Mutant-flu researcher plans to publish even without permission

Virologist plans to defy Dutch government over export permit requirement for avian flu paper.

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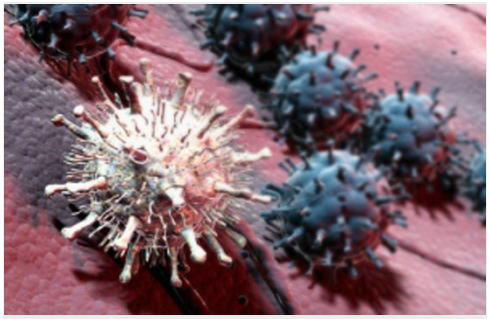

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Dutch authorities say work on an avian flu virus that is transmissible between mammals cannot be published without an export permit.

Ron Fouchier, a researcher at the Erasmus Medical Center in Rotterdam, the Netherlands, whose work on H5N1 avian flu virus has been at the centre of controversy, says that he is prepared to defy government demands and submit the work to *Science* without seeking the export permit that the Dutch government says is required.

A government official says that such an action could incur penalties including up to six years' imprisonment.

Fouchier's paper is one of two reporting the creation of forms of the H5N1 virus capable of spreading between mammals. The other, by Yoshihiro Kawaoka of the University of Wisconsin, Madison, and his colleagues, has been submitted to *Nature*.

In December, the US National Science Advisory Board for Biosecurity (NSABB) said that experimental details of the two studies should be redacted from any publications, on the basis of concerns that the information could be used by bioterrorists. The board also feared that publishing the details would prompt more laboratories to work on the viruses, making an accidental release more likely.

The NSABB revised its position on 30 March, voting 12-to-6 in favour of publishing a revised version of Fouchier's paper and unanimously for full publication of a revised version of Kawaoka's paper. The decision came after a two-day meeting with the researchers and other flu experts to assess revised versions of the manuscripts (see "US biosecurity board revises stance on mutant-flu studies").

Under control

Fouchier has complained in recent weeks that despite the NSABB decision in favour of publication, the Dutch government's export controls have prevented him from submitting to *Science* and from publicly presenting data on his revised manuscript. By contrast, Kawaoka gave a presentation of his data just after the NSABB meeting (see "Mutations behind flu spread revealed".)

Jan van Diepen, a spokesman for the Dutch Ministry of Economic Affairs, Agriculture and Innovation, says, however, that the government has not received an application from the Erasmus Medical Centre for an export permit for the revised paper, and so has been unable to decide whether to grant a permit.

Matters seem likely to come to a head next week. The Dutch government is planning a meeting on 23 April to assess the risks and benefits of publishing the research. The meeting will bring together 30 or so government experts in areas of biosafety, public health and virology from many of the countries involved, such as the United States, Japan, the Netherlands, United Kingdom, Vietnam and Indonesia, the last two of which supplied the H5N1 viral isolates used in the research.

Fouchier and his collaborators will also attend, as will journal editors and representatives of the World Health Organization, the European Commission and the Biological and Toxin Weapons Convention.

“After this conference, and when an application [for an export permit] is received, the Dutch government will decide on an export licence,” says van Diepen, adding that although the NSABB decision will “carry weight” in the discussions, the Dutch government wants to make up its own mind on whether to allow publication.

But Fouchier says that he intends to submit his paper to *Science* after the meeting without applying for an export permit. “*Science* can publish any paper submitted to them, according to their First Amendment right,” says Fouchier. “That means that if the Dutch government would want to stop publication, they cannot do so after we formally submit to *Science*.”

Whether the paper falls under export-control laws is unclear. The Netherlands implements European Union (EU) legislation on export controls, which require an export permit for ‘dual-use’ materials and information — those that could have both legitimate and malicious uses — including those relating to dangerous pathogens.

The EU law allows an exception for “basic scientific research” that is “not primarily directed towards a specific practical aim or objective”. It also allows exceptions for information that is “in the public domain” or “the minimum necessary information for patent applications”.

Fouchier has publicly defended his work both as basic scientific research and as having practical benefits for flu surveillance and vaccines. He says that the Erasmus Medical Center has obtained legal advice that export-control laws do not apply to the manuscript. “We will not apply for an export permit, as we are convinced we do not need one,” he says.

The Dutch government sees matters differently.

“A detailed analysis of the legislation, and in particular the provisions and definitions on technology transfers, have convinced us that the basic scientific research exemption is not applicable,” says Cindy Heijdra, a spokeswoman for international trade at the Dutch Ministry of Economic Affairs, Agriculture and Innovation, adding that the ministry’s legal counsel believes that export controls apply to the Fouchier work.

She confirms that no permit application has been received from Fouchier’s institution, but adds that the ministry “expects one shortly”.

Asked the hypothetical question of what would happen if the researchers sought to publish the revised paper without seeking a permit, Heijdra said: “Transferring technology without the required export licence is an infringement of export-control legislation under the Economic Offences Act. The maximum penalty, in case of premeditation or severe negligence, is six years' imprisonment or a €78,000 [US$102,000] fine.”

The 23 April meeting “will provide an opportunity to carefully discuss various aspects — public health, science, security, non-proliferation — of the publication of the results of the H5N1 studies in an international setting with the countries and parties most involved”, says Heijdra. “This is essential for the Netherlands, for we want to make sure that any decision on the publication of this research, such as the granting or not granting of an export licence, is as well informed and careful as possible.”

If the government lifts the export control restrictions on Fouchier's work following the meeting, he would be free to submit his work without needing a permit. But if the Dutch government does insist on a permit, Fouchier is adamant that he will publish. “We simply will never apply for an export permit on a scientific manuscript for publication in a journal. We do not want to create a precedent here,” he says. “We might end up in court indeed if they insist on censorship.”

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