

**Stony Brook University
Institutional Animal Care and Use Committee**

Fish, avian, and amphibian embryos

EMBRYO USE

All use of vertebrate animals in research, teaching and testing is regulated by the Institutional Animal Care and Use Committee (IACUC). Fish, Avian, and Amphibian embryos are not considered live animals by the U.S. regulatory agencies and many universities do not regulate their use in research. Nonetheless, there is a consensus in the scientific community that avian embryos greater than two thirds of the way to hatching, and fish and amphibian embryos >72 hours old, can experience pain. If embryos hatch, intentionally or unintentionally, they are live vertebrate animals and are regulated by the IACUC. Consequently, the SBU IACUC has adopted the following guidelines:

Chick embryos are considered the model avian species. Zebrafish, the model fish species, and Xenopus, the model amphibian species. If other avian, fish, or amphibian species are used, then the guidelines should be adjusted based on relative time to hatching.

- 1) Research involving avian embryos that will be euthanized prior to 3 days before hatching, or fish and amphibian embryos euthanized prior to 3 days old, do not require IACUC review, as these are not considered to be live vertebrate animals. The IACUC does require submission of a complete animal protocol for projects utilizing pre-hatched avian embryos at or after 80% of the mean incubation period, or fish/amphibian embryos at or after 72 hours old.
- 2) Chick embryos younger than embryonic day 15 (E15), and fish/amphibian embryos <72h old are assumed to be unable to experience pain. It is recommended that younger embryos be euthanized by hypothermia, typically by placing the eggs in a -20°C freezer.
- 3) Older embryos should be euthanized by decapitation or other rapid and humane method approved, or conditionally approved, by the AVMA Guidelines on Euthanasia.