

READ AND REVIEW ANY APPLICABLE MANUFACTURER/VENDOR MATERIAL SAFETY DATA SHEET (MSDS) INFORMATION BEFORE DEVELOPING STANDARD OPERATING PROCEDURE AND PERFORMING WORK.

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Dept/Section Name of Work Unit: Anatomy & Neurobiology

Standard Operating Procedures for: Stereotaxic G-deleted rabies injection

<p>#1</p>	<p><u>Scope of Work/Activity:</u> State the process/operation/equipment that the SOP concerns.</p> <p>The preparation and use of G-deleted rabies virus.</p> <ul style="list-style-type: none"> -All persons who will come in contact with virus must receive rabies vaccination series. -Virus preparation -Administration precautions -Animal husbandry precautions -Proper disposal
<p>#2</p>	<p><u>Specific Safety and Environmental Hazards:</u> State the specific hazard and consequences if procedure not followed to person, environment, or property.</p> <p>Review MSDS prior to working with any hazardous material.</p> <p>This modified version of the rabies virus used should pose no human health risk, the concern is if the virus somehow reverts to its natural form. The potential routes of infection are: injection, ingestion, and being bite by an infected animal. The rabies virus infects the central nervous system. Rabies vaccination series is required prior to handling G-deleted rabies infected material or animals.</p> <p>Signs and symptoms of rabies infection include: Fever, sore throat, body aches, sensitivity to light, difficulty swallowing, hallucinations, and eventually death if no treatment occurs.</p>
<p>#3</p>	<p><u>Engineering Controls:</u> Describe any specific engineering controls which are required to prevent employee injury to hazards such as engineered sharps, biosafety cabinet, fume hood, etc.</p> <p>Chemical fume hood: all stereotaxic work and anesthesia is done in a chemical fume hood. There is not biosafety cabinet available at this time. PPE must be worn at all times while performing injecting the viruses.</p> <p>All rabies infected mice/rats must be housed in filter top cages.</p> <p>All bedding, rodent cages, and water bottles must be autoclaved prior to sending to cage wash. Bag all of these items into a red biohazard bag, place water bottles in a separate red biohazard bag and give to ULAR staff.</p> <p>Sharps Container: All used stereotaxic pipets and needles must be placed directly into a red biohazard sharps container. DO NOT RECAP NEEDLE.</p>
<p>#4</p>	<p><u>Designated Area:</u> Indicate the designated area for performing this process in the laboratory and required signage in Room <u>Med Surge II room 336</u></p> <p>This room must be under negative pressure during viral injections. Prior to beginning experiment an airflow check should be completed. The door must have a biohazard label and "experiment in progress" sign.</p>

#5	<p><u>Personal Protective Equipment (PPE):</u> State the personal protective equipment selected and required.</p> <p>While working with the rabies virus personnel will wear a clean lab coat or coverall, gloves, shoe and hair covers, a surgical mask or N95 respirator, and either a full face shield or eye protection.</p>
#6	<p><u>Important Steps to Follow:</u> List the specific sequence staff should follow to avoid hazard.</p> <p>Receive rabies vaccination</p> <p>Use a certified biosafety cabinet when preparing virus</p> <p>Don required PPE</p> <p>Perform an airflow check prior to experiment</p> <p>Disinfect all surface areas and surgical instruments with 10% bleach or 70% ethanol.</p> <p>Label animal cages with biohazard cards.</p> <p><u>Husbandry</u> AAV and Rabies infected mice will be housed in ABSL 2+ room located in MedSci Vivarium room 124S. AAV infected mice can be handled by ULAR staff. Label all cages with Biohazard card (example on last page) stating AAV infected mice..</p> <p>For the rabies infected mice the Xu laboratory staff will be responsible for the husbandry, not ULAR staff. The rabies infected mice should be set on a designated shelf away from AAV infected mice. Cages must be labeled with a biohazard animal cage card stating the mice have been infected with rabies virus.</p> <p>Remove PPE when exiting and wash hands thoroughly</p> <p><u>Euthanasia</u> The infected mice will be euthanized in Med Surg. II room 336. Please separate water bottles from cages. All dirty cages must be placed in a red biohazard bag and sent for autoclaving. Do the same with the water bottles. These bags must be sent to MedSci Vivarium for autoclaving prior to cage washing. All animal carcasses should be bagged and placed in designated cold room. All carcasses must be disposed of as pathological waste.</p>
#7	<p><u>Emergency Procedures:</u></p> <p>a. Describe immediate medical treatment required in case of personnel exposure. -Complete online incident report form at www.ehs.uci.edu</p> <p>If a needle stick, splash or bite wound from infected animal occurs, immediately flush the infected area with water for a minimum of 15 minutes. Seek medical attention and provide a copy of the protocol to the physician.</p> <p>Report incident to PI or supervisor.</p>

#8	<p>Identify waste stream and disposition of waste, and unused stock of chemicals (Identify if waste is biohazardous, pathological waste, or hazardous waste, etc.) Additional guidelines regarding hazardous waste and pathological waste can be found at : http://www.ehs.uci.edu/programs/enviro/</p> <p>Place a biohazardous waste container in the surgery room.</p> <p>Place all solid waste that comes in contact with the virus directly into the biohazardous waste container. (PPE, paper towels, tubes etc.) Set-up a 7day pick-up through EH&S online system.</p> <p>Liquid waste must soak in 10% bleach solution for a minimum of 15minutes a then poured down the drain.</p> <p>All stereotaxic glass pipets must be placed directly into a sharps container.</p> <p>All infected carcasses must be red bagged and placed in pathological waste located in the vivarium.</p>
#9	<p>Decontamination and spill clean-up procedures</p> <p>All surfaces should be wiped down with should be sprayed down with 70% ethanol.</p> <p>Liquid waste must soak in 10% bleach solution for a minimum of 15minutes a then poured down the drain.</p> <p>If a spill occurs contain the spill area. Use appropriate spill kit or absorbent pads to soak up liquid. Disinfect area and place all waste into a biohazard waste container. Contact EH&S regarding the incident.</p>

As the Principal Investigator, it is your responsibility to ensure that all individuals listed in this protocol is taught correct procedures for the safe handling of hazardous materials involved in this study. It is also your responsibility to assure that your personnel attend Lab Core Safety Training and other applicable safety training courses.

Both PI and all persons associated with the protocol must sign the following acknowledgement:
I have read, asked questions, and understand the hazards of and safe working procedures for the activity/materials described herein.

 PI Signature: DATE

Other Personnel:

 Name/ Signature DATE

 Name/Signature DATE

 Name/Signature DATE

 Name/Signature DATE



BIOHAZARD

**Biohazardous Agent:****Who will change cages?** Lab ULAR**Handle in Biosafety Cabinet:** Yes No

See below for more details

PPE required:

- | | |
|---|--|
| <input type="checkbox"/> surgical mask | <input type="checkbox"/> lab coat |
| <input type="checkbox"/> N95 respirator | <input type="checkbox"/> hair cover |
| <input type="checkbox"/> safety glasses | <input type="checkbox"/> gloves |
| <input type="checkbox"/> goggles | <input type="checkbox"/> double gloves |
| <input type="checkbox"/> face shield | <input type="checkbox"/> other: |

Bedding

-
- routine disposal
-
-
- biomedical waste (autoclave)
-
-
- other:

Cages

-
- routine cleaning
-
-
- autoclave then routine cleaning
-
-
- other :

Carcass

-
- pathology waste (incinerate)
-
-
- other:

EH&S pick-up: x46200

ULAR: x47788