

Quorum Requirement = 11

Animal Care & Use Committee
September 16, 2021

Members Present:

[REDACTED]
[REDACTED]
[REDACTED]

Members Absent:

[REDACTED]

Guests Present:

*Denise Yee, Research Compliance Staff; **Ms. Diana Talerico Blanco,
Program Manager, Animal Welfare and Biosafety Programs
*In person, **via teleconference

A. Call to Order:

A quorum of members was present when the IACUC meeting was called to order by Chairman Dr. Axel Lehrer, in the Office of Research Services Honu Conference Room via teleconference at 1:35 PM. The first order of business was the approval of the August 19, 2021 IACUC meeting notes. The committee unanimously voted to approve the meeting notes.

B. New Business:

1. Semiannual Facility Inspections

The committee approved the subcommittee reports for the following facilities:

- [REDACTED] Labs [REDACTED]
- [REDACTED] Building Aquatic Facility [REDACTED]
- JIMAR Hawaiian Monk Seal Program
- JIMAR Sea Turtle Stranding Program

A majority of members voted for approval, disapproval, or abstention. No minority opinions were noted or filed as of this meeting.

C. Old Business: None

D. Other Business:

1. Veterinary Report

a. Veterinary Inspections (no concerns)

- [REDACTED] Lab [REDACTED]
- [REDACTED] Aquatic Facility, Rm. [REDACTED]
- HMS and Sea Turtle Program Facilities – Ford Island

b. USDA Annual Inspection – August 23-24, 2021

- The USDA VMO conducted in-person inspections of the WCC Veterinary Technician Program and Waikiki Aquarium. An in-person inspection of AVS was not conducted because covered species were not being housed. There were no noncompliant items reported for the 3 facilities.
- c. **Transfer of the Waikiki Aquarium's Hawaiian Monk Seal (HMS) to UC Santa Cruz (UCSC)**
 - The HMS departed Honolulu on September 01, 2021 and arrived safely at UCSC the following day.
- d. **Chemicals in Animals**
 - Discussions were held with both the Manoa and JABSOM EHSOs for establishing a more detailed SOP for use of AOM in mice and for reviewing the SOP for Tamoxifen. The EHSO vetted SOPs will be added to the Chemicals in Animals Policy and submitted to the IACUC for review.
- e. **Death of Goat**
 - The CTAHR veterinarian reported a goat death at the Kauai Agricultural Station. It was thought that the goat died within a few days of September 15, 2021 when the death was reported. A necropsy was not performed due to advanced decomposition. The caretaker was on extended leave during the incident and there were no daily records since August 25, 2021. There appears to have been a lack of communication between the farm staff. The other goats in the pasture appeared to be well. The incident will be reported to OLAW. A memo will be sent to the PI to provide a plan of action, due in 10 days, on how procedures for daily monitoring will be conducted and staff scheduled to ensure animal welfare is not compromised in the future.

2. IACUC Portion of Ethics Complaint

The committee was informed that a PI had filed an ethics complaint against a Ph.D. student. The complaint alleges that the student did not follow feeding schedules for the fish subjects in a behavior study in addition to not selecting fish for tissue dissection based on certain behaviors. The IACUC was contacted to determine whether any animal welfare noncompliances or violations had taken place. Based on information learned during the semiannual inspection of the PI's lab and the PI's responses to the subcommittee inquires, no animal welfare noncompliances or violations were found. Rather there appeared to be a lack of training and documentation of training. The subcommittee recommended that the PI provide training using written SOPs that can be used to document that the student understands and will carry out the SOPs as written. A memo will be sent to the PI and the Office of Research Integrity with the findings and recommendations from the committee.

E. Review of New Protocols, Renewals, and Revisions:

Description of Protocols – Full Approval

01-026-20 [3692], 03-057-19 [3695], 06-023-16 [3681], 07-023-15 [3215], 11-1248-11 [3443], 13-1557-9 [3140], 13-1744-9 [3216], 16-2449-6 [3196], 16-2504-6 [3228], 17-2678-5 [3167], 17-2683-5 [3403], 18-1949-4 [3688], 18-2752-4 [3694], 18-2753-4 [3453], 20-3351-2 [3351], 20-3445-2 [3445], 20-3449-2 [3449], 21-3648 [3648], 21-3664 [3664], 21-3698 [3698] and 18-2874-4 [3701] were granted full approval.

E. Review of New Protocols, Renewals, and Revisions:

01-026-20 [3692] (Full Renewal) Application Title - *"Monoclonal Antibody Service Facility and Training Center"*. **Vertebrate species** – Mice. **Project Description** – Continuing biotechnology program at Kapiolani Community College with monoclonal antibody and hybridoma technology and theory taught to students in two courses, MICR 161 (Immunology and Protein Chemistry) and MICR 240 (Tissue Culture). **No discussion.**

03-057-19 [3695] (Full Renewal) Application Title - *"Virulence Factors of Campylobacter jejuni"*. **Vertebrate species** – Mice. **Project Description** - Continuing efforts to produce a specific monoclonal antibody reagent to the common bacterial enteric pathogen, *Campylobacter jejuni*, grown under a variety of *in vitro* conditions particularly under tissue culture conditions that mimic the pathogenic invasion process. **No discussion.**

06-023-16 [3681] (Full Renewal) Application Title - *"Nutrient Acquisition and Replication of Pseudomonas aeruginosa during CF Lung Infection"*. **Vertebrate Species** – Mice. **Project Description** - Continuation of a project that tests the ability of several mutants of *Pseudomonas aeruginosa* (PA) to grow *in vivo* compared to the wild type PA. **No discussion.**

07-023-15 [3215] (Annual Renewal) Application Title - *"The Regulation of Bcl-2 by Cell Adhesion in Cardiovascular Disease"*. **Vertebrate species** – Mice. **Project Description** – Continuation of a project to determine how cell adhesion and Bcl-2 impact cardiomyocyte cell survival. **No discussion.**

11-1248-11 [3443] (Annual Renewal) Application Title - *"Molecular Insights into the Tumor Suppressor Signaling Pathways"*. **Vertebrate species** – Mice. **Project Description** – Continuation of a project that uses Fanconi Anemia (FA) as a unique genetic model system to: 1) dissect the FA signaling pathway; 2) determine how FA proteins mediate tumor suppression; and 3) investigate the potential of targeting the FA pathway as a therapeutic approach in the treatment of human cancer. **No discussion.**

13-1557-9 [3140] (Annual Renewal) Application Title - *"Large Animal Procedures for Vet. Tech"*. **Vertebrate species** – Goats, pigs, cattle, sheep, horses. **Project Description** – Continuation of a project to provide opportunities for WCC Vet Tech students to handle large animal species and to perform duties that would be expected of them in the profession. **No discussion.**

13-1744-9 [3216] (Annual Renewal) Application Title - *"Evaluate New Predator Proof Fence Design to Protect Hawaiian Petrels"*. **Vertebrate Species** – Cats. **Project Description** – Continuation of a project to collaborate with the National Park Service to evaluate the effectiveness of a predator fence design to exclude cats from the largest endangered petrel subcolony on the island of Hawaii. **No discussion.**

16-2449-6 [3196] (Amendment) Application Title – *"COBRE-DIABETES - Impact of Modulated Exocyst Activity on GLUT4 Trafficking in Metabolic Tissues"*. **Vertebrate species** – Mice. **Project Description** – Amendment to add a treadmill exercise and a technique to measure muscle microvascular oxygen pressure for a project that studies the consequences of disruption of the Sec10 gene, which makes a protein important for trafficking within the cells. This project will reveal crucial mechanisms leading to the development of type-2 diabetes. **No discussion.**

16-2504-6 [3228] (Annual Renewal) Application Title – *"Assessing Lifespan and Aging Phenotypes Resulting from FoxO3 Induction Using Mouse Models"*. **Vertebrate species** – Mice. **Project Description** – Continuation of a project to insert genes believed to slow aging, into mice. **No discussion.**

17-2678-5 [3167] (Annual Renewal) Application Title – *"ANSC 263 - Veterinary Technician Training"*. **Vertebrate species** – Mice, rats, rabbits, fish, birds, amphibians and reptiles. **Project Description** – Continuation of a protocol that covers the instruction of veterinary technicians and assistants on veterinary procedures used in the treatment of companion animals. **No discussion.**

E. Review of New Protocols, Renewals, and Revisions:

17-2683-5 [3403] (Annual Renewal) Application Title – *“Companion Animal Surgery, Including Feral Cats”*. **Vertebrate species** – Dogs and cats. **Project Description** – Continuation of a protocol that covers the training of veterinary technology students in administration of anesthesia and surgical assisting skills (sterile technique, passing instruments, retracting tissue, care of exposed tissues). Students assist with spay and neuter surgeries performed on companion animals, including feral cats. **No discussion.**

18-1949-4 [3688] (Full Renewal) Application Title – *“TNF-Mediated Vascular Permeability in Sepsis”*. **Vertebrate species** – Mice. **Project Description** – Continuation of a project that seeks to understand how TNF-alpha functions to initiate vascular leakage initiated by sepsis. It is hypothesized that the TNF-alpha inactivates RRs to regulate vascular permeability. **No discussion.**

18-2752-4 [3694] (Full Renewal) Application Title – *“Pueo Distribution, Nesting, Foraging, Movement”*. **Vertebrate Species** – Owls and mice. **Project Description** – Continuation of a project to study the population size, habitat use, and diet of Hawaiian short-eared owls to provide insight necessary to conserve the species. **Discussion** – There was some discussion regarding documentation from veterinarians located on neighbor islands that may treat owls. However, the University Veterinarian is listed as the veterinarian of record.

18-2753-4 [3453] (Full Renewal) Application Title – *“Ept1 Studies in Mouse Models”*. **Vertebrate species** – Mice. **Project Description** – Continuation of a project that investigates the role of the selenoprotein, Ept1, in regulating immune cell function. **No discussion.**

20-3351-2 [3351] (Annual Renewal) Application Title – *“Coronavirus Recombinant Subunit Vaccines”*. **Vertebrate species** – Mice. **Project Description** – Continuation of a project to develop recombinant subunit vaccine candidates to protect against coronavirus infection. Proposed studies for this project demonstrates the immunogenic potential of various recombinant subunit coronavirus vaccines developed in the researcher's lab. Results support the advancement of the vaccine candidates towards the development of human vaccines. **No discussion.**

20-3445-2 [3445] (Annual Renewal) Application Title – *“Land-based Pollutants in Hawaiian Coral Reef Ecosystems”*. **Vertebrate species** – Fish. **Project Description** – Continuation of a project to examine land-based pollutants in coral reef ecosystems in Hawaii, and as part of that, to examine pollutant concentrations in the tissues of fishes. **No discussion.**

20-3449-2 [3449] (Annual Renewal) Application Title – *“Alphavirus Recombinant Subunit Vaccines”*. **Vertebrate species** – Mice. **Project Description** – Continuation of a project to develop recombinant subunit vaccine candidates to protect against alphavirus infection. Proposed studies for this project demonstrate the immunogenic potential of various recombinant subunit alphavirus vaccines developed in the researcher's lab. Results support the advancement of the vaccine candidates towards the development of human vaccines. **No discussion.**

21-3648 [3648] (New) Application Title – *“2021 Heeiea - Restoring Tributaries”*. **Vertebrate species** – Mongoose and rats. **Project Description** – This new project restores the wetland in the lower reaches of He'eia stream and estuary to improve habitat for native fish, birds and invertebrates. Invasive plants (i.e., mangroves and California grass) and animal species (rats and mongoose) will be removed and the braided stream channels opened which was once characteristic of the natural landscape. **Discussion** – The IACUC commended the PI on the description of the airguns that will be used.

21-3664 [3664] (New) Application Title – *“Hawaiian Sea Turtle Survey and Response Support”*. **Vertebrate species** – Sea turtles. **Project Description** - The proposed project helps to address a need for the monitoring of Maui's Sea Turtles in collaboration with Hawaii Wildlife Fund. By tracking the turtle nesting and excavating nests this project helps increase the rate of hatchling success and keeps yearly records of hatchling populations. The proposed project also supports the Hawai'i Island Division of

E. Review of New Protocols, Renewals, and Revisions:

Aquatic Resources (DAR) with documentation and response to incidents involving sea turtles, including entanglements, injuries and strandings. **No discussion.**

21-3698 [3698] (New) Application Title – *"Fish Biodiversity Monitoring, Eradication of Invasive Species, and Diet Analysis in the He'eia Estuary"*. **Vertebrate species – Fish.** **Project Description** – this new project seeks to understand the diversity, abundance, and feeding behavior of fish in the He'eia Estuary to assess how efficiently restoration using Native Hawaiian management practices is working in the watershed. As part of this goal, non-native fish species in the watershed will be eradicated. At the same time, young marine scientists will be trained in research methods that pertain to taking care of their land and environment and how that affects the organisms living there. **No discussion.**

18-2874-4 [3701] (New – Previously expired) Application Title – *"Species Delimitation, Hybridization and the Origin of Parthenogenesis in Whiptail Lizards (*Aspidoscelis*)"*. **Vertebrate species – Lizards.** **Project Description** - The purpose of this project is to collect museum specimens and genetic samples from whiptail lizards (genus *Aspidoscelis*) in Mexico. The specimens and samples will be used to understand the number of species that are present in the group and the evolutionary history of these species. **No discussion.**

IACUC Vote – Unanimous vote for 01-028-20 [3692], 03-057-19 [3695], 06-023-16 [3681], 07-023-15 [3215], 11-1248-11 [3443], 13-1744-9 [3216], 16-2449-6 [3196], 16-2504-6 [3228], 18-1949-4 [3688], 18-2752-4 [3694], 20-3351-2 [3351], 20-3445-2 [3445], 20-3449-2 [3449], 21-3648 [3648], 21-3664 [3664], 21-3698 [3698] and 18-2874-4 [3701].

- Majority vote for 18-2753-4 [3453]. Member M abstained. Member M is the PI for the project
- Majority vote for 13-1567-9 [3140], 17-2678-5 [3167] and 17-2683-5 [3403]. Member P abstained. Member P is the PI for the projects.

Description of Protocols - Not Approved until Additional Information or Clarification is Provided:

21-3699 [3699] was Not Approved until Additional Information or Clarification is Provided

21-3699 [3699] (New) Application Title – *"Indirect Negative Effects on Corals of Predation on Mutualistic Invertebrates"*. **Vertebrate species – Fish.** **Project Description** - This new project describes the primary diet of two scorpionfish species here in Hawaii: the Speckled Scorpionfish and Galactic Scorpionfish. These species are common residents of cauliflower coral colonies, which are home to a variety of species of invertebrates, many of which offer beneficial services to their host coral. Identifying the prey of resident scorpionfish will reveal whether or not their presence has indirect negative effects on their host coral.

A. Section 12. Regulated Materials and Activities. 12.3.1.1. IBC Authorization Number.

- Confirmation of IBC review and approval is required.

IACUC Vote – Unanimous vote for nonapproval.

F. Previously Reviewed Protocols and Project Personnel Changes - Approved

Approved protocols – None

Approved Personnel Changes – 03-007-18 [3527], 08-574-13 [3461], 11-1094-11 [3276], 18-2782-4 [3538], 21-2854 [2854], 21-3499-[3499] and 21-3576 [3576]

Approved protocols (DMR approved) – 17-2652-4 [3489] and 19-3131-2 [3491]

Approved protocols (VVC approved) – None

G. **Adjournment:** The meeting was adjourned at 2:35 PM.

LEGEND

Approved - research or training/teaching can begin or continue.

Not Approved - research or training/teaching cannot begin until additional information or clarification required by the committee is reviewed and approved by the chairperson.

Deferred - research or training/teaching cannot begin as the protocol has serious defects that require significant justification and review by the full committee.

IACUC Decision on Reviewed Protocols September 16, 2021

Approval	Not Approved	Deferral	Withdrawn	Tabled
21	1	0	1	0