



October 21, 2025

Wen-Hsing Cheng, PhD
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Department of Nutrition and Food Sciences
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Via e-mail: wcheng1@twu.edu; nutrfdsci@twu.edu

Dear Professor Cheng,

Thank you in advance for your time. I am writing on behalf of People for the Ethical Treatment of Animals—PETA entities have more than 10.4 million members and supporters globally. **Based on the information presented below, we ask that you please prohibit animal testing for blueberries in your department, in favor of modern, human-relevant research methods.**

Your faculty member Shanil Juma and his team recently published a paper describing that experimenters injected a chemical into the rats' knee joint to induce painful osteoarthritis, fed them blueberries, starved them, took their blood, severed their arteries to kill them, and dissected their knee joints.¹ This experiment received funding from the U.S. Highbush Blueberry Council (USHBC) and is purportedly meant to show blueberries' human health benefits for osteoarthritis in order for USHBC to better market blueberries to consumers. However, this experiment is unnecessary and unscientific.

Blueberries are a common human food. Given there is no toxicity concern, researchers could have safely conducted these studies on humans, which—unlike animals—would yield clinically-relevant results. Many clinical studies on blueberries' effects on osteoarthritis have already been published, including ones coauthored by professor Juma^{2,3} and review papers on the clinical

¹ South SM, Crabtree K, Averitt DL, Vijayagopal P, Juma S. Anti-Inflammatory and Joint-Protective Effects of Blueberries in a Monosodium Iodoacetate (MIA)-Induced Rat Model of Osteoarthritis. *Nutrients*. 2025 Jun 27;17(13):2134.

² Du C, Smith A, Avalos M, South S, Crabtree K, Wang W, Kwon YH, Vijayagopal P, Juma S. Blueberries improve pain, gait performance, and inflammation in individuals with symptomatic knee osteoarthritis. *Nutrients*. 2019 Jan 29;11(2):290.

³ Du C, Smith A, Avalos M, South S, Crabtree K, Wang W, Kwon YH, Vijayagopal P, Juma S. Whole blueberries improve pain, functionality, inflammation, and cartilage metabolism in individuals with symptomatic knee osteoarthritis (FS15-03-19). *Current Developments in Nutrition*. 2019 Jun 1;3:nzz031-FS15.

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trials.^{4,5,6,7} Also, advanced *in vitro* and computational models are widely used for researching mechanisms and safety of the effect of food on human health.

Animals are scientifically unfit “models” for human food research, given the numerous pathophysiological differences between species.⁸ Federal science and regulatory agencies have openly acknowledged the failures of animal testing and are moving away from it, in alignment with PETA's Research Modernization NOW, which is a strategic framework for human-relevant science.⁹

- *Food and Drug Administration (FDA)*: The FDA announced on April 10, 2025, a "groundbreaking step to advance public health by replacing animal testing in the development of monoclonal antibody therapies and other drugs with more effective, human-relevant methods," to "improve drug safety and accelerate the evaluation process, while reducing animal experimentation, lowering research and development (R&D) costs, and ultimately, drug prices."¹⁰
- *The National Institutes of Health (NIH)*: The NIH, the world's largest public funder for biomedical research¹¹— announced a major new initiative on April 29, 2025, "to expand innovative, human-based science while reducing animal use in research."¹² On May 4, 2025, the agency closed its in-house beagle lab, where dogs were used in sepsis and pneumonia experiments.¹³ On May 23, 2025, the agency terminated funding for Harvard experiments that involved sewing shut the eyes of baby monkeys and subjecting them to visual deprivation.¹⁴ On May 28, 2025, the NIH launched a new autism research funding opportunity that explicitly excludes animal experiments.¹⁵ On July 7, 2025, they announced during a joint webinar with the FDA that NIH will no longer seek proposals exclusively for

⁴ Pomilio AB, Szewczuk NA, Duchowicz PR. Dietary anthocyanins balance immune signs in osteoarthritis and obesity—update of human *in vitro* studies and clinical trials. *Critical Reviews in Food Science and Nutrition*. 2024 Apr 2;64(9):2634-72.

⁵ Basu A, Schell J, Scofield RH. Dietary fruits and arthritis. *Food & function*. 2018;9(1):70-7.

⁶ Jones DR. Blueberry polyphenols and their effects on bone and joint. *Adv. Food Technol. Nutr. Sci. Open J*. 2016;2(1):143-9.

⁷ Valsamidou E, Giouxari A, Amerikanou C, Zoumpoulakis P, Skarpas G, Kaliora AC. Dietary interventions with polyphenols in osteoarthritis: a systematic review directed from the preclinical data to randomized clinical studies. *Nutrients*. 2021 Apr 23;13(5):1420.

⁸ PETA. Critiques of Animal Testing for Human Health Claims. n.d. <https://www.peta.org/wp-content/uploads/2021/06/Critiques-of-Animal-Testing-for-Human-Health-Claims.pdf>

⁹ PETA. Research Modernization NOW. November 2024. <https://www.peta.org/wp-content/uploads/2025/01/Research-Modernization-NOW-Biomedical.pdf>

¹⁰ US FDA. FDA Announces Plan to Phase Out Animal Testing Requirement for Monoclonal Antibodies and Other Drugs. April 10, 2025. <https://www.fda.gov/news-events/press-announcements/fda-announces-plan-phase-out-animal-testing-requirement-monoclonal-antibodies-and-other-drugs>

¹¹ NIH. Grants & funding. January 21, 2025. <https://www.nih.gov/grants-funding>

¹² NIH. NIH to prioritize human-based research technologies. April 29, 2025. <https://www.nih.gov/news-events/news-releases/nih-prioritize-human-based-research-technologies>

¹³ Fox News. NIH closes experimentation labs accused of brutally killing thousands of beagles for 40+ years. July 15, 2025. <https://www.foxnews.com/politics/nih-closes-experimentation-labs-accused-brutally-killing-thousands-beagles-40-years>

¹⁴ NIH [@NIH]. [IH has terminated funding at Harvard University for studies that included sewing the eyes of young monkeys shut....] [Post]. X. May 29, 2025. <https://x.com/NIH/status/1928136701429284991>

¹⁵ NIH. Autism Data Science Initiative: Funding opportunities. June 30, 2025. <https://dpcpsi.nih.gov/autism-data-science-initiative/funding-opportunities>

animal models.¹⁶ Dr. Nicole Kleinstreuer, the Acting NIH Deputy Director for Program Coordination, Planning, and Strategic Initiatives, and a leader in reliable and human-relevant non-animal testing, emphasized that improving human health, "cannot be fulfilled using outdated animal-based models that fail to translate to human outcomes." Dr. Kleinstreuer also stated that "[w]e are very well placed to move away from animal-based models."¹⁷ On July 9, 2025, the NIH announced the early expiration of a funding opportunity for monkey experiments, which had involved injecting pregnant monkeys with viruses and dissecting their offspring.^{18,19}

The U.S. Food and Drug Administration, the European Food Safety Authority, and the Food Directorate of Health Canada, and others do not require or accept studies on animals as standalone evidence in order to make health claims.²⁰ Rather, they require human tests, which are the gold standard for establishing a substance/disease relationship, and they emphasize that such evidence can only come from human tests. Coming from Taiwan, you might also be interested to know that the Taiwan Food and Drug Administration recently updated its "Efficacy Assessment Method of Health Food for Knee Joints" regulation and removed animal testing as an option for health food applicants seeking health claims regarding osteoarthritis, in response to communications from PETA and public demand.²¹

Relatedly, several agricultural commodity research and promotion boards, also known as "checkoffs," have recognized the limitations of animal testing and that they should not squander assessment fees from hard working farmers on such outdated practices. After more than 85,000 consumers contacted the Hass Avocado Board,²² it adopted a new public policy stating that it "does not support, fund, or conduct animal research."²³ Similarly, in response to PETA's public campaigns,^{24,25} the National Mango Board confirmed it "does not fund research studies involving

¹⁶ People for the Ethical Treatment of Animals. NIH and FDA urged to adopt non-animal toxicology test methods. n.d. <https://www.peta.org/news/nih-fda-non-animal-toxicology-test-methods>

¹⁷ U.S. Food and Drug Administration. FDA & NIH workshop on reducing animal testing [Video]. YouTube. July 10, 2024. <https://www.youtube.com/embed/FUWQ1V8DI-c?feature=oembed&enablejsapi=1&origin=https%3A%2F%2Fwww.peta.org>

¹⁸ National Institute of Allergy and Infectious Diseases. Notice of early expiration of PAR-23-073, "Mentored Career Development Program for Early Stage Investigators Using Nonhuman Primate Research Models (K01 Independent Clinical Trial Not Allowed)" (NOT-AI-25-040). July 9, 2025. <https://grants.nih.gov/grants/guide/notice-files/NOT-AI-25-040.html>

¹⁹ National Institutes of Health. PAR-23-225: HIV/AIDS Scholars Using Nonhuman Primate (NHP) Models Program (K01 Independent Clinical Trial Not Allowed). 2023. <https://grants.nih.gov/grants/guide/pa-files/PAR-23-225.html>

²⁰ PETA. Regulations on Human Health Claims for Foods. n.d. <https://www.peta.org/wp-content/uploads/2021/06/Regulations-on-Human-Health-Claims-for-Foods.pdf>

²¹ PETA. PETA Wins! The Taiwan FDA Prevents Cruel Arthritis Tests on Animals. July 3, 2025. <https://www.peta.org/action/action-alerts/urge-taiwanese-government-to-ban-animal-experiments-in-anti-arthritis-testing/>

²² PETA. After Pressure From PETA, Hass Avocado Board Bans Animal Testing. n.d. <https://www.peta.org/about-peta/victories/hass-avocado-board-bans-animal-testing/>

²³ Avocado Nutrition Center. Research Opportunities. n.d. <https://research.loveonetoday.com/research-opportunities>

²⁴ PETA. Victory! National Mango Board's Seedy Tests on Rats and Mice End Following Pressure From PETA. August 13, 2024. <https://www.peta.org/news/national-mango-board-ends-tests-on-rats-and-mice>

²⁵ PETA. Victory! National Watermelon Board Ends Rotten Animal Tests After PETA Push. December 19, 2024. <https://www.peta.org/news/victory-national-watermelon-board-ends-rotten-animal-tests/>

animals ... and has no plans to do so in the future,”²⁶ and the National Watermelon Promotion Board explicitly prohibits “uncontrolled intervention studies, animal studies or in vitro studies.”²⁷ So far, more than 167,000 concerned consumers have urged USHBC to follow suit.^{28,29} More than 450 food and beverage companies and brands have also banned the conducting, funding, and commissioning of tests on animals unless explicitly required by law, after discussions with PETA.³⁰

Moving away from animal testing is the compassionate and scientifically advantageous thing to do, especially for common human foods like blueberries. We ask that you please follow the governmental, scientific, and industrial trend away from animal testing and prohibit animal testing for blueberries in your department, in favor of modern, human-relevant research methods.

Thank you for your consideration, and please reply by November 18, 2025. You can contact me via francesc@peta.org.

Sincerely yours,



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Laboratory Investigations Department

²⁶ Mango.org. FAQs. n.d. <https://www.mango.org/frequently-asked-questions>

²⁷ Watermelon.org. Nutrition Research. n.d. <https://www.watermelon.org/audiences/industry/research/nutrition-research/>

²⁸ PETA. Animals Beheaded for Blueberries? ‘Farmer Tax’ Funds Cruel Tests. n.d. <https://support.peta.org/page/22117/action/1>

²⁹ PETA. Starved, Douched, and Beheaded: Help End the Blueberry Council’s Cruel Tests. n.d. <https://support.peta.org/page/79426/action/1>

³⁰ PETA. ‘Eat Without Experiments’ program. n.d. <https://eatwithoutexperiments.peta.org/>