

# News in focus



THOMAS PETER/REUTERS/LAMY

Security personnel keep watch outside the Wuhan Institute of Virology in China, which has been at the centre of the lab-leak controversy.

## DIVISIVE COVID 'LAB LEAK' DEBATE PROMPTS DIRE WARNINGS FROM RESEARCHERS

Allegations that SARS-CoV-2 escaped from a Chinese lab make it harder for nations to collaborate on ending the pandemic – and fuel online bullying, some scientists say.

By Amy Maxmen

**C**alls to investigate Chinese laboratories have reached a fever pitch in the United States, as Republican leaders allege that the coronavirus causing the pandemic was leaked from one, and as some scientists argue that this 'lab leak' hypothesis requires a thorough, independent inquiry. But for many researchers, the tone of the growing demands is unsettling. They say the volatility of the debate could thwart efforts to study the virus's origins.

Global-health researchers also warn that the growing demands are exacerbating tensions between the United States and China ahead of crucial meetings at which world leaders will make high-level decisions about how to curb the pandemic and prepare for future health emergencies. But a US–China divide will make consensus on these issues harder to reach, says David Fidler, a global-health researcher at the Council on Foreign Relations, a think tank in Washington DC. "If there's some turning down of the geopolitical heat between these two great powers, we could create some space to

perhaps do some of the things that we need to do," he says.

Others worry that the rhetoric around an alleged lab leak has grown so toxic that it's fuelling online bullying of scientists and anti-Asian harassment in the United States, as well as offending researchers and authorities in China whose cooperation is needed.

The debate over the lab-leak hypothesis has been rumbling since last year. But it has grown louder in the past month – even without strong supporting evidence. On 14 May, 18 researchers published a letter in *Science* arguing that

## News in focus

the idea of the coronavirus SARS-CoV-2 leaking from a lab in China must be explored more deeply (J. D. Bloom *et al. Science* 372, 694; 2021). It points out that the first phase of a COVID-19 origins investigation sponsored by the World Health Organization (WHO), which released a report in March, focused more on the virus coming from an animal than on its potential escape from a lab. Many virologists say that this focus is warranted, because most emerging infectious diseases begin with a spillover from nature, as seen with HIV, Zika and Ebola. Genomic evidence also suggests that a virus similar to SARS-CoV-2 originated in horseshoe bats (*Rhinolophus* spp.), before spreading to an unknown animal that then passed the pathogen to people.

The investigation concluded that an animal origin was much more likely than a lab leak. But since then, politicians, journalists, talk-show hosts and some scientists have put forward unsubstantiated claims linking the coronavirus to the Wuhan Institute of Virology (WIV), in the Chinese city where COVID-19 was first detected. Some members of US Congress and the media have gone further, alleging that the Chinese government is covering up a SARS-CoV-2 leak from the WIV, and even that Anthony Fauci, director of the US National Institute of Allergy and Infectious Diseases (NIAID), is involved, because NIAID funded some studies at the WIV. The WIV and Fauci have denied this, saying that they did not encounter SARS-CoV-2 until after the virus was isolated from patients in late December 2019 (F. Wu *et al. Nature* 579, 265–269; 2020).

### Scientists at odds

Even if the letter in *Science* was well intentioned, its authors should have thought more about how it would feed into the divisive political environment surrounding this issue, says Angela Rasmussen, a virologist at the University of Saskatchewan in Saskatoon, Canada.

The lead author of the letter, David Relman, a microbiologist at Stanford University in California, still feels it's important to voice his opinion – and says he can't stop it from being misrepresented. "I am not saying I believe the virus came from a laboratory," he says. Rather, he says that the authors of the WHO investigation report were too decisive in their conclusions. He suggests that the investigators might have called the natural-origins hypothesis "appealing" instead of "highly likely", and that they should have written that they didn't have enough information to draw a conclusion about a leak. Investigators toured the WIV and questioned researchers there, but were not given primary data.

In the *Science* letter, the authors note that Asian people have been harassed by those who blame COVID-19 on China, and attempt to avert such abuse. Nonetheless, some aggressive proponents of the lab-leak hypothesis



In January, members of a World Health Organization team visited a market in Wuhan.

interpreted the letter as supporting their ideas. For instance, a neuroscientist belonging to a group that claims to independently investigate COVID-19 tweeted that the letter is a diluted version of ideas his group posted online last year. The same week, on Twitter, the neuroscientist also lashed out at Rasmussen, who has tried to explain studies suggesting a natural origin of SARS-CoV-2 to the public. He called her fat, and then posted a derogatory comment about her sexual anatomy. Rasmussen says, "This debate has moved so far from the evidence that I don't know if we can dial it back."

Relman says he's saddened by the abuse of his fellow scientists, but he stands his ground.

Demands for lab investigations ramped up further as the World Health Assembly commenced on 24 May. The United States requested that the WHO conduct a "transparent, science-based" phase-two study of

**"This debate has moved so far from the evidence that I don't know if we can dial it back."**

the origins, and then US President Joe Biden announced that he has asked the US intelligence community, in addition to its national labs, to "press China to participate" in an investigation. The WHO, which does not have the authority to conduct an investigation in China without the country's permission, is currently considering proposals for this next-phase origins study.

In the meantime, US headlines have exploded with revived interest in the lab-leak hypothesis, many of them related to two articles in *The Wall Street Journal*. One story refers to an undisclosed document from an anonymous official who was part of former US president Donald Trump's administration, suggesting that three WIV researchers were sick in November 2019. And the second says

that Chinese authorities stopped a journalist from entering an abandoned mine where WIV researchers recovered coronaviruses from bats in 2012. The researchers have long maintained that none of the viruses was SARS-CoV-2. Responding to *The Wall Street Journal*, China's foreign ministry said: "The US keeps concocting inconsistent claims and clamoring to investigate labs in Wuhan."

Kristian Andersen, a virologist at Scripps Research in La Jolla, California, maintains that no strong evidence supports a lab leak, and he worries that hostile demands for an investigation into the WIV will backfire, because they often sound like allegations. He says this could make Chinese scientists and officials less likely to share information. Other virologists suggest that such sentiments could lead to more scrutiny of US grants for research projects conducted in China. They point to a coronavirus project run by a US non-profit organization and the WIV that was abruptly suspended last year after the US National Institutes of Health pulled its funding.

### Diplomacy distraction

More is at stake than pinning down the origins of COVID-19, however. Global health-policy analysts argue that it's crucial for countries to work together to curb the pandemic and prepare the world for future outbreaks. Actions needed, they say, include expanding the distribution of vaccines and reforming biosecurity rules, such as standards for reporting virus-surveillance data. But such measures require a broad consensus among powerful countries, says Amanda Glassman, a global-health specialist at the Center for Global Development in Washington DC. "We need to look at the big picture and focus on incentives that get us where we want to go," she says. "A confrontational approach will make things worse."

Fidler agrees. He says that the escalating demands and allegations are contributing to a geopolitical rift at a moment when solidarity is needed. "The United States continues to poke China in the eye on this issue of an investigation," he says. Even if COVID-19 origin investigations move forward, Fidler doesn't expect them to reveal the definitive data that scientists seek. The origins of most Ebola outbreaks remain mysterious, for example, and researchers spent 14 years nailing down evidence that the 2002–04 epidemic of severe acute respiratory syndrome (SARS) was caused by a virus transmitted from bats to civets to humans.

So, with a pressing need for biosecurity policies, Fidler thinks the United States should focus on fostering pandemic diplomacy through meetings between US and Chinese ambassadors, as happened with climate-change discussions in April. "Don't we actually have some things we need to do to get ready for the next pandemic, given the debacle of this one?"

HECTOR RETAMAL/AFP/GETTY