

Related Jobs

Assistant Professor. Coastal Wetland

Log in | My account | Contact us

Become a member Renew my subscription | Sign up for newsletters

916  25K    916 

Smog envelops Salt Lake City. RAVELL CALL/THE DESERET NEWS/AP

EPA science adviser allowed industry group to edit journal article

By Scott Waldman, E&E News | Dec. 10, 2018 , 9:55 AM

Originally published by E&E News

When the U.S.Environmental Protection Agency (EPA) begins a major review of air pollution standards this week, a researcher who has received funding from an industry group opposed to the rules will be leading the agency's panel.

Tony Cox, who was named chairman of the Clean Air Scientific Advisory Committee by former EPA Administrator Scott Pruitt, accepted funding from the American Petroleum Institute (API) to help finance his research into particulate matter pollution. He also allowed the Washington, D.C.-based lobbying group to proofread and copy edit his findings before they were published, according to his own acknowledgements.

SIGN UP FOR OUR DAILY NEWSLETTER

Get more great content like this delivered right to you!

Country \*

Email Address \* 

Sign Up

Click to view the [privacy policy](#).  
Required fields are indicated by an asterisk (\*)

SIGN UP FOR OUR DAILY NEWSLETTER

Get more great content like this delivered right to you!

Country \*

Click to view the [privacy policy](#).

Required fields are indicated by an asterisk (\*)

It's highly unusual to give an industry group, or anyone who funds scientific work, a chance to influence the outcome of research, according to scientists.

"Certainly his ties to industry and comfort with allowing them to influence the science is concerning given he is heading a process where we know there will be heavy industry pressure to influence it," said Gretchen Goldman, research director for the Center for Science and Democracy at the Union of Concerned Scientists, which is headquartered in Cambridge, Massachusetts.

The arrangement is unusual in the scientific community because it stands to discredit a researcher's work, even if the group that provided funding makes innocuous changes, other researchers said. In this case, the access that Cox gave to API doesn't seem to have dramatically altered the conclusions of his study. Instead, a small change here and there could have made it a friendlier vehicle for the industry's message, Goldman said.

It "implies that the messaging matters," she said.

---

**“ Neither in effect nor in actual fact did they interfere with, shape, or direct my findings or the conduct of my research in any way. ”**

*Tony Cox, Clean Air Scientific Advisory Committee*

---

Cox, who was nominated for his position by the U.S. Chamber of Commerce, has been critical of EPA air pollution regulations and has said that research showing the connection between air pollution and serious human health consequences is overblown. He sent E&E News a study that happened to contain copy edits, which he said were made by reviewers. It's unclear which changes were made by API, and Cox denies that the fossil fuel lobbying group offered meaningful edits.

Cox is a statistician who is now tasked with overseeing the advisory committee's review of particulate matter pollution standards. It's supposed to make a key health determination that could affect millions of Americans: chiefly whether the level of air pollution they are breathing is hurting them.

The Clean Air Scientific Advisory Committee is meeting Wednesday and Thursday to review EPA's

science assessment for particulate matter. It's part of the legal requirement under the Clean Air Act that EPA review scientific information related to the national ambient air quality standards for six pollutants. They are: particulate matter, ground-level ozone, carbon monoxide, nitrogen dioxide, lead and sulfur dioxide.

Cox states in his study that API provided input before it was published last year.

"This paper benefited from close proof-reading and copy-editing suggestions from API, but these reviews and suggestions were provided for the author's consideration without constraints that any of them be incorporated," he wrote in the study, which was published in the journal *Critical Reviews in Toxicology*.

API, which lobbies the government on behalf of fossil fuel companies, has a history of fighting regulations on air pollution, sometimes by pointing to the scientific conclusions of studies that it funded.

Before Pruitt resigned amid a flurry of ethics investigations earlier this year, EPA replaced academic researchers on its science advisory boards with researchers supported by industry groups. Pruitt declared that scientists who received EPA grants had conflicts of interest, while those who are paid by polluting industries deserved a louder voice. That's when he named Cox to lead the Clean Air Scientific Advisory Committee.

Under acting Administrator Andrew Wheeler, EPA has gone even further to sideline scientists, particularly around air pollution. It recently disbanded a separate panel of scientists, who are supposed to review particulate matter pollution, and canceled plans for another panel that was to review ozone.

Meanwhile, the Trump administration has remade the panel led by Cox. It now includes an academic and several state regulators who have downplayed the effects of air pollution.

Cox's 2017 study, which examines the causal relationship between air pollution and human health, was published in *Critical Reviews in Toxicology*. The journal has a reputation for publishing industry-funded work that's sometimes used to argue against government regulations.

Cox's research questions previous studies that have connected serious human health problems to air pollution. It fits with the approach that Cox has taken when testifying to Congress: He emphasizes uncertainties, including in 2015, when he told lawmakers that health benefits of reducing ozone exposure were "unwarranted and exaggerated."

---

**It's a perfect storm. So many things have been changed all at once, and**

**“ every one of them weakens the process, and collectively it just creates a tremendously weak process that borders on being a total sham. ”**

*Chris Frey, North Carolina State University*

---

Cox denied that API influenced his work and said the organization did not suggest any substantive changes. The fossil fuel group offered "some minor copy editing suggestions on punctuation and my use of 'relation' vs. 'relationship,'" Cox said.

"Neither in effect nor in actual fact did they interfere with, shape, or direct my findings or the conduct of my research in any way," Cox said in an email to E&E News. "My research was complete before I drafted the paper, and nothing of substance changed thereafter except in response to journal reviewer comments and my own re-reading for clarity. My research is and always have been my own, and I do not accept outside interference."

Cox has a history of attacking established research on the health risks of air pollution, using his own statistical model to crunch data associated with particulate matter, or PM2.5.

In one study, he said there was "no evidence that reductions in PM2.5 concentrations cause reductions in mortality rates." In addition to API, he has received funding from the American Chemistry Council and Philip Morris International Inc., the tobacco company.

There's a large body of science that connects serious health ailments to air pollution. Ozone and fine particle air pollution are particularly dangerous to vulnerable groups of people, including children, the elderly, people with asthma and outdoor workers.

The World Health Organization published research earlier this year that found nine out of 10 people globally breathe polluted air and that air pollution kills 7 million people annually. It's one of the leading causes of death. Vehicle emissions are a leading cause of air pollution worldwide.

John Bachmann, EPA's director for science policy on air quality during President George W. Bush's administration, said it's "crazy" that EPA is barring researchers who received agency grants from sitting on advisory panels. They are often some of the best researchers, he said.

That change means the panel overseen by Cox is reviewing air pollution standards without the help of a single epidemiologist. Altogether, the altered panels once included at least seven epidemiologists; they're all gone, Bachmann said.

He added that current members of the Clean Air Scientific Advisory Committee are qualified, but their capabilities, expertise and perspectives are greatly limited compared with those who once served on a specialized panel to review particulate matter. Pruitt disbanded it.

"It's a huge loss to claim you can review a document that has hundreds and hundreds of pages on epidemiology by people who don't do it, don't do the research in it and the one guy who has done some of it has a point of view that is not mainstream," Bachmann said, referring to Cox.

Cox's 2017 study is a "review paper that focuses on epidemiological literature and application of epidemiological methods to case studies by someone who is not an epidemiologist," said Christopher Frey, a former chairman of the Clean Air Scientific Advisory Committee and a professor of environmental engineering at North Carolina State University in Raleigh.

In the past, it was rare to appoint a chair who had not previously served on the panel, Frey said. The Clean Air Act requires reviews by the advisory panel to be thorough and to rely on the latest science. He said industry researchers, going back to tobacco industry efforts to discredit the health effects of smoking, are largely focused on uncertainty rather than the risks. Frey said EPA, when it funded some of his research, did not seek to edit his work beforehand.

"In a regulatory purpose, you really want all the members of the committee to be perceived as impartial and free of conflict of interest, and I don't think as a group this committee earns that perception."

Frey, who served as chairman of the committee from 2012 to 2015 and was first appointed in 2008 under Bush, said the current board is derived of stakeholders with a vested interest.

The panel lost prominence in other ways too. In the past, there were dozens of people reviewing air pollution research for three years. Now, it's seven people doing the review in one year.

"It's a perfect storm," Frey said. "So many things have been changed all at once, and every one of them weakens the process, and collectively it just creates a tremendously weak process that borders on being a total sham."

*Reprinted from Climatewire with permission from E&E News. Copyright 2018. E&E provides essential news for energy and environment professionals at [www.eenews.net](http://www.eenews.net).*

[Read more...](#)

Posted in: [Science and Policy](#)

doi:10.1126/science.aaw3361



## Scott Waldman, E&E News

Before science reporter Scott Waldman joined *ClimateWire* in 2016, he covered state energy policy at *Politico New York* and has worked for the *Albany Times Union*, *Erie Times-News* and *The Baltimore Sun*. His work also has appeared in *Scientific American*.

 [Email Scott](#) |  [Twitter](#)

## More from News

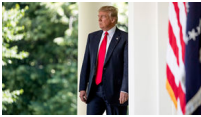
Key EPA science advisers call on agency to revive an expert soot panel it just killed



EPA claims ‘no data’ on impact of weakening water rule. But the numbers exist



Trump releases plan to reduce protections for wetlands



## Got a tip?

How to contact the news team

Advertisement

Advertisement

# Related Jobs

---

## Senior Director, Global Clinical Lead, Oncology

Moderna  
Massachusetts

---

## Director, EU Regulatory Strategy

Moderna  
Massachusetts

---

## Principal Scientist, Process Chemistry R&D

Moderna  
Massachusetts

**MORE JOBS ►**



# Related Jobs

---

## Director, Global Clinical Lead, Vaccines

Moderna  
Massachusetts

---

## Senior Manager/Associate Director, Regulatory Strategy, Infectious Disease

Moderna  
Massachusetts

---

## Senior Legislative & Federal Affairs Officer

American Psychological Association - HR  
Washington D.C.

[MORE JOBS ►](#)

## Latest News

## Trending

1. Why are these Costa Rican monkeys turning yellow?
2. These dolphins enjoy watching *SpongeBob SquarePants*—and it could be good for them
3. This famous tortoise lived for 100 years. His genome may reveal how he did it
4. CRISPR bombshell: Chinese researcher claims to have created gene-edited twins
5. Top stories: a shocking CRISPR claim, a Mars landing, and a geneticist’s take on gene-editing controversy

## Most Read

1. Mars mission got lucky: NASA lander touched down in a sand-filled crater, easing study of planet’s

2. ‘I feel an obligation to be balanced.’ Noted biologist comes to defense of gene editing babies

3. CRISPR bombshell: Chinese researcher claims to have created gene-edited twins

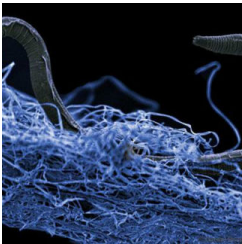
4. Your gut is directly connected to your brain, by a newly discovered neuron circuit

5. This special DNA isn’t just from moms anymore

Sifter

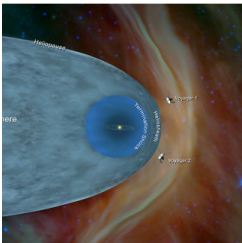
Scientists uncover massive, diverse ecosystem deep beneath Earth’s surface

Dec. 11, 2018



Voyager 2 reaches interstellar space

Dec. 10, 2018



First-ever baby born from a uterus transplanted after death

Dec. 6, 2018



These algae go ‘pop’ as they turn sunlight into energy

Nov. 29, 2018



Ten percent of NFL players could eventually develop serious brain disease

Nov. 29, 2018



More Sifter



# Science

7 December 2018

Vol 362, Issue 6419



## SCIENTIFIC COMMUNITY

At arm's length

## SCIENTIFIC COMMUNITY

Taking aim

## EUROPEAN NEWS

Demotion dismays researchers at storied Danish museum

## EPIDEMIOLOGY

Universal flu vaccine is ‘an alchemist's dream’

## EUROPEAN NEWS

Uncertainty boosts Brexit jitters for U.K. scientists

## ASIA/PACIFIC NEWS

For China, a CRISPR first goes too far

Table of Contents

## Subscribe Today

Receive a year subscription to *Science* plus access to exclusive AAAS member resources, opportunities, and benefits.

Subscribe Today

## Subscribe Today

Receive a year subscription to *Science* plus access to exclusive AAAS member resources, opportunities, and benefits.

First Name

Last Name

Email Address

Subscribe Today

## Get Our Newsletters

Receive emails from *Science*. [See full list](#)

- ☒ *Science* Table of Contents
- ☒ *Science* Daily News
- ☒ *Science* News This Week
- ☒ *Science* Editor's Choice
- ☒ First Release Notification
- ☒ *Science* Careers Job Seeker

Country \*

Email address \*

☐ I agree to receive emails from AAAS/*Science* and *Science* advertisers, including information on products, services, and special offers which may include but are not limited to news, career information, & upcoming events.

Click to view the [Privacy Policy](#).

Sign up today

Required fields are indicated by an asterisk (\*)

## Get Our Newsletters

Receive emails from *Science*. [See full list](#)

- ☒ *Science* Table of Contents
- ☒ *Science* Daily News
- ☒ *Science* News This Week
- ☒ *Science* Editor's Choice
- ☒ First Release Notification
- ☒ *Science* Careers Job Seeker

Country \*

Email address \*

☐ I agree to receive emails from AAAS/*Science* and *Science* advertisers, including information on products, services, and special offers which may include but are not limited to news, career information, & upcoming events.

Click to view the [Privacy Policy](#).

**Sign up today**

Required fields are indicated by an asterisk (\*)

## About us

[Journals](#)

[Leadership](#)

[Team members](#)

[Work at AAAS](#)

## Advertise

[Advertising kits](#)

[Awards and Prizes](#)

[Custom publishing](#)

[Webinars](#)

## For subscribers

[Site license info](#)

[For members](#)

## International

[Chinese](#)

[Japanese](#)

## Help

[Access & subscriptions](#)

[Reprints & permissions](#)

[Contact us](#)

[Accessibility](#)

## Stay Connected



© 2018 American Association for the Advancement of Science. All rights Reserved. AAAS is a partner of HINARI, AGORA, OARE, CHORUS, CLOCKSS, CrossRef and COUNTER.

[Terms of Service](#)

[Privacy Policy](#)

[Contact Us](#)