

Geophysicists

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Honors

Sallie Chisholm received the National Medal of Science from U.S. president Barack Obama during a 1 February ceremony at the White House. Chisholm, a biological oceanographer, was cited for her "contributions to the discovery and understanding of the dominant photosynthetic organisms in the ocean, promotion of the field of microbial oceanography and influence on marine policy and management." Chisholm is the Lee and Geraldine Martin Professor of Environmental Studies and a professor of biology at the Massachusetts Institute of Technology (MIT).

The 2012 Vetlesen Prize for scientific achievement resulting in a clearer understanding of the Earth, its history, or its relations to the universe has been awarded to **Susan Solomon**, the Ellen Swallow Richards Professor of Atmospheric Chemistry and Climate Science at MIT, and to **Jean Jouzel**, a paleoclimate scientist at the Laboratoire des sciences du climat et de l'environnement (CEA/CNRS/UVSQ). The award citation recognizes both scientists for making "leading and fundamental contributions to climate science." Among other achievements, the citation notes that Solomon led efforts to identify the cause of the Antarctic ozone hole, and it recognizes that Jouzel extracted the longest-yet climate record from polar ice cores. The prize, which is considered to be the Earth sciences' equivalent of a Nobel Prize, is funded by the G. Unger Vetlesen Foundation in New York and is administered by Columbia University's Lamont-Doherty Earth Observatory.

Solomon also has received the BBVA Foundation Frontiers of Knowledge Award in the Climate Change category for her work on determining how human action alters the composition of the atmosphere and how these changes, in turn, affect the Earth's climate. The selection jury's citation states that Solomon "has contributed, through her research and leadership, to the safeguarding of our planet."

Eight AGU members are among the 20 environmental researchers from across North America who have been awarded Leopold Leadership Fellowships for 2013. They are **Richard Camilli**, Applied Ocean Physics and Engineering Department, Woods Hole Oceanographic Institution (WHOI); **Jennifer Cherrier**, School of the Environment, Florida A&M University; **Erika McPhee-Shaw**, Moss Landing Marine Laboratories, San Jose State University; **Stephen Porder**, Department of Ecology and Evolutionary Biology, Brown University; **John Sabo**, School of Life Sciences, Arizona State University; **Noelle Selin**, Engineering Systems Division, MIT; **Fiammetta Straneo**, Physical Oceanography Department, WHOI; and **David Valentine**, Department of Earth Science, University of California, Santa Barbara. The program

provides academic environmental researchers with skills and approaches for communicating and working with partners in nongovernmental organizations, business, government, and communities to integrate science into decision making.

New York governor Andrew Cuomo appointed AGU members to two commissions. **William Hooke**, senior policy fellow and director of the policy program at the American Meteorological Society, and **Cynthia Rosenzweig**, senior research scientist with the NASA Goddard Institute for Space Studies at Columbia University, were appointed to the New York State Ready Commission, which is tasked with finding ways to ensure that critical systems and services are prepared for future natural disasters and other emergencies. **Chris Renssler**, associate professor of geography at the University at Buffalo, was appointed to the New York State Respond Commission, which is tasked with finding ways to ensure that New York State is ready to respond to future weather-related disasters.

Four AGU members are recipients of Philip Leverhulme Prizes in the Earth, ocean, and atmospheric sciences fields of research. They are **Richard Katz**, Department of Earth Sciences, University of Oxford, for research into the physics of magma genesis and transport in the convecting mantle; **Kirsty Penkman**, Department of Chemistry, University of York, for the application of analytical chemistry to geochronology, archaeology, and Earth science; **Laura Robinson**, Department of Earth Sciences, University of Bristol, for the use of chemical tools to examine ocean-climate linkages today and in the past; and **Paul Williams**, Department of Meteorology and the National Centre for Atmospheric Science, University of Reading, for geophysical fluid dynamics. The £70,000 prizes, awarded by the Leverhulme Trust, are used to advance the recipient's research.

In Memoriam

Peter Barker, 73, 25 June 2012, Geomagnetism and Paleomagnetism, 1965

Timothy Boyd, 54, 27 January 2013, Ocean Sciences, 1983

Michael Chinnery, 79, 29 December 2012, Seismology, 1961

Garniss Curtis, 93, 18 December 2012, Volcanology, Geochemistry, and Petrology, 1966

Francis Hibberd, 89, 13 October 2012, Space Physics and Aeronomy, 1964

Ian David James, 65, 4 August 2012, Ocean Sciences, 1990

Steven Klosko, 64, 4 August 2012, Geodesy, 1976

James Knox, 70, 6 October 2012, Hydrology, 1989

Ricardo Palmeira, 81, 21 May 2012, Aeronomy, 1969

FORUM**Science Policy: Using Your Voice to Inform and Inspire**

In recent decades, scientific research that addresses complex and critical global issues, such as climate change, has become increasingly politicized, leaving many scientists feeling as though they cannot directly engage decision makers and simultaneously preserve the integrity of their work. Now at a time when policy makers and the public struggle to understand the technical nature of these issues, scientists who want to communicate their findings clearly and effectively can turn to science policy to better understand how to engage in this process.

What Is Science Policy?

Science policy is a subset of public policy that deals primarily with the scientific enterprise and its relationship to governance, from funding priorities and innovative practices to the ethical conduct of research and oversight [Neal *et al.*, 2008]. It embodies a set of procedures, rules, methods, and practices that guide scientific processes. At its foundation, science policy espouses a collaborative effort among government officials, members of academia, independent review boards, and scientists to create policies that govern scientific practices and, alternatively, to develop science that can shape sound policies.

Emerging science and technology innovations often compel society to adapt in ways that are not clearly understood. This has been the case in regenerative medicine, which has often led to ethical issues that policy makers need to consider. People turn to scientists and health experts to better understand how emerging technologies might shape medical practices or affect larger sociopolitical conversations about international human rights. While this

intermingling of science and politics is an inevitable part of the democratic process, it raises concerns about the politicization of science—when science is pressured to conform to politics or when politics masquerades as science.

The politicization of scientific research has waxed and waned throughout U.S. history, driven to some extent by global conflicts such as World War II [Conant, 2002; Baldwin, 1999], the Cold War, and the Vietnam War. Over the past 50 years, the scientific community has worked hard to improve its image, which has been battered in part by a deep polarization within the scientific community itself, the anti-science sentiments from segments of the public, and the voices of young anti-Vietnam War activists who blamed the scientific community for developing and perfecting technology used to perpetrate violence overseas [Moore, 1999]. After several decades, scientists today have largely recovered their favorable post-World War II reputation. In fact, a 2010 poll in *Scientific American* found that respondents reported scientists are the most trusted source of scientific information, followed by family and friends, and non-governmental organizations. One of the least trusted groups is elected officials, which reaches the core of science policy [*Scientific American*, 2010].

Scientists in the 21st century find themselves faced with new challenges in natural resources, energy, and climate and are moved to navigate a volatile political landscape that is strongly divided across party lines. This is occurring in the face of dwindling funding, as budgets have been decreased even as problems that demand technoscientific solutions have increased.

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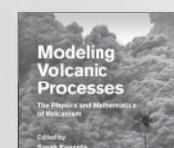
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