



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

November 23, 2021

Re: Animal Welfare Assurance  
#A3226-01 (OLAW Case 2U)

Dr. Frederick Applebaum  
Executive VP and Deputy Director  
Fred Hutchinson Cancer Research Center  
1101 Fairview Avenue North  
Seattle, WA 98109-1024

Dear Dr. Applebaum,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your letter dated November 18, 2021 reporting an instance of noncompliance with the PHS Policy on Humane Care and Use of Laboratory Animals at the Fred Hutchinson Cancer Research Center. Your letter supplements the information in the prompt telephone preliminary report on October 12, 2021. According to the information provided, OLAW understands that on October 4, 2021, three mouse cages were noted to be missing water bottles. Water bottles and recovery gel were provided, and the animals were re-evaluated after one hour. At that time, all animals were bright, alert, and responsive, except one animal that remained hunched and lethargic. A clinical veterinarian evaluated the mouse and administered subcutaneous fluids. After an additional hour, the mouse did not appear to be recovering and was euthanized. Despite extensive investigations and staff interviews, it is not clear how, why, or at what timepoint the water bottles were removed or not placed in the cages. This animal activity was not funded by the PHS.

All parties - research staff and animal husbandry staff- understand the gravity of this mistake and have been counseled on the importance of thoroughly checking each cage to ensure that water bottles are in place. Furthermore, the importance of maintaining close attention and vigilance when performing high-volume cage checks was re-emphasized with husbandry staff. The IACUC directed no additional corrective actions and determined no further action was required.

Based on the information provided, OLAW is satisfied that appropriate actions have been taken by the Fred Hutchinson Cancer Research Center to investigate this incident, provide corrective measures, and prevent recurrence. OLAW concurs that the incident warranted reporting. Although this activity was not PHS funded, the application of the standards of the PHS Policy across the animal care and use program reduces any potential appearance of a double standard. 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: 2021.11.23 08:41:30 -05'00'

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

cc: IACUC contact



November 18, 2021

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

**RE: Reportable Event**

<b>Animal Welfare Assurance Number:</b>	D16-00142 (Legacy #A3226-01)
<b>Name of Institution:</b>	Fred Hutchinson Cancer Research Center
<b>PHS Funding:</b>	No PHS Funding for this project

Dear Dr. Morse:

This letter serves as follow-up to an initial verbal notification made by (b) (6) on October 12, 2021, regarding a reportable event.

The Fred Hutchinson Cancer Research Center (Fred Hutch) Institutional Animal Care and Use Committee (IACUC) reviewed the reportable event at the November 2, 2021 fully convened IACUC meeting. The report was submitted on October 4, 2021 by Comparative Medicine (CM) staff and described an event involving three cages of mice (12 mice in total) found without water bottles.

On October 4th, a CM animal husbandry staff member noted the cages with missing water bottles during a routine cage check and immediately notified CM veterinary technicians. Water bottles and recovery gel were provided to the three cages, and the animals were re-evaluated after one hour. At that time, all animals were bright, alert, and responsive, except one animal that remained hunched and lethargic. A CM clinical veterinarian evaluated the mouse and administered subcutaneous fluids. After an additional hour, the mouse did not appear to be recovering and was euthanized.

CM management investigated the incident and interviewed both animal husbandry staff and research staff. Possible explanations for the missing water bottles include research staff not replacing the water bottles after opening the cage for a procedure or other activity, or husbandry staff not replacing water bottles following a cage change.

All cages in the room were changed 5-7 days prior to the incident; however, given the quick recovery of 11 out of 12 affected mice, it is unlikely that the water bottles were missed during that previous cage change. In addition to regular cage changes, husbandry staff perform a daily food, water, and general health check of every cage in the vivarium. To help prevent instances of cages missing water bottles, all water bottles are marked with a red stripe to provide an extra visual cue when scanning cage racks. A review of CM records and interviews with husbandry staff did not reveal any cage interactions that could have resulted in missing water bottles.

Based on cage card records and discussion with research staff members, no activity was identified that could have resulted in the cages being placed back onto the racks without water bottles. The affected

cages were not receiving any non-standard or medicated water that would have involved the removal of water bottles, and there were no recent weanings performed or other activities necessitating the opening of the cages. Research staff members reported that no one in the lab had handled the cages recently. Standard mouse housing rooms do not require that keycards be scanned for entry (this is required at the main vivarium entrance), and therefore room entry records were not available for review. Despite extensive investigations and staff interviews, it is not clear how, why, or at what timepoint the water bottles were removed or not placed in the cages.

The IACUC discussed the event at length in an attempt to determine the cause of the missing water bottles. All parties – research staff and animal husbandry staff – understand the gravity of this mistake and have been counseled on the importance of thoroughly checking each cage to ensure that water bottles are in place. Furthermore, the importance of maintaining close attention and vigilance when performing high-volume cage checks was re-emphasized with husbandry staff. The IACUC directed no additional corrective actions and determined no further action was required.

If you have any suggestions for further improvements to our program, please do not hesitate to share them with us. If I can be of any further assistance, please contact me at (b) (6) or [fappelba@fredhutch.org](mailto:fappelba@fredhutch.org).

Sincerely,

(b) (6)

Fred Appelbaum, MD  
Executive Vice President & Deputy Director  
Fred Hutchinson Cancer Research Center

cc: (b) (6)

A McGarry Houghton, IACUC Chair  
Gordon Roble, DVM, Attending Veterinarian  
Principal Investigator  
Fred Hutch Office of General Counsel

**Wolff, Axel (NIH/OD) [E]**

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**From:** OLAW Division of Compliance Oversight (NIH/OD)  
**Sent:** Monday, November 22, 2021 7:27 AM  
**To:** (b) (6)  
**Cc:** OLAW Division of Compliance Oversight (NIH/OD)  
**Subject:** RE: OLAW reporting letter\_ D16-00142-Legacy #A3226-01-Fred Hutchinson Research Center

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:** Friday, November 19, 2021 4:00 PM  
**To:** OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>  
**Cc:** (b) (6)  
**Subject:** OLAW reporting letter\_ D16-00142-Legacy #A3226-01-Fred Hutchinson Research Center

Dear Dr. Morse:

Attached please find the final report as follow-up to an initial verbal notification that was provided on October 12, 2021 regarding a reportable event.

If you have any questions, please contact us. We would appreciate a confirmation via email that you have received the attached document.

Sincerely,

(b) (6)

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## Initial Report of Noncompliance

By: BCM

Date: 10/12/2021

Time: 10:00 PM voicemail

Name of Person reporting: (b) (6)

Telephone #: (b) (6)

Fax #:

Email:

Name of Institution: Fred Hutchinson Cancer Rsch Cen

Assurance number: A3226

Did incident involve PHS funded activity? No

Funding component:

Was funding component contacted (if necessary):

What happened?

Three cages with twelve mice without water bottles. Given water and gel but one had to be euthanized.

Species involved: mus musculus

Personnel involved: Researcher

Dates and times: found on 10/4/2021

Animal deaths: one euthanized

Projected plan and schedule for correction/prevention (if known):

IACUC investigating

Projected submission to OLAW of final report from Institutional Official:

< 60 days

OFFICE USE ONLY

Case #