**ATTACHMENT 2 – Use of Potentially Hazardous Agents in Animals**

**Use of hazardous agents (recombinant DNA, potential human pathogens, radionuclides, biological agents, hazardous chemicals or drugs, etc.) requires institutional approval.**

**Agent Identification**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of Hazardous Agent | Agent 1: | Agent 2: | Agent 3: | Agent 4: |
| Type of Hazard:  Biological  Chemical  Recombinant DNA  Radioactive | YesNo  YesNo  YesNo  YesNo | YesNo  YesNo  YesNo  YesNo | YesNo  YesNo  YesNo  YesNo | YesNo  YesNo  YesNo  YesNo |
| Indicate Animal Biosafety Level (ABSL), if applicable |  |  |  |  |
| Storage\* and disbursement |  |  |  |  |
| Frequency and exposure |  |  |  |  |
| Animal duration of exposure |  |  |  |  |

\*Note: Do not store agents in same location as animals are housed.

**Biohazard Information**

**Tumor Cell Lines:**  Human  Animals **Type:**       Source:       **Nature of testing, if any:**

**Exposure Risks to Personnel (Check all that apply):**

Urine Feces Saliva Blood Bedding Aerosols Animal Bite

Contact with lesions on animal Penetrating injury from contaminated caging

Mucous membrane contact with secretions or excretions Other

**Safe Handling Procedures**

**Describe hazardous signage used** (e.g. posted on door, cage):

**Special caging, biosafety cabinet or other containment equipment:**

**Filter top cage handling procedures, if applicable:**

**Special procedures** (e.g. sentinel, microbial testing):

**Protective apparel and equipment to be used during exposure:**

**Protective apparel and equipment to be used for animal handling and routine husbandry following exposure:**

**Body fluid and tissue collection:**

**Describe personnel training** (other than CITI training):

**Special immunization/tests needed for handling agents:**

**Special cleaning and disinfection:**

**How are cages to be sanitized and/or disinfected?**

**Type of disinfectant needed for decontamination of work surfaces/equipment:**

**Describe disposal of animals, waste, tissues, bedding and contaminated materials (e.g. water):**

**Other comments:**

**Attach Material Safety Data Sheet (MSDS), Safety Data Sheet (SDS) or supportive documentation or explain why not applicable:**

**Table 1a:** Summary of Recommended Biosafety Levels for Activities in Which Experimentally or Naturally Infected Vertebrate Animals Are Used

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **BSL** | **Agents** | **Practices** | **Safety Equipment (Primary Barriers)** | **Facilities (Secondary Barriers)** |
| **1** | Not known to consistently cause disease in healthy human adults. | Standard animal care and management practices, including appropriate medical surveillance programs | As required for normal care of each species. | Standard animal facility  No recirculation of exhaust air  Directional air flow recommended  Hand washing sink recommended |
| **2** | Associated with human disease. Hazard: percutaneous exposure, ingestion, mucous membrane exposure. | ABSL-1 practices plus:  Limited access  Biohazard warning signs  Sharps precautions  Biosafety manual  Decontamination of all infectious wastes and of animal cages prior to washing | ABSL-1 equipment plus primary barriers: containment equipment appropriate for animal species; PPES: laboratory coats, gloves, face and respiratory protection as needed. | ABSL-1 facility plus:  Autoclave available  Hand washing sink available in the animal room.  Mechanical cage washer used |
| **3** | Indigenous or exotic agents with potential for aerosol transmission; disease may have serious health effects. | ABSL-2 practices plus:  Controlled access  Decontamination of clothing before laundering  Cages decontaminated before bedding removed  Disinfectant foot bath as needed | ABSL-2 equipment plus:  Containment equipment for housing animals and cage dumping activities  Class I or II BSCs available for manipulative procedures (inoculation, necropsy) that may create infectious aerosols. PPEs: appropriate respiratory protection | ABSL-2 facility plus:  Physical separation from access corridors  Self-closing, double-door access  Sealed penetrations  Sealed windows  Autoclave available in facility |
| **4** | Dangerous/exotic agents that pose high risk of life threatening disease; aerosol transmission, or related agents with unknown risk of transmission. | ABSL-3 practices plus:  Entrance through change room where personal clothing is removed and laboratory clothing is put on; shower on exiting  All wastes are decontaminated before removal from the facility | ABSL-3 equipment plus:  Maximum containment equipment (i.e., Class III BSC or partial containment equipment in combination with full body, air-supplied positive-pressure personnel suit) used for all procedures and activities | ABSL-3 facility plus:  Separate building or isolated zone  Dedicated supply and exhaust, vacuum and decontamination systems  Other requirements outlined in the text |

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