TEXAS A&M UNIVERSITY CORPUS CHRISTI

Institutional Animal Care and Use Committee

Minutes for May 21, 2021

Call to Order

The Texas A&M University-Corpus Christi Institutional Animal Care and Use Committee (IACUC) met on May 21, 2021, via WebEx. Quorum was confirmed and the meeting was called to order at 10:05 am with the following members present.

Total Number of Members Present in Voting Capacity: 7 # required for quorum: 6

Meeting Attendance

Members Present:

Member name	Voting Status	Membership	Affiliation	Scientific	Arrive late	Left Early	Teleconference
John Scarpa	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
Jean Sparks	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
Judd Curtis	Voting	Full	Affiliated	Scientific	N/A	Exited at 10:58	WebEx
Paul Silva	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
Eric Christensen	Voting	Full	Affiliated	Non-Scientific	N/A	N/A	WebEx
Nathan Galvin	Voting	Alternate, Coons	Affiliated	Scientific	N/A	N/A	WebEx
Angelica Chapa	Voting	Alternate, Omoruyi	Affiliated	Scientific	Reentered at 10:55	Exited at 10:55	WebEx
Larry Lloyd	Voting only for Curtis COI	Alternate, Curtis	Affiliated	Scientific	N/A	N/A	WebEx
Frauke Seemann	Non-Voting	Alternate, Silva	Affiliated	Scientific	Reentered at 10:37	Exited at 10:23	WebEx

Staff and Guest Present:

Name	Job Title	Teleconference
Rebecca Ballard	Director, Research Compliance	WebEx
Linda Villarreal	Program Manager	WebEx

I. Conflict of Interest

Members are reminded of their obligation to disclose any conflict of interest related to any of the items on today's agenda. The chair called for any disclosures of conflict of interest. Conflicts were declared and are noted in the minutes on the relevant item.

II. Minutes

Minutes from April 16, 2021, were reviewed. Minutes were edited to add Chapa. The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve was made, seconded, and carried.

Vote yes: 7
Vote no: 0
Abstain: 0
Recused: 0
Excused: 0

III. New business - Director Update

Staff update: Germaine Hughes-Waters resigned on May 3, 2021. Linda will remain primary for IACUC and IBC. Rebecca will be the primary staff for IRB reviews until a replacement is hired.

iRIS software update: iRIS implementation with IRB is ongoing and still on track for converting from REDCap to iRIS for the IRB on June 1, 2021. IACUC and IBC will follow in late summer, early fall.

IV. New Studies

IACUC #:	TAMU-CC-IACUC-2021-04-009
Principal Investigator:	Frauke Seemann
Conflict of Interest:	Frauke Seemann
Primary Reviewer:	Judd Curtis and Kesley Banks
Protocol Title:	Assessment of the innate immune system development in larval marine medaka fish
Species:	Oryzias melastigma
Protocol Type:	Animal Research Protocol
Study Objectives:	Understanding the development of the immune response is crucial to identify unique sensitive timepoints for environmental stress. The innate immune system as sole defense is particularly important until full immune system maturation. The proposed research targets to catalogue molecular changes of selected immune genes, initiators, mediators and effectors, in marine medaka (Oryzias melastigma) larvae at different timepoints and how the expression of these genes is affected in response to a pathogen challenge. The pathogen challenge will help to identify if the respective gene and the associated immune response pathway are active at that developmental timepoint.
Lay Summary:	1. Range finding test for bacterial exposure A range-finding test is needed to identify the bacteria concentration for Edwardsiella tarda, Edwardsiella piscicida, and Edwardsiella anguillarum, which results in ~50% larvae moribundity in comparison to the unexposed phosphate buffered saline (PBS) control group. Briefly, 30 larvae (n= 30) will be exposed through waterborne exposure to 10^2, 10^4, 10^6, and 10^8 colony forming units (cfu) of either Edwardsiella tarda, Edwardsiella piscicida, or Edwardsiella anguillarum for 2 weeks in 96 well plates containing one larvae per well as described in Seemann et al., 2017. 0 days post fertilization (dph) larvae will be washed twice with sterile filtered seawater before being carefully placed into the wells containing 100 uL sterile filtered seawater using a cut and blunted pipette tip. 100 uL of the PBS control or bacteria solution are added to the respective wells. Larvae will be checked for injuries directly after the placement and subsequently monitored 2 times per day for moribundity. Injured or moribund individuals will be immediately euthanized with MS-222. 2. Assessment of innate immune system development Fish larvae originating from the TAMU-CC husbandry will be collected at hatching and reared according to the standard protocol (IACUC #03/19). Larvae at 0, 3, 5, 12, 19 and 26 dph will be subjected to waterborne pathogen exposure using either Edwardsiella tarda, Edwardsiella piscicida or Edwardsiella anguillarum at the concentration identified in 1.) or a PBS control. Upon 2 days of waterborne exposure 5 replicates of 20 larvae per treatment and age group will be sampled and euthanized with MS-222. These samples will be used for immune gene expression measurement.

To comply with biosafety measures, the experiment will be conducted in Dr. Turners TH251 BSL2 space. 96 well plates with the animals will be maintained in a locked incubator at 26 degrees Celsius.

All BSL2 work (bacterial exposures) will be conducted in the BSL2 space.
At the day of exposure, fish larvae will be placed in the 96 well plates in TH 314. The covered plates will then be carefully transported to the second floor TH251 BSL2 space, where the bacteria will be added to the respective wells. Fish will be maintained in the BSL2 space until the experimental endpoints are met. The experiments are expected to last no longer than 3 weeks.

CITI verified: Yes

OHP: Missing - Harder-Neely
All others verified

Open meeting: Dr. Seemann presented at 10:14 am.

This is a student project. BSL-2 lab under Dr. Turner's lab on the 2nd floor, TH251, will be used to conduct the experiment. IBC approval is secured. Housed in the closed incubator. Lab restricted to only this study's personnel.

There is a 50% endpoint for morbidity. How do you evaluate morbidity to assess humane endpoint in small animals? Using dissection microscope. Lying on the bottom of well; reduced activity, breathing slowly, and reduced heartbeat. Evaluating twice per day; 9 – 10 hours apart. Will try to evaluate as close to as possible at 12 hours.

Is there a 50% in 48 hours? It is 50% in total. Exposing 30 larvae. If 50% of 30 larvae over the total course of exposure (2 weeks). Want to be able to evaluate both toxicant exposure and bacterial exposure. Need to have concentration at half of the population to show statistically significant results.

Disposition of animal remains in BSL-2 lab and autoclaved. What is the time frame for autoclaving? Store at -20 in BSL-2 lab until the end of the experiment and then autoclave carcasses after the first part of the experiment. No tissue will remain after autoclaving.

Closed meeting: Dr. Seeman exited at 10:23 am.

Discussion: This protocol is well written and described. The questions were answered and clarified issues. Biosafety level 2 work as described: Disposition via autoclave is standard procedure. Dr. Turner has approved IBC in TH 251 as BSL-2.

IBC protocol for Dr. Seeman: TAMU-CC-IBC-2020-05-001 was reviewed by IBC on June 19, 2020. The stipulations were resolved on July 3, 2020.

Numbers of animals listed for first half and number of animals listed for the 2nd half of the experiment. Documented on page 12. The 2nd half of the experiment describes power analysis.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with a review period of one year was made, seconded, and carried.

Vote yes:	7	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

Dr. Seemann reentered the meeting at 10:37.

IACUC #:	TAMU-CC-IACUC-2021-05-012
Principal Investigator:	Dara Orbach
Conflict of Interest:	None
Primary Reviewers:	Roy Coons and Larry Lloyd
Protocol Title:	Honor's summer course: field experience in dolphin research
Species:	Tursiops truncatus - common bottlenose dolphin
Protocol Type:	Teaching/Training Protocol
Study Objectives:	The goal of the course is to teach honors students about field techniques to research dolphins in their natural habitats. Students will learn how to: - non-invasively observe dolphins from shore using a theodolite and binoculars -passively record dolphin acoustics using a hydrophone deployed from a small research vessel -learn how to safely approach dolphins from a moving vessel and capture their photographs on camera and video
Lay Summary:	The 5-day course will consist of intensive field research with the objective for students to learn non-invasive techniques. Data collection will consist of photo-identification of dolphins facilitated by boat-based surveys, deploying a passive acoustic recorder to assess acoustics and land-based tracking of dolphin movements. o Dr. Orbach and 8 undergraduate honors students will use the non-invasive method of photographing dolphins and using the natural markings on their dorsal fins for identification. o A hydrophone will be immersed in the water from the boat to passively record dolphin acoustics while the motor is off. o A surveyor's theodolite will be positioned on land to track dolphin movement in busy waterways. Photo-identification and acoustic protocols were approved in TAMU-CC-IACUC-2021-01-001, including the listed equipment and associated EARS.

CITI verified: Yes OHP verified: Yes

Discussion: Teaching protocol that is observed in nature on how to evaluate dolphin behavior. Should not adversely affect animals. If adverse behavior is noticed, then distance will be increased. Distance is detailed in the protocol for safe observations. Dr. Orbach is permitted for dolphin observation. Instruments have export control requirements that have been approved and a technology control plan has been established.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with a review period of one year was made, seconded, and carried.

Vote yes:	7	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

IACUC #:	TAMU-CC-IACUC-2021-05-013
Protocol Title:	Land-based surveying of bottlenose dolphins
Principal Investigator:	Dara Orbach
Species:	Tursiops truncatus - common bottlenose dolphin

Conflict of Interest:	None
Protocol Type:	Animal Research Protocol
Primary Reviewers:	Eric Christensen and Frauke Seemann
Lay Summary:	A surveyor's theodolite site will be established at an elevation that allows unobscured views of dolphins in their natural habitat. The theodolite triangulates the position of dolphins and produces corresponding GPS coordinates. The research team will stand on land and look through the ocular lens of the theodolite to track dolphin movement patterns relative to different types of boats. The theodolite operator lines up the crosshairs of the lens with the dolphins and marks a point on the computer that allows for calculations of swimming speeds, surface times, and directional changes. The research is completely none-invasive.

CITI verified: Yes OHP verified: Yes

Discussion: Similar to previous teaching protocol except that it is a land observation. Long-term observations of dolphins to understand parameters like swimming speeds, locations, movement, and other behavior. This is a non-invasive protocol. Researchers are observing far away from the dolphins. The protocol is nicely written.

There are 2100 individuals covered by the current permit that is approved for 8000 animals. Verified that the accepted permit was on file. What is being proposed in this protocol is far less invasive.

Literature search: Used google scholar. Recommend using PubMed. Discussed the use of Google scholar. The protocol only includes one literature source. NIH recommends at least two searches to ensure the search captures any prior literate that needs to be considered in the IACUC's decision to approve.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with stipulations to be reviewed by the chair. With a review period of one year was made, seconded, and carried.

Stipulation includes:

1. NIH recommends the literature search include more than one source. Recommend using PubMed or another source than Google Scholar. Please see https://iacuc.tamucc.edu/faqs-performing-alt-searches.html. Please include an additional literature search.

Vote yes:	7	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

Chapa exited at 10:55 am. Chapa reentered at 10:55 am. Quorum was maintained.

V. Amendment

IACUC #:	TAMU-CC-IACUC-2020-04-001
Protocol title:	Tagging Methods for Marine Fishes
Principal Investigator:	Greg Stunz
Primary Reviewer:	Paul Silva and Jean Sparks
Conflict of Interest:	Judd Curtis
Species:	Cobia
Amendment Justification:	Some transmitters were left over from last year and will be available for this year's field sampling. In addition, cost discounts on transmitters enabled the purchase of more than 15 tags for this year. Thus, we are requesting permission to increase the number of cobia to up to 30 for 2021.

Amendment Type: Change in species number

Closed meeting: Dr. Curtis exited at 10:58 am.

Larry Lloyd voting as Dr. Curtis's alternate on this submission.

Discussion: Texas Parks and Wildlife permit expires on March 17, 2021. Tagging part had a later date. But this is pending renewal of the permit. Is the number listed on the permit (25), the total number or number per year? Year 1 was 15 and Year 2 was 15 but amending to 30. Recommend for clarity when renewing the permit to ask for 30 per year. Stipulation: Texas Parks and Wildlife Permit needs to be amended to ask for an extension/renewal of the permit and up the numbers from 25 to 30 animals per year. Recommend for clarity when renewing the permit to ask for 30 per year.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with stipulations to be reviewed by the chair. With a review period of one year was made, seconded, and carried.

Stipulation includes:

1. Texas Parks and Wildlife Permit needs to be amended to ask for an extension/renewal of the permit and up the numbers from 25 to 30 animals per year. Recommend for clarity when renewing the permit to ask for 30 per year.

Vote yes:	7	Recused:	1, Curtis
Vote no:	0	Excused:	0
Abstain:	0		

Larry Lloyd voted in place of Judd Curtis.

VI. Other

Inspections are due in June. Will provide committee members with possible inspection dates at the next meeting.

The next meeting is scheduled for Friday, June 11, 2021, from 1:00 to 3:00 pm.

The meeting was adjourned at 11:06 pm.