



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

April 13, 2020

Re: Animal Welfare Assurance
A3189-01 [OLAW Case 1T]

James B. Hendricks, Ph.D.
President
Seattle Children's Hospital Research Institute
4800 Sand Point Way, N.E.
Seattle, Washington 98105

Dear Dr. Hendricks,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your April 7, 2020 letter reporting an instance of noncompliance with the PHS Policy on Humane Care and Use of Laboratory Animals at Seattle Children's Research Institute. According to the information provided, OLAW understands that six mice were found dead within a hypoxia chamber due to insufficient air flow. A root cause analysis found that there was a disruption in the computer program that controls the chamber due to the laptop going into hibernation mode. The animals were assigned to an activity funded by the PHS.

Corrective and preventive actions included the veterinarian stopping work on the protocol. The laptop was moved to an isolated location and set to not hibernate if the laptop lid is closed along with signage and a physical stop to prevent the lid from closing. The program has been set to revert to room air if the system goes down for more than five seconds. Office of Animal Care staff have been instructed to not interfere with the animals or the system while the protocol is running. The system has been checked and a recommendation made to change from room air supply to pressurized air cylinders. It is also understood that no unallowable charges were made from the associated NIH grant.

Based on the information provided, OLAW is satisfied that appropriate actions have been taken to investigate this incident and prevent recurrence. OLAW concurs that the incident warranted reporting. We appreciate being informed of this matter and find no cause for further action by this office.

Sincerely,

Brent C. Morse -S

Digitally signed by Brent C.
Morse -S
Date: 2020.04.13 13:15:24 -04'00'

Brent C. Morse, DVM
Director
Division of Compliance Oversight
Office of Laboratory Animal Welfare

cc: IACUC Contact



April 7, 2020

Division of Compliance Oversight
Office of Laboratory Animal Welfare (OLAW)
National Institutes of Health
6700B Rockledge Drive, Suite 2500, MSC 6910
Bethesda, MD 20892

Subject: **Notification of Serious Deviation from the Provisions of The Guide**
Institution: Seattle Children's Research Institute (SCRI)
Grant # 1P01HL144454-01
Animal Welfare Assurance #D16-00119 (A3189-01)

Dear OLAW,

This letter is to provide you with a full explanation of the circumstances and actions taken following an incident at our institution as required by PHS Policy IV.F.3.a.

The Institutional Animal Care and Use Committee (IACUC) office received information that six mice (split among two cages) were found dead in their hypoxia chamber due to insufficient airflow. Immediately following the incident, the Attending Veterinarian (AV) halted current and future hypoxia experiments on the protocol until root cause was determined and preventative measures could be put into place.

After reviewing recorded data from the hypoxia chamber, laboratory staff and Environmental Health and Safety (EHS) determined that the incident was caused by a disruption in the computer program that controls the air valves to the chamber. Laboratory staff ran multiple simulations to identify root cause of the disruption and determined that it was caused by the computer/laptop hibernating, likely after being closed for an amount of time and then reopened. The hibernation caused the chamber sensors to lose connection with the program, which in turn inhibited communication with the valves to tell them when to open and close.

In response to the incident, the following corrective actions have been implemented:

1. The laptop has been set to never hibernate even if the laptop is shut;
2. The laptop has been moved a spot that is not readily accessible;
3. An item has been added to prevent the laptop from being physically shut;
4. A placard has been added to not touch the laptop;
5. A watch dog timer, which receives pulses every 5 seconds from the laptop, has been added to the chamber. If the timer does not receive a pulse, the chamber defaults to nitrogen off and room air on; and

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Seattle, WA 98145-5005

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2001 Eighth Avenue
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Olive Lab Building
1100 Olive Way, Suite 100
Seattle, WA 98101

818 Stewart
818 Stewart Street, Suite 603
Seattle, WA 98101



6. Office of Animal Care staff has been trained not to touch the animals or the experimental system while the protocol is running

Before animals were re-introduced to the chamber, laboratory staff ran multiple tests to ensure animal welfare. Although not directly related to this incident, EHS also advised that laboratory staff use air from compressed air cylinders on a switchover manifold rather than building air.

The incident has been reviewed by an IACUC Subcommittee and the convened IACUC. The IACUC accepted these corrective actions as being sufficient to prevent recurrence.

No unallowable charges were made to the above-referenced NIH grant.

If you have any questions regarding this report, please feel free to contact me. Thank you for your consideration of this matter.

Sincerely,
SEATTLE CHILDREN'S RESEARCH INSTITUTE



James B. Hendricks, PhD
President

Copy:  (b) (6)
Tara Polek, PhD, IACUC Chair
IACUC Mailbox

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Seattle, WA 98145-5005

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Wolff, Axel (NIH/OD) [E]

From: OLAW Division of Compliance Oversight (NIH/OD)
Sent: Wednesday, April 8, 2020 7:35 AM
To: (b) (6)
Cc: OLAW Division of Compliance Oversight (NIH/OD)
Subject: RE: Final Report of Serious Deviation from the Guide – Animal Welfare Assurance #D16-00119 (A3189-01)

Thank you for this report. We will send a response soon.

Axel Wolff, M.S., D.V.M.
Deputy Director, OLAW

From: (b) (6)
Sent: Tuesday, April 7, 2020 4:55 PM
To: OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>
Cc: Hendricks, James <james.hendricks@seattlechildrens.org>; (b) (6)
(b) (6) Polek, Tara <tara.polek@seattlechildrens.org>; IACUC Mailbox <IACUC@seattlechildrens.org>
Subject: Final Report of Serious Deviation from the Guide – Animal Welfare Assurance #D16-00119 (A3189-01)

Dear OLAW,

Please find attached a final report from Dr. Jim Hendricks pertaining to a serious deviation from provisions of *The Guide*, Animal Welfare Assurance #D16-00119 (A3189-01).

Please contact the IACUC office at IACUC@seattlechildrens.org with any questions.

Best Regards,

(b) (6)

From: (b) (6)
Sent: Thursday, February 6, 2020 3:56 PM
To: 'olawdco@mail.nih.gov' <olawdco@mail.nih.gov>
Cc: Hendricks, James <james.hendricks@seattlechildrens.org>; (b) (6) Polek, Tara <tara.polek@seattlechildrens.org>; IACUC Mailbox <IACUC@seattlechildrens.org>
Subject: Preliminary Notification of Serious Deviation from the Guide – Animal Welfare Assurance #D16-00119 (A3189-01)

Dear OLAW,

This email serves as a preliminary report of a serious deviation from provisions of *The Guide* at Seattle Children's Research Institute. Six mice (split among two cages) were found dead in their hypoxia chamber due to insufficient airflow.

An IACUC Subcommittee convened to discuss the incident on 1/31/2020. A final, detailed report will follow once the incident has been reviewed by the full IACUC.

Please contact the IACUC office at IACUC@seattlechildrens.org with any questions.

Thank you,

(b) (6)



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