

OOCYTE HARVESTING IN XENOPUS LAEVIS

Amphibian oocytes are used for studies in molecular biology, embryology and biochemistry. Stage I-VI oocytes are obtained by surgical laparotomy. Multiple surgeries on a single animal may be justified considering the reduction in the total number of animals used over the long term. However, the total number of animals used must be considered relative to the pain or distress experienced by an individual animal.

1. The total number of laparotomies should be limited and will depend on the condition of the animal and quality of the oocytes as well as the life span of the animal and the duration of egg production. Up to five recovery surgeries (the 6th would be terminal) per animal are acceptable. Additional survival surgeries should have approval of the individual ACUC.
2. Surgeries should be performed by trained personnel using appropriate anesthesia such as tricaine methane-sulfonate (MS-222). Surgeries should be done as aseptically as practical including the use of sterilized instruments and gloves.
3. Single housing or small group housing for several days after surgery should be considered as part of the post surgical care of laparotomized animals. Frogs should be monitored daily during this period for appetite as well as for any complications such as dehiscence or infection. Such adverse effects would be reasons for immediate euthanasia.
4. Adequate recovery time should be allowed between laparotomies. The investigator can alternate oocyte collection between left and right ovaries and consider rotation of frogs so that the interval between surgeries in any individual is maximized. Recovery time of less than one month should have approval of the individual ACUC.

Approved by ARAC, June 12, 1996.

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