PROTOCOL FOR ANIMAL USE AND CARE
Handwritten forms are not accepted

CNPRC

Investigator

Last Name: [ ]
First: [ ]
Middle: [ ]
email: [ ]
Department: [ ]
Phone: [ ]
Fax: [ ]

Contact

Last Name: [ ]
First: [ ]
Middle: [ ]
email: [ ]
Department: [ ]
Phone: [ ]
Fax: [ ]

Species (common names): [ ]
Number: [ ]
Source: [ ]

Rhesus monkey 136 Primate Center (dams+infants)

Project Title: Pediatric Monkey Model for Gene Transfer for Pulmonary Diseases

Overnight housing location: [ ]
Day use only: [ ]
Animals will be maintained by: [ ] Vivarium [ ] Investigator (If investigator maintained, attach husbandry SOP’s.)

Procedures: Provide a one or two sentence layman’s description of the procedures employed on the animals in this project.
This information will help the animal care staff understand any conditions they may encounter while caring for your animals.

These studies focus on the transfer of genes using an intrapulmonary approach into early gestation fetuses and neonates as a treatment for inherited pulmonary disorders. Studies will focus on tissue harvests at term and postnatally in order to determine the transduction and gene transfer efficiency of different viral vector systems. This monkey model is essential to test the efficiency of gene therapy.

Special Husbandry Requirements: Describe any special requirements your animals have with respect to food, water, temperature, humidity, light cycles, caging type, bedding, or any other conditions of husbandry.

None

Other instructions for animal care staff: (check applicable entries)

Sick Animals Dead Animals Pest Control
[ ] Call Investigator [ ] Call Investigator [ ] Call Investigator
[ ] Clinician to treat [ ] Save for Investigator [ ] OK to use pesticides
[ ] Terminate [ ] Bag for disposal [ ] No Pesticides in animal area
[ ] Necropsy [ ] Necropsy

Hazardous Materials (only if in the animal room):

Infectious Agents? [ ] Yes [ ] No Agent(s): viral vectors - lentivirus, adeno-associated virus (AAV) (BAUA 0547)

Radioisotopes? [ ] Yes [ ] No Agent(s):

Chemical Carcinogens? [ ] Yes [ ] No Agent(s):

Toxic Chemicals? [ ] Yes [ ] No Agent(s):
Is the project already funded? [X] Yes [ ] No

Previously approved? [X] Yes [ ] No

Proposed Funding Source: NIH

Previous protocol number (if any): 9193

What Veterinarian or veterinary clinic will provide care for your animals? (check one)

[ ] Lab Animal Health Clinic (2-0514)

[ ] VMTH Large Animal Field Service (2-0292)

[ X] California Primate Research Center (2-0447)

[ ] Another Veterinarian

If you checked “Another Veterinarian”, please provide:

Veterinarian:

Address:

If your veterinarian is not affiliated with one of the three service units listed above, please contact the campus veterinarian, 2-2357 (email pctillman@ucdavis.edu) for current information about training and record keeping requirements.

Summary of Procedures:

a) Briefly describe the overall intent of the study. Include in your description a statement of your hypothesis, the objectives and significance of the study. Your target audience is a faculty member from a discipline unrelated to yours. Do not use jargon.

The long-term goal of these studies is to develop safe and efficient gene transfer protocols for pediatric pulmonary disorders. Several debilitating conditions such as cystic fibrosis can be diagnosed early in gestation and could be treated in utero using gene therapy. Fetal treatment by gene transfer may provide the best opportunity for eliminating pathology because prenatal treatment could consist of delivery of a corrective gene early enough to prevent tissue damage. Because these protocols are intended for human clinical application, analysis in an appropriate animal model, such as the rhesus monkey, is essential. Our overall goals for the proposed studies include the following: (1) we will assess the transduction efficiency of two different viral vector systems (HIV-1-derived lentivirus, adeno-associated virus [AAV]) with cell-specific promoters when directly administered in vivo; (2) we will assess whether non-pulmonary cells and tissues are transduced after fetal or neonatal intrapulmonary gene delivery, and if there is transplacental transport of vector sequences into the mother or evidence of immune responses to the viral vector(s) or transgene; and (3) we will assess whether normal structure and function result after prenatal or postnatal intrapulmonary gene transfer. The questions we plan to address will be essential for furthering gene transfer/gene therapy as a potential treatment strategy for debilitating illnesses such as cystic fibrosis. It is essential that these studies be performed in an animal model with comparable developmental features when compared to humans, and the rhesus monkey is, thus, ideal for these studies.

b) Procedures employed in this project: Please check the appropriate boxes if any of these procedures will be employed in your project:

[ ] Monoclonal Antibody Production **

[ ] Polyclonal Antibody Production **

[ ] LD 50 or ID50 studies.

[ x] catheters, blood collection, intubation

[ x] prolonged restraint (8 hrs+)

[ ] Fasting prior to a procedure.

[ ] Food or water restriction

[ ] Non-recovery surgical procedures

[ x] Survival surgical procedures

[ ] Multiple survival surgery

[ ] Death as an endpoint (see h below)

[ ] Behavioral modification.

[ ] Aversive conditioning.

[ ] Special diets; food or water treatment.

[ ] Induced illness, intoxication, or disease

Trapping, banding or marking wild animals

** If this protocol only describes antibody production, you may use the attached antibody production page in lieu of completing section c below.
c) **Describe the use of animals in your project in detail**, with special reference to any of procedures checked above. Include any physical, chemical or biological agents that may be administered. List each study group, and describe all the specific procedures that will be performed on each animal in each study group. Use terminology that will be understood by individuals outside your field of expertise. *(Note: This cell will expand to whatever length you require. You may make this section as long as you wish, but try to be concise. Some projects may require one or two pages.)*

**Study 1:** This study will include 40 gravid rhesus monkeys and their offspring (N=40+40=80; Groups 1 and 2, below). Gravid adults will be screened for endogenous viruses (~5-10 ml blood sample collected at ~20-30 days gestation from a femoral vessel under ketamine) and those with negative results assigned to the study. Animals will be sonographically evaluated to confirm normal fetal growth and development, then fetuses selected, and injected intrapulmonary under ultrasound-guidance with a 0.1-0.2 ml volume of vector supernatant in the early second trimester. Transfer of vector supernatant into the fetal lung lobes will be accomplished using standardized protocols that have previously shown safety and efficiency, with no evidence of adverse effects [et al., 2001]. In this study, we are comparing different vector systems (AAV or lentivirus) and lung-specific promoters (such as SP-C and CC-10 which targets different types of pulmonary cells; ~20 AAV, ~20 lentivirus, roughly 8-10 per promoter) in order to identify the best combination(s) for transferring genes into specific cells of the developing primate lung. Amniotic fluid (~2-3 ml) and fetal blood samples (1-3 ml) will be collected at ~100 and 140 days gestation using routine ultrasound-guided techniques [ , 1990]. Fetuses will be monitored sonographically every 5-7 days until hysterotomy [ et al., 1988]. Samples will also be collected from a femoral vessel from the dams (~3-12 ml) prior to fetal transfer and every 2-3 weeks during gestation and at term in order to assess whether vector sequences can be detected in the maternal circulation. All examinations will be conducted under ketamine (10 mg/kg) or telazol (5-8 mg/kg IM). All dams will be scheduled for hysterotomy (for term tissue harvests) or cesarean-section.

For infants delivered for postnatal studies (approximately half), cord blood samples will be collected at delivery (10-15 ml), the infants assessed grossly, then placed in the nursery. Postnatal blood samples will be collected monthly (~1-3 ml blood from a peripheral vessel, dependent upon age) for CBCs and chemistry panels. A pulmonary function test will be performed once or twice prior to necropsy (~1, 3 months postnatal age) using established protocols. Briefly, the animals will be administered ketamine immediately prior to the procedure. Relatively non-invasive methods are used for measuring airway reactivity and other physiological responses of the respiratory system (infants are intubated for the procedure and monitored continuously while in the testing chamber by a Primate Center senior veterinarian). Arterial oxygen saturation is monitored via pulse oximeter throughout the procedure which takes ~10-15 min/animal. Animals will be euthanized at either 3, 6, 9, or 12 months of age, and a standardized necropsy/tissue harvest performed, using routine techniques [ et al., 1995].

**Study 2:** This study will include 28 gravid rhesus monkeys and their offspring (28+28=56; Group 3). Gravid adults will be screened for endogenous viruses (peripheral blood sample collected, ~5 ml) as noted above. Samples will be collected early in gestation and under ketamine. Fetuses will be sonographically evaluated to confirm normal growth and development, and fetal blood samples collected as noted above to monitor normal developmental parameters (100, 140 days gestation). Maternal blood samples will also be collected as noted above. At term, all newborns will be delivered by cesarean-section and cord blood samples collected using established techniques (~10-15 ml). All infants will be nursery-reared for postnatal studies. On the day of gene transfer (within the first week of life), infants will be administered an intramuscular injection of ketamine hydrochloride (10 mg/kg), then intubated with a small endotracheal tube. A small flexible 3 1/2 Fr. catheter will be passed through the endotracheal tube and into the right lower lung bronchus ( , unpublished) under ultrasound-guidance ( , unpublished). Once the catheter is in place the vector supernatant (0.3-0.5 ml volume) will be gently instilled. Once the vector has been delivered, the catheter and endotracheal tube will be removed (entire procedure ~10 min), and the infants allowed to recover. Infants will be monitored continuously until they are fully awake. This approach has previously been used by Dr. (pediatric pulmonologist, UCDMC and CNPRC) in older monkeys without any adverse effects detected. Infants health will be monitored daily, anddaily body weights assessed, and morphometrics will be evaluated at weekly intervals (head, abdominal, limb measures; crown-rump lengths; skinfold thicknesses) during the first month then monthly thereafter to assess growth and development. Blood samples (~2 ml) will be collected monthly from a peripheral vessel for CBCs and clinical chemistry assessments. Animals will be euthanized at either 3, 6, 9, or 12 months of age, and a standardized necropsy/tissue harvest performed, using routine techniques.

**TIMELINE**

**Year 1-2:** 80 (40 dams + 40 offspring)

**Year 2-3:** 56 (28 dams + 28 offspring)
Define, in the form of a table, the numbers of animals to be used in each experimental group described above. The table may be presented on a separate page as an attachment to this protocol if you prefer. The Normal format should be three columns: Study Group, Procedure, Number of animals. The number of rows should follow from the number of study groups; **you may add as many rows as you require.** The chart must fully account for the number of animals you intend to use under this protocol. Assign each group to an invasiveness category according to the chart below.

<table>
<thead>
<tr>
<th>Group</th>
<th>Procedures / Drugs</th>
<th>Number of Animals</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gravid adults – ultrasound, blood samples, hysterotomy near term; fetal gene transfer, fetal blood sample collection, amniocentesis, fetal tissue harvest</td>
<td>20+20=40</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Gravid adults – ultrasound, blood samples, cesarean-section; fetal gene transfer, fetal blood sample collection, amniocentesis; Infant – pulmonary function tests, blood sample collection, necropsy</td>
<td>20+20=40</td>
<td>3 (dam) 2 (infant)</td>
</tr>
<tr>
<td>3</td>
<td>Gravid adults – ultrasound, blood samples, cesarean-section; fetal blood sample collection, amniocentesis; Infant – intrapulmonary gene transfer, pulmonary function tests, blood sample collection, necropsy</td>
<td>28+28=56</td>
<td>3 (dam) 2 (infant)</td>
</tr>
</tbody>
</table>

### Categories of invasiveness

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Little or no discomfort or stress&lt;br&gt;&lt;br&gt;Examples: domestic flocks or herds being maintained in simulated or actual commercial production management systems; the short-term and skillful restraint of animals for purposes of observation or physical examination; blood sampling; injection of material in amounts that will not cause adverse reactions by the following routes: intravenous, subcutaneous, intramuscular, intraperitoneal, or oral.</td>
</tr>
<tr>
<td>2</td>
<td>Minor stress or pain of short duration&lt;br&gt;&lt;br&gt;Examples: cannulation or catheterization of blood vessels or body cavities under anesthesia; minor surgical procedures under anesthesia, such as biopsies or laparoscopy; short periods of restraint beyond that required for simple observation or examination, but consistent with minimal distress</td>
</tr>
<tr>
<td>3</td>
<td>Moderate to severe distress&lt;br&gt;&lt;br&gt;Examples: major surgical procedures conducted under general anesthesia, with subsequent recovery; prolonged (several hours or more) periods of physical restraint; induction of behavioral stresses such as maternal deprivation</td>
</tr>
<tr>
<td>4</td>
<td>Severe pain near, at or above the pain tolerance threshold&lt;br&gt;&lt;br&gt;Examples: exposure to noxious stimuli or agents whose effects are unknown; exposure to drugs, chemicals, or infectious agents at levels that markedly impair physiological systems and which cause death, severe pain, or extreme distress: Surgical experiments which have a high degree of invasiveness.</td>
</tr>
</tbody>
</table>

Further descriptions of these categories are included in the instructions following this document.

e) **Rationale for species and numbers:** How did you determine that the species choice was appropriate and the number of animals in the groups above was the minimum number necessary to achieve sound scientific results?

Monkeys are the only appropriate model for these studies because of developmental similarities when compared to humans. Based on our experience with this model, the number chosen is the minimum required in order to adequately assess group differences.

f) **Surgery:** If the project involves survival surgery, where will the surgery be conducted?

<table>
<thead>
<tr>
<th>Building:</th>
<th>CNPRC animal quarters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room:</td>
<td>Surgery suite</td>
</tr>
</tbody>
</table>

Who will be the surgeon? CNPRC veterinarians

g) **Anesthetics, Analgesics, Tranquilizers, Neuromuscular blocking agents:**

Post procedural analgesics should be given whenever there is possibility of pain or discomfort that is more than slight or momentary. If postoperative analgesics are not to be given, justify the practice under part (i) below.
Provide the following information about any of these drugs that you intend to use in this project.

<table>
<thead>
<tr>
<th>Species</th>
<th>Drug</th>
<th>Dose (mg/kg)</th>
<th>Route</th>
<th>When and how often will it be given?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhesus</td>
<td>Ketamine</td>
<td>10</td>
<td>IM</td>
<td>dams: ~15x; infants: 1-6x</td>
</tr>
<tr>
<td>Rhesus</td>
<td>Telazol</td>
<td>5-8</td>
<td>IM</td>
<td>Alternative to ket for dams</td>
</tr>
<tr>
<td>Rhesus</td>
<td>Isoflurane</td>
<td>to effect</td>
<td>inhal.</td>
<td>Cesarean-section, 1x</td>
</tr>
<tr>
<td>Rhesus</td>
<td>Oxymorphone</td>
<td>0.15</td>
<td>IM</td>
<td>Post-surgery for dams</td>
</tr>
<tr>
<td>Rhesus</td>
<td>Buprenorphine</td>
<td>0.01-0.03</td>
<td>IM</td>
<td>Post-surgery for dams</td>
</tr>
</tbody>
</table>

**h) Neuromuscular blocking agents** can conceal inadequate anesthesia and therefore require special justification. If you are using a neuromuscular blocking agent, please complete the following:

- Why do you need to use a neuromuscular blocking agent?

- What physiologic parameters are monitored during the procedure to assess adequacy of anesthesia?

- Under what circumstances will incremental doses of anesthetics-analgesics be administered?

**i) Adverse effects:**

Describe any potential adverse effects of the experiment on the animals (such as pain, discomfort; reduced growth, fever, anemia, neurological deficits; behavioral abnormalities or other clinical symptoms of acute or chronic distress or nutritional deficiency)

We do not anticipate any adverse effects in dams, fetuses, or infants based on our extensive experience with this model. Minimal discomfort may be associated with blood sample collection and cesarean-section. All possible measures will be taken to minimize discomfort from these procedures. Oxymorphone will be given for 2 days post-cesarean-section.

How will the signs listed above be ameliorated or alleviated? If signs are not to be alleviated or ameliorated by means of post-operative analgesics or other means, explain why this is necessary.

See comments above. There are no other adverse effects anticipated or procedures planned that would require administration of analgesics or anesthetics other than those described above.

**Note:** If any unanticipated adverse effects not described above do occur during the course of the study, a complete description of those effects and the steps taken to mitigate them must be submitted to the committee as an amendment to this protocol.

**Is death an endpoint in your experimental procedure?** [ ] Yes [x] No

(Note: “Death as an endpoint” refers to acute toxicity testing, assessment of virulence of pathogens, neutralization tests for toxins, and other studies in which animals are not euthanized, but die as a direct result of the experimental manipulation). If death is an endpoint, explain why it is not possible to euthanize the animals at an earlier point in the study. If you can euthanize the animals at an earlier point, describe the clinical signs which will dictate that an animal will be euthanized.

**j) Literature search** for alternatives and unnecessary duplication:

This section is specifically required by Federal law. You are required to conduct a literature search to determine that either 1) there are no alternative methodologies by which to conduct this study, or 2) there are alternative methodologies, but these are not appropriate for your particular study. “Alternative methodologies” refers to reduction, replacement, and refinement (the three R’s) of animal use, not just animal replacement. You must also show that the study is not unnecessarily duplicative of other studies.
What was the date on which you conducted this search?  

7/1/03

List the databases searched or other sources consulted (there should be more than one). Include the years covered by the search:

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Years Covered</th>
<th>Keywords / Search Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>PubMed</td>
<td>1980 to current</td>
<td>Fetus, animal models, gene transfer, gene therapy, cystic fibrosis, lung disorders, lung maturation</td>
</tr>
<tr>
<td>Reference Update®</td>
<td>Most recent</td>
<td>Fetus, animal models, gene transfer, gene therapy, cystic fibrosis, lung disorders, lung maturation</td>
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<tr>
<td></td>
<td>publications</td>
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</tbody>
</table>

What were your findings with respect to alternative methodologies?

There are none that would allow us to investigate the questions we propose to address. A primate model is essential in order to obtain relevant information for human application.

Has this study been previously conducted?  

[ ] Yes  [x] No

If the study has been conducted previously, explain why it is scientifically necessary to replicate the experiment.

The studies outlined are novel and have never been conducted in the manner we propose.

k) Disposition of animals: At what point in the study, if any, will the animals be euthanized?

All offspring will be euthanized at the ages noted above. The dams will be returned to the breeding colony two weeks post-hysterotomy/cesarean-section. Any dams purchased as part of these studies will be bred in subsequent years for future offspring.

l) Methods of euthanasia: Even if your study does not involve killing the animals, you should show a method that you would use in the event of unanticipated injury or illness. If anesthetic overdose is the method, show the agent, dose, and route.

<table>
<thead>
<tr>
<th>Species</th>
<th>Method</th>
<th>Drug</th>
<th>Dose (mg/kg)</th>
<th>route</th>
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</thead>
<tbody>
<tr>
<td>Rhesus</td>
<td>Overdose</td>
<td>Pentobarbital</td>
<td>60</td>
<td>IV</td>
</tr>
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</table>

m) Surplus animals: What will you do with any animals not euthanized at the conclusion of the project?

See comments above.
n) Project Roster: Please provide the names of all the individuals who will work with animals on this project. This page will not be made available to the public. Give either the University Employee ID # or a valid UC Davis email address so that we can document training and occupational health compliance for regulatory agencies. Include all investigators, student employees, post-doctoral researchers, staff research associates, post-graduate researchers and laboratory assistants who will actually work with the animals. You don't need to include the staff of the vivarium in which your animals will be housed.

The principal investigator is responsible for keeping this roster current. If any staff is added or subtracted from this project, you must amend the protocol by sending the campus veterinarian a memo describing any changes.

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Middle Name</th>
<th>UC ID Number or SSN</th>
<th>Email Address</th>
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Occupational Health Program:
Supervisors must enroll their employees in the campus Occupational Health Program if the workers are at increased risk of illness or injury (such as allergy, physical injury, or infectious disease) because of their work. Enroll workers by having them complete an "Animal Contact History Form", available from Employee Health Services (phone 752-2330). For further information, visit our web site at [http://clueless.ucdavis.edu/health/](http://clueless.ucdavis.edu/health/) or read the UC Davis Policy & Procedure Manual 290-25.

Training:
Supervisors are responsible for insuring that their employees are adequate trained, both in the specifics of their job and in the requirements of the Federal Animal Welfare Act. EH&S offers free, basic wet labs in laboratory animal handling and techniques, and lecture format classes in the requirements of the Animal Welfare Act. To schedule a class for your unit, contact EH&S at 2-2364. Autotutorials are also available on the world wide web at [http://clueless.ucdavis.edu/](http://clueless.ucdavis.edu/).
Assurances for the Humane Care and Use of Vertebrate Animals:

Principal Investigator's Statement:

I have read and agree to abide by the *UC Davis Policy and Procedure Manual section 290-30* (Animal Use and Care). This project will be conducted in accordance with the *ILAR Guide for the Care and Use of Laboratory Animals*, and the *UC Davis Animal Welfare Assurance* on file with the US Public Health Service. (These documents are available from the Campus Veterinarian and at [http://ehs.ucdavis.edu/](http://ehs.ucdavis.edu/)). I will abide by all Federal, state and local laws and regulations dealing with the use of animals in research.

I will advise the Animal Use and Care Administrative Advisory Committee in writing of any significant changes in the procedures or personnel involved in this project.

<table>
<thead>
<tr>
<th>Professor</th>
<th>7/3/03</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principal Investigator</strong></td>
<td><strong>Rank / Title</strong></td>
</tr>
<tr>
<td>CNPRC Director</td>
<td></td>
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</tbody>
</table>

**Conditions necessary for Committee Approval:**

| | | |
| | | |
| | | |
| | | |
| | | |

Final Disposition of this protocol:

- [ ] Approved
- [ ] Not Approved
- [ ] Withdrawn by Investigator

Date of Action: ______/______/______

I verify that the Institutional Animal Care and Use Committee of the University of California, Davis, acted on this protocol as shown above.

<table>
<thead>
<tr>
<th>Campus Veterinarian</th>
<th>Date</th>
</tr>
</thead>
</table>

University of California, Davis
Version 7/21/2004 10:35:49 AM Page 8
ANIMAL ROOM SAFETY INFORMATION
Complete this form if you will be using biohazards, radioisotopes, carcinogens, or toxic chemicals in the animal room.

PROTOCOL # 10726
EXPIRES: ________

RUA#: __________ BUA#: 0547 CCA#: ________

Identity of Hazard: Retroviral vectors (HIV-1-derived lentivirus), AAV

Investigator Last Name: ___________________________ First Name: ___________________________
Department: ___________________________ Phone: ___________________________
Email: ___________________________ Fax: ___________________________

Provide a short description of the agent:
Retroviral and AAV-based vectors are the most common vector systems used for gene therapy. The vectors are self-inactivating and replication-defective and the only potential infection risk is if recombination occurs between vectors of the packaging sequences, which could lead to emergence of replication-competent viruses (not likely).

This agent / material is hazardous for:  [ ] Humans only  [ ] Animals only  [X] Humans and Animals

For which Animal Species?  [X] Monkeys

The agent can be spread by:  [X] Blood  [X] Feces/urine  [ ] Saliva/nasal droplets  [ ] Does not leave animal

Describe any human health risk associated with this agent:
Vectors have all viral genes removed and thus are replication-defective. AAV is nonpathogenic in humans. There are no known cases of accidental human infection or recombination, to date. The generation of self-inactivating (SIN) vectors enhances the safety features of these vectors by reducing the possibility of recombination to generate replication-competent virus because there is no complete U3 in the virus production system.

The precautions checked below apply to this experiment: **Standard CNPRC conditions for handling and housing applies.**

[ ] The researcher or his/her technicians are responsible for the feeding and care of these animals.

[ ] The following items must be assumed to be contaminated with hazardous material and must be handled only by the researcher or his/her technicians.

[ ] Cage  [ ] Stall  [ ] Water Bottle  [ ] Animal Carcasses

[ ] Bedding  [ ] Other:

[ ] Cages must be autoclaved before cleaning.

[ ] Label cages and remove label after decontamination.

[ ] Animal carcasses must be labeled and disposed of as follows:

[ ] Incineration  [ ] Bag and Autoclave  [ ] Biohazardous Waste Container  [ ] EH&S will pick-up (2-1493).

[ ] All contaminated waste (soiled bedding or other animal waste) must be properly labeled and disposed of as follows:

[ ] Incineration  [ ] Bag and Autoclave  [ ] Biohazardous Waste Container  [ ] EH&S will pick-up (2-1493).

[ ] Personal protective equipment must be removed before leaving the room.

[ ] Personal protective equipment must be discarded or decontaminated at the end of the project

[ ] Hands, arms, and face must be thoroughly washed upon leaving the room

[ ] Full shower, including washing of hair, must be taken upon leaving the room.

Personal Protective Equipment Required:

[ ] Lab Coat/Coveralls  [ ] Disposable Gloves  [ ] NIOSH Certified Dust Mask  [ ] Eye Protection/Face Shield

[ ] Fitted Respirator  [ ] Shoe Covers/Booties  [ ] Head Cover  [ ] Disinfectant footbath

[ ] Other: ___________________________ Describe: ___________________________

[ ] Personal protective equipment must be removed before leaving the room.

[ ] Personal protective equipment must be discarded or decontaminated at the end of the project

[ ] Hands, arms, and face must be thoroughly washed upon leaving the room

[ ] Full shower, including washing of hair, must be taken upon leaving the room.