

WE HEAR THAT

NAS Names Award Winners

The National Academy of Sciences has announced that 18 individuals will win awards for their contributions to science, including 10 who are involved in the physical sciences. NAS will present the awards during its annual meeting in Washington, DC, at the end of this month.

John I. Brauman will be honored with the NAS Award in Chemical Sciences for "his wide-ranging contributions to the fundamental understanding of chemical reactivity, especially the acid-base, nucleophilic, and hydrogen-bonding properties of ions and molecules," according to the citation. Brauman is J. G. Jackson and C. J. Wood Professor of Chemistry and associate dean of the school of humanities and sciences at Stanford University. A cash prize of \$20 000 and a medal accompany the award, which is handed out annually.

Two scientists will share the Henry Draper Medal, which is awarded every four years. **R. Paul Butler** and **Geoffrey W. Marcy** will be recognized for "their pioneering investigations of planets orbiting other stars via high-precision radial velocities. They have proved that many other planetary systems exist in the universe." Butler is a staff scientist with the Carnegie Institution of Washington in Washington, DC. Marcy is a professor of astronomy at the University of California, Berkeley. They will share the cash prize of \$15 000 and each will receive a medal.

Milton W. Cole, Distinguished Professor of Physics at Pennsylvania State University, will receive the NAS Award for Scientific Reviewing, which is given out annually. He is being cited for "his valued reviews and a monograph, which have critically assessed and inspired novel research concerning electrons and films at surfaces." He will receive a cash prize of \$10 000.

The Alexander Agassiz Medal, a prize that is awarded every three years, will go to **Charles S. Cox**, professor emeritus of physical oceanography at the Scripps Institution of Oceanography in La Jolla, California. Cox was chosen for "his pioneering studies, both theoretical and instrumental, of oceanic waves, microstructure and mixing, and of electromag-

netic fields in the ocean and in the seafloor." He will receive a medal and a cash award of \$15 000.

David J. DeRosier will receive the Alexander Hollaender Award in Biophysics for "his development of three-dimensional image reconstruction methods, which have revolutionized electron microscopy of subcellular structures, and his analytical visualization of cellular motility mechanisms." He is a professor of biology, Abraham S. and Gertrude Burg Chair of Life Sciences, and director of the W. M. Keck Institute for Cellular Visualization at the Rosenstiel Basic Medical Sciences Research Center of Brandeis University in Waltham, Massachusetts. The award, which is presented every three years, carries a cash prize of \$20 000.

The NAS Award for Chemistry in Service to Society, which is presented every two years, will go to **Paul C. Lauterbur** for "his research on nuclear magnetic resonance and its applications in chemistry and medicine, and his contributions to the development of magnetic resonance imaging in medicine." He is a research professor of radiology, Center for Advanced Study Professor of Chemistry, and Distinguished University Professor at the University of Illinois, Urbana-Champaign. He will receive a \$20 000 cash prize.

Robert J. Lefkowitz will receive the Jessie Stevenson Kovalenko Medal for "his elucidation of the structure, function, and mechanism of regulation of heptahelical receptors, nature's detectors of signals from many hormones, neurotransmitters, and drugs." Lefkowitz is an investigator for the Howard Hughes Medical Institute in Chevy Chase, Maryland, and James B. Duke Professor of Medicine and of Biochemistry at the Duke University Medical Center. This award, which is handed out every three years, comes with a medal and a cash prize of \$25 000.

Erin K. O'Shea, an associate professor of biochemistry and biophysics at the University of California, San Francisco, and an assistant investigator with the Howard Hughes Medical Institute in Chevy Chase, Maryland, will be honored with the annual NAS Award in Molecular Biology. She is being cited for "contributions to our understanding of signal transduction, regulation of protein movement into

and out of the nucleus, and how phosphorylation controls protein activity." She will receive a medal and a cash prize of \$25 000.

The James Craig Watson Medal will be given to **David T. Wilkinson**, Cyrus Fogg Brackett Professor of Physics at Princeton University, for "elegant precision measurements by Wilkinson, his students, and their students, of universal radiation that is close to the blackbody yet wonderfully rich in evidence of cosmic evolution." The award, which is presented every three years, is accompanied by a medal and a cash prize of \$25 000.

APS Honors Physics Contributions

The American Physical Society will present a number of awards and prizes at this month's meeting, which will be held in Washington, DC.

APS will give the Hans A. Bethe Prize to **Gerald E. Brown** for his "insightful analyses of the effects of various nuclear constituents on nucleon interactions and nucleon structure" and his "contributions to new viewpoints on supernovae, neutron stars, and black hole formation," according to the citation. Brown is a Distinguished Professor of Physics at the C. N. Yang Institute for Theoretical Physics and the physics and astronomy department at SUNY Stony Brook.

The Tom W. Bonner Prize in Nuclear Physics will be shared by **Claude Lyneis** and **Richard Geller**. The two are praised by APS for their "critical leadership in conceiving and developing the electron cyclotron resonance (ECR) ion source and advanced ECR source, which have opened a new era in heavy ion studies of nuclear phenomena." Lyneis is the director of the 88-inch cyclotron at Lawrence Berkeley National Laboratory and Geller is a science adviser with the Institute of Nuclear Science in Grenoble, France.

Jorge Pullin, a professor of physics and director of the Center for Gravitational Physics and Geometry at Pennsylvania State University, is this year's recipient of the Edward A. Bouchet Award. Pullin is being recognized for his "contributions to the study of gravitational wave propaga-

tion and quantum theory of gravity” and also for his “effort to increase diversity in the field of physics as a founding member of the National Society of Hispanic Physicists.”

Lisbeth D. Gronlund, **George N. Lewis**, and **David C. Wright** will share the Joseph A. Burton Forum Award for their “creative and sustained leadership in building an international arms control physics community and for their own excellence in arms control physics.” Gronlund and Wright are both senior staff scientists at the Union of Concerned Scientists and research scientists with MIT’s security studies program. Lewis is a principal research scientist and associate director of MIT’s security studies program.

The Julius Edgar Lilienfeld Prize will go to **Lawrence M. Krauss**, Ambrose Swasey Professor of Physics, chairman of the department of physics, and professor of astronomy at Case Western Reserve University. Krauss is being honored for his “outstanding contributions to the understanding of the early universe” and his “extraordinary achievement in communicating the essence of physical science to the general public.”

Janet M. Conrad will receive the Maria Goeppert-Mayer Award for her “leadership in experimental neutrino physics, particularly for initiating and leading the NuTeV decay channel experiment and the Mini-BooNE neutrino oscillations experiment,” which are noted for their “timeliness and significance in resolving frontier issues in neutrino physics.” Conrad is an associate professor of physics at Columbia University.

The 2001 Dissertation in Nuclear Physics Award goes to **Daniel Bardayan** for his “innovative experimental development and measurement of the $p(^{17}\text{F}, p)^{17}\text{F}$ elastic scattering reaction at the Oak Ridge Holifield Radioactive Ion Beam Facility in order to find the key low-energy s-wave resonance for the $^{17}\text{F}(p, \gamma)^{18}\text{Ne}$ reaction.” Bardayan’s doctoral work was performed at Yale University under the supervision of Peter Parker. He is currently a Wigner Fellow at Oak Ridge National Laboratory.

Paul D. Grannis will receive the W. K. H. Panofsky Prize in Experimental Particle Physics for his “distinguished leadership and vision in the conception, design, construction, and execution of the D0 experiment at the Fermilab Tevatron proton-antiproton collider.” Grannis is a Distinguished Professor of Physics at SUNY Stony Brook.

The Francis M. Pipkin Award will go to **Jens H. Gundlach** for “identifying, and providing a solution to an unrecognized weakness in the Cavendish technique for measuring the gravitational constant G ; [and] improving the accuracy of G by an order of magnitude.” Gundlach is a research associate professor of physics at the University of Washington.

The recipient of the Prize to a Faculty Member for Research in an Undergraduate Institute is **Paul DeYoung**, chairman of the department of physics and engineering at Hope College in Holland, Michigan. DeYoung is being honored for “his research on reaction processes using short-lived nuclear beams and for his outstanding leadership, both in his research group and his institution, in creating an undergraduate research community.”

The winners of the J. J. Sakurai Prize for Theoretical Particle Physics are **Nathan Isgur**, chief scientist at the Thomas Jefferson National Accelerator Facility, **Mikhail Voloshin**, a professor of physics at the Theoretical Physics Institute at the University of Minnesota and a researcher at the Institute of Theoretical and Experimental Physics in Moscow, and **Mark Wise**, John A. McCone Professor of High Energy Physics at Caltech. They are being recognized for “the construction of the heavy quark mass expansion and the discovery of the heavy quark symmetry in quantum chromodynamics, which led to a quantitative theory of the decays of c and b flavored hadrons.”

The Mitsuyoshi Tanaka Dissertation Award in Experimental Particle Physics will go to **Sunil Golwala** for his “versatile and extensive contributions to the detectors, hardware, electronics, software, and analysis of the results of the Cryogenic Dark Matter Search experiment, which provided the most sensitive upper limits for elastic scattering of weakly interacting massive particles on nucleons.” Golwala, who performed his doctoral work at the University of California, Berkeley, under the supervision of Bernard Sadoulet, is currently a Millikan Postdoctoral Scholar at Caltech.

The Leo Szilard Lectureship Award goes to **John Harte** who is being cited for his “diverse and incisive efforts utilizing physical reasoning and analytical tools for understanding environmental processes and for his teaching and writing to encourage this approach among students and colleagues.” Harte is Class of 1935 Distinguished Professorship Chair

and a joint professor in the energy and resources group and the environmental science, policy, and management department at the University of California, Berkeley.

Claudio Pellegrini, a professor of physics at UCLA, will receive the Robert R. Wilson Prize for his “pioneering work in the analysis of instabilities in electron storage rings, and his seminal and comprehensive development of the theory of free electron lasers.”

The Outstanding Doctoral Thesis Research in Beam Physics award will go to **Shyam Prabhakar** for his “development of beam instability formalisms and diagnostics based on transient-domain beam measurements.” His doctoral research was performed at Stanford University and his dissertation adviser was John D. Fox. Prabhakar is currently a post-doctoral research scientist in the Stanford mathematics department.

IOP Selects 2001 Award Winners

At a January ceremony in London, the UK’s Institute of Physics presented its awards for 2001 to 16 physicists. IOP also named 3 honorary fellows.

Jeremy J. Baumberg, a professor of physics and astronomy and of electronics and computer science at Southampton University in the UK, was honored with the Charles Vernon Boys Medal and Prize for “his outstanding contributions to the application of ultrafast laser spectroscopy to a wide variety of problems in solid-state physics,” according to the citation.

The Mott Medal and Prize went to **Manuel Cardona** in recognition of “his broad and important contributions to the detailed understanding of the optical and electronic properties of solids.” He is an emeritus professor of physics at the Max Planck Institute of Solid State Research in Stuttgart, Germany.

Paul Davies won the Kelvin Medal and Prize for “his outstanding contribution to the popularization of physics through his books, articles, and public lectures.” Davies is a visiting professor at Imperial College, London, and an honorary professor of physics at the University of Queensland in Australia. He also runs a science, media, and publishing consultancy called Orion Productions in South Australia.

Laurence Eaves, Lancashire-Spencer Professor of Physics at the