

May 20, 2021

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University of California, Davis

Via email: [cscarter@ucdavis.edu](mailto:cscarter@ucdavis.edu)

Dear Dr. Carter,

We write to you as students at UC Davis to express our strong opposition to the [May 27<sup>th</sup> Perspectives in Neuroscience seminar](#) featuring Johns Hopkins University's Shreesh Mysore. **In light of Mysore's ethically, scientifically, and legally problematic experiments on owls, we ask that his planned seminar be replaced with one featuring ethical, human-relevant, and animal-free science.**

Mysore's barn owl experiments are not exemplary models of neuroscience for students to learn from or emulate. Mysore has been criticized for his cruel treatment of animals, flawed research methodologies, and potentially illegal negligence. Mysore's publications describe preparing owls for experiments, stating, "The scalp was cleansed . . . the skull was exposed and cleansed, and a metal head bolt was cemented to the back of the skull. Recording chambers were implanted in the skull above the tectal lobes to make them accessible for multiple experiments," and, "Plastic cylinders that permitted access to the brain were implanted . . . polysporin antibiotic ointment was applied to the exposed brain surface, and the recording chambers were sealed." Mysore's subjecting owls to multiple craniotomies severely damages the owls' brain tissue.

However, Mysore's horrific processes do not end after surgery. For up to 12 hours at a time during the experiments, owls are sedated with nitrous oxide and their bodies are physically restrained in jackets and plastic tubes. Furthermore, Mysore prohibits the owls' heads from movement by binding their heads to a restraint through the previously surgically implanted bolt. Mysore induces sensory overload on the owls during his experiments. Mysore physically clamps open the owls' eyes and bombards them with bright lights to induce visual overstimulation. Additionally, Mysore induces audio overstimulation with, "earphones . . . inserted into the ear canals ~5mm from the eardrums." Mysore then gathers data from the overstimulated owls by stabbing, "epoxy-coated tungsten microelectrodes" into the owls' brain tissue. Throughout the experiments, owls are tranquilized but not anesthetized.

Mysore's claims that his research may provide insight into attention-deficit/hyperactivity disorder (ADHD) are equally perplexing. A brain-damaged wild animal raised under the psychological stress of captivity presents as a markedly different test subject than a human experiencing ADHD. Neurological and sensory differences between humans and owls are insurmountable barriers to generalizing Mysore's results to advancements in human health. Sophisticated new methods of human-modeled experimentation not only spare unwilling animal victims, but can also provide much more relevant data for understanding complex conditions like ADHD instead of using bizarre models of brain-mutilated owls to extrapolate concepts to human neurobiology. Some examples of these human-relevant neuroimaging techniques include

functional MRI, positron emission tomography, transcranial magnetic stimulation, and electroencephalography.

There is also evidence that Mysore apparently failed to receive the proper legal permits to obtain and use the owls for experimentation from 2015 to 2018, putting him in direct violation of Maryland state law. These poorly-conceived experimental designs and his seeming utter contempt of the laws surrounding animal welfare are stunning indictments of Mysore's research ethic (or lack thereof).

Students at UC Davis deserve to learn the best science from the best scientists. Mysore clearly embodies neither, and his harmful owl experiments do not deserve to be featured in the May 27th Perspectives in Neuroscience seminar. **We ask that you cancel Mysore's event and replace it with real science utilizing human-relevant, animal-free models for research instead of animal abuse masquerading as science.**

Thank you for your consideration. The UC Davis student body is looking forward to your response.

Sincerely,



Kyle Lee



Rohan Prasad



Cassandra Liu



Kara Long