

International Center for Technology Assessment

STATEMENT ON THE ORIGIN OF THE COVID 19 VIRUS AND POLICY RECOMMENDATIONS AND ACTION STEPS TO HALT DANGEROUS RESEARCH ON POTENTIAL PANDEMIC VIRUSES

“I don’t think it’s a conspiracy theory. I think it’s a legitimate question that needs to be investigated and answered. To understand exactly how this originated is critical knowledge for preventing this from happening in the future.” Xiao Qiang, a research scientist at the School of Information at the University of California at Berkeley

It is the mission of the International Center for Technology Assessment to assess the impacts of technology and technological systems on society. As such we have undertaken to better understand the possible role of genetic engineering and other laboratory techniques in the creation of the COVID-19 virus. After considerable research, including a thorough review of the selected research materials included below and the citations thereto, and discussions with experts in the field, we have come to agree with the view that the virus causing COVID-19 did not evolve naturally but rather is the product of one of the high-security bio-medical laboratories in Wuhan, China. We believe that there is a preponderance of circumstantial and scientific evidence demonstrating that the “laboratory virus” hypothesis is not only possible but probable. By contrast, recent refutation of the hypothesis that the virus originated at a Wuhan “wet market” and new findings that the virus has not been found in nature despite significant effort to do so, makes the view that the virus evolved naturally unlikely. (ICTA will be publishing a full Report on its Findings and Conclusion on the origin of the COVID-19 virus in September 2020.)

No dispositive finding on the virus’ origin can be made without a full review of the records and logs of the Wuhan high security laboratories involved, which the current stance of the government of China makes improbable. Nevertheless, in coming to a conclusion as to the probability of its laboratory origin, ICTA understands that it is critical that any analysis of the origin of this catastrophic contagion be apolitical and constructive. ICTA’s work in this area is not intended to blame individual scientists or any country, but rather to help provide the

insight, and encourage the action needed to spare humanity from a series of future man-made pandemics that could surpass the current one in transmissibility and lethality.

It may seem that engaging in exploration of the origins of the COVID-19 virus should wait until the current pandemic has been addressed and mass suffering alleviated. However, consideration of the “laboratory virus” theory matters because it highlights the most important preventive strategy that humanity can take to avoid repeats of the tragic pandemic we are all living through. This involves halting dangerous ongoing biomedical research on potential pandemic viruses. This important and necessary strategy has been completely absent in media coverage of COVID-19s origin. As a result its importance remains opaque to the general public, even though ignoring this issue threatens our individual and collective health security every minute, every hour, and every day.

Moreover, with billions earmarked for coronavirus research in the aftermath of the pandemic, there is the real possibility that a significant portion of these funds will be spent on this dangerous research which would increase the risk of future pandemics rather than lessen that threat.

Reinstate the US government moratorium on funding “Gain of Function/Gain of Threat” research on potential pandemic viruses

The major international bio-security threat made more apparent by the probable origin of the current pandemic goes under the innocuous term “gain of function” research, often shortened to GoF. This term refers to research that uses and combines laboratory techniques including, but not limited to, genetic engineering, animal experimentation and cell and tissue culture research to *increase* the transmissibility and/or lethality of pathogens, including the most dangerous pandemic viruses in the world. ICTA believes that a more apt term for this research is “Gain of Threat (GoT)” rather than “Gain of Function (GoF).” To make that point we will refer to them together.

Some researchers insist that there are benefits to taking potential pandemic viruses and engineering them to create novel viruses even more catastrophically transmissible and deadly. We have not seen any evidence of such benefits in our research. We agree with Thomas Inglesby, director of Center for Health Security at Johns Hopkins, that this gain of function/gain of threat (GoF/GoT) research has

little or no value for vaccine development or other intervention strategies and that there is no evidence “that the information people are pursuing could be put into widespread use in the field.”

We also agree with Rutgers University molecular biologist Richard H. Ebright that this research threatens our health security and deflects funds from vaccine or anti-viral drug research. He notes that “after the SARS virus, US funding agencies spent hundreds of millions of on global virome and gain-of function research that increases the risk of outbreaks and provided no information-absolutely no information-useful for preventing of combating outbreaks.”

While the benefits of GoF/GoT research are debatable, the risk of this research is well established. Concerns about this research came to a head almost a decade ago when two research teams, one in the United States and the other in the Netherlands were funded by the NIH to do GoF/GoT research on the avian flu virus H5N1. This virus causes a 60% mortality rate among those infected. Fortunately it is not easily transmissible so it has never reached pandemic proportions. To increase the transmissibility of the virus these two research teams genetically engineered it and used animal research to allow airborne transmission of this deadly flu. If accidentally released or stolen from one of these laboratories, this novel and enhanced virus could lead to a pandemic killing 1.6 billion people.

The publication of this research resulted in hundreds of eminent scientists publically urging that this research be halted. In 2014, in response to this unique threat, and reports of several recent laboratory accidents with deadly pathogens, the Obama Administration wisely declared a moratorium on this research. The moratorium announced by the Office of Science and Technology Policy (OSTP) stated that:

The U.S. Government will institute a pause on funding for any new studies that include certain gain-of-function experiments involving influenza, SARS, and MERS viruses. Specifically, the funding pause will apply to gain-of-function research projects that may be reasonably anticipated to confer attributes to influenza, MERS, or SARS viruses such that the virus would have enhanced pathogenicity and/or transmissibility in mammals via the respiratory route.

Unfortunately, under pressure from a group of powerful scientists- many in leadership positions at the NIH- this moratorium was lifted in December 2017. Soon after, both of the H5N1 experiments were refunded without public disclosure, and are ongoing, subjecting the world's population to the continuing threat of accidental release of this novel virus or its theft and use in bioterrorism.

Gain of Function/Gain of Threat research to create novel pandemic viruses is now being practiced in laboratories around the globe mostly in secret, and no doubt, some of this research involves bioweapons research. This research now includes synthetic biology, synthetic virology, gene editing and other cutting edge technologies. It is difficult to fully and accurately assess the risk to public health from this research. It is well established that accidental releases of pathogens from high security laboratories are all too common. It is also well established that biosecurity in labs around the world is weak. Given these variables, Mark Lipsitch, Professor of epidemiology at Harvard University, has attempted to come up with a numerical assessment of that risk. He posits that for every year that a researcher works on increasing the transmissibility and/or lethality of a potential pandemic virus, there is a 1/1000 to 1/10,000 chance of an accidental release. Hundreds of researchers are now doing such work which increases the risk significantly.

ICTA's upcoming Report on the origins of the COVID-19 virus will discuss in-depth the GoF/GoT research most relevant to the origins of the current pandemic. This involves grants from the US National Institutes of Health and USAID over the last 5 years to researchers at the Wuhan Institute for Virology (WIV). This funding was used, in part, to genetically engineer and otherwise manipulate bat coronaviruses closest to the COVID-19 virus to make them more easily transmissible and lethal.

However, and we believe this is of key importance, the urgent need to reinstate the moratorium on GoF/GoT research does not rest on proving that it was definitely the cause of COVID-19 but only that it was a possible cause. In other words the burden on those who want to continue this highly hazardous research in the wake of the pandemic is to demonstrate that it could not have created the pandemic. This they cannot do. The WIV's own publication of its research and the testimony of well-respected scientists and observers have made it evident that virus research conducted at one or both of the Wuhan high security labs was a

possible source of the virus. This includes Shi Zhengli the controversial Chinese researcher at the head of GoF/GoT research with bat coronaviruses at the WIV who admitted having many sleepless nights worrying that the COVID-19 virus could have originated from her laboratory.

To ensure against future pandemics, there needs to be an urgent public education campaign so the American people, who have been kept in the dark about this research, can better understand its profound potential impacts on their lives. This needs to be accompanied by a renewed call by hundreds of responsible members of the scientific research community, similar to that which occurred in 2014, urging the reinstatement of the moratorium on all federal funding of GoF/GoT research, and a strong recommendation that private laboratories do the same or lose potential future government funding. This moratorium should be for a minimum of 10 years or longer until the scientific community better understands the origins of the current pandemic, there is a robust public debate about the threat of such research to US health security and significant, measurable improvement in the biosecurity at US and international high security laboratories.

ACTION STEPS:

- A) ICTA will be working to achieve bipartisan support in Congress for a halt of all appropriations to the NIH or any other government entity for GoF/GoT research.
- B) ICTA will work to help organize an open letter to the White House in support of reinstating the 2014 moratorium on GoF/GoT research which will include provisions mandating no exceptions and a minimum 10 year period.