News and Notes

Society of American Bacteriologists

On 2–7 May approximately 1800 scientists met in Pittsburgh to participate in the 54th annual meeting of the Society of American Bacteriologists. The Allegheny Branch, the host organization, provided admirable facilities. At the five concurrent scientific sessions, 339 papers on original research were presented. Abstracts were published in the *Bacteriological Proceedings* for 1954 (Williams & Wilkins Co., Baltimore). The diverse fields of microbiology were well represented, but more than usual attention was paid to virus-cell relationships, metabolic pathways, biosynthesis, and mycology. Only a few of the many outstanding papers can be mentioned here.

The removal of substances inhibitory to tetanus toxin formation in large-scale toxin production has been accomplished, using absorptive procedures, by Pauline A. Miller and the late J. Howard Mueller of Harvard University. Experimental studies on bacterial contamination of bank blood by Geller and Jawetz of the University of California indicated that undesirable reactions following use of such blood could be due to endotoxin of contaminating microorganisms, which made some growth during storage in a refrigerator.

Contributions to the understanding of carbohydrate metabolism in microorganisms came from the laboratories of Wood and of Krampitz and of Gest at Western Reserve, of Gunsalus at Illinois, of Lipman at Harvard, of Doudoroff and of Barker at California, of Wilson at Wisconsin, of Kaplan and of McElroy at Johns Hopkins, and of Horecker at the National Institutes of Health. The current concepts in this field were integrated in a symposium on "Diverse pathways of microbial metabolism" by a panel consisting of Horecker, Doudoroff, Krampitz, and Kallio, with H. G. Wood acting as convener.

A symposium on the "Steroid requirements of Protozoa," arranged by van Wagtendonk of Indiana University, included discussions by Helen Vishniac of Yale, Conner of Indiana, and Hutner of Haskins Laboratories. The Medical Division presented an outstanding symposium, the "Applications of tissue-culture methods to viral infections." This was convened by Enders of Children's Hospital, Boston, and included a presentation on "Use of tissue cultures in etiologic studies on viral diseases" by Weller of Children's Hospital; on "Mammalian cells in continuous cultures for assays in virology" by J. T. Syverton and W. F. Scherer of the University of Minnesota; on "Applications of tissue cultures to studies of poliomyelitis" by J. E. Salk and J. S. Younger of the University of Pittsburgh School of Medicine; on "Some factors affecting the metabolism of viruses in tissue culture" by G. C. Brown of the University of Michigan; and on "Interaction between animal viruses and neutralizing antibodies studied by the plaque technique in tissue cultures" by R. Dulbecco, M. Vogt, and A. G. R. Strickland of the California Institute of Technology.

An audience of more than 1200 members and guests crowded the ballroom to applaud enthusiastically and to comment critically on the excellent presentations in the symposium on bacterial cytology. Bartholomew of Southern California arranged and convened the session with the following participants: Chapman, Princeton University, "Electron microscopy of ultrathin sections of bacteria"; Henry Koffler, Purdue University, "The chemical nature and biological significance of bacterial flagella"; Stuart Mudd, University of Pennsylvania School of Medicine, "Bacterial mitochondria and metachromatic granules"; Georges Knaysi, Cornell University, "Recent advances in our knowledge of the structure of the bacterial cell wall and cytoplasmic membrane"; and Edward D. DeLamater, University of Pennsylvania School of Medicine, "A formulation of the mitotic mechanism in bacteria."

The annual banquet was honored by the presence of A. J. Kluyver, honorary member from Delft. President C. B. van Neil delivered his message to the membership and presented the Eli Lilly award to James W. Moulder of the University of Chicago and the Commercial Solvents award in Antibiotics to R. D. Hotchkiss of the Rockefeller Institute.

The business meeting approved a resolution addressed to the Secretary of the Department of Health, Education, and Welfare, expressing concern over the possibility of arbitrary action in excluding scientists from the research grant program of that Department because of information reflecting on the loyalty of such persons and asking the Secretary to rely on the National Academy of Sciences for aid in this matter. The Society also voted to proceed on a program of certification of bacteriologists. The 1955 meeting will be held in the Statler Hotel in New York and the 1956 meeting in the Shamrock Hotel in Houston.

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Science News

In a micro-optical study of the distribution of cellulose, hemicellulose, and lignin within the **wood cell,** Paul W. Lange of Stockholm University has found that the cellulose proper is contained in the inner portion of the cell wall, while the hemicellulose, so important for paper-making, is concentrated in the outer part. His results are expected to be of great value in connection with studies of the diffusion and penetration processes that take place in the fiber walls when wood is subjected to chemical procedures in pulp-making.

In connection with **J. Robert Oppenheimer's loss of security clearance,** 282 scientists at Los Alamos telegraphed a petition to the President, the Atomic Energy Commission, and the chairman of the Joint Congressional Atomic Energy Committee. The group warned that the action taken against Dr. Oppenheimer might make it difficult in the future to fill Government laboratories with trained workers, and that further "It is inexcusable to employ the personnel security system as a means of dispensing with the services of a loyal but unwanted consultant."

Fred L. Ribe, who gathered the 282 signatures in less than one day, indicated that they represented 80 percent of the Los Alamos scientific staff.

R. Hanbury Brown, H. P. Palmer, and A. R. Thompson report in the 15 May issue of *Nature* their discovery of **nine new radio "stars."** Three of these have been identified with nebulosities. The other six are probably associated with similar nebulosities, but their light is so faint that it has not yet been photographed. The nine radio stars all seem to have rather low temperatures, a few hundred degrees rather than the thousands or millions of degrees of most visual stars.

So far only five radio sources have been definitely identified with visual stars. Of these five, three are of the newly discovered type reported here. The first visual identity of one of these three has just been announced by R. Minkowski of Mount Wilson and Palomar Observatories; it is associated with a faint nebulosity in the constellation Auriga. The other two radio stars are quite different in kind from the three that are associated with nebulosities.

An **American Museum of Natural History expedition** has recently returned from Africa. Two specially constructed cars were used to cover the 13,000 mi between Casablanca and Cairo by way of the Sahara. The 4-mo trip was made for the museum's department of anthropology by Claude Bernheim, a New York businessman and his family. More than 20,000 ft of 16-mm color motion picture film was used for the varied geographic and cultural areas visited.

A principal interest of the expedition was the Tuaregs, a nomadic Sahara tribe that was once famous for its exploits against France's Foreign Legion. The group found that the tribe is becoming not only less numerous but more sedentary. Many aspects of tribal life were for the first time photographed and also recorded on tape. Ethnological material brought back included samples of native weapons, utensils, handicrafts, and a miniature Tuareg tent. The Tuaregs are Mohammedans, but it is the men who veil their faces, leaving only their eyes and foreheads bare. The expedition was able to obtain some of the first photographs of these men unveiled by agreeing to supply their subjects promptly with prints.

Public **demand for dental health services** has nearly doubled in less than a generation, the American Dental Association reported recently. From a nation-wide survey of dentists, the Association's Bureau of Economic Research and Statistics has estimated that in 1952 approximately 42 percent of the population—65 million persons—sought dental treatment, compared to some 20 to 25 percent in 1929.

A significant advance in understanding the **embryonic growth** of animal organs has come from experiments that followed up the previous discovery, made by Paul Weiss of the University of Chicago, that bits of liver or kidney tissue from older chicken embryos, when grafted onto the chorio-allantoic membranes of younger embryos, stimulate the growth of the corresponding organs in the young embryo that serves as host. In experiments involving nearly 3500 similar grafts, James D. Ebert of Indiana University [*Proc. Nat. Acad. Sci.* (May 1954)] has shown that adult chicken spleen or kidney evokes at least 2.4 times as much growth of the embryo's corresponding organs as of any other, nonhomologous organs. In other words, spleen stimulates the growth of spleen; kidney, that of kidney. The stimulation is also species-specific, for transplanted mouse spleen does not significantly enhance the growth of the spleen of the host chick embryo. By chemically analyzing the stimulated spleens of the host chick embryos for their relative content of protein and nonprotein nitrogen, Ebert has shown that the growth is primarily protein in nature.

Within as little as 3 days following the establishment of the graft, the transfer of substance, tagged with radioisotopes, from the grafted spleen to that of the embryo may amount to as much as 15 percent of the weight of the embryo's spleen. At the same time, the specificity of the response between grafted organ and corresponding host organ implies that the stimulating agent must be larger and more specific than amino acids; yet evidence is also provided that virtually rules out the possibility that any whole cells may move from the graft into the host embryo's spleen or kidney. In short, it now looks as though a growing organ can utilize tissue proteins or polypeptides without the necessity of first breaking them down into free amino acids. This result favors the idea that in growth, chemical "building-blocks" specific in nature to each type of organ are used, rather than the view that these must be made on the spot on some sort of template, and consequently that the stimulation in the aforementioned cases is due to a transfer of small, catalytic amounts of active substances.—B.G.

A **new isotope of element 100,** the element that was first reported by the University of California in April (*Science,* p. 460), has been isolated at the Nobel Institute of Physics, Frescati, Sweden. In contrast to the California work, which was done with a uranium reactor, the new isotope was isolated by means of cyclotron bombardment of uranium with carbon and oxygen nuclei. Californium, another recently found element of atomic number 98, was produced simultaneously with the unnamed element, and special processes had to be used to separate it. Altogether less

than 100 atoms of the new isotope have as yet been isolated. Headed by Manne Siegbahn, the investigators responsible for the discovery were Lars Melander, Vilhelm Forsling, Hugo Atterling, Lennart W. Holm and Björn Åström.

Word has been received of the death in Cambridge, England, of **Felix Eugen Fritsch,** emeritus professor of botany in the University of London, who was head of the department of botany at Queen Mary College from 1911 until he retired in 1948. Prof. Fritsch has been described as the most able student of the algae in Great Britain. He published extensively on freshwater algae and on general algal morphology; most notable among his books was *The Structure and Reproduction of the Algae.* He was influential in developing the Freshwater Biological Station on Lake Windermere and in many other important projects in England.

Scientists in the News

Leo S. Baldwin, chairman of the department of engineering drawing and descriptive geometry at the Milwaukee Extension Division of the University of Wisconsin, will retire this June after 35 yr of service. As a young man he worked for the Illinois Central Railroad where he learned the machinist and draftsman trades. At the suggestion of the railroad's divisional superintendent, he began his high school education at the age of 25. He entered Illinois College and afterward transferred to the University of Illinois, financing his education with his drawings and by working for the University's Materials Testing Laboratory. When he graduated in 1916, he had accumulated 204 credits and received two degrees at the same commencement, a B.S. degree in drawing and a B.A. degree in mathematics.

Prof. Baldwin remained at Illinois as an instructor of drawing and descriptive geometry until the outbreak of World War I. In 1919 he joined the University of Wisconsin and organized and taught a course in art lettering. In 1925 he wrote an art lettering correspondence course which is still offered by the Extension Division.

Prof. Baldwin began teaching at the Milwaukee Division in 1928, and at the start of the spring semester, 1929, he joined the Milwaukee faculty permanently as chairman of the department of engineering drawing and descriptive geometry. From 1942–46, he assumed additional duties as acting chairman of the engineering department. He supervised the expansion of both departments to meet the tide of veterans returning to college. In addition to his academic duties, Prof. Baldwin has completed considerable research in problems of industrial x-ray design. At one time, some 20 of his former students were vice presidents of Milwaukee business concerns.

Stanley S. Ballard will go to the La Jolla campus of the University of California about 1 July as a research physicist and as associate director of the Visibility Laboratory of the Scripps Institution of Oceanography. He has been on leave of absence this past academic year from his regular post as professor of physics and chairman of the department at Tufts College, and during this period has been a member of the electronics division of the Rand Corporation, Santa Monica, Calif.

A. C. Cohen, Jr., professor of mathematics at the University of Georgia, has received the $500 M. G. Michael award in recognition of his work on truncated distributions. The award is given anually to a professor in the university's College of Arts and Sciences for continuation of a research project already underway.

William N. Creasy, brigadier general and since 1951 in command at the Chemical Corps Research and Engineers Command and the Army Chemical Center, Edgewood, Md., has been promoted to major general and appointed as the Army's chief chemical officer.

James L. Graham, associate professor of psychology at Lehigh University and a member of the staff since 1930, will retire on 30 June.

Maude Pye Hood, acting dean of the School of Home Economics at the University of Georgia, has been given a grant by the Ford Foundation for a 2-yr appointment to the College of Home Economics at Karachi, Pakistan. She will be the senior member of a team of two sent to Karachi to develop home economics work. Her colleague will be **Alma Wood** of Louisiana State University.

Otto Loewi, pharmacologist and physiologist who is a research professor at the New York University College of Medicine, has been elected to the Royal Society of London.

On 22 June **Walter B. Martin** of Norfolk, Va., was installed as the 108th president of the American Medical Association, succeeding **Edward J. McCormick** of Toledo, Ohio.

Friend Lee Mickle, for 35 yr a member of the staff of the Connecticut State Department of Health and at present chief of Laboratory Services and director of the Bureau of Laboratories of that department, is retiring on 30 June. He plans to travel and later to do some consulting work in public health.

Gustavo Molina, former professor of public health administration in Chile, has been appointed chief of the Division of Public Health of the Pan American Sanitary Bureau, Regional Office of the World Health Organization. Dr. Molina has been in charge of the Bureau's professional education branch since last July.

To honor outstanding engineering achievement in the field of agriculture, the American Society of

Agricultural Engineers, on the occasion of its annual dinner held 21 June at the University of Minnesota, awarded the John Deere gold medal to **Raymond Olney** of St. Joseph, Mich., and the Cyrus Hall McCormick gold medal to **Wayne H. Worthington** of Waterloo, Iowa.

John R. Paul, chairman of preventive medicine at Yale University and specialist on the spread of poliomyelitis, infectious hepatitis, and rickettsial disease, has been awarded the Howard Taylor Ricketts medal of the University of Chicago. The Ricketts medal, honoring the late University of Chicago physician who died of typhus in May 1910, is given in recognition of outstanding medical work.

Robert V. Ruhe, research geologist in the soil survey division, U.S. Department of Agriculture, and collaborator at the Iowa Agricultural Experiment Station, has received a grant-in-aid from the Wenner-Gren Foundation for Anthropological Research to conduct geopedological research in Africa, Belgian Congo, Central African Federation, and the Union of South Africa, during the period 12 Aug. 1954 to 14 Jan. 1955. The purpose of Dr. Ruhe's work will be to determine the use of soils in the correlation of erosion surfaces that may prove beneficial in outlining the Pleistocene climatic and landform sequences and the relation of river terraces and changes in lake sizes to those sequences. The establishment of such sequences will facilitate research in archeology. Before proceeding to the African interior, Dr. Ruhe will report on his work of 1951–52 in the Belgian Congo, Uganda, and Ruanda-Urundi, to the 5th International Congress of Soil Science, Leopoldville, Belgian Congo.

J. R. Schramm, professor of botany at the University of Pennsylvania and director of the Morris Arboretum, will be away on sabbatic (and terminal) leave for the year 1954–55. After attending the International Botanical Congress, he will travel in Europe and the Near East.

Education

Twenty faculty members and six graduate students from 24 educational institutions have accepted summer appointments at **Argonne National Laboratory.** The Laboratory, operated by the University of Chicago for the U.S. Atomic Energy Commission, makes such appointments annually to encourage research and to strengthen teaching in fields related to nuclear energy.

The most serious problem in **cancer research** today, says F. Peyton Rous, "is the cleavage which exists between the laboratory and the clinic." Speaking before a group of more than 200 cancer researchers, who met 5–6 April in the new $10,000,000 building of **The University of Texas M. D. Anderson Hospital and Tumor Institute,** just opened in the Texas Medical Center, Dr. Rous called for a closer integration of minds, as well as integration of physical facilities. "It is only now, in a place like the Anderson Hospital and New York's Memorial Center, that they are brought together," he said. "But the cleavage still exists."

Dr. Rous, emeritus member of the department of pathology and bacteriology at the Rockefeller Institute for Medical Research, was in Houston to deliver the Bertner Lecture and to receive the Bertner Foundation Award for his own outstanding contributions to cancer research.

Merrill M. Flood, professor of Industrial Engineering at Columbia University, has been appointed director of the newly-formed **Columbia Institute for Research in the Management of Industrial Production.** The institute's primary purpose is to conduct research in the problems of management of industrial production and specifically into the problems that originate in factories. Its work is of the inter-disciplinary type, including collaboration of such areas at Columbia as psychology, sociology, economics, mathematical statistics, and business management. In addition to project research, the new unit will conduct several conferences each year and will eventually provide for research in the field by Columbia students. Work at the institute will be guided by an advisory committee.

This past winter the administration of teaching and research in **engineering at the University of Pennsylvania** was completely reorganized so as to coordinate and extend the University's activities in these fields. The Towne Scientific School is now divided into four separate schools of chemical, civil, mechanical, and metallurgical engineering, each with its own faculty. Two assistant vice presidents for engineering have been appointed—S. Reid Warren and Arthur N. Hixson—and directors were named to head the four new schools and also the Moore School of Electrical Engineering: Melvin C. Molstad, chemical engineering; Emory F. Stover, civil engineering; Lee N. Gulick, mechanical engineering; Robert M. Brick, metallurgical engineering; and John G. Brainerd, Moore School. All seven administrative officers hold full professorships in engineering at the University and are continuing their teaching work in addition to serving as administrators.

In addition, provision was made for the establishment of an Institute for Cooperative Research to stimulate, coordinate, and manage investigative activities in the engineering field for industry, foundations, and government. All these various engineering units are directed by Carl C. Chambers, vice president in charge of engineering affairs. No physical changes are necessitated by the reorganization. The four new schools were formerly departments of the Towne School and will continue to be housed in the Engineering Building, now to be known as the Towne Building.

Plans are being made to establish the nation's first **psychiatric clinic for adolescents** in the new Mental Hygiene Unit of the University of California at Los Angeles Medical Center. Devoted to juvenile delinquency and other problems of adolescence, the center will include a 24-bed ward in the neuropsychiatric

hospital, special classrooms, and an adolescent outpatient's clinic. Norman Brill will head the neuropsychiatric program.

The adolescent center is one of several divisions in the Mental Hygiene Unit, which will be operated jointly by the State Department of Mental Hygiene and the university. Other divisions include adult and child psychiatry, neurosurgery, and neurology. The neurology division will be concerned with study and treatment of such diseases as epilepsy, multiple sclerosis, muscular dystrophy, and tumors of the central nervous system.

Grants and Fellowships

Eugene P. Odum, professor of zoology at the University of Georgia, and his brother, Howard T. Odum, a member of the University of Florida faculty, will spend the summer at the newly established laboratory on Eniwetok Atoll, near the site of the recent nuclear explosions in the Pacific, on a special assignment for the **Atomic Energy Commission.** They will make basic studies of the biological productivity of coral atolls as a whole, rather than of the direct effects of radiation on individual organisms.

Acting for the American Cancer Society, the Committee on Growth of the National Research Council is accepting applications for grants-in-aid for **cancer research** in the United States. Applications received *before 1 Oct.* will be considered during the winter and grants recommended at that time become effective on 1 July 1955. Investigators now receiving support will be notified individually regarding their applications for renewal.

The Committee feels that an understanding of cancer depends upon a deeper insight into the nature of the growth process, normal and malignant. Therefore, the scope of the present program is broad and includes, in addition to clinical investigations on cancer, fundamental studies in the fields of cellular physiology, morphogenesis, genetics, virology, biochemistry, metabolism, nutrition, cytochemistry, physics, radiobiology, chemotherapy, endocrinology and environmental cancer. Application blanks may be obtained from the Executive Secretary, Committee on Growth, National Research Council, 2101 Constitution Ave., NW, Washington 25, D.C.

The Lederle Laboratories Division, American Cyanamid Company, has announced the following recipients of **Lederle Medical Faculty Awards** for the year 1954:

J. Dempsher, Dept. of Pharmacology, School of Medicine, University of Pennsylvania, 3 yr.
D. W. Fawcett, Dept. of Anatomy, Harvard Medical School, 3 yr.
E. C. Gjessing, Dept. of Biochemistry, University of Vermont, 3 yr.
E. D. Grim, Dept. of Physiology, University of Minnesota, 3 yr.
F. O. Kelsey, Dept. of Pharmacology, University of South Dakota, 3 yr.
R. G. Langdon, Dept. of Physiological Chemistry, Johns Hopkins Medical School, 3 yr.
F. V. Lucas, Dept. of Pathology, University of Rochester, 2 yr.
W. K. Maas, Dept of Pharmacology New York University College of Medicine, 3 yr.
L. M. Marshall, Dept. of Biochemistry, Howard University College of Medicine, 3 yr.
M. L. Moss, Dept. of Anatomy, Columbia University, 2 yr.
G. E. Murphy, Dept. of Pathology, Cornell University Medical College, 3 yr.
S. Shulman, Dept. of Bacteriology and Immunology, University of Buffalo, 3 yr.
J. R. Teabeaut, II, Dept. of Pathology, University of Tennessee, 1 yr.
V. L. van Breeman, Dept. of Anatomy, University of Colorado, 2 yr.

Mary Thornton Page, widow of the late Leigh Page, professor of mathematical physics at Yale University from 1922 until his death in September 1952, has established a fund in memory of her husband to support a yearly prize of $1000 to be given to an outstanding first-year graduate student in the field of physics. This **Leigh Page memorial prize** is one of the two largest ever created at Yale; its first recipient is Loyal Durand, III, of Knoxville, Tenn.

The following scientists were among the 236 recipients of 1-yr fellowships granted by **The Fund for the Advancement of Education** to college and university faculty members in the United States and Hawaii. In addition, the Fund has granted 274 fellowships to high school teachers, including 40 in mathematics and the natural sciences.

J. D. Gómez-Ibáñez, Wesleyan University; chemistry.
B. M. Wheeler, Connecticut College; zoology.
E. P. Clancy, Mount Holyoke College; physics.
C. F. Mosteller, Harvard University; mathematics and statistics.
L. N. Hadley, Jr., Dartmouth College; physics.
G. H. Smith, Rutgers University; psychology.
M. L. Gabriel, Brooklyn College; biology.
E. E. Hanlon, Syracuse University; geography.
R. J. Ordway, New York State Teachers College; natural sciences.
W. G. Clark, Mount Union College; physics and mathematics.
W. Ellis, Oberlin College; mathematics.
E. S. Graham, Kenyon College; chemistry.
W. C. Kelly, University of Pittsburgh; physics.
H. D. Rix, Pennsylvania State University; physics.
C. R. Mitchell, Rhode Island College of Education; mathematics.
R. W. Morse, Brown University; physics.
H. E. Kirkby, Shimer College; natural sciences.
R. J. McCall, De Paul University; psychology.
E. C. Williams, Wabash College; zoology.
A. M. Docken, Luther College; chemistry.
M. F. Smiley, State University of Iowa; mathematics.
H. C. Trimble, Iowa State Teachers College; mathematics.
P. W. Renich, Kansas Wesleyan University; science.
K. MacCorquodale, University of Minnesota; psychology.
T. B. Thomas, Carleton College; zoology.
S. S. Judson, Jr., University of Wisconsin; geology.
J. V. Talacko, Marquette University; mathematics.
O. L. Lacey, University of Alabama; psychology.
B. F. Smith, Spelman College; biology.
W. G. McGavock, Davidson College; mathematics.
J. J. Friauf, Vanderbilt University; biology.
J. F. MacNaughton, University of Houston; psychology.
B. W. Mundy, Virginia Military Institute; chemistry.
G. B. Rossbach, West Virginia Wesleyan College; biology.
M. D. Appleman, University of Southern California; bacteriology.
C. M. Gorman, University of San Francisco; chemistry.
W. E. Pequegnat, Pomona College; zoology.
A. E. Treganza, San Francisco State College; anthropology.
M. B. Turner, San Diego State College; psychology.
R. G. Beidleman, Colorado A & M College; zoology.
W. A. Fischer, Colorado College; geology.
L. M. Stanford, College of Idaho; biology.
G. E. Osborne, University of Utah; pharmacy.

In the Laboratories

The new laboratories, at Bedford, Mass., of the **Air Force Cambridge Research Center** were officially opened on 26 Apr. The center is one of 11 installations under Thomas S. Power, Lt. General and new commander of the USAF Air Research and Development Command, Baltimore, Md., that are engaged in the development of new and improved weapons, weapons systems, and guided missiles.

Don Baxter, Inc., manufacturer of intravenous solutions, blood transfusion containers, and plastic hospital products, has a new two-story research building in Glendale, Calif., adjacent to the company's office and production laboratories. The new structure provides each member of the research staff with an individual, fully equipped laboratory. Other features include spacious conference rooms, a library, development laboratories, a model shop, an animal room, and physical, chemical, functional, bacteriological, and biological testing laboratories. The entire building is sound-conditioned with acoustic tile ceilings. A two-duct air conditioning system is provided with individual controls in each room.

Between 400 and 500 additional workers will be employed at the **General Electric Co.'s Knolls Atomic Research Laboratory** as a result of a projected $13,000,000 expansion program that will increase facilities and personnel by about 50 percent. Construction is under way, and the buildings should be equipped and ready for occupancy within 20 mo. Included among the new additions are a five-story wing for the main laboratory; a $3.7 million laboratory and shop-type structure for the development of metallurgy and ceramic materials and their processing; and a $1.8 million combustion building.

The boards of directors of **Mathieson Chemical Corp. and Olin Industries, Inc.,** recently voted unanimously to submit to their stockholders, at special meetings on 29 June 1954, a proposal to merge the two companies. Mathieson is a leading producer of industrial and agricultural chemicals, petrochemicals, and through its E. R. Squibb & Sons Division, drugs and pharmaceuticals. Its operations are world-wide and include 25 plants in the United States and 16 in foreign countries.

Olin Industries is a large producer of metals and fabricated parts, industrial explosives, military and sporting firearms and ammunition, cellophane, polyethylene, fine specialty papers, forest products, powder-actuated fasteners and tools, and electrical products and maintains a large research staff to develop new and improved products. Olin operates 18 plants, all in the United States.

A $4,500,000 wind tunnel under construction at **North American Aviation, Inc.,** Los Angeles, will be one of the largest in private industry. It will be capable of testing airplane and missile designs at speeds ranging from 400 mi/hr to more than three times the speed of sound.

To more effectively investigate and develop new pharmaceuticals for use by the medical profession, the **Schering Corp.** has created four new divisions: biological and therapeutic research, directed by Edward C. Reifenstein, Jr.; medicinal and pharmaceutical research, directed by S. W. Lee; chemical research and development, directed by E. B. Hershberg; and research services, directed by Bradley Whitman.

The **U.S. Public Health Service's National Cancer Institute** has announced establishment of a **leukemia studies section** in the Laboratory of Biology to be headed by Lloyd W. Law.

Also announced was the appointment of George Hogeboom as head of the cellular biology section of the Laboratory of Biology. Dr. Hogeboom has worked in the laboratory since 1948; he has been head of the cell chemistry unit of the section since 1950.

Ground has been broken for the new $4,000,000 **Wyeth Laboratories** headquarters building on a 27-acre site 12 mi west of Philadelphia. The structure will house the executive and sales offices and research laboratories; it is scheduled for completion in July 1955.

Meetings and Elections

The **American Association of Clinical Chemists** has elected these officers: pres., Monroe E. Freeman, Medical Service Corps of the Department of the Army; v. pres., Otto Schales, Ochsner Clinic, New Orleans; sec., Max M. Friedman, Lebanon Hospital, New York; treas., Louis B. Dotti, St. Luke's Hospital, New York.

The **American Institute of Mining and Metallurgical Engineers** has elected the following officers for 1954–55: pres., Leo F. Reinartz; treas., Gail F. Moulton; sec., Edward H. Robie. Vice presidents are O. B. J. Fraser, J. B. Morrow, L. E. Elkins, A. B. Kinzel, T. B. Counselman, and Harold Decker.

At the summer meeting of the **American Physical Society,** University of Minnesota, 28–30 June, there will be 31 invited papers: on surface physics and domain formation, by G. K. Wehner, W. J. Merz, and E. A. Coomes; on nuclear radii, by R. W. Pidd and D. J. Zaffarano; on ion and electron dynamics, and luminescence, by L. B. Leder, J. P. Blewett, and L. M. Field; on astronomical subjects, by W. A. Hiltner, W. J. Luyten, T. L. Collins, and F. Graham Smith; on electronic conduction in solids, by L. Apker and R. H. Bube; on theoretical physics, including quantum electrodynamics, by W. B. Cheston, J. M. Jauch, and F. Rohrlich; on gaseous electronics, by R. N. Varney, W. P. Allis, and M. A. Biondi; on cosmic-ray physics, by Phyllis Freier, Nahmin Horwitz, Leland Bohl, and H. S. Bridge; on electron and nuclear emission and ejection phenomena, by A. J. Dekker, L. S. Nergaard, and J. A. Krumhansl, Jr.; on nuclear accelerators, by N. F. Ramsey, R. G. Herb, E. J. Lofgren, and Lyle

W. Smith. Some 112 10-min contributed papers are distributed among 13 sessions.

Officers of the **American Psychosomatic Society** for 1954 are: pres., Lawrence S. Kubie; pres.-elect, Stanley Cobb; sec.-treas., Theodore Lidz.

The **Bicentennial Conference of the Columbia University College of Pharmacy** will be held at the university 14–15 Oct. in honor of the bicentennial of the university and the 125th anniversary of the College of Pharmacy. The theme of the conference is "Pharmacy and the conquest of disease." George W. Merck, chairman of the board of Merck & Co., Inc., is chairman of the conference's national committee.

The **11th Brazilian Congress of Chemistry** to be held in São Paulo, 4–10 July, is the second organized by the Associacão Brasileira de Química, the Association which since 1951 has united the two chemical societies that formerly existed in Brazil. The meeting takes place in São Paulo this year because the city is commemorating its 400th anniversary. In addition to the presentation of papers in all fields of chemistry, there will be three symposiums: (i) "Special methods in analytical chemistry"; (ii) "Basic raw materials for the chemical industry"; (iii) "Present applications of organic chemistry."

"Critical objectives in graduate study" was the subject of a round-table discussion held on 18 May at the Rice Institute. The meeting was opened by Winfred O. Milligan, Rice Institute, and the panel leaders included H. H. Meier, Humble Oil & Refining Co.; W. Gordon Whaley, University of Texas; M. King Hubbert, Shell Oil Co.; William V. E. Doering, Yale University; and F. H. Westheimer, Harvard University. Carey Croneis, Rice Institute, served as moderator. The significance of graduate research was emphasized not only for advanced students planning a specific research career, but also for others who may apply the results of research in various industrial fields.

The **International Association of Milk and Food Sanitarians** has elected these officers: pres., John D. Faulkner, Washington, D.C.; pres.-elect, I. E. Parkin, State College, Pa.; 1st v. pres., Ivan Van Nortwick, Lawrence, Kan.; 2nd v. pres., Harold S. Adams, Indianapolis, Ind.; sec.-treas., H. H. Wilkowske, Gainesville, Fla.

An **International Symposium on the Hypophyseal Growth Hormone,** sponsored by the Henry Ford Hospital and the Edsel B. Ford Institute for Medical Research, will be held in the Henry Ford Hospital, Detroit 27–29 Oct. Formal presentations and discussions will cover bioassay, preparation, and physicochemical properties of growth hormone; effects of growth hormone on certain structures such as the mammary gland, skeletal system, connective tissue, Islets of Langerhans, kidneys, gastrointestinal tract, and tissue cultures; growth hormone and energy sources; the effect of growth hormone on cellular systems; the influence of growth hormone on lactation; and its metabolic effects in man. Interested persons should write the Program Committee, Henry Ford Hospital, Detroit 2, Mich.

Officers of the **Oklahoma Academy of Science** for 1954 are: pres., A. N. Murray, Tulsa University; v. pres. and sec.-treas., Ralph E. Olson, University of Oklahoma; assistant sec.-treas., D. E. Howell, Oklahoma A. & M. College. The permanent secretary is A. O. Weese, University of Oklahoma.

The 12th annual **Pittsburgh Diffraction Conference** will be held at the Mellon Institute 3–5 Nov. This will be a joint meeting with the **American Crystallographic Association.** Technical sessions are being arranged on "Instrumentation and methods," "Metals," "Neutron diffraction," "Small-angle scattering," and "Silicates and related structures." Papers on general diffraction subjects will also be accepted.

Contributed papers will be considered in the order in which they are received. Titles should be submitted to Prof. G. A. Jeffrey, University of Pittsburgh, Pittsburgh 13, Pa., *before 1 Sept.* Abstracts are due *by 20 Sept.* For further information write to Dr. P. K. Koh, Allegheny Ludlum Research Laboratories, Alabama Ave., Brackenridge, Pa.

The **Society for the Advancement of Criminology** has elected the following officers: pres., William Dienstein, Fresno State College, Fresno, Calif.; sec.-treas., Lowell W. Bradford, San Jose State College, Calif. Vice presidents are Fred Fitzgerald, City College of San Francisco; Arthur F. Brandstatter, Michigan State College; Donal E. J. MacNamara, New York University.

Representatives from women's colleges and from industries employing women met for a conference on **"The role of the women's colleges in the physical sciences"** held at Bryn Mawr College, 17–18 June. The meeting was under the chairmanship of Walter C. Michels of Bryn Mawr.

New officers of the **Virginia Academy of Science** are: pres., Irving G. Foster, Virginia Military Institute; sec.-treas. emeritus, E. C. L. Miller; sec.-treas., Foley F. Smith, P.O. Box 1420, Richmond 11; pres.-elect, Walter S. Flory, Blandy Experimental Farm, Boyce.

Miscellaneous

The Medical Faculty, University of Zagreb, Zagreb, Yugoslavia, has commenced publication of a journal, *Acta Facultatis Medicae Zagrebensis,* that will appear three times a year. It covers all medical branches, both clinical and theoretical. Articles are followed by a summary in one of the world languages.

Beginning in May the **American Geological Institute's** ***newsletter*** became an 8-page, 3-column newspaper, and starting with the September issue, it will

be mailed to everyone whose name and address appears in the Earth Sciences Section of the National Register of Scientific and Technical Personnel.

Since the announcement last winter of the publication of **"Basic Care of Experimental Animals,"** a manual especially prepared for the men and women who take care of laboratory animals, requests have been received from laboratories throughout the United States and Canada, and 2124 free copies have been distributed. Copies are still available from the Animal Welfare Institute, 350 Fifth Ave., New York 1.

The following **chemicals** are wanted by the Registry of Rare Chemicals, Armour Research Foundation of Illinois Institute of Technology, 35 W. 33 St., Chicago, Ill.: Silicon disulfide; potassium perselenate; octahydrophenanthrene; 6-amino-8-hydroxyquinoline; 4-methyl-1,4-heptanediol; 2-aminonaphthalene-4-sulfonic acid; quinquephenyl; cycloheximid; 3-methylthiophene; glycidic acid; 2,4-diamino-5-hydroxyphenol; benzophenone-2,2′-dicarboxylic acid; oxine-5-sulfonic acid; 2-hydroxynicotinic acid; D-cysteine; ptylin; scyllitol; esculetin; sinigrin.

The American Museum of Natural History recently opened an exhibit, **"Fishes Through Time,"** that explains 400 million years of fish history. The new permanent exhibit was constructed under the supervision of Bobb Schaeffer, associate curator of fossil fishes.

The following articles are featured in the July issue of ***The Scientific Monthly***: "Parapsychology and dualism," Roland Walker; "The numerical relationships between phytophagous insects and their hosts," S. W. Frost; "Science and ideology," Adolf Grünbaum; "On Coriolis force and bird navigation," William J. Beecher; "Science and common sense," P. W. Bridgman; "Education in the sciences," Robert Boyce Green; "Three young naturalists afield: the first expedition of Hyatt, Shaler, and Verrill," Ralph W. Dexter; "Scientific research in Antarctica," Vivian E. Fuchs. Also featured is an abridged version of the late Walter B. Cannon's outstanding AAAS presidential address, "The body physiologic and the body politic," which was published originally in *Science* **93**, 1 (1941).

Necrology

Joseph H. Abraham, 83, author and former professor of otolaryngology at Polyclinic Hospital and Postgraduate Medical School, New York City, 3 June; **Mahlon Ashford,** 73, former chief surgeon of the Panama Department, Army Medical Corps, and retired secretary of the New York Academy of Medicine, Washington, D.C., 5 June; **Kenneth N. Atkins,** 77, professor of bacteriology at Dartmouth Medical School, Hanover, N.H., 20 May; **Ernest B. Benger,** 68, retired authority on synthetic fibers and films for E. I. du Pont de Nemours, Wilmington, Del., 27 May; **Arthur J. Clark,** 73, professor emeritus of chemistry at Michigan State College, East Lansing, 2 June; **Mabel Colcord,** 81, retired chief of entomological work at the Department of Agricultural library, Washington, D.C., 4 June; **Virgil H. Cornell,** 63, former head of the Pathology Department, Walter Reed Hospital, Washington, D.C., 3 June; **William S. Fones,** 33, editor and research chemist at the National Cancer Institute, Bethesda, Md., 11 May; **A. F. Greaves-Walker,** 73, author, editor, and retired head of the Department of Ceramic Engineering at North Carolina State College, Raleigh, 18 April; **Charles R. Heed,** 74, former clinical professor of ophthalmology at Jefferson Medical College, Philadelphia, Pa., 23 May; **Walter Heikel,** 76, author and agricultural authority, Paraguay, 21 May; **John Homans,** 76, author and clinical professor emeritus at the Harvard Medical School, Boston, Mass., 7 June; **Lloyd A. Jones,** 73, retired head of the physics division at the Eastman Kodak research laboratory, Rochester, N.Y., 15 May.

Laurence La Forge, 82, retired consulting geologist and geological engineer, and former professor at Tufts College, Medford, Mass., 29 May; **Fritz O. Laquer,** 65, author, chemical researcher, and professor of biochemistry at Temple University School of Pharmacy, Philadelphia, Pa., 29 May; **Fred V. Larkin,** 71, professor emeritus of mechanical engineering at Lehigh University, Bethlehem, Pa., 23 May; **Edwin P. Lehman,** 65, author, past president of the American Cancer Society, and retired professor of surgery and gynecology at the University of Virginia, Charlottesville, 27 May; **Oliver I. Lewis,** 51, electronics researcher and chief engineer for the Engineering and Technical Division, U.S. Army Signal Corps, Washington, D.C., 18 May; **Robert V. Martin,** 40, orthopedist, founder and director of the Nassau County Cerebral Palsy Center at Roosevelt, N.Y., 18 May; **Henry Minsky,** 58, author, ophthalmic surgeon and researcher, New York City, 23 May; **Ilia E. Mouromsteff,** 72, research engineer and professor of physics at Upsala College, East Orange, N.J., 18 May; **Clarence P. Oberndorf,** 72, author, editor, neurologist, psychoanalyst, and former clinical professor of psychiatry at Columbia University, New York City, 30 May; **Thomas A. Pendleton,** 68, author and retired chief topographic engineer for the U.S. Geological Survey, Washington, D.C., 28 May; **Fred W. Rankin,** 67, president of the American College of Surgeons, past president of the American Medical Association, former professor, author, and authority on cancer of the colon, Lexington, Ky., 22 May; **Henry S. Rawdon,** 73, author and retired chief of the Metallurgy Division of the National Bureau of Standards, Washington, D.C., 14 May; **Nathan Sulzberger,** 79, chemist and inventor, New York City, 5 June; **Augustus B. Wadsworth,** 81, past president of the Association of Pathologists and Bacteriologists, author, former professor, and retired director of laboratories and research for the New York State Department of Health, New York City, 1 June; **Paul C. Whitney,** 71, hydrographic and geodetic engineer, author, and retired supervisor of the Southeastern District of the Coast and Geodetic Survey, Washington, D.C., 9 June.