

## IACUC Guidelines for Vascular Perfusion with Fixatives for Tissue Collection

*Last Review: 4/2022*

*Revision History:*

- This is a standard procedure for the vascular perfusion of anesthetized animals with fixatives (aldehydes/alcohols) for preparing tissues for histology. It is a terminal procedure.
- Animals should be anesthetized to a surgical plane of anesthesia (i.e. non-responsive to toe/tail pinch and corneal touch).
- The usual route of perfusion is transcardial. Perfusion is usually done through the aorta or left ventricle. The right atrium is cut open. Animals are transcardially perfused through the ventricular catheter with saline followed by fixatives or are directly perfused with fixatives. The perfusion solution drains through the incision in the atrium.
- Fixative solutions can also be infused through other large arteries and drained from an incision in a vein.
- Fixatives are usually infused under gravity or using a pump.
- The perfused animal is dead. Tissues are collected for analysis.
- Individuals performing perfusion are adequately trained in performance of the procedure as well as performing anesthesia.
- Appropriate safety practices are adhered to if any of the aldehydes are used for perfusion.