

Disposal of Transgenic Arthropods

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Compliance with the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acids (NIH Guidelines)

The University of Pennsylvania's Institutional Biosafety Committee (IBC) is responsible for ensuring compliance with the NIH guidelines and policies relevant to university-related use or transfer of recombinant or synthetic nucleic acids (rsNA) or cells, organisms, and viruses containing rsNA. At their April 29, 2019 meeting, the IBC reaffirmed the policy regarding disposal guidelines for transgenic animals, specifically transgenic¹ arthropods². To comply with the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acids, the IBC set the Transgenic Arthropod Containment and Disposal Standard to prevent the accidental release of transgenic arthropods into the environment. All transgenic arthropods, including but not limited to *Drosophila melanogaster* (Common Fruit Fly), must never be discarded in the regular trash or sewer. Instead, after euthanasia, old stocks and vials must be disposed of as biohazardous waste. Flies caught in ethanol and/or mineral oil must be disposed of as chemical waste and picked-up through Penn's Chemical Waste Pickup Form. Any deviation of this disposal standard must be reviewed and approved by the IBC. Specific guidance on biohazardous waste disposal is provided to labs based on school and lab location in the Resources for Biohazardous Waste Disposal section of the EHRS website.

¹ Transgenic animals are animals that possess a modified genome. They may be purchased through a vendor, received from a collaborator, custom-made by a core or created in the lab. They may also result from the crossing of one or more transgenic animals.

² Arthropods are invertebrate animals of the phylum Arthropoda and include insects, spiders, and crustaceans.