



**Written Testimony of Dr. Aysha Akhtar
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**Submitted to the Maryland State Senate Education, Energy, and the Environment
Committee hearing in support of SB0761, Testing Facilities That Use Animals – Licensing
Regulation**

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9:00 AM EST

Good afternoon members of the Education, Energy, and Environment Committee. My name is Dr. Aysha Akhtar and I am the CEO and Co-founder of the Center for Contemporary Sciences, a Maryland based non-profit dedicated to unlocking the power of science to find solutions that improve the health and wellbeing of humans, animals, and the planet. I am a double-board certified neurologist and preventative health specialist, with a background in public health, and a U.S. veteran. I previously served as Deputy Director of the U.S. Army Traumatic Brain Injury Program developing the Army's brain injury prevention and treatment strategies for soldiers, and was a Medical Officer at the Food and Drug Administration for a decade, most recently in the Office of Counterterrorism and Emerging Threats, implementing studies on vaccine effectiveness and safety.

I am submitting testimony today in strong support of SB0761, Testing Facilities That Use Animals – Licensing Regulation, introduced by Senators Kramer, Lam, Lewis Young, and Waldstreicher. SB0761 would among others, (1) require each testing facility in the State to be licensed by the Department of Agriculture to use animals in research, education, or testing, (2) establish requirements and prohibitions for the use and treatment of dogs and cats by a testing facility, (3) establish a State Inspector of Animal Welfare in the Department to inspect certain testing facilities and require facilities to notify the Inspector of violations, (4) prohibit a testing facility from using traditional animal test methods under certain circumstances, (5) establish the Animals in Research Fund as a special, nonlapsing fund and require interest earnings of the Fund to be credited to the Fund. Additionally SB0761 would require a testing facilities that use live animals for research, education, or testing to report on the number of each species owned and used by the facility, number of dogs or cats released to animal rescue organizations, and both the number of alternative test methods and traditional animal test methods waivers used.

The existing paradigm places animal experimentation at the center of research and testing despite a well noted lack of translatability between animal testing and human outcomes. More than 80 percent of all drugs and vaccines found safe and effective in animal tests fail during human

clinical trials.¹ This failure rate can be attributed to the physiological and pathological differences between humans and non-human animals.² Even with attempts to improve the failure rate by changing animal study design protocols, which can be costly and time-consuming, there has yet to be a sufficient impact in translatability to humans.³

Human-relevant testing methods are the future in medicine. These are methods, such as human body-on-a-chip, bioprinted mini-organs, smart AI, and virtual humans that are rapidly becoming the go-to methods for biomedical research. Not only are these methods so advanced and sophisticated, but they are based on human data and human biology. Thus, unlike tests using different species these new methods are human-relevant. They are already outperforming animal testing in modeling human diseases and predicting human results.


SB0761 will not only help Maryland move away from ineffectual animal experimentation by supporting human-relevant methods and providing additional protections for those animals still used in testing, but will also provide the funding needed to support these changes. The establishment of the Animals in Research Fund will be used to support the State Inspector of Animal Welfare in the Department of Agriculture.

Maryland has already shown itself to be support humane legislation and human-relevant testing methods. In 2021, the legislature passed a law to end the testing of new cosmetics on animals and last year Maryland passed HB626 which created a Human-Relevant Research Funding to provide grants to public and private institutions in Maryland to advance the discovery, creation, and use of human-relevant research techniques in the medical sciences.

Maryland established itself as a leader in the future of biotechnology and medicine by passing HB626, and SB0761 will help Maryland to remain a trailblazer in this space. I and the Center for Contemporary Sciences favorably support SB0761 so that Maryland can continue to pave the way for a new frontier in medicine, more effective research tools, and real hope for people suffering devastating illnesses.

Thank you for considering this testimony. Please feel free to contact me at aysha@contemporarysciences.org if you need additional information.

Sincerely,



Aysha Akhtar, MD, MPH

¹ Tagle DA. The NIH microphysiological systems program: developing in vitro tools for safety and efficacy in drug development. *Curr Opin Pharmacol.* 2019; 48:146-154. doi: 10.1016/j.coph.2019.09.007.

² Ibid.

³ Ibid.

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