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***Institutional Animal Care & Use Committee***

**ANNUAL RENEWAL APPLICATION**

**[ ]  1ST Renewal** **[ ]  2nd Renewal**

***For renewal of protocols previously approved by the MBL Institutional Animal Care & Use Committee (IACUC)***

 **Protocol No.**        **Date of Request**        **Date of Approval**

**Previously assigned Protocol No. (Initial Application):**        **(First Renewal):**

**The Marine Biological Laboratory has established policies to ensure the highest husbandry and handling standards for maintaining and working with cephalopods in a laboratory setting. The purpose of this Cephalopod IACUC Form is to ensure the welfare of these animals and the integrity of the research for which they are used.**

[**https://www.mbl.edu/policies/j110-cephalopod-care-policy**](https://www.mbl.edu/policies/j110-cephalopod-care-policy)

***Important: Please type or print clearly and submit preferably at least 6 weeks prior to expected date of First Use. ANY alterations to information provided in this document must be initiated by the Principal Investigator.***

**Expected Date of First Use:**

**Name of Investigator(s) and all responsible personnel (MUST include every individual involved in animal handling)**:

**Address of Home Institution:**

**Tel No:**        **Fax:**        **Email:**

At MBL: Bldg. &Room # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ MBL Phone Ext. \_\_\_\_\_\_\_\_\_\_\_ MBL Account # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Title:

Species (**include Common Name**) of animals to be used in this project:

MBL room(s) where animals will be housed:

MBL room(s) where experiments will occur:

**It is the PI’s responsibility to communicate this information to the MBL Veterinarian (****vet@mbl.edu****, x7522) as soon as the room has been identified**

Is this application for an MBL course? [ ]  No [ ]  Yes **Course Name**:

Have you submitted a Live Organisms Use Form? Yes No

**1. Aims and Objectives:** What are the specific aims and objectives of this animal research project? Briefly provide objectives and scientific rationale for this research or course instruction. Include how animals contribute to the aims and objectives.

**2. Benefits:** What are the possible benefits of this work? Explain how this project or instruction relates to the broad knowledge of basic biology or human health issues.

**3. Unnecessary Duplication of Work:** The current (November 2013) Animal Welfare Act requires that, “principal investigators provide written assurance that the proposed activities do not unnecessarily duplicate previous experiments.” Regardless of who performed the experiments, provide written justification for the need to duplicate any previously performed work. *Consider how you might REFINE your protocol to avoid* *unnecessary duplication and how you might REDUCE the total number of animals utilized.*

**4. Animal Procedures:** Please provide a complete description of the procedures that will be performed on live animals. The IACUC requires an explanation for any study that involves more than momentary pain or distress, and that you indicate sources consulted to determine if there are alternative procedures that would reduce pain and distress. **Alleviation of pain by administration of anesthetics does not eliminate the need to address** **alternatives to the procedure.** Therefore, **ALL** invasive procedures (surgical or otherwise and especially survival surgery) fall into this category.

***Please see Appendix IV and V for details on anesthesia and euthanasia at***

[**https://www.mbl.edu/policies/j110-cephalopod-care-policy**](https://www.mbl.edu/policies/j110-cephalopod-care-policy)

*Describe, in detail and chronological order, the experimental design (including behavioral experiments) in the space below; include aseptic techniques and methods used for each species or strain of animal. Please number the methods and include the following:*

1. The type of anesthesia/sedation.
2. Describe how often the animal will be monitored and by what method (e.g. mantle pinch)
3. Describe interventions if the animal is not adequately anesthetized.
4. For survival surgeries, describe post-operative monitoring (a Health Monitoring Log will be required).
5. For non-surgical procedures provide appropriate descriptions.
6. Be sure to include duration, intervals, and frequency of and between each procedure (seconds, minutes, hours, days), including behavioral experiments.
7. Provide description of method for euthanasia and fill out the chart (Table 1).
8. If required, please provide a description of cephalopod husbandry, including feeding, water quality parameters, etc.
9. Provide a description of where animals will be housed, if outside the MRC; include duration and endpoint.
10. List the personnel who will be performing each procedure and fill out the personnel experience chart (Table 2).
11. Include the final disposition of the animal (e.g. plastic, labeled, zip-lock bag in animal freezer; if local cephalopod not treated in waste bucket).

**Use LAY TERMINOLOGY when possible. *Add additional pages as needed for textual descriptions.***

**Please note that the tables are not a substitute for textual descriptions.**

**Have you read the MBL cephalopod care policy and are aware of expectations? [ ]  No [ ]  Yes**

***Table 1. Euthanasia (include description of euthanasia and method of disposal in text)***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Method****(e.g. anesthetic overdose, decapitation, etc.)** | **Species** | **Medication****(include dosage)** | **Route** **(topical, inhale, SQ, IP, IM IV)** | **Secondary method, Instrument (include descriptor)** |
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**TABLE 2. Personnel Details**

Please fill out the table below for each individual named on the protocol describing their experience in the named procedure. Please reference procedures to those defined above, including animal transfer from facilities to lab, health monitoring, and any animal handling including behavioral and non-invasive procedures.

For any personnel who has not been trained or needs additional training, and before beginning animal handling or procedures, contact the appropriate Facilities Manager and MBL veterinarian.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Species** | **Procedure** | **Years/Months of experience** | **Description of experience** |
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|  |  |  |  |  |

**5. Justification of Animal Numbers:** Justify in detail the TOTAL number(s) of animals including all adults, juveniles, and embryos of each species/strain requested (*i.e.* animals/experiment/day-wk-yr; animals/experiment/student; animals necessary for statistical significance).

***IMPORTANT****:* You must justify all animals in the study, including those used for breeding and those unused.

**6. ANIMAL DATA**:

***First Species***

• Species and strain

• Common name

• Animal numbers (Separately indicate numbers of adults, juveniles or embryos)

• Duration of need (incl. dates if known)

***Second Species***

• Species and strain

• Common name

• Animal numbers (Separately indicate numbers of adults, juveniles or embryos)

• Duration of need (incl. dates if known)

***Third Species***

• Species and strain

• Common name

• Animal numbers (Separately indicate numbers of adults, juveniles or embryos)

• Duration of need (incl. dates if known)

## Fourth Species

• Species and strain

• Common name

• Animal numbers (Separately indicate numbers of adults, juveniles or embryos)

• Duration of need (incl. dates if known)

***Fifth Species***

• Species and strain

• Common name

• Animal numbers (Separately indicate numbers of adults, juveniles or embryos)

• Duration of need (incl. dates if known)

The MBL wants to eliminate unnecessary waste of animal life. All investigators are encouraged to notify the attending veterinarian if they wish to share animals with another researcher. Under most circumstances, these requests may be granted and can significantly reduce the needless loss of animal life, relieve peak demand on animal facilities, and decrease overall costs to the MBL and its researchers. **Please Note: *Animals arriving without prior approval or notification must be destroyed.***

**7. PRINCIPAL INVESTIGATOR CERTIFICATION:**

I HAVE PROVIDED AN ACCURATE DESCRIPTION OF THE ANIMAL CARE AND USE TO BE FOLLOWED IN THE PROPOSED RESEARCH ACTIVITY AT THE MBL. I ACKNOWLEDGE THAT FAILURE TO REPORT TO THE IACUC SIGNIFICANT CHANGES IN THE PROTOCOL MAY PLACE THE MBL AND THE INVESTIGATOR IN VIOLATION OF FEDERAL AND INSTITUTIONAL REGULATIONS AND THAT THESE PROCEDURES ARE NOT AN UNNECESSARY DUPLICATION OF PREVIOUS EXPERIMENTS. I ASSUME FULL RESPONSIBILITY FOR COMPLIANCE WITH SUCH REGULATIONS FOR ALL PERSONNEL INVOLVED WITH THIS PROTOCOL. I ASSURE THAT ALL PERSONS ASSOCIATED WITH THIS RESEARCH HAVE BEEN APPROPRIATELY TRAINED AND QUALIFIED.

**ANIMAL ABANDONMENT: ABSENCE OR DEPARTURE/TERMINATION FROM THE MBL**

I HEREBY ATTEST THAT AS PRINCIPAL INVESTIGATOR, I WILL:

1) INSURE CONTINUOUS, AND PROPER CARE AND FEEDING OF ALL CEPHALOPOD ANIMALS LISTED IN THIS PROTOCOL.

2) IF CUSTOMARY CARE PROVIDERS ARE ABSENT FROM THE MBL FOR TWENTY FOUR (24) HOURS, I ACKNOWLEDGE THAT IT IS MY RESPONSIBILITY TO PROVIDE ALTERNATE ANIMAL CARE DURING THIS ABSENCE EITHER BY ARRANGEMENTS WITH OTHER PERSONS OR THROUGH THE MBL’S VETERINARIAN. I WILL PROVIDE THE MBL VETERINARIAN WITH NAMES OF ALTERNATE PERSONS, THEIR CONTACT INFORMATION, AND THE INCLUSIVE DATES REQUIRED FOR ALTERNATE CARE.

3) ALSO, UPON **DEPARTURE OR TERMINATION OF RESEARCH AT THE MBL** I WILL PROVIDE VIA EMAIL OR IN WRITING TO THE **MBL VETERINARIAN (**[**vet@mbl.edu**](http://vet@mbl.edu)**, x7522)** A CENSUS OF ALL REMAINING ANIMALS, AND INFORMATION ON THEIR FINAL DISPOSITION

 Date:

Signature of Principal Investigator

 Date:

Signature of IACUC Chair