

Meetings

Radiology

The American College of Radiology is a national association of physicians specializing in radiology. The college serves the patient through the advancement of the science of radiology. It has three main purposes. One of these is to improve the distribution, quality, and availability of radiological service to the sick through the study and interpretation of socioeconomic factors as they affect medicine and health. To that end, the commissions, committees, and staff of the college study the economic and social aspects of radiologic practice. Facts thus established result in principles which the college promulgates regarding the relationship of radiologists to their fellow physicians, to hospitals, to health agencies, and to the public.

The second broad purpose is to encourage the development of improved standards and facilities for postgraduate education in radiology. To further this objective, the Annual Conference of Teachers of Radiology was established. At this conference—now held at the time of the annual meeting of the college, in February—pedagogical subjects of concern to teachers of residents in radiology are discussed. This annual teachers' conference, under the direction of the college's commission on education, aids in maintaining high standards of education in radiology.

The college was also instrumental in establishing the section on radiology in the American Medical Association.

Funds are donated annually to the American Registry of Radiologic Pathology in the Armed Forces Institute of Pathology, Washington, D.C., to assist in providing fellowships for residents in radiology who desire further training in pathology. The college also provides consultants for the registry.

The third purpose of the American College of Radiology is to acquaint the medical profession and the public with achievements and developments in radiology and thus encourage progress in this specialty.

Membership in the college is in itself an indication of professional achievement. Only those physicians who are diplomates of the American Board of Radiology or who hold the certificate in radiology of the Royal College of Physi-

cians and Surgeons of Canada are eligible for membership.

Fellows are elected from the membership in acknowledgment of contributions to radiology. Periodically the college awards a gold medal to outstanding physicians "for distinguished and extraordinary service to the American College of Radiology and the profession for which it stands."

The board of chancellors and the various commissions and committees are organized to carry out the projects and programs of the college and to give direction, service, and guidance to college members on request. The board of chancellors is the executive body and governing board of the college and is composed of 12 chancellors, who serve 4-year terms. All are fellows of the college. Eight are selected from the fellowship at large, and one each is nominated by the Radiological Society of North America, the American Roentgen Ray Society, the American Radium Society, and the Canadian Association of Radiologists.

Between meetings of the board of chancellors the activities of the college are directed by an executive committee, composed of the chairman of the board, two chancellors appointed by the chairman and approved by the board, and the president of the college as an ex officio member as is the secretary-treasurer.

The present officers of the college are as follows: president, Lawrence Reynolds (Detroit Mich.); vice president, Charles M. Gray (Tampa, Fla.); chairman of the board of chancellors, Earl E. Barth (Chicago); secretary-treasurer, Fay H. Squire (Chicago); and executive director, William C. Stronach.

One of the most important current projects of the American College of Radiology is an educational program for physicians, outlined in a recent statement.

"The American College of Radiology will cooperate with all efforts to encourage medical authorities of this country to initiate a vigorous movement to reduce radiation exposure from x-rays to the lowest limit consistent with medical wisdom, and . . . to assure that proper safeguards always be taken to minimize the radiation dose to reproductive cells. . . . Appropriate training and experience

must be insisted upon for all users of radiation. For all, adequate stress must be placed on protection and safety aspects of the use of radiations in human beings. . . . Certain it is that we all desire to keep the dose of radiation to its lowest level to the population that is well. The dose of radiation to those who are ill and require either studies or treatment with radiation should also be kept as low as possible, but here the conditions for judgment are different. In this case, we give as little radiation as possible in order to achieve the desired end of proper diagnosis or treatment; but when, in a careful radiologist's judgment, an individual patient requires a dose exceeding 10 r or any other arbitrary figure, his medical judgment must prevail. . . . It should be emphasized that genetic considerations do not apply to patients who are past the reproductive period. . . .

"The National Committee on Radiation Protection and the International Commission on Radiation Protection have for many years formulated the standards for the protection of patients, the public and occupational personnel engaged in medical diagnostic procedures. It is necessary that the entire medical profession be acquainted with their recommendations. . . . This means that there is a problem of dissemination of this information to everyone who is engaged in the healing arts."

Information is being disseminated in the following ways.

1) Lectures, symposia, and panel discussions on these subjects are presented at meetings of local, state, and national medical organizations. These discussions are conducted by experts in radiation physics, radiobiology, genetics, and radiology.

2) The text of such discussions is published in appropriate medical journals, and thousands of reprints are distributed to physicians who do not subscribe to these journals.

3) The college has prepared a handbook, *A Practical Manual on the Medical and Dental Use of X-Rays with Control of Radiation Hazards*, which it has distributed to 175,000 physicians in the United States. This manual contains all of the basic information on the problems brought out in the report of the National Academy of Sciences and in the United Nations report, together with practical, clinical recommendations. The manual is now being translated into Spanish and Portuguese for distribution in Latin America.

4) The college has prepared sets of colored slides illustrating ways to control the hazards of radiological examinations. These slides are available to any physician who requests them. Several hundred sets are now in use.

5) A "protection kit" has been de-

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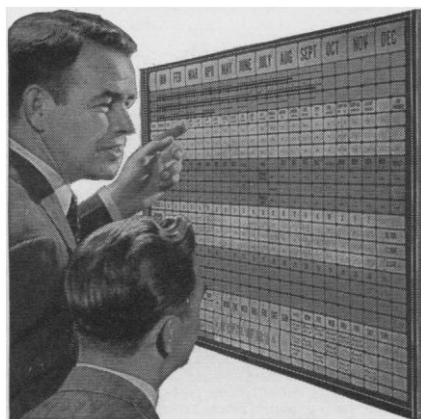
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signed by the college. It includes reprints of important articles and material designed to help radiologists and other physicians give talks on radiation protection before medical groups. More than 1000 kits have been distributed.

6) A 16-millimeter documentary motion-picture film dealing with radiation protection is being prepared for use of the medical profession. This is being financed in part by the Rockefeller Foundation.

W. C. STRONACH

American College of Radiology,
Chicago, Illinois

International Botanical Congress

The ninth International Botanical Congress will be held in Montreal, 19-29 August, at the University of Montreal, McGill University, and Sir George Williams College. The first session of the International Botanical Congress took place in Brussels in 1864. It has been held only once before on this continent, in the United States. This will be the first time it has been held in Canada. About 6000 delegates from 72 countries are expected to attend.

The program of the scientific sessions will be conducted in 16 sections and will deal with all aspects of botany in its broadest sense, including plant production, breeding, and protection, and their implications for agriculture and forestry. Some 400 scientists, representing all sections of the program, have been invited to present papers, participate in symposia, and deliver public lectures. About 2000 contributed or voluntary papers will also be given.

An extensive series of field trips constitute an important part of the congress. Seventeen pre-congress field trips and seven post-congress field trips have been organized, covering the period 20 July to 14 September. These trips will take foreign scientists to all parts of Canada, from coast to coast, and to the subarctic. Probably about 2000 delegates will participate.

During the period of the meetings in Montreal, commercial firms will be given the opportunity of exhibiting in the winter stadium of McGill University, where nearly 90 booths will be provided. Canadian government departments and research institutions will have displays at various places on the campuses.

The estimated cost for organization, publications, and so forth will be about \$225,000. Of this sum about \$75,000 will be obtained from government sources (\$50,000 has already been provided by the federal government), \$75,000 will be secured from the delegates, and it is hoped that \$75,000 will be forthcoming from Canadian industrial interests.

Free Radical Stabilization

The fourth International Symposium on Free Radical Stabilization will be held at the National Bureau of Standards, 31 August to 2 September. Emphasis will be placed on the properties of solids containing trapped radicals and on the chemical and physical interactions involving trapped radicals at low temperatures.

Activities tentatively scheduled for the first day of the symposium include a discussion of the organization and aims of the NBS free-radicals program, a session on low-temperature chemistry, and a banquet in the evening. On the following day, the discussions will be concerned with methods of production of trapped radicals and physical properties of radical-trapping solids and with the identity and concentration of trapped radicals. The evening activities will include a round-table discussion of future trends in free-radical stabilization. The final session of the symposium, on the interaction of free radicals with solids, will be held the morning of 2 September. That afternoon, tours of the laboratories of the bureau's Free Radicals Program will be conducted.

In addition to the conducted tours, informal visits to the free radicals laboratories may be arranged for the two days immediately following the symposium. These visits should be planned in advance by writing the National Bureau of Standards.

Although the program of presented papers is for the most part already complete, time has been set aside in the various discussion periods for brief reports. These short communications will be listed in the program but need not be submitted in manuscript form. Notification of the nature of a proposed communication should be made *before 1 August*.

The NBS has arranged for accommodations at Dunbarton College, which is located within a few minutes' walking distance of the NBS. Dormitory facilities at \$5 (single) or \$3.50 (double or multiple) per night are available from 30 August to 5 September. Further information can be obtained by writing Dr. A. M. Bass, National Bureau of Standards, Washington 25, D.C.

Reactor Technology

Oak Ridge National Laboratory has announced that the third Conference on Analytical Chemistry in Nuclear Reactor Technology will be held at Gatlinburg, Tenn., on 26-28 October. The general theme of this conference, "Analysis of Reactor Materials Following the Operation of Nuclear Reactors," complements prior meetings, which dealt

with (i) advances in the chemical analysis of important reactor materials, and (ii) the role of analytical chemistry in the startup and operation of nuclear reactors.

The subjects which will be emphasized at this conference are chemical analysis as related to the estimation of corrosion and erosion rates; reprocessing of fuels and blanket materials; and the analytical chemistry of fission product mixtures, of plutonium, and of the transplutonic elements.

The contribution of papers pertaining to these or closely related subjects is solicited. Presentations on new developments or improvements in methods of chemical analysis, including advances in instrumentation, are especially invited, although review papers and those involving pertinent theoretical discussions may well prove to be of equal interest and should be submitted for consideration.

To facilitate the completion and distribution of the program well in advance of the conference, speakers are requested to submit abstracts of about 500 words *not later than 1 August* and to indicate the time required for their presentation, not to exceed 30 minutes. The proceedings of the conference will be published.

All communications about the conference, including the submission of manuscripts and abstracts, should be directed to: C. D. Susano, Oak Ridge National Laboratory, P. O. Box Y, Oak Ridge, Tenn. Inquiries with respect to accommodations, or requests for reservations, should be addressed to: Mr. Tom Woods, Manager, Mountain View Hotel, Gatlinburg, Tenn.

Forthcoming Events

July

1-3. Hydraulics, annual conf., Fort Collins, Colo. (W. H. Wisely, American Soc. of Civil Engineers, 33 W. 39 St., New York 18.)

1-4. British Tuberculosis Assoc., annual (closed), Cambridge, England. (BTA, 59, Portland Pl., London, W.1, England.)

1-5. International Radio and Electronics Conv., Cambridge, England. (British Institution of Radio Engineers, 9, Bedford Sq., London, W.C.1, England.)

2. Radiation and Ageing, Ciba Foundation 3rd annual lecture on ageing, London, England. (G. E. W. Wolstenholme, Ciba Foundation, 41 Portland Pl., London, W.1, England.)

3-5. International Union of the Medical Press, 4th cong., Cologne, Germany. (Dr. Stockhausen, Secretary of Bundesärztekammer, Cologne.)

4-9. American Soc. of X-ray Technicians, Denver, Colo. (Miss G. J. Eilert, 16 14 St., Fond du Lac, Wis.)

6. Shortening of Lifespan of Mammals Following Irradiation, research forum, London, England. (G. E. W. Wolstenholme, Ciba Foundation, 41 Portland Pl., London, W.1, England.)

5 JUNE 1959

RADIOACTIVITY AT WORK...#2

Our business is radioactivity—applying it, measuring it, protecting against it

This is the second in a series of reports devoted to NSEC's work with the exciting new tool, radioactivity. Its uses appear endless, not only in the nuclear industry, but also in the fields of chemicals, petroleum, pharmaceuticals, medicine, steel and coal. Applied radioactivity helps us examine product and process improvements, indicates ways to reduce costs, and probes for answers to complex research problems. With radioisotopes and radioactivity, we seek solutions by methods never before practical or economically feasible.

One of our project descriptions may apply directly to a problem you are facing, or point up a general application in your field. Take advantage of NSEC's specialized skills and equipment. See how safely and profitably the phenomena of radioactivity can be put to work for you.

ACTIVATION ANALYSIS

Where a high degree of quality control is desired, activation analysis offers a sensitivity far exceeding conventional quantitative analysis. Elements in quantities as minute as one part per billion can be identified and measured. Activation analysis is important in manufacturing, and in research projects requiring rigid standards of purity. It is especially useful in the processing of rare or expensive materials since, in most cases, only a fraction of a gram of material is required.

In activation analysis, exposure of the test sample to a stream of neutrons creates radioisotopes with distinct radiation characteristics. Even minute quantities of trace elements are made sufficiently radioactive that sensitive counting equipment can measure them. Activation analysis may be performed for as many trace elements as desired in a single small sample.

NSEC offers activation analysis as a commercial service. We can handle complete testing and analysis or can assist in establishing a standardized procedure for production line use. Ask Dr. Paul Kruger, Manager of our Chemistry Department, about this service.

RADIOTRACERS IN BIOMEDICAL RESEARCH

Radiotracing is proving extremely valuable in medical and pharmacological research. Radioactive tracers in infinitesimal amounts are used to follow the course of a substance through a living organism. With tracers, research scientists discover where the substance goes, how long it takes to get there, and what happens when it arrives.

Recently, NSEC completed a study determining the behavior of a radioactive enzyme for a drug manufacturer. Information was needed regarding the speed with which the product was absorbed and how it was distributed in the body. The experiments provided valuable data for the manufacturer. Extended animal tracer experiments are now

in progress and human studies are about to be undertaken.

Information about the method and radioisotope selected will soon appear in a scientific journal. For additional information on this and similar tracer studies, just write us. Our report on services for study of the reticulo-endothelial system is also available.

PROJECT SUNSHINE

When an atomic bomb test is made anywhere on earth, radioactivity is scattered into the air and carried about by wind currents. These "hot" atoms fall with precipitation and settle on animals, vegetation, soil, and water. This fallout contains the dangerous radioactive nuclide, strontium-90, and it is desirable to maintain constant knowledge of the amount.

To monitor this fission fallout, the Atomic Energy Commission set up "Project Sunshine." NSEC has been active in the program since 1955, analyzing samples received from all over the world. NSEC recently has been awarded two additional major contracts to measure fallout in Pittsburgh rainfall and in particulate material in the air.

Close to half the fallout measurements, and most of the particulate material analyses in this country are being conducted by NSEC.

NSEC is one of very few private firms with the necessary low-level counting equipment to perform such vital work. This, and similar apparatus designed and built by our staff, is used to conduct research that leads to a better life for us all. Would you like to discuss the ways it might assist you?

FISSION PRODUCT BEHAVIOR IN A REACTOR SLURRY

In a proposed nuclear power reactor, the fuel used is a slurry of uranium oxide and thorium oxide particles. NSEC made a preliminary study of the probable distribution of fission products within the reactor, to aid in the design of the fuel-decontamination processes. High pressure, high temperature studies were made in an autoclave using reactor-irradiated slurries, as well as synthetic mixtures of fission products.

NSEC has conducted hundreds of radiochemical analyses of experimental nuclear fuel elements, reactor coolant water and other reactor components. NSEC also assists in determining fuel burn-up efficiency, and the rate of gain for breeder reactors. We are taking part in the development of nuclear power plants for aircraft, and are advising many firms which are fabricating fuel elements for various reactors.

If your work involves nuclear reactors or components, call us at HOMestead 2-4000 in Pittsburgh. We'll work with you from the preliminary environmental radioactivity survey through the disposal or use of the radioactive waste.

For more detailed information on our studies and services, just call or write. Proposals and quotations on your specific needs will be made without cost or obligation. And if you would like to keep informed of the latest developments in this constantly changing field, just write on your letterhead and ask us to put you on the mailing list for our monthly publication, "Radioactivity at Work."

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6-8. Cell Structure and Function, 10th annual symp., Ann Arbor, Mich. (J. M. Allen, Dept. of Zoology, Univ. of Michigan, Ann Arbor.)

6-8. Oxford Ophthalmological Cong., Oxford, England. (I. Fraser, 21, Degpole, Shrewsbury, Shropshire, England.)

6-8. School and University Health, 3rd intern. cong., Paris, France. (Comité d'Organisation du Congrès d'Hygiène Scolaire et Universitaire, 13, rue du Four, Paris 6^e.)

6-11. Seed Testing, intern. conv., Oslo, Norway. (Intern. Seed Testing Association, Danish State Seed Testing Station, Thorvaldsensvej, 57, Copenhagen V, Denmark.)

6-12. Chagas' Disease, intern. cong., Rio de Janeiro, Brazil. (C. Chagas, Instituto de Biofísica, avenida Pasteur 458, Rio de Janeiro.)

7-10. Royal Medico-Psychological Assoc., annual meeting, Glasgow, Scotland. (RM-PA, 11, Chandos Street, London, W.1, England.)

12-17. American Waterworks Assoc., annual conv., San Francisco, Calif. (H. E. Jordan, AWA, 521 Fifth Ave., New York 17.)

13-17. National Assoc. of Power Engineers, natl. conv., Boston, Mass. (A. F. Thompson, Secretary, NAPE, 176 W. Adams St., Chicago, Ill.)

13-17. Plastic Surgery, 26th intern. cong., London, England. (D. Matthews, Organizing Secretary, Intern. Cong. on Plastic Surgery, c/o Inst. of Child Health, Hospital for Sick Children, Great Ormond St., London, W.1.)

13-17. Standardization, intern. (council meeting), Geneva, Switzerland. (ISO, 1-3, rue Varembe, Geneva.)

15. American Soc. of Facial Plastic Surgery, New York, N.Y. (S. M. Bloom, 123 E. 83 St., New York 28.)

15-17. Fluorine Chemistry, symp., Birmingham, England. (Chemical Soc. of London, Burlington House, Piccadilly, London, W.1.)

15-17. Shaft Sinking and Tunnelling, symp., Olympia, London, England. (Institution of Mining Engineers, 3, Grosvenor Crescent, London, S.W.1.)

15-18. British Assoc. of Urological Surgeons (members and guests), Glasgow, Scotland. (Joint Secretariat, 45, Lincoln's Inn Fields, London, W.C.2, England.)

15-18. British Cong. of Obstetrics and Gynaecology, 15th, Cardiff, Wales. (BCOG, Maternity Hospital, Glossop Terrace, Cardiff.)

15-24. British Medical Assoc., Edinburgh, Scotland. (BMA, Tavistock, Sq., London, W.C.1, England.)

16-24. Canadian Medical Assoc., 92nd annual meeting in conjunction with the British Medical Assoc., Edinburgh, Scotland. (A. D. Kelly, CMA, 150 St. George St., Toronto 5, Ontario, Canada.)

17. High Energy Nuclear Physics, 9th annual intern. conf. (Intern. Union of Pure and Applied Physics, Moscow, U.S.S.R.). (R. E. Marshak, Univ. of Rochester, Rochester, N.Y.)

19-24. American Crystallographic Assoc., Ithaca, N.Y. (J. Waser, Rice Inst., Houston 5, Tex.)

19-25. Pediatrics, 9th intern. cong.,

Montreal, Canada. (R. L. Denton, P.O. Box 215, Westmount, Montreal 6.)

20-26. Radiation and Atmospheric Ozone, joint symp., by Intern. Union of Geodesy and Geophysics and World Meteorological Organization, Oxford, England. (WMO, Campagne Rigot, 1, avenue de la Paix, Geneva, Switzerland.)

22-23. Rocky Mountain Cancer Conf., Denver, Colo. (N. Paul Isbell, 835 Republic Bldg., Denver 2.)

23-30. Radiology, 9th intern. cong., Munich, Germany. (Sekretariat des 9 Internationalen Kongresses für Radiologie, Reitmorstrasse 29, Munich 22.)

26-30. International Psychoanalytical Assoc., Copenhagen, Denmark. (Miss P. King, 37 Albion St., London, W.2, England.)

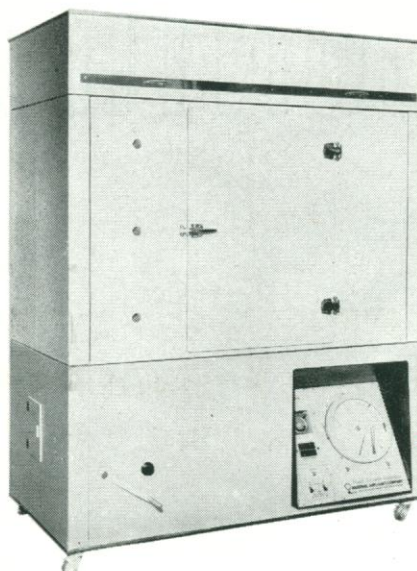
27-4. International Federation of Translators, Bad Godesberg, Germany. (Dritter Internationaler FIT-Kongress, Kongress Sekretariat, Bundesverband der Dolmetscher und Übersetzer e. V. (BDÜ) Hausdorfstrasse 2, Bonn, Germany.)

30-31. Computers and Data Processing, 6th annual symp., Estes Park, Colo. (W. H. Eichelberger, Denver Research Inst., Univ. of Denver, Denver 10, Colo.)

(See issue of 15 May for comprehensive list)

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