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

December 23, 2019

Re: Animal Welfare Assurance
A3007-01 [OLAW Case 2I]

G. Michael Purdy, Ph.D.
Executive Vice President for Research
Columbia University Medical Center
535 West 116th St. – (b) (4) Low Library MC 4310
New York, NY 10027

Dear Dr. Purdy,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your December 16, 2019 letter reporting an instance of noncompliance with the PHS Policy on Humane Care and Use of Laboratory Animals at Columbia University following up on an initial August 9, 2019 notification by telephone.

According to the information provided, this Office understands that the Columbia University Animal Care and Use Committee (ACUC) determined that instances of noncompliance occurred with respect to: the deaths of 40 adult mice due to operation of the automatic watering system. The letter states that none of the animals were being used in research supported by PHS, but since this incident involves operation of equipment, it could affect PHS-supported activities. The findings from the investigative team included the following:

- Husbandry technician disconnected the hose to examine another rack in the room and reconnected the hose improperly. The hose later became detached, leaving cages on the rack without access to water.
- Technician failed to perform required daily checks of the operation of the watering equipment for that rack.
- Technician failed to recognize that animals were dehydrated.
- The monitoring system for the watering equipment did not detect the disconnected hose and did not send any notification to the supervisors.

A report from the investigative team was provided to the IACUC at the September 5, 2019 meeting. Following review of the facts and discussion, the IACUC accepted the corrective actions taken by the ICM and requested to be updated on potential upgrades of the monitoring system. The committee accepted the corrective actions taken by ICM. The corrective actions that have been implemented include:

- Termination of the technician involved in the incident.
- Retraining on daily checks for all husbandry technicians to assure a working water supply to each rack, and on health checks and identification of ill or dehydrated animals.
- Contacting the vendor to investigate the lack of notifications concerning this incident.
- Instructions given to supervisors to perform spot checks to assure racks are flushed daily.
- Training given to veterinarians and veterinary technicians on how to drain racks and check lixits.
- Seeking out options for upgrading the equipment.

Based on its assessment of this explanation, OLAW understands that the Columbia University has implemented appropriate measures to correct and prevent recurrences of these problems and is now compliant with provisions of the PHS Policy.

Sincerely,

(b) (6)

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

cc: IACUC Contact
IACUC Office Director

COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

EXECUTIVE VICE PRESIDENT FOR RESEARCH

December 16, 2019

Brent Morse, D.V.M.
Director, Division of Compliance Oversight
Office of Laboratory Animal Welfare
National Institutes of Health
6705 Rockledge Drive
Suite 360, MSC 7982
Bethesda, MD 20892-7982

Re: Columbia University
Animal Welfare Assurance # D16-00003 (A3007-01)

Dear Dr. Morse,

On August 9, 2019, Columbia University (the "University") notified the Office of Laboratory Animal Welfare ("OLAW") by telephone of an incident that resulted in the deaths of 40 adult mice. Although none of the animals that died were being used in research supported by the Public Health Service, this incident is reported because it involves the operation of equipment (an automatic watering system) that could affect PHS-supported activities.

This letter reports the results of a review of this matter by the Institutional Animal Care and Use Committee ("IACUC" or the "Committee") and the corrective actions taken.

Background and Investigation

On July 30, 2019, the Attending Veterinarian ("AV"), Dr. Brian Karolewski, informed the Executive Director of the IACUC, Dr. Mary Jo Shepherd, that a significant number of mice had been found dead or in ill health due to a disconnected housing rack waterline in the central animal facility and a failure of the watering system monitoring equipment. Staff members from the Institute of Comparative Medicine ("ICM") immediately started providing medical assistance to the ill animals, but 40 adult mice ultimately died because of the incident.

The Executive Director notified the IACUC Chair when she learned of the incident, and an investigation was initiated. The investigative team subsequently met with personnel from the ICM, including the veterinarian assigned to the building where the incident occurred and the ICM Assistant Facilities Operations Manager. The investigation revealed that a husbandry technician had disconnected the hose from the housing rack involved in the incident in order to examine another rack in the same room, and then reconnected the hose improperly. The hose

535 W. 116th Street 313 Low Library Mail Code 4310 New York, NY 10027 212-854-1696 Fax 212-854-1680

later became detached, leaving the cages in the rack with no water supply. The technician also failed to perform the required daily checks of the operation of the watering equipment for that rack, and, in addition, failed to recognize that the animals were dehydrated. Also, the monitoring system for the watering equipment apparently did not detect the disconnected hose and did not send any notification, either by text message (for critical problems such as water flow) or in the system's daily reports issued to supervisors.

Corrective Actions

A report from the investigative team was provided to the IACUC and the incident was reviewed at a convened meeting of a quorum of the Committee held on September 5, 2019. The AV and Associate Director of the ICM informed the IACUC that the following corrective measures had been implemented:

1. The husbandry technician involved in the incident was immediately terminated;
2. All husbandry technicians were retrained on daily checks *(i.e.*, checking lixits and flushing racks) to assure a working water supply to each rack, and on health checks and recognition of ill/dehydrated animals;
3. The vendor of the equipment was asked to investigate the lack of alerts/notifications concerning this incident;
4. Supervisors have been instructed to perform more spot checks to assure racks are being flushed daily;
5. Veterinarians and veterinary technicians were trained on draining racks and checking lixits;
6. Options for upgrading the equipment will be sought.

Following review of the facts and discussion, the IACUC accepted the corrective actions taken by the ICM, and asked to be kept informed on a potential upgrade of the monitoring system. At a meeting of the Committee held the following month, the AV reported that the monitoring system would be upgraded.

Columbia University regrets the loss of these animals and remains committed to achievement and maintenance of the highest standards of laboratory animal care and use. If you have any further questions concerning this report, please contact Dr. Shepherd at (b) (6)

Sincerely,

(b) (6)

G. Michael Purdy, Ph.D.
Executive Vice President for Research

cc: (b) (6)
Brian Karolewski, D.V.M.
MJ Shepherd, D.V.M.

Wolff, Axel (NIH/OD) [E]

From: OLAW Division of Compliance Oversight (NIH/OD)
Sent: Tuesday, December 17, 2019 9:52 AM
To: Shepherd, Mary J.
Cc: OLAW Division of Compliance Oversight (NIH/OD)
Subject: RE: Compliance Report From Columbia University

Thanks MJ. We'll send a reply soon.
Axel

From: Shepherd, Mary J. <ms4387@cumc.columbia.edu>
Sent: Tuesday, December 17, 2019 9:34 AM
To: OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>
Cc: MJ Shepherd <ms4387@columbia.edu>
Subject: Compliance Report From Columbia University

Please see attached. Let me know if you have any questions or concerns. Thank you. MJ

MJ Shepherd, DVM, CPIA
Executive Director IACUC
Columbia University

A3007-21

Office of Laboratory Animal Welfare

OLAW

Initial Report of Noncompliance

By:

Date: 8/9/19 Time: 1:45

Name of Person reporting: M.J. Shepherd

Telephone #: (b) (6)

Fax #:

Email:

Name of Institution: Columbia U.

Assurance number: A3007

Did incident involve PHS funded activity? _____

Funding component: _____

Was funding component contacted (if necessary): _____

What happened? Edstrom alarm did not alarm when water line was not connected. Not noticed by caretaker.

Species involved: Mice

Personnel involved: Care staff

Dates and times:

Animal deaths: 40 mice

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

Caretaker dismissed.

Edstrom evaluating system.

Projected submission to OLAW of final report from Institutional Official:

OFFICE USE ONLY

Case #_____