

papers that he has scanned are likely to be flawed or statistically biased. Many rely on small sample sizes or were not randomized or well controlled, he says. And in 2020, an observational study of the drug was withdrawn after scientists raised concerns about it and a few other papers using data by the company Surgisphere in Chicago, Illinois, that investigated a range of repurposed drugs against COVID-19. “We’ve seen a pattern of people releasing information that’s not reliable,” says Hill. “It’s hard enough to do work on COVID and treatment without people distorting databases.”

Carlos Chaccour, a global-health researcher at the Barcelona Institute for Global Health in Spain, says it has been difficult to conduct rigorous studies on ivermectin. That’s partly because funders and academics in wealthy countries haven’t supported them, and, he suspects, have often dismissed trials of ivermectin because most of them have been done in lower-income countries. Furthermore, says Rodrigo Zoni, a cardiologist at the Corrientes Cardiology Institute in Argentina, it is difficult to recruit participants because many people – particularly in Latin America – are already taking the widely available drug in an attempt to prevent COVID-19.

Adding to the difficulty are conspiracy theories holding that ivermectin has been proved to work and that drug companies are depriving the public of a cheap cure. Chaccour says he has been called ‘genocidal’ for doing research on the drug rather than just endorsing it.

Although the jury is still out on ivermectin, many say the retraction speaks to the difficulty of assessing research during a pandemic. “I personally have lost all faith in the results of [ivermectin] trials published to date,” says Gideon Meyerowitz-Katz, an epidemiologist at the University of Wollongong in Australia who helped Lawrence to analyse the Elgazzar paper. It’s not yet possible to assess whether ivermectin works against COVID-19, because the data currently available are not of sufficiently high quality, he says.

Chaccour and others studying ivermectin say that proof of whether the drug is effective against COVID-19 rests on a handful of large, ongoing studies, including a trial in Brazil with more than 3,500 participants. By the end of 2021, says Zoni, around 33,000 people will have participated in some kind of ivermectin trial.

“I think it is our duty to exhaust all potential benefits,” says Chaccour, particularly given that most countries still do not have widespread access to vaccines. “Ultimately if you do a trial and it fails, fine, but at least we tried.”

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BIDEN URGED TO BLOCK POLITICAL MEDDLING IN US SCIENCE

White House science office expected to deliver a review of scientific-integrity policies next month.

By Nidhi Subbaraman

US researchers and science groups appealed to President Joe Biden’s administration last month to protect government science from political interference and to empower federal scientists to speak to the media and public. They made this request during public listening sessions hosted by the White House Office of Science and Technology Policy (OSTP) – the first such sessions held since the science office kicked off a massive project to bolster scientific integrity in the federal government.

After four years in which former president Donald Trump’s administration sidelined science and scientists in government decisions, researchers were hopeful that Biden would safeguard independent scientific work and communication. In January, he made moves in this direction when he instructed the OSTP to review rules at all US agencies, with the goal of ensuring the existence of policies that “ban improper political interference in the conduct of scientific research”. The OSTP convened a task force in May, comprising

nearly 50 representatives from several US agencies, to tackle the issue. The group has so far met in closed-door sessions and with scientific-integrity experts.

“This level of engagement has not really happened before in the federal government around the issue of scientific integrity,” says Alondra Nelson, the OSTP’s deputy director for science and society, who co-chairs the task force.

The current effort expands on a push to protect scientific integrity that former president Barack Obama began a decade ago. Policies at US science agencies were the focus of that OSTP-led drive, Nelson tells *Nature*, but Biden’s project further aims to guide the use of evidence at all government agencies.

Speaking up

During three public listening sessions in July, attendees urged government agencies to be transparent about how science is used in policy and regulation, and recommended that scientists be enabled to pursue their work without political interference – and be free to speak about it.

Andrew Rosenberg, director of the Center for Science and Democracy at the Union of



Researchers have urged the White House to safeguard science against political interference.

STEFANI REYNOLDS/BLOOMBERG VIA GETTY

Concerned Scientists, an advocacy group based in Cambridge, Massachusetts, said that government scientists must be encouraged to speak directly to the public and media, including through social media. Critics have complained that it has become harder over the years to gain access to government scientists for information and insight, and that it became even more difficult when Trump took office. In its first days, the Trump administration issued restrictions on agency employees speaking about their work. And during the COVID-19 pandemic, top public-health officials, including infectious-disease chief Anthony Fauci, were restricted from addressing the public. “Agencies should not be scared of scientists speaking up,” Rosenberg said.

Since Trump was elected in 2016, the non-profit Climate Science Legal Defense Fund (CSLDF) and the Sabin Center for Climate Change Law at Columbia Law School, both in New York City, have tracked anti-science actions by the US government, including state-level decisions and actions by individual members of Congress. That tally has now grown to nearly 500 entries.

Augusta Wilson, a staff attorney at the CSLDF, said at one of the sessions that close to half of those cases involved censorship of scientific information. In her remarks, she asked that the OSTP “call on agencies to adopt strong, explicit protections against censorship and other interference with scientists’ ability to communicate about their work”.

Firewall needed

The CSLDF and the Sabin Center are among groups that have created guidelines for keeping science free of political interference and ensuring that scientific evidence carries weight. Among such suggestions are integrity-policy training for agency employees and designating government offices and leaders to settle disputes. Some say that Congress should pass legislation that requires agencies to shore up their rules.

Tom Sinks, who worked at the US Centers for Disease Control and Prevention and the US Environmental Protection Agency (EPA) for decades, told *Nature* there needs to be a ‘firewall’ between scientific evidence and political leaders at agencies. “Creating a firewall that enables science to be science and politics to be politics – this is where scientific integrity plays a big role,” he said.

During one of the sessions, he suggested that to construct such a barrier, each agency should establish a senior scientist, who is not a political appointee, as the ultimate approver of scientific products such as publications. Sinks himself is no stranger to scientific-integrity conflicts. Before he resigned in 2020 as director of the EPA’s Office of the Science Advisor, he wrote a



Alondra Nelson is the OSTP's deputy director for science and society.

rebuttal of the agency’s own ‘secret science’ rule, championed by then-administrator Scott Pruitt, a Trump appointee. Touted as a move towards transparency, the proposed rule would have prevented the EPA from using studies that rely on non-public data as a basis for regulations. But critics argued this would cut out foundational health data about the harms of environmental pollutants – and would ultimately weaken the regulatory agency’s power to curb polluters. The Biden EPA is currently reconsidering the rule.

The new effort “reaffirms and builds on” Obama’s scientific-integrity work, according to Biden’s January memo instructing the OSTP to take up this issue.

Obama had pledged to “restore science to its rightful place” during his inauguration, and his OSTP director, John Holdren, detailed a series of actions that agencies should take to protect the independence of scientists. This came after previous president George W. Bush and his administration blocked stem-cell science and downplayed climate research.

Going beyond

Sinks says the ‘Holdren memo’ protected some EPA science during the Trump years, allowing scientific reports to pass that might have otherwise faltered. But he hopes the Biden effort will go further.

A 2019 review by the US Government Accountability Office concluded that the Obama-era memorandum was unevenly embraced across agencies. The review recommended further actions to strengthen the integrity of federal research.

The public comments collected at the listening sessions and received in writing will inform the Biden OSTP’s deliberations. “This is an issue that the public really cares about and is engaged in,” says Nelson.

The OSTP task force is due to deliver a review of existing agency-integrity policies in September.

SURPRISE DIP IN UK COVID CASES Baffles RESEARCHERS

Few researchers anticipated July’s sharp drop in recorded infections.

By Philip Ball

Scientists are scratching their heads over the precipitous decline in daily COVID-19 infections in the United Kingdom following their rapid rise earlier in the year. Officially recorded new cases plummeted through the second half of July: from a high of 60,674 on 15 July to 20,430 on 1 August.

“Nobody really knows what’s going on,” says epidemiologist John Edmunds at the London School of Hygiene & Tropical Medicine (LSHTM). In particular, it’s not clear whether this sudden trend indicates that the peak of the third wave has passed, or whether it is a blip caused by complex social factors.

The spread of the more-infectious Delta variant of SARS-CoV-2 in the United Kingdom seemed, despite the country’s successful vaccination roll-out, to be creating a dangerous crisis. An exponential growth in infections since June led to predictions of as many as 100,000 new cases being reported daily, and fears that the National Health Service (NHS) could be overwhelmed by hospitalizations. In such a climate, many scientists felt that the government’s full relaxation of mitigating restrictions in England – such as mask wearing and the closure of nightclubs and other venues – on 19 July was reckless.

It is still too early to know exactly what effect the relaxation will have, given that new cases and hospitalizations take a while to show up in