October 06, 2020

Santa Tumminia, Ph.D. Acting Director National Eye Institute

Anne E. Schaffner, Ph.D. Acting Director Division of Extramural Activities National Eye Institute

Via e-mail: tumminias@nei.nih.gov; aes@nei.nih.gov

Dear Drs. Tumminia and Schaffner,

We are a veterinarian and a neuroscientist and are writing on behalf of People for the Ethical Treatment of Animals (PETA) and its more than 6.5 million members and supporters worldwide to follow up on our November 4, 2019, letter to Dr. Tumminia.¹ You may recall that we directed your attention to serious scientific and ethical concerns regarding experiments conducted on barn owls by Shreesh Mysore at Johns Hopkins University and funded by the National Eye Institute (grant #R01EY027718, "Multisensory competition and spatial selection: Neural circuit and computational mechanisms").

Below, we describe disturbing new information that we've obtained that strongly calls into question the purported scientific validity and legality of these experiments. Accordingly, we urge you to stop funding the associated grant and recover any invalid expenditures on activities occurring in the four-year period in which it appears that Mysore's state permit allowing him to use barn owls in experiments lapsed.

Mysore Admitted That Experiments Using Animals in Head-Fixed Positions Could Be Misleading

As we have stated, we believe that the limited benefits of any data obtained from Mysore's experiments cannot justify the serious harm that he inflicts on owls. They are subjected to craniotomies, in which a bolt is attached to their skulls in order to hold their heads in a fixed position within a restraint apparatus, and then restrained in plastic tubes or jackets for up to 12 hours at a time. Experimenters implant and then PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS

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¹Taylor I, Roe K. Letter to Santa Tumminia. November 11, 2019. <u>https://www.peta.org/wp-content/uploads/2020/09/2019-11-04-Letter-to-NEI-Acting-Director-November-Tumminia.pdf</u>

relocate electrodes within the birds' brains for various phases of the experiments, causing significant damage to their neural tissue. They are then killed and dissected.

Mysore has tried to justify the use of these extremely invasive and harmful procedures by claiming that data obtained from them may provide insight into the human attention span and disorders associated with it. However, at a seminar at Albert Einstein College of Medicine on September 2, he admitted that his experiments using owls in a head-fixed position could be misleading, stating:

Almost all the work in attention so far has been done in head fixed animals and there are lots of reasons that are emerging now, even more so than before, indicating that really if possible you should be doing things in freely-behaving animals because the way they engage with the environment, the way locomotion for instance affects neuro-responses, is is [sic] quite significant, and it could change the way the brain is solving problems and we might misinterpret what's happening, or misunderstand, if we do this in head-fixed animals(54:29).²

In our letter to you, we pointed out the limitations of studying the neural responses of restrained, head-fixed owls, who typically rely on head movements to orient themselves when flying, to understand attentional processing in humans. Given that these experiments cause extreme harm and are of little value, which Mysore himself confirmed, the NEI should not allow them to continue.

Mysore's Experiments Apparently Violate Maryland State Law

Maryland Code Ann., Natural Resources § 10-902(a), requires that a permit be obtained in order to possess, import, breed, or raise any wildlife native to the state. Because Mysore keeps barn owls in his laboratory, he is required to obtain an annual scientific collection permit to possess a protected bird for educational or scientific purposes from the Maryland Department of Natural Resources (DNR).^{3,4} However, records that PETA received from the DNR pursuant to the Maryland Public Information Act⁵ show that Mysore does not appear to have acquired the necessary permits for the period of January 1, 2015, to December 31, 2018. If this is corroborated by your office, it means that he was not legally permitted to conduct experiments on owls during that time or use taxpayer funds for that purpose.

Finally, we note that there is precedent for NIH to seek the reimbursement of disallowed costs (which can occur, for example, when a principal investigator fails to obtain legally mandated state permits before using animals in NIH-funded experiments). For example,

²Mysore S. Neural control of stimulus selection and spatial attention: circuits, computations, coding. Lecture presented at: Albert Einstein College of Medicine; September 2, 2020; Bronx, N.Y.

https://www.dropbox.com/s/xog9gfv431282kr/exp 1191609 shreesh mysore jhu neuroscience seminar 9. 14.2020.mp4?dl=0.

³MD Nat Res Code § 10-902 (2013) https://law.justia.com/codes/maryland/2013/article-gnr/section-10-902/. ⁴MD Nat Res Code § 10-909 (2013) https://law.justia.com/codes/maryland/2013/article-gnr/section-10-909/. ⁵MD Gen Provisions Code § 4-101 (2015) https://law.justia.com/codes/maryland/2015/article-ggp/title-4/subtitle-1/section-4-101/.

the National Institute of Allergy and Infectious Diseases required principal investigator Gregory Ebel to reimburse it for costs accrued when he was experimenting on birds captured without the appropriate scientific collection permit.

You can contact us via e-mail at <u>DrTaylor@peta.org</u>. Thank you for your attention to this important matter. We look forward to your response.

Sincerely,

Ingrid Daylor

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cc: Incoming National Eye Institute Director Dr. Michael Chiang