Researchers weigh in on ethics of H5N1 research

February 9 2012

(Medical Xpress) -- In a commentary on the biosecurity controversy surrounding publication of bird flu research details, a bioethicist and a vaccine expert at Johns Hopkins reaffirm that "all scientists have an affirmative ethical obligation to avoid contributing to the advancement of biowarfare and bioterrorism," but that there are not sufficient structures in place to evaluate potential societal risks.

The commentary, titled "The Obligation to Prevent the Next Dual-Use Controversy" appears today in the online Policy Forum of the journal *Science*. Authors Ruth R. Faden, Ph.D., and Ruth A. Karron, M.D., say adequate assessment of those risks requires "prospective review by an international body with a range of expertise, including in this case influenza virology and biosecurity."

International prospective review of so-called dual-use research will help to mitigate future dilemmas over how to balance global security, academic freedom and public health threats, the authors say. "There is no doubt that there are formidable obstacles to developing such a global oversight body. But that the challenge is hard is no excuse," Faden and Karron conclude. Faden is director of the Johns Hopkins Berman Institute of Bioethics, and Karron is director of the Center for Immunization Research and the Johns Hopkins Vaccine Initiative at the Johns Hopkins University Bloomberg School of Public Health.

"When you take the perspective that both science and security experts are trying to prevent a global lethal pandemic, the problem becomes one

of benefit-risk assessment and risk management," says Faden, who draws on her experience as a member of the Fink Committee convened by the National Research Council in 2001 to create a roadmap for evaluating biosecurity risks. The Fink Committee's recommendations led to the creation of the National Science Advisory Board for Biosecurity (NSABB), which touched off the current controversy over H5N1 (popularly known as "bird flu") research by calling for the redaction of details explaining how a version of the virus that is readily transmissible in ferrets was produced. The NSABB cited concerns that such details could help terrorists weaponize the flu virus.

"The challenge is to implement effective practices to properly assess and manage these risks that allow for the vigilant stewardship of both the institution of science and public safety," Faden and Karron write.

The Hopkins co-authors highlight key ethical dimensions of this challenge, including "a moral obligation to ensure that the results of that research are used to help reduce risks to global health," the prospect of which must be the ethical justification for undertaking the risk of dual-use research at all.

In 2006, the authors worked together with other international experts at a meeting in Bellagio, Italy, to address the disproportionate impact global efforts to prevent a lethal influenza pandemic would have on the world's disadvantaged. The meeting, organized by the Johns Hopkins Berman Institute of Bioethics, included leaders in the fields of public health, animal health, virology, medicine, public policy, economics, bioethics, law and human rights. In their Statement of Principles the group agreed that "developing as well as developed countries should have access to the best available scientific and socio-economic data and analyses to inform avian and pandemic influenza planning and response."

Provided by Johns Hopkins Bloomberg School of Public Health