

# News in focus



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The White House Office of Science and Technology Policy will guide US agencies in developing new scientific-integrity policies.

## TRUMP'S CALL FOR 'GOLD STANDARD SCIENCE' PROMPTS OUTCRY

Thousands have signed an open letter against the US president's latest order, anxious about political interference in science and more.

By Jeff Tollefson & Dan Garisto

**U**S President Donald Trump signed an executive order on 23 May, mandating the overhaul of research-integrity policies, to ensure that the federal government promotes “gold standard science” that is “transparent, rigorous, and impactful”. But many researchers fear that the order will do the opposite, by putting US science under the thumb of political appointees – and

they are mobilizing opposition.

The order, titled “Restoring Gold Standard Science”, states that research-integrity issues, including high-profile retractions and an inability to reproduce many scientific studies, have caused the public to lose faith in science. It accuses Trump's predecessor, Joe Biden, of misusing scientific evidence when crafting public policies on climate change, public-health guidance during the COVID-19 pandemic and more. The order comes as the

Trump administration slashes funding for science across federal agencies and at major US research universities.

Although many researchers agree that breaches of scientific integrity are important to address, some who spoke to *Nature* worry that language in the order opens the door to political interference in US science.

“It all sounds very non-objectionable, but it's extremely dangerous” in its details and subtext, says Gretchen Goldman, president of



Michael Kratsios, head of the OSTP, has criticized the scientific community.

the Union of Concerned Scientists, a science-advocacy group in Cambridge, Massachusetts. The order “steamrolls” long-standing efforts to create a buffer between science and politics, says Goldman, who helped to develop scientific-integrity policies under Biden that the latest order revokes. For instance, enforcement of the new policies could be left to political appointees rather than non-partisan career government employees, as was required before.

Victoria LaCivita, a spokeswoman for the US Office of Science and Technology Policy (OSTP), which coordinates science policy across the government, said to *Nature* in a statement that the order creates a path to rebuilding trust between the scientific community and the public “through common-sense scientific principles”. She also accused the Biden administration of incorporating “radical woke ideology” into the scientific enterprise by introducing diversity, equity and inclusion programmes. “If that’s not politicizing science, I don’t know what is,” she said.

The latest order has incensed some in the scientific community: nearly 4,900 scientists and others had signed an open letter at the time this story was published, arguing that it promotes a “Fool’s Gold” standard. “The Executive Order further consolidates political control over the Nation’s scientific infrastructure, co-opting the language of open science to implement a system under which direct presidential appointees are given broad latitude to designate many common and important scientific activities as scientific misconduct, and to penalize those involved accordingly,” the letter says.

## Competing policies

During Trump’s first presidency, from 2017 to 2021, researchers and public-policy specialists repeatedly accused his

administration of undermining science and censoring government scientists. For instance, scientists at the US Environmental Protection Agency (EPA) were sidelined as the administration sought to weaken environmental and public-health regulations; later, in a survey, hundreds of researchers reported political interference in their work. Partially in response, Biden issued an executive order during his first week in office in 2021, calling on some 30 federal agencies to create or update scientific-integrity policies to shield government scientists from political interference.

Trump’s executive order revokes those policies while calling for the OSTP to issue guidance within the next 30 days on establishing new ones; federal agencies then have 60 days

**“The executive order further consolidates political control over the nation’s scientific infrastructure.”**

to develop policies and report back to the OSTP. Among other requirements, the order directs agencies to ensure that their policies “protect employees from efforts to prevent or deter consideration of alternative scientific opinions”. OSTP head Michael Kratsios and other Trump officials have said that scientific groupthink on topics such as climate change and the COVID-19 response has squashed valid opinions and caused harm.

One of the main fears among critics of the order is that Trump’s policies will allow agencies to put politically appointed officials in charge of investigations into allegations relating to research integrity. That could enable the administration to

punish government scientists for failing to meet vague expectations to “transparently acknowledge and document uncertainties” when using data in agency decision-making. “This could be used as a cudgel to punish almost anyone. It’s just frightening,” says one senior government official who has worked on scientific-integrity issues under multiple administrations. The official requested anonymity because they are not authorized to speak to the press.

## Emphasizing uncertainty

Over the past decade and a half, science has faced numerous challenges to its reliability and rigour: retractions of scientific articles have surged, paper mills have begun churning out fake or low-quality publications and scientists have been unable to reproduce the results of large swathes of research. Researchers who spoke to *Nature* say that the scientific community is already working to address such challenges, and polling data show that the proportion of the population that trusts scientists remains high – around 76%.

Some worry that the executive order seizes on legitimate research-integrity issues to cast doubt on settled science. “We see that [the administration is] already using this kind of language of rigour, open science, science reform, as a way to stall vaccine development and deployment,” says Carl Bergstrom, an evolutionary biologist at the University of Washington in Seattle, pointing to actions taken by Martin Makary, the head of the US Food and Drug Administration, to limit access to proven COVID-19 vaccines. Bergstrom helped to draft the open letter opposing the administration’s executive order.

Goldman says that the order also lays the groundwork for the Trump administration – which has repeatedly called for relaxing environmental regulations to boost economic development – to make it easier for industry to challenge regulations that are intended to protect public health. During Trump’s first term, for instance, officials at the EPA proposed a ‘secret science’ rule that would prevent the agency from relying on data not publicly available during decision-making. The problem, some scientists countered, was that this could effectively prevent the agency from citing crucial epidemiological research tied to private health data. Goldman says that the latest order seems to revive that strategy by requiring that agencies make all of their data, models and analyses publicly available.

Standards such as these that aim to increase transparency are “desirable”, Bergstrom says, but disregarding studies if they don’t meet every criterion in the order is “groundwork for giving federal agencies the right to ignore basically all scientific research”.