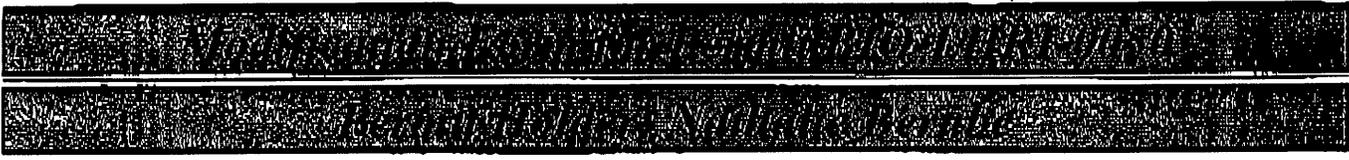


# Dr. Berube



**Approved Personnel**

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

- Kristin Kernohan
- Michael Levy
- Kieran Ritchie
- Yan Jiang
- Claudia Beah ~~X~~

**Additional Personnel**

**(Please list additional personnel here)**

- Corinna Zogel
- Lauren Solomon
- Ashley Watson
- Jennifer Li

**Approved Microorganisms**

**Please stroke out any approved Biohazards to be removed below**

E. coli DH5 alpha, One shot Top 10 competent cells

**Write additional Biohazards for approval below. \***

**Approved Cells**

rodent (primary), human (established), rodent (established), HeLa, MCF-7, C33A, Neuro-2A, U2OS, SH-SY5Y

**Approved Use of Human Source Material**

**Approved GMO**

adenovirus

PIHLE plasmid  
PIHLE "  
PIHLE "  
PIHLE "

**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: Mar 28, 2008

Signature of Permit Holder: \_\_\_\_\_

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

*[Signature]*  
*[Signature]* June 29/09

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

**Dr. Berube**



Approved Toxin(s)

[Empty box for Approved Toxin(s)]

[Empty box for 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: Mar 28, 2008

Signature of Permit Holder: [Signature]

BioSafety Officer(s): Paul Ryder June 29/09

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

## Brief description of the work with plasmids pIHLE, pIHLIE, pIHLME and pIHLEI

Plasmids requested are reporter constructs consisting of a luciferase gene under the control of the mouse *H19* promoter, the SV40 enhancer and the *H19* imprinting control region. There are four variants of the plasmid which all contain the same components. Three of the plasmids represent different organization of these elements, while the fourth contains a mutation in the *H19* imprinting control region. Luciferase produced from this plasmid is used as a readout of insulator activity of the *H19* imprinting control region. We will utilize this plasmid by introducing it into cells with and without our protein of interest (ATRX), to determine if ATRX has an effect on insulator activity of the *H19* imprinting control region.

BIO-LHRI-0050

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

PRINCIPAL INVESTIGATOR NATHALIE BERUBE  
SIGNATURE [Signature]  
DEPARTMENT PEDIATRICS AND BIOCHEMISTRY  
ADDRESS 800 COMMISSIONERS ROAD EAST  
PHONE NUMBER 519-685-8520 X 55266  
EMAIL nberube@uwo.ca

Location of experimental work to be carried out: Building(s) Victoria Research Lab Room(s) 4th Floor - A4-116  
Berube Lab A4-142 (Office) (lab)

\*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.

GRANT TITLE(S):  
The role of ATRX in hippocampal development

PLEASE ATTACH A BRIEF DESCRIPTION OF YOUR WORK, SUCH AS THE RESEARCH GRANT SUMMARY THAT EXPLAINS THE BIOHAZARDS USED AND HOW THEY WILL BE USED. PROJECTS SUBMITTED WITHOUT A SUMMARY WILL NOT BE REVIEWED.

FUNDING AGENCY/AGENCIES CIHR

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

Claudia Seah  
Yan Jiang  
Kieran Ritchie  
Michael Levy  
Kristin Kernohan

**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?	Source/ Supplier	Health Canada or CFIA Containment Level
<i>E. coli DH5α</i>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<i>150 ul</i>	<i>Invitrogen</i>	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
<i>One Shot Top 10 Competent Cells</i>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<i>100 ul</i>	<i>Invitrogen</i>	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No			<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No			<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 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?  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 in the table below

Cell Type	Is this cell type used in your work?	Source of Primary Cell Culture Tissue
Human	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Rodent	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Non-human primate	<input type="radio"/> Yes <input checked="" type="radio"/> 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="radio"/> Yes <input type="radio"/> No	<i>HeLa, MCF-7, C33A</i>	<i>ATCC</i>
Rodent	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>Neuro-2A, U2OS, SH-SY5Y</i>	<i>ATCC</i>
Non-human primate	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Other (specify)	<input type="radio"/> Yes <input checked="" type="radio"/> No		

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

Please attach a Material Safety Data Sheet or equivalent from the supplier. (For more information, see [www.atcc.org](http://www.atcc.org))

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

### 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 in the table below the Human Source Material to be used.

Human Source Material	Source/Supplier /Company Name	Is Human Source Material Known to Be Infected With An Infectious Agent? YES/NO	Name of Infectious Agent (If applicable)	HC or CFIA Containment Level (select one)
Human Blood (whole) or other Body Fluid		<input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
Human Blood (fraction) or other Body Fluid		<input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
Human Organs (unpreserved)		<input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
Human Tissues (unpreserved)		<input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3
Human Organs (preserved)		<input type="radio"/> Yes <input type="radio"/> No		<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 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 viral vector(s) or bacterial plasmid be used for gene transduction  YES  NO  
If YES name Adenovirus  
Please attach a Material Safety Data Sheet or equivalent.

4.5 List specific vector(s) to be used: Ad Easy™ Vector System

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

\* DESCRIPTION MUST BE ATTACHED TO THIS FORM OR PROJECT WILL NOT BE REVIEWED\*  
Page 3 of 5

**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  PENDING

**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
- Cattle, sheep or goats  YES  NO
- Non- Human Primates  YES  NO If YES specify species \_\_\_\_\_
- Wild caught animals  YES  NO If YES specify species \_\_\_\_\_  
colony # \_\_\_\_\_
- Birds  YES  NO
- Others (wild or domestic)  YES  NO

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

8.4 Please attach information, such as a Material Safety Data Sheet, for the toxin(s) used.

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

9.0 Import Requirements

9.1 Will the agent be imported? O 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? O YES O NO

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

9.4 Has the import permit been sent to OHS? O YES O 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
- ◆ 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 biohazardous agents in Sections 1.0 to 9.0 have been trained.

SIGNATURE [Signature]

11.0 Containment Levels

11.1 For the work described in sections 1.0 to 9.0, please indicate 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 O NO

11.3 If yes, please give the date and permit number: MARCH 5, 2008

12.0 Approvals

UWO Biohazard Subcommittee

Signature B.M. Kidder Date 28 Mar '08

Safety Officer for Institution where experiments will take place

Signature Sara Ryan Date MARCH 5, 2008

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

Signature [Signature] Date march 28/08

Expiry Date (3 years from Approval): March 28, 2011.

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