



INDIANA UNIVERSITY
Office of Research Compliance (ORC)
Institutional Animal Care and Use Committee (IACUC)

Zebrafish

Policy Statement
Policy

Effective: 6.14.2017
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Responsible University Office:
Office of Research Compliance IACUC Office(s)

Responsible University Administrator:
Vice President for Research

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Policy Statement

The policy describes when the IACUC must approve the use of zebra fish in research, in compliance with Public Health Service (PHS) requirements.

Policy

Public Health Service policy requires that all live vertebrate animals be included in an IACUC approved protocol. The NIH Office of Laboratory Animal Welfare (OLAW) considers fish species to be "live vertebrate animals" at "hatching;" an imprecise stage in zebrafish.

1. Zebrafish 0-4 days' post fertilization (dpf) are not considered live vertebrate animals and do not need to be included in your IACUC protocol. However, description of their use may be necessary for a complete description of animal activities and as part of the justification for numbers of adult breeding zebrafish. For euthanasia of Zebrafish 0-4 days' post fertilization (dpf), the AVMA euthanasia guidelines must be followed.
 - For zebrafish <120 hpf (eleuthero stages) that are neither able to feed nor are required to feed and are considered to be in a state of prolonged embryonic development.
2. Since early stages (4-7 dpf) do not feel pain or distress, it is preferable that their numbers be separated from zebrafish ≥8 dpf. The numbers for the early stages, can be listed as Column C in the Pain and Distress Category and can be as a separate number from zebrafish ≥8 dpf.
3. The investigator must determine the number of, and pain category for, zebrafish > 8 days' post fertilization for IACUC approval according to the procedures described in the protocol.

For euthanasia of Zebrafish at all stages, the AVMA euthanasia guidelines must be followed.

Resources

1. PHS Policy on Humane Care and Use of Laboratory Animals, FAQ's. Office of Laboratory Animal Welfare's (OLAW) FAQs, Section A, question 4 and question 5. <https://grants.nih.gov/grants/olaw/faqs.htm>
2. AVMA Guidelines for the Euthanasia of Animals: 2013 Edition. <https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>
3. OLAW Online Seminar: Zebrafish 101 for IACUCs, March 12, 2015. https://grants.nih.gov/sites/default/files/150312_Zebrafish_slides.pdf
4. Guidelines for the Use of Zebrafish in the NIH Intramural Research Program, <https://oacu.oir.nih.gov/sites/default/files/uploads/arac-guidelines/zebrafish.pdf>
5. Bert et al. "Considerations for a European Animal Welfare Standard to Evaluate Adverse Phenotypes in Teleost Fish." *The EMBO Journal* 35, no. 11 (June 1, 2016): 1151–54. doi:10.15252/emj.201694448.
6. Strähle et al. "Zebrafish Embryos as an Alternative to Animal experiments—A Commentary on the Definition of the Onset of Protected Life Stages in Animal Welfare Regulations." *Reproductive Toxicology, Zebrafish Teratogenesis*, 33, no. 2 (April 2012): 128–32. doi:10.1016/j.reprotox.2011.06.121.