

# PNAS

---

Academy Honors 15 for Major Contributions to Science

Source: *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 95, No. 4 (Feb. 17, 1998), pp. 1349-1350

Published by: [National Academy of Sciences](#)

Stable URL: <http://www.jstor.org/stable/44284>

Accessed: 08/05/2014 06:41

---

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



National Academy of Sciences is collaborating with JSTOR to digitize, preserve and extend access to *Proceedings of the National Academy of Sciences of the United States of America*.

<http://www.jstor.org>

المنارة للاستشارات

[www.manaraa.com](http://www.manaraa.com)

## Academy Honors 15 for Major Contributions to Science

Each year, The National Academy of Sciences bestows a number of awards—spanning a range of scientific disciplines—on individuals whose contributions have had a major impact on the scientific community. The following awards will be presented at the Academy's annual meeting on April 27. A call for nominations for awards to be presented in 1999 is on pages 1351–1355.

The **Alexander Agassiz Medal**—a prize of \$6,000, awarded every three years for original contributions in oceanography—goes to **Walter C. Pitman III**, Senior Research Scientist, Lamont-Doherty Earth Observatory of Columbia University, Palisades, N.Y. Pitman was chosen “for his fundamental contribution to the plate tectonic revolution through insightful analysis of marine magnetic anomalies and for his studies of the causes and effects of sea level changes.” The medal was established in 1913.

The **NAS Award in Applied Mathematics and Numerical Analysis**—a prize of \$10,000 awarded every three years for outstanding work in applied mathematics and numerical analysis by a candidate whose research has been carried out in an institution in North America—goes to **Paul R. Garabedian**, Professor of Mathematics, New York University, New York City. Garabedian was chosen “for his spectacular contributions to computational fluid dynamics, especially the mathematical design of the first shock-free transonic airfoil; and for future controlled thermonuclear fusion, the first stellarator with an almost smooth magnetic field.” The award was established in 1972 by the IBM Corp.

The **NAS Award in Chemical Sciences**—a prize of \$10,000 for innovative research in the chemical sciences that, in the broadest sense, contributes to a better understanding of the natural sciences and to the benefit of humanity—goes to **Allen J. Bard**, Hackerman/Welch Regents' Chair in Chemistry, Department of Chemistry and Biochemistry, University of Texas at Austin. Bard was chosen “for his fundamental developments in mechanistic electrochemistry, electrochemiluminescence, semi-conductor photoelectrochemistry, and scanning electrochemical microscopy.” The award was established in 1979.

The **Alexander Hollaender Award in Biophysics**—a prize of \$15,000 awarded every three years for outstanding contributions in biophysics—goes to **Wayne A. Hendrickson**, Investigator, Howard Hughes Medical Institute, and Professor, Department of Biochemistry and Molecular Biophysics, Columbia University College of Physicians and Surgeons, New York City. Hendrickson was chosen “for his contributions to macromolecular crystallography, in the development of robust methods of phasing and refinement, and in determination of complex and biologically important structures.” The award will be presented for the first time this year.

The **NAS Award for Initiatives in Research**—a prize of \$15,000 awarded annually in a different field (social and political sciences in 1998) to recognize innovative young scientists and to encourage research likely to lead toward new capabilities for human benefit—goes to **Arthur D. Lupia**, Professor, Department of Political Science, University of California, San Diego, “for his contribution to our understanding of the importance of knowledge, learning, and persuasion to political decision-making by voters, legislators, and jurors.” The award was established in 1981 in honor of William O. Baker and is supported by Bell Laboratories, Lucent Technologies.

The **Jessie Stevenson Kovalenko Medal**—a prize of \$25,000, awarded every three years to recognize important contributions to the medical sciences—goes to **Hugh O. McDevitt**, Burt and Marion Avery Professor of Microbiology, Immunology, and Medicine, Stanford University School of Medicine, Stanford, Calif. McDevitt was chosen “for his landmark discovery and identification of genes that control immune responsiveness, and his subsequent elucidation of mechanisms of antigen recognition and induction of the immune response.” The medal was established in 1952.

The **NAS Award in Molecular Biology**—a bronze medal and a \$20,000 prize awarded annually for a recent notable discovery in molecular biology by a young scientist—goes to **Philip A. Beachy**, Associate Investigator, Howard Hughes Medical Institute, and Associate Professor, Johns Hopkins University School of Medicine, Baltimore. Beachy was chosen “for his studies of a developmental morphogen, its processing and structure, and its covalent attachment to cholesterol.” This award was established in 1962 and is supported by the Monsanto Co.

The **NAS Award in the Neurosciences**—a prize of \$15,000 awarded every three years in recognition of extraordinary contributions to progress in the fields of neuroscience, including neurochemistry, neurophysiology, neuropharma-

cology, developmental neuroscience, neuroanatomy, and behavioral and clinical neuroscience—goes to **Vernon B. Mountcastle**, Professor Emeritus, Krieger Mind-Brain Institute, Johns Hopkins University, Baltimore. Mountcastle was chosen “for his discovery of the columnar organization of the mammalian cerebral cortex, and for original studies relating behavior to function of single cells in higher cortical areas.” This award was established in 1988 by the Fidia Research Foundation.

The **NAS Award for Scientific Reviewing**—a prize of \$5,000 for excellence in scientific reviewing within the past 10 years (the 1998 field is geology and geophysics)—goes to **James R. Holton**, Professor, Department of Atmospheric Sciences, University of Washington, Seattle. Holton was chosen “for his landmark reviews that have become the primary cornerstones of the current understanding of dynamical meteorology of the Earth’s stratosphere for both researchers and students.” The award was established in 1979 by Annual Reviews Inc. and the Institute for Scientific Information in honor of J. Murray Luck.

The **Troland Research Awards**—a sum of \$35,000 given annually to each of two recipients to support their research within the broad spectrum of experimental psychology—go to **Virginia M. Richards**, Associate Professor, Department of Psychology, University of Pennsylvania, Philadelphia, and to **Jeffrey D. Schall**, Associate Professor, Department of Psychology, Vanderbilt University, Nashville, Tenn. Richards was chosen “for her contributions to auditory perception, especially to the understanding of the envelope and energy cues that contribute to detecting signals in noise.” Schall was recognized “for his contributions to our understanding of neural mechanisms of visual selective attention, the control of voluntary movements, and response time.” The awards were established in 1984.

The **G. K. Warren Prize**—a prize of \$6,000 awarded every four years for noteworthy and distinguished accomplishment in fluvial geology and closely related aspects of the geological sciences—goes to **Thomas Dunne**, Professor, School of Environmental Science and Management, University of California, Santa Barbara. Dunne was chosen “for his field observations as the basis for detailed theoretical analyses of many hydro-geomorphological problems, including surface erosion, snow-melt runoff, sediment budgets for small plots, and great rivers including the Amazon.” The medal was established in 1924.

The **James Craig Watson Medal**—a medal and a prize of \$15,000 awarded every three years for contributions to astronomy—is shared by **Carolyn S. Shoemaker**, Lowell Observatory, Flagstaff, Ariz., and the late **Eugene M. Shoemaker** “for their painstaking research, which led to the discovery of over 800 asteroids and 32 comets, including their co-discovery of Comet Shoemaker-Levy, the first comet observed colliding with a planet.” The medal was established in 1887.

The **Public Welfare Medal**, the Academy’s highest honor, will be presented this year to **David A. Hamburg**, president emeritus of the Carnegie Corp. of New York. Hamburg was recognized “for his effective leadership of the Carnegie Corp., which brings science and technology to bear on the paramount issues of our time; for his dedication to improving the quality of life of our nation’s youth; and for his efforts to prevent violent conflict.” This award—consisting of a bronze medal—was established in 1914 to recognize “distinguished contributions in the application of science to the public welfare.”