DEPARTMENT OF HEALTH & HUMAN SERVICES

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH

FOR US POSTAL SERVICE DELIVERY:
Office of Laboratory Animal Welfare
6700B Rockledge Drive, Suite 2500, MSC 6910
Bethesda, Maryland 20892-6910
Home Page: http://grants.nih.gov/grants/olaw/olaw.htm

FOR EXPRESS MAIL:
Office of Laboratory Animal Welfare
6700B Rockledge Drive, Suite 2500
Bethesda, Maryland 20817
Telephone: (301) 496-7163
Facsimile: (301) 480-3387

March 12, 2020

Re: Animal Welfare Assurance
#A3288-01 (OLAW Case Y)

Ms. Lynn Chronister
Vice President for Research and
Economic Development
University of South Alabama
307 University Blvd., N AD 200
Mobile, Alabama 36688

Dear Ms. Chronister,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your March 4th, 2020 letter reporting an instance of noncompliance with the PHS Policy on Humane Care and Use of Laboratory Animals at the University of South Alabama following up on an initial February 17, 2020 notification by email.

According to the information provided, this Office understands that the University of South Alabama Animal Care and Use Committee (ACUC) determined that instances of noncompliance occurred with respect to: the deaths of eight rats in a hypoxia chamber on February 10, 2020. The final report states that two graduate students were attempting to calibrate a hypoxia chamber for an IACUC-approved study. Both students had been previously trained on this equipment and had successfully calibrated the chamber in the past while under direct supervision. However, on the day of the incident they were calibrating unsupervised and inadvertently selected the wrong chambers to calibrate, chambers that already contained rats. As a result, the chamber was purged of oxygen and the animals died. Principal investigators and the vivarium manager were notified of the incident.

On February 11, 2020, the Attending Veterinarian, notified the Institutional Official via email and discussed the incident with the IACUC Chair. The incident was investigated by the AV and an IACUC member (following recusal by the Chair due to conflict of interest). The equipment was found to be in working order, and a review of the SOP(s) for calibration of the chambers was conducted, including a discussion of training requirements and records. The incident was reported to the IACUC at convened meeting held on February 20, 2020. The committee concluded that the incident occurred due to an honest mistake and the following corrective actions were approved as the following:

- One faculty member is assigned to verse and standardize the training of individuals who operate the hypoxia chambers and to maintain records.

- A single standard operating procedure (SOP) for calibration of the chambers is used by all of the labs utilizing the equipment.

- Training records (or copies of the records) and the SOP need to be maintained in the animal room.

- Retraining by designated faculty member of all users of the hypoxia chambers will occur by March 20, 2020.

It is noted that 4 of the 8 animals were involved in PHS supported research. Based on its assessment of this explanation, OLAW understands that the University of South Alabama has implemented appropriate measures to correct and prevent recurrences of these problems and is now compliant with provisions of the PHS Policy. We appreciate being informed of these matters and find no cause for further action by this Office.

Sincerely,

(b) (6)

Jacquelyn T. Tubbs, DVM
Veterinary Medical Officer
Division of Compliance Oversight
Office of Laboratory Animal Welfare

cc: IACUC Contact

A3288-7

Tubbs, Jai (NIH/OD) [E]

From: OLAW Division of Compliance Oversight (NIH/OD)
Sent: Thursday, March 5, 2020 1:47 PM
To: Michele Schuler; OLAW Division of Compliance Oversight (NIH/OD)
Cc: (b) (6) Lynne Chronister; (b) (6) (b) (6)
Subject: RE: final report of adverse event, A3288-01

Good afternoon Dr. Schuler,

Thank you for the final report. We will send an official response soon.

Kind Regards,

Jacquelyn Tubbs, DVM, DACLAM
Veterinary Medical Officer
Office of Laboratory Animal Welfare
National Institutes of Health

From: Michele Schuler <mschuler@southalabama.edu>
Sent: Thursday, March 5, 2020 1:09 PM
To: OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>
Cc: (b) (6) (b) (6) Lynne Chronister <lchronister@southalabama.edu>; (b) (6) (b) (6)
Subject: final report of adverse event, A3288-01

Good afternoon Dr. Morse,

Please find the attached Final Report of an adverse event which occurred at the University of South Alabama, College of Medicine.

Please contact me if you have any further questions or concerns.

thank you.

--
Michele Schuler, DVM, PhD
Director, University Biologic Resources
Associate Professor

UNIVERSITY OF SOUTH ALABAMA

March 4, 2020

Brent C. Morse, DVM, DACLAM
Director, Division of Compliance Oversight
National Institutes of Health
RKL 1, Suite 360, MSC 7982
6705 Rockledge Drive
Bethesda, MD 20892-7982

Dear Dr. Morse:

The purpose of this letter is to provide a written report of an *adverse event* that occurred at the University of South Alabama (Assurance A3288-01) on February 10, 2020. The species is *rat*.

In the afternoon on February 10, 2020, *two graduate students* were attempting to calibrate a hypoxia chamber to 10% oxygen for an IACUC-approved study using rats. Both students had been previously trained in the calibration of this equipment and both had calibrated this equipment successfully for a prior study under the direct supervision of a senior technician and/or the Principal Investigator (PI). On February 10, 2020, they were calibrating unsupervised and inadvertently selected the wrong chambers to calibrate, chambers already containing animals. During the calibration process, the chambers were purged of oxygen and *eight rats died*. Four of the rats were supported by NIH funds (HL133066), and four belonged to a different PI who was using internal funds to support his IACUC-approved studies. The students notified the PI who then notified the other PI and a vivarium supervisor. The students confirmed that the animals were dead and tissues were harvested. The supervisor noted that no additional animals were at risk.

On February 11, 2020, the Attending Veterinarian (AV) notified me via email and discussed the incident with the IACUC Chair. In this case, the IACUC Chair had a potential conflict of interest so she recused herself from the investigation. An IACUC member and the AV investigated the incident. The equipment was assessed for mechanical failure by the Maintenance Coordinator and was found to be in working order. In addition, the AV and IACUC member reviewed the SOP(s) for calibration of the chambers and discussed training requirements and records. A preliminary report was made via email by the AV to olawdco@mail.nih.gov on February 17, 2020 and a response was received from OLAW on February 18, 2020. The AV and IACUC member reported the *adverse event* to the IACUC at the next convened meeting, held on February 20, 2020. *The IACUC concluded that this adverse event occurred due to an honest*

Institutional Animal Care and Use Committee
AD 240 | 307 University Blvd. North | Mobile, Alabama 36688
TEL: 251-341-4913 | FAX: 251-460-7955 | daniellemiller@southalabama.edu

A3288 - Y

Morse, Brent (NIH/OD) [E]

From: OLAW Division of Compliance Oversight (NIH/OD)
Sent: Tuesday, February 18, 2020 11:27 AM
To: Michele Schuler; OLAW Division of Compliance Oversight (NIH/OD)
Cc: Lynne Chronister; (b) (6)
Subject: RE: preliminary report of an adverse event

Thank you for providing this preliminary report Dr. Schuler. We will open a case file and await the final report as noted in #7 below.

Best regards, Brent Morse

Brent C. Morse, DVM, DACLAM
Director
Division of Compliance Oversight
Office of Laboratory Animal Welfare
National Institutes of Health

From: Michele Schuler <mschuler@southalabama.edu>
Sent: Monday, February 17, 2020 10:34 AM
To: OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>
Cc: Lynne Chronister <lchronister@southalabama.edu>; (b) (6)
(b) (6)
Subject: preliminary report of an adverse event

Good morning-
I attempted to do a preliminary report of an "adverse event" by phone this morning but was unable to reach you. Below is the information for the preliminary report. Please let me know if I missed anything pertinent or if we need to classify this as a "noncompliance."

1. Name and contact information of the person reporting: A. Michele Schuler, DVM, PHD, Attending Veterinarian, 251-460-6239

2. Name of Institution: University of South Alabama, College of Medicine

3. Assurance number: A3288-01

4. Funding component and if contacted: 4 rats were supported by the NIH (HL133066). We did not contact the NIH because the loss of 4 animals will not affect the study as a whole.

5. Brief description of the incident:
At approximately 3pm on 2/10/20, 2 graduate students were attempting to calibrate a hypoxia chamber to 10% oxygen for an IACUC-approved study using rats. Both students had been previously trained in the calibration of this equipment and both had calibrated this equipment successfully for a prior study under the direct supervision of a senior technician and/or the PI. On 2/10/20, they inadvertently selected the wrong chambers to calibrate and calibrated chambers

already containing animals. During the calibration process, the chambers were purged of oxygen and 8 rats died. 4 of the rats were supported by NIH funds, and 4 belonged to a different PI who was using internal funds to support his IACUC-approved studies. The students notified the PI who then notified the other PI and a DCM supervisor. The students confirmed that the animals were dead and tissues were harvested. The DCM supervisor noted that no additional animals were at risk.
On 2/11/20, I notified the IO and discussed the incident with the IACUC Chair. In this case, the IACUC Chair is the PI involved so she recused herself from the investigation. An IACUC member and I investigated the incident. The equipment was assessed for mechanical failure by the Maintenance Coordinator and was found to be in working order. In addition, we reviewed the SOP(s) for calibration of the chambers and discussed training requirements and records. We plan to submit a proposed CAP to the IACUC at the next meeting (2/20/20).
In short, we concluded that this adverse event occurred due to an honest mistake but that there are areas upon which improvements can be made in an effort to prevent another event.

6. Plan and schedule for correction and prevention:
We plan to propose the following CAP to the IACUC for review and approval: 1. 1 faculty member is assigned to oversee and standardize the training of individuals who operate the hypoxia chambers and to maintain records; 2. there needs to be a standard SOP for calibration of the chambers which is used by all of the labs utilizing the equipment; 3. training records (or copies of the records) and the SOP needs to be maintained in the animal room.
Because several laboratories utilize the hypoxia chambers, the IACUC will discuss a timeline. I anticipate that the IACUC will allow 30-days. In the short-term, only those individuals who have previously operated/calibrated the hypoxia chambers without incident are permitted to do so.

7. Timeframe for final report from the IO: We will plan to submit the final report within 30-days of the IACUC meeting.

Please let me know if you have any questions or concerns regarding this incident. I appreciate your assistance.

thank you, Michele
--
Michele Schuler, DVM, PhD
Director, University Biologic Resources
Associate Professor
Departments of Comparative Medicine and Microbiology
University of South Alabama
TEL (b) (6)
FAX
mschuler@southalabama.edu