

STATEMENT OF
DR. ROGER PIELKE JR.
to the SELECT COMMITTEE ON the CORONAVIRUS PANDEMIC
of the UNITED STATES HOUSE OF REPRESENTATIVES

Hearing on
Academic Malpractice: Examining the Relationship Between Scientific Journals, the
Government, and Peer Review
2154 Rayburn House Office Building
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Note: This testimony was prepared but not given, due to what I've been told was a change in the hearing format. As I completed the testimony prior to the format change, I am sharing it with the Committee and publicly. Committee staff informs me that they will enter my statement into the Congressional Record, for which I am appreciative.

The so-called Proximal Origins¹ paper that dismissed the plausibility that COVID-19 may have resulted from a research-related incident sits among the most consequential failures of scientific integrity that I have seen in more than 30 years working on science and technology policy. My testimony documents these failures and argues that the production of Proximal Origins violated the Scientific Integrity policies of the Department of Health and Human Services and represented an improper mechanism of “shadow” science advice led by government officials that compromised possibilities for a formal and institutionally-appropriate investigation of COVID-19 origins.

Three Take-Home Points

1. The production, publication, and post-publication treatment of the so-called “Proximal Origins” paper represents a major failure of scientific integrity by its authors, its unacknowledged ghost contributors (including U.S. government officials), and the academic journal that published it.
2. In their roles contributing to the coordination of Proximal Origins, U.S. government officials, specifically Dr. Anthony Fauci and Dr. Francis Collins,² likely violated the Scientific Integrity Policies of the Department of Health and Human Services.³
3. Proximal Origins was a form of “shadow science advice” and, at least in the United States, effectively served as an alternative to the empaneling of a formal expert committee to investigate COVID-19 origins.

The remainder of my written testimony elaborates on these take-home points.

¹ Andersen, K. G., Rambaut, A., Lipkin, W. I., Holmes, E. C., & Garry, R. F. (2020). The proximal origin of SARS-CoV-2. *Nature medicine*, 26(4), 450-452.

² Hereafter, I refer to individuals by their last names, dropping titles. This is for ease of reading and no disrespect is intended.

³ Also contributing to Proximal Origins and helping to oversee its drafting was Dr. Jeremy Farrar, then head of the Wellcome Trust, who was not a U.S. government official.

Elaboration of the Three Take-Home Points

1. *The production, publication, and post-publication treatment of the so-called “Proximal Origins” paper represents a major failure of scientific integrity by its authors, its unacknowledged ghost contributors (including U.S. government officials), and the academic journal that published it.*

The events and timeline surrounding the publication of Proximal Origins are well established, thanks to the work of this committee, investigative journalists, and others, including members of the so-called DRASTIC community.⁴ Throughout this statement I highlight selected parts of the timeline relevant to my testimony.

Retraction is an important function served by academic journals. The Committee on Publication Ethics (COPE) explains the purpose of retracting an academic paper:

“Retraction is a mechanism for correcting the literature and alerting readers to articles that contain such seriously flawed or erroneous content or data that their findings and conclusions cannot be relied upon.”⁵

Retraction is not about sanctioning authors or necessarily making any judgment of research misconduct, but simply correcting the published record, as COPE explains:

“Unreliable content or data may result from honest error, naïve mistakes, or research misconduct. The main purpose of retraction is to correct the literature and ensure its integrity rather than to punish the authors.”

Proximal Origins meets the criteria for retraction because – as has been well documented – its authors did not believe the arguments that they were making in the paper, and thus Proximal Origins was not an accurate representation of their scientific understandings.⁶ Proximal Origins thus contains “unreliable content.”

Proximal Origins authors wrote in the paper:

“Our analyses clearly show that SARS-CoV-2 is not a laboratory construct or a purposefully manipulated virus. . . we do not believe that any type of laboratory-based scenario is plausible.”

The authors did not in fact believe these statements to be true at the time that they wrote them and upon publication of the paper. This divergence of views – between those expressed in the paper

⁴ See, e.g., the excellent work of Emily Kopp, of U.S. Right to Know: <https://usrtk.org/covid-19-origins/timeline-the-proximal-origin-of-sars-cov-2/>

⁵ <https://publicationethics.org/sites/default/files/retraction-guidelines-cope.pdf>

⁶ The divergence of private and publicly-stated views among the authors of Proximal Origins has been extensively documented, see, e.g., <https://oversight.house.gov/wp-content/uploads/2023/07/Final-Report-6.pdf> Andersen, just last week, provides a lengthy defense of why he and his co-authors expressed different views in private versus in public at this lengthy Medium post: https://medium.com/@K_G_Andersen/its-not-about-getting-the-scoop-it-s-about-getting-it-right-origin-of-covid-19-my-emails-7447e59d79e3

and those statements made in private among the authors – is well documented and will not be reviewed here.⁷

“Ghost authorship” of Proximal Origins provides another basis for retraction. One of the co-authors of Proximal Origins, Robert Garry, believed that Farrar should be a co-author due to his leading role in preparing the paper, including making at least one significant edit – changing the description of the possibility of laboratory manipulation of COVID-19 from “unlikely” to “improbable.”⁸ Such “ghost authorship” is a justifiable basis for a paper’s retraction.⁹

Farrar explained to the Proximal Origins authors that he would contact the editor of *Nature*, Magdalena Skipper, to encourage her to publish the paper. While such appeals from individuals in authoritative institutional positions are undoubtedly common in the high-profile world of prestige academic publishing, they are improper as they represent interference in the peer-review process.

In addition, the editor of *Nature Medicine*, which published Proximal Origins, used the paper to publicly advocate his preferred stance on the origins of COVID-19 – Specifically that discussions of a laboratory or manipulated origin amounted to “misinformation,” as seen in his Tweet below, which he posted on the day that Proximal Origins was published.



Journals and their editors are not arbiters of truth – they provide important and necessary forums where scientific claims are made, defended, and debated via peer-review, which is typically a low bar of quality control. A journal’s editors play a role much like a referee in a basketball game – Referees need to know a lot about the sport and its rules, but they themselves are not partisans in the competition.

⁷ For details and original sources, see, <https://oversight.house.gov/wp-content/uploads/2023/07/Final-Report-6.pdf>

⁸ Documentation: <https://oversight.house.gov/wp-content/uploads/2023/03/2023.03.05-SSCP-Memo-Re.-New-Evidence.Proximal-Origin.pdf>

⁹ See Banerjee, T., Partin, K., & Resnik, D. B. (2022). Authorship issues when articles are retracted due to research misconduct and then resubmitted. *Science and engineering ethics*, 28(4), 31. <https://link.springer.com/article/10.1007/s11948-022-00386-1>

Leading scientific journals have become increasingly political and partisan in recent years, for instance, *Nature* endorsed Joe Biden in the 2020 U.S. presidential campaign¹⁰ and the current editor of *Science* has opined on the presidential candidacy of Robert F. Kennedy Jr. (a “charlatan and spoiler”).¹¹

The editor of *Science* has also explained that *Science* takes editorial positions on behalf of the community aligned with “consensus”:

“In general, *Science*’s role is to provide a forum for these issues to be hashed out by others and for the editors to remain as neutral as possible while qualified experts generate consensus. Eventually, consensus emerges and *Science* takes a position on behalf of the community . . .”¹²

No long after, the editor of *Science* expressed his view that a consensus existed in the scientific community that a “lab leak was very, very, very unlikely” and recommended that it no longer be discussed:

“I would say now, we're almost to the point where clinging to the lab leak idea is close to being a fringe idea that almost doesn't need to be included in [news] stories.”¹³

Editors and reporters at high profile journals frequently characterized views on COVID-19 origins as having a consensus on natural origins, which then made unnecessary further investigation (or even discussion). Proximal origins was a key element of the supposed consensus.

While Farrar was overseeing the production of Proximal Origins, he co-authored a letter to *The Lancet* with 26 other researchers that stated:

“We stand together to strongly condemn conspiracy theories suggesting that COVID-19 does not have a natural origin. . . Conspiracy theories do nothing but create fear, rumours, and prejudice that jeopardise our global collaboration in the fight against this virus.”¹⁴

More than a year later that letter was the subject of a lengthy addendum disclosing previously unreported conflicts of interest among its authors.¹⁵

More generally, it is remarkable that no high-profile journal has created a special issue on COVID-19 origins and invited the world’s experts with a range of views to contribute to a discussion and debate in the peer-reviewed literature, taking what is at times a juvenile and vitriolic debate off social media and into the scientific community. This inaction and incuriousness itself represents a major failure of scientific integrity, which could still be rectified.

¹⁰ See, Political endorsements can affect scientific credibility, <https://www.nature.com/articles/d41586-023-00799-3>

¹¹ <https://www.science.org/content/blog-post/scientists-shouldn-t-debate-gaslighters>

¹² <https://www.science.org/content/blog-post/continued-discussion-origin-covid-19>

¹³ <https://upworthyscience.com/science-news/particle-5> -- In that same interview, the editor of *Science* dismissed a letter that the journal published in 2021 with a range of experts calling for an investigation into origins, suggesting that they had changed their minds. Original letter: <https://www.science.org/doi/10.1126/science.abj0016>

¹⁴ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30418-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30418-9/fulltext)

¹⁵ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01377-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01377-5/fulltext)

The case for the retraction of Proximal Origins has multiple bases, including a divergence between its authors' scientific understandings and those expressed in the paper and the presence of at least one "ghost author."

I have previously made the case for the retraction of Proximal Origins, and there I concluded with the following:

"Without a doubt, the editor of the journal that published Proximal Origins and its primary "ghost author" had interests in characterizing a research-related origin as a "conspiracy theory." The authors of the paper were happy to oblige. All of this is highly irregular and not only warrants retraction, but *Nature* and *Nature Medicine* should investigate and fix their compromised publication processes. . .

There is a much larger issue here . . . The retraction of Proximal Origins is not just the right thing to do as a matter of established scientific practices. It is also an important test of trust.

Can the public and those who represent them trust the scientific community to conduct their work with integrity?

. . . I have studied science in policy and politics for more than three decades — and based on my knowledge and experience, I believe Proximal Origins to be the most significant corruption of scientific integrity this century, and probably much longer. The only comparable corruption was the "weapons of mass destruction" fiasco that was used to justify the war in Iraq.

Proximal Origins must be retracted to demonstrate to the world that we in the expert community can be trusted to correct course when we get off track. If we can't correct course, then we will deserve the resulting loss of authority and legitimacy, to the detriment of science and society."¹⁶

¹⁶ <https://rogerpielkejr.substack.com/p/why-proximal-origins-must-be-retracted>

2. *In their roles contributing to the coordination of Proximal Origins, U.S. government officials, specifically Dr. Anthony Fauci and Dr. Francis Collins, likely violated the Scientific Integrity Policies of the Department of Health and Human Services.*

Under the Obama Administration, the Office of Science and Technology Policy (OSTP) requested that each federal agency develop scientific integrity policies.¹⁷ The Department of Health and Human Services (HHS) was among them, and developed a policy that was in effect from 2012 to present.¹⁸

The 2012 policy outlined a set of principles and values that HHS officials should follow when dealing with scientific information. The HHS Scientific Integrity Policy in effect in early 2020 stated:¹⁹

“The development of authoritative scientific information is a primary focus of the missions of several HHS agencies, and HHS uses scientific information to support and inform policy and program decision making. Accordingly, scientific and scholarly information developed by the Department or considered in Departmental decision making must be of the highest quality and the result of rigorous scientific and scholarly processes. Most importantly, it must be trustworthy. Accordingly, maintaining the integrity of our scientific and technical activities is essential.”

The actions of Fauci and Collins fell short of these expectations in at least three ways:

- They circumvented formal mechanisms for securing scientific advice relevant to the mission of HHS by motivating the empanelment of an expert group to render a selective interpretation of the science of COVID-19 origins that would be published as Proximal Origins;
- After helping to bring Proximal Origins into existence, both Fauci and Collins cited the paper in public discussions in support of their official views, without disclosing that they had assisted in shaping the paper around those same views;
- Upon release of the backstage discussions among Proximal Origins authors and HHS officials, the existence of divergence in scientific understandings shared in private versus those expressed in public has become widely known, arguably contributing to a loss of trust in HHS and its officials.

The 2012 HHS Scientific Integrity Policy further states that;

“HHS shall sustain a culture of scientific integrity. Scientific progress depends upon honest investigation, open discussion reflecting a balance of diverse scientific views, refined understanding, and a firm commitment to evidence. Science, and public trust in science,

¹⁷ <https://obamawhitehouse.archives.gov/administration/eop/ostp/library/scientificintegrity>

¹⁸ The new HHS Scientific Integrity Policy has not yet come into effect:
<https://www.hhs.gov/sites/default/files/draft-hhs-scientific-integrity-policy.pdf>

¹⁹ That policy dates to 2012, and was updated in 2023, but remains in draft form. The 2012 policy can be found here:
<https://aspe.hhs.gov/reports/policies-principles-assuring-scientific-integrity>

thrives in an environment that shields scientific data and analyses from inappropriate political influence.”

The process that led to the production of Proximal Origins did not reflect the HHS commitment to “open discussion reflecting a balance of diverse scientific views, refined understanding, and a firm commitment to evidence.”

Had the authors of Proximal Origins self-organized, without the shepherding role of HHS officials, they would have been simply one set of partisans in the scientific discussion of COVID-19 origins. The leadership roles of Fauci and Collins in shepherding the paper, and Fauci’s request to Farrar to shepherd it as well, meant that the process leading to Proximal Origins was necessarily under the umbrella of HHS Scientific Integrity policies.

Upon learning that WHO was not going to act on the time scale that Fauci and Farrar wished for an authoritative investigation of COVID-19, under the HHS Scientific Integrity guidelines it would have then been appropriate for Fauci and Collins to seek another institutional home for a formal investigation of origins. This could have been under the auspices of a new or standing HHS FACA (Federal Advisory Committee Act) committee or in partnership with OSTP, NASEM, or via a request to Congress or the White House to establish a new body, drawing on precedents such as the 9/11 Commission.

By participating in the entire process of the production of Proximal Origins – from first discussions to publication and post-publication promotion – Fauci and Collins clearly violated the guidelines of the 2012 HHS Scientific Integrity Policy.

3. *Proximal Origins was a form of “shadow” science advice and, at least in the United States, effectively served as an alternative to the empaneling of a formal expert committee to investigate COVID-19 origins.*

One outcome of our NSF-funded EScAPE (Evaluation of Science Advice in a Pandemic Emergency)²⁰ project was elaboration of the concept of “shadow” science advice,²¹ which is defined as:

“Formal or informal mechanisms of advice established outside of governmental science advisory processes to provide a counter or opposition body of legitimate, authoritative and credible guidance to policy makers.”²²

The orchestration of Proximal Origins was a form of “shadow” science advice developed to counter assessments that COVID-19 could plausibly have originated in a research-related incident.

Instead, any such effort instigated by agency officials should have conformed with either the Federal Advisory Committee Act²³ or alternatively, conducted under the auspices of an existing HHS FACA committees, such as the National Biodefense Science Board.²⁴ Under such a formal mechanism, there would have been a requirement for an “open discussion reflecting a balance of diverse scientific views.”

The public record of their discussions shows that Fauci, Collins, and Farrar originally did want a formal investigation of COVID-19 origins to be conducted by an authoritative organization. Following the 1 February 2020 conference call organized by Farrar, he followed up with an email emphasizing the need for a formal investigation of COVID-19 origins, writing in part:

“We on this call are not the only ones with scientific expertise in this area and this was an ad hoc group that came together to air some thoughts. It is clearly not the sole group to take this forward, that will need a broader range of input and a respected international body to ask an expert group to explore this, with a completely open mind.”²⁵

The next day, 2 February 2020, in a subsequent email Farrar identified WHO as the most likely body to organize such an investigation:

“I believe the best way forward is for a body like the WHO has to ask or commission a group of scientists from around the world to ask the neutral questions: “To understand the

²⁰ Peer reviewed studies from the project can be found in this special collection:

<https://www.nature.com/collections/bbcghjedca>

²¹ Pielke Jr, R. (2023). Improve how science advice is provided to governments by learning from “experts in expert advice”. *Plos Biology*, 21(2), e3002004.

<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3002004>

²² <https://rogerpielkejr.substack.com/p/shadow-science-advice>

²³ <https://www.gsa.gov/policy-regulations/policy/federal-advisory-committee-management/legislation-and-regulations/federal-advisory-committee-act>

²⁴ <https://aspr.hhs.gov/AboutASPR/WorkingwithASPR/BoardsandCommittees/Pages/NBSB/NBSB.aspx>

²⁵ Farrar email 21:59, 1 Feb 2020.

evolutionary origins of 2019-nCoV, important for this epidemic and for future risk assessment and understanding of animal/human coronaviruses.”²⁶

A few hours later, Farrar emails Collins, Fauci, and Tabak (all of HHS) and asks:

“A question for you – if WHO say, well maybe, let us think, we might do it in a month. What would be our next step?”

Collins responded, reinforcing the notion that WHO should take the lead in assessing COVID-19 origins:

“I share your view that a swift convening of experts in a confidence inspiring framework (WHO seems really the only option) is needed, or the voices of conspiracy will quickly dominate, doing great potential harm to science and international harmony.”²⁷

Fauci responds later that day, writing:

“Like all of us, I do not know how this evolved, but given the concerns of so many people and the threat of further distortions on social media, it is essential that we move quickly. Hopefully, we can get WHO to convene.”²⁸

The next day, 3 February 2020, OSTP Director Kelvin Droegemeier wrote a letter to Marcia McNutt, president of the National Academy of Sciences, requesting that the NAS “rapidly examine information and identify data requirements that would help determine the origins of 2019-nCoV.”²⁹

The NASEM consulted 8 experts, including Andersen (co-author of Proximal Origins and who had by that time been in discussions with Fauci, Collins, and Farrar), and replied on 6 February, and said they were prepared to empanel an expert committee to assess origins:

“The National Academies stand ready to assemble a committee of experts to examine these issues in more detail and provide evidence-based advice to you in an expedited manner if requested.”³⁰

²⁶ Farrar email of 4:48, 2 Feb 2020.

²⁷ Collins email, 10:27, 2 Feb 2020

²⁸ Fauci email, 15:30, 2 Feb 2020

²⁹

<https://www.nationalacademies.org/documents/link/LD006CF17B5004C7B41F63CD7E0A0F4EDF738C451F32/file/D20D1390AB906330493E8A40B27E965A6761F4117EA2?dRevLabel=1&allowInterrupt=1>

³⁰

https://www.nationalacademies.org/documents/link/LDA8FF8BAB7F1D4A98AC250C7916649E610A15AD51C6/fileview/DA215521A660F40FD8D752FFB82A8E21FA8D3C29976D/NASEM%20Response%20to%20OSTP%20re%20Coronavirus_February%206%2C%202020.pdf?hide=thumbs+breadcrumbs+fav+props+nextprev+sidebar+pin+actions&scheme=light&fitwidth

A first draft of the NASEM letter alluded to whether COVID-19 evolution was “consistent with natural evolution” and Andersen request that phrase be removed, which it was in the final text.^{31,32}

WHO did eventually organize a committee to look into COVID-19 origins. That much-criticized committee issued a report in April 2021, taking much longer than desired by Farrar and Fauci.³³

On 7 February 2020, Farrar emailed the head of the National Academy of Medicine and represented the group drafting the Proximal Origins paper as a group that he, Fauci, and Collins had “set up.”

“Eddie Holmes and a small group have been looking extensively at the origins and evolution of n-CoV including all theories. This is the latest summary, written as part of a series of [teleconference] discussions we set up and included [National Institute of Allergy and Infectious Diseases Director Anthony Fauci] and [National Institutes of Health Director Francis Collins] as well as a small group from USA, UK, Europe and Australia.”³⁴

On 8 February 2020, Farrar characterized the work of the Proximal Origins collaborators in similar terms to how he had previously characterized the assessment that he had requested WHO to take on:

“The aim of this was to bring a neutral, respected, scientific group together to look at the data and in a neutral, considered way provide an opinion and we hoped to focus the discussion on the science, not on any conspiracy or other theory and to lay down a respected statement to frame whatever debate goes on – before that debate gets out of hand with potentially hugely damaging ramifications.”³⁵

Following publication of Proximal Origins, both Fauci³⁶ and Collins³⁷ referred to it as an authoritative investigation of origins. Neither mentioned their roles in helping bring it into existence.

At some point, for Fauci, Collins, and Farrar, Proximal Origins took the place of a formal investigation into COVID-19 origins and rather than seek to provide a balanced perspective on possibilities, the assessment was written instead to advocate against the plausibility of any research-related incident.

³¹ Andersen email, 12:05, 4 Feb 2020

³² In March, NASEM empaneled a committee -- Standing Committee on Emerging Infectious Diseases and 21st Century Health Threats – which has never engaged the issue of COVID-19 origins.

<https://www.nationalacademies.org/our-work/standing-committee-on-emerging-infectious-diseases-and-21st-century-health-threats>

³³ https://www.who.int/docs/default-source/coronaviruse/final-joint-report_origins-studies-6-april-201.pdf

³⁴ <https://usrtk.org/covid-19-origins/foia-reveals-another-secret-call-on-covids-origin/>

³⁵ Farrar email, 21:21, 8 Feb 2020

³⁶ <https://trumpwhitehouse.archives.gov/briefings-statements/remarks-president-trump-vice-president-pence-members-coronavirus-task-force-press-briefing-april-17-2020/>

³⁷ <https://directorsblog.nih.gov/2020/03/26/genomic-research-points-to-natural-origin-of-covid-19/>

Biography of Roger Pielke Jr.

Roger Pielke, Jr. is concurrently a Nonresident Senior Fellow at the American Enterprise Institute and a professor at the University of Colorado Boulder. Roger has been on the faculty of the University of Colorado Boulder since 2001, where he is currently a professor in the College of Arts and Sciences. Roger teaches and writes on a diverse range of policy and governance issues related to science, technology, environment, energy, climate, innovation and sports.

In 2024, Roger was elected to membership in the Norwegian Academy of Sciences and Letters. In 2022, Roger was on sabbatical at the University of Oslo where he helped the university develop a pandemic research center. Roger is also an Honorary Professor at University College London, awarded in 2022.

Roger also oversees a popular Substack —The Honest Broker — where he is experimenting with a new approach to research, writing and public engagement. The Honest Broker has more than 22,000 subscribers in all 50 states and in 150 countries. Roger is frequently called upon by governments businesses, universities, sport governance organizations and others around the world as a speaker and policy advisor. His research at the intersection of science, policy, and politics is widely cited in multiple fields. Roger's most recent NSF grant focused on science advice in the pandemic across the world.

Roger holds degrees in mathematics, public policy and political science, all from the University of Colorado Boulder. In 2012 Roger was awarded an honorary doctorate from Linköping University in Sweden and was also awarded the Public Service Award of the Geological Society of America. In 2006, Roger received the Eduard Brückner Prize in Munich, Germany in 2006 for outstanding achievement in interdisciplinary climate research.

Roger has been a Distinguished Fellow of the Institute of Energy Economics, Japan since 2016 and a Research Associate of Risk Frontiers, in Sydney, Australia, since 2017. Roger was a Fellow of the NOAA/CU Cooperative Institute for Research in Environmental Sciences from 2001 to 2016. He served as a Senior Fellow of The Breakthrough Institute from 2008 to 2018. In 2007, Roger served as a James Martin Fellow at Oxford University's Said Business School. Before joining the faculty of the University of Colorado, from 1993 to 2001 Roger was a Scientist at the National Center for Atmospheric Research.

At the University of Colorado Boulder, Roger founded and directed the Center for Science and Technology Policy Research (2002-2020) and the Sports Governance Center (2016-2019). He also created and led the university's Graduate Certificate Program in Science and Technology Policy (2003-2020), which has seen its graduates move on to faculty positions, Congressional staff, the White House, presidential political appointees and in positions in business and civil society. Roger also led the development of the University of Colorado Boulder's graduate program in Environmental Studies that was focused on environmental policy (2002 to 2015).

His books include **Hurricanes: Their Nature and Impacts on Society** (with R. Pielke Sr., 1997, John Wiley, full text free as PDF), **Prediction: Science, Decision Making and the Future of Nature** (with D. Sarewitz and R. Byerly, 2001, Island Press), **The Honest Broker: Making Sense of Science in Policy and Politics** published by Cambridge University Press (2007), **The Climate Fix: What Scientists and Politicians Won't Tell you About Global Warming** (2010, Basic Books). **Presidential Science Advisors: Reflections on Science, Policy and Politics** (with R. Klein, 2011, Springer), and **The Edge: The War Against Cheating and Corruption in the Cutthroat World of Elite Sports** (Roaring Forties Press, 2016). His most recent book is **The Rightful Place of Science: Disasters and Climate Change** (2nd edition, 2018, Consortium for Science, Policy & Outcomes).