

Modification Form for Permit BIO-LRCC-0014

Permit Holder: Frederick Dick

Approved Personnel

(Please stroke out any personnel to be removed)

Sarah Marie Francis

Alison Martens

Matt Cecchini

~~Olivia Palander~~

Shauna Lee

Srikanth Talluri

Courtney Coschi

Additional Personnel

(Please list additional personnel here)

	Please stroke out any approved Biohazards to be removed below	Write additional Biohazards for approval below. *
Approved Microorganisms	E. coli, DH5 alpha, BL21	
Approved Cells	Rodent (primary), Human (established), C33A, Saos2, U20S, HeLa, H1299, IMR90, Rodent (established), NIH 3T3, other 3T3s	
Approved Use of Human Source Material	blood (DNA extracted from cells), Human tissues (unpreserved)	
Approved GMO	Oncogenes, Ras, E1A, E7, Adenovirus, Ecotropic retrovirus, pBABE	pBSK, pGEX, pcDNA, pCMV-neo-therm, pET, pGL, pCR, pBAC, pScden, pEGFP, pLMP, pGEM, pUC, pSP1

* 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: Oct 26, 2007

Signature of Permit Holder: 

BioSafety Officer(s): _____

Chair, Biohazards Subcommittee: _____

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Approved use of
Animals

Mice (2007-058)

Approved Toxin(s)

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Chair, Biohazards Subcommittee: _____

Plasmid backbone information:

Note that many of these vector backbones have a number of members in a series that differ in their multicloning sites. For example pGL1, 2, and 3 are in common use in my lab but are designated below just by pGL. The web link is for pGL2.

Vectors in my lab are used for shuttling pieces of cloned DNA, expression in prokaryotic and eukaryotic cells, gene-targeting in mouse ES cells, and shRNA expression. Some vectors can be used to package ecotropic retroviruses for gene expression also.

pCDNA <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=5592>

pCR <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=5597>

pBABE <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=5484>

pGEX <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=5524>

pUC <https://www.lablife.org/ct?f=d&a=showvecinfo&vectorid=6698>

pBSK <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=5495>

CMV-neo-Bam <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=5492>

pQE <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=6186>

pET <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=251>

pGL <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=3343>

pBAC <http://bacpac.chori.org/pbace36.htm>

pScodon http://www.cultek.com/inf/otros/perfil-provedores/Perfil%20EUROGENTEC/catalogo_2008/EGT_08_chap6_ssrix.pdf

pLMP

http://www.ncbi.nlm.nih.gov/pubmed/16200065?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_RVDocSum

pGEM <https://www.lablife.org/ct?f=d&a=showvecinfo&vectorid=5950>

pSP <https://www.lablife.org/ct?f=c&a=showvecinfo&vectorid=3267>

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Permit Holder: Frederick Dick

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

~~Blas Julian~~

Additional Personnel
(Please list additional personnel here)

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Oliver Pickander
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Approved GMO	Oncogenes, Ras, E1A, E7, Adenovirus, Ecotropic retrovirus, pBABE	
Approved use of Animals	Mice (2007-058)	
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.

Date of last Biohazardous Agents Registry Form Oct 26, 2007

Signature of Permit Holder: Frederick Dick

BioSafety Officer(s): Maire Ryan Dec 11/08 Hanley Dec 19/08

Chair, Biohazards Subcommittee: G.M. Keller

This is a biopsy sample from a tumor and is akin to a blood sample. It can't be cultured, you dissolve it in solvent and extract DNA, RNA, etc. the same as a cell pellet from human blood.

BIO-LRCC-0014

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 Fred Dick
SIGNATURE [Signature]
DEPARTMENT Biochemistry
ADDRESS A4136 VRL
PHONE NUMBER 519-685-8620
EMAIL fdick@uwo.ca

Location of experimental work to be carried out: Building(s) LREP/VRL Room(s) 4th 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 Roberts Research Institute, University Biosafety Committee members can also sign as the Safety Officer.

- TITLE OF GRANT(S):
- 1) Regulation of heterochromatin by the Retinoblastoma protein in cell cycle and cancer.
 - 2) Differential Control of E2F Transcription Factors by pRB in Normal and Cancer Cells.
 - 3) The Retinoblastoma Gene as a Genetic Risk Factor in Inherited Breast Cancer.

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 / NCIC / CRS

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

- i) Sarah Francis
- ii) Laurie Seifried
- iii) Olivia Palander
- iv) Mat Cocchini
- v) Alison Marten
- vi) Srikanth Talluri
- vii) Courtney Coschi

* 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)? 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	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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8 10 ⁸ <i>see email</i>
	<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)? ATCC

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?	Source of Primary Cell Culture Tissue
Human	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Rodent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	embryos & organs from our mice
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?	Specific cell line(s)	Supplier / Source
Human	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	C33A, Saos2, U2OS, HeLa	H129F, IMR90 ATCC
Rodent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NIH 3T3, other 3T3's	ATCC, + our primary cultures.
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 types(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
Human blood (fraction) or other bodily fluids
Human organs (unpreserved)
Human tissues (unpreserved)

3.3 Is human source known to be infected with and infectious agent
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?
If no, please proceed to Section 5.0

- 4.2 Will genetic sequences from the following be involved:
HIV
HTLV 1 or 2 or genes from any CDC class 1 pathogens
Other human or animal pathogen and or their toxins

4.3 Will intact genetic sequences be used from
SV 40 Large T antigen
Known oncogenes

4.4 Will a live vector(s) (viral or bacterial) be used for gene transduction
If YES name virus

4.5 List specific vector(s) to be used:

4.6 Will virus be replication defective

4.7 Will virus be infectious to humans or animals

4.8 Will this be expected to increase the Containment Level required

Oncogenes will only be packaged into ecotropic viruses that will be used to infect murine cells... Adenoviruses will not carry oncogenes, only growth suppressing genes.

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

We will treat mice with a chemical carcinogen, DMBA, to induce tumors. DMBA is stored securely.

6.2 Name of animal species to be used mice

6.3 AUS protocol # 2007-058

6.4 If using murine cell lines, have they been tested for murine pathogens? YES NO
not using cell lines.

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 LD₅₀ (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 Z. D. Rich

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: July 5/2007 / 801-5182E

12.0 Approvals

UWO Biohazard Subcommittee G.M. Kelder 29 Oct. 07
Signature [Signature] Date Aug 22, 2007

Safety Officer for Institution where experiments will take place
Signature [Signature] Date AUGUST 31, 2007

Safety Officer for University of Western Ontario (if different than above)
Signature Jennifer Stanley Date Oct. 26/07

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