

Institutional Animal Care and Use Committee

Minutes for August 27, 2021

Call to Order

The Texas A&M University-Corpus Christi Institutional Animal Care and Use Committee (IACUC) met on August 27, 2021, via WebEx. A quorum was confirmed, and the meeting was called to order at 10:03 am with the following members present.

Total Number of Members Present in Voting Capacity: 6

required for quorum: 6

Meeting Attendance

Meeting Chair:

<u>Chair name</u>	<u>Voting Status</u>	<u>Membership</u>	<u>Affiliation</u>	<u>Scientific</u>	<u>Arrive late</u>	<u>Left Early</u>	<u>Teleconference</u>
Felix Omoruyi	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx

Members Present:

<u>Member name</u>	<u>Voting Status</u>	<u>Membership</u>	<u>Affiliation</u>	<u>Scientific</u>	<u>Arrive late</u>	<u>Left Early</u>	<u>Teleconference</u>
Frauke Seemann	Voting	Full, Vice-Chair	Affiliated	Scientific	N/A	N/A	WebEx
Kesley Banks	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
Eric Christensen	Voting	Full	Affiliated	Non-Scientific	N/A	N/A	WebEx
Dara Orbach	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
Jean Sparks	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
John Scarpa	Non-voting	Alternate, Seemann	Affiliated	Scientific	N/A	N/A	WebEx

Staff and Guest Present:

<u>Name</u>	<u>Job Title</u>	<u>Teleconference</u>
Rebecca Ballard	Director, Research Compliance	WebEx
Linda Villarreal	Program Manager	WebEx
Sean McCracken	Prospective IACUC Member	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 are noted in the submissions below.

II. Minutes

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

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Vote yes:	6	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

III. New business

The Committee reviewed new business items.

I. New business

Staff update: IACUC/IBC coordinator hired; Committee welcomed Dr. John Scarpa

Member Updates:

New Members: The committee welcomed the following new members:

Dr. Dara Orbach, full
Dr. Daniel Coffey, alternate
Dr. Wei Xu, alternate

New Roles: Dr. Kesley Banks moves from alternate to full member as she replaces Dr. Judd Curtis.

Dr. Frauke Seemann accepted the role of Vice Chair.

Dr. John Scarpa moved from vice-chair to alternate member.

Member File update: Members were reminded they must maintain current CITI training and updated CVs. Members whose files requiring updating have been notified. IACUC members are reminded to provide these documents to ORC by the end of the month.

Educational Items: 8/2/2021 NIH email - New Resources on Flexibilities for Conducting Semiannual Inspections New Guide Notice and Website on Flexibilities for Conducting Semiannual Inspections of Animal Facilities. In our most recent guidance in response to the 21st Century Cures Act, [NOT-OD-21-164](#), OLAW and the USDA provide flexibilities for conducting semiannual animal facility inspections that may reduce administrative burden. Specifically, the guidance clarifies nine flexibilities that institutions may implement to reduce administrative burden. This guidance can also be found on our new [Semiannual Facility Inspections](#) website. Don't hesitate to [reach out](#) to us if you have any questions or comments.

7/22/2021 NIH email - New Request for Information (RFI) and webpage now available OLAW has published a new Guide Notice, [NOT-OD-21-161](#), Request for Information (RFI) on Departures from the *Guide for the Care and Use of Laboratory Animals*.

In response to the 21st Century Cures Act, OLAW is seeking input on clarifying guidance to Assured institutions regarding the Institutional Animal Care and Use Committee (IACUC) reporting requirements for departures from the *Guide for the Care and Use of Laboratory Animals* ([Guide](#)). It also provides two new tools for stakeholder input through the RFI:

1. A *Guide* **Exceptions** list
2. A *Guide* **Must Statements** checklist

Comments must be submitted electronically on the [RFI webpage](#) on or before November 1, 2021, at 11:59 PM ET.



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Regulation: Regulation 15.99.07.C1 Use of Vertebrate Animals has been revised.

Regulation 15.99.07.C1 Use of Vertebrate Animals was reviewed. Most changes are superficial or clarifying, such as changing an acronym and updating Division name. Formatting style was discussed in section 1.1 Use of Vertebrates as there is only one item under 1.1, which is just the title. Formatting style is based on an approved system format. Member indicated this was acceptable and to keep current format. No changes on formatting requested.

The URL in section 5.5 for Ethics point did not work when tested. It may be that the new website upgrade changed the website link. This needs to be updated with correct weblink.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with edits was made, seconded, and carried.

Edits: Update to working URL for ethics point (Section 5.5).

Vote yes:	6	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

II. De Novo Studies

IACUC #:	TAMU-CC-IACUC-2021-08-022	De Novo for IACUC 22-19
Principal Investigator:	Benjamin Walther	
Conflict of Interest:	None	
Primary Reviewers:	Frauke Seemann and Angelica Chapa	
Protocol Title:	Collaborative Research: Shifting the Hypoxia Paradigm - New Directions to Explore the Spread and Impacts of Ocean/Great Lakes Deoxygenation	
Species:	Sciaenops ocellatus, Paralichthys lethostigma, and Micropogonias undulatus	
Protocol Type:	Animal Research Protocol	
Study Objectives:	This work will assess exposure of fish to low oxygen (hypoxia) and human pollutants in natural systems using chemical proxy analyses of fish tissues (hard and soft tissues). This project will assess exposure histories in three species of fish found in Texas estuaries.	
Lay Summary:	Wherever possible, fish carcasses will be obtained from existing ongoing state and federal finfish surveys, or local fishermen, who routinely sample, sacrifice, and retain carcasses that are made available for use by researchers such as in this project. If fish are not available through these sources, fish will be captured with standard fishery gear and the target species only will be retained. These individuals will be anesthetized by immersion in a clove oil bath followed by euthanasia by cervical dislocation.	

CITI verified: Yes

OHP verified: Yes

Discussion: Two papers used to justify hypoxic conditions. Stated he has permit for all 3 species. Permit was reviewed.

Items for discussion: Fish numbers: substantiates fish number with two previous papers. Do we need to request a power analysis?

We do not know what fish he is sampling and why he needs the numbers. He just states using carcasses or fishing ourselves to get the numbers. Not clear what is being measured and what is being done to verify the numbers used.

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He may need less than what the permit allows. It is not clear he has justified the number needed. The numbers really needed may vary depending on experimental endpoint. Experimental endpoint is not clear.

What are the endpoints of hypoxia exposure?

Usually if the fish is a model fish, then easy to justify the numbers. But wild catch then a bit more difficult to measure. In the paper the statistics are a little unclear.

A member discussed challenges of doing power analysis on wild caught.

Fish handling: using clove oil for anesthesia and cervical dislocation. This is within the guidelines. No further discussion needed on this point.

Members discussed requesting another database search.

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

Stipulations include:

1. Clarify the endpoints being measured to justify animal numbers. And how this may impact the numbers requested.
2. Please add 2nd database search

Vote yes: 6

Recused: 0

Vote no: 0

Excused: 0

Abstain: 0

III. New Studies

IACUC #: TAMU-CC-IACUC-2021-08-023
Principal Investigator: Shawn McCracken
Conflict of Interest: None
Primary Reviewer: Kesley Banks and Larry Lloyd
Protocol Title: Conservation genomics and disease ecology of the Texas tortoise, *Gopherus berlandieri*
Species: *Gopherus berlandieri*
Protocol Type: Animal Research Protocol
Study Objectives:
1. Generate a genomic reference resource for the Texas tortoise (*Gopherus berlandieri*), which can serve as a framework for mapping of variations among the population.
2. Based on low-coverage genome sequencing of 66 individuals across its range in Texas and produce a GIS management resource that shows the geospatial extent of populations across the Texas tortoise range.
3. Collect blood samples and test 80 Texas tortoise individuals for *Mycoplasma agassizii* and 40 individuals for *M. testudineum* to assess disease status and dynamics in Texas tortoise populations across the range in Texas.
Lay Summary: This study will map the genetic diversity and assess the disease ecology of the Texas tortoise (*Gopherus berlandieri*) across the state of Texas to help target resources towards effective management and conservation strategies. In this study, the Texas tortoise will be surveyed for its range in Texas. Observed individuals will be temporarily collected to process at the field location they were detected. For each individual observed the following data will be collected: morphological measurements (e.g., carapace length, plastron width,

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and weight), general health assessment, series of photographs, a blood draw from the subcarapacial vein (volume in proportion to the tortoise's weight) and marked with a carapace notch identifier. Procedures can cause the following: temporary moderate stress due to handling, evacuation, and temporary mild discomfort at the site of blood draw. After field data collection, tortoises are returned to their original observation location. Individuals found in potentially dangerous locations (e.g., road or parking lot) are relocated to a shaded natural area typically within 150 meters of the original observation location. The blood sample will be centrifuged on-site, and a pipette or syringe used to draw out the plasma. An aliquot of 0.5 ml will be placed into a cryovial to be sent for Mycoplasma spp. bacteria testing at the University of Florida Diagnostic Laboratories. The remaining plasma will be placed in a separate cryovial for long-term storage in the lab of Dr. McCracken at TAMUCC. Blood and plasma samples will be flash frozen in liquid nitrogen and stored on dry ice in the field until transferred to -80 °C freezer storage in the lab of Dr. McCracken. Blood samples will be shipped to Yale Center for Genome Analysis for sequencing.

CITI verified: No, Tleimat, Moon, McCracken

OHP verified: No, Tleimat, Moon, McCracken

Open meeting: McCracken present at 10:44 am.

No questions for PI were posed.

Closed meeting: McCracken exits at 10:45 am.

Discussion: Study looking at genetic diversity. Still waiting on permit for TPWD. Permit application has been provided. Asking for 40 species. This seems reasonable when doing wild caught. References included to support number? No. This project will not start till January.

Tell us if they are disinfecting the area for muscle plug/biopsy. This is not discussed in protocol. Please include in the protocol.

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

Stipulations include:

1. Tell us if they are disinfecting the area for muscle plug/biopsy. This is not discussed in protocol. Please include in the protocol.
2. Provide permit when received.
3. IACUC training and OHP need updates.

Vote yes: 6

Recused: 0

Vote no: 0

Excused: 0

Abstain: 0

McCracken re-enters at 10:50 am.

IACUC #: TAMU-CC-IACUC-2021-08-024

Principal Investigator: Frauke Seemann

Conflict of Interest: Seemann

Primary Reviewer: Felix Omoruyi and John Scarpa

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Protocol Title: Effects of PFOS/PFHxS exposure during innate immune system development on immune competence in marine medaka

Species: *Oryzias melastigma*

Protocol Type: Research Protocol

Study Objectives: The innate immune system is crucial for pathogen defense and organism homeostasis, and recent research has indicated a link between exposure to toxicants during immune development to later-life immune disease susceptibility. But little is known about how exposure during specific critical windows of immune system development will impact immune competence. Therefore, the proposed research will investigate how exposure to flame retardants, notably perfluorooctane sulfonic acid (PFOS), or its industrial replacement, perfluorohexanesulphonic acid (PFHxS), will impact immune competence. This proposed study will utilize the marine fish toxicology model, *Oryzias melastigma* (OM), and focus on two developmental stages containing key critical windows for innate immune development while also determining the lowest observable adverse effect concentration for each compound. The specific aims for this study:

1. Determine the impact of developmental PFOS/PFHxS exposure on the survival of OM embryos and larvae.
2. Determine the impact of developmental PFOS/PFHxS exposure on OM embryo and larval immune competence.
3. Determine which (if any) concentration for PFOS/PFHxS (0, 0.05, 0.5, 5, 50 ng/ml) induces immune compromise.

CITI verified: Yes

OHP verified: Yes

Open discussion: Dr. Seemann present at 10:50 am.

Two comments:

1. Bacterial numbers for challenges initially 10 to 8th power CFUs. 5 to 7th versus 5 x 10 to the 7th. Minor correction elsewhere as using half the initial dose.
2. Emerge should be immerse and other verb tense forms as needed.

Otherwise, the protocol looks fine. Just minor corrections.

Closed discussion. Dr. Seeman exits at 10:53 am.

Discussion: Impressed with power calculation on animal numbers. Noticed for the lay summary there is some technical jargon. This is just an educational item on how to write a lay summary and remind investigators not to get too technical as this should be readable and accessible to all who read it.

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

Stipulations include:

1. Bacterial numbers for challenges initially 10 to 8th CFUs. 5 to 7th versus 5x 10 to the 7th. Minor correction elsewhere using half the dose.
2. Emerge should be immerse and other verb tense forms as needed.

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Vote yes: 6	Recused: 1, Seemann
Vote no: 0	Excused: 0
Abstain: 0	

Dr. Scarpa voting as alternate to Dr. Seemann for this one protocol.
Seemann reenters at 10:57 am.

IV. Semi-Annual Inspection Update

TAMU-CC IACUC Labs

On June 16, 2021, the following IACUC members conducted a remote Semi-Annual Inspection of on-campus animals: Jerry Underbrink (AV), Angelica Chapa, Michelle Costa, Michael Garcia, Larry Lloyd, John Scarpa, Frauke Seemann, and Jean Sparks. The on-campus locations inspected include:

Location – TAMU-CC	Species	IACUC #	PI
Tidal Hall 314M	Fish – Flounder and Seatrout	22-18	Geist
	Fish – Flounder and Seatrout	09-19	
Tidal Hall 114G	Fish – Japanese Medaka	03-19	Seemann
	Fish – Japanese Medaka	23-19	
	Fish – Japanese Medaka	26-19	
	Fish – Japanese Medaka	2020-10-013	
	Fish – Marine Medaka	2021-04-009	
Tidal Hall 114G	Zebrafish	20-18	Xu
NRC 1018	Reptiles – Turtles	2020-09-009	Baxter
Islander Green Team Garden	Fish – Japanese Medaka	23-19	Seemann

Discussion: ORC has followed up with researchers on the status of the corrective actions requested from the inspections. Most of the corrective actions have been addressed.

Protocol 2020-09-009 (Baxter) in NRC 1018 has not addressed the 3 action items requested.

Expired food and other unnecessary equipment and clutter were findings from March and re-noted in the June inspection. ORC followed up on August 20th. The PI does not understand why these are requested items. From his point of view, he views the protocol as approved and does not need to make lab changes. The lab is a shared space and other investigators are present. He cannot make changes requested in the shared lab. ORC invited him to come the meeting. He chose not to attend. He pushed the protocol to be added to the March agenda to get his protocol approved. PI wants all communication to be done by email because he cannot recall the phone conversation. A member stopped in the lab. Invertebrate animal work is occurring in the lab. The clutter is less than what it was. The incubator has been removed. Electrical items have been resolved by EHS.

The committee discussed the PI's communication with regard to resolving the inspection findings. There seems to be a communication issue. The PI views the protocol as approved and no further action is required on his part. Multiple efforts have been made with ORC through both phone and email conversations.

Most of the items have been corrected but the PI has not provided photos to show the items are resolved. The committee suggest doing another inspection to document the resolution of the inspection findings.

Suggested next course of action: Schedule another inspection of the lab

V. Other



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The next meeting is scheduled for September 17, 2021, from 1 pm to 3 pm.

Meeting was adjourned at 11:21 am.