

Scientist Working Group Statement to the U.S. Congress

Scientists Working Group on Chemical and Biological Weapons

Center for Arms Control and Nonproliferation

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Research to make highly pathogenic Asian bird flu viruses contagious in humans should be banned

A number of researchers now have stated their intention to attempt increasing lethality of the already deadly H5N1 and H7N9 Asian influenza viruses. Among their aims is to make the viruses contagious in humans via respiratory aerosols from coughing, sneezing and even normal breathing.

There is a chance that one of these viruses will escape from a laboratory and seed the very pandemic the researchers claim they are trying to prevent. Our concern is shared by many virologists and epidemiologists. A recent letter to the President of the European Commission co-signed by 56 scientists from more than a dozen countries warned, "The probabilities of a laboratory accident that leads to a global spread of an escaped mutated virus are small but finite, while the impact of global spread could be catastrophic."

The risk of a man-made pandemic from a laboratory escape is not hypothetical. Laboratory escapes of high-consequence viruses resulting in transmission beyond laboratory personnel have occurred. The historical record reveals lab-originated outbreaks and deaths from the 1977 epidemic flu, smallpox escapes in Great Britain in the 1960s and 1970s, Venezuelan equine encephalitis in 1995, SARS outbreaks in 2003 and 2004 after the SARS epidemic, and foot and mouth disease in the UK in 2007.

This research presents far too high a risk to human lives, and should be banned in the U.S. Given the global threat, the U.S. should work with the international community to promote discussions leading to an international agreement that would require the strictest oversight to conduct this particular research anywhere. As it stands, any and all of the world's nations can carry out this dangerous work without regard to consequences. But consequences would be shared by all of us.

Further reading:

Klotz L, Sylvester, S. Opinion: The Fatality Burden. The Scientist December 17, 2013 <http://www.the-scientist.com/?articles.view/articleNo/38651/title/Opinion--The-Fatality-Burden/>

Furmanski M. Threatened pandemics and laboratory escapes: Self-fulfilling prophecies. Bulletin of the Atomic Scientists (2014) <http://thebulletin.org/threatened-pandemics-and-laboratory-escapes-self-fulfilling-prophecies7016>

Wain-Hobson S. Response to Letter by the European Society for Virology on "Gain-of-Function" Influenza Research. The Foundation for Vaccine Research (2013)

http://www.nature.com/polopoly_fs/7.14586!/file/vaccine%20foundation%20letter.pdf

The Center for Arms Control and Non-Proliferation is a Washington-based non-profit think tank working to reduce the number of nuclear weapons stockpiled across the globe, increase international nonproliferation programs targeted at preventing the further proliferation of nuclear weapons and nuclear terrorism, redirect U.S. military spending to address 21st century security threats, and halt the proliferation of biological and chemical weapons.

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