF (3) OICR (4) CIHR

Names of all personnel working under Principal Investigators supervision in this location:
i) Jennifer Cai Technician
ii) Shipra Rastogi Post-Doc
iii) Vic Mohindra Grad student
iv) Miriam Tsonis Grad student
v)

1.0 Microorganisms

1.1 Does your work involve the use of microorganisms? ☐ YES ☑ NO
If no, please proceed to Section 2.0

1.2 Please complete the table below:

Name of Microorganism	Is the microorganism known to be a human pathogen? YES/NO	Is the microorganism known to be an animal pathogen? YES/NO	Is the microorganism known to be a zoonotic agent? YES/NO	Maximum quantity to be cultured at one time?
	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	
	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	

1.3 For above named organism(s) circle HC or CFIA Containment Level required. 1 2 3

1.4 Source of microorganism?

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 cells that will be grown in culture in the table below

Cell Type	Is this cell type used in your work?	Established or Primary *
Human	☑ Yes ☐ No	☑ Established ☐ Primary
Rodent	☑ Yes ☐ No	☑ Established ☐ Primary
Non-human primate	☐ Yes ☐ No	☐ Established ☐ Primary
Other (specify)		

See below "

* i.e. derived from fresh tissue

2.3 Supplier of primary cell culture tissue _____

2.4 List specific cell lines to be used and source/supplier: See below

2.5 For above named cell types(s) circle HC or CFIA containment level required 1 2 3

Containment level

(1) cell line
C3L5 mouse breast cancer cell line established 27 years ago in this laboratory from a C3H/HeJ spontaneous mammary tumor (1)

(2) HTR-8/SVneo and RSVT2/C human trophoblast cell lines established in our laboratory from first trimester human placental 15 years ago (2)

(3) MDA-MB-231, MCF-7, Hs578T, SKBR3, MDA-MB-468, T47D (2)
Human breast cancer cell lines purchased from ATCC

(4) JEG-3, JAR BeWo human Choriocarcinoma cell lines from ATCC (2)

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 Human placenta

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 organism or cell line ? ☐ 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 was introduced for immortalization of HTR-8/SV neo cell line 15 yrs ago.
- 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 C3H/HeJ mice for the syngenic C3L5 breast cancer cell line

6.3 AUS protocol # BALB/c Nude mice for human breast cancer, Trophoblast and choriocarcinoma cell lines: 2007-057-04, 2007-036-02

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 _____

col # _____

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_{50} (specify species) of the toxin_____

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 _____

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

11.3 If yes, please give the date and permit number: Biohazard Safety Cabinet Certified on aug 31, 2006 Serial # 9396 Certified to NSF-STD. 49

12.0 Approvals

UWO Biohazard Subcommittee

Signature G.M. Kidder Date 4 July 07

Safety Officer for Institution where experiments will take place

Signature _____ Date _____

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

Signature J Stanley Date July 3/07