

# Details of lab-made bird flu won't be revealed (Update)

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In this Wednesday, Dec. 10, 2008 file photo, health workers slaughter all the chickens at the wholesale poultry market in Hong Kong after three dead chickens tested positive for bird flu. The U.S. government asked scientists Tuesday Dec. 20, 2011 not to reveal all the details of how to make a version of the deadly bird flu that they created in labs in the U.S. and Europe. The lab-bred virus, being kept under high security, appears to spread more easily among mammals. That's fueled worry that publishing a blueprint could aid terrorists in creating a biological weapon, the National Institutes of Health said. Bird flu, known formally as H5N1 avian influenza, occasionally infects people who have close contact with infected poultry, particularly in parts of Asia. (AP Photo/Kin Cheung)

The U.S. government paid scientists to figure out how the deadly bird flu virus might mutate to become a bigger threat to people - and two labs succeeded in creating new strains that are easier to spread.

On Tuesday, federal officials took the unprecedented step of asking those scientists not to publicize all the details of how they did it.

The worry: That this research with lots of potential to help the public might also be hijacked by would-be bioterrorists. The labs found that it appears easier than scientists had thought for the so-called H5N1 bird flu to evolve in a way that lets it spread easily between at least some mammals.

"It wasn't an easy decision," said Dr. Anthony Fauci, infectious diseases chief at the National Institutes of Health, which funded the original research.

The scary-sounding viruses are locked in high-security labs as researchers at the Erasmus University Medical Center in the Netherlands and the University of Wisconsin-Madison prepare to publish their findings in leading scientific journals. That's the way scientists share their work so that their colleagues can build on it, perhaps creating better ways to monitor bird flu in the wild, for example.

But biosecurity advisers to the government recommended that the journals *Science* and *Nature* publish only the general discoveries, not the full blueprint for these man-made strains. Tuesday, the government announced that it agreed and made the request.

In statements, the two research teams say they're making some changes, if reluctantly. The journals are mulling what to do, and the government didn't say precisely what should be left out.

But *Science* editor-in-chief Dr. Bruce Alberts said his journal pushed the U.S. government to set up a system where certain international researchers will be able to get the full genetic recipe for these lab-bred strains - especially those in bird flu-prone countries like China and

Indonesia.

"This is a sort of watershed moment," said Alberts, noting it's believed to be the first time this kind of secrecy has been sought from legitimate public health research.

He doesn't want to publish an abbreviated version of the findings unless he can direct scientists how to get the full, if confidential, details.

"It's very important to get this information out to all the people around the world who are living with this virus and are working on it," Alberts said.

NIH's Fauci said the system should be working very soon, so that international public health officials, scientists and drug companies with "a legitimate need to know can have access to that information."

*Nature's* editor-in-chief, Dr. Philip Campbell, also called the recommendations unprecedented.

"It is essential for public health that the full details of any scientific analysis of flu viruses be available to researchers, he said in a statement. The journal is discussing how "appropriate access to the scientific methods and data could be enabled."

H5N1 has caused outbreaks in wild birds and poultry in a number of countries around the world. But it only occasionally infects people who have close contact with infected poultry, particularly in parts of Southeast Asia. It's known to have sickened nearly 600 people over the past decade. But it's highly deadly, killing about 60 percent of the time.

The concern is that one day, bird flu might begin spreading easily between people and cause a pandemic. The NIH wanted to know what

genetic changes it should monitor for, as a warning.

In surprise findings, the two teams of researchers separately re-engineered bird flu to create strains that can spread easily between ferrets. That animal mimics how humans respond to influenza.

That doesn't necessarily mean the new lab-bred flu strains could infect people, Fauci cautioned.

Still, the viruses are being kept under special conditions along with other so-called "select agents" for security and to guard against a lab accident, as researchers try to learn more about just how risky the H5N1 that circulates in the wild really could become.

"There is clearly a public health threat that has been lingering and smoldering with regard to H5N1 for several years," said Fauci, who adds that a naturally occurring flu pandemic is much more likely than any man-made one.

"Nature is the worst bioterrorist. We know that through history," he said.

More information on the two research projects isn't being released until the journals decide what to publish.

But in a statement last month, Dutch lead researcher Dr. Ron Fouchier said his discovery showed what mutations to watch for so "we can then stop the outbreak before it is too late."

Tuesday, Erasmus Medical Center said researchers were complying with the U.S. request to change their scientific report. But, "academic and press freedom will be at stake as a result of the recommendation. This has never happened before," the statement said.

The University of Wisconsin said virologist Yoshihiro Kawaoka's team likewise would comply.

"While recognizing the potential for misuse of scientific discovery, the research described by UW-Madison researchers is essential for public health, global influenza surveillance activities and the development of vaccines and drugs to counter any potential pandemic," said a university statement.

An independent biosecurity expert called Tuesday's announcement a good middle-ground but said scientists should think twice about re-engineering influenza given the potential global consequences of an accident. The two labs involved are highly regarded, but more and more labs around the world can try similar work, noted Dr. D.A. Henderson of the Center for Biosecurity of the University of Pittsburgh Medical Center.

"Influenza is certainly a unique beast in its capability to spread," said Henderson, who played a key role in the eradication of a different killer, smallpox. "The question is how can we assure experiments like this really aren't done in ways that the organism is apt to escape."

**More information:** NIH statement: <http://tinyurl.com/NIHstatement>

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