



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

October 02, 2023

Re: Animal Welfare Assurance
A3434-01 [OLAW Case U]

Peter Schiffer, Ph.D.
Dean for Research
Office of the Dean for Research
New South Building, 5th Floor
Princeton University
91 Prospect Ave.
Princeton, NJ 08544

Dear Dr. Schiffer,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your September 29, 2023 letter providing an update on enhancements of the animal care and use program for nonhuman primates (NHP) at Princeton University, following up on initial telephone discussions on March 17 and September 18, 2023. According to the information provided in your letter, OLAW understands that as initially discussed with the former Dean for Research, Dr. Pablo Debenedetti, a panel of three outside subject matter experts was convened to assess the NHP program and to offer suggestions for improvement. This panel, which consisted of a neuroscientist, a veterinarian, and an infectious disease specialist, conducted a site visit, reviewed records, and conducted staff interviews with investigators, veterinarians, and Institutional Animal Care and Use Committee (IACUC) members.

The findings of the panel included positive assessments of the NHP program due to the hiring of a new NHP Attending Veterinarian and staff and enhancement of NHP clinical care. The panel recommended that Princeton veterinary staff consult with external experts and national primate centers as needed, that guidelines be developed addressing management of infections, and that NHP users receive retraining and competency assessments. Additional actions being implemented include the hiring of another NHP clinical veterinarian, amending protocols to enhance the research model, providing additional training for NHP staff, modifying NHP policies and guidelines, obtaining an electronic module to track veterinary clinical logs and IACUC procedures, obtaining additional diagnostic equipment, and identifying an outside anesthesia specialist for future consultation.

Based on its assessment of these explanations, OLAW finds the policies and procedures being implemented to be exemplary and highly commends you and your team (and Dr. Debenedetti) for undertaking these proactive efforts to enhance the well being of the primates under study, thereby enhancing the data that is gathered from these research subjects. These actions also mesh with the NIH initiatives to improve rigor and reproducibility of the science being conducted. Thank you for keeping OLAW apprised on these important matters and feel free to provide any future updates on the institution's continual improvement plans.

Sincerely,

(b) (6)

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

cc: IACUC Chair

(b) (6)

Neera Gopee, D.V.M., Ph.D., Associate Director for Animal Welfare Policy, OLAW
Andrew Jones, D.V.M., Acting Director of Operations, AC-APHIS-USDA

TO: Axel Wolff, MS, DVM, OLAW, Deputy Director
Neera Gopee, DVM, PhD, OLAW Associate Director for Animal Welfare Policy

FROM: Dr. Peter Schiffer, Princeton, Dean for Research and Institutional Official

CC: Kevin Licciardi, Princeton, University Counsel

DATE: September 29, 2023

RE: Princeton University/Assurance No. A3434
Report on External Review of Non-Human Primate Program

Thank you for taking time to speak with me and my colleague, (b) (6) on September 18, 2023, regarding improvements to Princeton's non-human primate ("NHP") program resulting from the recent external review commissioned by the University. Your feedback was extremely helpful and we will not hesitate to contact you, if necessary, as we implement the review's recommendations. This memorandum summarizes those recommendations and steps that the University has already taken or intends to take.

As we discussed on our call, in May 2023, Princeton's then-Dean for Research, Pablo Debenedetti, convened a panel of three very well respected outside experts, including a neuroscientist, a veterinarian and an infectious disease specialist and tasked them with reviewing the NHP program and issuing recommendations to improve the program. The panel conducted a site visit to Princeton, reviewed numerous documents, including clinical records and NHP protocols, and conducted more than a dozen interviews of researchers, veterinarians, and IACUC members.

- **Positive Findings:**

- The panel noted that, with the hiring of a new NHP Attending Veterinarian and other veterinary personnel dedicated to the NHPs, the clinical, anesthesia, and surgical care of the NHPs have improved significantly.
- The panel noted that changes to the research model and related clinical procedures over the past year align it with best practices.

Recommendations:

- The panel provided a number of forward-looking recommendations:

- The veterinarians should continue to seek external advice and expertise from larger NHP programs and national primate centers, particularly given the small nature of Princeton's NHP research program.
- The veterinarians should develop written guidelines regarding the clinical management of suspected infections.
- All persons performing NHP interventional neuroscience research should receive re-training and competency assessments to ensure all personnel are adequately trained on all IACUC approved procedures.

Implementation:

- We are in the process of working to implement the recommendations and also making other improvements. For example, the University is:
 - hiring an additional NHP clinical veterinarian.
 - making several IACUC protocol modifications to enhance the research model.
 - providing additional trainings and competency assessments for NHP staff
 - modifying existing NHP related policies and guidelines
 - purchasing a new electronic module for veterinary clinical logs and IACUC approved procedures.
 - purchasing additional equipment, including a CT scanner.
 - The University has identified an external expert in the field of anesthesia who is available for consultation on all surgical cases.

We think that this comprehensive review, as well as implementation of the recommendations, will ensure that Princeton continues to have a state-of-the-art NHP program. Princeton University is committed to protecting the welfare of animals used in research and teaching. We appreciate the continued partnership and guidance provided by OLAW.

Wolff, Axel (NIH/OD) [E]

From: Wolff, Axel (NIH/OD) [E]
Sent: Friday, September 29, 2023 8:45 AM
To: Peter Schiffer; Gopee, Neera (NIH/OD) [E]
Cc: (b) (6)
Subject: RE: update memo

Thank you for this update, Dr. Schiffer. I will review carefully and send an official response soon.

Axel Wolff

From: Peter Schiffer <pschiffer@princeton.edu>
Sent: Friday, September 29, 2023 8:35 AM
To: Gopee, Neera (NIH/OD) [E] <neera.gopee@nih.gov>; Wolff, Axel (NIH/OD) [E] <wolffa@od.nih.gov>
Cc: (b) (6)
Subject: [EXTERNAL] update memo

Dear Dr. Gopee and Dr. Wolff,

Thank you again for the call earlier this month. Please see attached a memo summarizing recent activities at Princeton relevant to Case A3434-01. Please confirm receipt and naturally please let me know if you have any questions or additional guidance.

Best regards,

Peter

Peter Schiffer

Dean for Research
Professor of Physics
Princeton University

pschiffer@princeton.edu

<http://research.princeton.edu>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and are confident the content is safe.



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

April 10, 2023

Re: Animal Welfare Assurance
A3434-01 [OLAW Case U]

Pablo Debenedetti, Ph.D.
Dean for Research
Princeton University
91 Prospect Ave.
Princeton, NJ 08544

Dear Dr. Debenedetti,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your April 4, 2023 letter reporting actions being taken at Princeton University to enhance aspects of the institutional animal care and use program related to nonhuman primate (NHP) research, following up on an initial telephone discussion on March 17, 2023. According to the information provided, OLAW understands the following:

- 1) External subject matter experts in neuroscience research, laboratory animal veterinary medicine, and infection control will be retained to assess research models and procedures involving NHPs. The analysis will include a retrospective examination of interventional neuroscience research involving this animal model and the experts will provide proposals to update protocols as necessary.
- 2) The Institutional Animal Care and Use Committee (IACUC) will notify the Institutional Official (IO) of any significant complications or unexpected deaths of any NHP.
- 3) Training on adverse event reporting will be provided to the IACUC, IO, veterinarians, and NHP investigators.
- 4) A full-time NHP veterinarian was hired to specifically evaluate these species involved in any research activities to ensure appropriate health and welfare.

Based on its assessment of this explanation, OLAW understands that an institution wide effort is underway to assess and strengthen the biomedical research activities specifically involving NHP studies to ensure maximum animal health and welfare. OLAW completely concurs with these efforts and commends your leadership as IO in spearheading this initiative. Please provide an update by **October 1, 2023** regarding the proposed efforts and any new initiatives that have resulted. Thank you for keeping OLAW apprised on this matter and for your interest in animal welfare.

Sincerely,

(b) (6)

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

Page 2 – Dr. Debenedetti
April 10, 2023
OLAW Case A3434-U

cc: IACUC Chair
Robert Gibbens, D.V.M., USDA-APHIS-AC

McCoy, Devora (NIH/OD) [E]

From: McCoy, Devora (NIH/OD) [E]
Sent: Wednesday, April 12, 2023 11:58 AM
To: Pablo G. Debenedetti
Cc: OLAW Division of Compliance Oversight (NIH/OD); robert.m.gibbens@usda.gov; (b) (6)
Subject: OLAW Case A3434-U
Attachments: A3434-U.pdf

Good morning Dr. Debenedetti,

Attached please find Dr. Wolff's response to OLAW Case A3434-U. Please note that an update is being requested by October 1, 2023. If you have any questions, feel free to contact us by phone or by email.

Best,
Devora

Devora McCoy, BS, MBA ([pronunciation](#))
Program Analyst
Division of Compliance Oversight
Office of Laboratory Animal Welfare
National Institutes of Health

Phone: 301-435-2390
Email: devora.mccoy@nih.gov

A3434-U

Princeton > Office of the
Research Dean for Research

Pablo G. Debenedetti

Dean for Research
Class of 1950 Professor
in Engineering &
Applied Sciences

Princeton University
91 Prospect Avenue
Princeton, NJ 08540

April 4th, 2023

BY E-MAIL

Axel Wolf, MS, DVM
Deputy Director, Office of Laboratory Animal Welfare
6700B Rockledge Drive
Suite 2500, MSC 6910
Bethesda, MD 20892
wolffa@od.nih.gov

Neera Gopee, DVM, PhD
Associate Director for Animal Welfare Policy, Office of Laboratory Animal Welfare
6700B Rockledge Drive
Suite 2500, MSC 6910
Bethesda, MD 20892
neera.gopee@nih.gov

(b) (6)
E pdebene@princeton.edu

Dear Drs. Wolf and Gopee:

Thank you for speaking with me and Kevin Licciardi, University Counsel at Princeton University ("Princeton" or the "University"), on Friday, March 17, 2023. During our call, we informed you that the University recently conducted a review of its non-human primate (NHP) program and shared our preliminary findings. We also sought your guidance on the University's plan to implement certain steps designed to strengthen that program so as to ensure the highest degree of NHP comfort, safety and welfare.

The plan we discussed includes the following:

1. The University will engage a panel of external experts to conduct a comprehensive review of research models and procedures, and implement any recommendations resulting from that review. The University will also conduct a retrospective analysis of NHP outcomes dating back to 2016 and a review of best practices in interventional neuroscience research. The expert panel will work with the NHP investigators to review, and as necessary, revise or update research protocols. The panel will include at least one expert on neuroscience research in NHPs, a veterinarian, and an expert in infection control.
2. The University will update its policies to require that the Institutional Animal Care and Use Committee ("IACUC") advise the University Institutional Official ("IO") immediately upon the occurrence of any significant complication or any unexpected death of an NHP.
3. The university will mandate training for the IACUC, IO, veterinarians and NHP investigators on adverse event reporting.

4. The University recently hired a full-time NHP veterinarian who has been tasked with carefully examining all NHPs in University labs conducting NHP research. These exams are intended to establish baseline understandings of each NHP's physical condition and to ensure each NHP's health and welfare needs are being met.

Please do not hesitate to contact me if you have any questions. We thank you for your assistance throughout this process.

Sincerely,

(b) (6)

Pablo DeBenedetti, PhD
Institutional Official and Professor of Chemical and Biological Engineering
Princeton University

cc:

(b) (6)

McCoy, Devora (NIH/OD) [E]

From: OLAW Division of Compliance Oversight (NIH/OD)
Sent: Tuesday, April 4, 2023 1:19 PM
To: Pablo G. Debenedetti
Cc: Wolff, Axel (NIH/OD) [E]; Gopee, Neera (NIH/OD) [E]; OLAW Division of Compliance Oversight (NIH/OD)
Subject: RE: Letter

Good afternoon Pablo,

Thank you for sending us this letter and we will send an official response soon.

Best,
Devora

Devora McCoy, BS, MBA ([pronunciation](#))
Program Analyst
Division of Compliance Oversight
Office of Laboratory Animal Welfare
National Institutes of Health

Phone: 301-435-2390
Email: devora.mccoy@nih.gov

From: Pablo G. Debenedetti <pdebene@princeton.edu>
Sent: Tuesday, April 4, 2023 10:06 AM
To: Gopee, Neera (NIH/OD) [E] <neera.gopee@nih.gov>; Wolff, Axel (NIH/OD) [E] <Wolffa@OD.NIH.GOV>
Cc: Pablo G. Debenedetti <pdebene@princeton.edu>; (b) (6)
Subject: [EXTERNAL] Letter

Dear Drs. Gopee and Wolff,

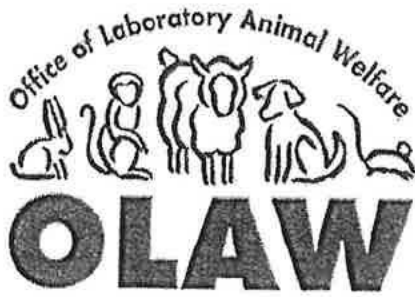
Please see attached letter.

Best wishes,

Pablo Debenedetti

--

Pablo G. Debenedetti, Dean for Research
Class of 1950 Professor in Engineering and Applied Science
91 Prospect Avenue
Princeton University
Princeton, NJ 08540



Division of Compliance Oversight

Record of Call for Case # A3434-V

Date & Time	Message	Initials
800 9/18/23	Discussion w/ Dr. Peter Schiffer, (b) (6) Neera Gopal, A Wolf re April 10 letter from DeBenedictis. Three outside SMAs reviewed primate program (included a vet, researchers). No single common cause of death identified; research model ok, supported proposed changes. Hired NHP vet; will seek advice from larger programs + primate centers, develop written guidelines for infections. Retain staff, hire more NHP staff; amend protocols. Will send a written report by 10/1/23.	(b) (6)