tion was withdrawn, and the PHS position was weakened still further by infighting within the Department of Health, Education, and Welfare over the water-pollution programs. In the House-Senate conference on their differing appropriations bills, the House had its way: there will be no funds for an Environmental Health Center this year.

The Public Health Service is in temporary retreat. It has not quite decided whether to fight once more for the Washington location or to give in and propose another site when the budget for fiscal year 1965 goes before Congress next January. Presidential opposition, however, like House displeasure and senatorial support, is mutable. By next January, a variety of new bargains could be struck; there is no telling where the Environmental Health Center will finally land.

The other major scientific facility up for grabs this year—the space agency's proposal for a $50-million electronics research center—has been delayed, but unlike the Environmental Health Center, not deleted. Like the PHS to Washington, NASA felt magnetically attracted to the Boston area, on the grounds, it claimed, that Boston's manpower pool was brimful of electronics talent—and on the grounds, according to critics, that the agency was trying to cozy up to the state's new Senator, Ted Kennedy.

Reviewing the proposal with the attentive eye it cast this year on all details of NASA's $5.7-billion budget request, the House Committee on Science and Astronautics discovered that "the specific site had not been selected; the coordination with other Federal agencies had not been properly effected; preliminary planning . . . had not been in accordance with good management practice; and the need for the Center was not conclusively proven."

A major part ($3.9 million) of the $5 million NASA requested for initial site acquisition was authorized by the committee, but temporarily frozen. No part of the funds may be expended until NASA brings to the space committees of both House and Senate a detailed study of "the geographic location of, the need for, and the nature of" the proposed electronics research center. If NASA hears no complaints from either of the committees within 45 days after submitting the report, the freeze will be off and work will be authorized to begin. But since the report is not expected to be submitted until January, and the money will still have to be appropriated, the electronics center is not likely to get speedily under way.

NASA officials, who have just selected the committee that will canvas the country's resources to discover whether (or more, in the manner of such committees, discover that) an electronics center is needed, and where it ought to be, are tight-lipped about whether their report will be a hymn to Boston or not. After the space program's trials in Congress, however, and with the growing popularity in Washington of the "share the scientific wealth" slogans emanating from the vast lands between the East and West Coasts, it would not be a surprise to find NASA serenading Congress to a slightly different tune.—ELINOR LANGER

Krebiozen: No Clinical Test, Says National Cancer Institute

The National Cancer Institute announced last week that it would not sponsor a clinical trial of Krebiozen. The decision was based primarily on the negative recommendation of a 24-man committee of cancer experts, appointed last August to review case records of 504 patients treated with the drug.

"On the basis of the data reviewed and objective criteria employed to assess antitumor response," the committee reported, "it is [our] . . . unanimous opinion that Krebiozen is ineffective as an antitumor agent. In a very small number of patients, tumor regressions of varying degrees were seen during Krebiozen treatment. The validity of the majority of these is open to question for several different reasons. It is the opinion of the Committee that the nature, degree, and number of effects noted are what one might expect in any large random sample of cancer patients."

Contributing to the decision not to test Krebiozen, according to NCI director Kenneth Endicott, was the recent work of chemists of the Food and Drug Administration in identifying Krebiozen as creatine (*Science*, 13 September). Creatine is a normal component of the human body, concerned primarily with muscle contraction. The analysis overturns the theory on which Krebiozen is based—that the drug is a tissue hormone which inhibits the multiplication of cancer cells. Since the theory has been invalidated, Endicott told a press conference last week, since review of the records failed to establish evidence that Krebiozen is effective in man, and since the drug has not been shown to possess "consistently strong" anticancer activity in experimental animals, "there is no justification for a clinical trial, and from a scientific standpoint we regard the case closed."

Even the monumental weight of the government's scientific evaluation, however, will not still the controversy. Krebiozen's sponsors (Andrew Ivy and Stevan Durovic, see scientific and procedural flaws in the NCI report, and will try their best to keep the charges and countercharges flowing. There is still a resolution pending before Congress directing the Cancer Institute to conduct a clinical test, although the congressional front has been quiet of late and shows no sign of bursting into action. The only real chance for an end to the controversy—one that by being definitive legally would also be definitive scientifically—would be criminal prosecution of Ivy and Durovic by the Food and Drug Administration. But FDA officials, although they have hinted publicly for months that a criminal case was imminent, concede privately that they are not anxious to tangle with a man of Ivy's stature in court—not as long as there is even a shred of scientific dispute between them. The government is not usually allowed to appeal in criminal cases, and an adverse decision would put the defendants permanently out of FDA's reach.—E.L.

Announcements

Amherst College has established a laboratory for **nuclear and atomic physics** for undergraduate study and research. The primary areas of study will be nuclear transformations and characteristics of alpha and beta particles and gamma rays. Bruce Benson, professor of physics at the college, is head of the laboratory.

Papers are being solicited for presentation at the winter meeting of the Society of **Rheology**, 3–4 February in Claremont, California. The papers will also be published in the society's *Transactions*. Deadline for receipt of abstracts: *10 December*. (T. L. Smith, Stanford Research Institute, Menlo Park, Calif.)

Meeting Notes

Technical Meetings Information Service sent out questionnaires on scientific meetings which should be included in the January issue of the quarterly **Technical Meetings Index**. Chairmen of technical, scientific, or medical meetings sponsored by U.S. and Canadian organizations are asked to request questionnaires if they have not yet received them. The index will include meetings through 1965. (TMIS, 22 Imperial Drive, New Hartford, N.Y.)

The call for papers has been issued for the 1964 international **solid-state circuits** conference, scheduled 19–21 February in Philadelphia. Authors should submit a 35-word abstract and a 300- to 500-word summary of their papers; illustrations are also invited. Deadline: *1 November*. (H. Parks, Martin Company, Mail 683, Baltimore 3, Md.)

The New York Academy of Sciences has scheduled a conference on **gel electrophoresis**, 2–3 December in New York City. The meeting will cover techniques, theory, applications to clinical medicine, biological research, and isoenzymes; sessions will deal with starch, agar, and acrylamide gel electrophoresis. (J. F. Frederick, New York Research Laboratories, 3425 Boston Post Road, New York 69)

The American **Public Health** Association will hold its annual meeting 11–15 November in Kansas City, Mo. All 14 sections of the association plan to hold scientific sessions, and technical and scientific exhibits will be featured. (APHA, 1790 Broadway, New York)

The National Hemophilia Foundation will sponsor an international symposium on **hemophilia**, 7–8 December in Washington. The meeting will cover basic research on the blood clotting factors VIII and IX, and new approaches to clinical management of hemophilia A and B. (K. M. Brinkhous, Dept. of Pathology, University of North Carolina Medical School, Chapel Hill)

The University of North Carolina medical school plans a symposium on **pulmonary diseases** 21–22 November, in Chapel Hill. The main topics of discussion will be diagnosis and management of chronic bronchopulmonary infections and disabling lung diseases. (Div. of Pulmonary Diseases, University of North Carolina School of Medicine, Chapel Hill)

A call for papers has been issued by the American Association of **Pathologists and Bacteriologists** for the annual meeting, 3–5 April in Chicago, Ill. Two days will be devoted to single-session presentations, and the third day will feature a symposium on cellular injury. Four copies of an abstract, not to exceed 250 words, are required. Deadline: *1 December*. (E. A. Gall, Dept. of Pathology, Cincinnati General Hospital, Cincinnati 29, Ohio)

A conference on **solid state physics** will be held in Bristol, England, 1–4 January, sponsored by the Institute of Physics and the Physical Society. Papers are invited "on any topic of current interest in solid state physics." The title and an abstract of no more than 200 words are required in triplicate. Deadline: *15 November*. (R. G. Chambers, H. H. Wills Physics Laboratory, Royal Fort, Bristol 8) Deadline for applications to attend the meeting: *22 November*. (Administration Assistant, Inst. of Physics, and the Physical Soc., 47 Belgrave Sq., London, S.W.1.)

The call for papers has been issued for an international symposium on **microwave theory and techniques**, scheduled 19–21 May in New York. Emphasis of the meeting will be on lasers, high-power techniques, millimeter and submillimeter wave techniques and components, and solid state devices. Abstracts of 50 to 100 words and summaries of 500 to 1000 words with up to six illustrations are required. Deadline: *13 December*. (L. Swern, Sperry Gyroscope, Great Neck, N.Y.)

Courses

A workshop on **teratology** will be held at the University of Florida 2–8 February under the auspices of the Commission on Drug Safety. It will feature concepts and methodology used in studying congenital malformations and ways to obtain reliable information. Forty participants and a limited number of observers will be admitted. Deadline for applications: *15 November*. (D. C. Trexler, Commission on Drug Safety, 221 N. LaSalle St., Chicago 1, Ill.)

The University of California's engineering and sciences extension will present a course on the principles of **electronics** and the use of electronic instrumentation systems in research, 27 January to 7 February, in San Francisco. The course is primarily for scientists and engineers who need a knowledge of electronics systems but whose formal training may be in other fields. A working knowledge of fundamental theory and analytical formulations and a background for assessing the capabilities of instrumentation systems and adapting them to specific research requirements will be provided. (Engineering and Sciences Extension, University of California, Berkeley)

The Radioisotope Service in the Veterans Administration Hospital, Bronx, N.Y., plans a workshop on the immunoassay of **protein hormones** 25–27 November, in New York. (S. A. Berson, VA Hospital, 130 W. Kingsbridge Rd., Bronx 68, N.Y.)

Columbia University's college of pharmacy will present a 10-week course on **rheology** in pharmaceutical and cosmetic product development and control. The lectures are to be held on Tuesdays, beginning 4 February, and will cover the theory of viscosity and the fundamentals of rheology. The course will feature rheogram interpretation and measuring equipment and data. The fee for the course is $60. (Registrar, College of Pharmacy, Columbia University, 115 W. 68 St., New York 23)

The Midwest Electronics Research Center plans a course on **antenna and electromagnetic wave propagation** research. The course will include sessions on frequency independent antennas, antennas in anisotropic and conducting media, aperiodic antenna arrays, data-processing antenna systems, and practical coherence. The fee for advance registration is $175; for late registration, $200. Deadline: *15 January*. (Midwest Electronics Research Center, Electrical Engineering Bldg., Univ. of Illinois, Urbana)

The U.S. Public Health Service has scheduled a course on **radiation control** in public health programs, 18–22 November, in Rockville, Md. The course is designed to provide orientation in basic concepts of radiological health, for people responsible for planning and directing public health programs. No

tuition or registration fee is required. (Director, Training Program, Robert A. Taft Sanitary Engineering Center, 4676 Columbia Pkwy., Cincinnati 26, Ohio.)

Grants, Fellowships, and Awards

Applications are being accepted by the China Medical Board of New York for the Alan Gregg travel fellowship in **medical education**. Applicants must be U.S. citizens between 30 and 55 years old, and on the fulltime faculty of a U.S. medical school. Fellowships are for 4 months to a year. Applicants must submit a project proposal to be carried out in the Far East, primarily within one country. Stipends vary according to the recipient's proposed project and present salary; they include study and travel expenses for the recipient and travel allowance for his wife, and for his family if the fellowship period is at least 9 months. Application deadline: *15 December*. (Director, China Medical Board of New York, 30 E. 60 St., New York 22)

Postdoctoral fellowships are available for a program in the biology and pathology of **reproduction of primates**, at Harbor General Hospital (U.C.L.A.), Torrance, Calif. It is sponsored by the U.S. Public Health Service and the Ford Foundation. The program will include electron microscopy and biochemistry, and will present lectures, seminars, and laboratory exercises and a research project. (Dean L. Moyer, Harbor General Hospital, Torrance, Calif.)

Princeton University is offering fellowships for graduate work in **plastics**, leading to the degree of Master of Science in Engineering. Applicants must hold a bachelor's degree in engineering or physical science. Fellowships will include stipend, tuition, and fees; opportunities are available for part-time employment as research assistants. (L. F. Rahm, Plastics Laboratory, Princeton University, Princeton, N.J.)

The National Science Foundation is now accepting applications for summer and for full-year **graduate fellowship** programs for 1964. Candidates must be applying for an advanced degree in mathematical, physical, medical, biological, or engineering sciences, or in anthropology, economics, geography, history and philosophy of science, psychology, or sociology. Fellowships in both programs include payment of tuitions and fees; applications must be made through the participating institutions.

Cooperative graduate fellowships carry stipends of $2400 the first year, $2600 the second, and $2800 the third. Additional allowances are made for dependents, and the institutions may grant up to an additional $1000 per year. Deadline: *1 November*.

Summer fellowships for graduate teaching assistants provide stipends of $50 to $85 a week, to be determined by the institution. Deadline: *6 December*. (Applications are available from the participating institutions or: Fellowships Section, Div. of Scientific Personnel and Education, NSF, Washington, D.C.)

Eight fellowships are available from the U.S. Atomic Energy Commission for training in **industrial medicine** relating to atomic energy. Applicants must be U.S. citizens and medical school graduates licensed to practice in the U.S. or territories. They must obtain AEC security clearance before receiving the fellowships. The 3-year awards include a 2-year academic program with annual stipends of $5000 plus $500 for each dependent, and tuition and laboratory fees, and a 1-year in-plant training phase, for which the AEC recommends a minimum stipend of $7500, to be paid by the organization for which the fellow works. Deadline for applications: *1 January*. (H. A. Blair, AEC Industrial Medicine Fellowship Committee, P.O. Box 287, Sta. 3, Rochester 3, N.Y.)

Applications are available for grants-in-aid for research in **petroleum geology**, from the American Association of Petroleum Geologists. The grants are open to graduate students and faculty members for "theoretical, experimental or empirical studies aimed at the establishment of principles or the development of methods" in petroleum research. Requests for funds should not exceed $1500, to be used only in the U.S. Deadline: *1 January*. (R. H. Nanz, Shell Development Co., P.O. Box 481, Houston, Tex.)

The Lalor Foundation is offering grants for research on **fertility** and the early stages of **reproduction** in various forms of life. Applicants should be members of a college faculty or staff, and not more than 41 years of age. The grants may range to $8000, depending on the scope and duration of the projects.

Postdoctoral awards for summer or short-term research are also available; stipends for these are $1000 to $1350. Deadline for applications: *15 January*. (Lalor Foundation, 4400 Lancaster Pike, Wilmington, Del.)

Smith, Kline and French Laboratories, Philadelphia, are offering approximately 30 fellowships for **medical students** to study in foreign countries. Grants will cover travel and living expenses. Recipients will work for at least 10 weeks with physicians in rural medical stations in underdeveloped areas of Latin America, Asia, Africa, and Oceania. Junior and senior medical students may contact their deans for application forms. Further information is available from SK&F Foreign Fellowships, 2530 Ridge Ave., Evanston,

The American Meteorological Society will sponsor the third conference on **severe local storms** 12–14 November in Champaign and Urbana, Ill. Analysis, dynamics, research applications, and climatology of severe local storms will be discussed and the 1963 field projects will be reviewed. (Glenn E. Stout, 116b Illini Hall, University of Illinois, Champaign)

Publications

The Engineers Joint Council has published a booklet which describes existing and proposed facilities for servicing the **information needs** of engineers. The publication contains papers presented last December at a meeting of the Council and AAAS Section M (Engineering). (*Information Systems—Essential Tools in Engineering Application of Science for the Needs of Society*, EJC, 345 E. 47 St., New York 17. $1.75)

The National Foundation has published a directory of **centers for birth defects and arthritis** in the U.S. The directory includes an alphabetical list by state of 69 centers, and a full-page description of the location, activities, and services of each. The centers included are primarily for study and research, patient treatment, and clinical evaluation. (National Foundation, 880 2nd Ave., New York 17)

Scientists in the News

The new director of the Colorado State University Research Foundation is **George G. Olson**, former research director for Arizona Research Consultants, Phoenix, Ariz. He suceeds **Maurice L. Albertson**, who has been named director of the university's new Office of International Programs.

Leslie B. Williams, assistant director of international affairs for the Department of State, has been appointed coordinator for the administration of research projects at the University of Delaware.

The University of Chicago has appointed **Sol Henry Krasner** dean of students in the division of physical sciences. He formerly was at the nuclear physics branch of the Office of Naval Research, Washington.

Eugene H. Guthrie, formerly chief of the Public Health Service division of chronic diseases, has been named staff director of the Surgeon General's advisory committee on smoking and health.

Robert B. Banks has returned to Northwestern University after a 2-year leave of absence, during which he was director of research at the SEATO Graduate School of Engineering, Bangkok, Thailand.

Albert J. Gilson, formerly director of the division of nuclear medicine at Emory University, has become director of the recently formed division of nuclear medicine at the University of Miami, Florida.

J. Arnold Shotwell, associate professor of biology and geology at the University of Oregon, has been named director of the university's Museum of Natural History.

The new graduate school of the College of Osteopathic Medicine and Surgery, Des Moines, Iowa, will be headed by **Donald F. M. Bunce**, research professor of physiology at the college.

Jack Werboff, formerly head of the animal behavior laboratory, Lafayette Clinic, Detroit, Mich., and associate professor of psychology, Wayne State University, has become staff scientist at the Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Me.

Carl Tolman, geology professor and chancellor at Washington University, St. Louis, Mo., has been named scientific attaché at the American Embassy, Tokyo, Japan. He succeeds **Otto Laporte**, who returns to the University of Michigan, as professor of physics.

J. R. Shakeshaft, of Cambridge University, England, has been named visiting professor of astronomy for the fall semester at the University of Maryland, College Park.

Jack Westley Cole, professor of surgery at Western Reserve University, has been named professor and chairman of the surgery department at Hahnemann Medical College and Hospital, Philadelphia.

Milan J. Kopac, biology professor at New York University, has been appointed head of the department of biology at the university, succeeding **Harry A. Charipper**, who will be on leave during the 1963–64 academic year.

Edward T. Hall, former director of communications research at Washington School of Psychiatry, has been appointed professor of anthropology in the Illinois Institute of Technology department of political and social science.

Franz Sondheimer, head of the organic chemistry department at the Weizmann Institute of Science, Rehovoth, Israel, has been appointed research professor of the Royal Society of Great Britain.

Hahnemann Medical College and Hospital has appointed **Raul Fleischmajer** associate professor of medicine and head of the section of dermatology. He was formerly assistant professor of dermatology at New York University.

Harrison C. Blankmeyer, former president of Sur-Tech, Inc., Wrentham, Mass., has become director of chemical research for Keuffel and Esser Co., Hoboken, N.J., manufacturers of engineering equipment and supplies.

S. E. Gould, pathology professor at Wayne State University, has been appointed visiting professor of pathology at the University of Miami medical school for the current academic term.

The new president of the American National Council for Health Education of the Public is **Leroy E. Burney**, vice president of health sciences at Temple University and former Surgeon General of the U.S.

C. Jelleff Carr, formerly chief of the pharmacology unit at NIH's psychopharmacology service center, has become chief of the scientific analysis branch in the life sciences division, Army Research Office, Arlington, Va.

Herbert A. Pohl, professor of materials science at the Polytechnic Institute of Brooklyn, has been named visiting professor at the Swedish University of Uppsala.

Richard J. Matthews, formerly in the department of pharmacology of the Upjohn Company, has organized Pharmakon, Inc., a pharmacology research and development laboratory, in Scranton, Pa.

The University of Chicago's first joint appointment in the departments of geophysical sciences and mathematics has been awarded to **William H. Reid**, formerly associate mathematics professor at Brown University, Providence, R.I. He will be an associate professor in both departments.

Chapman H. Binford, chief of geographic pathology at the Armed Forces Institute of Pathology, Washington, has been appointed medical director of the Leonard Wood Memorial (American Leprosy Foundation), succeeding James A. Doull, who died 6 April.

Earle M. Knibiehly, former U.S. government physical scientist, has been named director of research and development at LogEtronics, Inc., Alexandria, Va.

Daniel Swern, research supervisor in exploratory reactions in the Animal Fats Laboratory, U.S. Department of Agriculture, has been named professor of chemistry and senior investigator at Fels Research Institute, Temple University medical school.

B. S. Chandrasekhar, manager of the cryophysics section of the Westinghouse Research Laboratories, has been appointed professor of physics at Western Reserve University, Cleveland, Ohio.