

News and Notes

Conference on the Use of Tritium in Organic and Biological Chemistry

IN order to facilitate the exchange of information among scientists engaged in research involving tritium, the radioactive isotope of hydrogen, a conference, sponsored by the Argonne National Laboratory, was held at the Laboratory on June 19, 1953. This conference, the first to deal exclusively with the use of tritium in chemical and biological research, was organized by Dr. A. R. Van Dyken and was attended by 70 scientists representing 35 laboratories in the United States and one in Canada.

The conference, introduced by Dr. J. C. Boyce, Associate Laboratory Director, was held in two sessions. The morning session, devoted to the determination of tritium, was presided over by Professor W. G. Brown of the University of Chicago. Dr. K. E. Wilzbach of Argonne National Laboratory discussed the determination of tritium in organic compounds by ion current measurements. Dr. F. N. Hayes of Los Alamos Scientific Laboratory described the scintillation counting of tritium compounds. The absolute beta counting of tritium was discussed by Dr. R. C. Hawkings of the Chalk River Project, Atomic Energy of Canada Limited, who would welcome requests for samples of tritium water for intercomparison by laboratories doing absolute counting. Dr. A. A. Ben-

son of the University of California spoke on the paper chromatography of tritiated intermediates of photosynthesis. Extended remarks were added at the conclusion of several of the invited papers. Dr. V. P. Guinn of the Shell Development Company described ion current measurements at his laboratory, Dr. D. E. Beischer of U. S. Naval School of Aviation Medicine, Pensacola, discussed radioautography of monolayers, and Dr. H. L. Bradlow of Sloan-Kettering Institute for Cancer Research discussed solid counting.

The afternoon session, with Dr. Van Dyken presiding, was concerned with chemical problems encountered in the use of tritium. Dr. A. R. Ronzio of Los Alamos Scientific Laboratory described the procedures used in the synthesis of tritium compounds, particularly at high concentrations. Dr. D. K. Fukushima of Sloan-Kettering presented the results of studies of the platinum-catalyzed exchange of hydrogen isotopes with steroids. The isotopic fractionation encountered in the use of tritium in chemical systems was discussed by Dr. L. Kaplan of Argonne, and Dr. M. L. Eidinoff described the determination of isotope effects in some biological systems.

A. R. VAN DYKEN
K. E. WILZBACH
L. KAPLAN

Argonne National Laboratory

A Summer Conference in Collegiate Mathematics

A Summer Conference in Collegiate Mathematics was held at the University of Colorado from June 15 to August 8. The National Science Foundation first made the suggestion that such a conference be held. The Committee on Regional Development of the National Research Council made the preliminary plans, including designation of location and objectives; and the National Science Foundation granted financial support.

The primary object of the Conference was to assist teachers in colleges and universities not closely associated with the big research centers to improve the quality and quantity of undergraduate majors in mathematics; this to be accomplished by giving such teachers an opportunity to think and to discuss mathematics under the guidance of men who are not only nationally known, but who can give to non-specialists clear and inspiring pictures of the sweep and depths of present-day mathematics.

During the Conference, Professor Emil Artin of Princeton University lectured on "Modern Developments in Algebra" and Professor Raymond L. Wilder of the University of Michigan on "Foundations of Analysis and Geometry." Other lectures were Professor George Polya of Stanford University, who

discussed "Great and Small Examples of Problem Solving"; Professor E. P. Northrup of the University of Chicago discussed "Elements of Mathematics from a Modern Standpoint"; and Dr. Carroll V. Newsom, Associate Commissioner of the University of the State of New York, considered the "Appraisal of the Undergraduate Curriculum in Mathematics." In addition to the regularly scheduled lectures, various persons travelling through Boulder kindly consented to talk to the group. The notes of the lectures were compiled by assistants and reproduced for members of the Conference.

The grant of the National Science Foundation not only provided for salaries of lecturers but included funds to provide stipends for 21 members. The University of Colorado assumed part of the cost of secretarial help, costs of dispensing the funds, and allied expenses.

In addition to the scheduled program, an informal group was formed to consider curriculum problems and to permit interchange of information on undergraduate programs at various institutions represented. Since most of the members of the Conference lived and had their meals in one of the residence halls of the University, there was ample opportunity for becoming acquainted and comparing notes on mathematics and teaching problems.

It is hoped that the success of this Summer Conference will result in similar national conferences being held in other localities in the future.

BURTON W. JONES

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Dr. Bronk Assumes New Post

Detlev W. Bronk, sixth president of The Johns Hopkins University, announced his resignation June 24 to become president of the Rockefeller Institute for Medical Research following a merger of the Institute's Board of Trustees and Board of Scientific Directors into a single Board of Trustees. Herbert S. Gasser, who is retiring as director of the Institute, a position that he has held since 1935, will be succeeded by Thomas M. Rivers. Both men are graduates of The Johns Hopkins University School of Medicine. Dr. Gasser, who, with Joseph Erlanger, was awarded the Nobel Prize in 1944 for research in the physiology of nerve fibers, will become member emeritus and continue his scientific work at the Institute. Dr. Rivers first became associated with the Institute in 1922, and has been director of the Rockefeller Hospital since 1937.

Dr. Bronk became president of The Johns Hopkins University on January 1, 1949, succeeding the late Isaiah Bowman. He is the author of the Hopkins plan, a program announced in 1951, which is designed to erase the long-standing barriers between undergraduate and graduate study, enabling students to progress at their own speed.

Dr. Bronk is chairman of the board of directors of the American Association for the Advancement of Science and president of the National Academy of Sciences. Upon accepting the latter honor in 1950, he resigned the chairmanship of the National Research Council, a post he held for four years. He was appointed by President Truman to the executive committee of the National Science Foundation, which was organized in 1950 to advise the Federal Government on defense problems.

Born in New York City on August 13, 1897, Dr. Bronk received his A.B. degree from Swarthmore College in 1920. While still an undergraduate he served as a naval aviator in World War I, later spending a short period as assistant power engineer of the Philadelphia Electric Company and as instructor of physics at the University of Pennsylvania. His scientific career began in 1921, when, as a graduate student and physics instructor at the University of Michigan, he and two others published a paper that is a classic in infrared spectroscopy and which gave rise to the theory of half quantum numbers. After receiving his M.S. degree at Michigan, he became interested in physiology and earned his Ph.D. in both physics and physiology. In 1926 Dr. Bronk went to England, where he studied the heat produced by muscle. He and E. D. Adrian of Cambridge University were the first to record elec-

trical activity in single nerve fibers, opening an entirely new field of neurophysiology.

Upon his return to the U.S., he became professor of biophysics and director of the Eldridge Reeves Johnson Foundation at the University of Pennsylvania, then joined The Johns Hopkins University as president in 1949. Holder of 15 honorary degrees, Dr. Bronk is intensely interested in the metabolic requirements of nerve tissue, the problems of synaptic transmission in sympathetic ganglia, the action of single neurones, and the effects of chemical agents on the metabolism and function of nerve tissue.

New President for The Johns Hopkins University

Lowell J. Reed has been appointed president of The Johns Hopkins University, effective September 1, succeeding Detlev W. Bronk. Dr. Reed is internationally known for his contributions to biostatistics and public health administration. He has been influential in developing biostatistics to the point where its basic methods are being used by investigators in other scientific fields and in business organizations.

With the late Raymond Pearl, he developed the mathematical formula for the "logistic curve" relating to the growth of populations in all parts of the world. This enabled scientists to predict the growth of cities, states, and even countries. Using biostatistical methods, Dr. Reed made important contributions to the prediction of epidemics, their virulence, and their duration.

Dr. Reed was born in Berlin, New Hampshire, in 1886. He received his B.S. and M.S. degrees from the University of Maine and, in 1915, his doctorate from the University of Pennsylvania. He returned to the University of Maine to teach mathematics and physics before going to Washington, D. C., in 1917, to head the wartime Bureau of Tabulations and Statistics for the War Trade Board.

In 1918, Dr. Reed was appointed associate professor of biostatistics at The Johns Hopkins School of Hygiene and Public Health and 7 years later succeeded Dr. Pearl as professor and head of the Department of Biostatistics. He was made dean and director of the School in 1937, a position he held until 1947 when he became vice-president of The Johns Hopkins University in charge of medical activities. In 1949 Dr. Reed became the first person to serve as vice-president of both The Johns Hopkins University and The Johns Hopkins Hospital. In addition to playing a vital role in the development of these institutions in the past 35 years, Dr. Reed has continued his work in research and as scientific consultant. Between the two World Wars he served the government in many capacities.

Since 1940, he has been a consultant on manpower and medical statistics to the surgeons general of the Air Force, Navy, and Army, as well as to the U.S. Public Health Service, Selective Service, Department of State, National Research Council, and Veterans

Administration. He is also a member of the National Advisory Health Council.

Dr. Reed was chairman of the United States Delegation to the Inter-American Demographic Conference held in Mexico City in 1943. In 1947, he headed the United States Committee on Joint Causes of Death which won the Lasker Award in Public Health for its specific work on the International List on Morbidity and Mortality. Following World War II, he was a member of the President's Commission on the State of the Nation's Health.

A fellow and former president of the American Public Health Association, Dr. Reed is a fellow, director, and former president of the American Statistical Association; a former president of the Population Association of America; and a fellow of the American Medical Association.

Scientists in the News

Patrick James Fitzgerald, Assistant Pathologist at Memorial Hospital, New York, and Assistant in the Department of Physics in the Sloan-Kettering Institute, has been appointed Professor and Chairman of the Department of Pathology at the New York State University College of Medicine, Albany.

Edward J. Graul, soils, and **Ira R. Sisk**, surgery, have retired with emeritus status from the faculty of the University of Wisconsin.

Nathan S. Haseltine, medicine and science editor of *The Washington Post*, has been appointed Representative to the AAAS for the National Association of Science Writers. He succeeds **Herbert B. Nichols**, information officer of the U.S. Geological Survey and science writer for the *Christian Science Monitor*, who has served as the organization's AAAS Representative since 1947.

Clifton K. Himmelsbach has been appointed Assistant Chief, Division of Hospitals, Public Health Service, Department of Health, Education, and Welfare. Formerly Medical Officer in Charge of the U.S. Public Health Service Outpatient Clinic in Washington, D.C., Dr. Himmelsbach succeeds **Myron D. Miller**, recently assigned as Medical Officer in Charge of the U.S. Public Health Service Hospital, Seattle, Washington. As Assistant Chief of the Division of Hospitals, Dr. Himmelsbach's new responsibilities involve the administration of the 16 hospitals and 125 outpatient facilities that comprise the medical care program for legal beneficiaries of the USPHS.

Frederick Lee Hisaw, Professor of Zoology at Harvard University since 1935, has been named Fisher Professor of Natural History at Harvard. Dr. Hisaw is an embryologist, physiologist, and endocrinologist whose research has contributed to medical studies in obstetrical and gynecological problems. He was the discoverer, in 1944, of the female sex hormone, relaxin, and in 1951 received the Gold Medal of the American Society of Gynecologists for his research

on basic biological aspects of the female reproductive tract.

Neil B. Hutcheon, Professor of Mechanical Engineering at the University of Saskatchewan since 1944, has accepted the appointment of Assistant Director of the Division of Building Research for the National Research Council of Canada, Ottawa.

José Oliver-Gonzalez, Associate Professor of Parasitology at the School of Tropical Medicine, University of Puerto Rico School of Medicine, has been appointed Chief, Parasitology Division, Tropical Disease Research Laboratory, U.S. Army, San Juan, Puerto Rico. He will continue his association with the School of Medicine as a lecturer in Medical Parasitology and will also be in charge of several research projects.

Two members of the General Electric Advanced Electronics Center at Cornell will teach in the university's School of Electrical Engineering next academic year. They are **H. R. Oldfield, Jr.**, operations manager at the Center, and **Ben Warriner**, an engineering supervisor. Mr. Oldfield, as a visiting professor of electrical engineering, will give courses in High Speed Analogue and Digital Electronic Computers; Mr. Warriner, a visiting associate professor, will teach Microwave Technics.

King Baudouin of Belgium recently presented the Cross of the Belgian Royal Order of the Lion and a \$10,000 award to **Louise Pearce**, an American biologist, for her part in the discovery of trypanamide, a drug used to fight sleeping sickness. Dr. Pearce conducted a study of the disease in the Belgian Congo.

The Belgian Government awarded a total of \$18,000 to Dr. Pearce and her three American collaborators, who perfected trypanamide at the Rockefeller Institute for Medical Research in New York 34 years ago. The drug is widely used in the Belgian Congo. **Walter A. Jacobs** of New Rochelle, N. Y., and **Michael Heidelberger** of Columbia University, received \$2000 each and were presented the decoration of Officer of the Order of Leopold II. An additional \$4000 was for the late **W. H. Brown** of Princeton.

Charles E. Price, who recently left his post as Medical Director of Hahnemann Hospital, Philadelphia, to assume the position of Medical Director of the General Hospital at Fresno County, Fresno, Calif., will be succeeded by **Harold A. Taggart**, Assistant Dean of Hahnemann Medical College. Dr. Taggart will serve in an acting capacity until a permanent appointment is made.

Eugene P. Reagan, a plant quarantine official for the U.S. Department of Agriculture since 1929, has been appointed Assistant Chief in charge of regulatory activities of the USDA's Bureau of Entomology and Plant Quarantine, Washington, D. C.

The Lamme Award of the American Society for Engineering Education, the highest honor in this

field, has been presented to **H. S. Rogers**, President of the Polytechnic Institute of Brooklyn.

The State University of New York College of Medicine, Syracuse, has appointed **A. Harry Rubenstein** as Professor and Chairman of the Department of Otolaryngology, and **Robert O. Gregg** as Professor and part-time Chairman of the Department of Surgery. Dr. Rubenstein has been a member of the college staff since 1925 and Dr. Gregg since 1941.

Grants and Fellowships

Eighteen new research contracts in mathematical studies have been negotiated with colleges and universities by the U.S. Air Force's **Air Research and Development Command (ARDC)**, Baltimore. These contracts are among the more than 190 being monitored by ARDC's Office of Scientific Research with educational institutions throughout the United States for research in the mathematical, physical, and life sciences which support air technology.

The **Daniel and Florence Guggenheim Foundation** has awarded fellowships to ten men to enable them to carry on advanced study at the **Guggenheim Jet Propulsion Center, Princeton University**. The awards are granted annually to outstanding students who are selected for their technical ability, leadership qualities, and interest in the rocket and jet propulsion field. Each fellowship provides a stipend ranging from \$1200 to \$2000 for the year, plus tuition. The objective of this fellowship program is to train promising young men for leadership in the future development of rockets and jet propulsion, with emphasis on peacetime uses.

The **Florida State Museum** has completed negotiations with the U.S. Department of the Interior, through the **National Park Service**, which has made available a \$1500 grant for the purpose of carrying out a biological survey of the lower Chattahoochee and Flint River Basins. The survey will involve the study of animals and plants found in territories which will be inundated by the construction of the Jim Woodruff Dam on the Appalachicola River. J. C. Dickinson, Jr., Curator of Biological Sciences at the Museum, will direct the field work which is already in progress.

Georgetown University has been awarded a grant of \$38,873 by the U.S. Department of Defense to prepare equipment and train personnel for the next big solar eclipse which will take place on June 30, 1954. There are to be 15 observation sites within the path of the eclipse and these stations will be as far apart as Canada and Iran. Observers trained at Georgetown will measure the light of the eclipsed sun along the path of the moon's shadow with photo-electric cells. Other university groups participating in the project will use photography. The two methods will be checked against each other for accuracy.

The **National Science Foundation** will receive applications for a limited number of grants to assist in payment of travel expenses to six international scientific meetings in the mathematical, physical, and engineering sciences to be held during the latter half of 1954. The meetings of interest are:

International Union of Pure and Applied Physics, London, England, July 6-10, 1954. *Applications should be received before Dec. 1, 1953.*

World Power Conference, Rio de Janeiro, Brazil, July 25-Aug. 8, 1954. *Applications should be received before Dec. 1, 1953.*

International Union of Theoretical and Applied Mechanics, Brussels, Belgium, July 28-Aug. 2, 1954. *Applications should be received before Dec. 1, 1953.*

International Mathematical Congress and International Mathematical Union, Amsterdam and The Hague, Netherlands, Aug. 30-Sept. 9, 1954. *Applications should be received by Jan. 1, 1954.*

International Union of Geodesy and Geophysics, Rome, Italy, Sept. 16, 1954. *Applications should be received by Jan. 1, 1954.*

International Scientific Radio Union, Amsterdam, Netherlands, Sept., 1954. *Applications should be received by Jan. 1, 1954.*

Applications forms may be obtained upon request from the National Science Foundation, Washington 25, D.C.

The **National Science Teachers Association**, a department of the National Education Association, has announced the third annual program of **Recognition Awards for Science Teachers**. Awards of \$400, \$300, \$200, and \$100 will be given for the best reports of outstandingly good science teaching ideas and practices. Fields of instruction covered by the awards program include elementary science, junior high school science, and all areas of science at the senior high school level. Additional information about the program may be obtained by writing to the National Science Teachers Assoc., 1206 16th St., N.W. Washington 6, D.C.

New York University is launching a program of research to determine how sea-surface conditions, especially sea-surface temperatures, are influenced by the atmosphere. The **Office of Naval Research** has awarded the university's Engineering Research Division a year's contract for the investigation. Gerhard Neumann, Associate Professor of Oceanography, will direct it. The research will involve a study of the thermocline, an ocean layer through which the temperature changes abruptly. Variations of sea temperatures are of potential military significance because they influence sound propagation through the water and thus affect the operation of naval sounding devices.

It has been announced by the **Public Health Service, Department of Health, Education, and Welfare** that beginning July 1 applications for postdoctoral and special research fellowships in the field of mental health, as well as in other health fields, will be reviewed twice each year, rather than three times a year as at present. Such applications should be submitted *prior to Oct. 15 or Feb. 15*; awards will be announced

about three months later. Research grant applications will continue to be reviewed three times a year, with the following closing dates for the coming year: *Aug. 15*, *Nov. 1*, and *March 1*. Awards will be announced from four to five months after the closing dates. For further information and application forms, write to Dr. John C. Eberhart, Chief, Research Grants and Fellowships Branch, National Institute of Mental Health, Bethesda 14, Md.

The **Theobald Smith Award Committee** for 1953 has been appointed by E. U. Condon, President of the AAAS. The following men will serve: William B. Castle, M.D., Boston City Hospital; Harry S. N. Greene, M.D., Yale University School of Medicine; H. B. van Dyke, M.D., Columbia University College of Physicians and Surgeons; W. Barry Wood, Jr., M.D., Washington University School of Medicine. Cornelius P. Rhoads, M.D., of Memorial Center for Cancer and Allied Diseases and Vice President of AAAS Section N, is chairman, ex officio; and Allan D. Bass, M.D., of Vanderbilt University School of Medicine and Secretary of Section N, is secretary, ex officio.

A \$1500 fellowship in physics at the University of Virginia has been renewed by the **United States Rubber Company** for the academic year beginning July 1, 1953. This was started in 1948. Other graduate fellowships provided by the U.S. Rubber Co. include those for science students at California Institute of Technology, Cornell University, Harvard University, University of Illinois, Massachusetts Institute of Technology, Northwestern University, University of California, University of California at Los Angeles, University of Chicago, University of Minnesota, and University of Wisconsin. There is also a fellowship in polymer physics at the University of Notre Dame. All these are now on a five-year basis.

In the Laboratories

The **Fleischmann Laboratories**, New York, N. Y., research and development unit of Standard Brands, Inc., will move to Stamford, Conn., on Sept. 15.

The first class was graduated recently from a new Aircraft Instruments School conducted by the **General Electric Company's** Meter and Instrument Department at its Lynn, Mass., plant. A comprehensive course on G-E's new jet engine flowmeter was offered during the session. The School was attended by Royal Canadian Air Force squadron leaders, Douglas Aircraft engineers, G-E service engineering representatives, and company sales engineers. Additional sessions on G-E aircraft instruments will be held later this year for other groups.

The formation of the **Matholin Corporation** to manufacture, sell, and conduct research on hydrazine, a new commercial chemical, has been announced jointly by John M. Olin, President of Olin Indus-

tries, Inc., and Thomas S. Nichols, President of the Mathieson Chemical Corporation. The new company will be owned equally by the two men, and its first plant will be one recently completed by the Mathieson Chemical Corporation at Lake Charles, La. Heretofore hydrazine has been a laboratory curiosity, but some 2000 derivatives have now been reported. The material, or its derivatives, is being used in medicinal, agricultural, plastic, and many other products.

The **National Vitamin Foundation, Inc.**, has moved to more adequate quarters at 15 East 58th Street, New York, N. Y.

The Engineering Division of the **Stanford Research Institute** has revised and expanded the organization of its Aircraft Radiation Systems Laboratory. Expansion of industrial services in aircraft and communications programs has necessitated the regrouping of related technical sections into a division to be known as the Radio Systems Laboratory. Also, the broadened scope of research and development in the areas of radio communications at the Institute has made it desirable to change the name of the Single Sideband Communications Group to that of Communications Group. Formerly a separate research section, the Communications Group will henceforth be a part of the Radio Systems Laboratory. Heading the new structure will be J. V. N. Granger, Assistant Chairman of the Engineering Department. The Assistant Head is John T. Bolljahn.

The Isotopes Division, **U.S. Atomic Energy Commission**, Oak Ridge, Tenn., has reorganized its technical staff. The Isotopes Division is the AEC unit responsible for the national and international distribution of stable and radioactive isotopes. Under the new arrangement, the Division will consist of three major branches. The Allocations Branch will review and act upon all applications for isotopic materials. The Radiological Safety Branch will assist radioisotope users in matters of health protection, and the Technical Developments Branch will be responsible for preparing and disseminating information on isotope utilization and for outlining and encouraging training in isotope techniques. Key personnel of the Division are: Paul C. Aebersold, Director; Charles E. Crompton, Assistant Director; Stephen P. Cobb, Jr., Technical Assistant to the Director; James R. Mason, Chief, Allocations Branch; G. W. Morgan, Chief, Radiological Safety Branch; and Edwin A. Wiggin, Chief, Technical Developments Branch.

U.S. Steel has started construction of a modern research center devoted to the development of new processes for making better steels, to be located in Monroeville, Pa. Plans call for three buildings with a total floor area of 132,000 square feet which will house experimental equipment for studying every phase of steel processing from the raw material stage to the finished product. Equipment will range from electron microscopes to pilot lines for tin-plating and for coating of other metals.

Miscellaneous

Cortisone (compound E) and **hydrocortisone** (compound F) have been atomically labelled with carbon 14 for the first time, it has been announced jointly by the National Institutes of Health, Sloan-Kettering Institute and the Worcester Foundation for Experimental Biology. They now are available free of charge to investigators who wish to study their mode of action. It was emphasized that this significant accomplishment which makes available a new and important investigative tool is not a new form of cortisone treatment. The synthesis of these hormones is the result of a large cooperative enterprise on the part of the United States Government, private research organizations and commercial pharmaceutical companies.

Requests for these materials should be addressed to Endocrinology Study Section, National Institutes of Health, Bethesda 14, Maryland. Funds made available by the National Institute of Arthritis and Metabolic Diseases, U.S. Public Health Service makes possible their free distribution for research purposes. Transfer and use of these materials are subject to current Atomic Energy Commission regulations.

The **National Society for the Prevention of Blindness**, New York, has announced the establishment of a new **Editorial Research Advisory Service**. Its purpose is to assist magazine editors in the collection and dissemination of accurate information about the human eye in the interests of saving sight and preventing blindness. The Service is supported by voluntary contributions and is available at no charge.

Fifty-nine medical scientists from 20 countries have joined in the authorship of a book in tribute to Robert Wartenberg, neurologist in the University of California School of Medicine, San Francisco. The book, *Neurological Problems in the World in 1953*, has just been published by the *Journal of Nervous and Mental Disease*. Financing of the volume came from Dr. Wartenberg's many professional and non-professional friends. The volume was printed in honor of Dr. Wartenberg's 65th birthday, which occurred on June 19, 1952. It was edited by Dr. Webb Haymaker, now of the Armed Forces Institute of Pathology and formerly of the U.C. School of Medicine.

Two thousand tons of steel are going into the building of a new **radio telescope** at Manchester University, England. In shape, it will be something like a monster searchlight, with a steel bowl that alone weighs 130 tons and will stand on steel towers 180 feet high. The whole instrument will ride on a circular railway so that it can be aimed at any part of the sky. Radio telescopes are concerned with sound, not light. They collect the radio waves from distant stars and then record them with a pen on a moving paper chart.

A **survey of national research councils** throughout the world made by the United Nations Educational,

Scientific, and Cultural Organization shows that 28 countries have established some sort of central agency for the promotion of research in different fields of pure and applied science. Some countries, like the United States, have more than one such organization. The National Research Council in the United States shares with Britain's Department of Scientific and Industrial Research the distinction of having begun operation in 1916, which is the earliest for organizations of this sort. The UNESCO report calls these research councils "the most modern development of the relations between scientific workers and the government."

Recent visitors from abroad at the National Bureau of Standards:

Gerhard O. W. Wiedemann, Chief of the Dept. for maritime navigational aids and signals in the Federal Ministry for Transport, Federal Republic of Germany.

Paul F. J. Jainski, Engineer in the Federal Ministry for Transport in the Maritime signals Testing Field, Federal Republic of Germany.

Otto H. Schoppe, Director of the Dept. for Inland Navigation on the Rhine River in the Federal Ministry of Transport, Federal Republic of Germany.

Carl Fischer, Head, Dept. of Restorative Dentistry, University of Göttingen, Germany.

Rupert Vallentine, N.S.W. University of Technology, Sydney, Australia.

John H. Chapman, Physicist, Department of National Defence, Ottawa, Ontario, Canada.

Hans C. Freeman, Lecturer in Chemistry, University of Sydney, Australia.

Sasi Punyamanob, Department of Science, Bangkok, Thailand.

Heinz Detering, Head of Corrosion Protection Dept. Th. Goldschmidt A.-G., Essen, Germany.

Willi Geilenkirchen, Chief of Varnish and Lacquer Materials Laboratory, Farbenfabriken Bayer, Krefeld-Uerdingen, Germany.

Leendert van Assendelft, Plant Design Engineer, Algemene Kunstzijde Unie N.V., Velperweg 76, Arnhem, Netherlands.

Erling Mikkelsen, Technical Director, A/S Den Kemiske Fabrik Norden, Oslo, Norway.

H. L. Hardwick, Dean, Royal College of Dental Surgeons, Royal Dental Hospital, London, England.

Giorgi Nielsen, University of Bologna, Bologna, Italy.

Morisaburo Katakami, Research Engineer, Yokagawa Electric Works, Ltd., Tokyo, Japan.

H. Harvey Bryan, Inspector of Factories, United Kingdom.

Alexius T. Ree, Professor of Chemistry, Korea.

P. A. Forsyth, Physicist, Department of National Defence, Ottawa, Ontario, Canada.

A. F. Wilkins, Research Scientist, Department of Scientific and Industrial Research, Slough, Bucks., England.