

who later became well known for their work. The list of scientists who received grants from Research Corporation in their early days includes Robert H. Goddard; Grote Reber, the inventor of the radio telescope; R. J. Van de Graaff; Ernest O. Lawrence; James A. Van Allen; Neil Bartlett, who showed that noble gases react with fluorine compounds, and many others.

Grant applications are processed by a referee system and a scientific advisory panel and are awarded three times a year. "Virtually all the proposals we get that are able to stand up under scrutiny of their scientific merit get funded," Smith said. "We'd like to see more really good applications coming in and let their pressure determine whether more money can be made available."

Information about grants may be obtained from Research Corporation, 405 Lexington Ave., New York, N.Y. 10017.

—SMH

Industry

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had not received its funding as of this writing, but it was expected to get between \$7.0 million and \$14.0 million for FY 1973.

In his talk Branscomb noted a need to improve the environment for using research in industry to involve more physicists. He said that during the period from 1966 to 1971 there had been a decline in federal investment in R&D with a concurrent increase in industrial R&D support.

He remarked that there are two broad uses of R&D in industry and that each is supported differently by industry. Research, he said, can be used to bring new technology to the market place, or it can be used to increase productivity.



BRANSCOMB

The former case is difficult to fund, he asserted, because of the high technological and market risks involved. In fact, most industrial physics is now involved in the latter area. Branscomb noted that in the future the service industries may become important sources for R&D funding.

He observed that industrial research is not only limited by the R&D community, but by other social and governmental factors. He mentioned the difficulties often encountered when introducing new technology, difficulties caused by the inability of industry, labor and government to link up their efforts rapidly enough.

Branscomb said that the opportunities for physicists in industry also depend on the physicists themselves. Physicists probably have an educational advantage but, during the 1960's physicists had a mistaken idea of employment opportunities. He believes that it is unfortunate that the mission-oriented agencies have cut back on support in the "useful disciplines" such as solid-state physics and atomic and molecular physics.

—SMH

Four physicists appointed to National Science Board

The following physicists were appointed to the National Science Board of the National Science Foundation: Hubert Heffner, professor of applied physics, Stanford; William A. Nierenberg, director, Scripps Institution of Oceanography; Russell D. O'Neal, Executive Vice President for Aerospace, Bendix Corporation, and Joseph M. Reynolds, professor of physics and vice president for instruction and research, Louisiana State University. Members of the board serve terms of six years.

General Motors expands science-research effort

General Motors Research Laboratories are being expanded with a concurrent increase in the number of staff physicists. The expansion will take place over the next five years.

A General Motors Science Advisory Committee, headed by Charles H. Townes, studied the scientific research activities at GM and found that a large part of the research effort was being directed to applied research in areas such as air-pollution control and automotive safety. The committee advised GM to move into additional areas of basic research. As a result, GM management decided to expand the research activities of the laboratories.

The General Motors Research Laboratories professional staff numbers about 550, of whom 50 are physicists. GM estimates that the expansion will

bring in about 250 more professional scientists over the next five years; the increase in staff will take place concurrently with the expansion. A GM spokesman told PHYSICS TODAY that they estimate 10 PhD physicists will be hired over the next year.

General Motors Research Laboratories supports physics research in the following areas: solid state, surfaces, physical electronics, chemical physics and magnetism, metal physics and mathematical physics. In addition, General Motors physicists have done innovative work in traffic science.

—SMH

Alvarez to join PSAC; Tape is reappointed

Luis W. Alvarez, professor of physics at the University of California at Berkeley and Gerald F. Tape, president of Associated Universities, have been appointed members of the President's Science Advisory Committee. Tape, who had been filling a short-term appointment on the committee, was reappointed for a full term. The appointments expire 31 Dec. 1975. The committee now has 20 members.

Scientists are needed for White House fellowships

The White House Fellows Program gives an opportunity to about 20 Americans between the ages of 23 and 35 annually to spend a one-year internship as special assistants to members of the President's Cabinet and White House staff. Presidential Science Adviser Edward E. David Jr said "There is an unquestionable need for highly qualified scientifically and engineering oriented young men and women to gain the unique experience the White House Fellows program offers."

Those interested should contact the director of the program, Bernard Loeffke, in Washington D.C. at (202) 382-4661.

Physics at NYU gets new building, new programs

The opening of New York University's new Andre and Bella Meyer Hall of Physics was marked this spring with a symposium on "Frontiers of Physics." Prior to the opening of Meyer Hall, the physics department's teaching and research activities were spread over five buildings on both the Washington Square and Bronx campuses. All physics activities will now be conducted at Meyer Hall, which is located at 2 Washington Place in the Washington Square Center.

The opening of Meyer Hall repre-

sents the culmination of changes in NYU's physics department's programs and physical environment that were begun in 1968 (PHYSICS TODAY, January 1968, page 120). Among the new physics programs at NYU are experimental laboratories in light scattering in condensed matter and biological systems (Herman Z. Cummins and Harry C. Swinney), low temperature physics (Samuel J. Williamson) and high-energy physics (James Christenson).

Another major change in the department is the increased number of full-time graduate physics students; in 1968 only two-fifths of the students were full-time, today one-half of the students are full-time. Many of these changes were made possible by a \$3.75 million National Science Foundation University Science Development Grant.

Hirsch is acting head of AEC fusion division

Robert L. Hirsch, senior physicist in the Atomic Energy Commission's Division of Controlled Thermonuclear Research, has been named acting director of the Division. He succeeds Roy W. Gould, who became head of the Division when it was formed. Gould will return to Cal Tech; he had been on leave of absence since joining the AEC in 1968. Hirsch received his PhD from the University of Illinois in 1964. For the next four years he headed the Department of Nuclear Engineering and Plasma Physics at the ITT Industrial Laboratories. He is chairman of the Technical Group for Controlled Nuclear Fusion of the American Nuclear Society.

State governments' use of science questioned

The federal government has developed great reservoirs of useful scientific knowledge, but this knowledge has not filtered down to the individual states where it must be used to solve social problems. This is the conclusion of two recently released reports by the Council of State Governments and by the Federal Council of Science and Technology.

Among the Council's recommendations is that a National Science Foundation Public Technology Task Force be created to suggest areas where science and technology could be used by the states to solve social problems, and that states should put more emphasis on science and technology by bringing science advisers into budget decisions. This report, "Power to the States: Mobilizing Public Technology," is available from the Council of

State Governments, Iron Works Pike, Lexington, Ky. 40505.

The federal report, "Public Technology, A Tool for Solving National Problems," states that state and local governments are not prepared to handle their public-technology role and that the federal government should, therefore, assist them. This report is available from the US Government Printing Office, Washington, D. C. for \$0.40.

Nine science development awards announced by NSF

The National Science Foundation has awarded \$9 million to nine universities for improvement of their graduate research and training in science and engineering. The grants were in the form

of two-year NSF supplemental University Science Development (USD) awards. Previously, these universities had received three-year USD awards in the years 1967-69. The awards were based on five-year improvement plans submitted by the universities to NSF.

Although the funds are being allocated to various departments in the nine universities, the physics departments in all nine universities are included. The universities receiving USD awards are: Carnegie Mellon University, \$450 000; Duke University, \$650 000; Florida State University, \$1 200 000; Indiana University, \$1 470 000; Michigan State University, \$1 180 000; New York University, \$1 600 000; University of Pittsburgh, \$800 000; Purdue University, \$300 000, and Vanderbilt University, \$1 350 000.

in brief

Dixy Lee Ray, a marine biologist who was director of the Seattle Science Center and an associate professor of zoology at the University of Washington, was appointed to the Atomic Energy Commission. The second woman to serve on the Commission, she replaces Wilfred Johnson, whose term has expired.

Single copies of *Guidelines for Employment Opportunities in Astronomy*, prepared by the American Astronomical Society's Committee on Manpower and Employment are available free from AAS, 211 FitzRandolph Road, Princeton, New Jersey 08540.

Nuclear Data Compilations: The Lifeblood of the Nuclear Sciences and Their Applications, a report containing a short history of nuclear data compilations and an analysis of their structures and functions, is available from the National Academy of Sciences, Committee on Nuclear Science, 2101 Constitution Ave, Washington, D. C. 20418.

All individuals planning to observe the 1973 solar eclipse in Mauritania must supply advance information of their intent to the Mauritanian government. Mauritania may limit the number of people permitted to enter the country. Forms may be obtained from the Solar Eclipse Coordinator, Room 706, National Science Foundation, Washington, D. C. 20550.

The National Technical Information Service is publishing *Weekly Government Abstracts*, which reports on technical information in "Environmental Pollution and Control"

(\$22.50 per year), "Computers, Control & Information Theory" (\$22.50), "Materials Sciences" (\$22.50), "Transportation" (\$17.50) and "Management Practice and Research" (\$17.50). For further information write to T. L. Lindemann, US Department of Commerce, NTIS, Washington, D. C. 20230.

A summary (SUMMARY AIP Pub. R-205.1) of the book *Graduate Programs in Physics, Astronomy and Related Fields* is available from the American Institute of Physics, 335 E. 45th St, New York, N. Y. 10017. Single copies are available free (when accompanied by a self-addressed, stamped, number ten envelope); a greater number of copies costs \$0.25 each or \$20.00 per 100. The book may also be purchased from AIP at \$7.50 per copy (when remittance accompanies the order).

A Science Policy for Canada: Targets and Strategies for the Seventies has been published as the second volume of a report by the Senate Special Committee on Science Policy. For information about the report contact C. Smithers, Special Committee on Science Policy, The Senate, Ottawa, Canada.

Federal Funds for Research, Development and Other Scientific Activities, Fiscal Years 1970, 1971 and 1972, Vol. XX (NSF 71-35) has been released by the National Science Foundation. Copies of the report are available from the US Government Printing Office, Washington, D. C. 20402 for \$2.00 per copy.

A seven-volume report to the White