News Notes

Lysenko's Influence on Soviet Biological Sciences Waning

The Soviet Union, which in the early 1930's held world leadership in soil science and cast it aside to adopt the politically desirable but scientifically unsound theories of T. D. Lysenko, gradually is breaking this scientist's strangle hold on the biological sciences, including medicine, that was made possible through Stalin's support. This is reported in *Lysenko, Michurinism, and Soviet Biology*, an 8-page summary and evaluation of available Russian information recently released by the Office of Technical Services, Business and Defense Services Administration, U.S. Department of Commerce.

The document reports on the ideological revolution occurring in Russia over the validity of the long-accepted "Michurin science" advocated by Lysenko and endorsed by the Communist party because it conformed with Marxist ideology, as opposed to the theories of Russia's "classical geneticists," whose research theories follow the accepted concepts of biologists in other nations.

Although still officially recognizing Lysenko, the Soviet Government is encouraging the free discussion of biological theory, says the report, even if it involves Marxist-Leninist doctrine. Prior to the 1930's, the report states, Soviet plant genetics and breeding research was of outstanding quality and soil science was more highly developed than in the United States and other Western nations.

The report traces the rise of Lysenko from 1935 to a position of near-absolute authority in biological research and his subsequent decline in influence following the death of his mentor, Stalin. The arguments of Lysenko's significant critics are summarized, including those of N. P. Dubinin, who blames the Party-backed biologist for the lack of corn hybrids in the U.S.S.R. Dubinin, a world-renowned geneticist whose work has been ridiculed by Lysenko and whose cytogenetics laboratory was abolished in 1948, has advanced a program for the use of inbred lines of corn to produce hybrids that is now being largely adopted in the state-wide system of hybrid seed-corn production endorsed by Khrushchev. However, Khrushchev still defends Lysenko's views on soil problems and considers his recommendations at the practical agricultural level of value, says the report.

The following paragraph from the report is indicative of the Soviet Government's more liberal policy toward new theories in biology and related sciences.

"Soviet periodicals reflect a much greater cognizance of world developments in biological and agricultural research, and efforts are being made to adapt foreign research findings to Soviet conditions. Partial or complete translations of modern Western research works and texts in various fields of biology are appearing in increasing numbers."

The gradual change from Lysenkoism to sound fundamentals, together with high-level statements on the future direction of Soviet biology, indicates that present and future biological research will be influenced principally by scientific fact rather than by the unfounded interpretations of politically minded biologists. The report goes on to predict that Russian research will probably follow an approach to genetics similar to that of Western countries. The result should be a marked improvement in genetics research in the U.S.S.R. The author concludes his report by stating that Russia's improved research capability and the wide application of Western research achievements should boost agricultural production. (The report may be obtained for 50 cents from the Office of Technical Services, Dept. of Commerce, Washington 25.)

Seismic Station Completed; Follows Pattern Set at Geneva

A new seismic research station designed to study the problem of detecting and identifying both earthquakes and underground chemical and nuclear explosions has been completed at Fort Sill, Okla. The station, to be called the Wichita Mountains Seismological Observatory, is part of the United States seismic improvement program known as Project VELA-Uniform.

This station fulfills the original conditions outlined by the international Conference of Experts—consisting of representatives of the United States, the United Kingdom, France, Canada, the U.S.S.R., Romania, Czechoslovakia, and Poland—which met at Geneva, Switzerland, in 1958 to "study the possibility of detecting violation of a possible agreement in the suspension of nuclear tests." The equipment that has been installed is identical to that recommended by the Geneva conference. This is the first such prototype facility to be established. It is located in the Wichita Mountains, about 15 miles northwest of Lawton, Okla., on a site that was selected because the minute vibrations of the earth—called "microseismic noise"—which interfere with the detection of signals from distant earthquake or underground nuclear explosions are exceptionally small in the area.

Evaluation of the station's performance will be open to the scientific community and to delegates of the United States, the United Kingdom, and the U.S.S.R. who are now negotiating in Geneva in an effort to arrive at a treaty on the controlled cessation of nuclear weapons testing.

The Wichita Observatory has been developed and will be operated by the Geotechnical Corporation of Garland, Tex., under the technical supervision of the Air Force Technical Applications Center. The program is under the overall direction of the Department of Defense's Advanced Research Projects Agency.

Project VELA's Three Parts

ARPA's Project VELA, announced by the Department of Defense on 2 September 1959, is subdivided into three categories: (i) VELA-Uniform, research and development concerned with detection of underground nuclear explosions; (ii) VELA-Sierra, research and development concerned with the ground-based detection of nuclear tests in space; and (iii) VELA-Hotel, research and development concerned with satellite-based detection of nuclear tests in space. The program was developed by ARPA in collaboration with the Atomic Energy Commission, the National Aeronautics and Space Administration, the Departments of Commerce and Interior, and the Department of the Air Force.

Helminthological Society Observes 50th Anniversary

Last month the Helminthological Society of Washington observed its 50th anniversary by presenting a scientific program at the University of Maryland. The morning and afternoon sessions were attended by 260 scientists from the United States, Canada, Europe, Asia, and Australia.

The principal event of the evening

Chauncey D. Leake (center) speaker of the evening at the 50th anniversary celebration of the Helminthological Society of Washington, with George W. Luttermoser, president of the society (right), and A. O. Foster, toastmaster.

program, following a banquet, was an address by Chauncey D. Leake of Ohio State University, president of the AAAS, entitled "Paralogue and Parasite."

Two awards were presented. One was to Miss Edna M. Burher in recognition of outstanding service to the society during 25 years as secretary-treasurer. The other, granted by the trustees of the Brayton Howard Ransom Memorial Fund, went to James Turner "for meritorious service to parasitology and related sciences."

International Brain Research Organization Created in Paris

UNESCO has announced the creation of an International Brain Research Organization, the purpose of which is to coordinate results and facilitate training and research in this branch of science. The announcement followed a 4-day meeting last month at UNESCO House in Paris.

The meeting brought together 18 scientists, from 12 countries, who are serving as members of a central committee representing the seven principal branches of brain research: neuroanatomy, neuroendocrinology, neurochemistry, neuropharmacology, neurophysiology, the behavioral sciences, and biophysics. The meeting was convened on behalf of UNESCO by the Council for International Organizations of the Medical Sciences. Committee members came from Argentina, Australia, Canada, France, the Federal Republic of Germany, Italy, Norway, Poland, Sweden, the United Kingdom, the U.S.S.R., and the United States.

At the meeting the statutes of the new international nongovernmental organization were adopted and an executive committee was elected. H. H. Jasper of Montreal, a noted neurophysiologist, was chosen executive secretary of the committee. Other committee members elected are: P. K. Anokhin of the U.S.S.R., A. Fessard of France, G. W. Harris of the United Kingdom, H. W. Magoun of the United States, Giuseppe Moruzzi of Italy, and Heinrich Waelsch of the United States. D. Bovet of Italy, A. Brodal of Norway, and W. A. Rosenblith of the United States were chosen as alternate members.

AAAS Human Welfare Group To Hold Open Hearings

The AAAS Committee on Science in the Promotion of Human Welfare invites the participation of AAAS members in two open hearings which it plans to hold during the course of the Association's annual meeting in New York. From 4 to 6 P.M. on Wednesday afternoon, 28 December, the committee will meet in the grand ballroom of the Biltmore Hotel to hear discussion of "The Expansion of Medical Research," especially as it relates to the interactions between public policy and the development of science. A second meeting, from 3 to 6 P.M. on Friday afternoon, 30 December, will be concerned with "The Effects of the Present Status of Science on the Integrity of Science."

The committee is interested in providing an opportunity for the expression of various viewpoints on these questions. Scientists who would like to make brief presentations (approximately 10 minutes in length) before these hearings should send a short summary of their proposed remarks to the chairman of the committee, Barry Commoner, Washington University, St. Louis 30, Mo., *by 5 December.* All registrants at the annual meeting will, of course, be welcome at the hearings.

News Briefs

TV program on genetics. "The Thread of Life" on NBC-TV, 9 December, will be a 1-hour program in color devoted to genetics. This is the newest program in the Bell System Science Series. The "thread" of the title is the continuity of heredity from generation to generation, and the program surveys the processes by which this is accomplished. The functions of genes and chromosomes are explained, and the operations of mitosis and meiosis are demonstrated.

Of special interest is Harriett Ephrussi-Taylor's discussion of the role of deoxyribonucleic acid in heredity. In another section of the program, Andrzej Bajer demonstrates the technique he used in stop-motion cinemicrography of mitosis.

James F. Crow of the University of Wisconsin and Norman H. Horowitz of California Institute of Technology served as special advisers for the production.

* * *

Canadian plant physiology. The Canadian Society of Plant Physiologists now has a category of corresponding membership available at a nominal fee to plant physiologists who live outside Canada. Inquiries should be directed to the Secretary-Treasurer, Dr. D. F. Forward, Department of Botany, University of Toronto, Toronto 5, Canada.

* * *

Ford and radiation hazards. Grants to three international scientific bodies have been announced by the Ford Foundation to help speed up the task of defining, measuring, and limiting the hazards resulting from man-made radiation. The International Commission on Radiological Units and Measurements will receive $185,000 to assist in improving the measurement of

radiation received by living matter; the International Commission on Radiological Protection will receive $250,000 to assist in determining objective safety standards for human exposure to radiation; and the International Bureau of Weights and Measures will receive $32,500 to accelerate planning of a major effort to establish world-wide standards of radiation measurement.

* * *

Neutron cross section center. The Atomic Energy Commission has established a Neutron Cross Section Evaluation Center at the Brookhaven National Laboratory to provide a centralized source of information on neutron cross section data needed by reactor engineers, designers, and physicists. Information will be available to the nuclear industry. Requests will be filled on a schedule of priorities based on the general importance of the data required and their availability. A fee may be charged if a request requires more than providing information which is readily available. Inquiries regarding cross section information should be directed to: Brookhaven Cross Section Evaluation Center, Building T-130, Brookhaven National Laboratory, Upton, N.Y.

* * *

Canada builds atomic center. Atomic Energy of Canada Limited has announced that a village to accommodate employees of the company's Whiteshell Nuclear Research Establishment will be built about 60 miles northeast of Winnipeg. AECL reported a year ago that it would establish a nuclear research and development center in Manitoba rather than expand the Chalk River establishment, which is considered to be near maximum size for efficient operation.

The new village will not be a "company town" but will be a local government district under the jurisdiction of the Department of Municipal Affairs of the Manitoba Government. The Whiteshell establishment will concentrate on power reactor development, and the facility to be built there is likely to be a reactor cooled by an organic liquid and moderated with heavy water.

* * *

Endocrinologists to meet. The third International Symposium on Comparative Endocrinology, sponsored by the Zoological Society of Japan, will be held 5–10 June at Oiso, near Tokyo. Because of limited seating capacity and housing accommodations, advanced registration is required. The speakers have been invited, and the program is already set.

The international committee members of the symposium include: E. J. W. Barrington (England), W. R. Boss (Japan), I. Chester-Jones (England), M. Fontaine (France), L. Gallien (France), A. Gorbman (U.S.), B. Hanström (Sweden), C. Barker Jørgensen (Denmark), P. Karlson (Germany), H. Kobayashi (Japan), G. J. van Oordt (Netherlands), K. Takewaki (Japan), and E. Witschi (U.S.). For information, write to the symposium chairman, Dr. Kiyoshi Takewaki, Department of Zoology, University of Tokyo. The general secretary is Hideshi Kobayashi of the same department.

* * *

Australian scientist recruitment. A spokesman for Australia's Federal Bureau of Mineral Resources reported recently that the bureau had overcome its long-standing shortage of geologists, geophysicists, and technicians. The bureau is engaged on important work in connection with the search for oil in Australia, and is also assessing Australia's mineral resources. In recent years the bureau had not been able to recruit even its minimum requirements of scientific staff; however, the gain of new staff over resignations during the past year has been 9 geologists, 13 geophysicists, and 12 scientists in various other fields.

New Journals

Nuclear Hazards Newsletter, No. 2, July 1960. C. F. Powell, President, World Federation of Scientific Workers, 40 Goodge St., London, W.1. Irregular.

Engelhard Industries Technical Bulletin, vol. 1, No. 1, June 1960. Miss L. A. Magistrate, Ed. Engelhard Industries, Inc., 75 Austin St., Newark 2, N.J. Quarterly.

Midway, No. 3. F. Holton, Ed. University of Chicago Press, 5750 Ellis Ave., Chicago 37, Ill. Quarterly. $1. $3.50 per year.

Mineragraphic Investigations Technical Paper No. 1. CSIRO, University of Melbourne, Parkville, N.2., Victoria, Australia. Irregular.

Index Chemicus, vol. 1, No. 1, 1960. E. Garfield, Ed. Institute for Scientific Information, 1122 Spring Garden St., Philadelphia 23, Pa. Monthly. $250 educational; $500 industrial.

Acta Medica Costarricense, vol. 1, No. 1, Dec. 1957. R. F. Cespedes, director. Apartado 4054, San José, Costa Rica. Three issues per year. $2.

Safybi, No. 1, 1959. Z. M. Lugones, director, Sociedad Argentina de Farmacia y Bioquimica Industrial, Tacuara 1428, Buenos Aires.

Grants, Fellowships, and Awards

Atomic energy. The Oak Ridge Institute of Nuclear Studies has announced that *15 December* is the deadline for receipt of applications from university scientists for appointments to the Oak Ridge Research Participation Program. Under the program, college and university scientists receive their regular academic salary for conducting research in Oak Ridge laboratories. A housing allowance is also available in certain circumstances.

Appointments are usually made for the three summer months, but other appointments can be arranged. Appointments are available in virtually all fields of scientific endeavor, and the scientific interest of the applicant will determine the laboratory for which he is considered. Application forms and further information are available from the Research Participation Office, Oak Ridge Institute of Nuclear Studies, Box 117, Oak Ridge, Tenn.

Industrial medicine. The Atomic Energy Commission is offering eight fellowships for 1961–62 to provide advanced training and on-the-job experience in industrial medicine, particularly in relation to the atomic energy industry. The program, which is administered by the University of Rochester, is open to men and women physicians who are citizens of the United States, who have graduated from an approved college of medicine at least 2 years prior to beginning tenure of the fellowship, and who are licensed to practice medicine in one of the states or territories of the United States. Successful candidates will be required to have a full background investigation by the F.B.I.

The training program consists of two parts: (i) an academic year at a university offering an approved graduate course in industrial medicine, and (ii) an in-plant training year, in which the fellow will be assigned to one or more of the medical departments of the major operating plants and laboratories under the direction of the Atomic Energy Commission.

The stipend during a fellowship or academic year is $5000. The sum of

$350 is added to the total stipend for a wife, and $350 more is added for each dependent child. Tuition and laboratory fees which would be required of students of similar university status will be paid in academic courses. Certain other expenses incident to the work of the fellow will be paid when approved by the committee. During the in-plant year the stipend is paid by the plant. A minimum of $7500 is recommended. Address all inquires to: A.E.C. Fellowships in Industrial Medicine, Atomic Energy Project, University of Rochester, School of Medicine and Dentistry, Rochester 20, N.Y. Attn: Dr. Henry A. Blair. Application deadline is *1 January 1961*.

O.E.E.C. Applications are now being accepted for Organization for European Economic Cooperation senior visiting fellowships for 1961. About 25 awards will be made to United States citizens under a program administered by the National Science Foundation. The fellowships are designed to assist institutions in sending senior staff scientists, mathematicians, and engineers to study new techniques and developments at advanced research and educational institutions primarily in the O.E.E.C. member countries or in countries co-operating with that organization. The fellowships will usually be for periods of from 8 weeks to 6 months; in exceptional cases a maximum period of 1 year may be approved. The program will allow study in most fields of science and technology. Awards will not be made in this program for work in the social sciences or in medicine. A candidate must be nominated by his institution. The ability of each applicant will be evaluated for the National Science Foundation by panels of scientists appointed by the National Academy of Sciences–National Research Council.

Each fellow will receive a subsistence allowance of $10 a day. A travel allowance covering the cost of air-tourist transportation to the fellowship institution and return will also be provided. In addition, the fellow will be permitted to receive, during the period of his award, his regular salary or appropriate allowances provided by or approved by his nominating institution, or both.

Applications and detailed information may be obtained from the Fellowship Office, National Academy of Sciences–National Research Council, 2101 Constitution Avenue, NW, Washington 25, D.C. Applications must be received not later than *6 January 1961*.

Plastics. Princeton University offers graduate fellowships in its plastics program, which is unique in the United States. The program provides graduate engineering study and fundamental research in plastics, leading to the degree of master of science in engineering; it is particularly suited to chemical, electrical, and mechanical engineers and to chemists and physicists. Stipends range from $1500 to $2100, plus tuition fees. Opportunities for employment as half-time research assistants to $2100 per academic year are also available, to students not on fellowships. For further information, write to Prof. Louis F. Rahm, Director, Plastics Laboratory, Princeton University, Princeton, N.J.

Radiation biology. The Bowman Gray School of Medicine is beginning a training program in radiation biology and cancer-related research. Traineeships of from 1 to 3 years are being offered to research-oriented people in the basic and clinical sciences. The traineeships are for training at both predoctoral and postdoctoral levels, and stipends will range from $1800 to as much as $8000 per annum. Applications are being accepted now for work to begin in January 1961 and will be accepted until *15 April 1961* for programs to begin 1 July 1961. Inquiries should be directed to Donald J. Pizzarello, Executive Director, Radiation Biology and Cancer Related Research Training Program, Bowman Gray School of Medicine, Winston-Salem, N.C.

Secondary school teaching. The National Science Foundation has announced that fellowships for secondary school teachers of science and mathematics will be made to several hundred teachers for summer study beginning in 1961 and continuing for as many as three successive summers. The fellowships will be awarded competitively to support individually planned programs of study on the advanced-degree level in the mathematical, physical, and biological sciences at institutions chosen by the fellows. Fellows will not, however, be required to follow courses of study leading to degrees. (The fellowships are in addition to the foundation's regular program of support of summer and academic year institutes in which groups of teachers take courses specially designed for them.)

An applicant for the secondary school teachers program must be a United States citizen with a baccalaureate degree or its equivalent and at least 3 years of secondary-school teaching experience. Applicants will be evaluated by panels of scientists appointed by the American Association for the Advancement of Science.

Stipends will be computed at the rate of $75 for each week of tenure. Travel and dependency allowances will normally be provided, and the foundation will pay tuition and required fees.

Teachers should *not* submit applications to the National Science Foundation. Information and application materials may be obtained by addressing a request to Secondary School Fellowships, AAAS, 1515 Massachusetts Ave., NW, Washington 5, D.C. Completed applications must be received by the association by *6 January 1961*. Fellows will be notified by 15 March.

Soviet study. The Inter-University Committee on Travel Grants, representing a number of American universities, is soliciting applications and inquiries from qualified persons concerning the fourth year of long-term exchange of advanced graduate students and young scholars with the Soviet Union (1961–1962). An applicant must be an American citizen, not over 40 years of age and must be either a graduate student, a postdoctoral researcher, or a young faculty member of a university. Applicants in the field of Russian studies must be proficient in Russian; applicants in other fields, if they are not proficient in Russian, must be willing to undertake intensive summer study of the language. Applicants from all fields of study will be considered; however, there must be a reasonable professional benefit to be derived from the proposed study in the Soviet Union.

The amount of aid provided will be determined by the applicant's own financial situation. Fellowships from other sources can be applied toward participation in this program.

This interuniversity project was formerly administered by Columbia University. For further information and applications write to: Inter-University Committee on Travel Grants, Box 70, Indiana University, Bloomington, Ind. Applications must be received by *5 January 1961*.

Teacher training. Stanford University, with the financial support of the Shell Companies Foundation, Inc., and the Shell Oil Company of Canada, Ltd., is again making available to secondary-school chemistry, physics, and mathematics teachers 50 Merit Fellowships which provide an opportunity for ad-

vanced study in their teaching fields. Under these fellowships a teacher may attend a Stanford University summer session at practically no cost to himself. The fellowships provide full tuition, board, and room; textbook and travel allowances; and a cash stipend of $500. The total value of a fellowship is approximately $1350 for the 8-week summer session.

To be eligible, an applicant must have a bachelor's degree and must have taught for at least 5 years. For information, write to Dr. Paul DeHart Hurd, Coordinator, Shell Merit Fellowship Program, Stanford University, Stanford, Calif. Applications should be submitted as soon as possible; all forms, recommendations, and transcripts must be received by *4 January 1961*.

Scientists in the News

Victor F. Weisskopf, theoretical physicist, professor of physics at Massachusetts Institute of Technology, and current president of the American Physical Society, has been appointed a scientific director of CERN, the 13-nation European Organization for Nuclear Research with headquarters near Zurich, Switzerland. The appointment, announced officially on 4 November, is considered unusual because Weisskopf is an American citizen and the United States is not a member of CERN. On 21 October this department quoted Walter Sullivan of the New York *Times* as having said that Weisskopf would "head" CERN. Actually, Sullivan said that Weisskopf would be scientific director.

Since that time, it has been announced that Weisskopf will be a member of a newly formed five-member directorate created by the 13-nation council which acts as a steering committee to the center.

Gilberto Bernardini of Italy has also been appointed a scientific director. Director-general is **John B. Adams** of England, but there is a report that he will resign soon to head his country's research on controlled nuclear fusion. In addition, the new directorate will have an administrative director and a director in charge of applied physics, both still to be named.

Robert Cushman Murphy will deliver the Isaiah Bowman Memorial Lecture at a dinner of the American Geographical Society on 1 December at the St. Regis Hotel in New York. Murphy is emeritus Lamont Curator of birds of the American Museum of Natural History and has been associated with the museum since 1906. He is an authority on oceanic birds. Early this year he served as chief zoologist on the U.S. Navy's Operation Deep Freeze, 1960, in Antarctica. His address will deal with oceanography and its importance to man, now and in the future.

At Northwestern University Technological Institute, new faculty members include the following.

J. Wallace Givens, formerly chairman of the mathematics department at Wayne State University, who holds a joint appointment as professor of engineering sciences in both the engineering sciences and mathematics departments.

John Jacobs, formerly manager of a research laboratory at General Electric's X-Ray Division in Milwaukee, professor of electrical engineering.

Makoto Itoh, professor of electrical engineering at Kyushu University, Japan, who will spend this year at the Institute as visiting professor of electrical engineering.

Donald M. Ross of the department of zoology, University College London, will join the department of zoology at the University of Alberta (Canada), as professor and head, in January 1961. Ross' recent research has been in the field of behavior and neurophysiology, particularly in the coelenterates.

Victor Hicks, formerly chief physicist for the Allen-Bradley Co., Milwaukee, Wis., manufacturers of electronic components, has joined the Remington Rand Univac military department in St. Paul, Minn. Since 1958, in addition to his other duties, he has served as research professor of physics at Marquette University (Milwaukee).

Wilbur M. Benson, former professor of pharmacology at the University of Minnesota Medical School, has been appointed director of pharmacology in the Mead Johnson and Company Research Division, Evansville, Ind.

Colonel **Richard K. Jacobson** has been appointed director of information for the Air Research and Development Command, Andrews Air Force Base, Washington, D.C. Jacobson, former deputy chief of ARDC's Command Policy Office, succeeds Colonel **William S. Evans**, who assumed new duties as assistant director of information, Office of the Secretary of the Air Force.

Joseph R. Feldmeier has been named associate director of research in the Philco Corporation's Research Division, Philadelphia, with responsibility in the long-range planning of technical programs and the identification of new areas of science and technology of value to Philco. Since 1952, he has been associated with the Bettis Atomic Power Division of the Westinghouse Electric Corporation, where he directed research programs in nuclear energy.

Donald J. Ferguson, formerly Chief of Surgery, Veterans Administration Hospital, Minneapolis, and professor of surgery at the University of Minnesota, is now professor of surgery at the University of Chicago.

J. E. Wallace Wallin, retired state director of special education and mental hygiene of Delaware, was recently awarded a scroll by the New Jersey Psychological Association and the New Jersey Department of Institutions and Agencies for his achievement as a "pioneer psychologist who, with rare foresight and understanding, established in 1910 at the New Jersey Village for Epileptics the first State Psychological Laboratory."

Captain **Louis S. Hansen** (DC) U.S.N., has been appointed chief of the Dental and Oral Pathology Division at the Armed Forces Institute of Pathology, Washington, D.C. He is the first naval officer to head an institute division. Hansen relieves Major General **Joseph L. Bernier** (DC) U.S.A., who was recently detached to assume the duties of chief of the Army Dental Corps.

Josef DeLey, professor and director of the Laboratory of Microbiology, Rijksuniversiteit, Ghent, will be visiting professor of microbiology, University of Illinois, Urbana, from February through May 1961.

Hugh J. Miser, formerly with the Research Triangle Institute of Durham, N.C., has joined the staff of the Navy's Operations Evaluation Group as director of its newly established Applied Science Division at the Massachusetts Institute of Technology.

Charles W. Mushett has been appointed director of scientific relations of the Merck Sharp and Dohme Research Laboratories Division of Merck and Co., Inc., replacing **Hans Molitor,** who has retired. Mushett has been

working in the department of scientific relations since early in 1957. The department is responsible for maintaining contacts with scientists and scientific developments outside the company, both in the United States and abroad.

Bernard Frank is now associated with Colorado State University as professor of watershed management. He previously spent a year in India on an FAO mission to initiate watershed-management research in that country through the central government's Forest Research Institute.

Kollsman Instrument Corporation, Elmhurst, N.Y., has announced the formation of a research division and the appointment of **Arthur S. Robinson** as director of research. The new organization will undertake basic and applied research related to advanced tracking, computing, communications, control, instrumentation, and display systems. Formerly, Robinson directed the Advanced Electronics Laboratory at the Bendix Eclipse–Pioneer Division.

Leo L. Laythe, regional director of the Bureau of Sport Fisheries and Wildlife's Pacific Region, with headquarters at Portland, Ore., will retire on 31 December after 42 years of government service. He will be succeeded by **Paul T. Quick,** chief of the bureau's Division of Wildlife in Washington, D.C.

Laythe has been regional director of the Pacific Region, comprising the states of Washington, Oregon, California, Nevada, Idaho, Montana, and Hawaii, since 1940. In 1949 he organized the Columbia River Fisheries Development Program to preserve the important salmon runs from destruction by the building of dams. He coordinated federal and state efforts in the construction of fish hatcheries and the installation of fish passage and fish protection facilities at major hydroelectric dams and irrigation systems. In 1958 he was commended by the Assistant Secretary of the Interior for Fish and Wildlife for his work in developing the migratory bird feeding program in California.

Robert T. Nieset, director of the biophysics laboratory and professor of physics at Tulane University, has been appointed chairman of the department of physics in the College of Arts and Sciences at Tulane. He succeeds **Joseph C. Morris**, who resigned to give major attention to his duties as vice-president of the university.

Kenneth H. Drummond, formerly assistant director of the Smithsonian Institution's Astrophysical Observatory, has been appointed assistant to chief campus officer Roger Revelle of the University of California, La Jolla. Drummond will be responsible for all general nonacademic departments on the La Jolla campus, which include the School of Science and Engineering and the Scripps Institution of Oceanography.

New chairman of the chemical engineering department in the Northwestern University Technological Institute is **George Thodos**, professor of chemical engineering and an institute faculty member since 1947. He is a specialist in petroleum technology.

Herman Skolnik, manager of the technical information division of Hercules Powder Company, Wilmington, Del., has been named editor of a new American Chemical Society publication, the *Journal of Chemical Documentation,* to be published twice a year beginning in 1961.

Robert B. Arnold, associate professor of physics at the United States Military Academy at West Point, has been appointed to the staff of the publications department of the American Institute of Physics. He will assume his new duties upon retirement from the Army.

Recent Deaths

C. Barton Addie, Philadelphia, Pa.; 79; emeritus professor of orthodontics at Temple University and former acting dean of the School of Dentistry; 1 Nov.

Charles G. Darlington, Plainfield, N.J.; 68; professor of pathology at New York University's College of Dentistry and director of the Undergraduate Cancer Teaching Program; taught at the university for 43 years, and until last year was chairman of the pathology department; was a founding fellow of the College of American Pathologists and a diplomate of the American Board of Pathology; 5 Nov.

Ralph Falk, Chicago, Ill.; 74; board chairman of Baxter Laboratories, Inc., and a pioneer in the development of intravenous feeding; president of Baxter from its organization in 1931 until he became chairman 7 years ago; 2 Nov.

Charles H. Forsyth, Hanover, N.H.; 75; professor emeritus of mathematics at Dartmouth College; specialist in the mathematics of finance, insurance, and business statistics; author of four books and about 60 articles; taught at Dartmouth for 35 years before his retirement in 1951; 2 Nov.

Sir **Harold Spencer Jones**, London, England; 70; Astronomer Royal, in charge of the Royal Observatory, from 1933 to 1955; secretary general of the International Council of Scientific Unions since 1956; led a 12-year international project, concluded in 1942, to measure the sun's distance from the earth; books include *A Picture of the Universe* (1947) and *Worlds Without End* (1935); served as president of the British Astronomical Association, the British Horological Institute, and the International Astronomical Union, and was the recipient of a great many foreign honors, including the 1955 medal of the Rittenhouse Astronomical Society of Philadelphia; 4 Nov.

Peter O. Okkelberg, Ann Arbor, Mich.; 79; professor emeritus of zoology and associate dean emeritus of the graduate school, University of Michigan, where he had been a faculty member for 50 years; anatomist, embryologist, and cytologist, specializing in germ-cell history in vertebrates; divisional editor of *Biological Abstracts* for 33 years; 13 Sept.

Harry J. Reed, Lafayette, Ind.; 73; former dean of agriculture at Purdue University; since retiring 3 years ago had traveled between Lafayette and Washington as coordinator of a federal-state rural development program; led the United States wheat mission to Pakistan in 1953 and the agricultural trade mission to Latin America in 1954; received the Distinguished Service Award of the American Farm Bureau in 1955; 5 Nov.

Mildred W. S. Schramm, Bloomington, Ind.; 71; as secretary of the International Cancer Research Foundation from its organization in 1932 until 1948, administered research grants, inaugurated postdoctoral research fellowships, helped found the journal *Cancer Research*, organized international conferences on specialized research topics, and established cancer prevention clinics in the teaching hospitals of Philadelphia; from 1948 to 1950, as director of the Division of Cancer Control of the North Carolina State Board of Health, established a state-wide system of cancer clinics; 5 Oct.

Will M. Winton, Fort Worth, Texas; 75; chairman of the department of biology and geology at Texas Christian University, 1913–57; 9 July.