



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 22, 2021

Re: Animal Welfare Assurance  
A3084-01 [OLAW Case 3H]

Dr. Randy Katz  
Vice Chancellor for Research  
University of California, Berkeley  
(b) (4) California Hall, MC 1500  
Berkeley, CA 94720-1500

Dear Dr. Katz,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your November 18, 2021 letter reporting a serious deviation from the provisions of the *Guide for the Care and Use of Laboratory Animals* at the University of California- Berkeley, following up on an initial report on September 30, 2021. According to the information provided, OLAW understands that 141 fish of various species died from acute pH shock following a switch between manual addition of buffer to use of a drip line buffering system.

The corrective action consisted of removing the drip line system and returning to the manual method. The Principal Investigator was counseled to consult with the veterinary staff and Institutional Animal Care and Use Committee (IACUC) prior to undertaking significant changes in the tank and water system.

Based on its assessment of this explanation, OLAW understands that measures have been implemented to correct and 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

A3084



OFFICE OF THE VICE CHANCELLOR FOR RESEARCH  
119 CALIFORNIA HALL #1500

BERKELEY, CALIFORNIA 94720-1500

November 18, 2021

Axel V. Wolff, M.S., D.V.M.  
DIVISION OF COMPLIANCE OVERSIGHT  
Office of Laboratory Animal Welfare, National Institutes of Health  
RKL1, Suite 360, MSC 7982  
6705 Rockledge Drive  
Bethesda, MD 20892-7982  
[WolffA@OD.NIH.GOV](mailto:WolffA@OD.NIH.GOV)  
[olawdco@od.nih.gov](mailto:olawdco@od.nih.gov)

Dear Dr. Wolff:

RE: Animal Welfare Assurance # D16-00050

This is to follow up on the preliminary report you received via email on September 30, 2021 from (b) (6) on behalf of the Animal Care and Use Committee (ACUC) regarding an animal welfare incident with 141 fish of various species that died at our institution.

The incident involved a pH shock event that happened in PI maintained fish tanks on September 11<sup>th</sup>, 2021. A change from the manual addition of buffer to a drip line buffering system resulted in an acute pH shock in multiple tanks, which resulted in the death of 141 fish over several days. The PI took the appropriate action by removing the new drip line buffering system when his lab personnel and an OLAC staff member noticed several dead and sick fish in the tanks during routine checks. A subsequent thorough investigation by the ACUC determined that it was a serious animal welfare issue.

The ACUC agreed with the PI that removing the drip line buffering system and restoring the established manual addition of buffer was the appropriate corrective action. And, the committee stipulated that in the future, any significant changes to the approved and inspected PI maintained tank and water system in the facility will require consultation with veterinary staff and notification of ACUC prior to implementing any changes.

The PI has informed the ACUC that no federal funding supported this research.

As Institutional Official, I am satisfied that the campus has spared no resources in resolving this unfortunate incident and thereby has fulfilled its commitment to maintaining the highest standards of animal welfare, as described in our Animal Welfare Assurance.

Sincerely yours,

(b) (6)

Randy H. Katz, Vice Chancellor for Research  
Institutional Official

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

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**From:** OLAW Division of Compliance Oversight (NIH/OD)  
**Sent:** Friday, November 19, 2021 10:08 AM  
**To:** Randy Howard Katz  
**Cc:** OLAW Division of Compliance Oversight (NIH/OD)  
**Subject:** RE: Final report - Fish (D16-00050)

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

**From:** Randy Howard Katz <vcr@berkeley.edu>  
**Sent:** Friday, November 19, 2021 9:57 AM  
**To:** OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>; Wolff, Axel (NIH/OD) [E] <wolffa@od.nih.gov>  
**Cc:** (b) (6) Acuc Departmental <acuc@berkeley.edu>; (b) (6)  
(b) (6)  
**Subject:** Final report - Fish (D16-00050)

Dear Dr. Wolff:

I am writing to follow up on the preliminary report (forwarded below) you received via email on September 30, 2021 from (b) (6). Our final report is attached.

Best wishes,  
Randy

--  
Randy Howard Katz  
Vice Chancellor for Research and  
United Microelectronics Corporation Distinguished Professor in  
Electrical Engineering and Computer Sciences  
University of California, Berkeley  
(b) (6)  
[vcr@berkeley.edu](mailto:vcr@berkeley.edu)

(b) (6)

On Thu, Sep 30, 2021 at 12:11 PM (b) (6) > wrote:

To Whom It May Concern:

On behalf of the IO at UCB, I am submitting this preliminary report.

Between SEPT 9, 2021 - SEPT 13, 2021 one of our PIs experienced the loss of 141 fish of a variety of species apparently due to pH shock event as the PI/his lab staff were adjusting the sump system on 9/9/2021. The ACUC is investigating this and will discuss it at their next meeting. Reporting this event to you is a bit belated due to the delay in the PI reporting this incident to the ACUC.

If you have any questions, please let me know.

Sincerely,

(b) (6)



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

A 3084-3H

**From:** OLAW Division of Compliance Oversight (NIH/OD)  
**Sent:** Friday, October 1, 2021 7:57 AM  
**To:** (b) (6)  
**Cc:** OLAW Division of Compliance Oversight (NIH/OD)  
**Subject:** RE: Incident report - Fish

Thank you for this preliminary report, (b) (6). We will start a new case file. If the fish were on a PHS or NSF study, please include the grant numbers in the final report.  
Axel Wolff

**From:** (b) (6)  
**Sent:** Thursday, September 30, 2021 3:11 PM  
**To:** OLAW Division of Compliance Oversight (NIH/OD) <olawdco@od.nih.gov>  
**Cc:** Wolff, Axel (NIH/OD) [E] <wolffa@od.nih.gov>; Acuc Departmental <acuc@berkeley.edu>; (b) (6)  
(b) (6) VC Research <vcr@berkeley.edu>  
**Subject:** Incident report - Fish

To Whom It May Concern:

On behalf of the IO at UCB, I am submitting this preliminary report.

Between SEPT 9, 2021 - SEPT 13, 2021 one of our PIs experienced the loss of 141 fish of a variety of species apparently due to pH shock event as the PI/his lab staff were adjusting the sump system on 9/9/2021. The ACUC is investigating this and will discuss it at their next meeting. Reporting this event to you is a bit belated due to the delay in the PI reporting this incident to the ACUC.

If you have any questions, please let me know.

Sincerely,

(b) (6)