Use of Antineoplastics (chemotherapeutic agents)

1.0 Purpose and Scope:
To provide guidance for the use of Antineoplastics (chemotherapeutic agents) in the laboratory and animal facility environment. Antineoplastic chemicals are commonly used in cancer research at UW-Madison.

2.0 Definitions:
- Mutagenic: a substance or agent that can induce genetic mutation
- Teratogen: a substance or agent that causes developmental malformations
- Carcinogen: cancer-causing substance or agent
- Cytotoxic: a substance or agent that is toxic to cells

3.0 Guidance:
Antineoplastics are considered a Reproductive Toxin and/or a Teratogen.

4.0 Precautions:
The following information can be used to complete the Safety section of your animal protocol.

1. Containment preparation – (Containment equipment required for the preparation of the chemical): (Select “Other” and include the following information)
   - Other - if powder form is used then that preparation will be done in a fume hood and safety glasses will be worn in addition to standard PPE.

2. Containment animals – (Containment equipment required for chemical administration and handling animals after exposure to the chemical): (Select the following)
   - Ducted Biosafety Cabinet (BSC) or
   - Fume Hood
   NOTE: For Rodents: Microisolators containment caging is recommended.

3. PPE needed - (for handling live animals, carcasses or animal waste/dirty bedding): (Select all of the following)
   - Exam gloves – nitrile
   - Safety glasses/goggles
   - Lab coat or disposable gown

4. Waste Disposal: (Select both options and include additional information for Other)
   - Bag animal waste/dirty bedding and place sealed bag in secondary container and place secondary container in regular trash.
- Other: Signage is required on each individual cage containing the health hazard symbol and “Agent, End date and Disposal method”. *Cage signage available at www.ehs.wisc.edu
- **NOTE:** For Clinical studies include instructions for precautions clients should take while handling waste from their pet.

5. **Carcass disposal:** *(Select the following)*
   - No special precautions needed for disposal use facility standard method.

6. **Chemical human risk:** *(Add the following)*
   - Most antineoplastic chemotherapeutic agents are potentially toxic as mutagens, teratogens, cytotoxic or carcinogens. Pregnant and lactating women should avoid exposure to antineoplastic chemotherapeutic agents and animals that have been administered antineoplastic chemotherapeutic agents.

5.0 **References:**


6.0 **Document Revisions:**

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<thead>
<tr>
<th>Revision Number</th>
<th>Revision Date</th>
<th>Description of Revision</th>
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<tr>
<td>1</td>
<td>12/19/11</td>
<td>PPE and waste handling clarification</td>
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<tr>
<td>2</td>
<td>9/25/12</td>
<td>Removed “required” from 3.4 heading</td>
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<td>4</td>
<td>11/6/15</td>
<td>Simplified Purpose and Scope; Updated Guidance and Precautions to align with Arrow; Removed Spill information; Updated References.</td>
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