



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) 402-7065

June 11, 2019

Re: Animal Welfare Assurance
A3143-01 [OLAW Case V]

Dr. Camille P. Wicher
Vice President, Corp. Ethics and
Research Subject Protection
Roswell Park Cancer Institute
Elm & Carlton Streets
Buffalo, NY 14263

Dear Dr. Wicher,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your letter dated May 31, 2019 regarding noncompliance with the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals at the Roswell Park Cancer Institute. This letter had not been preceded by a preliminary report to OLAW.

According to the information provided, our office understands that five of eight mice died in a vacuum-operated hypobaric chamber. The deaths were likely attributable to human error because on the day of the incident the chamber door was locked but the vacuum was switched off. This would cause oxygen depletion in the chamber. Experiments were halted until corrective measures were instituted. A corrective plan was presented to the Institutional Animal Care and Use Committee (IACUC) that included staff checks to ensure the vacuum was turned on, daily documentation of chamber oxygen levels, and cage removals when chamber oxygen levels drop below eight percent. In addition, trained technicians would perform daily chamber checks along with twice weekly cage cleanings and documentation of checks and cleanings. The IACUC evaluated the proposed plan and determined that it was sufficient to prevent recurrence.

Based on its assessment of this explanation, OLAW understands that measures have been taken to prevent recurrence of this problem. OLAW concurs with the actions taken by your institution to comply with the PHS Policy on Humane Care and Use of Laboratory Animals. However, the Institution may also wish to consider remote monitoring and alarm notifications for chambers where animals are housed for substantial periods of time without frequent checks. We appreciate having been informed of this matter and find no cause for further action by this office.

Sincerely,

(b) (6)

Nicolette Petervary, VMD, DACAW
Veterinary Medical Officer
Office of Laboratory Animal Welfare

cc: IACUC Contact



AC3143-V
Camille P. Wicher, Ph.D. Esq., RN, MSN.
Vice President Corporate Ethics
Roswell Park Cancer Institute
Elm & Carlton Sts
Buffalo, New York 14263
Phone: 716-845-7647
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May 31, 2019

Axel Wolff, DVM.
Director, Division of Compliance Oversight
Office of Laboratory Animal Welfare
National Institutes of Health
Rockledge 1, Suite 360, MSC 7982
6705 Rockledge Drive
Bethesda, MD 20892-7982

RE: Report of Non-Compliance
Hypobaric chamber incident

Dear Dr. Wolff,

Please accept the enclosed report as required by 9 CFR 2.31 (c) (3) and (d) (7) Subchapter A of the Animal Welfare Act, as well as PHS Policy IV.F.3.

Corrective action has been instituted as per the attached document. Roswell Park Cancer Institute is committed to protecting the welfare of animals used in research and appreciates the guidance and assistance provided by OLAW in this regard. Should you have any questions, please do not hesitate to contact me at (b) (6)

Thank you in advance for your cooperation in this matter.

Sincerely,

Camille P. Wicher, PhD., Esq., RN, MSN
Vice President
Institute Official
OPRR Assurance #A-314301.
USDA Regis. #21-R-032

Please accept the following final reports in accordance with 9 CFR 2.31 (c) (3) and (d) (7) Subchapter A of the Animal Welfare Act:

ISSUE 1: Death of mice in hyperbaric chamber

SUMMARY:

The IACUC was informed by Dr. B, the PI of protocol 1383M, of an adverse event that occurred in the hypobaric hypoxia chamber.

This was self-reported by the PI. The IACUC approved protocol 1383M involves long-term monitoring of mice in 9-10% oxygen concentrations which is achieved by a vacuum-operated hypobaric chamber that accommodates 2 standard cages. The chamber system has reliably operated since 2012 when we started the experiments with live mice. However, likely due to human error on the day of incident, the chamber door was locked without starting the house vacuum, after the cage cleaning. As a result, mice exhausted the chamber oxygen overnight, leading to death of 5 of 8 mice (2 wild type control and 3 Sdh transgenic) that were being monitored for over a year. The experiments are halted until the following rectifying steps are installed in consultation with Dr. Sexton, the attending veterinarian and DLAR staff. "

A corrective and preventative plan of action (CAPA) was presented. After consultation among IACUC, the PI, and LASR Attending Veterinarian, a modified corrective and preventative plan of action (CAPA) was developed that was presented to the IACUC Committee

Plan of Correction:

The committee approved the CAPA. Briefly the CAPA involved the removal of all animals from the hypobaric hypoxia chamber until the preventative plan of action was approved by the IACUC. This action was taken upon the discovery of the adverse event. The preventative plan of action includes 4 actions.

1. LASR personnel will inspect the chamber to make sure the vacuum is on and the chamber door unlocked and record the O₂ level of the chamber once a day. This will be documented on LASR's Animal Holding Room Checklist which is on the animal housing room door. The checklist has been modified to include a column for recording the O₂ level.
2. LASR personnel, if the O₂ level is below 8%, will shut down the chamber and open the door and remove the cage(s). The LASR personnel will immediately contact the PI and/or PI's animal technician, and document this contact on the LASR Animal Holding Room checklist in the comments section.
3. The technician will inspect the chamber around noon on weekdays and this will be documented on a checklist near the chamber. Documentation will include name/initials, date and time the chamber was checked.
4. The technician will be responsible for chamber cage change twice a week. A new checklist will be prepared for each chamber cage change that documents the

name/initials of the person whom completed the chamber cage change and the date and time and that includes specific check offs that the vacuum was turned on and the chamber door unlocked . When the technician is unavailable she will communicate with the LASR CCC Supervisor (or designee), to perform the cage change and documentation. A third person will be trained in chamber cage change and the documentation process.

The IACUC approved the CAPA and required no further actions by the PI. Of note, there had been no issues with the operation of the chamber since 2012 and providing documentation of the process involved with chamber cage change and documentation of monitoring of the O₂ level by LASR and laboratory staff should be sufficient to eliminate a recurrence of this unfortunate event.

The IACUC determined this event was an animal welfare concern because the animals were deprived of O₂ and ultimately 5 of the 8 mice in the chamber died. The IO affirmed.

Respectfully submitted,

Camille P. Wicher, Ph. D. Esq. RN MSN
Institutional Official
Vice President
Roswell Park Cancer Institute

Morse, Brent (NIH/OD) [E]

From: OLAW Division of Compliance Oversight (NIH/OD)
Sent: Monday, June 03, 2019 12:10 PM
To: Wicher, Camille; 'olawdco@mail.nih.gov'
Cc: (b) (6)
Subject: RE: report of non-compliance

Thank you for sending this final report Dr. Wicher. We will send an official response soon.

Best regards, Brent Morse

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

Please note that this message and any of its attachments are intended for the named recipient(s) only and may contain confidential, protected or privileged information that should not be distributed to unauthorized individuals. If you have received this message in error, please contact the sender.

From: Wicher, Camille [mailto:Camille.Wicher@RoswellPark.org]
Sent: Friday, May 31, 2019 3:36 PM
To: 'olawdco@mail.nih.gov'
Cc: (b) (6)
Subject: report of non-compliance

Dr. Wolff,

Please find report of non-compliance involving a hypobaric chamber and our corrective action plan . Thank you

Camille P. Wicher, Ph.D., Esq. MSN, RN
Assistant Professor of Oncology
Vice President
Roswell Park
Elm & Carlton Sts.
Buffalo, New York 14263
(b) (6)



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