



This document is provided as part of Continuing Education for the Emory IACUC Members

Brief on Alternative Searches and Duplications – prepared by the Emory IACUC Office

Presented to the Emory IACUC: 2/15/2023

Regulatory Requirements – The Guide for the Care and Use of Laboratory Animals, 8th Ed., and Animal Welfare Act require the examination of alternative models and alternatives to potentially painful procedures.ⁱ

1. OLAW

- The Guide page 12 ... consideration of alternatives (in vitro systems, computer simulations, and/or mathematical models) to reduce or replace the use of animals
- The Guide page 25 ... The following topics should be considered in the preparation of the protocol by the researcher and its review by the IACUC... availability or appropriateness of the use of less invasive procedures, other species, isolated organ preparation, cell or tissue culture, or computer simulationⁱⁱ

2. Animal Welfare Act

- Policy Number 12 in the Animal Care Resource Guide recommends a literature search as the most effective methodⁱⁱⁱ
- The IACUC is responsible for determining that a PI has considered alternatives, and the document that they have at their disposal to make that determination is a written narrative detailing what sources the investigator used and, most importantly, how he or she used those sources.
- AWR page 56 (ii) The principal investigator has considered alternatives to procedures that may cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources, e.g., the Animal Welfare Information Center, used to determine that alternatives were not available
- AWR page 56 (iii) The principal investigator has provided written assurance that the activities do not unnecessarily duplicate previous experiments
- **The narrative should include^{iv}:**
 - name of the databases
 - date the search was performed - the goal of the literature search is to actually inform the experimental design
 - the time period of the literature that was covered (5-10 years)
 - search strategy - the most effective way for researchers to create this narrative is to document what they're doing as they're actually performing the literature search.

Alternatives Searches in eIACUC

Q1. Record all searches for alternatives for each **procedure that cause pain or distress**, even if relieved, and all searches for previous research that this protocol might duplicate.

If the question in the SP or TP ***“Would administering this procedure in an awake animal cause any more than momentary pain and distress?”*** is checked “Yes” included in an experiment, then the procedure name is available to be selected by clicking +Add icon to populate the table with your procedures identified as having pain and/or stress. You will also need to fill out Q2-Q6.

Alternatives and Duplication Searches

1. Record all searches for alternatives for each procedure that cause pain or distress, even if relieved, and all searches for any previous research that this protocol might duplicate. Click on the +Add icon to populate the table with your procedures identified as having pain and/or stress and answer the series of questions that follow:

Step 1

Procedures	Search Date	Searched Databases	Keywords	Search Period Start Date	Search Period End Date
1. tumor development study (Team - Taper)	11/4/2022	PubMed	medulloblastoma, cellular diversity, microenvironment, blood brain barrier	1/1/2002	11/4/2022

Step 2

Add Procedure Search Details

1. Procedures causing pain or distress:

2. Date of search:

3. Databases searched:

Step 3

Select One or More Procedure Projects

Name	Type	Version	Species	Scope
1. tumor development study (Team - Taper)	Substance Administration	1	Robot, Mouse	Team
2. interaction of medulloblastoma-relevant agents	Other	1	Robot, Mouse	Team

Step 4 – select one procedure a time and complete Q2 –Q6

If the question, in a SP or TP, ***“Would administering this procedure in an awake animal cause any more than momentary pain and distress?”*** is selected “No” leave Q1 blank because there is nothing to select, then fill out Q2 - Q6

Alternatives and Duplication Searches

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Step 2

Add Procedure Search Details

1. Procedures causing pain or distress:

2. Date of search:

3. Databases searched:

Step 3

Select One or More Procedure Projects

Name	Type	Version	Species	Scope
There are no items to display				

Step 3 – confirm that there are no procedures listed here.

Complete Q2-Q6

Q2. Identify any other references used to find alternatives (such as periodicals, publications, and consultation) - Use this section to provide references or other materials including, but not limited to, the background and experience of the PI (including participation on study section, organization of meetings, conferences and colloquia), or consultation with a *bona fide* expert.

Q3. Confirm that you have made every effort to ensure that this protocol is not an unnecessary duplication of previous research. [This is a checkbox.](#)

Q4. Please summarize the findings. [and](#) if alternatives exist but will not be used, provide scientific justification as to why [they will not be used.](#) For example: [copy/paste the key words used in Q1 followed by a brief summary of the literature hits.](#)

ⁱ Meeting Requirements for Alternatives Searches https://olaw.nih.gov/sites/default/files/140626_Gregory_slides.pdf

ⁱⁱ The Guide for the Care and Use of Laboratory Animals <https://grants.nih.gov/grants/olaw/guide-for-the-care-and-use-of-laboratory-animals.pdf>

ⁱⁱⁱ USDA Animal Care Policy Manual <https://naldc.nal.usda.gov/download/7219640/pdf>

^{iv} Definition of Pain and Distress and Reporting Requirements for Laboratory Animals: Proceedings of the Workshop Held June 22, 2000. <https://www.ncbi.nlm.nih.gov/books/NBK99537/>