

News in focus



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Research from China is crucial to understanding the COVID-19 pandemic.

CHINA IS TIGHTENING ITS GRIP ON CORONAVIRUS RESEARCH FINDINGS

Some scientists welcome government vetting because it could stop publication of poor-quality COVID-19 papers – others fear it is an attempt to control information.

By Andrew Silver & David Cyranoski

China's government has started asserting tight control over COVID-19 research findings. Over the past two months, it seems to have quietly introduced policies that require scientists to get approval to publish – or publicize – their results, according to documents seen by *Nature* and some researchers.

This fits with media reports that at least two Chinese universities have posted notices online stating that research on the virus's origins needs approval from a university committee and the Ministry of Science and Technology (MOST) or Ministry of Education (MOE) before being submitted for publication.

Scientists in China say the changes are probably a response to poor-quality studies on the virus – and several welcome them.

But some academics have suggested that the vetting process could delay publication of important insights that could help to rein in the pandemic, and that the policies are part of China's attempt to control information about the start of the outbreak.

Last month, China's foreign-ministry spokesperson, Zhao Lijian, made sensational claims that the virus might have come to the country from the United States, prompting concerns that the Chinese government's statements were not always guided by science. Although the exact origin of the virus is unknown, researchers think it probably came

from bats and then spread to a carrier animal before infecting the first people somewhere in central China late last year.

Awareness of the new rules is mixed among researchers in China. The ministries seem not to have posted notices about the policies on their websites, and they have not yet responded to *Nature's* attempts to confirm that they have released the documents.

Government oversight of COVID-19 research seems to have started with a directive to universities. A document that seems to be from the MOE, and is dated 10 March, orders institutions to get approval from the ministry and the Joint Prevention and Control Mechanism, run by the powerful State Council, before publicly announcing results on the origin of the

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SARS-CoV-2 virus, its transmission routes or treatments or vaccines. The document states that universities need to consider “the questions society is concerned about” when publicizing research on the virus. (*Nature* was sent the document, which is stamped by the MOE and includes the name of an agency official, by a researcher who did not want to comment.)

The education ministry seems to have issued another order after a meeting of the Joint Prevention and Control Mechanism on 25 March, according to a second notice that also seems to come from the MOE and has been posted on Pincong, a Chinese-language forum. This notice, dated 7 April, states that studies on the virus’s source must be approved by a university academic committee and the education ministry’s science and technology department before being published in a journal or posted on a preprint server or blog. Academic committees must evaluate all other COVID-19 papers for “academic value and timing”. The notice also warns that studies must not exaggerate the efficacy of vaccines or treatments.

According to archived web pages, the 7 April notice was reproduced on the website of the School of Information Science and Technology at Fudan University in Shanghai, but was subsequently removed. UK newspaper *The Observer* has reported that a similar notice was posted on, and then removed from, the website of the China University of Geosciences in Wuhan.

Helpful policies

Several researchers in China welcome the vetting process for COVID-19 studies. Alice Hughes, a conservation biologist at the Chinese Academy of Sciences (CAS) Xishuangbanna Tropical Botanical Garden, says the measure will stop the dissemination of potentially inaccurate and sensationalist research, such as a controversial study published in the *Journal of Medical Virology* in January, which suggested that snakes were the virus’s host.

Hughes says her institute’s director told her in late February that research on COVID-19 required MOST approval. She has not seen official policy documents herself. In early March, she says, she had a paper approved by the CAS and then by MOST within 72 hours. “We are continuing to see China publishing papers on the origins through this system,” she says.

Zhang Zhigang, an evolutionary microbiologist at Yunnan University in Kunming who published on the outbreak’s origins before the vetting process came in, also thinks it’s a good way to control research quality and reliability.

But news of the policies hasn’t reached all scientists or institutions. Chen Jin-Ping, an animal-disease researcher at the Guangdong Institute of Applied Biological Resources in Guangzhou who is also studying the virus’s origins, says he hasn’t been told that he needs ministry approval for his research to be published. And Fei Ma, dean of research and

graduate studies at Xi’an Jiaotong–Liverpool University in Suzhou, China, says he hasn’t heard of the need for coronavirus-related research to be approved by MOST or other government agencies.

Denis Simon, executive vice-chancellor at Duke Kunshan University, says his institute hasn’t received any official notices, but that researchers are discussing the issue.

Some researchers outside China fear the vetting process could hold up the release of important research. “Right now we desperately need all kinds of research relating to SARS-CoV-2, from basic studies to understand mechanisms of disease to vaccines and therapeutics,” says Ashley St. John, a virologist at the Duke–NUS Medical School in Singapore.

“We can’t afford any delays right now.”

Understanding the origin of SARS-CoV-2 could also lead to warning systems for virus spillovers from animals to people, she says.

Sarah Cobey, an infectious-disease researcher at the University of Chicago in Illinois, adds that it would be problematic if results from China were being filtered or suppressed for reasons other than quality. Observations of viral spread across countries inform the use of interventions such as social distancing, she says.

“If the research presents a biased picture, much of the record can eventually be corrected through studies of SARS-CoV-2 elsewhere,” she says, “but the distortion and delay would probably come at the cost of human health.”

COVID-19 COULD RUIN WEATHER FORECASTS AND CLIMATE RECORDS

As environmental-monitoring projects go dark, data that stretch back for decades are about to get gappy.

By Giuliana Viglione

Twice each year, Ed Dever’s group at Oregon State University in Corvallis heads out to sea off the Oregon and Washington coasts to refurbish and clean more than 100 delicate sensors that make up one segment of a US\$44-million-per-year scientific network called the Ocean Observatories Initiative. “If this had been a normal year, I would have been at sea right now,” he says.

Instead, Dever is one of many scientists sidelined by the coronavirus pandemic, watching from afar as precious field data disappear and instruments degrade. The scientific pause could imperil weather forecasts and threaten long-standing climate studies. In some cases, researchers are expecting gaps in data that have been collected regularly for decades. “The break in the scientific record is probably unprecedented,” says Frank Davis, an ecologist at the University of California, Santa Barbara.

Davis is executive director of the Long Term Ecological Research (LTER) programme, a

network of 30 sites stretching from the far north of Alaska all the way down to Antarctica. Consisting of both urban and rural locations, the LTER network allows scientists to study ecological processes over decades – from the impact of dwindling snowfalls on the mountains of Colorado to the effects of pollution in a Baltimore stream. At some sites, this might be the first interruption in more than 40 years, he says. “That’s painful for the scientists involved.”

Weather forecasting takes a hit

Other monitoring programmes are facing similar gaps. Scientists often ride along on the commercial container ships that crisscross the world’s oceans, collecting data and deploying a variety of instruments that measure weather, as well as currents and other properties of the ocean. Most of those ships are still running, but travel restrictions mean that scientists are not allowed on board, says Justine Parks, a marine technician who manages one such programme at the Scripps Institution of Oceanography in La Jolla, California.

Port strikes and political instability have halted specific cruises in the past, Parks says. But, to her knowledge, this is the first time that the entire programme has shut down for an extended period of time.

Measurements made at sea are important for

“The break in the scientific record is probably unprecedented.”