

## Former Fellows Pursue Research Of NIH Interest

A recently completed Division of Research Grants survey of the current activities of former PHS Fellows indicates that 94 percent are working in areas of interest to the various Institutes here that provided their fellowship support.

The new survey, prepared by the Analysis and Evaluation Section, is the fourth to be made by DRG.

Considerably more detailed than earlier studies of the subject made in 1953, 1955 and 1957, it shows that the percentage of former Fellows engaged in some research activity stays about the same—approximately 87 percent.

### 67 Percent Teach

Over 67 percent of the respondents spend some time in teaching, 40 percent have administrative duties, and over 30 percent are in clinical practice.

More than half of the 2,917 former Fellows queried have some employment in a medical academic setting, i.e., school of medicine, dentistry, or public health, or in an affiliated institution.

Approximately 20 percent are  
(See FELLOWS, Page 4)

## Man-Against-Cancer Exhibit to Mark 25th Anniversary of Cancer Institute

Residents of the Greater Washington area will have a rare opportunity to see a dramatic portrayal of the Nation's fight against cancer during the month of April when "Man Against Cancer," an exhibition sponsored by the American Cancer Society and the National Cancer Institute, will be open free to the public on Pershing Square, at 14th Street and Pennsylvania Avenue, N.W.

Open daily from 11 a.m. to 8 p.m. beginning April 3 and continuing throughout the month, the exhibit is part of the 1962 celebration of Cancer Progress Year, marking the 25th anniversary of the founding of the National Cancer Institute and the first Amer-

## Dr. Fraser of NIMH Receives PHS Award For Outstanding Work

Dr. Havelock F. Fraser, Associate Director of the Addiction Research Center, National Institute of Mental Health, was awarded the Public Health Service Meritorious Service Medal in ceremonies held February 12 at the USPHS Hospital in Lexington, Ky.

The award, for "an outstanding productive career in research on drug addiction," was presented to Dr. Fraser by Dr. Robert H. Felix, Director of NIMH.

### First NIMH Winner

The first NIMH staff member to receive the PHS Meritorious Service Medal, Dr. Fraser has served in his present position since 1949. The research that he has reported and conducted since he has been at Lexington has formed the basis for Federal Bureau of Narcotics and World Health Organization decisions on the need for legal control of newly developed synthetic narcotics.

Before joining the PHS Commissioned Corps in 1935, Dr. Fraser served as a medical intern at the USPHS Hospital on Staten Island, N.Y., and as a ward surgeon in the

(See DR. FRASER, Page 6)

ican Cancer Society national educational and fund-raising campaign.

Planned to bring into sharp focus the progress that has been made and the present day work of scientists, physicians, laymen and others who are involved in cancer control, the exhibition will include live exhibits, photographs, motion pictures and research tools.

The exhibition is designed in concentric circles. At the center is a dramatic symbol of the enigma of cancer. Around this are exhibits which tell in clear and intelligible terms the story of major research fronts of today in epidemiology, chemotherapy, virology, and immunology.

(See EXHIBIT, Page 2)

## House Hearings End, Senate's Begin; \$780.4 Million Requested for NIH

Following completion of the House Appropriations Subcommittee hearings, Dr. Shannon, Institute Directors and other immediate staff were prepared to resume testimony

this week before the Senate Appropriations Subcommittee in support of the NIH budget request for Fiscal Year 1963.

Start of the Senate hearings on the NIH portion of the budget was awaiting completion of the DHEW and PHS hearings which were scheduled to begin Tuesday of last week.

The NIH request is for \$780.4 million, exclusive of \$19.8 million for direct construction and \$50 million for health research facilities construction grants.

### Included in PHS Request

The NIH total is included in the Public Health Service request for \$1.452 billion, which is part of the Administration's request for \$5.1 billion for the Department of Health, Education, and Welfare.

The NIH funds were designated for the following activities:

Grants & Related Contracts	(Millions)	
Research	\$471.8	
Fellowships	26.0	
Training	119.8	
State control programs	15.2	
Community demonstrations	4.0	
Subtotal		\$636.8
Direct Operations		
Research	65.4	
Collaborative studies	46.5	
Biologics standards	4.0	
Training activities	.8	
Prof. & tech. assistance	10.4	
Review & approval	12.6	
Administration	3.9	
Subtotal		\$143.6
Construction		
Master utility extension	4.8	
Research facilities and site acquisition	2.1	
Cancer res. facilities	10.3	
Bldg. 12 construction	1.8	
Perinatal physiology lab.	.6	
Biologics standards annex	.2	
Subtotal		19.8
Health research facilities construction grants		50.0
TOTAL		\$850.2

Following is a breakdown of the NIH budget request, exclusive of construction:

(See HEARINGS, Page 5)

### St. Patrick's Day Dance Planned for CC Patients

St. Patrick's Day will be observed by Clinical Center patients Saturday with a dance in the CC 14th floor assembly hall at 8 p.m. Music will be furnished by the Air Force Dance Combo.

Patients are making the St. Patrick's Day decorations which will include a replica of the Blarney Stone.

### EHS Facilities in CC Are Being Renovated

Extensive renovation of the Employee Health Service quarters in the Clinical Center is now under way and construction will continue for the next 60 to 90 days.

Dr. John M. Lynch, Chief of the Employee Health Service Branch, urges employees during this period to use the North Employee Health Unit (Room 2BB34) in Building 31 whenever possible.

The services there will be expanded throughout the renovation period, and the staff will include two physicians on duty in the mornings and one in the afternoons, in addition to adequate nursing personnel.

### 'Shane' Is Fourth Film In R&W Winter Series

The Recreation and Welfare Association of NIH announces that the next in its series of free movies will be "Shane," starring Alan Ladd and Brandon deWilde.

The film is scheduled to be shown Saturday and Sunday, March 24 and 25, at 8 p.m. in the Clinical Center auditorium.

Employees, guests, and CC patients are invited to attend.

# the NIH Record

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Editor ..... E. K. Stabler

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## 'PERSONNEL' TO PERSON

**A** BRAHAM RIBICOFF, Secretary of Health, Education, and Welfare, has issued a statement concerning the Department's policy on age considerations in employment and promotion.

He emphasized that DHEW employment and promotion decisions should be based on the individual's abilities and qualifications, without irrelevant restrictions such as age or other factors not related to job performance.

### Sense of Worth Stressed

He called attention to the fact that most individuals can earn their livelihoods only through their jobs, and that they derive from their work a sense of personal worth and dignity, as well as income. This equality of opportunity for employment for older persons, when they compete with others of similar qualifications, should be an essential ingredient of DHEW policy, he said.

Secretary Ribicoff's statement concluded:

"I urge you, in your own actions and in influencing the actions of others, to be vigilant to assure that the right of qualified citizens to work for their government shall not be denied or abridged on account of age."

## Shulman Named Chief Of New NIAMD Branch

Dr. N. Raphael Shulman has been appointed Chief of the newly established Clinical Hematology Branch, Clinical Investigations, National Institute of Arthritis and Metabolic Diseases.

Formerly a hematology service in the Metabolic Diseases Branch, this new Branch furnishes consultation in general hematology not only to NIAMD but also to CC clinicians.



Dr. Shulman

Dr. Shulman and his staff also provide specialized laboratory diagnostic procedures in cooperation with the Hematology Service of the CC Clinical Pathology Department.

The particular research interests of the Clinical Hematology Branch continue to be in the fields of immunology and blood coagulation. Recent reports on these studies concern the discovery of various distinct types of human blood platelet antigens and clinical disorders caused by antibodies against them.

Investigators in the Branch have also developed new methods for measuring antihemophilic blood clotting factors and for treating patients with hemophilia.

## NIAMD Rheumatoid Arthritis Theory Illustrated by New 3-D Plastic Model

A 3-dimensional model providing further evidence of the intimate relationship between inflammatory arteries and subcutaneous nodules of rheumatoid arthritis has been prepared by the DRS Medical Arts and Photography Branch for Dr. Leon Sokoloff, Chief of the Section on Rheumatic Diseases, NIAMD Laboratory of Experimental Pathology.

### Constructed in Segments

Construction of the model in various segments was a necessary preliminary step to the creation of accurate medical illustrations demonstrating the theory that subcutaneous rheumatoid nodules develop in areas of arterial lesion.

The model was constructed by making tracings of microscopically enlarged serial sections of an early subcutaneous nodule. Outlines of the arteries, veins, capillaries, granulation tissue, and subcutaneous tissue were traced onto transparent plastic sheets.

The sheets were then placed in sequence, one below the other, to form a transparent block graphically illustrating the position of

these systems within the sections of tissue.

The tracings were made to scale for every 15th section and coded by number and color to the various conditions found.

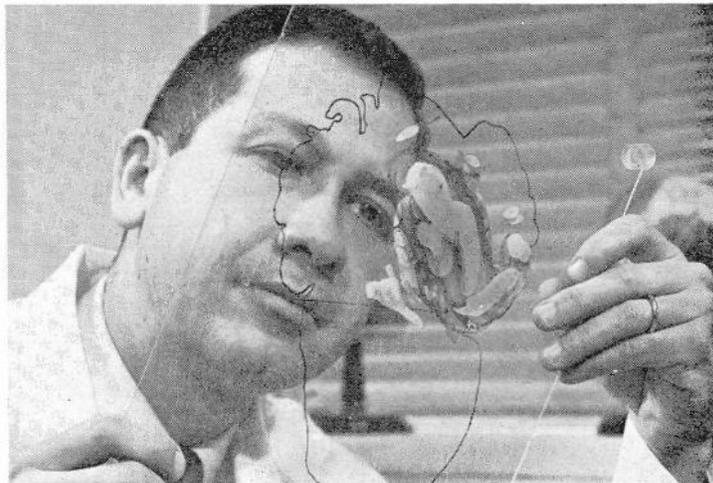
In another sequence, cutouts were made from dental wax to reproduce the mass of granulation tissue within the nodule, and from transparent plastic to represent the zones of fibrinoid necrosis surrounding the area of granulation.

The cutouts were laminated serially to form a 3-dimensional view of the nodule, and then glued beneath a tracing of the tissues on transparent plastic.

### Termed Unique

A unique research tool when viewed in series or in part, the 3-dimensional model clearly demonstrates the relationship between the arterial lesion and the various systems depicted.

Howard Bartner, the medical illustrator responsible for execution of the model, worked in close collaboration with Dr. Sokoloff during all stages of developing the 3-dimensional concept.



Howard Bartner, a medical illustrator in the Medical Arts and Photography Branch, DRS, examines a 3-dimensional plastic and wax model used in creating accurate medical illustrations.—Photo by Bob Pumphrey.

## EXHIBIT

(Continued from Page 1)

In the next circle are instruments, tools and techniques of research developed since 1937. On the outer rim are three-dimensional photographic and textual descriptions of the nature and scope of the cancer problem showing development in detection, diagnosis and treatment. Here emphasis is placed on what every person can do to protect himself against cancer.

The exhibition, which covers 9,000 square feet, will be housed in a geodesic dome loaned by the

Ford Motor Company. Cooperation in staging and developing the exhibit has been obtained from leading scientists, hospitals and institutions, from the National Park Service which has made the space available, and from manufacturers who are supplying scientific equipment.

You may claim your child who is under 19, or a full time student, as a dependent on your 1961 Federal income tax return no matter how much he earned in 1961 so long as you furnished over half of his support.

## Registration Set March 14 For Histology Course

The Technicians Study Group of the National Cancer Institute has announced registration for a course in physiological histology to be taught by Dr. Ross MacCardle of NCI's Laboratory of Pathology.

The course, consisting of one lecture and one laboratory session each week, will be held on Wednesdays from 4-10 p.m.

April 4 has been set as the tentative starting date for the course, which will continue for approximately five months.

An organizational meeting for

those interested in the course, which is offered free of charge, will be held in the Clinical Center 14th floor auditorium, tomorrow (March 14) at 4 p.m.

Study Group Officers for 1962 include Arleigh Green, President; Herman Michelitch, Vice President; Shirley Pulley, Secretary; Henry Medlin, Treasurer; and Anne Wilson, Delegate-at-Large.

Further information concerning the course and other Study Group activities may be obtained from Mr. Green, Ext. 2175.

## Question-Answer Period Scheduled for Officers Planning to Leave PHS

A question-and-answer period for Commissioned Officers preparing to leave active Public Health Service duty on or about July 1 is scheduled to be held Wednesday, March 21, at 3:30 p.m. in the Clinical Center auditorium.

The session, planned under the direction of Joseph A. Staton, Deputy Chief of the CC Clinical and Professional Education Branch, and Boyd W. Stephenson, Chief of the Commissioned Officers Section, PMB, is designed to answer typical questions that confront an officer about to return to private life.

### Typical Questions Listed

These include questions on separation procedures, leave and pay, shipment of household effects, inactive status, physical examinations, and personnel orders.

Dr. Murray C. Brown, Chief of the CC Clinical and Professional Education Branch, will be chairman of the session and Dr. Richard C. Arnold, PHS Assistant Surgeon General for Personnel and Training, will address the meeting.

On hand to answer questions will be Mr. Stephenson and Gene Knapp from the PHS Division of Commissioned Officer Personnel.

Complete inactivation information as well as all necessary forms will be available.

Administrative personnel concerned with inactivation procedures are invited to attend the session.

## DRS Engineers Assigned Instrumentation Areas

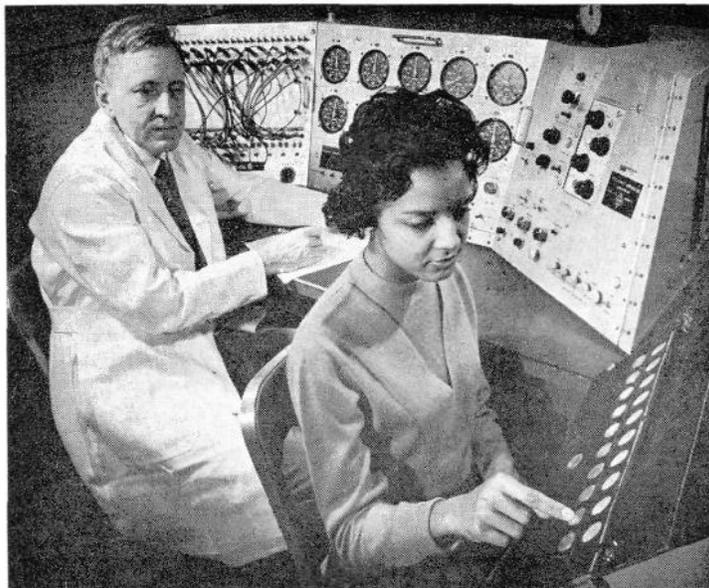
Because of the widening scope of instrumentation engineering support requested from its Instrument Engineering and Development Branch, the Division of Research Services is dividing engineering projects into various broad specialty fields, with a project engineer assigned to each. At present three such areas of specialization have been organized.

The project engineers and their specialties are Peter Carmeci, automation; Gerald S. Cohen, physiological monitoring and clinical applications; and Gerald G. Vurek, biochemical analysis.

Each is an engineer educated in electronics and the life sciences. Other engineers who are specialized in electronics or mechanical engineering support the project engineers and also handle projects not falling under any of the named specialties.

The Branch plans to assign project engineers to other specialized areas of biomedical instrumentation engineering.

## NIMH Psychomet Measures Performance Speed in Aging



Dr. James E. Birren, Chief, Section on Aging, Laboratory of Psychology, NIMH, observes the speed with which Research Assistant Shirley L. Phillips reacts to various simple and complex stimuli at the panel of the Psychomet.—Photo by Jerry Hecht.

An instrument designed and constructed at the National Institute of Mental Health—the Psychomet—has yielded significant data on the extent to which aging involves a general slowing of mental and behavioral processes.

As the test subjects press keys in response to various simple and complex stimuli shown on a panel of 10 lights, the Psychomet programs and measures the speed of reaction in an unusually broad range of tasks.

### Speed Relates to Age

In the young, speed has been shown to depend more on the nature of the specific task performed and is not necessarily consistent with speed of performance of other tasks. In older persons, however, there is often a general slowing of psychomotor performance.

These findings were reported by Dr. James E. Birren, Chief of the Section on Aging, Laboratory of Psychology, NIMH, in the journal *Gerontologia*.

Because of the relevance of these findings to the assessment of psycho-physiological changes in the normal adult, the Federal Aviation Agency has used the Psychomet in aging studies on civil air pilots and air traffic controllers.

To date, the agency has completed examinations of 160 individuals. The results are being analyzed in cooperation with the Section on Aging and the Biometrics Branch, NIMH.

Preliminary results of the FAA studies indicate statistically significant age trends toward the slowing of performance and the surprising finding that trends are ap-

pearing in relatively young, healthy men. FAA investigators have also found psychomotor speed deficits in relatively mild, stable cardiac cases beyond the expectations for their age.

Further data analysis and research by Dr. Birren and associates will explore the possible physiological bases for the changes. Of considerable importance is the suspicion that observable behavioral changes may antecede later-to-follow physiological changes related to health.

### May Predict Longevity

These findings pose implications for determining the extent to which behavioral changes of advancing age may be predictive of length of life and disease states, and may eventually have a place in early detection methods in health surveys.

The Psychomet resulted from close collaboration between three NIMH staff members. Dr. Birren is the only member of this group still at NIH. The others, Dr. Conan Kornetsky, then with the Laboratory of Clinical Sciences, is presently a member of the Department of Pharmacology at Boston University, and Michael Davis, then Head of the Technical Development Section at NIMH, has joined the staff of General Electric Company in Schenectady, N.Y.

## Enzymatic Activity Shown in Glial Cells During Brain Edema

A histochemical study by scientists of the National Institute of Neurological Diseases and Blindness offers new evidence that glia (small cells interspersed among the nerve cells and fibers in the brain) display an increased enzymatic activity following brain injury associated with cerebral swelling.

By demonstrating histochemically various oxidative enzymes (dehydrogenases), the investigators were able to show that astrocytes (one of the three types of glia) appeared to increase their enzymatic activity during the development of edema. Furthermore, this increased activity persisted long after edema had subsided.

### Findings Published

This study was made by Dr. Lucien J. Rubinstein, Visiting Scientist, together with Drs. Igor Klatzo and Jaime Miquel, all of the Surgical Neurology Branch, NINDB, and is reported in the *Journal of Neuropathology*.

For these experiments, brain lesions in cats were produced by cold injury, with resulting swelling of the white matter of the brain. In the area of edema, certain enzymes displayed an increased activity in astrocytes within 12 hours, whereas other enzymes showed this phenomenon at later stages.

The histochemical observations were correlated with other findings derived from application of specific staining methods for glia as well as by the use of fluorescein labeled proteins in the same brain injury.

Generally, the investigations indicated that the astrocytes are primarily implicated in the process of cerebral edema and emphasized the metabolically dynamic character of this involvement.

## Dr. Shimkin, NCI, to Be Cancer Panel Member

Dr. Michael B. Shimkin, Associate Director for Field Studies, National Cancer Institute, will be a member of a panel discussing the subject, "Are Smoking and Air Pollution Causes of Lung Cancer?" at a meeting of the St. George Society next Tuesday, March 20.

The meeting will be held in the District of Columbia Medical Society's auditorium, 1718 M Street, N.W., at 8 p.m. Moderator of the discussion will be Dr. Brian Blades, Professor of Surgery, George Washington University School of Medicine.

## Dr. Karl Habel, NIAID, Is Visiting Lecturer At Glasgow University

Dr. Karl Habel, Chief of the Laboratory of Biology of Viruses, NIAID, has accepted the invitation of the University of Glasgow to be a Visiting Lecturer in the Department of Virology. He left for Scotland March 6.

A world authority on rabies, Dr. Habel in recent years has also been interested in the problem of polyoma tumor virus. He holds the rank of Medical Director



Dr. Habel

in the PHS Commissioned Corps and has been prominently associated with infectious disease research at NIH since the late 1930s.

During his 3-month stay in Scotland, he will continue his research on polyoma virus. He will also participate in a postgraduate course in basic virology at the University.

Dr. Habel plans to return to NIH in early June. The following month he will attend the Eighth International Cancer Congress, to be held in Moscow July 22-28, where he will present a paper entitled "Immunological Factors Influencing Polyoma Virus Oncogenesis."

After the meeting in Moscow Dr. Habel will proceed to Stockholm to work for three months at the Institute for Tumor Biology in the laboratory of Dr. George Klein at the Karolinska Institutet. He will return to this country at the end of October.

## Dr. Wolf Will Present CC Concert March 15

Dr. Kenneth Wolf, pianist, will present the next concert in the R&W-sponsored winter concert series, Thursday, March 15, at 8:30 p.m., in the Clinical Center auditorium.

Dr. Wolf combines two full-time careers—scientist and concert pianist-composer. From 1957 to 1959 he was a Research Associate in the National Institute of Neurological Diseases and Blindness and at present is a Research Fellow at Harvard Medical School.

He studied music under Artur Schnabel and Rosina Lhevinne, and composition with Paul Hindemith. He has performed professionally for many years and has presented several previous concerts at NIH.

The program will consist of Mozart's Sonata in D Major, K. 576; Beethoven's Six Bagatelles, Op. 126; Brahms' 25 Variations and Fugue on a Theme by Handel;

## HEW Association Invites NIH Employees To Join Bargain Rate European Tours

How many NIH employees are aware that they are eligible for one of the best of European travel bargains?

For more than five years the HEW Employees Association (the downtown equivalent of the NIH Recreation and Welfare Association) has been sponsoring first class trips to Europe, using chartered commercial airliner, with motor coach travel on the continent.

This year two Grand Tours are being offered, plus two optional tours, one to Scotland and Scandinavia and one to Spain and Portugal.

The first Grand Tour leaves Washington on May 19 for London, returns from Paris on June 18. This 31-day trip costs \$768. The 31-day Scotland-Scandinavia option costs \$889.

The second Grand Tour leaves for London on August 23, returns from Paris, September 28. The cost of this 37-day trip is \$865. The optional 37-day tour to Spain and Portugal is the same price.

### Itinerary Is Varied

The HEW Tour Committee believes these are the best tours they have ever been able to offer. The Grand Tour itineraries are a well-diversified blend of big cities (stops are made in London, Munich, Vienna, Rome, Paris), resort areas such as the Italian Riviera, small villages, the magnificent mountains of Germany, Austria and Switzerland, and much more. Last year, the August-September Grand Tour covered 5,700 land miles.

A trip up the Rhine is one of the highlights . . . a ride on the cogwheel railway to the top of Mt. Pilatus in Switzerland . . . in France a visit to Fontainebleau and Versailles . . . a performance of the Salzburg marionettes on their Austrian home stage . . . several days in Rome. These are only samples of what is in store.

Eligibility for the charter flight depends on membership in the HEW Employees Association which all NIH employees may join. (R&W membership does not qualify for the charter flight privilege.) Membership costs \$1.50 yearly. The fee should be sent to the Association, Mezzanine, HEW Bldg. North, 330 Independence Ave., S.W. Tour

and Liszt's Concert Etude, "La Leggerezza," and the Hungarian Rhapsody No. 6.

Tickets are available at the R&W Film Desk in the Clinical Center and at the R&W office in Bldg. 31, Rm. 1A18. Admission for adults is one dollar. Children under 12 and CC patients and their attendants will be admitted free but tickets must be obtained.

itineraries are also available upon request.

Husbands, wives and children living in one household are also eligible for the flight. Friends and other relatives can join any of the tours in Europe but must make their own flight arrangements over and back.

It is also possible to sign up for "flight only" for just \$300 round trip, with first priority for seats going to tour participants.

Last year 20 people toured in August-September under HEW auspices and about 66 took advantage of the charter flight privilege. Non-tour members made their own European plans and returned with the charter flight.

The price of the HEW tours include all expenses. Arrangements for hotels and meals are made in advance and all expenses, including tips, are pre-paid and handled by the multi-lingual courier who meets the group in London and stays with them until plane time in Paris.

## FELLOWS

(Continued from Page 1)

employed in academic settings other than medical and about 16 percent are in Federal, State and local health institutions.

Over half of the former Fellows indicate their major interest as being in the broad areas of the biosciences. Almost 30 percent have professional interests in clinical medicine. About eight percent report their major interest to be in psychology, and a little over six percent in the physical sciences.

The interests of the remaining six percent were distributed among such areas as dentistry, mathematics, and biostatistics, sociology, and social work.

Many of the respondents have received or are now receiving research grant or contract support from more than one agency. The Public Health Service has provided support for over half of the former Fellows, private foundations, one-quarter, and Federal health agencies other than the PHS, slightly more than one-fifth.

Since termination of their fellowships, 72.5 percent of the respondents have received some form of research grant or contract support. Of this group nearly 90 percent served or are serving as principal investigators or coinvestigators and the remaining 10 percent as other professional participants.

At least one former Fellow is employed in every State in the Union. Sixteen states, including the District of Columbia have fifty or more former Fellows. New York has the largest number,

## Nine Agencies Benefit In Current Campaign Of Joint Crusade

Once upon a time there was a mouse called Funnyfoot. He was given that name because his hind legs dragged. He had muscular dystrophy. Now, Funnyfoot and his brothers and sisters are helping scientists—supported by the Muscular Dystrophy Associations of America—to find the cure for this crippling disease which afflicts more than 200,000 Americans, most of them children.

The Muscular Dystrophy Associations of America is one of nine agencies being supported in the sixth annual National Health Agencies—Federal Service Joint Crusade campaign now under way at NIH. Of the nine agencies supported by the drive, six are in the health field and three conduct overseas relief and information programs.

### Supports These Agencies

The National Health Agencies receiving support in the Washington campaign are the Muscular Dystrophy Associations of America, the National Multiple Sclerosis Society, the National Society for Crippled Children and Adults, the United Cerebral Palsy Associations, the American Cancer Society, and the American Heart Association. Agencies receiving support from the Federal Service Joint Crusade are the American-Korean Foundation, CARE, and Radio Free Europe.

President Kennedy has endorsed the campaigns and urges all Federal employees to give them their wholehearted support.

The government-wide campaign has been underway since March 5. NIH keymen in the Institutes and Divisions have completed their distribution of information and envelopes for the drive, and the contributions are beginning to come in.

"NIH participation in past years has not been as enthusiastic as I know it could be," said Dr. Ralph E. Knutti, NHI Director and Vice Chairman for the drive at NIH. "Last year's results of 58.6 percent participation for the National Health Agencies and 57.3 percent for the Joint Crusade can be improved," he said. "In view of the close relationship of our research to the health and welfare problems represented in the work of these nine agencies, I urge all employees to support this campaign as generously as possible."

amounting to 15 percent of the total. Four States—New York, Massachusetts, California, and Maryland—together account for over two-fifths of the former Fellows.

## Dr. Heinz Specht Is President-Elect of D.C. Science Academy

Dr. Heinz Specht, Chief of the Laboratory of Physical Biology, National Institute of Arthritis and Metabolic Diseases, has been named President-elect of the Washington Academy of Sciences. He will fill this position for one year before becoming President of the Academy in January 1963.

The purpose of the Washington Academy of Sciences is to promote the advancement of the sciences in the Washington area. Through cooperation with 28 affiliated societies, the Academy sponsors a Washington Junior Academy of Sciences and makes annual awards and grants-in-aid for scientific work of unusual merit.

### Active in Academy

Dr. Specht has been an active member of the Academy since 1948 and has served as its Secretary since 1955. He is well known for his research on respiratory physiology and has specialized in studies of abnormal atmospheric environments, both high altitude and underwater. He is also an authority on the toxicology of organic vapors.

A Scientist Director in the PHS Commissioned Corps, Dr. Specht came to NIH in 1936 as a physiologist with the Research Section of the former Industrial Hygiene Division and the Industrial Hygiene Research Laboratory. He joined the NIAMD staff in 1946 and was appointed to his present position in 1953.

### Is Faculty Member

He is a graduate of Princeton University and received a Ph.D. degree in physiology from Johns Hopkins University in 1933. He spent the following year at Johns Hopkins as an Adam T. Bruce Fellow in Zoology. From 1935 to 1936, he was on the faculty of the New York University Medical College.

Dr. Specht is affiliated with several scientific societies, including the Philosophical Society of Washington, the Society for Experimental Biology and Medicine, and the American Physiological Society.

## Grant History Unit Employs 'Railroad' To Keep Its Financial Records Moving



Anne Heenan (left) checks over a grants record while seated on her rolling desk-and-chair unit in the DRG Grants History Unit, and Lucille S. Anderson pulls a record from the thousands that are filed in the 48-foot magazines running almost the entire length of the room.—Photo by Sam Silverman.

Its "information please" role keeps the Grant History Unit of DRG on the move. So much so, in fact, that the desk-and-chair units in the office are on wheels that ride on 48-foot tracks.

The Grant History Unit, supervised by Valerie Keating, is a component of the Division's Grants Management Branch. It maintains a complete financial history of every grant ever awarded by the NIH.

### NYU Gets First Grant

A member of its staff can tell in short order that NIH's first grant was made to the New York University School of Medicine in 1946.

"The grant was for \$5,000," Mrs. Keating said, "and that was an average grant in those days. Today the average grant is in excess of \$20,000."

In addition to its function as an information center for research grants, the unit also plays the role of detective in spotting errors in grants reference information. Daily it produces a Resumé of

Transactions—a summary of all changes in grants records.

Four metal file magazines with a capacity of approximately 45,000 file cards, 8 x 10½ inches, hold the unit's records. The magazines are set end to end in two rows 48 feet long.

### Moves on Wheels

Desk-and-chair units, each with a telephone and electric typewriter, are mounted on a platform equipped with wheels. They ride on steel tracks laid along both sides of the magazines.

There are eight of these unique desk-and-chair units, two to each track, enabling the staff to quickly and easily reach and report on any file card in the magazines.

In 1946 when the Grant History Unit was established, the only summaries that it handled were those of NCI grants and NIH (general medical) grants.

Today the Unit services all NIH Institutes and Divisions, and in 1961 it took over the "case histories" of Bureau of State Services Grants as well.

## Dr. Aborn Joins DGMS, To Head New Program In Behavioral Sciences

Dr. Murray Aborn, formerly Executive Secretary of the Behavioral Sciences and Mental Health Study Sections, Division of Research Grants, has joined the staff of the Division of General Medical Sciences to head a new program of grants in the behavioral sciences.

Dr. Aborn will supervise the review of applications for research and research training grants in the basic behavioral sciences. His appointment is a result of broadening interests by NIH in the health-related aspects of the sciences concerned with human behavior, augmenting present programs of the National Institutes of Mental Health and the Division's programs in the fundamental biomedical sciences.

### Development Studies Planned

Studies will be supported on how and why man conducts himself as he does within his human and technological environments, and how and why he develops and changes.

The research and research training activities will be concerned with fields such as cognitive, social, and physiological psychology; sociology and social medicine; and cultural and comparative anthropology.

Born in New York City, Dr. Aborn was a graduate assistant at Columbia University from October 1946 to June 1950 and received the Ph.D. degree there in 1950. He served in the U. S. Army from September 1942 to December 1945.

### Serves at AF Base

From 1950 to 1953 Dr. Aborn was on the faculty of the Department of Psychology at Michigan State University, East Lansing. From 1953 to 1957 he served as a research psychologist, Air Force Personnel and Training Research Center, Maxwell Air Force Base, Ala. and from 1957 to 1958 as an educational specialist, Industrial College of the Armed Forces, Fort Leslie J. McNair, Washington, D. C.

He then served as research scientist and team chairman, Special Operations Research Office, Washington, D. C., until September 1958, when he came to NIH as research psychologist in the Division of Research Grants.

He has contributed numerous articles to professional journals in the field of psychology, psycholinguistics, clinical diagnosis of intelligence, IQ variability in relation to age, information theory and immediate recall, and related subjects in behavioral sciences.

## HEARINGS

(Continued from Page 1)

Appropriation	(Millions)
Gen. Res. & Services	\$147.8
NCI	139.1
NIMH	126.9
NHI	126.9
NIDR	17.2
NIAMD	91.9
NIAD	59.4
NINDB	71.2
Total	\$780.4

Members of the House Appropriations Subcommittee are John

E. Fogarty of Rhode Island, Chairman; Fred Marshall, Minnesota; Winfield K. Denton, Indiana; Melvin R. Laird, Wisconsin; and Robert R. Michel, Illinois.

Members of the Senate Appropriations Subcommittee are Lister Hill of Alabama, Chairman; Dennis Chavez, New Mexico; Richard B. Russell, Georgia; Warren G. Magnuson, Washington; John Stennis, Mississippi; John O. Pastore, Rhode Island; A. S. Mike Monroney, Oklahoma; Alan Bible,

Nevada; Robert C. Byrd, West Virginia; Hubert H. Humphrey, Minnesota; Carl Hayden, Arizona (ex officio); Norris Cotton, New Hampshire; Margaret Chase Smith, Maine; Gordon Allott, Colorado; Clifford P. Case, New Jersey; and Leverett Saltonstall, Massachusetts (ex officio).

Up to \$100 a week, or \$20 a day, of earnings you received while out sick may be deductible on your 1961 Federal income tax return.

## Promising New Method Developed to Purify Pathogenic Rickettsiae

The purification of large amounts of rickettsiae by differential, continuous flow centrifugation from molar salt solutions followed by ether treatment, has been found to produce rickettsial material possessing protective qualities fully equal to conventional rickettsial vaccines. In addition, this method of purification reduces the amount of undesirable contamination with egg-white antigen.

The method was developed by Dr. Richard A. Ormsbee of the National Institute of Allergy and Infectious Diseases; Rocky Mountain Laboratory, Hamilton, Mont.

Human sensitivity to egg proteins is well established and is one of the factors which makes the purification of rickettsiae important. Also, studies of chemical composition and antigenic qualities of rickettsiae depend primarily upon the availability of pure preparations.

### Is Relatively Easy

In addition to providing pure suspensions of the organism, this method is relatively easy and quick, and results in efficient production of large amounts of purified organisms. Tests to date indicate that the preparations are fully potent protective antigens in animals.

Dr. Ormsbee worked with four rickettsial strains which cause human disease: *Coxiella burnetii* (Q fever), *Rickettsia prowzekii* (louse-borne typhus), *Rickettsia mooserii* (murine typhus), and *Rickettsia rickettsii* (Rocky Mountain spotted fever).

With the new method he achieved large yields of purified rickettsiae from infected yolk sacs of embryonated chicken eggs. In *C. burnetii* preparations particularly, the amount of detectable egg-white antigen was reduced to very low levels.

### Predicts Less Sensitivity

Dr. Ormsbee believes that these features make it feasible to use the purified preparations as vaccines for humans and as standardized serologic reagents. He predicts that such vaccines will markedly reduce the incidence of untoward reactions in persons sensitive to egg-white or yolk-sac antigens.

The study of the nature and chemical composition of rickettsial antigens has been facilitated by the availability of large amounts of purified organisms.

A phenomenon of note is described in the present paper. Two phases of *C. burnetii* organisms

## Dr. Anderson, NIAMD, Leaves for Research At NASA Center

Dr. Evelyn Anderson, Chief of the Section on Endocrinology, Laboratory of Nutrition and Endocrinology, NIAMD, left NIH March 10 for a position with the National Aeronautics and Space Administration.



In her new position, Dr. Anderson will head a research unit in neuroendocrinology at NASA's Ames Research Center at Moffett Field, California. Dr. Anderson has been associated with NIAMD since 1947. For the past seven years she has also been a visiting professor of physiology at the Howard University Medical School.

She received an M.D. degree from the University of California in 1928 and a Ph.D. degree in biochemistry from McGill University in 1934. She was subsequently associated with both institutions until joining the Department of Physiology at the Johns Hopkins University Medical School on a Guggenheim Fellowship in 1946.

### Authors Many Papers

Well known for her work in endocrinology, Dr. Anderson has been actively associated with several scientific societies, including the Endocrine Society. She has been the recipient of numerous honors in recognition of her work and has written over 100 papers on the results of her research.

Dr. Anderson accompanied her husband, Dr. Webb Haymaker, to California. A neuropathologist, Dr. Haymaker is Associate Director in charge of the Life Science Program at Ames Research Center.

Prior to her departure, Dr. Anderson was the guest of friends and associates at a farewell reception in the Clinical Center last Friday.

are recognized—Phase I characterized by failure, and Phase II by ability to fix complement under certain specific conditions. During centrifugation, Phase I Q fever organisms formed a white bottom layer with a sharply delimited upper boundary with a layer of brown contaminant above.

In contrast, Phase II organisms formed a cream-colored bottom layer graded evenly into the brown overlay. This is clear evidence of a structural or chemical difference between organisms in the two phases, and is the first time a variation of this nature has been recognized.

## New TCO System Simplifies Purchase Of Numerous Small Dollar-Value Items

The value of decentralized placement of small purchase orders has been amply demonstrated over the past 12 months by the Telephone Charge Order system of the Supply Management Branch, OAM.

Developed by the SMB Procurement Section, the TCO system is designed to reduce the cost of handling small purchase orders and to expedite the final receipt of small dollar-value items.

Said to be unique in Government, the system eliminates the

preparation of formal purchase orders and permits the ordering office to have direct telephone contact with suppliers.

The system is used primarily for special and short term inventory supplies costing up to \$50 and, in a few excepted cases, up to \$100.

In using the system any authorized person at NIH may place an order for supplies or equipment with any one of the 125 firms, most of them local, with whom the SMB Procurement Section has established charge accounts.

Deliveries are usually made within 24 hours directly to the requesting laboratory or office. In some cases deliveries are made to the receiving platform of the building in which the ordering office is located, and occasionally to the Shipping and Receiving Platform of Building 13.

### System Is Popular

An example of the simplicity and the popularity of the TCO system can be seen by the fact that from July 1, 1961, through December 31, 7,530 TCO's were placed by approximately 500 persons at NIH. These orders contained 13,159 line items with a total value of \$166,107.

In contrast, 17,106 purchase and charge orders with 55,469 line items were placed during the same period by the Procurement Section.

If you are a home owner you may deduct your property taxes and mortgage interest on your 1961 Federal income tax return if you itemize your deductions on Page 2 of the Form 1040.

## DR. FRASER

(Continued from Page 1)

Bureau of Prisons at the Federal Penitentiary in Atlanta, Ga.

He continued to work at Atlanta after he received his commission, until he transferred in 1937 to the Division of Chemistry in the then National Institute of Health, Washington, D.C.

In 1940 Dr. Fraser was assigned to the NIH Laboratory at Wilson Dam, part of the Tennessee Valley Authority, at Sheffield, Ala. In 1943 he came to Bethesda as Assistant Chief of the Industrial Hygiene Research Laboratory, Division of Industrial Hygiene, at that time part of NIH.

From 1946 until assuming his present position, he was stationed at Stuttgart, Germany, with the Division of Foreign Quarantine.

A native of Carrieville, Saskatchewan, Canada, Dr. Fraser received a B.A. degree from the University of Washington in 1925 and an M.D. degree from Cornell University in 1932.



Dr. Robert H. Felix, NIMH Director, presents the PHS Meritorious Service Medal to Dr. Havelock F. Fraser, Associate Director of the NIMH Addiction Research Center, at recent ceremonies in Lexington, Ky. From left: Dr. Felix, Dr. Murray A. Diamond, Medical Officer in Charge, USPHS Hospital; Dr. Harris Isbell, Director, NIMH Addiction Center; and Dr. Fraser.

## 140 Try Out for Parts In Hamsters' 'Li'l Abner'

Rehearsals for "Li'l Abner," the R&W Hamsters' spring production, began here last Sunday afternoon. The hit musical comedy is scheduled for presentation at the end of May.

The cast for the show, which ran for over 600 performances on Broadway, was selected from more than 140 applicants, the largest number ever to appear at Hamsters' tryouts.

Arnold Sperling, CC, is the director of the production, and Jerry Osborne, NCI, is the choreographer. Stage manager is Phil Joram, DRS, and Ozzie Grabiner, OAM, is the producer.

Others handling important details of the show are Betsy Slay, OIR, make-up; George Marsden, DRS, set design; Alida McBirney, NIMH, costumes; and Mary-Helen Emmons, ORI, publicity.

## New Handbook Is Aid To Scientists Arranging Data for Computers

A handbook of operational instructions tailored to enable investigators in biomedical fields to arrange their data for computer processing has been published by the University of California at Los Angeles.

Prepared with Division of General Medical Sciences and National Cancer Institute support, the BIMD Computer Programs Manual is the result of the research and experience of staff members of the Biostatistics Unit of the University of California Medical Center.

These investigators, in addition to their own studies, assisted many other researchers in planning their programs for computer processing.

From this varied experience the authors have grouped much of the work into categories, each with a general type of computation. They call these categories "package" programs (examples: regression; multivariate analysis; tabulating, screening and plotting; time series analysis).

For each "package" program there is a description of its purpose, its limits, the way to prepare the cards for processing data, examples of how the results look when they come out of the computer and a mathematical statement of the computation involved.

The manual is designed as an aid to many biomedical investigators who hesitate to use computers as research tools because of time and effort (as well as knowledge of statistics and mathematics) required to prepare the programs.

## HAMSTERS PREP FOR 'LI'L ABNER'



Following the lead of Jerry Osborne, choreographer for the R&W Hamsters' production of "Li'l Abner," this lineup is representative of the more than 140 persons who tried out for parts in the hit musical. Left to right: Bess Grabiner, R&W; Georgette Bass, CC; Verece Silverman, DBS; Mr. Osborne; Carl Wolitzky, whose mother, Rose, works in DRG; Dr. Hibbard Williams, NIAMD; and Bob Kavanaugh, ORI.—Photo by Jerry Hecht.

## More Passengers Needed to Sustain Silver Spring-NIH Rush Hour Buses

The Plant Safety Branch reports that the D.C. Transit rush-hour bus service between Silver Spring and NIH, inaugurated last December 18, has to date been carrying approximately two-thirds of the 30-passenger load needed to meet the cost of operation.

PSB points out that the service was initiated on a 90-day trial basis and that D.C. Transit may be forced to discontinue it unless the minimum operational cost is met. If such a decision is made, ample advance notice will be given.

Those who have been using the service have expressed satisfaction

with its convenience, according to a PSB spokesman.

The morning bus leaves the D.C. Transit terminal at the Silver Spring Armory at 7:55, arrives at the Woodmont Triangle in Bethesda at 8:15, and arrives at NIH at 8:20.

The evening bus leaves NIH from the Memorial Road stop at Building 4, at 5:10. It arrives at the Woodmont Triangle at 5:15, and at Silver Spring at 5:35.

The bus picks up and discharges passengers at all established bus stops along the East-West Highway-Colesville Road route.

## Haenszel Finds 2-Month Tour Is All Too Brief

Although one American went around the world recently in a little over an hour, William M. Haenszel, Chief of the Biometry Branch, National Cancer Institute, feels that the two-month world tour from which he just returned was all too brief.

Leaving Washington November 23, Mr. Haenszel touched ground in Hawaii, stayed a little longer in Japan, spent some 30 days in India, checked in at the offices of the World Health Organization in Geneva, and arrived back in this country January 21.

From December 8-11, Mr. Haenszel attended sessions of the All-India Cancer Conference in Bombay. He addressed the delegates on the need for establishing and maintaining cancer registers and morbidity surveys on sound principles. Following the Conference he met with staff members of the

India Cancer Society to discuss plans for setting up such a register and survey in the Bombay area.

As a consultant to WHO, Mr. Haenszel visited six Indian medical centers to review developments relating to cancer epidemiology and geographic pathology and to investigate the feasibility of setting up an international reference center for oral cancer, a common form of malignancy in India.

Although the main thrust of his trip was directed toward India, Mr. Haenszel spent a few days in Japan with Professor Mitsuo Segi, Tohoku University, Sendai, discussing plans for collaborative studies initiated last summer when Professor Segi was a Visiting Scientist at the National Cancer Institute. These studies will be part of a comprehensive survey of changing cancer risks for Japanese migrants to this country.

## 36 Scientists Receive NHI Career Awards for Cardiovascular Studies

Thirty-six scientists doing research in the basic medical and biological sciences under a National Heart Institute program have been approved as recipients of cardiovascular research career awards totaling \$520,723, Surgeon General Luther L. Terry announced recently.

Purpose of the NHI program—one of several career award activities being supported by NIH—is to encourage and support investigators working in basic cardiovascular areas such as lipid research, blood coagulation, pediatric cardiology, therapeutic evaluation, cardiovascular tissue immunology, cardiovascular research hematology, genetics, cardiovascular surgery, embryology and teratology, computer methodology and developmental instrumentation.

### Two Types Offered

The NHI program includes two types of support: Cardiovascular Research Career Development Awards, and Cardiovascular Research Career Awards.

Cardiovascular Research Career Development Awards provide aid for young scientific investigators who need further experience to qualify for senior research positions. Twenty-nine of these awards totaling \$368,649 have been made to 29 investigators at 20 institutions.

### Provides Opportunities

Cardiovascular Research Career Awards provide stable career opportunities for scientists with superior capabilities in the health-related sciences. Seven of these awards totaling \$152,074 have been approved for investigators at seven institutions.

The 36 awards are for one year. Support for the 29 Career Development investigators can be continued for five years and may be renewed for an additional five years. Further support for the seven Career Awards investigators can be provided in 5-year increments, subject to review at appropriate intervals.

### Work Reviewed

This continued support for both kinds of the career awards, depends on the year-by-year availability of funds appropriated by Congress, and upon the continued meritorious work of the scientists as determined by review panels of distinguished scientists and research administrators.

The Surgeon General, on the recommendation of the National Advisory Heart Council, approves the payment on all awards.

## Immunologic Response To Toxoids Blocked By Methotrexate

Findings of a recent Division of Biologics Standards study indicate that aminomethylpteroylglutamic acid (methotrexate) is capable of blocking the development of skin hypersensitivity, the primary antibody response, and the specific febrile response to ovalbumin and diphtheria toxoid in guinea pigs. The effect of methotrexate on immunologic responses apparently depends on the dose of methotrexate employed and the strength of the antigenic stimulus.

The present study was undertaken because of results of previous lines of investigation. In 1958, National Cancer Institute investigators demonstrated that methotrexate nullified mortality in mice due to homograft reactions following total body X-irradiation and homologous marrow inoculation.

### May Inhibit Responses

Other investigators, also working with mice, have suggested that methotrexate might inhibit immunologic responses and it has been shown to modify lymphocytic choriomeningitis (LCM) virus-host and tumor-host relationships.

Reporting in a recent issue of the *Journal of Experimental Medicine*, Dr. Robert M. Friedman and his coworkers in the DBS Laboratory of Viral Immunology, have suggested that methotrexate may also act to suppress development of the delayed hypersensitive state. This was supported in their studies by the observation that methotrexate inhibits the specific febrile responses in addition to inhibiting the delayed skin reaction.

### Implications Seen

The investigators suggest that these findings may have wide implications because suppression of the development of the delayed hypersensitive state might be a useful tool in the investigation of such biological phenomena as the mechanism for antibody synthesis, autoimmunity, the rejection of homografts, and the host reaction to infection.

A deficiency of folic acid has been shown to impair antibody production in rats and chicks. Methotrexate, which is commonly used in the treatment of some malignant diseases including leukemia, acts as a folic acid inhibitor.

The primary antibody response was more easily inhibited in guinea pigs by methotrexate than was development of the delayed skin hypersensitivity response. In this respect, the effect of methotrexate resembled that of X-irradiation.

Dr. Friedman is now on the staff of the National Cancer Institute.

## CU OPEN HOUSE DRAWS BIG CROWD



Dr. David E. Price, Deputy Director of NIH, cuts the ribbon during an open house celebration at the new offices of the NIH Credit Union in Building 31. Approximately 950 persons attended the morning and afternoon open house parties last Tuesday, the day after the CU opened for business in its new quarters, Room 1A07 and 1A08. Left to right: Jeanne H. Walton, NHI, member of the CU Board of Directors; Robert H. Grant, Assistant Chief, OIR, Vice President of the Board; Dr. Price, Dr. D. Jane Taylor, NCI, President of the Board; and O. J. Wood, CU Manager. —Photo by Sam Silverman.

## 16 Scientists Receive NIMH Career Grants

Grants amounting to \$291,796 have been awarded from Fiscal Year 1962 funds to 16 individuals by the National Institute of Mental Health, under the newly established NIH Research Career Award Program. Similar awards are made by other NIH Institutes and Divisions.

The aim of this program is to strengthen research on the problems of mental health and mental illnesses by providing career support to highly qualified individuals.

Two types of awards are available, the Research Career Development Awards and the Research Career Awards.

The Research Career Development Awards provide eligible young men and women with a minimum of three years' post-doctoral experience with support for five to 10 years while gaining experience as independent investigators. Thirteen scientists are receiving this support from NIMH at the present time.

The Research Career Awards, of which three have been granted to date, are given to experienced investigators who are continuing established productive careers of independent research and related activities. These awards, which are reviewed at five-year intervals, are made with the intention of continuing Federal support for the full career of the scientists, provided that they maintain standards set by their institutions for research scientists.

## 24 Scientists Awarded NINDB Career Grants

Research career awards totaling \$369,392 have been approved for 24 scientists who will teach and conduct research on the neurological and sensory disorders, PHS Surgeon General Luther L. Terry recently announced. The awards were made by the National Institute of Neurological Disease and Blindness.

The career awards, which are similar to those sponsored by other NIH Institutes and Division, provide research support under two types of programs: Research Career Development Awards, which aim at the encouragement and support of young scientists pursuing careers in neurological research and teaching; and Research Career Awards, which aid experienced scientists investigating disorders of the nervous system and the special senses.

Under the first program, Institute support will go to 20 young investigators in 16 hospitals and universities in 11 States. Such awards are made for a 5-year period and are renewable up to 10 years.

By means of the second program, four senior scientists at four different research institutions in as many States are receiving awards, also made at 5-year intervals but designed to support the individual throughout his career.

Scientists receiving these awards are conducting research in such fields as neuroanatomy, neurophysiology, neurochemistry, neurophar-

## DBS Scientists Find Antiviral, Antibacterial Activity in Mollusks

The presence of antibacterial and antiviral substances in oyster material as well as abalone material has been demonstrated in recent studies by Dr. Chen Pein Li, Chief of the Section on Virology, and his coworkers in the Laboratory of Virology and Rickettsiology, Division of Biologics Standards.

Antiviral activity against influenza virus and poliovirus, as well as antibacterial activity against *Streptococcus pyogenes*, was demonstrated in oyster material *in vitro* and *in vivo*. This work was presented by Dr. Li at a meeting of the New York Academy of Sciences.

Previous work by Dr. Li had shown that tissue fluid from the abalone contains antimicrobial factors which inhibit *Staphylococcus aureus* and have a protective effect in experimental poliomyelitis in mice.

### Paralysis Reduced

Evidence of antiviral activity was demonstrated by the effect of oyster material on infection of mice and tissue cultures with influenza and poliovirus. Monkey kidney tissue cultures were treated with oyster material and infected with the three types of poliovirus. Although the reduction of cytopathic effect was only moderate, inhibition of 90 to 99.9 percent of viral growth was observed. Moreover, the incidence of paralysis in inoculated mice was reduced for each type of poliovirus by approximately 20 percent.

In mice infected intranasally with influenza B virus, Great Lakes strain, the death rate was reduced by oyster material from 60 to 70 percent in the untreated infected mice, to 20 to 50 percent in the treated infected ones.

The antibacterial activity of oyster material in mice infected with *S. pyogenes* was demonstrated by a 22 to 25 percent decrease in the death rate; similar results were obtained in earlier experiments with abalone tissue fluid.

Agents inhibiting poliovirus are of rare occurrence and those which have heretofore been reported have not for various reasons come into use for the treatment of diseases in man.

in a c o l o g y, o p h t h a l m o l o g y, o t o l a r y n g o l o g y, m e d i c a l a u d i o l o g y, and others. The need for qualified scientists and teachers in many of these areas is recognized as an acute and increasing national problem.