January 22, 2016

You signed the May 7, 2010 Science letter by Peter Gleick
Since May 2, 2012 Gleick
https://www.heartland.org/sites/default/files/criminal_referral_of_peter_gleick.pdf
Lindzen article on NAS

UC Mission statement: The University of California System

The ten campuses of the University of California system are dedicated to the fundamental missions of teaching, research and public service.

Lysenko

Interrelationship between Science, AAAS, and NAS

Make case that secret committee nominated a self-described activist McNutt to continue recent tradition of activist Cicerone. Reveal demographics of election results, number of votes per sstate who voted to confirm McNutt. If nothing is presented at AAAS meeting ther will be effort to raise serious doubts about objectivity of McNutt,Science, AAAS, and NAS before McNutt becomes NAS Pres on July 1 and before new Science editor is appointed.

December 22, 2015

Susan R. Wessler, Ph.D.
Home Secretary
National Academy of Sciences
Distinguished Professor of Genetics
Department of Botany and Plant Sciences
University of California, Riverside
susan.wessler@ucr.edu

Dear Professor Wessler,

I helped Dr. Peter Wood prepare his December 9, 2015 National Association of Scholars email letter to California members of the National Academy of Sciences (NAS) "Concerns about the National Academy of Sciences and Scientific Dissent" (https://www.nas.org/articles/nas_letter), which you have received. I am writing to you about this email letter as both the Home Secretary of the National Academy of Sciences and a UC Riverside Distinguished Professor (http://newsroom.ucr.edu/2547).

First, in your role as NAS Home Secretary, I request that you send the email letter to all NAS members, since it deals with serious concerns about suppression of scientific dissent and Dr. Marcia K. McNutt as the next NAS President. Please let me know if you cannot send this email letter to NAS members.

Second, in your role as UC Riverside Distinguished Professor, I request that you become at least somewhat familiar with the three scientific controversies described in the email letter because all three have direct relevance to current environmental regulations in California. These regulations originate from the U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), and South Coast Air Quality Management District (SCAQMD). Based on the detailed evidence described in the email letter, I can make a strong case that these regulations are scientifically unjustified and are hurting California businesses and the California economy.

Additional evidence against these regulations is contained in my July 13, 2015 letter to the Moreno Valley City Council about the World Logistics Center (WLC) Final Environmental Impact Report (http://www.scientificintegrityinstitute.org/WLCFEIR071315.pdf). The WLC is located about ten miles from UC Riverside and could create new 20,000 blue collar jobs in the greater Riverside area. However, the WLC is being opposed by CARB and SCAQMD for scientifically unjustified reasons.

Finally, please read my unanswered August 31, 2015 letter to UC Riverside Professor and UC Academic Senate Chair J. Daniel Hare regarding the illegal appointments of several UC Professors on the Scientific Review Panel on Toxic Air Contaminants (SRP) (http://www.scientificintegrityinstitute.org/UCASSRP083115.pdf). The SRP has played an important role in scientifically unjustified regulations by CARB and SCAQMD.

Thank you very much for your consideration regarding this important request.

Sincerely yours,

James E. Enstrom, Ph.D., M.P.H.
UCLA and Scientific Integrity Institute
jenstrom@ucla.edu
(310) 472-4274

bcc: Matt Malkan, CAS President matt.malkan@gmail.com

most of these and the three weblinks, the related directly to send the Please let me know if this is not possible

I understand that you have already received this email letter three times and have not yet responded. It is tremendous

Home Secretary
Susan Wessler
Distinguished Professor of Genetics
Department of Botany and Plant Sciences
University of California, Riverside
Term expires: June 30, 2018

http://www.nasonline.org/about-nas/leadership/nas-council.html

http://newsroom.ucr.edu/news_item.html?action=page&id=2547 NAS Home Secretary UCR since August 2010

UC Riverside Professor and UC Academic Senate Chair J. Daniel Hare (http://faculty.ucr.edu/~harejd/)

https://en.wikipedia.org/wiki/Susan_R._Wessler

Susan R. Wessler

From Wikipedia, the free encyclopedia

Susan R. Wessler, Ph.D. (b. 1953, New York City) is an American plant molecular biologist and geneticist. She is Distinguished Professor of Genetics at the University of California, Riverside (UCR).

Wessler graduated from the Bronx High School of Science in 1970.[1] She received her bachelor's degree in 1974 in Biology from the State University of New York at Stony Brook and her Ph.D. in Biochemistry from Cornell University in 1980.[1] She was a postdoctoral fellow at the Carnegie Institution of Washington in the Department of Embryology from 1980-1982.[1] She joined the faculty at UGA in 1983 as an assistant professor of botany becoming a full professor in 1992.[1] She was named Distinguished Research Professor in 1994 and Regents Professor in 2005.[1]

In 2006, Professor Wessler was named a Howard Hughes Medical Institute (HHMI) Professor.[1] She is also a "professor at large" at the Keck Graduate Institute at the Claremont Colleges in Claremont, California.[2]

Her research focuses on identifying plant transposable elements and determining how

they contribute to gene and genome evolution.[1]

Education and honors

- Diploma, 1970, The Bronx High School of Science
- Bachelor of Science, Biology, 1974, State University of New York at Stony Brook
- Ph.D., Biochemistry, 1980, Cornell University
- Member, National Academy of Sciences
- Councilor, National Academy of Sciences (2004) and Home Secretary (2011)[1]
- Fellow, American Association for the Advancement of Science
- Fellow, American Academy of Arts and Sciences
- American Society of Plant Biologists' Stephen Hales prize (2011)[3]

References

-

 "Susan R. Wessler '70 Elected Home Secretary of Prestiguous national Academy of Science," *The Bronx High School of Science Alumni News*, Summer 2011, pp. 1, 5.
  http://www.kgi.edu/faculty-and-research/adjunct-and-visiting-faculty.html Keck Graduate Institute website Adjunct Faculty page]. Accessed June 22, 2011.

- *"ASPB names 2011 award recipients" (PDF). Retrieved July 20, 2012.*

External links

- UGA Plant Biology Department Biography
- UGA Genetics Adjunct Faculty biography
- National Academy of Sciences interview
- Howard Hughes Medical Institute
- Susan Wessler's seminar: "The Dynamic Genome"
- Keck Graduate Institute

Nobel Prize winners

The Bronx High School of Science counts eight Nobel Prize winners among its graduates, seven in physics and one in chemistry:[23]

- Leon N. Cooper '47, Brown University awarded the 1972 Nobel Prize in Physics
- Sheldon L. Glashow '50, Boston University, awarded the 1979 Nobel Prize in Physics[72]
- Steven Weinberg '50, University of Texas at Austin, awarded the 1979 Nobel Prize in Physics
- Melvin Schwartz '49, Columbia University, awarded the 1988 Nobel Prize in Physics[73]
- Russell A. Hulse '66, Princeton University, awarded the 1993 Nobel Prize in Physics[74]
- H. David Politzer '66, California Institute of Technology, awarded the 2004 Nobel Prize in Physics
- Roy J. Glauber '41, Harvard University, awarded the 2005 Nobel Prize in Physics[75]
- Robert J. Lefkowitz '59, Duke University, awarded the 2012 Nobel Prize in Chemistry[23][76]

No other secondary school in the United States has as many alumni who have won Nobel Prizes.[23][26] If Bronx Science were a country, it would be tied at 14th with Norway for number of Nobel laureates (as of July 2013).[23][77] Were Bronx Science a university, it would be tied for 58th place for number of Nobel laureates, matching University of North Carolina at Chapel Hill and University of Maryland.

http://www.kgi.edu/faculty-and-research/susan-wessler

Susan Wessler, PhD

Distinguished Professor of Genetics, University of Riverside

About

Susan Wessler is the University of California President's Chair and Distinguished Professor of Genetics at the University of California Riverside. In 2011 she was elected Home Secretary of the National Academy of Sciences, the first women to hold this position in the 150 year history of the National Academy. She is a molecular geneticist known for her contributions to the field of transposon biology, specifically on the roles of plant transposable elements in gene and genome evolution. A native of New York City, she received a bachelor's degree in biology from SUNY Stony Brook (1974), a Ph.D. in biochemistry from Cornell University (1980) and was a postdoctoral fellow at the Carnegie Institution of Washington (1980-1982). She began her career at the University

of Georgia in 1983 where she remained until moving to UC Riverside in 2010.

Wessler is co-author of over 120 research articles. She is an Associate Editor of the *Proceedings of the National Academy of Sciences* and is on the Editorial Board of *Current Opinions in Plant Biology* and on the Board of Reviewing Editors of the journal *Science*.

Wessler has contributed extensively to educational initiatives, including co-authorship of the widely used genetics textbook, *Introduction to Genetic Analysis.* As a Howard Hughes Medical Institute Professor (2006), she adapted her research program for the classroom by developing the Dynamic Genome Courses where incoming freshman can experience the excitement of scientific discovery.

She is the recipient of several awards including the inaugural Distinguished Scientist Award (2007) from the Southeastern Universities Research Association (SURA), the Stephen Hales Prize (2011) from the American Society of Plant Biologists, and the Excellence in Science Award from FASEB (2012). She is a member of the National Academy of Sciences (1998), the American Academy of Arts and Sciences (2007), and the American Philosophical Society (2013).

http://www.kgi.edu/faculty-and-research/james-d-sterling

James D. Sterling, PhD

Professor, KGI; Director of Postdoctoral Professional Master's Program, Faculty Director of the PSM National Office

Areas of Expertise
Bioengineering, Biosensors, Diagnostic Applications, Electrowetting, Laboratory Automation, Microfluidics

About

Courses

Selected Publications

Research

Patents

Dr. Sterling received his bachelor's degree in mechanical engineering from Texas A&M University and MS and PhD degrees in mechanical engineering from the California Institute of Technology. His scientific interests have focused on fluid mechanics, chemically-reacting fluid flows, heat transfer, dynamical systems and Lattice Boltzmann numerical methods. He worked at Los Alamos National Laboratory, TRW and Advanced Projects Research, Inc. as a systems engineer and project manager, developing a keen

interest in new product development and entrepreneurship. As a founding faculty member at KGI since 2000, Dr. Sterling helped develop curriculum that prepares students of the applied life sciences to work in the development of laboratory research tools, laboratory automation, and micro-bioanalytical methods. Dr. Sterling led the development of the Marsh A. Cooper Bioengineering Laboratory at KGI and directed the Team Master's Projects (TMP) program, KGI's industry-sponsored capstone project program for professional masters degree students, from 2004-2010. Dr. Sterling served as Vice President for Academic Affairs and Dean of Faculty at KGI from 2009-2014 and has led the establishment of the Professional Science Master's (PSM) National Office at KGI. From 2013-2015, Dr. Sterling joined the Minerva Schools at KGI and served as the founding Interim Dean of the College of Natural Sciences and the Director of Minerva Labs.

James D. Sterling, PhD

Location: Building 517, Room 105

Phone: (909) 607-9253

jim_sterling@kgi.edu

https://www.nas.org/articles/nas_letter

Concerns about National Academy of Sciences and Scientific Dissent

Dec 15, 2015 | Peter Wood

Introductory note: NAS president Peter Wood sent the following letter by email on December 9, 2015 to California members of the National Academy of Sciences.

July 13, 2015 Enstrom Letter to Moreno Valley Regarding World Logistics Center Final Environmental Impact Report
(http://www.scientificintegrityinstitute.org/WLCFEIR071315.pdf)

August 31, 2015 Enstrom Letter to UC Academic Senate Chairs re Illegal Scientific Review Panel Appointments
(http://www.scientificintegrityinstitute.org/UCASSRP083115.pdf)

Revised Enstrom Email Response to Alberts re NAS to NAS letter

December 18, 2015

Dear Professor Alberts,

I helped Peter Wood prepare his December 9 email letter "Concerns about the National Academy of Sciences and Scientific Dissent" (https://www.nas.org/articles/nas_letter). It is tremendous that you responded to Peter because you were Editor-in-Chief of *Science* during 2008-2013 and President of NAS during 1993-2005. To further illustrate the dissent problem, I want to bring to your attention one example of the scientific bias in *Science* that occurred during your editorial tenure: "The Climate Change Debates" by Philip Kitcher in *Science* 2010; 328: 1230-1234 (http://www.sciencemag.org/content/328/5983/1230.1.full). This five-page Essay Review includes these sentences "In their fascinating and important study, **Merchants of Doubt**, Naomi Oreskes and Erik M. Conway offer convincing evidence for a surprising and disturbing thesis. . . . The extraordinary story of deliberate obfuscation that Oreskes and Conway document begins with the delight of the tobacco companies in recruiting Fred Seitz and with Seitz's own connections to 'scientists in their twilight years who had turned to fields in which they had no training or experience.'" This book review and **Merchants of Doubt** are defamatory attacks on Frederick Seitz, a renowned solid-state physicist who was President of NAS during 1962-1969 (https://en.wikipedia.org/wiki/Frederick_Seitz). Because Seitz died in 2008 and was unable to defend himself, S. Fred Singer, a renowned atmospheric physicist, did refute the attacks on both Seitz and himself (https://en.wikipedia.org/wiki/Fred_Singer). Unfortunately, Singer could not get his five-page "A RESPONSE TO 'THE CLIMATE CHANGE DEBATES'" published in *Science*. Singer's response was published in *Energy & Environment* 2010; 21(7): 847-851 (https://www.heartland.org/sites/default/files/kitcher_response_to_ee2010.pdf). Also, Singer has written recent criticism of *Science* and Editor-in-Chief McNutt,

which is part of the third weblink within Peter's letter (https://www.nas.org/images/documents/Climate_change.pdf).

I hope you can spend some additional time examining the three examples of suppression of scientific dissent described in Peter's letter. I am personally involved with the second (PM2.5) issue. Please let us know if you are willing to discuss these important issues over the phone with Peter or me.

Thank you very much for your consideration.

Sincerely yours,

James E. Enstrom, Ph.D., M.P.H.
UCLA and Scientific Integrity Institute
jenstrom@ucla.edu
(310) 472-4274
(310) 210-7145 cell

https://www.washingtonpost.com/opinions/government-has-spent-a-lot-on-electric-cars-but-was-it-worth-it/2016/01/06/359bd25c-b496-11e5-9388-466021d971de_story.html

https://www.washingtonpost.com/news/in-theory/wp/2016/01/06/america-has-been-lied-to-about-climate-change/?tid=pm_opinions_pop_b

Robert Brulle is a professor of sociology and environmental science at Drexel University in Philadelphia. He is co-editor of "Climate Change and Society: Sociological Perspectives."

https://aaas.confex.com/aaas/2016/webprogram/Session12337.html

Fostering Integrity in Science: An Action Agenda

Sunday, February 14, 2016: 8:00 AM-9:30 AM

Marriott Balcony A (Marriott Wardman Park)

This session features a discussion of two new publications aimed at fostering scientific integrity. The U.S. National Academies of Sciences, Engineering and Medicine report *Integrity of Science* examines the most significant challenges facing the research enterprise in fostering integrity and develops an action agenda for researchers and other stakeholders. The committee chair provides an overview of the project and the global implications of its findings, and a committee member will outline tasks for researchers, institutions, sponsors, journals, and societies going forward. The InterAcademy Partnership's forthcoming educational guide *Doing Global Science: Responsible Conduct in the Global Research Enterprise* is a new resource for responsible conduct of research, from the world's academies of science and medicine. Committee co-chairs provide an overview of the report and frame the issue of how academies can foster scientific integrity going forward.

Organizer:

Thomas Arrison, National Academy of Sciences (not an NAS member)

Discussant:

Ernst-Ludwig Winnacker, Ludwig Maximilian University of Munich

Speakers:

Robert M. Nerem, Georgia Institute of Technology
Fostering Integrity in Science: Overview of the Report and the Global Context

C.K. Gunsalus, National Center for Professional and Research Ethics
Roles and Tasks for Researchers and Institutions in Fostering Integrity

Indira Nath, National Institute of Pathology of India
Fostering Integrity in the Global Research Enterprise

http://www.me.gatech.edu/faculty/nerem

Robert M. Nerem Professor Emeritus *Bioengineering*

- IBB, Room 1305

- robert.nerem@me.gatech.edu
- T: 404.894.2768
  F: 404.894.2291
- http://www.ibb.gatech.edu/people/Robert Nerem

https://aaas.confex.com/aaas/2016/webprogram/Session12277.html

Integrating Science into Policymaking: What Works and Why

Sunday, February 14, 2016: 1:00 PM-2:30 PM

Wilson C (Marriott Wardman Park)

Policymakers are increasingly confronted with a wide array of challenges (e.g. climate change, economic inequality, aging populations, energy and food security, water scarcity), and often want to be informed by the best available science. Evidence-informed policymaking is not only a matter of effective decision-making, but also one of securing and maintaining public trust in governing institutions. However, the practice of using evidence in policymaking is mixed at best. A common challenge is ensuring that evidence is provided to policymakers in a timely fashion, by entities they trust, and in a format they can use. Policymaking is a complex behavioral and social phenomenon; in a democracy, evidence is but one part (what "is") and may be deemed inessential. Democratic decision-making ultimately involves integrating conflicting values of society (about what "ought" to be). Understanding the connections and distinctions between evidence and values (what “is” versus what “ought” to be) requires integrating science and policymaking. In this context, symposium panelists debate the practice of evidence-informed policymaking from a comparative international perspective. There is no single best approach, with intrinsic differences at regional, national, and international levels and between countries. Clearly a one-size-fits-all solution does not work. The aim of this debate is to highlight the many ways in which evidence is used to inform policy, the challenges faced, and key approaches that have been successful.

Organizer:

Stephen Davies, European Commission Joint Research Center

Co-Organizer:

Geraldine Barry, JRC

Moderator:

Stephen Davies, JRC

Speakers:

Vladimír ŠUcha, JRC
Integrating Evidence into EU Policymaking

Daniel Sarewitz, Arizona State University
Holdren v. Pielke, Jr.: A Case Study in Evidence, Policy, and Politics

Sir Peter Gluckman, Government of New Zealand
Art and Science of Policy Advice: Embedding Science into the Processes of Government

Holdren v. Pielke, Jr.: A Case Study in Evidence, Policy, and Politics

Sunday, February 14, 2016: 1:00 PM-2:30 PM

Wilson C (Marriott Wardman Park)

Daniel Sarewitz , Arizona State University, Washington, DC

Climate change has been a particular divisive political issue in the United States. A dispute about attribution of climate impacts between President Obama's science advisor John Holdren, and University of Colorado policy scientist Roger Pielke, Jr., provides a valuable lens for understanding why bringing science into policy is often a difficult and contested process, and how the very notion of “evidence-based policy” is itself an inherently political concept.

See more of: Integrating Science into Policymaking: What Works and Why

https://webapp4.asu.edu/directory/person/694412

Daniel Sarewitz

 Update image

Daniel.Sarewitz@asu.edu

Center Dir & Professor
Sch Future of Innov in Society
Faculty w/Admin Appointment
Mail Code: 5603

CSPO/ASU 1834 Connecticut Ave., NW (Map)
(202)446-0386

Bio

ASU Professor and Co-director of the Consortium for Science, Policy, and

Consortium for Science, Policy, and Outcomes

Daniel Sarewitz is professor of Science and Society at Arizona State University, where he is co-director of the Consortium for Science, Policy, and Outcomes (CSPO), which he helped to found in 1999.

His work focuses on revealing the connections between science policy decisions, scientific research and social outcomes. How does the distribution of the social benefits of science relate to the way that we organize scientific inquiry? What accounts for the highly uneven advance of know-how related to solving human problems? How do the interactions between scientific uncertainty and human values influence decision making? And, how can improved insight into such questions contribute to improved real-world practice?

Sarewitz's most recent book is *The Technohuman Condition* MIT Press 2011, co-authored with Braden Allenby); he is also a regular columnist for *Nature*, and the author of many articles, both scholarly and general, about the interactions of science, technology, and society. From 1989-1993 he worked on R&D policy issues as a staff member in the U.S. House of Representatives. He received a Ph.D. in geological sciences from Cornell University in 1986. He now resides in Washington, D.C., where he is runs the policy and outreach arm of CSPO.

Send email to Schaal with copies to Wessler, Diane Griffin, Peter Wood,

Robert M. Nerem Professor Emeritus *Bioengineering* robert.nerem@me.gatech.edu

Daniel Sarewitz Daniel.Sarewitz@asu.edu

Peer Review for Public Trust

Friday, February 12, 2016: 10:00 AM-11:30 AM

Marshall Ballroom South (Marriott Wardman Park)

Relative to many other societal endeavors, science has often been considered a relatively self-correcting, self-policing enterprise. Nevertheless, there have been widely reported shortcomings, such as challenges with transparency and reproducibility, as well as outright falsification of findings. Erosion of public trust in science due to such issues has the potential to be devastating. How can the scientific community cultivate and maintain public trust? One foundational element – and strength – of science has been peer review, in all its shapes and sizes. It informs the allocation of precious research resources, drives journal publications, and influences the use of scientific knowledge in public policy. But of course, peer review is not a perfect system; its limitations have long been recognized. As science and societies change, and new models of peer review emerge, what should the scientific community be doing to decide whether and how to use peer review to maintain quality, integrity, and trust in science?

Organizer:

Brad Wible, AAAS/*Science*

Co-Organizer:

Marcia McNutt, AAAS/*Science*

Speakers:

Carole J. Lee, University of Washington
Can Emerging Peer Review Models Improve Scientific Quality and Integrity?

Richard Nakamura, National Institutes of Health
Peer Review in Practice for Large Scale Investments

Drummond Rennie, University of California, San Francisco
Peer Review Yesterday, Today and Tomorrow

Drummond Rennie , University of California, San Francisco, San Francisco, CA
This presentation will draw on experience as a longtime organizer behind the International Congress on Peer Review and Biomedical Publication. Discussion will explore which current challenges and proposals for peer review have been long discussed and unresolved, and which may be more novel and promising.

http://meetings.aaas.org/program/chair-and-co-chairs/

AAAS Meeting Chair and Co-Chairs

Geraldine Richmond

AAAS President and Program Chair
Presidential Chair in Science and Professor of Chemistry
University of Oregon

Dr. Geri Richmond's research using laser spectroscopy and computational methods focuses on understanding the chemistry and physics that occur at complex interfaces, with relevance to important problems in energy production, environmental remediation, and atmospheric chemistry. She is a member of the National Academy of Sciences and American Academy of Arts and Sciences and is a fellow of the American Chemical Society (ACS), American Physical Society (APS), Association for the Advancement of Science (AAAS), and the Association for Women in Science. Richmond has served in leadership roles on many international, national, and state governing and advisory boards. She is a member of the National Science Board and is the U.S. Science Envoy to the Lower Mekong River Countries of Vietnam, Laos, Cambodia, Burma, and Thailand. She is founding and current director of COACh, an organization that has helped career advancement for thousands of scientists and engineers in the U.S., Asia, Africa, and Latin America. Awards for her scientific accomplishments include the ACS Olin-Garvan Medal, the Spiers Medal of the Royal Society of Chemistry, the ACS Joel H. Hildebrand Award in Theoretical and Experimental Studies of Liquids, and the APS Davisson-Germer Prize. Awards for outreach and science capacity-building efforts include the Presidential Award for Excellence in Science and Engineering Mentoring, the ACS Award for Encouraging Women in the Chemical Sciences, the Council on Chemical Research Diversity Award, and the ACS Charles L. Parsons Award.

France Córdova

Director

National Science Foundation

Dr. France A. Córdova is the 14th director of NSF. She leads the only government science agency charged with advancing all fields of scientific discovery, technological innovation, and science, technology, engineering, and mathematics (STEM) education. Córdova is president emerita of Purdue University, and previously led the University of California, Riverside as chancellor and was a distinguished professor of physics and astronomy. She was the vice chancellor for research and professor of physics at the University of California, Santa Barbara. Córdova served as NASA's chief scientist. Prior to joining NASA, she was on the faculty of Pennsylvania State University where she headed the department of astronomy and astrophysics. She was deputy group leader in the Earth and space sciences division at Los Alamos National Laboratory and staff scientist. She received a bachelor's degree from Stanford University and a Ph.D in physics from the California Institute of Technology. More recently, Córdova served as chair of the Board of Regents of the Smithsonian Institution, on the board of trustees of Mayo Clinic, and as a member of the National Science Board (NSB). As NSF director, she is an ex officio member of NSB.

- See more at: http://meetings.aaas.org/program/chair-and-co-chairs/#sthash.SAAlPmeZ.dpuf

http://www.nsf.gov/mobile/staff/staff_bio.jsp?pers=24758&org=NSF&from_org=

France A. Córdova

Email: fcordova@nsf.gov
Phone: (703) 292-8000
Room: 1205 N
Organization: (OD)
Title: Director

Biography:
France A. Córdova, was sworn in as director of the National Science Foundation (NSF) on March 31, 2014. Nominated by President Barack Obama to head the $7.2-billion independent federal agency, she was confirmed by the U.S. Senate on March 12. Córdova leads the only government science agency charged with advancing all fields of scientific discovery, technological innovation, and science, technology, engineering and mathematics (STEM) education. NSF's programs and initiatives keep the United States at the forefront of science and engineering, empower future generations of scientists and engineers, and foster U.S. prosperity and global leadership.

Córdova is president emerita of Purdue University, where she served as president from 2007 to 2012. From 2002 to 2007, she led the University of California, Riverside, as chancellor and was a distinguished professor of physics and astronomy. Córdova was the

vice chancellor for research and professor of physics at the University of California, Santa Barbara, from 1996 to 2002.

From 1993 to 1996, Córdova served as NASA's chief scientist. Prior to joining NASA, she was on the faculty of the Pennsylvania State University where she headed the department of astronomy and astrophysics from 1989 to 1993. Córdova was deputy group leader in the Earth and space sciences division at Los Alamos National Laboratory from 1988 to 1989 and staff scientist from 1979 to 1989. She received her Bachelor of Arts degree from Stanford University and her doctorate in physics from the California Institute of Technology in 1979.

More recently, Córdova served as chair of the Board of Regents of the Smithsonian Institution and on the board of trustees of Mayo Clinic. She also served as a member of the National Science Board (NSB), where she chaired the Committee on Strategy and Budget. As NSF director, she is an ex officio member of the NSB.

Córdova's scientific contributions have been in the areas of observational and experimental astrophysics, multi-spectral research on x-ray and gamma ray sources and space-borne instrumentation. She has published more than 150 scientific papers. In 1997, she was awarded an honorary doctorate by Loyola Marymount University, Los Angeles. She is a recipient of NASA's highest honor, the Distinguished Service Medal, and was recognized as a Kilby Laureate in 2000. The Kilby International Awards recoginze extraordinary individuals who have made "significant contributions to society through science, technology, innovation, invention and education." Córdova was elected to the American Academy of Arts and Sciences and is a National Associate of the National Academies. She is also a fellow of the American Association for the Advancement of Science (AAAS) and the Association for Women In Science (AWIS).

She is NSF's 14th director, succeeding Subra Suresh who stepped down in March 2013.

Córdova is married to Christian J. Foster, a science educator, and they have two adult children.

http://science.sciencemag.org/content/sci/348/6242/1420.full.pdf

Self-correction in science at work

By
Bruce Alberts,[1]
Ralph J. Cicerone,[2]
Stephen E. Fienberg,[3]
Alexander Kamb,[4]
Marcia McNutt,[5] *
Robert M. Nerem,[6]
Randy Schekman,[7]
Richard Shiffrin,[8]

Victoria Stodden,[9]
Subra Suresh,[10]
Maria T. Zuber,[11]
Barbara Kline Pope,[12]
Kathleen Hall Jamieson[13, 14]

http://www.euresisjournal.org/public/article/pdf/EJv2id9_SM2008_Lindzen.pdf

Climate Science: Is it currently designed to answer questions? Richard S. Lindzen

Lindzen RS. Climate science: is it designed to answer questions?
Euresis Journal 2012;2:161-193. Available at:
http://arxiv.org/ftp/arxiv/papers/0809/0809.3762.pdf. Accessed Jun 22, 2013

Abstract (Page 161):
"This paper will deal with the origin of the cultural changes [in science] and with specific examples of the operation and interaction of these factors. In particular, we will show how political bodies act to control scientific institutions, how scientists adjust both data and even theory to accommodate politically correct positions, and how opposition to these positions is disposed of. Original manuscript from November 29, 2008, with corrections and an added postscript provided on October 31, 2011."

Page 167:
"The Academy is divided into many disciplinary sections whose primary task is the nomination
of candidates for membership in the Academy. 9 Typically, support by more than 85% of
the membership of any section is needed for nomination. However, once a candidate is elected, the candidate is free to affiliate with any section. The vetting procedure is generally
rigorous, but for over 20 years, there was a Temporary Nominating Group for the Global Environment to provide a back door for the election of candidates who were environmental
activists, bypassing the conventional vetting procedure. Members, so elected, proceeded to join existing sections where they hold a veto power over the election of any scientists unsympathetic to their position. Moreover, they are almost immediately appointed to positions on the executive council, and other influential bodies within the Academy. One of the members elected via the Temporary Nominating Group, Ralph Cicerone, is now president of the National Academy. Prior to that, he was on the nominating committee for the presidency. It should be added that there is generally only a single candidate for president. Others elected to the NAS via this route include James Hansen, Steven

Schneider,
John Holdren and Susan Solomon."

Page 179:
"This paper has attempted to show how changes in the structure of scientific activity over the past half century have led to extreme vulnerability to political manipulation."

http://www.theguardian.com/environment/2010/may/06/climate-science-open-letter

The Guardian Climate change

Open letter: Climate change and the integrity of science

Full text of an open letter from 255 members of the US National Academy of Sciences in defence of climate research

- Have your say on the letter

Thursday 6 May 2010 14.00 EDT Last modified on Friday 8 January 2016 21.03 EST

We are deeply disturbed by the recent escalation of political assaults on scientists in general and on climate scientists in particular. All citizens should understand some basic scientific facts. There is always some uncertainty associated with scientific conclusions; science never absolutely proves anything. When someone says that society should wait until scientists are absolutely certain before taking any action, it is the same as saying society should never take action. For a problem as potentially catastrophic as climate change, taking no action poses a dangerous risk for our planet.

Scientific conclusions derive from an understanding of basic laws supported by laboratory experiments, observations of nature, and mathematical and computer

modelling. Like all human beings, scientists make mistakes, but the scientific process is designed to find and correct them. This process is inherently adversarial— scientists build reputations and gain recognition not only for supporting conventional wisdom, but even more so for demonstrating that the scientific consensus is wrong and that there is a better explanation. That's what Galileo, Pasteur, Darwin, and Einstein did. But when some conclusions have been thoroughly and deeply tested, questioned, and examined, they gain the status of "well-established theories" and are often spoken of as "facts."

For instance, there is compelling scientific evidence that our planet is about 4.5bn years old (the theory of the origin of Earth), that our universe was born from a single event about 14bn years ago (the Big Bang theory), and that today's organisms evolved from ones living in the past (the theory of evolution). Even as these are overwhelmingly accepted by the scientific community, fame still awaits anyone who could show these theories to be wrong. Climate change now falls into this category: there is compelling, comprehensive, and consistent objective evidence that humans are changing the climate in ways that threaten our societies and the ecosystems on which we depend.

Many recent assaults on climate science and, more disturbingly, on climate scientists by climate change deniers, are typically driven by special interests or dogma, not by an honest effort to provide an alternative theory that credibly satisfies the evidence. The Intergovernmental Panel on Climate Change (IPCC) and other scientific assessments of climate change, which involve thousands of scientists producing massive and comprehensive reports, have, quite expectedly and normally, made some mistakes. When errors are pointed out, they are corrected.

But there is nothing remotely identified in the recent events that changes the fundamental conclusions about climate change:

(i) The planet is warming due to increased concentrations of heat-trapping gases in our atmosphere. A snowy winter in Washington does not alter this fact.

(ii) Most of the increase in the concentration of these gases over the last century is due to human activities, especially the burning of fossil fuels and deforestation.

(iii) Natural causes always play a role in changing Earth's climate, but are now being overwhelmed by human-induced changes.

(iv) Warming the planet will cause many other climatic patterns to change at speeds unprecedented in modern times, including increasing rates of sea-level rise and alterations in the hydrologic cycle. Rising concentrations of carbon dioxide are making the oceans more acidic.

(v) The combination of these complex climate changes threatens coastal communities and cities, our food and water supplies, marine and freshwater ecosystems, forests, high mountain environments, and far more.

Much more can be, and has been, said by the world's scientific societies, national

academies, and individuals, but these conclusions should be enough to indicate why scientists are concerned about what future generations will face from business- as-usual practices. We urge our policymakers and the public to move forward immediately to address the causes of climate change, including the unrestrained burning of fossil fuels.

We also call for an end to McCarthy- like threats of criminal prosecution against our colleagues based on innuendo and guilt by association, the harassment of scientists by politicians seeking distractions to avoid taking action, and the outright lies being spread about them. Society has two choices: we can ignore the science and hide our heads in the sand and hope we are lucky, or we can act in the public interest to reduce the threat of global climate change quickly and substantively. The good news is that smart and effective actions are possible. But delay must not be an option.

• The signatories are all members of the US National Academy of Sciences but are not speaking on its behalf or on behalf of their institutions.

Adams, Robert McCormick, University of California, San Diego
Amasino, Richard M, University of Wisconsin
Anders, Edward, University of Chicago
Anderson, David J, California Institute of Technology
Anderson, Wyatt W, University of Georgia
Anselin, Luc E, Arizona State University
Arroyo, Mary Kalin, University of Chile
Asfaw, Berhane, Rift Valley Research Service
Ayala, Francisco J, University of California, Irvine
Bax, Adriaan, National Institutes of Health
Bebbington, Anthony J, University of Manchester
Bell, Gordon, Microsoft Research
Bennett, Michael V L, Albert Einstein College of Medicine
Bennetzen, Jeffrey L, University of Georgia
Berenbaum, May R, University of Illinois
Berlin, Overton Brent, University of Georgia
Bjorkman, Pamela J, California Institute of Technology
Blackburn, Elizabeth, University of California, San Francisco
Blamont, Jacques E, Centre National d' Etudes Spatiales
Botchan, Michael R, University of California, Berkeley
Boyer, John S, University of Delaware
Boyle, Ed A, Massachusetts Institute of Technology
Branton, Daniel, Harvard University
Briggs, Steven P, University of California, San Diego
Briggs, Winslow R, Carnegie Institution of Washington
Brill, Winston J, Winston J. Brill and Associates
Britten, Roy J, California Institute of Technology
Broecker, Wallace S, Lamont-Doherty Earth Observatory and Columbia University

Brown, James H, University of New Mexico
Brown, Patrick O, Stanford University School of Medicine
Brunger, Axel T, Stanford University
Cairns, Jr John, Virginia Polytechnic Institute and State University
Canfield, Donald E, University of Southern Denmark
Carpenter, Stephen R, University of Wisconsin
Carrington, James C, Oregon State University
Cashmore, Anthony R, University of Pennsylvania
Castilla, Juan Carlos, Pontificia Universidad Católica de Chile
Cazenave, Anny, Centre National d' Etudes Spatiales
Chapin, III F, Stuart, University of Alaska
Ciechanover, Aaron J, Technion-Israel Institute of Technology
Clapham, David E, Harvard Medical School
Clark, William C, Harvard University
Clayton, Robert N, University of Chicago
Coe, Michael D, Yale University
Conwell, Esther M, University of Rochester
Cowling, Ellis B, North Carolina State University
Cowling, Richard M, Nelson Mandela Metropolitan University
Cox, Charles S, University of California, San Diego
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Crutzen, Paul J, Max Planck Institute for Chemistry
Daily, Gretchen C, Stanford University
Dalrymple, Brent G, Oregon State University
Dangl, Jeffrey L, University of North Carolina
Darst, Seth A, Rockefeller University
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De Camilli, Pietro V, Yale University School of Medicine
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DeFries, Ruth S, Columbia University
Deisenhofer, Johann, University of Texas Southwestern Medical Center at Dallas
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Emanuel, Kerry A, Massachusetts Institute of Technology
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Gardner, Wilford R, University of California, Berkeley
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Gleick, Peter H, Pacific Institute, Oakland
Goldberg, Robert B, University of California, Los Angeles
Goodenough, Ward H, University of Pennsylvania
Goodman, Corey S, venBio, LLC
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Hake, Sarah, Agricultural Research Service
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Harrison, Stephen C, Harvard Medical School
Hart, Stanley R, Woods Hole Oceanographic Institution
Hartl, Daniel L, Harvard University
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Hawkes, Kristen, University of Utah
Hayes, John M, Woods Hole Oceanographic Institution
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Jencks, Christopher S, Harvard University
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Lagarias, J Clark, University of California, Davis
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Landy, Arthur, Brown University
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Leopold, Estella B, University of Washington
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Likens, Gene E, Cary Institute of Ecosystem Studies
Lippincott-Schwartz, Jennifer, National Institutes of Health
Lorand, Laszlo, Northwestern University
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Lynch, Michael, Indiana University
Mabogunje, Akin L, Foundation for Development and Environmental Initiatives
Malone, Thomas F, North Carolina State University
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Medina, Ernesto, Venezuelan Institute for Scientific Research
Melosh, Jay H, Purdue University
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Morel, Francois M M, Princeton University

Mosley-Thompson, Ellen, Ohio State University
Moss, Bernard, National Institutes of Health
Munk, Walter H, University of California, San Diego
Myers, Norman, University of Oxford
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Nathans, Jeremy, Johns Hopkins University School of Medicine
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Nicoll, Roger A, University of California, San Francisco
Novick, Richard P, New York University School of Medicine
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Romney, Kimball A, University of California, Irvine
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Rutter, William J, Synergenics, LLC
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