

the



Record

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

April 23, 1974
Vol. XXVI, No. 5

NATIONAL INSTITUTES OF HEALTH

NCI Awards Contract To Tracor Jitco, Inc.

The National Cancer Institute recently awarded a 15-month \$6.6 million contract to Tracor Jitco, Inc. to manage the NCI testing program to identify cancer-causing chemicals and physical agents in the environment.

This is the second largest contract ever awarded by the Institute. It is also one of the first in which a large portion of a research program will be managed by a non-Federal institution.

Is 'Award-fee' Type

The contract is of the "award-fee" type, in which the amount of profit depends upon the excellence of performance. (NCI's largest contract, also "award-fee," is with Litton Bionetics Corporation to operate and manage the Frederick Cancer Research Center and totals \$10.2 million in its second year.)

Scientists estimate that of several hundred thousand chemicals present in the environment, humans receive major exposure to about 20,000.

It is believed that environmental factors may be associated with more than two-thirds of the human cancers.

NCI is now studying the effects of approximately 450 chemicals and ultraviolet radiation through bioassay contracts with 17 university and commercial laboratories.

Chemicals currently being tested include 92 pharmaceuticals, 91 in-
(See NCI CONTRACT, Page 7)

Dr. Stetten Receives Highest Award From Medical School Alumni

Dr. DeWitt Stetten, Jr., NIH Deputy Director for Science, will receive the 1974 Gold Medal for distinguished achievement in medicine from the Alumni Association of Columbia University's College of Physicians and Surgeons. It is the highest award the association bestows on a member. Dr. Stetten received his M.D. degree from Columbia in 1934.

He will be given the award on May 4 during the Alumni Association's annual dinner dance to be held at the Hotel Pierre in New York.

The medal will be presented to him by Dr. Anthony M. DeAngelis, president of the association and a classmate of Dr. Stetten.

The NIH Deputy Director for Science is the eleventh recipient of the award which was established in 1963.

Previous winners who have been NIH'ers were Dr. Robert W. Berliner, now Dean of Yale University's Medical School, and the late Dr. Louis M. Rousselot, who retired from NIH in 1973.

Dr. Naeye Tells SIDS Findings: Victims Evince Chronic Low Oxygen Exposure

Victims of the sudden infant death syndrome are *not* "healthy" infants who suffer a single, acute deadly medical crisis. Rather, many had experienced for some time an insufficient amount of oxygen transferring from lungs to the bloodstream.



Dr. Naeye delivered the second lecture in the NICHD series. He was lauded for his research which is said to increase the knowledge about "the leading killer of infants aged one month to one year."

These findings were presented by Dr. Richard Naeye, professor and chairman, department of pathology, Pennsylvania State University School of Medicine, at the second of a lecture series on New Research Perspectives in the Sudden Infant Death Syndrome: 1974.

The lectures are sponsored by the National Institute of Child Health and Human Development.

Dr. Naeye's lecture—Hypoventilation: A Possible Cause for Sudden Infant Death Syndrome—was delivered on Friday, April 5, in the Masur Auditorium. His research is supported by NICHD.

Dr. Naeye reported on new pathological findings that SIDS victims show evidence of chronic low oxygen exposure. He suspects that hypoventilation is a possible cause of SIDS.

He also found that other organ systems showed long-term effects. He cited the persistence of newborn fat (pigmented adipose tissue) around the adrenal glands at ages when such fat would normally have been replaced by more mature fat (clear adipose tissue).

Following Dr. Naeye's lecture, Dr. Eileen G. Hasselmeyer, observed that more careful investigations, such as his work, will enhance the chances of learning the full causes of SIDS.

Dr. Hasselmeyer is program director, NICHD Perinatal Biology and Infant Mortality Branch.

Researchers in Jungle or on Atoll Talk With Campus Investigators via Satellite

By Doreen Mead

Project Stride Student

Field investigators in remote jungle areas and on tiny atolls in the Pacific have always worked under the constraints imposed by their isolation. But now, via a NASA satellite, the National Institute of Allergy and Infectious Diseases is establishing and maintaining contact with research teams in far-away corners of the Pacific.

A control panel in the office of Dr. Earl C. Chamberlayne, special assistant to the Office of the Director, NIAID, enables Institute administrators and investigators to reach scientists far removed from more common means of communication.

Dr. Chamberlayne thought the system facilitates normal discussions that two investigators might have on the status of their work.

"They discuss mutual plans, if it is a collaborative study, or current experiments when both are working in the same field. They

(See SATELLITE, Page 6)

Dr. Bergstrom Delivers NIH Lecture Tomorrow, April 24

Tomorrow (Wednesday, April 24), Dr. Sune Bergstrom will deliver the NIH Lecture at 5:30 p.m. in the Masur Auditorium. He will talk on The Prostaglandins—Bioregulators With Clinical Implications.

Dr. Bergstrom is professor of biochemistry at the Karolinska Institute in Stockholm, and is chairman of the Nobel nominating committee for physiology and medicine.



Dr. Chamberlayne monitors the telephone hookups between scientists directly from his office in Bldg. 31. He described their talks by saying "the beauty of the thing is that it can happen right away."

the  **Record**

Published biweekly at Bethesda, Md., by the Publications and Reports Branch, Office of Information, for the information of employees of the National Institutes of Health, Department of Health, Education, and Welfare, and circulated by request to interested writers and to investigators in the field of biomedical and related research. The content is reprintable without permission. Pictures are available on request.

The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policies of the paper and the Department of Health, Education, and Welfare.

NIH Record Office Bldg. 31, Rm. 2B-03. Phone 49-62125

Editor Frances W. Davis

Associate Editor Fay Leviero

Assistant Editor Ed Driscoll

Staff Correspondents

ADA, Melissa Howard; CC, Thalia Roland; DCRT, Joan Chase; DRG, Sue Meadows; DRR, Jerry Gordon; DRS, Cora M. Sult; FIC, George Presson; NCI, Carolann Hooton; NEI, Bonnie Friedman Spellane; NHLI, Bill Sanders; NIAID, Krin Larson; NIAMDD, Pat Gorman; NICHD, Kathy Kowalcyk; NIDR, Sue Hannon; NIEHS, Elizabeth Y. James; NIGMS, Wanda Wardell; NINDS, Carolyn Holstein; NLM, Ruth E. Armstrong.

Federal Women's Program

The number of women starting careers in clinical or basic science research at NIH has almost doubled in the last 2 years. In January 1974 there were 63 women in the staff fellowship program compared to 33 in January 1972. However, women still comprise only 20 percent of the total personnel in this category.

NIH staff fellowship appointments enable those who have completed doctoral or postdoctoral training to work in non-tenured positions with senior investigators.

Workshop on Heartbeat To Be Held Tomorrow

A workshop on the effects of drugs and calcium on heart arrhythmias will be held tomorrow (Wednesday, April 24) at Stone House from 9 a.m. to 5 p.m.

The workshop, jointly sponsored by the Fogarty International Center and the National Heart and Lung Institute, has been arranged by Prof. Torsten Teorell, Fogarty Scholar-in-Residence, Dr. Kenneth M. Kent, NHLI, and Dr. Harry Fozzard, professor of medicine and physiology, University of Chicago.

Others who will participate in the workshop are: Dr. Brian Hoffman, department of pharmacology, Columbia University; Dr. Richard Tsien, department of physiology, Yale University; Dr. Greg Ferrier, Masonic Medical Research Laboratory, Utica, N.Y., and Dr. Thomas James, department of medicine, University of Alabama.

The meeting is open.

Dr. Chamberlin, NIGMS Grantee, Wins Enzyme Chemistry Award

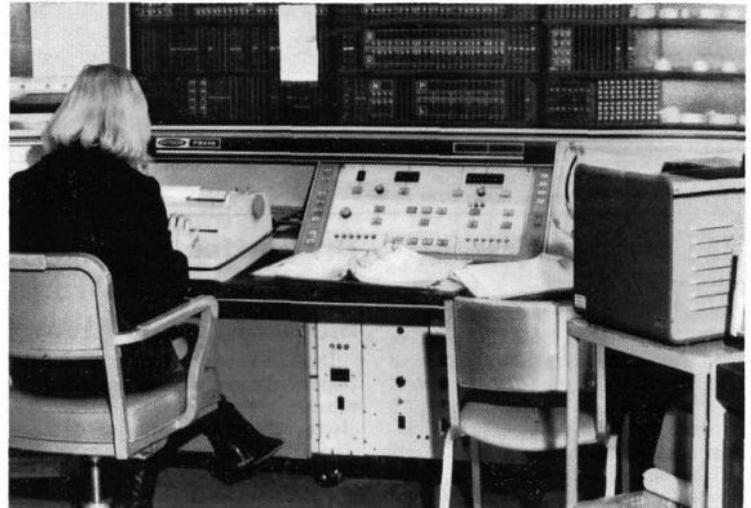
Dr. Michael J. Chamberlin, professor of biochemistry at the University of California, Berkeley, is the recipient of the 1974 American Chemical Society Award in Enzyme Chemistry.

Dr. Chamberlin, a grantee of the National Institute of General Medical Sciences, was chosen on the basis of independent research which made use of RNA (ribonucleic acid) polymerase to synthesize a variety of RNA homopolymers.

Later, with his students he elucidated the sigma subunit in conferring transcribing specificity to the enzyme.

The award, sponsored by Pfizer Inc., is presented annually to a young American scientist.

For Answers to Questions on Primates, Scientists Go to DRR Center in Seattle



An analyst at PIC is putting information into the system. The bibliographic files contain over 35,000 references from articles published in national and international journals. Two types of searches are made—recurrent bibliography and retrospective bibliography. There is also a file on basic biological data.

The world's largest press is not comprised of journals hawked by youngsters on street corners, but of thousands of weekly, monthly, and quarterly magazines delivered by the postman.

Titles such as *Brain Research* and *Voprosy Anthropologii* do not appear on the neighborhood newsstand. However, such magazines are part of the voluminous publications by which scientists all over the world communicate with each other.

The Primate Information Center, located at the Washington Regional Primate Research Center, Seattle, possesses the most extensive primate reference files in the U.S.—and possibly in the world.

The information center, headed by Dr. Maryeva W. Terry, with a staff of 11 employees, was established in 1963 and is supported by the Division of Research Resources.

PIC searches articles in all journals, and informs scientists working with nonhuman primates about the publications.

In addition to the massive computerized bibliographic data on nonhuman primates, PIC also issues *Current Primate References*, a weekly which lists citations in all fields of primate research and, if known, the address of the author.

This publication started in 1963 and is now circulated to over 1,600 investigators, professors, and graduate students in 50 countries.

PIC started with a file of 5,000 citations published since 1936. Now, the computerized file contains over 35,000 references from articles published in journals from all over the world.

Russia maintains a similar service at the Institute of Experimental Pathology and Therapy in Sukhumi. The Soviet center receives *Current Primate References* and contributes to it with Soviet publications on primatology.

Once the citations appear in *Current Primate References*, the articles are reviewed for the different types of service. Each publication is assigned a series of descriptive terms related to research on subject matter and order of primates. Both the citation and these terms are stored in a computer.

In response to queries by researchers, two types of computer searches are made—recurrent bibliography and retrospective bibliography.

(See DRR CENTER, Page 4)



HOPALONG—In an Easter parade around the Pre-School Developmental Program's facility at NIH, bunnies Kerstin Reulen from Germany and Bill Campbell of Washington, D.C., show off their bonnets.

Register This Spring For Fed'l After-Hours Education Program

More than 60 college-level courses will be offered after working hours to military personnel and the general public in 31 downtown Federal buildings in the District of Columbia this summer through the Federal After-Hours Education Program.

The College of General Studies, George Washington University, offers this opportunity for enrollment in undergraduate and graduate courses leading to the bachelor of science and master of science degrees.

Those seeking self-improvement courses may enroll as non-degree students.

Registration for the summer session will be held in Conference Rooms A, B, and D—just off the lobby—in the Department of Commerce Building, 14th St. and Constitution Ave., N.W., from 10 a.m. to 3 p.m. on May 9 and July 8.

Classes will begin the week of May 20 and continue through Aug. 28.

Tuition is \$67 per semester hour and all courses are 3 semester hours. This compares with a cost of \$90 per semester hour for courses taken on the G.W.U. campus.

The Government Employees Training Act of 1958 gives Federal agencies broad authority to pay all tuition costs and other fees if courses are related to present or anticipated job requirements.

For information regarding the summer program, contact Robert W. Stewart, Jr., field representative, College of General Studies, George Washington University, at 676-7018.

Alumni Club Cites Dr. Alexander

Dr. Benjamin H. Alexander, acting chief, General Research Support Branch, Division of Research Resources, was one of four Georgetown University graduates who received achievement awards at recent alumni club ceremonies held at the Statler Hilton Hotel.

In presenting the award, Robert Bauman, Congressman from Maryland, cited Dr. Alexander's civic and medical contributions.

EEO Office Remains Open Two Evenings Each Month

In order to provide important EEO services and information to evening shift employees, the EEO Office will be open on a trial basis the first and fourth Wednesdays of each month from 5 to 7 p.m. starting May 1.

The EEO Office is located in Bldg. 31, Room 2B-40. For appointments call Ext. 66301.

Relax, Sit Down, Roll Up Your Sleeve— May Is Nat'l High Blood Pressure Month

May has been designated National High Blood Pressure Month. The National High Blood Pressure Education Program, in cooperation with the American Heart Association, the National Medical Association, the Citizens for the Treatment of High Blood Pressure, Inc., as well as 50 other public and private groups, has set May aside to call special attention to the number one public health problem in the United States.

This national program is coordinated by the National Heart and Lung Institute.

High blood pressure affects over 23 million Americans—one in every 10 persons.

It is often called the silent disease because usually there are no symptoms. A person can feel perfectly healthy yet have dangerously high blood pressure.

It strikes young and old, rich and poor, Black and white. There is a greater chance of having high blood pressure, however, if you are Black or over 50. Blacks seem to get high blood pressure earlier and more severely than their white counterparts.

The major effects of high blood pressure are heart failure, heart attack, kidney damage, and stroke. Uncontrolled high blood pressure forces your heart to work harder

than it should, leading to early failure; it also causes a strain on the small blood vessels in your brain. If one of them breaks, you suffer a stroke.

The tiny blood vessels in the kidneys become damaged if blood pressure is high.

During the month of May, the National High Blood Pressure Education Program urges you to learn more about blood pressure.

Programs in HBP education screening and follow-ups are being encouraged in communities throughout the country, and public service announcements are being distributed through the media. Both professional and non-professional groups are targeted as educational instruments to broadcast the message.

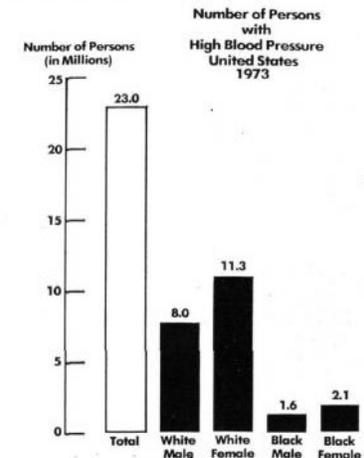
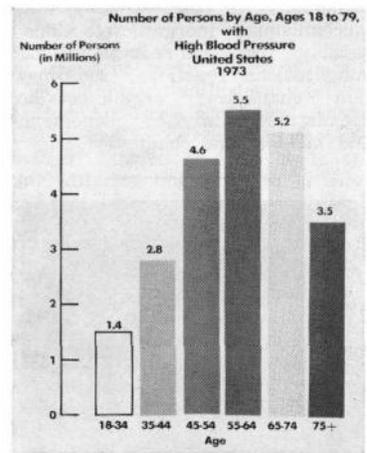
HBP Easily Detected

High blood pressure is easy to detect. Elevated blood pressure can usually be kept within normal limits with a simple medication.

Sometimes just a few changes in diet will suffice.

How do you know if you have high blood pressure? Your doctor can take your blood pressure quickly and painlessly.

All you have to do is roll up your sleeve.



DRG Publishes Part III of Grants and Awards Series

The Division of Research Grants has published Part III of the seven-part series *Public Health Service Grants and Awards, Fiscal Year 1973 Funds*.

Part III presents listings by recipient area, organization, and project director of research contracts awarded by NIH. A summary tabulation indicates the financial support given by each component.

This compilation of NIH research contracts differs in several

respects from last year's. The contract numbering system has been changed to include the support component's code, and contracts for an organization are now listed alphabetically under the project director's name.

Send for Copy

Single free copies of the 92-page volume (DHEW Publication No. (NIH) 74-195) are available from DRG, Westwood Bldg., Room 448, NIH, Bethesda, Md. 20014.

Multiple copies may be pur-

Grant for Evaluating Methods of Radiation Treatment Given by NCI

The National Cancer Institute has announced a \$1.5 million grant to the American College of Radiology to evaluate existing methods of radiation treatment for cancer and to establish radiation treatment guidelines.

Dr. Simon Kramer of the Thomas Jefferson University Hospital in Philadelphia will direct the 3-year project for the National Cancer Institute and the Commission on Radiation Therapy of the American College of Radiology.

Recruit Scientists, Therapists

A group of 24 radiation therapists, 50 radiotherapy residents, and 10 clinical physicists are being recruited to carry out the study. The use of radiation therapy in the United States and Puerto Rico will be documented region by region, and criteria developed for optimal radiation therapy.

Radiotherapists and their professional organizations, including the American Society of Therapeutic Radiologists, have expressed concern about the lack of information on evaluating the quality of care given to cancer patients. This study may become a model for evaluating other methods of cancer treatment and other disciplines of medicine.

Under the new grant, radiation facilities across the Nation will be surveyed. Data will be gathered on the numbers of patients treated and types of cancer, and the availability of professional and technical staff, space, equipment, financial and economic factors, services (such as diagnostic radiology and nuclear medicine), and patterns of referral.

Methods Explained

Questionnaires, on-site evaluations of treatment records, and examinations of the relationship between medical insurance companies and treatment institutions will be utilized.

This grant is the first awarded under the Cancer Control Program of NCI, in collaboration with the Division of Cancer Research Resources and Centers.

Data obtained in the study will be used to define national needs for training physicians, developing and distributing radiotherapy equipment, and defining research and control goals in the treatment of cancer patients.

Dr. Diane J. Fink, associate director for Cancer Control, is project administrator for NCI.

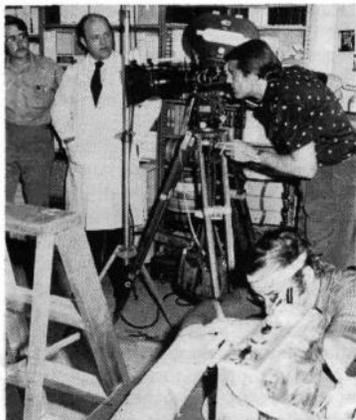
chased for \$1.10 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402.

Epilepsy Film Sequences, TV Spots Shot at NIH

Dr. J. Kiffin Penry, chief of the Applied Neurological Research Branch, NINDS Collaborative and Field Research Division, recently observed and participated in film sequences and TV spots on epilepsy.

The films, being made for the Epilepsy Foundation of America, will be made available to the general public and specialized audiences such as parents, teachers, policemen, and firemen.

Dr. Penry was chosen president-elect of the American Epilepsy Society at its December annual meeting in New York City, and was elected for a 3-year term as secretary-general of the International League Against Epilepsy.



Dr. Penry (second from left) waits for the film crew to set up its equipment before shooting a scene.

Cancer Death Statistics Published in Compendium

Statistics on cancer deaths in each of the 3,056 counties of the U.S. have been published for the first time in a new National Cancer Institute compendium, *U.S. Cancer Mortality by County: 1950-1969*.

Previously, such statistics had been available only by region or state.

The 729-page volume, prepared by Dr. Thomas J. Mason and Frank McKay of NCI's Epidemiology Branch, lists the total number of cancer deaths for each of 34 body sites according to sex and race (whites and non-whites) for each county over the 20-year period. In addition, age-adjusted cancer death rates per 100,000 persons are given.

Information for the publication was obtained from a series of magnetic tapes provided by HEW's National Center for Health Statistics.

U.S. Cancer Mortality by County: 1950-1969—DHEW Publication No. (NIH) 74-615—may be purchased for \$9 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

DRR CENTER

(Continued from Page 2)

For recurrent bibliography, the scientist tells PIC what his long-term interest is, and once every 2 weeks the question is checked against recent additions to the computer file.

Retrospective bibliography is a computer search for a listing of all articles in the file relating to a scientist's question. PIC answers over 900 requests a year for retrospective bibliographies.

There is also an extensive file of basic biological data—available to scientists—that is constantly being updated.

Another file contains detailed information on which body organs are involved in the breakdown of various chemicals, such as drugs, pesticides and environmental contaminants—and which organs are most affected by poisonous doses.

Because of all its services, PIC is recognized internationally as the central source for published material on nonhuman primates.

NLM Offers TOXLINE Data Retrieval Service At Reduction in Cost

TOXLINE was transferred to the National Library of Medicine on April 1 to make the on-line information retrieval service more accessible at a reduced cost.

Previously NLM offered the service through a contractor.

At a 2-day meeting for TOXLINE users held March 26-27, the participants were told of plans to add special collections to the bibliographic data base and about the new reduced rate schedule.

The service now being delivered by the Library over TOXLINE, a nationwide communications network, consists of two related information files: the bibliographic file and an associated chemical dictionary.

It is capable of connecting with a wide selection of existing terminal devices.

TOXLINE contains more than 300,000 citations, almost all with abstracts and/or key terms and Chemical Abstracts Service Registry numbers for chemical substances.

TOXLINE is currently available on an equal-access basis.

For additional information or to subscribe to the service, contact NLM, Toxicology Information Program, 8600 Rockville Pike, Bethesda, Md. 20014.

NIH Observes Nat'l Library Week

The NIH Library is now observing National Library Week (April 21-27) with a special display of library materials at the library entrance.



Dr. Norman (l), Dr. Stokes, and Dr. Norman M. Kaplan, professor of medicine at the University of Texas Health Science Center, pause between sessions at the High Blood Pressure Education Workshop.

Dr. Halpern Is Elected Fellow Of Royal Society of London

Dr. Jack Halpern has been elected a Fellow of the Royal Society of London. He is a grantee of the National Institute of Arthritis, Metabolism, and Digestive Diseases and the Louis Block Professor in the department of chemistry at the University of Chicago.

Dr. Halpern was cited by the Royal Society for his work on the kinetics and mechanisms of inorganic reactions in solution, especially homogeneously catalyzed reactions involving transition metal complexes.

Has Researched Kinetics

His research interests relate principally to the kinetics and mechanisms of inorganic reactions, notably oxidation-reduction and substitution reactions; coordination chemistry, organometallic chemistry, catalytic phenomena and bioinorganic chemistry.



Michael H. Rosenthal has recently been appointed personnel officer of the Division of Computer Research and Technology. Mr. Rosenthal has been with NIH for the past 3 years working as a personnel management specialist for the Division of Biologics Standards and the National Institute of Neurological Diseases and Stroke.

High Blood Pressure Education Workshop Held in Dallas, Texas

Over 180,000 persons with high blood pressure live in the Dallas-Fort Worth area of Texas.

The National High Blood Pressure Education Program recently sponsored a workshop in Dallas to talk about this serious problem, relating it to the entire 5-state area that makes up Public Health Service Region VI.

Over 125 educators, health professionals, representatives of public and private health agencies, and NIH program officials met to stimulate community involvement in high blood pressure control.

Dr. Floyd A. Norman, acting regional health administrator for Region VI, opened the workshop by citing the magnitude of the problem: "High blood pressure is a serious illness because it can lead to stroke, kidney failure, congestive heart failure and other causes of death and disability."

He added, "Less than half of the 23 million Americans who suffer from high blood pressure are aware of it."

Dr. John B. Stokes III, NHLI, coordinator for the National High Blood Pressure Education Program and one of the principal speakers, labeled high blood pressure as the most serious public health problem in the United States today.

Other workshops are scheduled this spring for Kansas City, Boston, Denver, and Seattle.

Washington Free Clinic Needs Volunteer Doctors, Technicians

The Washington Free Clinic in Georgetown requires doctors and laboratory technicians to volunteer their services for one night a week.

For further information call the clinic after 2:30 p.m. on weekdays at 965-5476, or contact NIH researchers, Dr. Thomas Butler, Ext. 64020, and Dr. Jeffrey Drobis, Ext. 66693.

Apply Now for Project Stride Nursing Program

Opportunities to work and study toward a position as a professional nurse are now being offered as the initial part of the 1975 NIH Stride Program.

The Project Stride Nursing Program combines experience in nursing duties and responsibilities at the NIH Clinical Center with full-time college academic study for up to 2 years.

Nursing students will work toward passing the Registered Nurse examination and acquire an associate of arts degree in the process.

All applicants to this Stride program must submit a completed 171 form indicating Stride/Nursing in Block 1-A, to the Career Development Branch, Office of Personnel Management, Bldg. 31, Room B2C21, by 5 p.m. on April 29, 1974.

In addition, a transcript of all previous academic work at the high school or college level must be received prior to selection.

Past experience has shown that the most efficient method of obtaining transcripts is to pick them up in person at the school. If that is not possible, the Career Development Branch will provide applicants with a form letter for use in obtaining transcripts by mail.

Requirements Listed

Applicants must meet the following basic requirements:

- 1) Career or career-conditional status for the preceding 12 months at NIH as of April 29.
- 2) Current employment in a non-professional series (one grade promotions).
- 3) Employed in permanent, full-time position (40 hours per week).
- 4) Grade GS-7 and below or wage grade equivalents at the time of application.
- 5) Have a high school diploma or GED certificate and less than a bachelor's degree if college course work was completed.
- 6) In addition to the above, final acceptance into the Stride Nursing Program will require passing a complete physical examination. This examination will be provided by NIH at no cost to the individual.

A Stride student successfully completing the Registered Nurse examination will be assigned to a professional nurse position in the Clinical Center at the GS-5 level.

A candidate who is selected for the program and is currently above the GS-5 level must request a voluntary reduction in grade upon entering training. Salary will be saved whenever possible.

Those candidates who do not have prior clinical experience will be required to spend an internship period of no more than 1 year after completing the academic portion of the program.

Up to 20 positions are open in



Tom Flavin (l), public information intern, receives congratulations and a Special Achievement and cash award from Storm Whaley, NIH Associate Director for Communications. Mr. Flavin recently completed his year of internship and is now working at NHLI.

Nathan Mantel Retires From NCI But Continues Biostatistical Research

Nathan Mantel, a senior mathematical statistician, recently retired from the National Cancer Institute after 34 years of Federal service.

Mr. Mantel began his Government career in the General Land Office, Department of the Interior, in 1940. He held various statistical positions there and at the War Production Board—except for 4 years of military service—until 1947.

In that year, he joined NCI as a biostatistician concerned with the design of bioassay, carcinogenicity, and epidemiological studies, fields in which he is an authority.

Mr. Mantel is an honorary fellow of the American Statistical Association and the Institute of Mathematical Statistics. Also, he is on the editorial board of *Biometrics* and an adjunct professor of biostatistics at the University of Pittsburgh School of Public Health.

At a farewell party and at a luncheon, friends and co-workers gave him several gifts, including an engraved Revere bowl, a portable calculator, and a suitcase/attache case combination.

Since his retirement, Mr. Mantel has been serving as a biometric consultant for NCI and research professor in George Washington University's Statistics Department under an NIH/NCI grant.

this program. Successful applicants will begin training on July 8, 1974, starting with orientation and clinical experience in the Clinical Center.

The academic portion of the nursing program at Marymount College will begin in August 1974.

For information about the Stride Nursing Program, call Educational Services Officer, CC, Ext. 61618, or Career Development Branch, OPM, Ext. 66211.

Battelle-Columbus Labs Receive NCI Contract For Testing New Drugs

A 2-year contract for evaluating the safety and side-effects of potential new anti-cancer drugs has been awarded by the National Cancer Institute to Battelle Memorial Institute's Columbus Laboratories in Ohio. The laboratories will be responsible for day-to-day management of the NCI toxicology program.

Battelle-Columbus scientists will work closely with NCI's Laboratory of Toxicology, which will monitor the contractor's performance and continue to be responsible for critical decisions. The program will be managed by Battelle-Columbus from its toxicology program office in McLean, Va.

Under terms of the contract, which is for \$3,794,147, the Ohio laboratories will establish a network of subcontracting laboratories, the number depending on the availability of new drugs that are ready for toxicology testing.

Mice Tested

The search for new anti-cancer drugs begins with tests against cancers in animals, chiefly mice. Compounds that prove effective are then ready for toxicology tests that identify harmful side-effects, and provide information in planning drug dose levels.

Toxicology studies in animals can take from 1 to 3 years and cost up to \$150,000 per drug, depending on types of tests required.

Battelle-Columbus will establish a network that can test at least 10 drugs at a time, and will also develop more efficient methods of operating the toxicology program in

NIH Visiting Scientists Program Participants

3/25—Dr. Robert Lousberg, The Netherlands, Laboratory of Chemical Physics. Sponsor: Dr. Edwin Becker, NIAMDD, Bg. 2, Rm. 109.

3/31—Dr. Ronald D. Barr, United Kingdom, Division of Cancer Treatment. Sponsor: Dr. Seymour Perry, NCI, Bg. 31, Rm. 3A51.

3/31—Dr. Celine Tan, Singapore, Laboratory of Cellular and Comparative Physiology. Sponsor: Dr. T. Makinodan, NICHD, Gerontology Research Center, Baltimore, Md.

3/31—Dr. Yin H. Tan, Singapore, Laboratory of Cellular and Comparative Physiology. Sponsor: Dr. T. Makinodan, NICHD, Gerontology Research Center, Baltimore, Md.

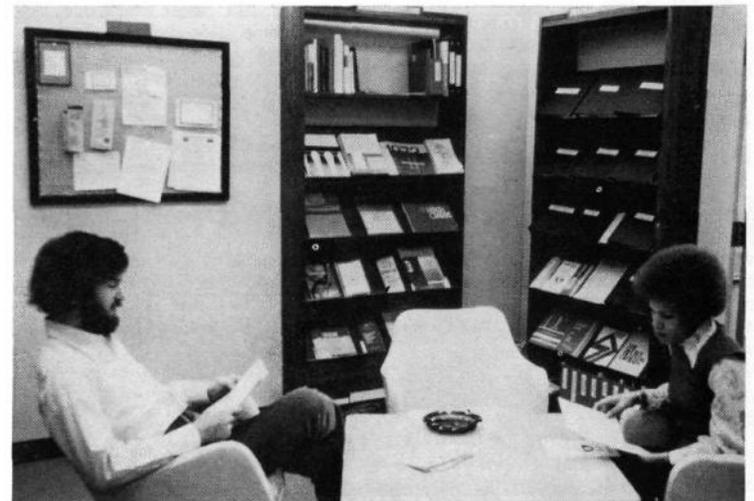
4/1—Dr. Oliver Alabaster, United Kingdom, Division of Cancer Treatment. Sponsor: Dr. Paul Carbone, NCI, Bg. 10, Rm. 6B15.

order to reduce costs, shorten testing time, and make the results easily available for evaluation during later studies with cancer patients.

"Because the toxicology tests have become standardized over a number of years, we are now able to delegate day-to-day control of the program," said Dr. C. Gordon Zubrod, director of NCI's Division of Cancer Treatment.

He further added that "An increasing number of drugs will soon be ready for testing. The network of subcontractors should permit a rapid expansion of the operation to handle the load."

Dr. Anthony M. Guarino, chief, Laboratory of Toxicology, is NCI's project officer for the contract. Dr. Roger M. Folk of Battelle-Columbus is program manager.



Milt Tipperman, career counselor, OPM, and Yasmin Rheubottom take a look at some training pamphlets in the Career Information Center. The center is an open-door, walk-in reference library that functions as a clearinghouse for information on upward mobility, training, career planning, and non-government education programs. All NIH employees are encouraged to visit the center, located in Bldg. 31, Room B2C11.

SATELLITE

(Continued from Page 1)

will compare their results and interpretations and perhaps arrange to send specimens to each other. The beauty of the thing is that it can happen right away," he said.

The system even allows investigators in the field to talk with scientists outside of NIH by direct telephone hook-up to the satellite communication system.

Dr. Chamberlayne serves as project officer for the satellite telecommunication feasibility study which was initiated by NIAID in July 1973.

The study determines how the system might be useful to biomedical research: by providing daily contact with isolated laboratories and field studies; in holding conferences, and by providing swift communication in an emergency.

Keeps Daily Contact

During the working week, NIAID scientists have maintained daily contact with Dr. Leon Rosen, head of the Institute's Pacific Research Section in Honolulu. The section is a part of NIAID's Laboratory of Parasitic Diseases. Scientists in that section who are working on isolated islands have also been brought into informal communication with other investigators.

Holding conferences among widely scattered investigators via satellite has been tried only on a small scale, but no problems have emerged which would preclude setting up larger conferences.

"We're trying to take the conference to the scientist so he can sit in his laboratory with his associates and have all his data at his fingertips," Dr. Chamberlayne explained.

So far it has not been necessary to provide emergency communications to isolated field stations. However, it is well recognized that

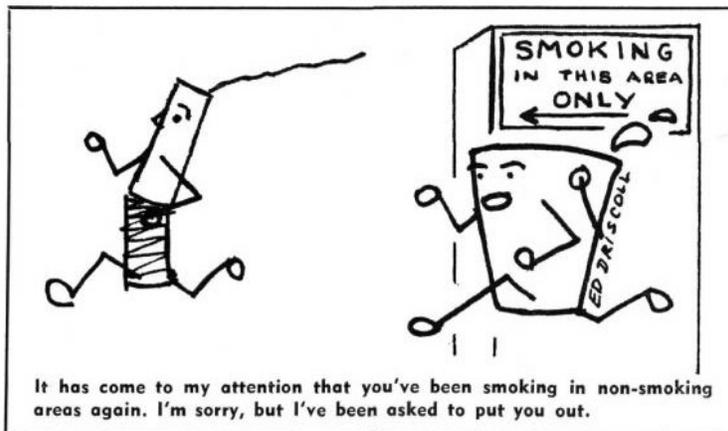
Postdoctorals May Apply For Population Institute

The Center for Population Research, National Institute of Child Health and Human Development, will sponsor a 4-week postdoctoral institute this summer to meet the need for increased population research and training in five social science disciplines.

These disciplines are: anthropology, economics, political science, psychology, and sociology.

The institute, which begins July 29 at the University of North Carolina and will be directed by Vaida Thompson, is open to postdoctorals who want to apply their disciplinary training to population research and teaching.

Those selected will be compensated for travel and be paid on a per diem basis.



a serious illness or a broken bone could present real problems at a jungle site so remote that its only link to the world is through a helicopter that flies in once a week with supplies.

The ATS-1 satellite being used by NIAID is one of two experimental spacecraft launched by the National Aeronautics and Space Administration. Having no video capability, this type of satellite transmits voice, illustrations, and digital data, such as that sent across telephone lines from one computer to another.

NIAID and other NIH scientists have permission to use the communication satellite for one-half hour daily, from 2:30 to 3 p.m. EDT.

Basically, the satellite is used as a transponder—it receives a signal from the sender, amplifies the signal, and sends it out again. The daily transmission of signals uses energy provided by solar cells on the satellite.

ATS-1 Is Stationary

The ATS-1 is located over the Pacific, approximately 25,000 land miles above the earth over the equator at 149° west longitude. At that distance it is stationary since it is above the influence of the earth's rotation.

The NIAID project is under the general supervision of the Lister Hill National Center for Biomedical Communications, National Library of Medicine.

The Center provides the electronic expertise for the project and is an example of "meaningful in-house collaboration," said Dr. Chamberlayne. The base station equipment for the Bethesda site is located at NLM.

The equipment in Dr. Chamberlayne's office is a remote operating console used solely for the NIAID project. In addition to the console, a microphone and speaker, there is a monitor to assure the sender that his message is being transmitted.

The radio monitor is tuned into the satellite to receive the message, so the sender hears his own voice when transmitting.

The relatively simple portable

sets used in the field stations are transistorized, compact FM radios similar to those used in taxicabs. Special crystals for transmitting on appropriate frequencies are used to convert them for satellite use. The antennae are fairly complex since they are used for both receiving and sending.

To date, two problems have been associated with the study. One, relatively minor, is that commercial airplanes occasionally interfere and blot out the messages being transmitted.

Problem Noted

The other problem causes a little more difficulty. The ATS-1 is beginning to oscillate slightly, and as the satellite moves southwest, NIH is nearly out of its range and temporarily loses quality in the NIH receptions and transmissions.

Eventually the oscillation will move out of the NIAID transmittal time period and into another. Should this problem become more serious, NASA can activate a short burst on the jet engines of the satellite and slow down the oscillation.

Despite these temporary problems, Dr. Chamberlayne believes satellite communication will be a good way to exchange—rapidly—biomedical information between scientists in different corners of the globe.

UCLA In-depth Program To Study Peptic Ulcers

To foster an in-depth program to study peptic ulcers, an initial grant of over \$890,000 has been given to the University of California, Los Angeles School of Medicine.

The 5-year grant-supported study awarded by the National Institute of Arthritis, Metabolism, and Digestive Diseases will establish a Peptic Ulcer Center at UCLA, involve 10 key investigators with multidisciplinary expertise, and may ultimately cost more than \$4 million.

The center seeks to reduce the toll that peptic ulcers now exact in deaths, sickness, and dollars. Each day an estimated 4,000 persons develop an ulcer, and each year nearly 10,000 Americans die of complications of peptic ulcer.

Virtually all peptic ulcers occur in the small intestine just below the stomach, or in the stomach itself.

Of the two types of peptic ulcers, those in the duodenum, or first portion of the intestine, are called duodenal ulcers, while those in the stomach are called gastric ulcers.

In the U.S., duodenal ulcers are estimated to be about eight times more common than gastric ulcers.

Either type may occur from infancy to old age, but they are most frequent after age 20. People in the 30 to 50 age bracket are slightly more prone to ulcers.

With an integrated program that will foster cross-disciplinary investigation, peptic ulcers will be studied from various approaches.

Areas of research include movement of hydrogen ions across normal and diseased mucosae, pathogenesis and treatment of stomach and duodenum lesions, psychosomatic factors in peptic ulcer causation and recurrence, and the study of defined populations over long periods to determine prevalence and incidence of peptic ulcers.



Members of the Glens Garden Club recently arranged an Easter display for CC patients on the 14th floor patient activities area. The exhibit consisted of paper mache cherry and egg shell trees, and a sea shell path. Fresh flowers lined the path and the entire exhibit was surrounded by white picket fencing. Individual flowers were presented to the children as Easter presents from the garden club.



The closing exercises for 13 graduates of the fourth NIH Clerk-Typist Training Program were held on Thursday, March 28. The class was unique since two of the graduates were men—the first to complete this program. Anabel L. Holliday, assistant director for Policy, Office of Personnel Management (seated, far l), addressed the graduates.

Scientists Review Impact Of Mobile Emissions Controls on Environment

A conference on the Health Consequence of Environmental Controls: Impact of Mobile Emissions Controls, held April 17-19 in Durham, N.C., was sponsored by the National Institute of Environmental Health Sciences and the National Environmental Research Center.

Conference participants examined the impact of methods proposed to meet the Clear Air Act Standards on the environment—particularly the effects of unregulated emissions from the oxidation catalytic converters which will be used on 1975 automobiles as an emission control device.

Alternatives Discussed

Government, industry, and academic scientists reviewed information concerning potential health hazards involved with using the catalytic converter.

They also discussed alternative designs for automobile engines and potentially dangerous emissions which could result from such engine designs.

John B. Moran, director of the Fuel and Fuel Additive Research Program at the National Environmental Research Center in Research Triangle Park, N.C., was conference chairman.

Management Intern Meeting To Be Held April 26 at CC

A general orientation meeting for all NIH Management Intern Program applicants will be held Friday, April 26, from 11 a.m. to 1:30 p.m. in the Masur Auditorium.

Applications from NIH employees qualified for this program will be accepted through May 31.

For information call Ext. 66211.

NCI CONTRACT

(Continued from Page 1)

dustrial chemicals, and 71 pesticides and agricultural chemicals. Additional chemicals include food additives, metallic compounds and natural plant products.

A complete study of one agent takes a minimum of 3 years from planning to analysis of results and may cost as much as \$75,000.

Tracor Jitco, Inc. will eventually assume prime contractor responsibility for all NCI contracts now in effect with commercial laboratories to test for cancer causation. These contracts will be phased into its management operation at a rate of one a month beginning May 1, 1974.

As the NCI contracts expire, the prime contractor will negotiate each of them as a subcontract. Dr. Frank J. Rauscher, Jr., NCI Director, estimated that approximately \$1 million of the prime contract will be for additional new bioassay contract work.

Dr. Norbert P. Page directs the current cancer-causing bioassay program for NCI and will retain scientific control of the program.

Med. School Costs Noted In New Report to HEW

It costs \$12,650 a year to put a student through medical school, according to a recent report on health education compiled by the Institute of Medicine.

The report, submitted to HEW Sec. Caspar W. Weinberger and to two Congressional committees, endorsed Federal support for health professional schools.

In addition to compiling the average annual cost per student for medical school, costs were estimated in other health professions.

They were: \$8,950 in osteopathy; \$9,050 in dentistry; \$4,250 in veterinary medicine; \$2,500 in baccalaureate degree nursing; \$3,300 in diploma nursing, and \$1,650 in associate degree nursing.

Edwards Invites Comments on Proposed Regulations Governing NHLI Research, Demonstration Centers

Proposed regulations governing establishment, support, and operation of national research and demonstration centers for heart, blood vessel, lung, and blood diseases were announced on April 18 by Dr. Charles C. Edwards, HEW Assistant Secretary for Health.

Dr. Edwards invites written comments concerning the proposed regulations. Inquiries, data, views, and arguments should be submitted, in triplicate, within the 30-day period following publication—on April 18—in the *Federal Register*.

Comments should be sent to: Office of the Director, National Heart and Lung Institute, National Institutes of Health, Bldg., 31, Room 5A22, 9000 Rockville Pike, Bethesda, Md. 20014.

All relevant material received within the allotted time will be examined. It will also be available for public inspection at the above address from 8:30 a.m. to 5 p.m. on weekdays during the 30 days.

The proposed regulations concern the implementation of Section 415 (b) of the Public Health Service Act, as amended by the National Heart, Blood Vessel, Lung, and Blood Act of 1972 (Public Law 92-423).

Provisions Explained

This section authorizes the NHLI Director to provide for the establishment and support of national research and demonstration centers to:

- 1) Carry out basic and clinical research on heart, blood vessel, and lung diseases;
- 2) Provide demonstrations of advanced methods of prevention, diagnosis, and treatment, and
- 3) Provide a training resource for scientists and physicians concerned with these diseases.

Proposed regulations cover eligibility; application procedures; program requirements; grant awards and payment; rules gov-

Dr. William Gay, NIAID, Edits Series on Usage Of Laboratory Animals

Dr. William I. Gay, associate director for extramural programs, National Institute of Allergy and Infectious Diseases, recently edited a new five-volume treatise on the use of laboratory animals in biomedical research.

Includes 49 Authors

The series—*Methods of Animal Experimentation*—includes the works of 49 authors who have received doctorates in biological or behavioral sciences.

Nearly all species of warm-blooded animals are discussed.

The series concentrates on biomedical research, but also discusses the use of animals in environmental studies, space and atomic energy research, and defense.

The publisher of the five-volume series is Academic Press, Inc., New York, N.Y. 10003.

erning the expenditure of funds, administrative and accounting procedures, and required records and reports; the protection of human subjects and the welfare of research animals; grantee accountability, and additional conditions.

Subject to feasible modifications suggested within 30 days of publication in the *Federal Register*, the proposed regulations will be adopted with approval of the Secretary of HEW.



Dr. Sarah H. Broman (second from right), a research psychologist in the NINDS Perinatal Research Branch, receives an EEO Special Achievement Award for her "outstanding contribution" to the NIH Upward Mobility Stride Program. Fannie Alexander (second from left), a Stride trainee who nominated Dr. Broman, presents the award. Dr. Donald Tower (r), Acting Director of NINDS, and Otis D. Watts, deputy EEO officer, participated in the ceremony.

Art Campbell Analyzes Changes in Fertility Rates



In his final address as association president, Mr. Campbell said that today's American women are marrying and bearing children at earlier ages than their mothers did.

The changes in fertility rates within 18 developed countries over a 40-year period were analyzed by Arthur A. Campbell, deputy director, Center for Population Research, NICHD, in his presidential address to the Population Association on April 19.

Mr. Campbell, who headed the large association of scientists for the past year, discussed fertility rates during depression and war years, over decades when the marriage age declined significantly, and in the present period of increased availability of effective fertility control.

He noted that much of the post-war increase in fertility rates was due to the trend toward having children at younger ages. In several countries fertility rates at maternal ages under 25 in the early 1960s were the highest observed in over a century.

The current decline of fertility in many developed countries is due

Public Policy and Its Role in Scientific Research Discussed at STEP Module

The important role public policy plays in the planning and conduct of scientific research and development was the theme of a recent 3½-day training module at Reston, Va.

The course, in which 25 B/I/D extramural staff participated, was sponsored by the STEP committee's Continuing Education Program.

In addition to NIH staff members, public sector representatives and Legislative and Executive Branch officials served on the faculty panels.

Topics discussed included factors that go into decisions, how these decisions are reached and affect NIH, what the decision makers expect from NIH programs, and how the system can be improved.

Dr. William H. Goldwater, assistant to the NIH Associate Director for Collaborative Research and module director, said that a seminar of this type offers administrators an opportunity to meet with others involved at different levels of the decision-making process.

He added that it enables conferees to explore areas beyond everyday activities that affect decisions and, at the same time, get contrasting points of view.

The need for better communications between NIH, the Depart-

ment, the Office of Management and Budget, the Legislative Branch and the public was stressed at the meeting.

Also, OMB and Congressional representatives pointed out that NIH must have better "hard data" in support of proposed programs and appropriations.

Panel members emphasized that NIH was not presenting its case for research and development programs as well as other Federal agencies, that the emphasis for R & D should be focused on how it will help the public, and that communications from NIH should be phrased in English rather than technical jargon.

NMAC Slide/Tape Units In Newborn Series Ready

Three slide/tape units for the Pediatric Newborn Series have been developed by the National Library of Medicine's National Medical Audiovisual Center in Atlanta, and are available from the National Audiovisual Center in Washington, D.C.

They are entitled: The Neurologically Suspect Infant, The Respiratory Distress Syndrome, and Anemia in the First Week of Life.

Additional titles in the series will appear in the next few months.

The units are intended for use by third- and fourth-year medical students and physician-assistant students, working individually or in small groups.

Additional titles in the series will appear in the next few months.

The units are intended for use by third- and fourth-year medical students and physician-assistant students, working individually or in small groups.

Panel members emphasized that NIH was not presenting its case for research and development programs as well as other Federal agencies, that the emphasis for R & D should be focused on how it will help the public, and that communications from NIH should be phrased in English rather than technical jargon.

Panel members emphasized that NIH was not presenting its case for research and development programs as well as other Federal agencies, that the emphasis for R & D should be focused on how it will help the public, and that communications from NIH should be phrased in English rather than technical jargon.

STEP Offers 3d Module; Registration Ends April 30

The STEP Committee's Continuing Education Program offers its third module—Committee Management and Procedures—on June 3 and 4, directed by Dr. Mischa Friedman, DRG.

Topics to be discussed include the establishment and evolution of councils, review committees, organization and operation, and committee processes.

Employees involved in the extramural and collaborative areas of NIH are eligible to apply.

Registration deadline is April 30. Applications for the module—limited to 30 participants—may be obtained by calling Ext. 64777.

Dr. Medvedev to Lecture On Longevity of People In Soviet Mountain Areas

Dr. Zhores A. Medvedev, an expert in protein biochemistry and genetics, will deliver a lecture entitled Caucasus and Altay Longevity Areas—Biological or Social Phenomenon? at noon on Tuesday, April 30, in the Masur Auditorium. Dr. Medvedev is at NIH as a visiting scientist.

He came here from London where he is a visiting scientist with the department of genetics, National Institute for Medical Research.

Dr. Medvedev received his senior scientist degree in biochemistry from Timiriasev Agricultural Academy in Moscow.

NICHD's Gerontology Research Center is sponsoring the lecture.



EXPLORING—On April 3, over 200 members of the National Association of Medical Explorers, a career-oriented association sponsored by the Boy Scouts of America, visited NIH. The membership of 35,000—of which more than one-third are girls—in 1,400 posts, is comprised of junior college and college students aged 17-21. Individual interests include preparation for many health-related careers: medical doctors, veterinarians, nurses, dentists, etc. Already the second largest Boy Scout group, the national program receives grant support from the American Medical Association, and has approval and sponsorship from the American Dental Association, the American Hospital Association, and several similar groups. Left: Dr. Robert S. Stone, NIH Director, points out interesting

aspects of the campus to (l to r) Julia Ford, Nashville, Tenn., NAME program vice chairman; Kathryn O'Moore, Burlingame, Calif., NAME secretary; Aaron Jorgenson, Bloomington, Minn., NAME chairman, and Edwin F. Smith, Denver, Colo., assistant director of field services, AMA. Center: Ms. Ford presents Dr. Stone with a NAME booklet and badge adopting him as an honorary member. Following an address by the NIH Director, the Explorers divided into eight workshops to visit various areas of interest. At the Division of Computer Research and Technology workshop, Richard Feldmann, computer specialist, explains the role computers play in scientific studies.