Modification Form for Permit BIO-LHRI-0033

Permit Holder: Christopher Pin

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

~~Wendy Leadbeater~~

Chris Johnson

~~Agnes Kowalik~~

Additional Personnel
(Please list additional personnel here)

Elena Fazio

Sonia Volante

Linsay Drysdale

Katherine Green

	Please stroke out any approved Biohazards to be removed below	Write additional Biohazards for approval below. *
Approved Microorganisms	E. coli (Dh 5 alpha)	
Approved Cells	Rodent (primary) pancreas, Human (established), Rodent (established), Panc1, AR425, ARIP	R1 Mouse ES cells G4 Mouse ES cells
Approved Use of Human Source Material		
Approved GMO	SV 40 Large T antigen, Adenovirus (pAD Easy (Qbiogene) and modified recombinants)	Lentivirus; partial fragment of HIVLTR (see details)
Approved use of Animals		

* *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: Sep 10, 2007

Signature of Permit Holder: _____

BioSafety Officer(s): Gail Ryder

Chair,Biohazards Subcommittee: _____

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Approved Toxin(s)

New Individuals on grant:
Elena Fazio and Sonia Volante are graduate students in my laboratory that will be working with lentiviral constructs and primary acinar cells, respectively.
Linsay Drysdale and Katherine Green work in the london Regional Transgenic and Gene Targeting Facility and will be handling the R1 and G4 Mouse Embryonic cell lines

New Cell lines:
The R1 and G4 mouse ES cell lines are used for gene targeting. they will be electroporated with DNA vectors to target specific genes. They have been used extensively to generate novel mouse models. Targeted clones of the cells will be injected into mouse blastocysts and implanted back into pseudopregnant females to generate chimeric animals.

New reagent:
We have obtained and are generating lentiviral DNA constructs that will be used to infect AR42J and primary acinar cells. While we generate the DNA constructs, the actual lentivirus is generated in Toronto by Dr. Jeff Medin's laboratory. We will be using a Tissue culture hood that is currently certified through Dr. Mellissa Mann to be safe for lentiviral work. All items that come in contact with the lentivirus will be thoroughly bleached before disposal in biohazard waste.

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Classification: 2

Date of last Biohazardous Agents Registry Form: Sep 10, 2007

Signature of Permit Holder:

BioSafety Officer(s): Gail Ryder

Chair,Biohazards Subcommittee:

BIO-LHRI-0033

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, 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 Christopher Pin
SIGNATURE
DEPARTMENT Paediatrics
ADDRESS A5-134, Victoria Research Laboratories
PHONE NUMBER x53073
EMAIL cpin@uwo.ca

Location of experimental work to be carried out: Building(s) VRL Room(s) 5th floor
*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):
The role of Mist1 in regulating pancreatic function and susceptibility to pancreatitis (CIHR)
The molecular factors regulating acinar cell trans-differentiation to islet cells (CDA)

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 CIHR - Canadian Institutes of Health Research
CDA - Canadian Diabetes Association

Names of all personnel working under Principal Investigators supervision in this location:
i) Charis Johnson
ii) Michelle Everest
iii) Elena Fazio
iv) Jackie Weston
v) Jodi Peat
vi) Victoria Garside

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

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)? (ف)YES ف 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	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?
E coli (DH5α)	ف Yes (ف)No	ف Yes (ف)No	ف Yes (ف)No	50 ml inoculated culture
	ف Yes ف No	ف Yes ف No	ف Yes ف No	
	ف Yes ف No	ف Yes ف No	ف Yes ف No	
	ف Yes ف No	ف Yes ف No	ف Yes ف 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 microrganism(s) or biological agent(s)? Continuing culture

2.0 Cell Culture

2.1 Does your work involve the use of cell cultures? (ف)YES ف 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?	Source of Primary Cell Culture Tissue
Human	ف Yes (ف)No	
Rodent	(ف)Yes ف No	Pancreas.
Non-human primate	ف Yes (ف)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?	Specific cell line(s)	Supplier / Source
Human	(ف)Yes ف No	Panc1	ATCC (already in lab)
Rodent	(ف)Yes ف No	AR42J, ARIP	ATCC (already in lab)
Non-human primate	ف Yes (ف)No		
Other (specify)	ف Yes (ف)No		

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

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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 in AR42J cells
- 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 Adenovirus

4.5 List specific vector(s) to be used: pAD Easy (QBiogene) & modified recombinants

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)

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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_____

6.3 AUS protocol # _____

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_{50} (specify species) of the toxin_____

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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: As per Dave Griffith 07/08/17

12.0 Approvals

UWO Biohazard Subcommittee

Signature _____ Date 10 Sept. '07

Safety Officer for Institution where experiments will take place

Signature _____ Date August 17, 2007

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

Signature _____ Date Sept 10/07

labwork only.
see attached re: animal work @ Level 2

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