

# NAS Elects New Members

The National Academy of Sciences has elected 60 new members and 11 foreign associates. This brings the total membership to 1428 and the total of foreign associates to 224. The new members are:

**Giuseppe M. Attardi**, biology, California Institute of Technology; **Jonathan R. Beckwith**, microbiology, Harvard Medical School; **Howard C. Berg**, biology, Caltech; **Robert G. Bergman**, chemistry, University of California, Berkeley; **Ira B. Bernstein**, applied science, Yale University; **John McC. Bremner**, agriculture, Iowa State University; **William F. Brinkman**, physical research, AT&T Bell Laboratories, Murray Hill, N.J.; **Marshall H. Cohen**, astronomy, Caltech; **Stirling Colgate**, Los Alamos National Laboratory; **Joseph M. Daly**, agricultural biochemistry, University of Nebraska, Lincoln; **Roger F. Dashen**, physics, Institute for Advanced Study; **Peter A. Diamond**, economics, Massachusetts Institute of Technology; **Russell F. Doolittle**, chemistry, University of California, San Diego; **David A. Evans**, chemistry, Harvard University.

**Stanley Falkow**, medical microbiology, Stanford University School of Medicine; **Marilyn G. Farquhar**, cell biology and pathology, Yale University School of Medicine; **Gerald D. Fischbach**, neurobiology, Washington University School of Medicine; **Michael H. Freedman**, mathematics, University of California, San Diego; **Gerhard Giebisch**, medicine, Yale University School of Medicine; **James G. Glimm**, mathematics, New York University; **William A. Goddard III**, chemistry and applied physics, Caltech; **Roger C. Green**, anthropology, University of New Zealand, Auckland.

**John L. Hall**, physics, National Bureau of Standards and University of Colorado, Boulder; **Robert M. Hauser**, sociology, University of Wisconsin, Madison; **Elizabeth D. Hay**, anatomy, Harvard Medical School; **Mahlon B. Hoagland**, Worcester Foundation for Experimental Biology; **Nick Holonyak, Jr.**, electrical engineering, University of Illinois, Urbana; **James A. Ibers**, chemistry, Northwestern University; **Mary E. Jones**, biochemistry and nutrition, School of Medicine, University of North Carolina, Chapel Hill.

**Edward A. Kravitz**, neurobiology, Harvard Medical School; **Elliott H. Lieb**, mathematics and physics, Princeton University; **David J. L. Luck**, cell biology, Rockefeller University; **Mortimer Mishkin**, cerebral mechanisms, National Institute of Mental Health; **William W. Mullins**, applied sciences, Carnegie-Mellon University; **Jacob Nachmias**, psychology, University of Pennsylvania; **Alfred Nisonoff**, biology, Brandeis University; **Jack E. Oliver**, geology, Cornell University; **George W. Parshall**, chemical sciences, central research and development, E. I. du Pont de Nemours & Company; **Stanley J. Peloquin**, genetics and horticulture, University of Wisconsin, Madison; **Leopold J. Pospisil**, anthropology, Yale University; **Murray Rosenblatt**, mathematics, University of California, San Diego; **Michael G. Rossman**, biological sciences, Purdue

University; **Janet D. Rowley**, medicine, University of Chicago; **William J. Rutter**, School of Medicine, University of California, San Francisco; **Gordon H. Sato**, W. Alton Jones Cell Science Center, Lake Placid, New York.

**Thomas C. Schelling**, economics, Harvard University; **Thomas W. Schoener**, zoology and environmental studies, University of California, Davis; **Edward M. Scolnick**, virus and cell biology, Merck Sharp & Dohme Research Laboratories, West Point, Pennsylvania; **Charles V. Shank**, quantum physics and electronics research, AT&T Bell Laboratories; **James M. Sprague**, anatomy, University of Pennsylvania School of Medicine; **Frank H. Stillinger, Jr.**, AT&T Bell Laboratories; **Edward C. Stone, Jr.**, physics and chemistry, Caltech; **Lubert Stryer**, structural biology, Stanford University; **Nathan E. Tolbert**, biochemistry, Michigan State University; **Karl K. Turekian**, geology and geophysics, Yale University; **Jonathan W. Uhr**, microbiology, University of Texas Southwestern Medical School; **James W. Valentine**, geology and evolutionary biology, University of California, Santa Barbara; **Harold E. Varmus**, microbiology and immunology, University of California, San Francisco; **Joseph E. Varner**, biology, Washington University; **Ray J. Weymann**, astronomy, University of Arizona.

The new foreign associates are:

**Werner Arber**, biology, Abteilung Mikrobiologie, Biozentrum der Universität, Basel, Switzerland; **David R. Bates**, physics and mathematical sciences, Queen's University of Belfast, Northern Ireland, United Kingdom; **William Brass**, population studies, London School of Hygiene and Tropical Medicine, United Kingdom; **Harald Cramer**, former chancellor of the Swedish university system, Stockholm, Sweden; **Jack Halpern** (Canada), chemistry, University of Chicago; **John L. Harper**, agricultural botany, University College of North Wales, Bangor, United Kingdom; **Tomas Hokfelt**, histology in cell biology, Karolinska Institut, Stockholm, Sweden; **Gerard 't Hooft**, Institut voor Theoretische Fysika, University of Utrecht, Utrecht, Netherlands; **Aaron Klug**, structural studies, Laboratory of Molecular Biology, Medical Research Council, Cambridge, United Kingdom; **Georg F. Melchers**, emeritus member, Max-Planck Institut für Biologie, Tübingen, West Germany; **Bohdan Paczynski** (Poland), Princeton University Observatory; **Michael O. Rabin**, mathematics, The Hebrew University and Harvard University, Jerusalem, Israel; **Bengt Samuelsson**, physiological chemistry, Karolinska Institut, Stockholm, Sweden; **Nai Xia**, Institute of Archaeology, Chinese Academy of Social Sciences, Beijing, People's Republic of China.

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exposure was at least twice the public limit. "It is assumed that any member of the general public may receive external exposure up to 25 [rads] without danger," one test site report said. "For areas where exposure above 50 [rads] may occur, consideration must of necessity be given to evacuating personnel, but such a step should not be taken unless it is firmly regarded as essential."

The activities of a test site employee named Frank Butrico in the aftermath of the HARRY blast in 1962 were said by the judge to be tragically commonplace. Dispatched to the town of St. George, Butrico recorded radiation readings so high that they exceeded the limit of his portable monitor. Although he was advised by a superior to discard his clothing and take several showers, Butrico failed to convey this warning to anyone else. This was not an isolated instance, the judge added. In a safety manual for test site employees, for example, workers were told that "since there is no proof that living tissue is actually tolerant of ionizing radiation, even at background levels, the aim should always be to keep radiation exposures as small as possible." In a free government handout, however, the public was informed that "the body can withstand considerably greater doses of radiation than that from normal background because the effects are repaired almost as rapidly as they are produced."

In the end, Jenkins concluded that the government was responsible for inflicting seven persons with leukemia, one with breast cancer, one with thyroid cancer, and one with lymphoma. Each was said to have "developed a biological condition which is consistent with having been caused by the hazard to which he was negligently subjected, such consistency having been demonstrated by substantial, appropriate, persuasive and connecting factors." He dismissed 14 additional claims involving different cancers, largely because epidemiological studies had failed to discover an increased incidence of those cancers in the Utah-Nevada area.

The potentially costly ramifications of the decision were foreseen by the government in 1980, when an interagency task force warned in a confidential report that an adverse ruling "would have precedential impact upon other occupational and environmental pollution cases, with far-reaching impact on both existing [government] compensation programs as well as future litigation." Justice Department attorneys have indicated that they will file an appeal.—**R. JEFFREY SMITH**