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HEALTH, EDUCATION, AND WELFARE

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PUBLIC HEALTH SERVICE

Louise Anderson Is New Chief of CC Nursing Dep't

Appointment of Mrs. Louise Carlson Anderson as Chief of the Nursing Department of the Clinical Center was announced April 18 by Dr. James A. Shannon, Director of NIH. She succeeds Miss Ruth L. Johnson who transferred May 1 to the Public Health Service's Division of Nursing in the Bureau of State Services.



Mrs. Anderson is nationally known in the field of nursing. She joined the Public Health Service in 1955 and was appointed Assistant Chief of the Department she now directs. She achieved her present rank of Nurse Director in the PHS Commissioned Corps in 1958.

Has Administrative Experience

Prior to coming to NIH Mrs. Anderson had held a number of teaching and administrative posts in universities and hospitals in the East. After completing one year as Assistant Director of Nursing at Allegheny General Hospital in Pittsburgh, she was Director of Nursing there from 1944-1954.

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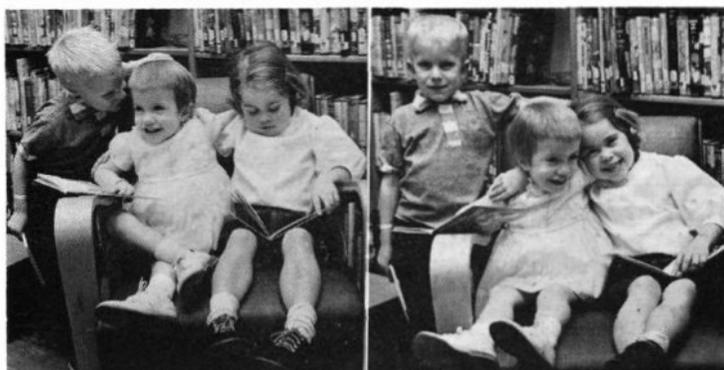
Lung Cancer Death Rate Per 100,000 Of Women Smokers Is 101; Men, 393

A Public Health Service study of 683 women has shown a lung cancer death rate of 101.4 per 100,000 population for female smokers. Earlier data for male smokers have established a lung cancer death rate of 392.8.

The present study also reveals that for female non-smokers, the lung cancer death rate is 9.4, compared to 12.5 for male non-smokers. This difference by sex is in line with that for most causes of death.

These and other findings were obtained in a survey of lung cancer mortality as related to resi-

MALE COMMENT GIVES THE GIRLS A LAUGH



In the Patients' Library during an open house April 15 in observance of National Library Week, these children patients of the Clinical Center relax with Mother Goose and Jack and the Beanstalk. At left, William ("Boo") Rockwell of Bedford Village, N. Y., gains the ear of Brenda Fearnow of Williamsport, Md., with a choice literary comment. This, says Brenda, is too good to keep, and passes it on to her friend Diana McMillan of East Lansing, Mich., who leaves her reading long enough for a good laugh. "Boo," meanwhile, basks in the ego's glow.—Photos by Bob Pumphroy.

29 NIH Employees to Receive \$3,899 At Annual Awards Ceremony May 19

Awards winners' pictures will appear in the next issue of the Record.

Twenty-nine employees will receive cash awards totaling \$3,899 in recognition of meritorious service at the Thirteenth Annual NIH Awards Ceremony to be held Tuesday, May 19, at 3 p. m. in the Clinical Center auditorium.

In observance of this tenth anniversary year of the Incentive Awards Act, the guest speaker at the NIH ceremony will be John D. Roth, Director of the Federal In-

centive Awards Program of the U. S. Civil Service Commission.

Master of Ceremonies will be Dr. Roger L. Black, Assistant to the Director of Laboratories and Clinics and Chairman of the NIH Board on Employee Awards, who will deliver the welcoming address.

The awards will be presented by Dr. Robert H. Felix, Director of the National Institute of Mental Health.

26 Get Cash Awards

Twenty-six of this year's 29 cash awards go to individuals. The remaining three will be recipients of a group award.

Of the total, 16 are for Sustained Superior Work Performance, eight (including the group award winners) are for a Special Act or Service, and five are for Beneficial Suggestions.

In addition, one employee will receive an Outstanding Perform-

(See AWARDS CEREMONY, Page 8)

Dr. Rubin Tells of Viral Approach to Cancer Research

The unique properties of an animal cancer virus are yielding powerful clues toward understanding how cancer transforms living cells.

Some advantages for this viral approach to basic cancer questions were suggested by Dr. Harry Rubin, Professor of Virology of the University of California at Berkeley, who delivered the 13th R. E. Dyer Lecture here last Wednesday.

RSV Isolated in 1910

In his lecture, titled "The Malignant Transformation of Cells by Viruses," Dr. Rubin told of recent research with the Rous sarcoma virus (RSV), the first to be isolated (in 1910) among the animal tumor viruses and well known as the experimental cause of internal cancerous growths in chickens and certain other birds.

This virus is almost invariably carcinogenic when it infects cells. New and highly unusual facts

Overflow attendance at this Dyer lecture was directed to the Clinical Center's 14th floor auditorium for closed circuit TV coverage. For the first time, special sensitive television equipment permitted transmission of a good image of the speaker and his slides. The special TV equipment permitted operation of a camera with one-tenth the amount of light previously required.

about RSV have come to light only recently, Dr. Rubin said.

Interest centers on the fact that the virus is "defective" and needs a "helper" virus in order to reproduce—a discovery announced last year by Dr. Rubin and co-workers.

Most recently, a scientist at the Sloan-Kettering Institute showed that RSV can induce cancer in infant monkeys, thus becoming the first known viral agent in primate animals.

Dr. Rubin noted that RSV stands alone among viruses in having only one known action: the malignant

(See DR. RUBIN, Page 4)

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NEWS from PERSONNEL

SUMMER EMPLOYMENT

Summer employment programs at NIH for the coming season will be geared to utilization of several categories of personnel: science students, science teachers, persons qualified in the clerical, typing and stenographic fields, and student assistants.

The program for use of science students is part of a nationwide program, supported by grants from the National Science Foundation and administered in this area by American University. Eight superior ability high school science students have been selected under this arrangement for work in NIH laboratories this summer.

Related Program Provided

A related work-study program also is provided for high school science teachers. Selections of these faculty members will be made early in May. NIH staff members interested in serving as preceptors for such personnel should contact their Institute/Division Personnel Officer.

In the general clerical, typing and stenographic area, positions must be filled under regulations prescribed by the Civil Service Commission. Basic requirements are that applicants pass the appropriate examination and be selected in order of their ratings.

Institutes and Divisions having positions requiring college-trained students in bio-medical and related fields may use student assistants to fill these needs for the summer.

Student assistant positions are filled by priority groupings, i.e., amount of academic work completed, and college major. First consideration is given to graduate students and those who have com-

List of Latest Arrivals Of Visiting Scientists

3/30—Dr. Pentti K. G. Valleala, Finland, Research in the Laboratory of Clinical Science. Sponsor: Dr. Edward V. Everts, NIMH, Bldg. 9, Rm. 148.

4/1—Dr. Michael Philip Alpers, Australia, Research on the Clinical and Epidemiological Aspects of Kuru. Sponsor: Dr. D. Carleton Gajdusek, NINDB, Bldg. 8, Rm. 100.

4/17—Dr. Shlomo Ben-Efraim, Israel, Research in the Laboratory of Immunology, Section on Allergy and Hypersensitivity. Sponsor: Dr. Sanford H. Stone, NIAID, Bldg. 10, Rm. 11D14.

4/21—Dr. Mihir Ranjan Banerjee, India, Research in the Carcinogenesis Studies Branch, Bioassay Section. Sponsor: Dr. Michael Klein, NCI, Nave Bldg., Rm. 2B09.

Personnel in Rental Buildings Told How to Phone for Aid

Fire Marshal Kenneth W. Gettings of the NIH Fire Department, PSB, reports that apparently some confusion exists among NIH personnel located in rental buildings in Montgomery County as to how to dial for help in the event of fire or emergencies requiring an ambulance.

Off-reservation personnel needing such assistance, he said, should dial 9, then 424-3111.

pleted their junior or senior year.

SF 52's for summer vacancies in the latter two categories, and any applications for these types of employment that inadvertently have not yet been forwarded to PMB, should be sent immediately to the Operations Unit, Recruitment and Placement Section, Rm. B1B23, Bldg. 31.

Dr. Weiger Directs Program Designed To Discover Science Administrators

Dr. James A. Shannon, Director of NIH, has appointed Dr. Robert W. Weiger Special Assistant to the program that will identify scientists the scientific community who may find career satisfaction in the broad fields of science administration.

Dr. Weiger, who is Assistant Director of the National Cancer Institute, will continue in that capacity while working as Dr. Shannon's Special Assistant in Building 1.

Dr. Weiger will serve as a focal point for scientists who have a potential for leadership who might not otherwise come to the attention

of top NIH staff. In addition, he will be responsible for drafting long-range plans for encouraging scientists with potential executive abilities and talents.

In announcing Dr. Weiger's assignment, Dr. Shannon said: "The success of NIH—our success in utilizing the public funds entrusted to us—is going to be determined by our ability to attract and identify scientists who have progressed in their careers to the point where they are equally interested in and concerned with the generalities of science as they are in its specifics."

Dr. Weiger's activities will complement the formal activities of the Personnel Management Branch.

"They will, in effect, aid and supplement ongoing personnel functions," he said, "by helping to overcome the present shortages in this professional area."

Dr. Weiger, 35, joined NIH in 1956 as a Clinical Associate with NCI, then completed his training in Internal Medicine, and was named Assistant Director of the Institute in 1962. He received his M.D. degree from Northwestern University in 1955.



Dr. Robert W. Weiger (right), recently named a Special Assistant to Dr. James A. Shannon, NIH Director, confers with him on problems involved in the area of science administration.—Photo by Sam Silverman.

66 Percent Participate in NHA-FSJC Campaign

The National Health Agencies-Federal Service Joint Crusade Campaign at NIH ended April 24 with employee participation of 67.5 percent in the NHA and 64.2 percent in the FSJC. Number of contributions totalled 6,224 and 5,918, respectively.

Three reporting units were successful in reaching the goal of 100 percent participation: the NIH Federal Credit Union, Division of Research Facilities and Resources, and Division of Research Services. Other high units were NICHD with percentages of 98.7 and 93.8, NIGMS with 86 and 84 percent, and DRG with 85.4 and 83 percent.

Dr. Endicott expressed his gratitude to division chairmen and keymen for their invaluable service during the recent weeks.

"The final campaign figures are gratifying," he said, "but the aid our contributions will carry to those in desperate need gives us a much stronger feeling of ac-

complishment. Thank you for making this possible."

Only two Institutes finished with less than 50 percent participation—National Institute of Mental Health and National Institute of Allergy and Infectious Diseases.

The campaign had been extended beyond the original closing date of April 15.



Dr. Kenneth M. Endicott, NCI Director (left), and Dr. Robert H. Felix, NIMH Director, Chairman and Vice Chairman, respectively, of the 1964 NHA-FSJC Campaign, help tabulate final returns in the drive that ended April 24. Their assistants are Beverly Scheer (left) and Jackie Tavenner.—Photo by Bob Pumphrey.

Virginia Ballet Performs

The Virginia Ballet Company will give a performance in the Clinical Center auditorium next Tuesday, May 12, at 7:30 p.m. for Clinical Center patients. NIH personnel are cordially invited to attend.

NIAMD Scientist Shows Propane Gas 'Unsickles' Sickled Red Blood Cells

A National Institute of Arthritis and Metabolic Diseases scientist has shown that propane gas "unsickles" the red blood cells characteristic of sickle-cell anemia.

This phenomenon, which occurs because of an alteration of an intra-molecular bond, illustrates the sub-molecular mechanisms involved in sickling and unsickling.

In sickle-cell anemia—an inborn error of metabolism—red blood cells, after releasing oxygen, are distorted to a rigid, crescent-like shape. They then often accumulate, thus obstructing blood capillaries and causing the tiny infarctions, the periodic hemolytic crises and anemia characteristic of the disease.

These cells contain a genetically altered, abnormal type of hemoglobin. It is known that the only chemical difference between normal hemoglobin (Hb-A) and the sickle-cell hemoglobin (Hb-S) is in the substitution of the amino acid valine for the normally present glutamine in the two beta chains of the molecule.

Mechanism Proposed

Two years ago the investigator proposed a sub-molecular mechanism for sickling based on the fact that within the Hb-S molecule, two beta chains apparently form a hydrophobic bond at the location of the two abnormal valines.

This introduces a distorting structural alteration, and the sickle-cell hemoglobin molecules stack up along their long axis causing the cell to twist into its sickled shape.

The investigator has now succeeded in showing that, following *in vitro* exposure to propane, red blood cells of sickle-cell patients fail to form the sickle shape. In addition, propane treatment will unsickle cells already sickled.

The scientist chose propane because of its structural similarity to valine. Propane treatment transfers the abnormal intramolecular valine-valine bonding to propane, altering the distorted Hb-S structure, crumbling the vertically stacked Hb-S molecules, thus unsickling the cell.

A report of this work by Dr. Makio Murayama of NIAMD's Laboratory of Physical Biology was presented in a paper at the 48th Annual Meeting of the Federation of American Societies for Experimental Biology in Chicago last month.

Although clinical use of propane gas is not conceivable in the treatment of sickle-cell anemia, the work of Dr. Murayama has further clarified the fundamental mechanism underlying this disease.

Needy, Lonely Patients Here Benefit From Welfare Fund

The 11-year-old boy, a victim of leukemia, sat quietly in his bed in the Clinical Center a great deal of the time. He was always a "good" patient. But the hospital staff knew that his parents, who lived at a distance, had been unable to visit him for many weeks. In a strange building in a strange city, home and familiar faces seemed thousands of miles and ages away.

What could cheer up such a lonely child? Toys might help, briefly. Perhaps even more, a phone call home would do it, bringing loved voices into his new hospital world.

That call was made—with assistance from the Patients' Welfare Fund. Later, the boy was given an allowance of \$3 each week to spend as he pleased. The greater part of this money went for telephone calls home, and the boy's life became more normal. The once overwhelmingly large, unfamiliar hospital seemed smaller and friendlier.

Fund Aids Families

It is heartwarming to learn from members of the Social Work Department, which administers the Clinical Center's Patients' Welfare Fund, how much of human value is accomplished with so little in monetary value.

"The Fund," established 10 years ago to assist Clinical Center patients and their families who are under serious financial and emotional stress, is maintained entirely by voluntary support.

The greater share is provided by contributions from the NIH Recreation and Welfare Association. But a significant part of the bal-

ance comes from NIH employees, individually and in groups, and from former patients and their grateful relatives and friends. The Fund helps in many ways to provide for patient needs that regular appropriations cannot cover.

High Morale Important

High morale and mental well-being are important to hospital treatment and thus to the success of research studies. Therefore, visits by friends and relatives of patients well enough to receive them are always encouraged, particularly for children patients. For this reason the Fund is often used to provide transportation and local room and board for relatives not financially able to visit patients.

For example, a 3-year-old girl who had spent most of her short life in a convalescent home was admitted to the Clinical Center for treatment of a heart defect. Doctors had little hope for the success of even a temporary corrective operation on one so young, but they also knew the child could not live long if an operation was not attempted.

The little girl was sad and lonely and cried at night for her parents. But with seven other children at home, her parents could not afford to make the trip to Bethesda.

(See WELFARE FUND, Page 6)



Elizabeth Schumann of the Clinical Center Social Work Department (left) discusses housing arrangements with Mrs. James Ellis of Sellersburg, Ind., whose young daughter, Janet, has just been admitted to the Clinical Center. Patients appreciate having a relative nearby for a few days while they adjust to hospitalization. When children patients are seriously ill, their parents often rely on Patients' Welfare Fund for visits here.—Photo by Bob Pumphrey.

Dr. Benjamin T. Burton Named Assoc. Director For NIAMD Program

Dr. G. Donald Whedon, Director of the National Institute of Arthritis and Metabolic Diseases, recently announced the appointment of Dr. Benjamin T. Burton as Associate Director for Program Analysis and Scientific Communications.



Dr. Burton

In his new post, Dr. Burton will direct a program for analysis and evaluation of policies and programs of the Institute, which is responsible for research and nationwide support of research and training in arthritis, diabetes and other metabolic diseases, gastroenterology, urology, endocrinology, diseases of the skin, liver, bone and blood, nutrition, and related basic biological sciences.

Effectiveness Increased

He will also direct NIAMD's scientific and technical communications to biomedical research workers and physicians. This newly created office is designed to strengthen the Institute's effectiveness in conducting and supporting biomedical research.

Well known for his work in nutrition, Dr. Burton joined NIH in 1960 as Special Assistant to the NIAMD Director. Prior to joining the U. S. Public Health Service, he served as Technical Director and Vice President of the Pacific States Laboratories, Inc., and as Staff Consultant in Nutrition for the H. J. Heinz Company.

Dr. Burton was graduated from the University of California at Berkeley in 1941. He received his M.S. in 1943 and his Ph.D. in 1947 at the University of California in biochemistry and microbiology. In 1961 he was certified as Specialist in Human Nutrition by the American Board of Nutrition.

Work Is Recognized

Dr. Burton, who has received special recognition for his work in infant nutrition and nutrition for the elderly, was a member of the Technical Advisory Group of the Committee on Nutrition of the American Academy of Pediatrics. He was also a member of the Medical Research Committee in Gerontology for the White House Conference on Aging in 1961.

Dr. Burton is the author of numerous scientific papers on nutrition and of technical and educational monographs in the field of public health. In 1959 he wrote a textbook on human nutrition in health and disease which has received world-wide recognition.

DR. RUBIN

(Continued from Page 1)

transformation of cells.

Other so-called tumor viruses more often kill cells; or they may exist harmlessly in cells except for a rare malignant change.

The importance of RSV's invariable carcinogenic effect lies in the potential value it may have to researchers interested in many aspects of basic cancer processes.

Dr. Rubin pointed out that a big barrier to progress in understanding cancer has been the lack of an adequate experimental system to study malignant changes in cells.

Studies conducted in living animals, for example, are complicated by the complexity of the animal's own body.

On the other hand, the researcher can now grow many generations of chick embryo cells in a culture solution outside the body and under strictly controlled conditions.

RSV Transforms Cells

And by adding RSV he can cause the malignant transformation of almost all the cultured cells within two days—a procedure that is so far not possible with any other carcinogenic agent. In this way the carcinogenic change can be continually observed and recorded.

The "defectiveness" of RSV is also unique among animal viruses, Dr. Rubin said, and it shows itself in a surprising way.

In effect, RSV is a viral wolf in sheep's clothing.

Like most other viruses, it has a core of genetic material (the "genome" made up of nucleic acid) and an outer coating of protein.

But unlike most other viruses, RSV has no distinctive protein coat of its own, Dr. Rubin said. Instead, it borrows the coat from its "helper" virus—one of the avian leukosis viruses (which are also known as chicken leukemia viruses).

Wears Protein Coat

Thus it appears that each RSV particle approaches a cell wrapped in the protein coat of a "harmless" leukosis virus.

But once the virus is attached to the cell wall, the RSV genome begins its work and the cell becomes malignant.

And as the cell divides to form a malignant "daughter" cell, the RSV genome can also divide and be passed on to the daughter cells.

However, it cannot make a complete virus particle which includes the coat, unless an avian leukosis virus is present in the same cell.

Therefore, it cannot be identified as a virus in the electron microscope, nor can it infect another animal until it gets its coat.

It is possible to infect cells which are normally resistant to



Chris A. Hansen, Chief of the Division of Research Services, points to an enlarged aerial photo in describing the NIH grounds to a group of scientists and educators who are surveying the use of audio-visual aids in the U. S. From left foreground: Mr. Hansen, Dr. Brynmor Jones, Prof. E. W. Parkes, and Prof. Humphrey Davies.—Photo by Sam Silverman.

RSV by merely giving the virus a different coat.

This indicates that resistance of an animal to this virus is determined by whether the virus can attach to and penetrate within the cells of the animal.

It must now be determined whether the newly acquired property of some RSV strains to cause cancer in mammals is due to a change in its coat.

There is some suggestion that the defectiveness of RSV is related to its inevitable carcinogenic effect. This question is presently under intensive investigation.

New Insights Expected

If suggestion is confirmed, it can be expected to yield some completely new insights about the way in which a virus causes a cell to become cancerous.

In closing, Dr. Rubin cautioned against falling prey to the sanguine view fostered by some groups, that a complete understanding as well as a cure of cancer lies near at hand.

"It is sometimes assumed that if we know how the genetic material of the cell functions," he said, "we will also know how cancer is caused, and since we are learning much about the former we are also learning an equal amount about the latter.

"This is merely wishful thinking. The systems for studying the carcinogenic process are only now reaching the same level of precision that those used in studying genetic processes attained over twenty years ago.

"It may require years of manipulation and study of these systems before we achieve a secure understanding, to say nothing of a cure, of cancer. We must be satisfied, not with miracles, but with the steady and sure progress which is reality."

Britons Survey Use of Audio-Visual Aids Here For Teaching, Research

A group of distinguished educators and scientists from Great Britain recently toured the Medical Arts and Photography Branch as part of an international survey of the use of audio-visual aids in teaching and research.

Appointed by the University Grants Committee, the Ministry of Education (representing England and Wales), and the Scottish Department of Education, this group is surveying the current use of audio-visual aids in teaching and research in the pure and applied sciences in institutions of higher education in Great Britain, the United States, and Western Europe.

They will assess the potential usefulness and possible lines of development of audio-visual aids in Great Britain and recommend areas in which these activities could be effectively supported.

Hansen Gives Orientation

During their NIH tour, Chris A. Hansen, Chief of the Division of Research Services, gave them a general orientation to NIH and explained the concept of central research services, of which MAPP is a part.

Dr. Malcolm Ferguson, Chief of MAPP, made arrangements for the visitors to see typical examples of audio-visual work here, including publications design, 8 mm. film experimentation, scientific photography, exhibits preparation, and a demonstration of closed circuit television.

This team visiting the United States consisted of Dr. Brynmor Jones, Chairman and Vice-Chancellor of Hull University, Prof. E. W.

NIH Researchers Participating in ASM Meeting

NIH scientists from six Institutes, one Division, and the Clinical Center will present 28 research papers and participate in various panel discussions during the 64th annual meeting of the American Society for Microbiology now in progress at the Sheraton-Park Hotel in Washington, D. C.

The 4-day scientific program, which concludes Thursday, May 7, consists of 98 sessions and includes a series of special round-table discussions.

Topics Are Listed

Topics to be covered are "Microbiology in Developing Nations," "Sterilization and Quarantine in Space," "Antibiotic Residues in Tissue," and "Microbial Insecticides."

Some 4,000 ASM members and their families are attending the meeting. Among the noted speakers and guests are a number of internationally famous scientists, including several Nobel Prize winners.

Prof. R. R. Porter, leading British immunologist, presented the Office of Naval Research Lecture at the official opening session Sunday evening.

Dr. Porter, who heads the Department of Immunology at the Wright-Fleming Institute of Microbiology, St. Mary's Hospital Medical School, in London, discussed "The Chemical Structure and Biological Activities of Antibodies."

Headquarters Dedicated

Immediately preceding the ASM meeting, the American Type Culture Collection marked the dedication of its new headquarters building at 12301 Parklawn Drive, Rockville, Md., with a 2-day symposium at the Shoreham Hotel on May 1 and 2.

Dr. Colin M. MacLeod, Director of the Office of Science and Technology in the Executive Office of the President, gave the principal address.

Parkes, of the Mechanical Engineering faculty at the University of Leicester; Prof. Humphrey Davies, of the Electrical Engineering faculty at the University of London; A. Barclay, Vice Principal of Moray House College of Education, Edinburgh, and A. J. Mee of the Scottish Education Department.

While in Washington, the group also visited Walter Reed Hospital, the National Education Association, the Naval Medical Center, and the Federal Communications Commission.

MRS. ANDERSON

(Continued from Page 1)

During that period she also served as Special Instructor in Nursing Service Administration at Duquesne University.

She held the position of Instructor in Nursing at St. Lukes Hospital in Cleveland from 1942-1943, at Allegheny General Hospital from 1938-1942, and at Simmons College in Boston in 1937.

In her present assignment Mrs. Anderson will direct a broad program of nursing service for the seven National Institutes of Health that conduct clinical investigations in the 516-bed Clinical Center.

The Nursing Department she will head includes 10 nursing sections, with a staff of over 500, which provide the highest standards of care for a wide variety of research patients.

Conducts Training Programs

The Department also conducts pre-service and in-service training programs for all categories of nursing personnel as well as a program of research in nursing.

Mrs. Anderson received a B.Sc. in Nursing Education from Simmons College in 1936, and earned her M.S. degree from the University of Pittsburgh in 1948. She is a graduate of Massachusetts General Hospital Training School for Nurses and is a native of Pennsylvania.

Mrs. Anderson is active in the American Nurses Association, the National League for Nursing, and the Massachusetts General Hospital Nurses' Alumnae Association. She is the author of a number of articles on nursing administration and the nurse in research which have appeared in various professional journals.

Cardiac Symposium Here May 21 to Draw 300

"New Methods in Cardiac Evaluation" will be the theme of the Fifth Annual Cardiac Symposium, to be held in the NIH Clinical Center auditorium May 21.

More than 300 physicians from the Montgomery County area are expected to attend the meeting, sponsored by the Medical Advisory Committee of the Montgomery County Tuberculosis and Heart Association.

Dr. Louis Gillespie, Jr., of the National Heart Institute, will moderate a panel discussion concerning transplantation of kidneys in man.

Dr. John B. Hickam, a member of the National Advisory Heart Council, will speak on "Effect of Tobacco in the Cardiovascular System."

Ruth Johnson Transfers to BSS, Wins Honor for Direction of Nursing Here

Miss Ruth L. Johnson, Chief of the Nursing Department of the Clinical Center, was awarded the Meritorious Service Medal of the Public Health Service at a farewell reception in the Clinical Center April 17, marking her transfer to the Bureau of State Services, PHS, as a Nursing Consultant. The presentation was made by Deputy Surgeon General David E. Price.

The Meritorious Service Medal was awarded to Miss Johnson, Nurse Director in the PHS Commissioned Corps, for her "superior quality work performance throughout her career in the Public Health Service" and for her outstanding achievements on the planning, organizing, and administering of the nursing program of the Clinical Center, the Service's first hospital for clinical research.

Maintenance of the highest standards of patient care, the development of pre-service and in-service education programs for nursing personnel, and a program of research in nursing methods of care and observation of patients were cited as examples of Miss Johnson's many accomplishments at the Clinical Center.

Serves as Consultant

Miss Johnson has been in the Public Health Service since 1944. She began as an associate consultant to assist the Service with the development and administration of the Cadet Nurse Corps and later became a full consultant of this program at the PHS Regional Office in Chicago.

As Director of Nursing at the PHS Hospital in Boston, she reorganized the nursing service there, and then took leave to earn a Master's degree in Nursing Service Administration from the University of Chicago.

In 1950 she became Director of Nursing at the PHS Hospital in San Francisco but was reassigned in 1952 to become Assistant Chief and then Chief of the Nursing Section of the National Institutes of Health Research Facilities Planning Branch which later became the Clinical Center Nursing De-



Ruth L. Johnson, Chief of the Nursing Department of the NIH Clinical Center, receives the Meritorious Service Medal of the Public Health Service from Deputy Surgeon General David E. Price at a farewell reception in her honor.—Photo by Jerry Hecht.

partment.

Miss Johnson first planned and later administered the unique nursing program at the Clinical Center, a program which had no precedent, either in or out of the PHS.

In addition to her duties at the Clinical Center, Miss Johnson has served in several PHS activities including the Interagency Committee to review Civil Service classification and qualification standards for nurses and assistants, the advisory committee to the Office of Personnel on recruitment and placement, and the Executive Committee of the Chief Nurse Officer.

In her new assignment as a Nursing Consultant in the Division of Nursing, Bureau of State Services, Miss Johnson will conduct studies of nursing methods and provide consultation on hospital nursing administration.

men smokers.

There is no evidence that in females the effects of urban residence and excessive smoking enhance one another. In men, the combined effect of excessive smoking and urban residence is greater than expected.

Future investigations are planned in which detailed information will be collected on such aspects of cigarette smoking as brand preference and age at which the habit was established.

Mr. Haenszel and Mr. Taeuber believe that such information will make it possible to measure more precisely the degree of smoking exposure for each person studied.

Committee Is Established To Review Applications For Construction Grants

A Scientific Review Committee composed of nationally known scientists has been established by the Public Health Service to review applications for research construction grants and to make recommendations to the National Advisory Council on Health Research Facilities. The council, in turn, makes recommendations to the Surgeon General for action on these grant applications for matching funds for research construction.

Announcing the appointment of the committee, Dr. Frederick L. Stone, Chief of the Division of Research Facilities and Resources, said:

"Today, most research facility applications are for large-scale construction, often designed to house hundreds of scientists and supporting staff. Another development has been the request for specialized types of health research facilities such as radiation centers, biotrons, and high altitude chambers.

"These factors have vastly complicated the review of health research facility applications and have limited the ability of the council to give consideration to pressing policy matters of national interest in the Public Health Service's research construction program.

"With the appointment of the new committee, the council will be able to give more attention to considerations such as the impact of the 8-year-old research construction program on institutions and regions."

Committee Members Listed

Chairman of the new Scientific Review Committee is Dr. Louis B. Flexner, Chairman, Department of Anatomy, University of Pennsylvania School of Medicine. Other members are Dr. Frank J. Dixon, Head, Experimental Pathology, Scripps Clinic and Research Foundation; Dr. Klaus Hofman, Chairman, Department of Biochemistry, University of Pittsburgh School of Medicine; Dr. William D. Holden, Chairman, Department of Surgery, Western Reserve University School of Medicine.

Also Dr. Carl L. Larson, Director, Stella Duncan Memorial Institute, Montana State University; Dr. Ernest W. Page, Chairman, Department of Obstetrics and Gynecology, University of California Medical Center; Dr. Edmund D. Pellegrino, Chairman, Department of Medicine, University of Kentucky Medical Center; and Dr. D. C. Tosteson, Chairman, Department of Physiology and Pharmacology, Duke University Medical Center. Additional appointments to the committee will be made in the next six months.

LUNG CANCER

(Continued from Page 1)

cancer in the United States during 1958-59.

In general, findings for females agree with the earlier ones for males. For example, the more women smoke, the greater their chance of developing lung cancer; and the risk is greatest for heavy smokers who move frequently and for the foreign-born settling in large cities. However, place of residence does not seem to play as important a role in determining lung cancer risk for women as for

Dr. Shannon to Receive Swedish Honor May 29

Dr. James A. Shannon, Director of NIH, will be the recipient of an honorary Doctor of Medicine degree on May 29 from the famed Karolinska Institutet in Stockholm, Sweden.

In his letter to Dr. Shannon, Dr. Sten Friberg, Rector of the Institute said, "The degree is a modest expression of our deeply felt appreciation of the generous support, given through years to Swedish medical research."

Dr. Shannon plans to fly to Stockholm to accept the honorary degree which will be presented at ceremonies to be held in Stockholm's Town Hall.

WELFARE FUND

(Continued from Page 3)

With help from the Patients' Welfare Fund, the parents made the trip and stayed with the child before and after surgery. The operation, happily, was successful.

Although this youngster will return to NIH for more permanent open-heart surgery when she is older, she has been home now for six months, the longest period of time she has ever spent with her family.

Visits President's Grave

Other activities supported by the Fund recently included a visit to the grave of President Kennedy by an 18-year-old Eskimo girl patient who wanted this above all other things. In another instance, a woman who had been admitted for study of a fungal infection gave birth to the only child ever born at the Clinical Center. The Fund supplied a layette and other baby-care items.

At Christmas the Fund often helps parents faced with financial problems in purchasing gifts for their children patients, and throughout the year it helps provide special toys needed in play therapy.

These are a few examples of the many and varied uses of the Patients' Welfare Fund. But not only the financially needy receive attention. Token gifts may be given to any patient any time of the year to boost the morale of the lonely or despondent.

Gifts Boost Morale

One woman was cheered immeasurably by a box of personalized stationery; others have assumed a new outlook on life after an hour in the Clinical Center Beauty Salon.

According to Miss Ellen Walsh, Clinical Center Social Work Department Chief, over 25 percent of Clinical Center patients receive help each year from the Fund, but the increasing number of activities

Scientists Report That Substance Found In Shellfish Possesses Antiviral Activity

Scientists of the National Institute of Allergy and Infectious Diseases and the Division of Biologics Standards recently reported that a substance found in common shellfish possesses definite antiviral activity.

Treatment with a substance isolated from oysters, the scientists said, reduced the death rates of mice infected with poliovirus type I and influenza B virus. They also revealed that this same substance inhibited the growth of herpes simplex virus in rabbit monolayer tissue culture.



This abalone, lying on its shell side, is one of the shellfish from which NIH scientists have isolated paolin, the substance found to have antiviral activity. Pearls, also a by-product of the abalone, are visible at right.

and areas of service, plus increased costs, have made it necessary to spread the money thin.

NIH employees have contributed generously to the Fund in the past and Miss Walsh knows they will continue to do so. They have often used novel and interesting ways to make donations.

Some volunteer their services for certain laboratory research studies and donate their compensation to the Fund. Professional staff members often give honorariums received from lectures or donate royalties from books they have written.

Christmas Donations Cited

Others make joint contributions to the Fund instead of exchanging gifts and cards during the Christmas season. In this way employees of OAM's Supply Management Branch, the Division of Biologics Standards, and the National Cancer Institute contributed substantial amounts last Christmas.

Some NIH personnel have adopted the "birthday-in-reverse" idea, making donations to the Fund each year on their birthdays.

All of these contributions are deeply appreciated and carefully used. But a large amount of money is needed to continue the many services now provided. Recently it has been necessary to curtail some of the services for lack of funds.

Employees who are interested in making a contribution to the Patients' Welfare Fund may do so at any time. It is recommended that checks be sent in sealed envelopes by inter-office mail to Rm. 1N250, Bldg. 10. However, cash may be sent from areas served by the pneumatic tube system to Tube Station AU-1.

These findings were reported at the April meeting of the Federation of American Societies for Experimental Biology in Chicago by Dr. Benjamin Prescott and George Caldes of the Laboratory of Infectious Diseases, NIAID, and Dr. C. P. Li and E. C. Martino of the Laboratory of Virology and Rickettisiology, DBS.

Both antiviral and antibacterial in action, the substance was first observed in 1960 by Dr. Li when mice fed with canned abalone juice exhibited a remarkable resistance to experimental poliomyelitis.

Recent findings show that these substances, termed "paolins" by the researchers, seem to be a normal constituent of water or acetic acid extracts of all the mollusk species thus far studied.

Found in Other Mollusks

Paolins have been isolated from the clam, sea snail, queen conch and squid, in addition to the abalone and oyster.

The successful isolation of a paolin from oysters as a pure homogeneous substance was effected by precipitation of acetic acid extracts with alcohol, thereby concentrating active paolin into a single fraction. The product is a white powder, water-soluble, non-dialyzable, and heat stable.

Agents inhibiting virus are not of common occurrence and most of those previously reported, for various reasons, are not in use for the treatment of disease in man.

Since shellfish are readily available, laboratory studies to expand the present observations seem warranted and will be carried on at the National Institute of Allergy and Infectious Diseases and the Division of Biologics Standards.

R&W Sponsors Showing Of Movie on May 9, 10

"Escape from East Berlin," starring Don Murray, will be next in the cinema series sponsored by the Recreation and Welfare Association of NIH. As an extra added attraction, a cartoon featurette, "Adventures of a Road Runner," is also on the program.

Screenings are scheduled for this Saturday and Sunday, May 9 and 10, at 8 p.m. in the Clinical Center auditorium. NIH employees, patients, and friends are invited to attend. Admission is free.

Dr. James E. Birren Is Named Director of NICHD Aging Program

The appointment of Dr. James E. Birren as Director of the Aging Program of the National Institute of Child Health and Human Development was announced recently by Dr. Robert A. Aldrich, Director of the Institute.



Dr. Birren

Dr. Aldrich said that Dr. Birren, a pioneer investigator in the field of aging, would be responsible for all research and training activities conducted and supported by NICHD for the study and understanding of the processes of aging, including both the intramural and extramural activities.

"These efforts," he pointed out, "will be directed at all aspects of aging research and training, including cellular and comparative biology, human physiology, behavioral sciences, and social gerontology."

The overall objective of the NICHD Aging Program is a comprehensive national effort in gerontology aimed at understanding the biological, behavioral, and social changes that take place in a cell, a tissue, an organ system, a total individual or group of individuals with the passage of time.

Serves With NIMH

Widely recognized as one of the leading scientists in the aging research field, Dr. Birren has served in the Public Health Service since 1944. For the past 11 years he has been Chief of the Section on Aging, Laboratory of Psychology, National Institute of Mental Health.

He was editor of the Handbook of Aging and the Individual: Psychological and Biological Aspects, published in 1959, and was an editor of Human Aging: A Biological and Behavioral Study, published last year. His most recent volume, The Psychology of Aging, is a textbook. He is co-editor of Behavior, Aging, and the Nervous System, as well as editor of Relations of Development and Aging, now in press.

Prior to becoming Chief of the NIMH Section on Aging, Dr. Birren was a research psychologist with that Institute from 1951 to 1953, and served in a similar capacity with the National Heart Institute's Gerontology Branch from 1947 to 1951. He was a research fellow at NIH in 1946 and 1947.

Dr. Birren, a native of Chicago, earned his B.Ed. degree from Chicago Teachers College in 1941. He received his M.A. and Ph.D. degrees from Northwestern University.

ASFA Meets May 11-13 On New Uses of Films In Research, Teaching

Science film makers from the United States and abroad will converge on Washington next week, May 11-13, for the annual meeting of the American Science Film Association. They will report on new uses of the motion picture 1) as a research tool, 2) for reporting research results, and 3) for science education.

Dr. Malcolm Ferguson, Chief of the Medical Arts and Photography Branch at NIH and General Chairman of the meeting, described the meeting as a gathering of outstanding scientists who use motion pictures as an integral part of their research.

Program Sessions Listed

The program includes sessions on cinematography in research, film as a medium for scientific reporting, and science films for teaching.

Dr. Ferguson said there will be opportunities to see a wide variety of films. In addition to the films related to the topics discussed at the regular sessions, the morning and afternoon sessions will be preceded by a showing of other outstanding short films.

On Monday and Tuesday, May 11 and 12, at 8 p.m. the public will have an opportunity to view films selected for the first annual Science Film Exposition.

The professional sessions will include talks by Dr. Harold Edgerton on double-flash strobe for estimating capillary flow rates, by Dr. C. M. Pomerat on time-lapse studies of living nervous tissue, and by Dr. Paul V. Moore on high-speed studies of the larynx. There will also be reports on new types of brief, single-concept teaching films.

Films Are Short

These are films that range in length from about one to five minutes and deal with a single scientific concept, leaving to the teacher responsibility for detailed discussion and explanation.

Current usage and future potential of these single-concept films will be considered by an international committee of science film makers representing the United Nations Educational, Scientific and Cultural Organization (UNESCO) Film Project which meets here today through Saturday (May 5-9).

The committee will hold its meetings in the Medical Arts and Photography Branch audio-visual conference room. It numbers representatives from France, West Germany, the United States, Great Britain, Poland, and UNESCO.

Other features of next week's ASFA professional sessions include a presentation on the unique Ency-



Dr. Stuart M. Sessoms, NIH Deputy Director, smilingly accepts the PHS Meritorious Service Medal and Citation from Dr. James A. Shannon, NIH Director, in recognition of his leadership in cancer research when he was responsible for the direction of the Cancer Chemotherapy National Service Center programs of the National Cancer Institute. Dr. Sessoms was cited for "his outstanding leadership and performance in producing and operating the world's largest and most complex drug development programs and his outstanding ability in the evolution of new programs in diagnostic research and cancer virology." The presentation was made at a recent meeting of the NIH Institute Directors.—Photo by Sam Silverman.

GW Theatre Guild Presents 'Cinderella' Here on May 9

"Cinderella," a production by the Children's Theater Guild of George Washington University, will be presented Saturday afternoon, May 9, at 2:30 p.m. in the Clinical Center auditorium.

Although this performance was arranged primarily for Clinical Center children patients, the children of NIH staff members are invited to attend.

Arnold Sperling, Chief of the Clinical Center Patient Activities Section, predicts that this fanciful rags-to-riches tale, brought to life by the all-student cast of George Washington University's Drama Department, will appeal also to adults who are young at heart.

clopaedia Cinematographica by its founder and director, Dr. Gotthard Wolf. Also, film animation by computer will be described.

Members of the ASFA include a wide range of people active in scientific research, science education, scientific film production, and in library or information services. They work in colleges or universities, government agencies, high schools, industrial laboratories, and commercial organizations.

Information about the association and the meeting may be obtained from Dr. Ferguson, Ext. 63467.

Three High School Students Observe Library Week Here

For the third year three Montgomery County high school students were assigned to the NIH Library on Friday, April 17, as part of the County's program for National Library Week.

This year the participants were Mary Ann Levant, Bethesda-Chevy Chase High School; Caroline Miller, Walt Whitman High School; and John Sisson, Montgomery Blair High School.

The students, who are library assistants in their respective schools, participated in a program in the NIH Library as "Librarian for a Day."

They were briefed on the mission of NIH and the role of the Library, and toured the Library and other areas of the Clinical Center. The day closed with a panel discussion.

Dr. Sheldon Dray Named Secretary-Treasurer of Immunology Association

Dr. Sheldon Dray of the National Institute of Allergy and Infectious Diseases has been named Secretary-Treasurer of the American Association of Immunologists, which met in Chicago last month. The association is a component of the six scientific bodies that form the Federation of American Societies for Experimental Biology.

Dr. Dray, Head of the Immunology Section, Laboratory of Immunology, NIAID, is particularly interested in the chemistry, genetics and immunology of serum proteins.

Joins PHS in 1947

A commissioned officer in the Public Health Service, Dr. Dray holds the rank of Medical Director. Before joining the PHS in 1947 he held an internship at the University of Illinois Research and Educational Hospitals.

He received his B.S. from the University of Chicago in 1941 and graduated from the University of Illinois Medical School in 1946. He also holds an M.S. degree in biochemistry from the University of Illinois, and a Ph.D. in physical biochemistry from the University of Minnesota, which he received in 1954.

Overheard: "I didn't say you were built like a truck. I merely observed that people were afraid to pass you on the right."—Hot Shoppes Table Talk.

Jean Foulke Appointed To NIH Library Post

On April 20, Miss Jean Foulke assumed the duties of Chief of the Readers Services Section of the NIH Library. In that capacity she will coordinate the many diversified and widely used readers' services functions, including circulation of materials, reference support, procurement of publications through interlibrary loan, provision of translating service, presentation of group orientations for NIH staff and visiting groups, and the provision of photocopy service.



Miss Foulke

Miss Foulke served most recently as the Associate Librarian of the New York Academy of Medicine, where she was employed from 1958 to 1964. Previously Miss Foulke served as the Chief Medical Librarian at the U. S. Naval Hospital, St. Albans, N. Y., and as Librarian of St. Luke's Hospital School of Nursing in New York City.

Miss Foulke holds degrees from Juniata College, Huntingdon, Pa., and the School of Library Science, Drexel Institute of Technology. Among her published papers is "The Young Student and the Scientific Library," which appeared in the Bulletin of the Medical Library Association, October 1963.

She holds membership in the Medical Library Association, Special Libraries Association, American Library Association, American Documentation Institute, and the Bibliographical Society of America.

She holds membership in the Medical Library Association, Special Libraries Association, American Library Association, American Documentation Institute, and the Bibliographical Society of America.

Foundation to Sponsor Harpichord Recitalist

Albert Fuller, harpichord recitalist, will present a lecture-demonstration, "The Harpichord in the Twentieth Century," in the Clinical Center auditorium on Wednesday, May 13, at 8:30 p.m. The lecture, open to the public, is free.

Mr. Fuller will discuss the special qualities of the harpichord, in terms of mechanism and unique tonal quality, that make it the ideal instrument for many types of keyboard music. He will play several selections to illustrate its scope. A question-and-answer session will follow the lecture.

This event will be the last in a series of programs sponsored this year by the Foundation for Advanced Education in the Sciences. Beginning in the fall the Foundation will present another season of lectures on cultural and para-scientific subjects.

Long-Time PHS Advisor Wins High ACP Award

Dr. A. Baird Hastings, advisor to the U. S. Public Health Service for nearly 20 years and a current member of the National Advisory Heart Council, has recently been awarded one of the highest honors of the American College of Physicians, the Award for 1964 for "distinguished contributions in science as related to medicine."

Dr. Hastings, Head of the Laboratory for Metabolic Research, Scripps Clinic and Research Foundation, La Jolla, Calif., is retired from Harvard University where he was Hamilton Kuhn Professor of Biological Chemistry and head of the Department of Biological Chemistry for almost 25 years.

Trains Postdoctoral Fellows

He is now engaged at the Scripps Clinic in research on factors that affect the metabolism of tissues, and in the training of postdoctoral fellows.

A native of Kentucky, Dr. Hastings obtained his B.S. degree from the University of Michigan in 1917 and a Ph.D. from Columbia University in 1921. He has been awarded honorary Sc.D. degrees by the University of Michigan, Harvard University, Oxford University, and Boston University.

During World War II, Dr. Hastings was a member of the Committee on Medical Research of the Office of Scientific Research and Development, and was awarded the Presidential Medal for Merit.

AWARDS CEREMONY

(Continued from Page 1)

ance Rating (the second ever granted at NIH); two will receive letters of commendation for completion of 40 years of service, and 17 will receive 30-year service pins and certificates. Twenty-year service pins and certificates will be presented to 222 employees at ceremonies to be held later in their respective Institutes and Divisions.

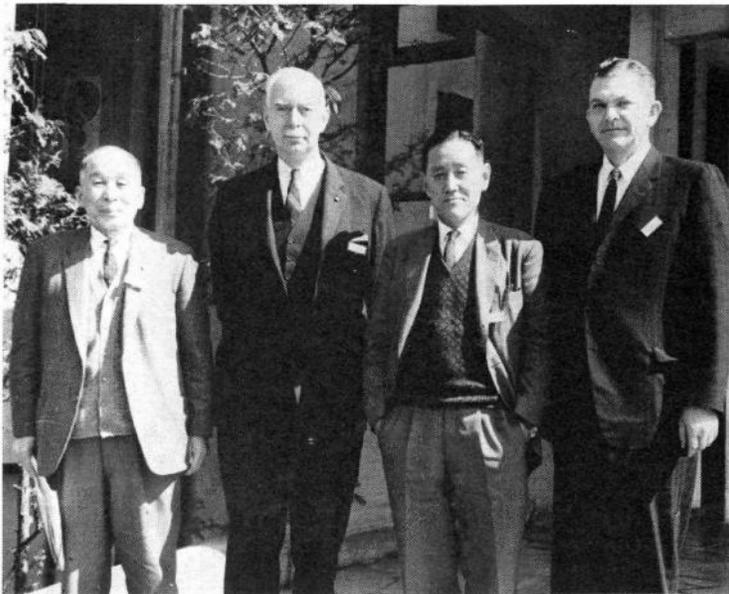
In announcing a special awards ceremony to be held November 30 of this year—the tenth anniversary of implementation of the Incentive Awards Program—Chairman John W. Macy, Jr., of the Civil Service Commission, said:

"The special tenth anniversary awards will serve to focus national attention on the way in which alert and ingenious Federal employees are making substantial on-the-job contributions to economy and greater efficiency in the Federal Government."

Music for the NIH awards ceremony will be by the United States Army Band. All employees are invited to attend.

Speed reading is a necessity these days—or you will never get off the free-way.—Reader's Digest

U.S.-Japanese Scientists Take 1st Step Toward Cooperative Study of Primates



Four of the 15 participants in a meeting of Japanese and American scientists held recently in Japan to promote collaboration in the study of primates are pictured in front of their meeting place. They are, left to right: Dr. Denzaburo Miyadi, Director of the Japan Monkey Center; Dr. Leonard Carmichael, Secretary (Ret.) of the Smithsonian Institution; Dr. Kinji Imanishi, Chairman of the Department of Physical Anthropology, Kyoto University; and Dr. Willard H. Eyestone, Chief of the Animal Resources Branch, DRFR.

A first step toward collaboration between Japanese and American scientists in the study of primates was taken at a meeting held recently in Japan. Attended by five representatives from this country and ten from Japan, the meeting pointed up the importance of primatology in modern biomedical research and the need for increased international cooperation on studies and exchange of information.

Carmichael Heads Delegation

The American delegation was headed by Dr. Leonard Carmichael, Secretary (Ret.) of the Smithsonian Institution. Other members were Dr. Willard H. Eyestone, Chief of the Animal Resources Branch, Division of Research Facilities and Resources, NIH, which administers the regional primate research center program; Dr. Arthur J. Riopelle, Director of the Delta Regional Primate Research Center at Tulane University; Dr. Theodore C. Ruch, Director of the Regional Primate Research Center at the University of Washington; and Dr. Clarence R. Carpenter, Professor of the Department of Psychology, Pennsylvania State University.

Chairman of the Japanese delegation was Dr. Kinji Imanishi, Chairman of the Department of Physical Anthropology, Kyoto University.

Following presentations on the development of primate research in the United States and Japan, the participants agreed on three broad

areas for cooperative studies: comparative studies of inter- and intra-species characteristics of primates; anatomical, physiological and behavioral studies of primates; and studies of the care and diseases of free and captive primates.

Within these areas, examples of specific studies that might be undertaken cooperatively included the study of development and aging of primates; anatomical and physiological studies of the nervous system and receptors; endocrinology; reproductive physiology and population regulation; dental research and experimental dental pathology; experimental pharmacology and toxicology; infectious and degenerative diseases, and primate nutrition and its relation to cardiovascular and other diseases.

Information Center Urged

A primate information center similar to the one that is part of the University of Washington's Regional Primate Research Center program was urged for Japan. The information centers, besides serving the scientists of their own countries, would exchange bibliographic information, books, research papers, films and photographs.

It was also recommended that the two countries exchange scientists to study specialized techniques that are developed independently in each country.

The meeting was a result of the cooperative efforts of the United States-Japan Committee on Scien-

Dr. Charles I. Wright, NIAMD Pharmacologist, Dies After Long Illness

Dr. Charles I. Wright, a pharmacologist formerly with the Laboratory of Chemistry at the National Institute of Arthritis and Metabolic Diseases, died April 16 following a long illness. He was 63.

Retired for disability in 1959, Dr. Wright had been associated with the Public Health Service at NIH since 1936 when he joined the staff of the former Experimental Biology and Medicine Institute, a forerunner of NIAMD.

He had previously spent four years as an Instructor in Pharmacology at the University of Michigan, where he pursued research which involved developing techniques for the study of the respiratory effects of drugs of the morphine group.

Serves on Editorial Board

Dr. Wright continued these studies after coming to NIH and later was assigned to Institute editorial work and served as Chairman to the NIAMD Editorial Board.

When ill health forced him to discontinue his own activities in the laboratory, he trained his wife in many research techniques so that she was able to aid him extensively.

Dr. Wright was a native of Halifax, England. He was a graduate of Middlebury College in Vermont, where he also received his M.S. in 1927. In 1932, he received his Ph.D. in physiology from the University of Rochester Medical School.

Society Affiliations Noted

Affiliated with numerous professional societies, Dr. Wright was a member of the American Chemical Society, the American Physiological Society, the American Society for Pharmacology and Experimental Therapeutics, and Sigma Xi. He was the author of over 30 papers on studies in his field.

Dr. Wright is survived by his wife, the former Anne Hester Van Kesteren, and a son, Neil Alan, of the home address, 7510 Old Chester Road, Bethesda, Md. He also leaves two daughters, Mrs. Helena Wheeler of Silver Spring, Md., and Mrs. Barbara Cabaniss of Leesburg, Va., and two grandchildren.

tific Cooperation, the National Research Council of the National Academy of Sciences, and the National Science Foundation.

Another reason trains don't have as many accidents as automobiles is that the engineer doesn't drive with his arm around the fireman.—Hot Shoppes Table Talk.