



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

July 25, 2019

Re: Animal Welfare Assurance  
A3433-01 [OLAW Case 2X]

Dr. Prasat Mohapatra  
Vice Chancellor for Research  
University of California, Davis  
1850 Research Park Drive  
Davis, California 95618

Dear Dr. Mohapatra,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your July 23, 2019 letter reporting a serious deviation from the provisions of the *Guide for the Care and Use of Laboratory Animals* at the University of California- Davis, following up on an initial telephone report on July 17, 2019. According to the information provided, OLAW understands that 25 frogs died after exposure to residual bleach left in the tank following disinfection. The cleaning procedure that was used had not been reviewed by Attending Veterinarian or the Institutional Animal Care and Use Committee (IACUC).

The preventive actions consisted of now conducting additional tests for chlorine after cleaning tanks and updating standard operating procedures covering the new tank design, sanitation, and water quality testing. The facility was placed under enhanced inspection by the IACUC.

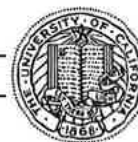
Based on its assessment of this explanation, OLAW understands that measures have been implemented to prevent recurrence of this problem. OLAW concurs with the actions taken by the IACUC to comply with the PHS Policy on Humane Care and Use of Laboratory Animals.

Sincerely,

(b) (6)

Axel Wolff, M.S., D.V.M.  
Deputy Director  
Office of Laboratory Animal Welfare

cc: IACUC Chair  
IACUC Director



OFFICE OF RESEARCH

**PRASANT MOHAPATRA**  
VICE CHANCELLOR FOR RESEARCH

1850 RESEARCH PARK DRIVE  
DAVIS, CALIFORNIA 95618

TELEPHONE: 530.754.7764  
RESEARCH.UCDAVIS.EDU

July 23, 2019

**DEPUTY DIRECTOR AXEL WOLFF, MS, DVM**

Office of Laboratory Animal Welfare

National Institutes of Health

RKL1, Suite 360, MSC 7982

6705 Rockledge Drive

Bethesda, MD 20892-7982

**Subject: Institutional Report D16-00521 (#A3433-01)**

**Xenopus mortality**

**National Eye Institute R01EY026471**

Dear Dr. Wolff:

In accordance with Assurance D16-00521 (#A3433-01) and Policy IV.F.3., UC Davis is bringing the following incident and corrective action to your attention.

Following large scale tank cleanings of a newly designed tank system for *Xenopus laevis* frogs, unexpected mortality of *Xenopus laevis* frogs occurred in three tanks. A necropsy was performed by the UC Davis Comparative Pathology Laboratory on three of the frogs. The necropsy case-summary documented the following:

"Erosive dermatitis and dermal edema are mild and may be indicative of suboptimal water quality. Luminal protozoa (large ciliate) in the intestinal tract are noted in small numbers, interpreted as normal flora.

Culture of the skin and viscera produced no growth.

Pooled skin, intestinal tract and liver samples were negative for *Batrachochytrium dendrobatidis*, *Cryptosporidium* sp., *Mycobacterium chelonae*, *M. goodii*, *M. marinum*, *Pseudocapillarioides xenopi*, *Pseudomonas aeruginosa*, *Ranavirus* spp., and *Salmonella* spp. by PCR assay from 2 of 2 frogs."

A new tank cleaning system had been instituted but not reviewed by the IACUC or Attending Veterinarian. While not definitively conclusive, but based on water testing results and the necropsy

Deputy Director Wolff  
July 23, 2019  
Page 2

report findings, it is likely that the mortality was caused by residual chlorine levels following the large scale tank cleaning.

In the future, additional chlorine tests will be conducted prior to returning frogs to the tanks after cleaning. The facility SOPs have been updated to include the new tank design and associated sanitation and water testing requirements geared to prevent future mortality related to water quality. Additionally, the IACUC voted for increased inspection frequency for this facility. The IACUC believes the above actions will decrease the likelihood for reoccurrence.

If you have any questions please do not hesitate to contact our IACUC Director, Donna Routley, at  
(b) (6)

Sincerely,

(b) (6)

Prasant Mohapatra  
Vice Chancellor for Research

/pk

c: IACUC [2019-16]  
AAALAC

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

---

**From:** OLAW Division of Compliance Oversight (NIH/OD)  
**Sent:** Thursday, July 25, 2019 9:53 AM  
**To:** Donna Routley  
**Cc:** OLAW Division of Compliance Oversight (NIH/OD)  
**Subject:** RE: Institutional Report - D16-00521 # (A3433-01)

Thanks for this report, Donna. I'll send a response soon.  
Axel Wolff

---

**From:** Donna Routley <dmroutley@ucdavis.edu>  
**Sent:** Thursday, July 25, 2019 9:28 AM  
**To:** OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>  
**Subject:** Institutional Report - D16-00521 # (A3433-01)

Hello,

Please find the attached the signed report from UC Davis, assurance D16-00521 # (A3433-01) acknowledging the Xenopus frog mortality previously discussed with Dr. Wolf. This report been copied to AAALAC.

Please let me know if you have any questions.

Kind regards,  
Donna Routley

Donna Routley, RVT, RLATg, CPIA  
Director, IACUC  
Office of Research  
University of California Davis  
(b) (6) (office)  
[dmroutley@ucdavis.edu](mailto:dmroutley@ucdavis.edu)



Initial Report of Noncompliance

By: aw

Date: 7/17/19

Time: 12:30

Name of Person reporting: Donna Lentley  
Telephone #: (b) (6)  
Fax #:  
Email:

Name of Institution: U California - Davis  
Assurance number: A3433

Did incident involve PHS funded activity? Yes  
Funding component: NEI  
Was funding component contacted (if necessary): \_\_\_\_\_

What happened?

25 frogs died because bleach not rinsed out well

Species involved: Frogs

Personnel involved:

Dates and times:

Animal deaths: 25

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

Change cleaning procedures

Projected submission to OLAW of final report from Institutional Official:

OFFICE USE ONLY

Case # \_\_\_\_\_