

# the NIH Record

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HEALTH, EDUCATION, AND WELFARE

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NATIONAL INSTITUTES OF HEALTH  
PUBLIC HEALTH SERVICE

## Merton to Give The NIH Lecture On February 5

Dr. Robert E. Merton, Professor and Chairman of the Department of Sociology at Columbia University, will present the 25th National Institutes of Health Lecture in the Clinical Center auditorium on Wednesday, February 5, at 8:15 p.m.

Dr. Merton's lecture, "Studies in the Sociology of Science," will deal with the special field of sociology that is concerned with the relationship between science and social structure.

Topics Dr. Merton will discuss include case studies of American Nobel laureates in the sciences, the theoretical significance of independent multiple discoveries, and science as a social institution.

After receiving his Ph.D. from Harvard University in 1936, Dr. Merton taught at Harvard and at

(See NIH LECTURE, Page 4)



Dr. Merton

## President Asks \$1.7 Billion for PHS in FY 1965; NIH Share Is \$1.03 Billion

The Fiscal Year 1965 Federal budget submitted to Congress January 21 by President Johnson includes a \$1.03 billion request for the National Institutes of Health. This exceeds by \$52.7 million the amount appropriated to NIH for the current fiscal year.

## Dr. Bruce Ames Wins The Eli Lilly Award in Biological Chemistry

Dr. Bruce Ames, of the National Institute of Arthritis and Metabolic Diseases, received the Eli Lilly Award in biological chemistry at the 146th national meeting of the American Chemical Society in Denver, Colo., January 19-23. Dr. Ames is Chief of the Section on Microbial Genetics in the Institute's Laboratory of Molecular Biology.

The \$1,000 award was given to Dr. Ames for determining how bacteria manufacture the amino acid histidine and for his work on the control mechanisms that regulate the biosynthesis.

In the September 24 issue the *NIH Record* reported that Dr. Marshall W. Nirenberg of the Na-

(See DR. AMES, Page 7)

The NIH total is included in the Public Health Service request of nearly \$1.7 billion, which is part of the \$6.53 billion Administration request for the Department of Health, Education, and Welfare.

### Budget Breakdown Given

Overall, the NIH budget request for the coming fiscal year breaks down as follows: Operating funds, \$957.4 million; direct construction, \$14.9 million; and Health Research Facilities construction grants, \$58 million.

Operating appropriations requested for FY 1965 represent an increase of \$38.9 million over actual appropriations for this purpose for fiscal 1964.

Obligations by activity were des-

(See BUDGET, Page 4)

## Sherman Directs Research Grants, Awards at NIH

Dr. John F. Sherman, Associate Director for Extramural Programs of the National Institute of Arthritis and Metabolic Diseases, was recently appointed by Dr. James A.



Dr. Sherman

Shannon, Director of NIH, to the newly established position of NIH Associate Director for Research Grants and Awards.

In his new capacity, Dr. Sherman will be responsible for overall policies and procedures relating to the award of NIH funds to non-federal institutions such as medical schools and colleges, universities, hospitals and scientific institutions for the support of research studies, research training, and construction and equipping of new and modernized research facilities.

Dr. Sherman came to NIH in 1953 as a research pharmacologist in the Laboratory of Tropical Diseases, National Institute of Allergy and Infectious Diseases. He holds

(See DR. SHERMAN, Page 7)

## Research Shows College Students Seek Stimulation of Challenging Situations

In a series of studies on how people deal with stress, a National Institute of Mental Health investigator refutes the prevailing belief that they strive merely for relief of tension. He finds that competent college students seek out the stimulation of challenging and potentially stressful situations and, in coping with them, actively explore the resources in their environment.

Further, the enhancement of self-esteem that accompanies successful dealing with problems contributes to the ability to cope effectively with future difficult situations.

### Covers Transition Period

As part of a broader NIMH investigation of the transition period from high school to college, the present study was carried out to determine how competent adolescents cope with their many new social and academic tasks such as developing new academic skills, friendships, heterosexual relation-

ships, and independence.

Through intensive interviews with 14 screened volunteer students during their senior high school and freshman college years, some of the coping patterns were clarified.

The students all had successful academic records, close and meaningful interpersonal relationships, and clear self images as achievers. They were all selected from middle-class families who placed high value on the college experience.

The social milieu was found to provide and reinforce techniques for coping. It was found that these subjects managed their new environ-

(See STUDENTS, Page 6)

### 'Smoking and Health' Mailed To M.D.s, on Sale at GPO

On January 11, too late for mention in the prior issue of the *NIH Record*, the Public Health Service made public the long-awaited, 387-page report of the Surgeon General's Advisory Committee on Smoking and Health.

The committee's findings have since been so widely and thoroughly reported that any limited summary possible in these pages would be valueless.

Meanwhile the Service is mailing copies of the report to practicing physicians listed in the American Medical Association's directory.

Copies of the report, "Smoking and Health" (PHS Publication No. 1103), may be purchased at \$1.25 per copy from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20401.

## PHS Information Head, Branch Chief Injured By Cab at Crossing

J. Stewart Hunter, Assistant to the PHS Surgeon General for Information, and Lauretta H. April, Chief of the Public Inquiries Branch, PHS, were seriously injured when struck by a taxicab at the intersection of 4th and C Sts., S. W., January 16, at 2 p. m.

At the Washington Hospital Center, Mrs. April was reported to have sustained multiple fractures of the pelvis. Mr. Hunter, taken to Casualty Hospital, was found to have a fractured leg and scalp lacerations requiring 22 stitches.

As this issue went to press the condition of both was reported as satisfactory. On behalf of NIH the *Record* earnestly wishes for both a prompt recovery.

# the NIH Record

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## NEWS from PERSONNEL

### MENTALLY RETARDED PROGRAM

NIH is participating in the development of an agreement between DHEW and the CSC that will facilitate the hiring of mentally retarded individuals.

The program is designed to fill certain positions of a routine work nature which do not attract average employees because of the limited advancement opportunities.

The proposed agreement will provide for a special appointing authority and a system of certifications by State Vocational Rehabilitation Agencies.

On request, these agencies will certify that each prospective employee (a) has the ability to perform the duties of the position, (b) is physically qualified to do the work, and (c) is socially competent to maintain himself in a work environment.

In the experience of a number of employers, mentally retarded individuals represent a good source of competent, steady employees for these limited advancement jobs.

PMB feels that the institution of such a program will be a step in providing a solution for an area of recruitment which has been a recurring problem here.

### Dr. Chen Pien Li Named Fellow of N.Y. Academy

Dr. Chen Pien Li, Chief of the Virus Biology Section of the Laboratory of Virology and Rickettsiology, Division of Biologics Standards, has been elected a Fellow of the New York Academy of Sciences in recognition of his scientific achievement and promotion of science.

### List of Latest Arrivals Of Visiting Scientists

12/27—Dr. Ruggero Ceppellini, Italy, Immuno-Hematology and Human Genetics. Sponsor: Dr. Maurice Landy, NIAID, Bldg. 10, Rm. 11B13.

1/2—Dr. Peter John Stoward, England, Research in Histochemical Methods and Their Application to Problems in Pathology. Sponsor: Dr. S. S. Spicer, NIAMD, Bldg. 4, Rm. 330.

1/6—Dr. Jacob C. Jacob, India, Histochemical and Tissue Culture Studied in Neuromuscular Diseases. Sponsor: Dr. W. King Engel, NINDB, Bldg. 10, Rm. 10N316.

1/6—Dr. Michel R. Pourtois, Belgium, Studies of the Ultrastructure of Tooth Germs Cultivated *in vitro*. Sponsor: Dr. David B. Scott, NIDR, Bldg. 30, Rm. 209.

1/7—Dr. Heinz L. Haust, Canada, Studies of the Absorption and Excretion of Sterols including Response to Specific Drugs. Sponsor: Dr. Daniel Steinberg, NHI, Bldg. 10, Rm. 5N309.

1/15—Dr. Panayotis Liacopoulos, Greece, Research in the Fields of Experimental Hypersensitivity and Immunology. Sponsor: Dr. Sanford H. Stone NIAID, Bldg. 10, Rm. 11D14.

### Biology of the Prostate Is Subject of Monograph

"Biology of the Prostate and Related Tissues," Monograph No. 12, has been published by the National Cancer Institute. It contains papers presented at the Workshop on the Biology of the Prostate and Related Tissues, in which 55 prominent investigators participated.

The 446-page monograph is available from NCI to investigators affiliated with research or educational institutions; others may purchase it from the Superintendent

### Dr. Shannon to Receive Honorary Degree Feb. 2

Dr. James A. Shannon, Director of NIH, will receive an honorary Doctor of Medicine degree on February 2 from the Faculty of Medicine of the Catholic University of Louvain, in Louvain, Belgium.

The honor, bestowed in recognition of Dr. Shannon's scientific work, will be presented at academic ceremonies to be held in the University Hall at 11:30 a.m., followed by a dinner at 1:30 p.m. in Arenberg Castle.

### NIAID Grant to Support 7-Yr. Research Project

A grant for a 7-point program in clinical research on allergies to be conducted over a projected 7-year period was announced recently by Dr. Luther L. Terry, Surgeon General of the Public Health Service.

The project, supported through a grant awarded by the National Institute of Allergy and Infectious Diseases, will be conducted at the Institute of Allergy of the Roosevelt Hospital in New York City, noted for treatment, training, and research in allergic diseases.

Included in the program are projects dealing with changes in antibodies with treatment, the effect of treatment on skin reactions, testing of purified ragweed antigens, factors in histamine release, the role of bacterial infection in asthma, and the diagnosis of penicillin allergy.

Dr. William B. Sherman, Director of the Institute of Allergy, is the principal investigator of the study.

The initial annual grant for the program, which is projected through 1970, is \$89,405. The investigators will direct their research primarily toward methods of diagnosis and treatment of allergies, functioning essentially as a specialized clinical research center.

Other researchers involved in the project include Drs. John T. Connell, Arthur E. O. Menzel, William M. Nicholas, and J. P. Fischer.

ent of Documents (\$4).

The Workshop was sponsored by the Cancer Chemotherapy National Service Center, NCI, and supported by an NCI research grant. It was held October 1-3, 1962 at Airlie House in Warrenton, Va.

Doctor, looking over X-ray, to patient: "Between the big, happy family at your office and the big, happy family at home, you've got an ulcer.—Reader's Digest from Wall Street Journal.

### Series of Organizational Appointments, Changes Are Announced by NCI

A series of organizational changes have been made in the Cancer Chemotherapy National Service Center of the National Cancer Institute.

Major changes involve the shift of the Biochemical Pharmacology Section from the Laboratory of



Dr. Goldin



Dr. Schepartz

Chemical Pharmacology (Intramural Research Area) to the Drug Evaluation Branch, CCNSC, and the shift of the Data Processing Office from the Drug Evaluation Branch to the Office of the Chief, CCNSC.

### Changes Described

Other changes include the appointment of Dr. Saul A. Schepartz to a newly established position of Assistant Chief, CCNSC. Dr. Schepartz will also serve as Acting Head of the Section on Data Processing and Computer Systems Development, and will be detailed as Assistant Chief of the Drug Evaluation Branch (where he was formerly Acting Chief) for an indefinite period.

Dr. Abraham Goldin, previously Head of the Biochemical Pharmacology Section, is now Chief of the Drug Evaluation Branch, and further changes have been made within the branch.

Two new sections have been added. They are a Section on Viral Chemotherapy, with Dr. Michael A. Chirigos as Section Head, and a Section on Immunotherapy and Immune Response Modifiers, headed by Dr. John P. Glynn.

### Others Appointed

Two of the old sections have new heads. Dr. Florence R. White is now Acting Head for the Section on Biochemistry, succeeding Dr. Schepartz, and John M. Venditti has been appointed Head of the Section on Screening.

The two remaining sections in the branch, the Pharmacology Section and the Mammalian Genetics and Animal Production Section, are unchanged. They are headed by Dr. Moreshwar V. Nadkarni and Samuel M. Pooley, respectively.

Dr. Joseph Leiter is Chief of the Cancer Chemotherapy National Service Center.

## PHS Study Reveals One Out of 100 Babies Have Congenital Birth Defects

Birth defects were reported in 5,210 of 520,000 babies born alive in 27 States during the first five months of 1963, according to Assistant Surgeon General Donald J. Galagan, Chief of the Division of Dental Public Health and Resources, PHS.

Cleft lip (harelip) and cleft palate, clubfoot, and defects of the genito-urinary system were the most common malformations reported in these infants.

These are preliminary findings in a long-range study and show that at least one baby out of every 100 liveborn has a congenital defect observable at the time of birth. Not all such defects are reported at birth and there are many which are not discovered until later.

The statistical study is the first phase in a long-range epidemiology program aimed at a better understanding of the causes of cleft lip and cleft palate. For this purpose, comparisons of clefts with all other congenital malformations are being made, particularly with reference to relative frequency, completeness of reporting, and trends.

### Birth Data Analyzed

Dr. Galagan reported that birth data will be analyzed covering the entire year 1963 for those birth registration areas from which the necessary information is available.

In addition to all births reported with malformations, the study will include a sample of all other infants for comparison. Such information as place of mothers' residence, parental age, birth order, and length of pregnancy will be studied in an effort to identify factors which may be related to the causes of various birth defects.

Leads suggested by the statistical survey will be followed up with field studies in cooperation with State and community health agencies and professional groups.

## DRG Reports Usage of New Notification Form

The Division of Research Grants reports that a new form, replacing two others, is now in use for reserving conference rooms on the reservation and for notifying DRG of extramural meetings on or off the reservation.

Titled "Notification of Extramural Meeting," the dual-purpose form is officially PHS-4330. It replaces two test forms entitled "Request for Conference Room" and "Notice of Extramural Meeting To Be Held Off the Reservation."

Specific instructions for using the new form are going out to all grants assistants and clerks in DRG and the Institutes.

## Miss Isaacs, NIMH, Is First Doctor of Nursing Science

By Bill Kleven

Dr. Gertrude Isaacs, the first person ever to receive a doctorate in nursing science, has been appointed training specialist at the National Institute of Mental Health, assigned to the Nursing Section of the NIMH Training Branch.

Dr. Isaacs' career has included nursing service on an Arizona Navajo Indian Reservation and faculty positions with the University of Miami and Barry College for Women in Miami. She received her degree last June as the first graduate of Boston University's unique doctoral program in psychiatric nursing.

Nurses have obtained doctoral degrees in education and the social, biological and physical sciences, but there has never before been a doctorate of nursing science program in the United States or in any other country, according to Boston University.

### Program Starts in 1960

Inaugurated in 1960, the program was the first specifically to identify nursing in the degree title and to emphasize depth in nursing content.

The program was oriented to achieve a balance between academic studies and clinical experiences in psychiatric nursing which would offer an opportunity for specialized training in the treatment of various mental illnesses.

Born in Lubbock, Tex., Dr. Isaacs moved with her family to Winnipeg, Manitoba, when she was six years old. She graduated from Winnipeg's Misericordia School of Nursing in 1946 and then came to



Dr. Gertrude Isaacs adjusts the hood, indicative of her Boston University Doctor of Nursing Science degree, prior to receiving her doctorate at the university's commencement last June.

the United States where she did part-time nursing in a small Kansas hospital prior to joining the Frontier Nursing Service in Kentucky.

Dr. Isaacs earned a certificate in midwifery at the Frontier Service School, which is one of three accredited midwifery programs in this country.

Operating deep in the Kentucky  
(See MISS ISAACS, Page 6)

## Revised Grants Manual, Part V, Issued by DRG

Part V of "A Manual to Facilitate Administration of Research and Training Grants," first issued in December of 1962, has been revised by the Division of Research Grants.

Copies have been mailed to administrative officials in all of the approximately 1,500 institutions holding grants from PHS.

### Volume One of Series

The volume covers research and conference grants, and will be one of a series. Parts dealing with training grants, fellowships, and other programs are in various stages of preparation.

Significant policy or procedural changes have been made in 16 of the manual's 52 sections. The new edition, for example, spells out what information supplied by the applicant may be made available to the public.

It also outlines the new alternate procedure of financing an institution's overall PHS grant program

on an "advance" basis instead of financing each grant through quarterly payments, and makes the designated principal investigator solely responsible for the conduct of the proposed research.

Other changes affect methods of accounting for equipment; place new restrictions on first class air travel; allow, in some cases, for the costs of moving families and household goods; and extend the deadline for expenditure reports from 90 to 120 days after termination of grants.

Requests for copies of the new edition should be directed to the Policy and Procedure Office, DRG, 49-67123.

A health center to provide outpatient services for Alaska Natives, American seamen, and Federal Government employees has been established on Annette Island, near Ketchikan, Alaska, the U.S. Public Health Service announced recently.

## 41 States Receive \$24 Million for General Research

Dr. Luther L. Terry, Surgeon General of the Public Health Service, has announced the award of \$24,755,353 to 249 institutions in 41 States, the District of Columbia and Puerto Rico "for the flexible and discriminating general support of research and research training in disciplines of science relating to health."

These General Research Support awards are specifically expected to cultivate scientific excellence and to improve the overall quality and strength of institutions in the conduct of health-related research and research training.

Great latitude is permitted the qualifying institutions in making scientific discriminations that will improve the quality, content, emphasis and direction of their own research programs.

### Initiative Encouraged

They are encouraged to capitalize on emerging opportunities, to explore new and unorthodox ideas, and to employ these funds for purposes which in their judgment will contribute most effectively to the improvement of their total research capabilities.

General Research Support grants are made by the Surgeon General, following recommendations by the National Advisory Health Council, to qualified schools of medicine, dentistry, osteopathy, public health, pharmacy, nursing, veterinary medicine, hospitals and other non-profit research organizations already heavily engaged in health-related research.

The grants are for the period January 1 through December 31, 1964, and constitute the major award each institution will receive for general research support as determined by a formula and according to the institution's past experiences and commitment to health-related research.

An additional amount will be granted later in the year when certain variable factors are established.

## NIDR Brochure Marks Fifteenth Anniversary

Proceedings of a scientific seminar marking the 15th anniversary of the National Institute of Dental Research have been published in a recently released brochure.

Illustrated with candid photographs, the 26-page booklet, "The National Institute of Dental Research, 1948-1963," is available in single copies from the Information Office, National Institute of Dental Research, Bethesda, Md. 20014.

**BUDGET***(Continued from Page 1)*

igned in the NIH budget request as follows:

<i>Grants</i>		<i>(Millions)</i>
Research	\$552.2	
Fellowships	45.6	
Training	180.0	
State control programs	6.8	
Subtotal	\$784.6	
<i>Direct Operations</i>		
Research	\$ 76.2	
Collaborative Studies	64.4	
Int'l Research	1.1	
Biologics Standards	5.0	
Training Activities	1.6	
Prof. & Tech. Assistance	4.2	
Review & Approval	15.6	
Program Direction	4.7	
Subtotal	\$172.8	
<i>Direct Construction</i>		<i>(Millions)</i>
General Office Building		
Extension	\$ 5.5	
Gerontology Research Facility	7.5	
NIH Animal Center	.3	
Repairs & Improvements at NIH	1.6	
Subtotal	14.9	
Health Research Facilities construction grants	58.0	
<b>TOTAL</b>	<b>\$1,030.3</b>	

A breakdown of NIH operating funds in the 1965 budget request, exclusive of construction, includes:

<i>Appropriations</i>		<i>(Millions)</i>
Gen. Res. & Services	\$163.7	
DBS	5.0	
NICHD	43.2	
NCI	141.0	
NIMH	189.0	
NHI	125.4	
NIDR	20.1	
NIAMD	113.2	
NIAID	68.4	
NINDB	88.4	
<b>TOTAL</b>	<b>\$957.4</b>	

Funds for the National Institute of General Medical Sciences (\$113.4 million), as well as funds for the Division of Research Facilities and Resources (\$44.8 million) and the Office of International Research (\$5.5 million) are included in the amount requested for General Research and Services.

In 1961—Americans spent more than \$11,000,000,000 for alcoholic beverages, nearly \$7,000,000,000 for tobacco products, \$331,000,000 for chewing gum and \$121,000,000 for lipsticks. — Howard Rusk, M.D., New York Times.

**Guest Scientist Known for Studies of Immunological Role of Thymus Gland**

J. F. A. P. Miller has yet to reach his 40th birthday, but he has already won a place in biomedical research for his highly significant studies of the immunological role of the thymus gland.

Dr. Miller is clearly more interested in building new roads than in admiring the one he has already pioneered, which is one reason why he is now at the National Cancer Institute as a guest worker in the Laboratory of Biology.

Extensive work by Dr. Miller and others, including NCI and NIAID scientists, has produced evidence that the thymus performs its role, on one hand, by serving as a source of lymphocytes in prenatal and neonatal life, and on the other, by producing a non-cellular, or humoral, factor that enables lymphocytes to mature. The nature of the humoral factor remains to be determined.

**Research Planned**

During his year at NCI, Dr. Miller plans to work along two lines. One is a study of lymphocytes from animals thymectomized at birth, which, as Dr. Miller was the first to demonstrate in newborn mice, prevents the animals from responding immunologically to foreign antigens. He intends to examine the behavior of these cells both in culture and in intact hosts.

His second project is an investigation of the relationship between the known immunological role of the thymus and resistance to cancer. His starting point is evidence reported by many scientists that certain virus-induced and chemically induced animal tumors have new cellular antigens, which appear to provoke an immunological response, though a weak one, on the part of their hosts.

Once an obscure organ believed to have no function, the thymus was thought to undergo involution early in life. Dr. Miller and others have now shown that even in mature mice, the thymus is active, as evidenced by its role in the restoration of immunological competence in irradiated animals.

**Questions Raised**

Studies of the immunological role of the thymus have raised important questions concerned with application of what is now known about the thymus to tissue and organ transplantation. Some basic gaps in knowledge need to be closed, however, before transplantation of organs can emerge from the strictly experimental stage.

As for those initials, they stand for Jacques Francis Albert Pierre. A native of France, Dr. Miller was a seasoned globe-trotter by the time he was 10 years old, having accompanied his parents on their travels through the Far East, where his father had duties as a banker.

He spent the next 17 years in



J. F. A. P. Miller, French visiting scientist, handles a mouse during research in the Laboratory of Biology of the National Cancer Institute.

**NIH LECTURE***(Continued from Page 1)*

Tulane University prior to joining the Columbia University staff in 1941.

A year later he became Associate Director of the Bureau of Applied Social Research at Columbia, and in 1961 was appointed Chairman of the Department of Sociology. He received the LL.D. degree from Temple University in 1956.

Dr. Merton is the author and co-author of a number of books as well as some 100 papers which appeared in academic journals, and has served on the editorial boards of various professional journals.

Presently a member of the Surgeon General's Consultant Group on Nursing, Dr. Merton has served on numerous other advisory research boards and is a Fellow of the American Academy of Arts and Sciences and the American Philosophical Society. He was President of the American Sociological Association in 1957.

Australia where he received his M.D. degree, finally settled in England, earned his Ph.D. degree, and embarked on a research career at the Chester Beatty Research Institute of the Royal Cancer Hospital in London.

While they are in the United States, he and his wife, a former nurse, and their infant son are living in an apartment in Rockville.

**NIGMS Grant Supports Study of Chromosomes**

A grant-supported study is under way at Albert Einstein College of Medicine in New York City to define how alterations in the arrangement or structure of specific chromosomes results in human developmental abnormalities.

The \$44,744 grant by the National Institute of General Medical Sciences is for the first year of a prospective 5-year study.

The new program will be directed by Dr. Harold P. Klinger, Assistant Professor of Anatomy and Genetics at the Albert Einstein College of Medicine.

Dr. Klinger and his associates plan to carry on correlative studies to show how an alteration in the number or arrangement of specific chromosomes or their internal structure affects the genetic constitution of an individual.

**Abnormalities Studied**

Along with chromosome studies, clinical data will be collected on patients suffering from developmental abnormalities, and factors within these individuals which are under genetic control (such as blood groups, enzymes, and hemoglobin) will be investigated.

It is hoped that the study of abnormal chromosomes and their effects will make it possible to determine where controlling genes are located and how they interact and function.

"When this stage is reached," Dr. Klinger said, "human genetic mechanisms will be much better understood and many positive theoretical and practical consequences are bound to ensue."

Advancement of our understanding of genetic mechanisms depends upon the development and improvement of cytogenetic techniques for studying human material.

Dr. Klinger and his group plan to devote considerable time to improving and simplifying techniques for examining human chromosomes in both blood and tissue cells.

**Richardson and Wharton Named to NIAID Council**

Surgeon General Luther L. Terry of the Public Health Service has announced the appointment of Drs. Arthur P. Richardson and George W. Wharton, Jr., to 4-year terms on the National Advisory Allergy and Infectious Diseases Council, effective February 1.

Dr. Richardson is Dean of the School of Medicine at Emory University, Atlanta, Ga., and Dr. Wharton is Professor and Chairman of the Department of Zoology and Entomology at the Ohio State University at Columbus.

## Henry L. Meyer Retires From Cancer Institute, Serves PHS 33 Years

The National Cancer Institute lost one of its "old-timers" last month when Henry L. Meyer retired at age 68 after 33 years of government service.

Mr. Meyer began working in the Public Health Service in 1930. He did animal experimental work for the USPHS Field Investigations of Cancer at Harvard Medical School.

After his transfer to NIH in 1939, Mr. Meyer worked in the Radiation Branch, NCI, where he was a Physical Science Technician at the time of his retirement.

### Consulted by Many

One of the early workers in experimental irradiations, Mr. Meyer developed a high degree of skill in that field. He held the confidence of numerous scientific investigators and was often called upon for information and advice concerning techniques and dosimetry.

In this work he displayed a great deal of initiative and flexibility.

In retirement Mr. Meyer intends to pursue his hobby of boating, and has planned a trip this spring. He will also devote time to caring for his large house and grounds at 7 Russell Ave., Gaithersburg, Md.



Henry L. Meyer (left) displays the transistor radio given him by NCI co-workers at his recent retirement party. Dr. J. Robert Andrews, Chief of the Radiation Branch, made the presentation.—Photo by Walter Hershey.

## Dr. Schneiderman, NCI, Elected Fellow of ASA

Dr. Marvin Schneiderman, Associate Chief of the Biometry Branch, National Cancer Institute, was elected an honorary Fellow of the American Statistical Association at the recent meeting of the Association in Cleveland, Ohio.

Dr. Schneiderman was cited for "his extension of statistical techniques to problems of clinical medical research, and for his leadership in making statistical procedures an integral part of a large coordinated medical research program."

## RML Adds 2 New Buildings; Total Now 14; Metcalf, Andrews Speak at Dedication



This is the Insectary and Animal Building, one of the two new structures at NIAID's Rocky Mountain Laboratory at Hamilton, Mont., dedicated January 4. Picture shows something of the beauty of the Bitter Root Valley.

Dedication ceremonies marking completion of two new buildings and the remodeling of a third at the Rocky Mountain Laboratory, Hamilton, Mont., were attended January 4 by approximately 200 persons including a number of distinguished guests.

Sen. Lee Metcalf of Montana, a member of the Senate Committees on Labor and Public Welfare, and Public Works, delivered the major address. Dr. Justin M. Andrews, Director of the National Institute of Allergy and Infectious Diseases, of which RML is a component, was also one of the principal speakers.

Other distinguished guests were Dr. Carl Larson, Professor of Microbiology at Montana State University and Director of the Rocky Mountain Laboratory until 1962, and Jack Dowling, President of the Hamilton Chamber of Commerce.

### Buildings Described

The larger of the two new buildings will house animals used in research and includes an insectary to increase resources for the study of insect-borne diseases.

The laboratory's machine shop will be contained in the other building. The remodeling included enlargement and provision of more efficient quarters for the library and a meeting room of adequate size.

At the conclusion of the ceremonies, Dr. Cornelius B. Philip, Director of the Rocky Mountain Laboratory, conducted the guests



Dr. Cornelius B. Philip, Director of NIAID's Rocky Mountain Laboratory (right), gets a push-button assist from Sen. Lee Metcalf of Montana as he conducts guests on a tour of the new Insectary and Animal Building.

on a tour of the new facilities. The physical plant at Hamilton now totals 14 permanent buildings located on a 27-acre reservation.

The PHS negotiated purchase of the laboratory from the State of Montana in 1931. Although the facilities at that time were a far cry from the multi-million dollar complex of today, the laboratory had already established itself as a unique research center.

## Study of Lab Planning Reported in Monograph

"Space Planning Principles for Biomedical Research Laboratories," the report of a study sponsored by the Division of Research Services and the Clinical Center, recently was published as a Public Health Monograph. The monograph is based on NIH experience in laboratory planning, construction, and operation.

The author, Donald L. Snow, sanitary engineer, was Chief of the Laboratory Design Documentation Project, DRS, and is now assigned to the Division of Radiological

Health in the Bureau of State Services, PHS.

Chris A. Hansen, Chief of the Division of Research Services, and Dr. Jack Masur, Associate Director for Clinical Care Administration, jointly sponsored the study as a step toward relieving the paucity of recorded experience in the design and utilization of laboratories for biomedical research.

Single copies of the report—Public Health Monograph No. 71, PHS Publication No. 1025—are available upon request from the Public

## Experiments Show That Immunological Factors Affect Tumor Growth

Speaking at a recent Grand Rounds of the National Institute of Allergy and Infectious Diseases, Dr. Karl Habel, Chief of the Institute's Laboratory of Biology of Viruses, described experiments with the tumor-causing polyoma virus and presented increasing evidence that immunological factors are important in tumor development.



Dr. Habel

Pointing out that the polyoma virus causes widespread natural infection in laboratory and wild rodent populations, Dr. Habel said that spontaneous tumors caused by the virus are extremely rare. When injected into newborn mice or hamsters, however, the polyoma virus does cause tumors.

This has not proved to be the case in adults of the same inbred species. Apparently, an animal must be immunologically incompetent before tumors can be produced by this virus.

### Evidence Suggests Transformation

Dr. Habel's experimental evidence suggests that the virus transforms normal cells in both the newborn and the adult animals, but the immunologically competent adult rejects the tumor cells because they contain a new specific foreign antigen.

Animals carrying tumors develop complement-fixing antibodies against a tumor antigen, and this is a specific reaction for polyoma tumors.

At the present time, possible relationships between this complement-fixing antigen and that antigen responsible for resistance to tumor challenge are unclear.

## Van Gogh Exhibit Opens Feb. 1 in D. C. Gallery

Sixty paintings and 60 drawings from Vincent Van Gogh's own collection will be on display at the Washington Gallery of Modern Art, 1503 21st St., N.W., beginning next Saturday and concluding March 17.

The collection, valued at \$8 million, will be brought to this country by V. W. Van Gogh, nephew of the artist, and his wife. They will fly in separate planes with the pictures as "passengers," to insure safety.

Inquiries Branch, U.S. Public Health Service, Washington, D.C. 20201.

## MISS ISAACS

(Continued from Page 3)

hills, the Frontier Service required its staff of some 40 nurses and one physician to travel on horseback to care for families far out in the rural area.

Dr. Isaacs recalls "the nurses delivered approximately 98 percent of the babies. Of course, the more complicated obstetrical and surgical cases were transferred to our 20-bed hospital."

After two and a half years with the Service, she joined the obstetrical staff of the Indian Service in Arizona.

### Experience Valuable

"My work with the Frontier patients and the Navajo Indians—adapting to cultural conditions so different in each case—was my introduction to hard-core public health nursing," she said.

"A physician on loan to the Indian Service from the Public Health Service had urged me to consider public health as my career; so after a long, hard look at what I had accomplished and what I felt should be accomplished, I joined the Nebraska Department of Public Health where I received an NIMH traineeship stipend to attend the University of Minnesota."

Dr. Isaacs completed requirements for a B.S. degree in Public Health at Minnesota, and in 1956 received an M.S. degree in Mental



As a member of the Frontier Nursing Service years ago, Dr. Isaacs was one of 40 nurses traveling by horseback deep in the Kentucky hills. "We delivered 98 percent of the babies" born in those rural areas, she said.

Health-Public Health from the same university.

Upon graduation she joined the faculty of Barry College for Women, and later, the University of Miami School of Nursing, where she assisted in the establishment of public health nursing programs.

In 1960 Dr. Isaacs was admitted into the newly established nursing doctoral program at Boston University.

During the last year of her for-

mal studies while completing her dissertation, she was a special studies student in the Community Mental Health Program at Harvard University. Attending under an NIMH grant, she was the first nurse admitted into this program.

Her dissertation emphasizes the interdisciplinary approach to nursing in the care of the mentally ill and is entitled "Team Conflict—A Recapitulation of Conflict in the Home."

## James Sherman Davis Named to NIGMS Post

Dr. James Sherman Davis has been appointed Scientist Administrator with the Research Fellowships Branch of the National Institute of General Medical Sciences.

In this position Dr. Davis will provide professional guidance in the programs of research fellowship and career development in the biological sciences generally, and in the anatomical sciences in particular.

### Background Cited

Dr. Davis came to NIH from the University of Tennessee Medical School where he was a member of the faculty since 1951. Beginning as an Instructor in that year, he was promoted to Assistant Professor of Anatomy in 1955, Associate Professor in 1959, and Professor in 1963.

A native of Troy, Ala., Dr. Davis received a B.S. degree in Biology in 1941 from Birmingham Southern College and then served in the Army Air Force from 1942 to 1945. He was awarded an M.A. degree in Zoology from the University of Wisconsin in 1949 and received the Ph.D. degree from the same university in 1952.



Bessie M. Watkins of the Tumor-Host Relations Section, Laboratory of Biochemistry, NCI, receives a cash award from Dr. Herbert A. Sober, Chief of the Laboratory of Biochemistry, for her "consistent high quality performance which has contributed to the smooth and efficient functioning of the research team" in the Section.—Photo by Bob Pumphrey.

Dr. Davis is a member of the American Association for the Advancement of Science, the American Association of Anatomists, the Endocrine Society, and the American Society of Zoologists.

## STUDENTS

(Continued from Page 1)

onment in a number of diverse ways, all of which maintain and develop their self-esteem.

Most of the students developed new skills; they learned to size up a situation, budget their time wisely, strive for attainable goals, and obtain alternative means of gratification, as through extracurricular activities.

Effective coping relied especially on an active exploration of the human resources in the environment. Most of the students sought out upper classmen for support and guidance.

### Abilities Related

The ability to make and maintain friendships appeared related to the ability to solve problems in other spheres. Friends assured the student of his self worth and acted as models of behavior, sounding boards, and sources of support.

Informal "bull" sessions among friends served as an information exchange and increased intellectual stimulation. The students' increasing confidence enabled them to overcome anxiety in meeting the stiffer academic requirements of college. Most displayed a zeal for higher learning, and broadened and

## Drs. Alford and Sato Named Section Chiefs In Lab of Chemistry

The National Institute of Arthritis and Metabolic Diseases has announced the appointment of two new section chiefs in the Laboratory of Chemistry.

Dr. William C. Alford has been named Chief of a newly created Section on Microanalytical Services and Instrumentation, and Dr. Yoshio Sato has been appointed Chief of the Section on Steroids.

Dr. Alford is returning to intramural research, having spent the past four years as Scientist Administrator in NIAMD's Extramural Programs Branch. Dr. Alford previously held previous positions in NIAMD's Laboratory of Physical Biology and Laboratory of Chemistry, after joining NIH in 1941.

### Provides Services

The Section on Microanalytical Services and Instrumentation will provide services for research personnel of NIAMD and NIH. These services will consist of elemental and functional group analyses, and instrumental analyses such as optical rotation and nuclear magnetic resonance studies.

Dr. Sato had been Acting Chief of the Section on Steroids since May of 1962.

Dr. Sato joined the NIH in 1950 after spending four years at the Rockefeller Institute for Medical Research in New York, where he achieved international recognition for his work on various aconite and veratrum alkaloids. He received his Ph.D. in 1946 from the University of Rochester.

As Chief of the Steroid Section, he will direct its broad programs of research in steroid chemistry.

redefined their intellectual and vocational interests.

The competent students in this study built upon their previously existing self-esteem in coping with this period of transition successfully.

Studies with other groups of students may further clarify the broader implications of coping in personality development, and may explain why many students cannot cope with the demands of college.

Once the factors influencing the ability to cope are identified, the environment can be modified so as to be most supportive to successful coping.

A report of this study by Dr. George V. Coelho, Adult Psychiatry Branch, NIMH; Dr. David Hamburg, Department of Psychiatry, Stanford Medical Center; and Elizabeth Murphey, Walter Reed Hospital, Washington, D. C., appears in Archives of General Psychiatry.

**DR. AMES***(Continued from Page 1)*

tional Heart Institute had been named recipient of the \$1,000 Paul-Lewis Award in enzyme chemistry at the 145th meeting of the ACS.

On January 22 at a symposium in his honor, sponsored by the ACS Division of Biological Chemistry, Dr. Nirenberg was scheduled to deliver a paper, "On the Nature of the RNA Code."

Dr. Ames' main interest has been the relationship of genes and enzymes. In recent years Dr. R. G. Martin, Dr. D. W. E. Smith and Barbara Garry, all of NIAMD, have collaborated with him on this.

Dr. Ames has spent many years working out the pathway of histidine biosynthesis. Dr. P. Hartman of Johns Hopkins University has shown that the genes determining the 10 enzymes of histidine biosynthesis are in a cluster on the *Salmonella* chromosome.

**Direction Explained**

Dr. Ames and his co-workers have associated each of these genes with one of the histidine biosynthetic enzymes. His work over the last five years has been directed mainly to demonstrating that this group of genes, the histidine operon, functions as a single unit, controlled in its expression by the concentration of histidine in the cell.

The current experiments of Drs. Ames and Martin have led to a new theory on the reading by ribosomes of one large messenger-RNA (ribonucleic acid), made from the histidine operon, and containing all the information for the 10 histidine enzymes.

Dr. Ames has also published several papers on polyamines. He and Drs. Donald Dubin and Sanford Rosenthal, formerly of NIAMD, showed that polyamines were associated with and neutralized the nucleic acid of certain bacterial viruses.

**Independent Investigator**

Dr. Ames was trained in biochemistry and genetics at the California Institute of Technology, where he received his Ph.D. in 1953.

During 1953-54 he worked under a PHS Postdoctoral Fellowship with Dr. Bernard L. Horecker of NIAMD. He has been an independent investigator at NIH since then.

During 1961 Dr. Ames spent a sabbatical year working with Dr. Francis Crick at the Cavendish Laboratory, Cambridge, England, and with Dr. Francois Jacob at the Institut Pasteur, Paris, under a National Science Foundation Senior Postdoctoral Fellowship.

Dr. Ames is a member of the Genetics Society of America, the American Society of Biological Chemists, and the American Chemical Society.

**Booklet Describes Need For Psychiatric Nurses**

An illustrated booklet describing opportunities in psychiatric nursing for high school students has been issued by the National Institute of Mental Health.

"Nursing Careers in Mental Health" describes the various nursing positions open in public and private psychiatric hospitals, in the armed forces, and in community mental health programs conducted in clinics, in schools, in industries, and in homes.

**List Available**

For a list of accredited schools of nursing and of psychiatric nursing programs leading to graduate degrees the student is referred to the National League for Nursing, 10 Columbus Circle, New York 19, N.Y., or to the National Institute of Mental Health, Bethesda, Md. 20014.

Single copies of the booklet, PHS Publication No. 1051, are available from NIMH. Quantity copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

**Clarence May Dies in Clinical Center; Leader in Physical Development of NIH**

Clarence W. May, whose 37-year career with the Public Health Service spanned the emergence of NIH as one of the world's foremost research centers, died January 11 in the Clinical Center where he had been a patient since early fall.

Affectionately known as "Mr. NIH," Mr. May, 65, retired in 1957 as Special Assistant to the Chief of the Division of Research Services. He was one of 158 original employees who came to Bethesda in 1938 when the then National Institute of Health transferred from its downtown location at 25th and E Streets, N. W.

Although untrained as an architect or construction engineer, he became expert in the planning, construction and maintenance of research facilities and laboratories, and played a leading role in the physical development of NIH into the research complex of today.

Mr. May began his Federal career in 1917 as a messenger with the Department of Agriculture. He transferred to the Bureau of Risk Insurance in 1919, and then to the Bureau of the Public Health Service in 1920 as a multigraph operator. Both bureaus were then under the Treasury Department.

His capacity for leadership soon asserted itself and he rose rapidly

**Annual NHI-NNMC Research Seminars Attract Over 400 Teenage Students**

More than 400 area high school students are participating in the Fourth Annual Heart Research Seminars sponsored by the Montgomery County Tuberculosis and Heart Association in cooperation with the National Heart Institute and the National Naval Medical Center.



Dr. Louis Gillespie, Jr., of the National Heart Institute, addresses students at the opening session of the Fourth Annual Heart Research Seminars at Walter Johnson High School, Bethesda.

The seminars, held at NIH and the NNMC, are designed to stimulate greater interest in medicine and the biological sciences as a potential career among Montgomery County high school students.

Students registered at the first session on January 4 when they were introduced to certain aspects of the practice of medicine and how research progress advances the techniques of medical practice. They met again January 18 and 25, and have two more sessions remaining—February 1 and 8.

**Topics Listed**

Topics of the meetings include: Tuberculosis—Past, Present and Future; Smoking and Health; Carcinoid Tumor; Pharmacology of Digitalis; and Cardiac Resuscitation.

At the conclusion of the fifth and final meeting, a competitive examination will be held and the top 12 students will be awarded summer study opportunities in the laboratories of NIH and NNMC.

Edmund T. Burke, Chairman of the Research Fellowship Committee for these seminars, said, "The program has gained attention throughout the country as an outstanding example of student interest in scientific careers."

Dr. Louis Gillespie, Jr., of the National Heart Institute, is one of the 11 area physicians participating in the program.

**DR. SHERMAN***(Continued from Page 1)*

the rank of Scientist Director in the PHS Commissioned Officer Corps.

He joined the staff of NIAMD in 1956 as Assistant to the Chief of Extramural Programs, became Assistant Chief the following year and Deputy Chief in 1958.

Dr. Sherman served as Associate Director of Extramural Programs at the National Institute of Neurological Diseases and Blindness from July 1961 to January 1962, when he rejoined NIAMD.

A native of Oneonta, N.Y., he received his B.S. from the Union University College of Pharmacy in Albany, N.Y., in 1949 and his Ph.D. in Pharmacology from Yale University in 1953. He is the author of numerous scientific articles.

Many ideas grow better when transplanted into another mind than in the one where they sprang up.—Oliver Wendell Holmes, Reader's Digest.

to become Chief of the Administrative and Supply Section, PHS. During this period he became intimately concerned with the problems of property, equipment and facilities operation.

His natural bent for research facilities construction became so well known by 1937 that he was transferred to the National Institute of Health as an administrative assistant in charge of coordinating building plans.

As Superintendent of Buildings and Grounds and later as Chief of the Building Maintenance Branch, Mr. May participated in and supervised the design, planning and construction of virtually all NIH buildings from 1938 through 1948.

**Scientist's 'Best Friend'**

Known as the bench scientist's "best friend," his pioneering in the design of research equipment and facilities provided NIH with experience and knowledge in the modern trend in laboratory design. This was reflected in the major expansion program begun in 1948 with the planning and construction of the Clinical Center.

A native of Washington, D. C., Mr. May was the recipient of a Superior Performance Award in 1958, while serving as a Special Consultant to NIH.

Mr. May is survived by his wife, Eutha M., of the home address, 7201 Beacon Terrace, Bethesda, Md.; a son, John O.; three sisters, and five grandchildren.

## Clinical Study Produces New Classification of Types of Schizophrenia

A National Institute of Mental Health clinical study of thought disorder and family relations of schizophrenic patients has produced new diagnostic labels.

A new classification of types of schizophrenia which is based upon links between family patterns and structural aspects of schizophrenic impairment, especially thought disorder, has evolved from six years of family studies of young adult schizophrenic patients.

According to this principle, technically referred to as the differentiation-integration principle, organisms normally develop from a state of relative lack of differentiation to a state of increasing differentiation, articulation, and integration.

### Certain Families Studied

The investigators have tried to select families for study in which some degree of interaction between patient and family has continued and in which the children have been raised by their own parents. The transactions of the family as a whole, as well as relations between each parent and each child, were regarded as significant.

Some schizophrenic individuals show total, undifferentiated forms of functioning, or "amorphousness." Others show failure to understand dominance relationships even after some degree of clear differentiation has been achieved, or a category known as "fragmentation." Some individuals prevent potential thought disorganization by the use of rigid, constricting defenses.

### Patients Classified

Thus it has proved workable and useful for the investigators, Drs. Lyman C. Wynne and Margaret Thaler Singer, of the Adult Psychiatry Branch, NIMH, to classify schizophrenic patients by type of thinking (amorphous, mixed amorphous-fragmented, fragmented, and stably constricted) and severity of the psychotic tendency.

In amorphous schizophrenic patients, communication is marked by gaps, indefiniteness, vagueness, and briefness. They show impoverishment, flatness, dullness, and apathy, with more evidence of developmental failure than of major regressive loss.

Patients with mixed thinking have a generally "poor premorbid" background, although they have functioned fairly well in certain areas at times and show signs of perceptual and cognitive clarity.

Patients with fragmented forms of thought suffer from a serious failure in the articulation and integration of the parts of experience

## SOVIET PRIMATE CENTER HEAD VISITS NIH



Dr. Boris A. Lapin (second from right), Director of the Institute for Experimental Pathology and Therapeutics, the Russian primate center at Sukhumi on the Black Sea, recently spent two days at NIH visiting laboratories where research using primates is underway. Dr. Lapin also addressed two seminars, one for pathologists and the other for NIH scientists interested in primate research. Left to right: Dr. Joe R. Held, responsible for the NIH Regional Primate Research Center program; Dr. Willard H. Eyestone, Chief of the Animal Resources Branch, Division of Research Facilities and Resources; Dr. Lapin, and Dr. Harold Vagtborg, Director of the Southwest Foundation for Research and Education, which sponsored Dr. Lapin's visit to this country.—Photo by Ed Hubbard.

### NIAID's Common Cold Study Needs Additional Volunteers

Volunteers with winter colds, preferably within the first three days of infection, are still needed for the comprehensive common cold study being conducted by NIAID's Laboratory of Infectious Diseases.

Researchers hope to uncover new data on common cold infections through studies of nasal washings and blood specimens. Participants are paid \$2 for each of the two blood samples required for the study.

Anyone wishing to participate in this project may call Mrs. Hilda Kennedy, Ext. 65811, for additional information.

which, under favorable circumstances, they have been able to differentiate.

The stably constricted, or borderline schizophrenics, show similarities to other schizophrenics in their style of thinking, but over a period of time there is an underlying connectedness and coherent meaningful pattern in their thinking and in their lives.

Specific systematic applicability of this classification in family studies will be described in subsequent papers. The present findings are reported in the Archives of General Psychiatry.

Even though the tongue weighs practically nothing, it's surprising how few people are able to hold it.—The Washington Post.

## Seymour Fisher Resigns, Joins Boston U. Faculty

Dr. Seymour Fisher will resign Friday as Chief of Special Studies Unit in the Psychopharmacology Service Center of the National Institute of Mental Health to accept an appointment as Research Professor of Psychology at the Boston University School of Medicine.

In his new position, Dr. Fisher will direct the recently established Psychopharmacology Laboratory in Boston University's Division of Psychiatry. He will also serve as Director of Research Training in Psychiatry.

Dr. Fisher has been with NIMH since 1958 when he joined the Psychopharmacology Service Center as a research psychologist. In 1959 he edited a book on Child Research in Psychopharmacology, and later supervised the compilation of a 2-volume report on the use of psychotropic drugs in private practice.

In recent years Dr. Fisher was responsible for coordinating a research program in psychopharmacology, primarily investigating methodological problems involved in evaluating drug effects.

Based on a series of studies in normal subjects and in psychiatric outpatients, this program has elucidated some of the complex interrelationships between attitudinal factors and clinical drug effects.



Dr. Fisher

## Health Services Formula And Project Grants for FY '63 Issued by PHS

The Public Health Service has announced the publication of a new booklet listing \$76,315,709 in formula grants to the States for health services, and grants for special projects and demonstrations in the prevention and control of illnesses.

The booklet is Part IV of a 5-part series. Others list all PHS grants for research projects (Part I); awards for training (Part II); construction grants except those for waste treatment works (Part III); and summary tables (Part V) covering the data presented in Parts I through IV.

Formula grants to States for health services, so named because they are allotted by a formula in which population, financial need and extent of problem are considered, were begun in 1936.

### State Programs Aided

In 1963 formula grants were made to help support the general health programs of the States, and also for seven specific programs—tuberculosis, radiological health, cancer control, heart disease control, chronic diseases, mental health, and water pollution control. They were made to 50 States, the District of Columbia, Puerto Rico, the Virgin Islands and Guam.

Project grants support experiments and demonstrations on new techniques for the solution of specific health problems and are made to State or local public agencies or non-profit private organizations.

Awarded for fixed periods of time, they are made upon recommendation of advisory groups made up of non-federal experts acting as consultants, and include such projects as the institution of a new method of coordinating home care services for chronically ill persons.

### Booklet Costs 30 Cents

Copies of the new booklet—PHS Publication No. 1079, entitled Public Health Service Grants and Awards, Fiscal year 1963 Funds, Part IV, Health Services Formula and Project Grants—may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. The price is 30 cents.

Single free copies may be obtained from the Information Office, Division of Research Grants, Westwood Building, Bethesda, Md. 20014.

Golfer, with score card in hand, to partner: "I'm a two-handicap golfer—I have a boss who won't let me off early and a wife who keeps me home week-ends."—Chicago Tribune-New York News Syndicate.