

Scientists fight back in 'mutant flu' research row

December 21 2011, by Richard Ingham and Annie Hautefeuille

Leading virologists on Wednesday warned of censorship after a US bioterror watchdog asked scientific journals to withhold details of lab work that created a mutant strain of killer flu.

The controversy erupted on Tuesday when the US National Science Advisory Board for [Biosecurity](#) (NSABB) urged the world's two top journals to exclude key details before publishing the research papers.

In what is believed to be the first time it has made the recommendation, the government monitor cited an "extremely serious global [health threat](#)."

As the US-published Science and its counterpart in London, Nature, mulled the request, some experts said the NSABB request was an over-reaction.

Others said it could set a worrying precedent for the [free flow](#) of information -- a vital component in scientific advance.

"It's going to sully scientific communication if, for spurious concern about [biological warfare](#), little groups of self-appointed people start censoring," said John Oxford, a professor at London Queen Mary's School of Medicine and Dentistry.

"I know they call it 'redacted' or some such, but it's pure censorship," he said in an interview with AFP.

"It's censorship of a high level, and if that starts coming into the scientific arena, we will not know where we are."

In a blog, Vincent Racaniello, a professor of microbiology at Columbia University Medical Center in New York, said, "this is a bad day for virology, and for science in general.

"The decision by the NSABB sets a precedent for censoring future experimental results whose wide dissemination would benefit, not harm, humanity."

Sparking the storm were a paper submitted to Science by a team led by Ron Fouchier at the Erasmus Medical Centre in Rotterdam, and another sent to Nature by virologists led by Yoshihiro Kawaoka of the University of Wisconsin and the University of Tokyo, which reportedly showed the same result.

Both teams of scientists created a man-made form of the H5N1 influenza virus in the goal of figuring out what makes the avian pathogen tick.

Circulating among poultry, H5N1 leapt to humans in 1997, killing more than one in every two people that it infected.

Even though the virus was extremely lethal, it was not very contagious. It holed up in the bottom of the lungs rather than the upper airways, where viruses are spread by sneezing and coughing.

As a result, there have been only 573 documented cases of H5N1, although 336 have been fatal, according to the UN's World Health Organisation (WHO).

The lab-made pathogen reportedly swept away the mainstream concept

of H5N1's lethality-versus-spreadability balance.

Tested on ferrets, it turned out to be both deadly and contagious. How much, though, has not emerged.

NSABB chair Paul Keim, a microbial geneticist, told the AAAS Science Insider report last month that he had huge concerns.

"I can't think of another pathogenic organism that is as scary as this one," Keim was quoted as saying. "I don't think anthrax is scary at all compared to this."

In an interview with AFP on Wednesday, the Rotterdam team leader Fouchier said his paper had been redrafted in order to uphold the NSABB recommendations.

But, he argued, publishing the full findings could help save lives by giving insights into how the virus becomes airborne and spreads through human contact.

He denied that his work, carried out in an extremely secure Level Three biosafety lab, could be an off-the-shelf blueprint for terrorists.

Several killer viruses and germs, including the bacteria for anthrax and the plague, have already been genetically sequenced and their data placed in the public domain.

"Recreating this virus is definitely not easy. You need highly-skilled people and a very large team, as well as specialised facilities to do this type of work," Fouchier said.

Oxford said that, with billions of poultry around the world, there was a statistical probability that one day the same genetic alignment of H5N1

that was created artificially would crop up naturally.

"The biggest terrorist on this planet is Mother Nature. That's what we have to worry about, not someone sitting in a cave in Afghanistan," he said.

Jean-Claude Manuguerra of France's Pasteur Institute said censorship or filtering of data was unlikely to work on practical grounds, given the informal networks that exist among scientists.

And it posed ethical dilemmas.

"Who is going to set down the procedures for publication?" he asked. "And who would have access to the complete data?"

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