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COMMITTEES
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The Honorable Tom Vilsack
Secretary
U.S. Department of Agriculture
1400 Independence Ave., S.W.
Washington, D.C. 20250

Dear Secretary Vilsack,

I am writing to obtain information about the U.S. Department of Agriculture's ongoing funding of a collaboration with a Chinese Communist Party (CCP)-linked researcher involving dangerous bird flu experiments and recent support for other animal labs in adversarial nations.

I was troubled to learn from the non-profit group White Coat Waste Project that USDA is supporting experiments involving "a highly pathogenic avian influenza virus" that poses a "risk to both animals and humans"¹ in collaboration with the Chinese Academy of Sciences (CAS), which is controlled by the CCP,² and a researcher affiliated with the infamous Wuhan Institute of Virology.³ The Biden USDA began financing the collaboration for "wet-lab virology" to study "newly emerging avian influenza viruses"⁴ in April 2021.⁵ The project has already received at least \$1 million of U.S. taxpayers' money to date and is slated to be funded through 2026.⁶

¹ "US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses," Research Project 440252, Agricultural Research Service, U.S. Department of Agriculture website, accessed January 30, 2024; <https://www.ars.usda.gov/research/project/?accnNo=440252>.

² "China's State Organizational Structure," Congressional-Executive Commission on China, accessed January 29, 2024; <https://www.cecc.gov/chinas-state-organizational-structure>.

"US-UK-China Collab: Predictive phylogenetics for evolutionary and transmission dynamics of newly emerging avian influenza viruses," Research Project 439621, Agricultural Research Service, U.S. Department of Agriculture website, accessed January 30, 2024; <https://www.ars.usda.gov/research/project/?accnNo=439621>.

"US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses," Research Project 440252, Agricultural Research Service, U.S. Department of Agriculture website, accessed January 30, 2024; <https://www.ars.usda.gov/research/project/?accnNo=440252>.

³ Wenjun Liu, Chinese Academy of Sciences Key Laboratory of Special Pathogens at the Wuhan Institute of Virology, Center for Biosafety Mega-Science, Chinese Academy of Sciences, Wuhan, China.

Jie Min, Ying Cao, Haizhou Liu, Di Liu, Wenjun Liu, and Jing Li, "RNA Sequencing Demonstrates That Circular RNA Regulates Avian Influenza Virus Replication in Human Cells," *Molecular Microbiology*, August 2022; <https://www.mdpi.com/1422-0067/23/17/9901>.

⁴ "US-UK-China Collab: Predictive phylogenetics for evolutionary and transmission dynamics of newly emerging avian influenza viruses," Research Project 439621, Agricultural Research Service, U.S. Department of Agriculture website, accessed January 30, 2024; <https://www.ars.usda.gov/research/project/?accnNo=439621>.

⁵ "US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses," Research Project 440252, Agricultural Research Service, U.S. Department of Agriculture website, accessed January 30, 2024; <https://www.ars.usda.gov/research/project/?accnNo=440252>.

⁶ "US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses," Current Research Information System, U.S. Department of Agriculture website, access January 31, 2024; <https://cris.nifa.usda.gov/cgi-bin/starfinder/0?path=fastlink1.txt&id=anon&pass=&search=R=90432&format=WEBLINK>.

As you know, Iowa is home to the largest number of chickens of any state,¹ with approximately 45 million hens producing around 15 billion eggs a year.² The well-being of our birds is vitally important to our state and the nation. Sadly, nearly 3 million chickens, ducks, turkeys, pheasants, and other birds in the state had to be euthanized last year due to outbreaks of avian influenza.³

USDA serves a vital role detecting and preventing avian influenza. Not just in Iowa, but around the world since diseases do not know or respect international boundaries. While this may require partnering with global competitors and even adversarial nations, we must never compromise public health standards in these efforts.

The COVID-19 pandemic demonstrates the very real dangers that can result from reckless research with lethal pathogens in unsafe laboratories. Under the pretext of preventing the transmission of bat coronaviruses to humans, more than \$1 million of U.S. taxpayer money from the National Institutes of Health and U.S. Agency for International Development was steered into China's now notorious Wuhan Institute of Virology for risky research in which coronaviruses were enhanced to become more virulent.^{4,5} U.S. intelligence experts believe COVID-19 resulted from a lab leak at the Wuhan Institute.⁶

Even before the pandemic, U.S. agencies were aware and concerned about the risky "gain-of-function" experiments being conducted by the Wuhan Institute in which pathogens were being engineered to become more deadly or contagious.⁷

Yet, this did not deter other government agencies from subsidizing dangerous experiments in and with the Wuhan Institute, which is now debarred from receiving U.S. funding due to its refusal to provide key details about those studies which could hold crucial clues about the pandemic's origins.⁸

U.S. tax dollars should never be spent to finance the creation of new super viruses, intentionally or unintentionally.

¹ "Leading 10 U.S. states based on number of chickens in 2022," statista, September 20, 2023;

<https://www.statista.com/statistics/196085/top-us-states-by-number-of-chickens/>.

² Iowa Egg Council website, accessed January 30, 2024;

<https://iowaegg.org/#:~:text=Iowa%20is%20the%20number%20one,15%20billion%20eggs%20a%20year!> .

³ Correspondence from Lawrence A. Tabak, D.D.S., Ph.D., Principal Deputy Director of the National Institutes of Health NIH to Congressman James Comer, Ranking Member of the U.S. House of Representatives Committee on Oversight and Reform, October 20, 2021; <https://twitter.com/GOPoversight/status/1450934193177903105/photo/1>.

⁴ "FEDERAL RESEARCH NIH Could Take Additional Actions to Manage Risks Involving Foreign Subrecipients," United States Government Accountability Office, June 2023; <https://www.gao.gov/assets/gao-23-106119.pdf>.

⁵ Vineet D. Menachery, Boyd L. Yount, Jr., Kari Debbink, Sudhakar Agnihothram, Lisa E Gralinski, Jessica A Plante, Rachel L Graham, Trevor Scobey, Xing-Yi Ge, Eric F. Donaldson, Scott H. Randell, Antonio Lanzavecchia, Wayne A Marasco, Zhengli-Li Shi, and Ralph S Baric; "A SARS-like cluster of circulating bat coronaviruses shows potential for human emergence," Nature Medicine, November 9, 2015; <https://www.nature.com/articles/nm.3985>.

Declan Butler, "Engineered bat virus stirs debate over risky research," Nature 12, 2015; <https://doi.org/10.1038/nature.2015.18787>.

⁶ Michael R. Gordon and Warren P. Strobel, "Lab Leak Most Likely Origin of Covid-19 Pandemic, Energy Department Now Says," Wall Street Journal, February 26, 2023; <https://www.wsj.com/articles/covid-origin-china-lab-leak-807b7b0a>.

⁷ Josh Rogin, "State Department cables warned of safety issues at Wuhan lab studying bat coronaviruses," Washington Post, April 14, 2020; <https://www.washingtonpost.com/opinions/2020/04/14/state-department-cables-warned-safety-issues-wuhan-lab-studying-bat-coronaviruses/>.

Josh Rogin, "In 2018, Diplomats Warned of Risky Coronavirus Experiments in a Wuhan Lab. No One Listened.," Politico, March 9, 2021; <https://www.politico.com/news/magazine/2021/03/08/josh-rogin-chaos-under-heaven-wuhan-lab-book-excerpt-474322>.

⁸ "Action Referral Memorandum for Wuhan Institute of Virology," U.S. Department of Health and Human Services, July 2023; <https://oversight.house.gov/wp-content/uploads/2023/07/Notice-Memo.pdf>.

Alarming, one of the researchers being funded by the USDA grant is Wenju Liu, who was recently listed as being affiliated with the Wuhan Institute of Virology's Center for Biosafety Mega-Science Key Laboratory of Special Pathogens.^{1,2} Liu is also a member of the editorial board of the journal *Virologica Sinica* that is based out of the Wuhan Institute and for which Zheng-Li Shi—widely known as the “bat woman” for her experimentation on bat coronaviruses³—serves as editor-in-chief.⁴

According to the USDA, the collaboration with CAS and this WIV-affiliated researcher will study, “in vivo passage of viruses through mallard ducks and Chinese goose species to predict evolution in natural hosts” and “viral evolution and transmission dynamics of avian influenza virus (AIV) infection in Japanese quail as an indicator species of potential to jump into mammalian hosts.”⁵ These experiments with China involve animals infected with “highly pathogenic avian influenza,” including potential pandemic pathogens that have already caused outbreaks and killed humans.⁶

Serial passage of a virus through cells and live animals is a common “gain-of-function” technique that can create a pathogen that can more easily jump species.⁷ Serial passage was used as part of the controversial experiments a decade ago that created a deadly lab-engineered strain of the H5N1 bird flu virus that infected mammals, potentially increasing its threat to humans, and sparked pandemic concerns.⁸

¹“US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses,” Current Research Information System, U.S. Department of Agriculture website, access January 31, 2024;

<https://cris.nifa.usda.gov/cgi-bin/starfinder/0?path=fastlink1.txt&id=anon&pass=&search=R=90432&format=WEBLINK>.

² Jie Min, Ying Cao, Haizhou Liu, Di Liu, Wenjun Liu, and Jing Li, “RNA Sequencing Demonstrates That Circular RNA Regulates Avian Influenza Virus Replication in Human Cells,” *Molecular Microbiology*, August 2022; <https://www.mdpi.com/1422-0067/23/17/9901>.



RNA Sequencing Demonstrates That Circular RNA Regulates Avian Influenza Virus Replication in Human Cells

by Jie Min^{1,2,†}, Ying Cao^{3,4,†}, Haizhou Liu³, Di Liu^{2,3}, Wenjun Liu^{1,2,5} and Jing Li^{1,2,*}

¹ CAS Key Laboratory of Pathogenic Microbiology and Immunology, Institute of Microbiology, Chinese Academy of Sciences, Beijing 100101, China

² Savaid Medical School, University of Chinese Academy of Sciences, Beijing 100039, China

³ National Virus Resource Center, Chinese Academy of Sciences, Wuhan 430071, China

⁴ State Key Laboratory for Conservation and Utilization of Subtropical Agro-Bioresources & Laboratory of Animal Infectious Diseases, College of Animal Sciences and Veterinary Medicine, Guangxi University, Nanning 530004, China

⁵ CAS Key Laboratory of Special Pathogens, Wuhan Institute of Virology, Center for Biosafety Mega-Science, Chinese Academy of Sciences, Wuhan 430071, China

* Authors to whom correspondence should be addressed.

³ “Meet the scientist at the center of the covid lab leak controversy,” MIT Technology Review, February 9, 2022; <https://www.technologyreview.com/2022/02/09/1044985/shi-zhengli-covid-lab-leak-wuhan/>.

⁴ Editorial Board, *Virologica Sinica*, accessed January 31, 2024; <https://www.virosin.org/news/EditorialBoard.htm>.

⁵ “US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses,” Research Project 440252, Agricultural Research Service, U.S. Department of Agriculture website, accessed January 30, 2024; <https://www.ars.usda.gov/research/project/?accnNo=440252>.

⁶ “US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses,” Current Research Information System, U.S. Department of Agriculture website, access January 31, 2024; <https://cris.nifa.usda.gov/cgi-bin/starfinder/0?path=fastlink1.txt&id=anon&pass=&search=R=90432&format=WEBLINK>.

⁷ Karl Sirotkin and Dan Sirotkin, “Might SARS-CoV-2 Have Arisen via Serial Passage through an Animal Host or Cell Culture?,” *Bioessays*, October 2020; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7435492/#bies202000091-bib-0003>.

⁸ Alison Young, “Lab-created bird flu virus accident shows lax oversight of risky ‘gain of function’ research,” USA Today, April 11, 2023; <https://www.usatoday.com/story/opinion/2023/04/11/lab-leak-accident-h-5-n-1-virus-avian-flu-experiment/11354399002/>.

That research and related lab accidents prompted a federal pause on gain-of-function research from 2014 to 2017.¹ Some experts also believe this procedure may have been used to generate SARS-CoV-2, the virus that causes COVID-19, in the lab at the Wuhan Institute.^{2, 3}

China's labs have notoriously lax safety standards,⁴ but these types of experiments involve inherent risks wherever they may be conducted.

Furthermore, there are no shortage of scientists in Iowa and across the U.S. whose agricultural research could yield real results for our farmers with the resources being sent overseas to researchers and labs in China or other adversarial nations.

In recent years, the USDA also funded a collaboration with an "experimental fur farm" operated by Vladimir Putin's Russian Academy of Sciences that breeds foxes to be tame or aggressive towards humans to study their social behavior.^{5, 6, 7, 8} Since Putin has repeatedly demonstrated his aggressiveness towards the U.S., our allies, and the citizens of his own country, it is concerning any taxpayer money Congress has set aside for agricultural research priorities would be directed toward unnecessary studies like these with Russia or any adversarial nation.

The Trump Administration canceled USDA experiments on kittens that used cat and puppy parts purchased from wet markets in China.⁹ Likewise, the Biden Administration recently announced it was canceling taxpayer funding of labs in Russia, including research at the Pavlov Institute in which cats were debilitated and then forced to walk on a treadmill.¹⁰

In light of recent events, we need to build on these developments and increase scrutiny and oversight of the type and location of taxpayer-funded research, especially involving pathogens of pandemic concern or with adversarial nations.

¹ Jocelyn Kaiser, "EXCLUSIVE: Controversial experiments that could make bird flu more risky poised to resume," *Science*, February 8, 2019; <https://www.science.org/content/article/exclusive-controversial-experiments-make-bird-flu-more-risky-poised-resume>.

² Remarks of Dr. Steven C. Quay, MD, PhD before the U.S. House of Representatives Committee On Oversight and Accountability, June 29, 2021; <https://oversight.house.gov/wp-content/uploads/2021/06/Steven-Quay-Prepared-Remarks-26-June-2021-12-230-EST-FINAL.pdf>.

³ Nicholson Baker, "The Lab-Leak Hypothesis," *New York Magazine Intelligencer*, January 4, 2021; <https://nymag.com/intelligencer/article/coronavirus-lab-escape-theory.html>.

⁴ Joby Warrick and David Willman, "China's struggles with lab safety carry danger of another pandemic," *Washington Post*, April 12, 2023; <https://www.washingtonpost.com/investigations/interactive/2023/china-lab-safety-risk-pandemic/>.

⁵ Anna V. Kukekova, Jennifer L. Johnson, Xueyan Xiang, et al., "Red fox genome assembly identifies genomic regions associated with tame and aggressive behaviours," *Nature Ecology & Evolution*, August 2018; <https://www.nature.com/articles/s41559-018-0611-6#Ack1>.

⁶ Estelle R. Bastounes, Halie M. Rando, Jennifer L. Johnson, Lyudmila N. Trut, Benjamin N. Sacks, Carlos A. Driscoll, Bridgett vonHoldt, and Anna V. Kukekova, "Four structural variants associated with human-directed sociability in dogs are not found in tame red foxes (*Vulpes vulpes*)," *Animal Genetics*, February 2019; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6349532/>.

⁷ Allison McDonald, "WCW EXPOSES MORE WORLDWIDE WASTE: YOU FUNDED ANIMAL TESTING ON RUSSIAN FOX FUR FARM & CHINESE PRIMATE LAB," *White Coat Waste Project blog*, June 16, 2023; <https://blog.whitecoatwaste.org/2023/06/16/wcw-exposes-more-worldwide-waste-you-funded-a-russian-fox-fur-farm-chinese-primate-lab/>.

⁸ Krishna Ramanujan, "Silver fox study reveals genetic clues to social behavior," *The Cornell Chronicle*, September 20, 2018; <https://news.cornell.edu/stories/2018/09/silver-fox-study-reveals-genetic-clues-social-behavior>.

⁹ "ARS Announces Toxoplasmosis Research Review, Discontinues Research with Cats," U.S. Department of Agriculture, April 2, 2019; [https://www.usda.gov/media/press-releases/2019/04/02/ars-announces-toxoplasmosis-research-review-discontinues-research#:~:text=\(WASHINGTON%2C%20D.C.%2C%20April%202022,and%20will%20not%20be%20reinstated](https://www.usda.gov/media/press-releases/2019/04/02/ars-announces-toxoplasmosis-research-review-discontinues-research#:~:text=(WASHINGTON%2C%20D.C.%2C%20April%202022,and%20will%20not%20be%20reinstated).

Dareh Gregorian, "Senators want to ban U.S. from buying animals from China's 'wet markets' blamed for outbreaks," *NBC News*, April 22, 2020; <https://www.nbcnews.com/politics/congress/senators-want-ban-u-s-buying-animals-china-s-wet-n1189661>.

¹⁰ Stephen Dinan, "NIH cuts off funding for Russian lab work, animal experiments after Biden order," *The Washington Times*, April 9, 2023; <https://www.washingtontimes.com/news/2023/apr/9/nih-cuts-funding-russian-lab-work-animal-experimen/>.

To that end, please provide the following information:

1. The total amount of U.S. taxpayer money USDA has spent to date and plans to spend on the series of research projects titled, “US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses”;
2. The total amount of U.S. taxpayer money that has been directly or indirectly sent to the CCP-run Chinese Academy of Sciences and researchers affiliated with the Wuhan Institute of Virology and other institutions in China as part of this collaboration;
3. A list of all U.S., Chinese, and other foreign individuals and institutions involved in this collaboration and the areas of the research for which they are responsible; and
4. A detailed listing of all activities being conducted in conjunction with the CCP-run Chinese Academy of Sciences and researchers affiliated with the Wuhan Institute of Virology.

Please also provide answers to the following questions:

1. Does USDA have protocols for screening or monitoring research collaborators from state-affiliated research institutions in China, Russia, or other adversarial nations?
2. Does USDA conduct safety inspections of labs in foreign nations, including China, where research funded by the Department will be conducted?
3. Does USDA have protocols for reviewing proposed and ongoing gain-of-function research involving pathogens of pandemic potential? If so, please explain.
4. Does the USDA have any restrictions on the funding of gain-of-function research with potential pandemic pathogens, including safeguards to halt research if a pathogen becomes too virulent?
5. Has the USDA reviewed research on the project, “US-UK-China Collab: Predictive Phylogenetics For Evolutionary and Transmission Dynamics of Newly Emerging Avian Influenza Viruses” to determine if it entails gain-of-function research with potential pandemic pathogens? Please explain why or why not?
6. Will any of the experiments conducted as part of this project be performed in laboratories in China? If so, have those laboratories involved been inspected by USDA officials?

Please do not hesitate to contact me if you have any questions about this request.

Sincerely,



Joni K. Ernst
United States Senator