



TO: Members of the Wisconsin State Legislature
FROM: University of Wisconsin-Madison
RE: LRB-2947 Prohibiting institutions of higher education from conducting gain of function experimentation in Wisconsin
DATE: August 14, 2023

As the flagship institution of public higher education in the state of Wisconsin and the state's leading research university, the University of Wisconsin–Madison has significant concerns about LRB-2947, which seeks to prohibit institutions of higher education from conducting gain-of-function research and would stifle other pathogen-related research in Wisconsin, including research to protect the state's residents, crops and livestock.

UW–Madison ranks 8th in the country for federal research expenditures and continues to be a national powerhouse in federally funded research. UW–Madison is responsible for a large portfolio of biological research, not only to learn about basic biological and disease processes for both common and extraordinary ailments, but to provide diagnostic and surveillance information about the presence of pathogens of concern within the state of Wisconsin. This research also contributes to the development of treatments and vaccines to protect humans, plants and animals from diseases that pose risks to public health and the food supply. For instance, the UW School of Veterinary Medicine and the Wisconsin Veterinary Diagnostic Lab perform research and testing on strains of avian influenza that have had extreme economic impact on our state's poultry industry. UW–Madison researchers also study the bacteria that cause bovine mastitis, a disease that plagues the dairy industry, and the pathogens that cause blight in Wisconsin potatoes.

LRB-2947, as written, would in some cases prohibit institutions of higher education in Wisconsin from engaging in this needed and highly regulated research. LRB-2947 would also introduce significant delays and uncertainty even for research that is not prohibited. It would also limit the ability of public health authorities to prepare and respond to threats. Wisconsin would need to rely on researchers in other states, such as Minnesota, Iowa, and Illinois, and lose millions of dollars of federal grant funding that benefits the state and its taxpayers. The proposed legislation would also hamstring the growth of the biotech and biomedical sectors of Wisconsin's economy.

The privilege of conducting this essential research comes with great responsibility. This research is highly regulated at the federal level; the federal laws, regulations, and guidelines all aim to balance the risk of this research with its benefits for protecting human and animal health. UW–Madison stands by its record of safety and compliance with all federal and institutional oversight, including with respect to the incidents described below. The co-sponsorship memo outlines three incidents at UW–Madison as justification for this legislation, though mischaracterizes aspects of these incidents. Below is factual information about each:

1. 2019 disconnected respirator: A researcher in training was observing two senior scientists while collecting nasal samples from ferrets involved in a transmission experiment of H5N1 avian

influenza virus. Between two sample collections, when all ferrets were in HEPA-filtered containment cages, the biosafety cabinet had been decontaminated and disinfecting of sleeves and outer gloves had occurred, the researcher and one of the senior scientists observed the researcher's respirator hose became momentarily disconnected for a matter of seconds before it was immediately reconnected. The researchers followed the lab's emergency response procedure, which included informing UW–Madison and the Federal Select Agent Program. After several meetings, the university was asked to file an incident report to the National Institutes of Health Office of Science Policy (NIH-OSP). Later, the NIH-OSP characterized the actions taken in response to this incident as appropriate.

2. 2013 needle stick: A researcher working with influenza virus accidentally stuck themselves with a needle while working in the lab in December of 2013. The university, following its reporting obligations, shared the incident with federal agencies and followed its protocols for managing a low-risk exposure. During its review, the National Institutes of Health (NIH) noted a discrepancy in the lab's plan for quarantine and as a result, the university corrected its plans. These communications were straightforward and reflect clarifying correspondence between the university and NIH.

3. 2009 fine for unauthorized experiments: Members of a research laboratory introduced antibiotic resistance genes into strains of Brucella. The researchers did so without the knowledge of the UW–Madison Institutional Biosafety Committee or the Office of Biological Safety, which oversees biological research at UW–Madison. This was a violation of institutional policy and federal guidelines. When the university discovered what happened, the laboratory was instructed to cease work and destroy the strains. UW–Madison worked closely with federal agencies to implement corrective measures, including but not limited to developing mandatory training and expanding and strengthening the Office of Biological Safety. The fine reflects the oversight process working as it was designed to operate.

UW–Madison takes these incidents extremely seriously. While there are risks inherent in studying viruses, bacteria, and other pathogens, such risks are considered and balanced at both the federal and institutional level. The research, reviewed and approved by institutional oversight bodies and federal agencies as appropriate, is conducted because of its critical importance for protecting public health, the food supply and the state's economy. UW–Madison remains committed to ensuring that its researchers who work with high-risk and other pathogens have safe, secure laboratories, and receive training and certification to ensure their investigations are conducted safely.

UW-Madison also takes great pride in the contributions of its scientists to combatting current and future public health threats and urges legislators to allow this legacy to continue by considering these concerns when weighing the decision of co-sponsorship of the proposal. Any further questions can be directed to Senior Director of State Relations Crystal Potts (crystal.potts@wisc.edu; 608-265-4105).