News and Notes

American Chemical Society's 117th National Meeting—Philadelphia and Detroit Sessions

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American Chemical Society

Philadelphia. The discovery that the antibiotic aureomycin is a potent growth accelerator, producing effects beyond those obtainable with any known vitamin, was one of the outstanding chemical contributions in the fields of nutrition and health announced at the Philadelphia meeting of the ACS.

This, the second of three sessions into which the meeting was divided, was held April 9–13, with 3,900 chemists and chemical engineers participating. The first session was conducted in Houston, March 26–30 (*Science*, April 21, p. 449).

Selection of Charles A. Kraus, professor emeritus of chemistry at Brown University and a former ACS president, as winner of the Priestley Medal, highest honor in American chemistry, was announced by Ernest H. Volwiler, president, at a general assembly on April 10. Dr. Kraus will receive the medal at the society's fall meeting in Chicago.

Three awards were presented at the general assembly. A. J. Haagen-Smit, of the California Institute of Technology, received the Fritzsche Award of $1,000 and a gold medal for his work on essential oils. The Borden Award in the Chemistry of Milk, consisting of $1,000 and a gold medal, went to George A. Richardson, of Oregon State College. Britton Chance, director of the Eldridge Reeves Johnson Foundation for Medical Physics of the University of Pennsylvania, received the $1,000 Paul-Lewis Laboratories Award in Enzyme Chemistry, which also includes a gold medal.

Prof. Chance, in his award address, described an apparatus he has developed for studying enzymatic catalysis. A thousand times more powerful than any previously available device, the new apparatus has enabled him to measure reactions occurring within 2 msec, and has thus opened the way to a wealth of knowledge about basic life processes.

The hitherto unsuspected nutritional powers of aureomycin, which may be of great value in extending the world's meat supply and decreasing its production costs, were reported by E. L. R. Stokstad and T. H. Jukes of the Lederle Laboratories Division, American Cyanamid Company. Minute quantities of the drug mixed with feed increased the rate of growth of pigs by as much as 50% and had a similar effect on chicks and turkey poults. Clinical investigations of the possibility that aureomycin may aid the growth of malnourished and undersized children are now under way.

Out of a symposium on the effect of steroids on mammalian metabolism came the theory that the effectiveness of cortisone, sex hormones, and other steroids in combating rheumatoid arthritis may be increased by regulating the nutritional level of patients. This theory will be tested clinically by St. Luke's Hospital, New York City, this summer, in a broad study of the entire relationship of nutrition and metabolism to steroidal therapy, it was announced by Symposium Chairman Anthony A. Albanese of St. Luke's Nutritional Research Laboratory.

A new type of weapon against virus diseases may result from research described by Seymour S. Cohen, of the Children's Hospital of Philadelphia and University of Pennsylvania School of Medicine. Dr. Cohen found that multiplication of viruses can be halted in the test tube by introduction of 5-methyl tryptophan, a substance similar to the amino acid tryptophan. It may eventually be possible to develop compounds for the treatment of virus announced by Symposium Chairman Anthony A. Albanese of St. Luke's Nutritional Research Laboratory.

Another important contribution to virus knowledge was reported by H. T. Epstein and Max A. Lauffer of the University of Pittsburgh. They offered convincing evidence that the virus particles seen through the electron microscope, and analyzed by physical and chemical techniques, are actually the bearers of virus infection. Southern bean mosaic virus was used in the research, which employed a new technique based on sedimentation velocities.

Development of a drug opening up a new approach to the treatment of peptic ulcer was announced by John W. Cusic and Richard A. Robinson of G. D. Searle and Company. The compound, β-diethylaminoethylxanthene-9-carboxylate methobromide, relaxes the smooth muscle of the stomach, thereby reducing spasm, and also inhibits the nerve impulses causing acid secretion by the stomach. This is the first single compound to meet both major requirements of an effective ulcer treatment.

A series of new synthetic chemicals which, in laboratory tests, equal the antituberculosis potency of streptomycin was described by Jack Bernstein and co-workers, of E. R. Squibb and Sons Research Laboratories. The compounds, which can be taken orally, are members of the class known as thiosemicarbazones, first reported in 1946 by Gerhard Domagk and three other German chemists. The Squibb researchers have synthesized more than 100 thiosemicarbazones, several of which have proved highly effective on mice.

Utilization of radioactive tracer techniques has made it possible for the first time to follow all parts of a cancer-forming chemical through body processes, John H. Weisburger, of the National Cancer Institute, announced. Describing research on the carcinogen 2-acetylaminofluorene, he said the achievement may permit identification of the specific part of a compound which causes cancer.

A vast untapped food reserve in Central America, provided by common foods and a variety of other edible plants, has been uncovered in a three-year survey conducted by the Nutritional Biochemistry Laboratories of the Massachusetts Institute of Technology, Hazel E. Munsell and associates reported.

Symposia on the metabolic role of vitamin B_{12} and its place in the feeding of farm animals, newer developments in fungicides, and 1950 placement problems were other high lights of the program, which also included the first symposium ever held on the application of chemistry to archaeology.

Detroit. Research progress in fields ranging from chemical warfare to the measurement of bone density in living persons was reported at the Detroit session. More than 2,750 chemists and chemical engineers participated in this final session of the divided meeting, bringing the total attendance for the Houston, Philadelphia, and Detroit gatherings to 8,456.

Nation-wide interest was aroused by Anthony C. McAuliffe's revelation that the Army Chemical Corps, of which he is chief, is developing weapons that can shatter a foe's will to fight without wrecking his economy. Gen. McAuliffe, who addressed a general assembly in the Detroit Music Hall on April 17, made it clear that the new weapons would never be used by the U. S. save for purposes of retaliation, but he stressed the need for continued research along this line in the interests of defense. Pointing out that the Soviet Union is known to be exploiting many German experts on chemical warfare, he said it must be assumed "that we are not the sole possessors of the offensive and defensive secrets of the new nerve gases."

The $1,000 American Chemical Society Award in Pure Chemistry was given to Verner Schomaker, of the California Institute of Technology, at the general assembly. This award is financed by Alpha Chi Sigma. The Francis P. Garvan Medal, honoring women in chemistry, was presented to Pauline Beery Mack, director of the Ellen H. Richards Institute and professor of household chemistry at the Pennsylvania State College. Dr. Mack told, in her medal address, of an ingenious technique for measuring bone density, which may lead to the development of a sturdier human race. Fewer bow legs, stronger skeletons, and better health at all age levels con be assured through use of this technique, which employs an electronic device to analyze x-rays.

A report on the chemistry of berkelium, element 97, was presented by S. G. Thompson and Glenn T. Seaborg of the University of California. The new element has been found to be chemically related to terbium, just as had been predicted from the fact that berkelium occupies a position in the actinide series analogous to that held by terbium in the lanthanide series.

Several advances in the purification of water were reported. Completely pure drinking water, free from the unpleasant chlorine taste as well as from germs, can be prepared at low cost with the aid of common sand or clay, Ernst Hauser, of the Massachusetts Institute of Technology and the Worcester Polytechnic Institute, said. He asserted that sand or clay could serve as a source of atomic oxygen which would "act like a strong poison on germs" and prevent the putrefaction of organic matter.

An electrolytic process for effecting coagulation and removal of impurities was described by Paul G. Stephan and A. C. Brumley of Alhydro, Inc., Baltimore. Stainless steel equipment and some radically new ideas in design have made continuous operation of such a process feasible for the first time.

F. X. McGarvey and Joseph Thompson of the Rohm and Haas Company, Philadelphia, announced a new ion exchange resin which softens hard water efficiently and cheaply. New triple-action detergents which remove dirt, bacteria, and unpleasant odors were reported by Joseph B. Niederl, of New York University; Martin E. McGreal, of St. John's University, and William F. Hart, of Lafayette College. They said the compounds, which are morpholinium alkyl sulfates, are "the most nearly ideal cleansers" so far developed.

An entirely new concept of the role of carbon black in rubber processing was announced by R. S. Stearns and B. L. Johnson of the Firestone Tire and Rubber Company. Their theory explains the toughening effect of carbon black on rubber in chemical rather than physical terms, thus upsetting the view held by most rubber technologists in recent years. The submicroscopic particles of carbon black added to rubber in the manufacture of tires and other rubber products are not inert, as formerly supposed, but have reactive carbon atoms on their surfaces similar to the reactive carbon atoms of rubber. This enables the carbon black to take part in the vulcanization reaction and combine chemically with the rubber.

Clearer radio reception in moving automobiles, elimination of annoying shocks from touching charged objects, and fewer industrial accidents caused by sparks were predicted by L. R. Sperberg and associates, of the Phipps Petroleum Company. These advances will result from new rubber compositions which will conduct electricity.

Gordon K. Moe, associate professor of pharmacology at the University of Michigan Medical School, has been appointed professor of physiology and head of the department at New York State University College of Medicine at Syracuse, effective July 1.

R. G. Grenell, who has been a senior fellow of the U. S. Public Health Service in the Department of Biophysics at Johns Hopkins University, has been appointed research associate and director of the Research Laboratories of the Department of Psychiatry, University of Maryland School of Medicine.

Robert E. Marshak, theoretical physicist at the University of Rochester, has been appointed chairman of the Physics Department of the University, to succeed **George B. Collins,** who resigned April 1 to take charge of large scale accelerator work at Brookhaven National Laboratory. Dr. Marshak is known for his work in the development of the theory of light and heavy types of mesons. He will serve as visiting professor of physics at Columbia University during the summer session.

I. C. Gunsalus and **S. E. Luria,** bacteriologists at the University of Indiana, will join the staff of the University of Illinois Department of

Bacteriology in September. Dr. Gunsalus will become a professor in the department, and Dr. Luria a research professor.

Franz Schrader, head of Columbia University's Department of Zoology, has been appointed Da Costa Professor of Zoology at the university. This chair was named in honor of Charles M. Da Costa, who gave the funds to establish the Department of Zoology.

Barbara K. Campbell, lecturer in chemistry at Indiana University, was recently elected national president of Sigma Delta Epsilon, the honorary organization for women engaged in research in the physical, mathematical, biological, and medical sciences. Dr. Campbell has collaborated for many years with her husband, K. N. Campbell of the University of Notre Dame, in research on antimalarials, the chemotherapy of cancer, and synthetic drugs.

Deane B. Judd, of the Photometry and Colorimetry Section of the National Bureau of Standards, recently received the Department of Commerce Exceptional Service Award for outstanding scientific accomplishment in the fields of colorimetry and color vision. Dr. Judd has been in charge of the bureau's colorimetric work for the past 17 years and developed a mathematical treatment of color blindness which affords an understanding of the relations between normal and color-blind vision.

Hans A. Bethe, Cornell University physicist, has been appointed Walker-Ames Professor of Physics at the University of Washington, Seattle, for the month of July. Dr. Bethe will conduct two graduate seminars on phases of recent nuclear research.

Visitors to U. S.

Recent visitors at the National Bureau of Standards were **P. J. Daglish,** manager of the Standards and Specifications Section, English Electric Company, Ltd., Rugby, England; **John D. Hastings,** of the Research Laboratory of the Socfin Plantations, Kuala Lumpur, Malaya; **Karl Neumaier,** chief of the Cartography and Surveying Unit, standardization and testing agency for the government of Austria; and **W. S. Karis,** deputy chief engineer, Post and Telegraph Ministry of Communications, Pakistan, who is now training with the Federal Communications Commission in Washington, on a UN fellowship.

Isamu Nagai, of the National Institute of Health, Tokyo, Japan, and **J. F. A. Sprent,** of the Ontario Research Foundation, Toronto, recently visited the Army Medical Department Research and Graduate School in Washington, D. C.

William J. Bishop, librarian of the Wellcome Historical Medical Library of London, will address the Medical Library Association's 1950 convention, to be held in Boston, June 19–22. Dr. Bishop's subject will be "Medical Libraries and Librarianship in Great Britain."

Grants and Awards

The American Academy of Arts and Sciences has announced the following grants-in-aid from its Permanent Science Fund: *Bodie E. Douglas,* assistant professor of chemistry, Pennsylvania State College, $300 for an investigation of the *trans* effect in coordination compounds; *Loo-keng Hua,* professor of mathematics, Tsing Hua University, and visiting professor, University of Illinois, and *Lowell Schoenfeld,* assistant professor of mathematics, University of Illinois, $300 for preparation of manuscript on the modern analytic theory of numbers; *J. Logan Irvin,* assistant professor of physiological chemistry, Johns Hopkins University School of Medicine, and *Elinor Moore Irvin,* volunteer, $1,000 for a physicochemical study of the interaction of quinoline and acridine derivatives with nucleic acids and nucleoproteins; *John James,* instructor, Department of Sociology, University of Oregon, $1,000 for a comparative study of small group size in the formal and informal organization of an industrial plant; *Michel Macheboeuf,* professor, Institut Pasteur, Paris, $2,000 for a study of lipoproteins; *Giuseppe Moruzzi,* professor of physiology and head of the department, University of Pisa, Italy, $1,500 for an investigation of the mechanism of the cortical arousal reactions; *Irvine H. Page,* director, Research Division, Cleveland Clinic Foundation, $1,500 for a study of the histopathology of vascular tissues by electron microscopy; *John W. Patterson,* assistant professor of anatomy, School of Medicine, Western Reserve University, $2,000 for a study of the role of ascorbic and dehydroascorbic acids in metabolism; *Jay S. Roth,* assistant professor of biochemistry, Bureau of Biological Research, Rutgers University, $400 for a study of the effects of certain carcinogenic agents on the growth rate and respiration of *Tetrahymena geleii; Harlow Shapley,* director, and *Bart J. Bok,* associate director, Harvard Observatory, $2,500 for an objective prism for the study of spectra of faint southern stars; *John F. Taylor,* assistant professor of biological chemistry, Washington University School of Medicine, $963 for a study of the physicochemical characterization of enzyme proteins at low temperatures.

Curt P. Richter was awarded the **Howard Crosby Warren Medal** by the Society of Experimental Psychologists at its annual meeting April 14–15 at the University of Rochester. The medal was awarded to Dr. Richter for his studies of self-regulatory functions in humans and animals.

The Howard Taylor Ricketts Medal was awarded on May 8 to S. Burt Wolbach, Harvard University professor emeritus of pathology. Dr. Wolbach, pioneer in the field of rickettsial diseases, made some of the earliest studies on the pathology of Rocky Mountain spotted fever and typhus. He is also known for his contributions to the knowledge of vitamin A and C deficiency diseases.

The National Academy of Sciences made the following awards at its annual dinner on April 25, in Washington, D. C.: the **Henry Draper Gold Medal** for 1949 was conferred on Otto Struve of the Yerkes and McDonald Observatories in recognition of his contributions to astronomical physics; the **Daniel Giraud Elliot Gold Medal** for 1946 was presented *in absentia* to Robert Broom, keeper of vertebrate paleontology and an-

thropology in the Transvaal Museum, Union of South Africa, for his part in preparing *The South African Fossil Ape-Men, the Australopithecinae,* published January 31, 1946; the 1949 **Mary Clark Thompson Gold Medal** and honorarium were given *in absentia* to Lauge Koch of Copenhagen, for exploration and geologic studies in East Greenland.

The 1950 John J. Abel prize in pharmacology has been awarded to George B. Koelle, Chalfont Fellow in Ophthalmology, Wilmer Institute, Johns Hopkins Medical School, for his research on the histochemical differentiation of types of cholinesterase and their localization in the tissues of the cat. The $1,000 prize and bronze medal have been donated to the American Society for Pharmacology and Experimental Therapeutics by the Eli Lilly Company to stimulate fundamental research in pharmacology and experimental therapeutics of young investigators working in colleges, universities, hospitals, or nonprofit institutes. Further information concerning this award can be obtained from the secretary of the society, H. B. Haag, Medical College of Virginia, Richmond.

Colleges and Universities

A new department of environmental medicine has been created at Johns Hopkins University School of Hygiene and Public Health for research combining medical investigation and hospital treatment of disease produced by environment and work in hygiene and public health on such diseases as they affect the community. Joseph L. Lilienthal, Jr., has been appointed professor of environmental medicine but will continue as head of the Physiological Division of the Department of Medicine at Johns Hopkins Hospital and as associate professor of medicine at the Hopkins School of Medicine. Anna Baetjer will serve as assistant professor in the new department.

A School of Natural Resources will be established at the **University of Michigan** this fall, under provisions of a ten-year grant of $100,000 from the Charles Lathrop Pack Forestry Foundation. The grant provides for an additional faculty member, the Pack Professor of Conservation, who will develop graduate and undergraduate programs in conservation along broader lines than those usually followed. Samuel T. Dana, dean of the present School of Forestry and Conservation which the new school will replace, will continue as dean of the new school.

A new venereal disease experimental laboratory was formally opened May 16 at Chapel Hill, North Carolina. The laboratory is the joint project of the School of Public Health, the University of North Carolina, and the U. S. Public Health Service and will be devoted to fundamental research in venereal diseases. The staff includes Harold J. Magnuson, senior surgeon of the Public Health Service, who will direct the laboratory, George O. Doak, director of the chemistry group, Henry Tauber, chief biochemist, and J. D. Thayer, chief bacteriologist. Approximately 25 scientists will do research in organic chemistry, physical chemistry, biochemistry, bacteriology, and related fields.

The University of Pittsburgh's Physics Department has established an A. G. Worthing Memorial Award of $100 to be given annually to an outstanding senior physics student. The first award was made this year to William M. MacDonald, a senior at the university.

Summer Programs

An intensive clinical course in cerebral palsy will be given at Chicago's Cook County Graduate School of Medicine July 31–August 12 by M. A. Perlstein. The course, which will include lectures, discussion, and clinic demonstrations, is designed primarily for physicians working with children. The fee is $150, of which $25 is payable on registration. Communications should be addressed to the Cook County Graduate School of Medicine, 427 South Honore Street, Chicago 12.

The Harvard Summer School will offer a program in **Science in General Education** under the direction of I. Bernard Cohen and Fletcher Watson. The program will include a workshop which opens July 10, providing opportunity for teachers and prospective teachers to examine methods, aims, and practices applied in introductory science courses at Harvard. Those enrolled may choose from three science courses — "The Development of Physical Theory from Copernicus to Einstein," "The Philosophy of Modern Science," "Human Behavior," and a special intensive course beginning July 5 and continuing to August 12. Inquiries should be directed to Harvard Summer School, 2-L Weld Hall, Cambridge 38, Massachusetts.

Industrial Laboratories

The Campbell Pharmaceutical Company of New York has appointed Robert A. Lehman as director of research. Dr. Lehman has been an instructor in pharmacology at New York University College of Medicine since 1938.

The Bendix Aviation Corporation has appointed Albert C. Hall, director of the dynamic analysis and control laboratory of Massachusetts Institute of Technology, as associate technical director of the Bendix Aviation Research Laboratories in Detroit. Dr. Hill is an authority on servomechanics, and developed a control system for guided missles used by the Navy.

Meetings and Elections

The second national medicinal chemistry symposium of the American Chemical Society's Medicinal Chemistry Division will be held at the University of Notre Dame June 15–17. All scientists interested in this field are invited to attend. The registration fee for nonchemists and chemist members of the ACS is $5; for chemists who are not ACS members, $10. Further information may be obtained from Dr. Kenneth N. Campbell, Department of Chemistry, University of Notre Dame, Notre Dame, Indiana.

The 31st annual meeting of the Pacific Division of the AAAS will be held at the University of Utah, Salt Lake City, June 19–24. The first general session will be a symposium on "The Western Migration

and Its Consequences,'' on Tuesday morning, June 20. L. M. Klauber, president of the Pacific Division, will give an address Wednesday evening, June 21.

Nineteen societies associated or affiliated with the Pacific Division will participate, and the American Society of Ichthyologists and Herpetologists is holding its national meeting in conjunction with these meetings. Further information may be obtained from I. O. Horsfall, Director of the Extension Division of the University of Utah.

The First International Microchemical Congress will be held in Graz, Austria, July 2–6, under the auspices of the Austrian Society of Microchemistry. All microchemists and analytical chemists are invited to attend. The main purpose of the meeting is to provide an exchange of experiences in the microchemical field on an international basis. In addition, an effort will be made to standardize the microchemical apparatus of all countries. Information regarding registration may be obtained from Dr. Herbert K. Alber, 6 Windsor Circle, Springfield, Pennsylvania.

Science Service, Inc., at its annual meeting in Washington, D. C. on April 27, reelected five trustees for a three-year term: R. A. Millikan, professor emeritus and vice president, board of trustees, California Institute of Technology, Pasadena; Ross G. Harrison, Sterling Professor of Biology, emeritus, Yale University; O. W. Riegel, director, Lee School of Journalism, Washington and Lee University; Kirtley F. Mather, professor of geology at Harvard University and president elect of the AAAS; and Frank R. Ford, editor, *Evansville Press*, Evansville, Indiana.

Trustees of Science Service are nominated by the AAAS, the National Academy of Sciences, the National Research Council, the E. W. Scripps Estate, and the journalistic profession.

A symposium on the physiological mechanism of lactation will be held in Strasbourg, August 22–29. American scientists who have been invited to attend are William R. Lyons, of the University of California's Medical School in Berkeley, and Warren O. Nelson, professor of medical anatomy and histology, University of Iowa College of Medicine.

The British Association for the Advancement of Science will hold its annual meeting in Birmingham, August 30–September 6. Preliminary programs and registration forms are available upon application to the secretary, David N. Lowe, British Association, Burlington House, Piccadilly, W. 1, London. Registration forms should be returned as early as possible to the secretary.

The Wisconsin Academy of Sciences, Arts, and Letters has elected the following officers for 1950: president, W. C. McKern, Milwaukee Public Museum; vice president in science, Katherine Graecen, Milwaukee-Downer College; and secretary-treasurer, Banner Bill Morgan, University of Wisconsin.

The Council of the Federation of American Scientists elected the following officers at its May 1 meeting in Washington, D. C.: chairman, W. A. Higinbotham, associate head of electronics at Brookhaven National Laboratory; vice chairman, H. C. Wolfe, professor of physics at Cooper Union, New York City; secretary-treasurer, Jules Halpern, associate professor of physics, University of Pennsylvania. New members of the executive committee are Arthur Roberts, associate professor of physics, State University of Iowa, Clifford Grobstein, National Institutes of Health, Bethesda, Maryland; and Gerhardt Friedlander, Brookhaven National Laboratory.

In signing the **National Science Foundation Act,** on May 9, President Truman described the foundation as designed ''to develop a national policy for the promotion of basic research and education in the sciences.'' ''The Foundation,'' he said, ''will be an independent agency, in the Executive Branch of the Government, headed by a National Science Board and a Director.''

Establishment of the foundation climaxes five years of effort, but its success will depend upon the leadership of judiciously selected personnel. Presidential appointments to the board and to the directorship should now be a major concern of all scientists.

Recently Received—

Science in South Africa. Council for Scientific and Industrial Research, Pretoria, South Africa. (South African Scientific Liaison Office, 1785 Massachusetts Ave., Washington 6, D. C.)

Proceedings, Biology Section, Royal Society of Edinburgh. 1949. Vol. 43, Part 3 and 4. Oliver and Boyd, Tweeddale Court, Edinburgh; 98 Great Russell St., London, W.C. 1. 24s.6d. and 12s.6d.

Color Pattern Inheritance in Some Frogs of the Genus **Eleutherodactylus.** Coleman J. Goin. Vol. 9, No. 1, Chicago Academy of Sciences, 2001 N. Clark St., Chicago 14.

New Species of Nearctic Pselaphid Beetles and a Revision of the Genus **Cdius.** Orlando Park. Vol. 8, No. 16. Chicago Academy of Sciences, 2001, N. Clark St., Chicago 14.

Bibliography on Offshore Petroleum Developments. Emory N. Kemler. Division of Oceanography and Meteorology, Southwest Research Institute, 312 Oil and Gas Building, Houston, Texas.

Axonometric Method of Descriptive Geometry. William Henry Roever. Edwards Brothers, Inc., Ann Arbor, Mich.

Malnutrition and Starvation in Western Netherlands, Parts I and II, September 1944–July 1945. General State Printing Office, The Hague, Netherlands.

Vitamins, Coenzymes and Nucleotides. Alexander R. Todd. Nieuwland Lectures, Vol. 3, 1948. University of Notre Dame, Notre Dame, Ind. $1.00.

Scientific Bases of an International Biological Control Organization. Unesco publ. International Union of Biological Sciences, 57 rue Cuvier, Paris Ve.