Heart Studies Win Gairdner Award For Dr. Sarnoff

Dr. Stanley J. Sarnoff, Chief of the National Heart Institute's Laboratory of Cardiovascular Physiology, has been named recipient of a 1962 Gairdner Foundation Award.

Dr. Sarnoff's award—which carries with it a prize of $5,000—is for his elucidation of important principles of cardiac physiology, which have clarified the roles played by the involuntary nervous system and hormones in controlling heart function in both normal and diseased states.

Established in 1957

The Foundation, established in 1957 by J. A. Gairdner, Toronto industrialist and financier, encourages and rewards individuals who have made contributions to the conquest of disease and the relief of human suffering.

The Foundation has expressed the hope that these awards will assist in focusing attention upon arthritis, the rheumatic diseases, and cardiovascular disease, three of today's most important medical problems.

In deciding upon recipients for the awards, the Foundation secures the confidential advice of many prominent medical scientists throughout the world. It has now

(See DR. SARNOFF, Page 4)

Whole-Body Radiation Counter Broadens NIH Research Field

A transparent manikin, "Christine," is lowered into the U-shaped trough of the Clinical Center's new whole-body radiation counter by Dr. Howard L. Andrews, NIH Radiation Safety Officer, and his assistant, Dorothy Peterson. Eighteen gamma ray counters, concealed by the sheet covering the trough, will detect and locate radioactive material in Christine's "body."—Photo by Jerry Hecht.

By Dorothy Jeanne Davis

The first whole-body radiation counter capable of recording separately the amount of radiation in 18 different sections of the body is now in operation in the NIH Clinical Center.

Use of the new instrument is expected to enable scientists of the nine Institutes to conduct more sensitive, more accurate, and more detailed studies involving low levels of radiation.

Designed for NIH

The new instrument is an experimental model specially designed and constructed for the NIH. It is more flexible and sensitive than any built so far. Its features make it possible to detect the most minute amounts of radioactive material within the body, and to determine what part of the body the radioactive material is in.

Its projected research applications include blood and metabolic disorders and studies of the amount of radioactive iodine from fallout that gets into the bodies of infants and small children, how much remains, and how long it remains.

Other research projects are planned for the new counter, together with a second whole-body counter that sorts out and identifies the particular isotope or isotopes present in the body. They range from studies on the distribution of potassium in the body to studies on the effectiveness of various types of radiation-shielding for radioactive instruments, according to Dr. Howard L. Andrews, NIH Radiation Safety Officer, who is in charge of the counting facility, located in the third sub-basement of the Clinical Center.

Gives Rapid Count

The new instrument takes only two or three minutes to count the total amount of radiation in the body. More detailed studies may take half an hour or more.

Six-and-a-quarter-inch armor plate salvaged from old battlehips at the Philadelphia Navy Yard was used to construct the 8-by-12-foot rooms in which each of the whole-body counters is located.

Use of the old armor plate—now quite scarce—was necessary to reduce

(See RADIATION, Page 7)

Dr. Smadel Wins Lasker Award, Maryland Degree

Dr. Joseph E. Smadel, Chief of the Laboratory of Virology and Rickettsiology, Division of Biology Standards, was the recipient of two outstanding honors within the past two weeks.

On October 17 the Albert and Mary Lasker Foundation announced that Dr. Smadel was the winner of its Clinical Research Award, one of the two 1962 Albert Lasker Medical Research Awards, for his contributions to the treatment of typhoid fever and the rickettsial diseases.

Receives D. Sc. Degree

Dr. Smadel was further honored October 24 by the University of Maryland, when he received an honorary Doctor of Science degree at the fall convocation of the University's School of Medicine, held in the auditorium of the Health Sciences Library in Baltimore.

At the same ceremony, Dr. Wilson H. Elkins, President of the University, conferred an honorary Doctor of Laws degree on Lt. Gen. Wajid Ali Burki, Special Assistant to the President of Pakistan. General Burki, an ophthalmologist and Director General of Medical Services of the Pakistan Army, was a recent visitor to NIH.

(See DR. SMADEL, Page 8)

Dr. Joseph E. Smadel, Chief of the Laboratory of Virology and Rickettsiology, DBS, receives the honorary degree of Doctor of Science from Dr. Wilson H. Elkins, President of Maryland University.—Md. U. Photo.
**NIH Record**

**Reduction in Insurance Rates**

As a result of an amendment to the Federal Tort Claims Act reducing liability of Government employees who operate their own or Government vehicles in line of duty, a majority of United States insurance companies are reducing their liability rates for Federal employees.

Prior to the March 21 effective date of the legislation, employees who drove on Government business were advised to carry Class 3 (business car rate) insurance for complete protection.

The new provisions of the Claims Act do not entirely remove responsibility from the driver in case of accident, as there are some instances in which the Government cannot assume liability.

For this reason, it is suggested that each employee request his insurance agent to determine the position of his company in regard to the lower rate.

**Overtime Compensation**

The determination of overtime hours for wage rate employees has been changed by a new law, P. L. 87-581. Previously, only hours in excess of forty per week were compensated at time and one-half of the basic compensation rate. Under the new law, overtime work in excess of eight hours per day has also been paid for at the time and one-half rate, beginning October 14.

Exempted from this provision are those employees who are on duty in a standby or on-call status in excess of eight hours per day. These employees will be paid at the overtime rate only for hours of duty in excess of forty per week.

The basic forty-hour week will be continued for retirement and group life insurance purposes.

Further information is available.

**Special Job Opportunities**

Correspondence Clerk, GS-4, preferably with some college study in English or journalism, needed by NIH Board of Civil Service Examiners. Engineering Draftsman, GS-3 or 4, needed in Space Management Section. Mechanical Engineer, GS-19, with experience in AC Refrigeration and Heat and Ventilation Systems. Pharmacologist, GS-11 or 12, for Administrative position with NCI in the Robin Building, Silver Spring. Medical Technologists, GS-5 and 7. Digital Computer Programmers, GS-9 and 11.

**GWU Faculty Member Named to DGMS Post**

Dr. Paul W. Bowman, Head of the Biology Department of George Washington University, has been appointed a Research Grants Coordinator in the Research Grants Branch, Division of General Medical Sciences. He had been a member of the George Washington faculty for the past 38 years.

Beginning as an assistant in botany at George Washington, Dr. Bowman established the Department of Biology in 1954, supervising its course of studies, administering its graduate and undergraduate programs, and teaching courses in cytology and organic evolution until this year.

During World War II, he served as Special Assistant to the President of George Washington University in connection with the scientific programs for the national defense effort. In 1943 and 1944 he was Administrative Director of the Allegheny Ballistics Laboratory.

from Institute and Division Personnel Officers.

**NIH-UGF Drive Reaches 64 Percent of Quota**

Reports at the end of the third week of the UGF Campaign here revealed that NIH had reached 64.3 percent of its quota. The $46,353.90 collected by October 26 represented a 100 percent increase over the previous week's receipts.

In commenting on the third week's results, Dr. Clinton C. Powell, Chairman of the NIH Campaign, said, "Although this represents a substantial increase over last week, we have a lot of ground to cover before reaching 100 percent. Whether NIH goes over the top this year will depend upon the efforts of each Division and Institute."

As of October 26, two Divisions had exceeded 100 percent of their quotas, and one Institute and four Divisions were over 70 percent. DRB leads NIH with 114.7 percent, followed closely by DRG with 100.9 percent. Those with 70 percent or more of their quotas were: OD, 97.5; DGMS, 96.9; DBS, 88.7; NIDR, 79.3; and NIAMD, 70.5.

Sixty percent of the NIH employees contributed to this year's Campaign during the first three weeks with an average gift of $10.56.

This year's Campaign witnessed publication of the UGF-PhS Keyman, a 4-page, 8-issue publication concentrating on the highlights of the Campaign within the Public Health Service. It is edited by Dick Turlington of the DRG Information Office.

On October 23 an enthusiastic audience witnessed the 1962 UGF Rally in the Clinical Center Auditorium. Speakers at the Rally were Dr. Powell, Dr. Jack Mauer, Director of the Clinical Center and Chairman of the overall PhS Campaign, and Dr. David Price, PHS Deputy Surgeon General.

**Peb to Distribute New 'Service Bulletin'**

The Service Bulletin, a new publication of the Plant Engineering Branch, DRB, designed to help NIH personnel make the most effective use of the PEB services, will be distributed soon to all offices on the NIH Policy and Procedure Memoranda distribution keys, 1 through 10.

The 4-page, letter-size bulletin, printed on heavy weight paper to facilitate its use as a desk reference, will be issued, as required, to keep employees informed of significant changes in services and procedures.

The first issue describes the services available and lists the offices to be contacted to obtain them.

For instance, it explains the procedures to be followed for requesting alterations, for reporting maintenance deficiencies, for the delivery of equipment for repair or modification, and for the purchase of certain types of equipment.

Page 4 carries a reproduction of a work-request form properly filled in.

Additional copies of the first issue may be obtained from the Annual Office, PEB, Ext. 3208.

**Dr. Brown Moderator Of IRE Program Today**

Dr. J. H. U. Brown, Chief of the Special Research Resources Branch, Division of Research Facilities and Resources, is scheduled to be moderator today (November 6) for a program on the qualifications and training of biomedical engineers at the meeting of the Institute of Radio Engineers, being held this week in Chicago.

The keynote address on "The Role of Biomedical Engineering in Modern Medicine" was scheduled to be delivered by Boisfeillet Jones, Special Assistant to the Secretary, Department of Health, Education, and Welfare, following the annual Institute banquet last night.

In one of the scenes from the skit allegedly depicting "The Spirit of UGF at NIH," Linda Perry, DGMS (left), and Janet Perry, DRG, covert onstage.

—Photo by Bob Pumphrey.
**BQA Identified as Agent Of Pigment Formation In Alcaptonuria Patients**

Drs. Vincent G. Zannoni, S. E. Malawista, Bert N. Le Du and their associates in the Arthritis and Rheumatism Branch, National Institute of Arthritis and Metabolic Diseases, have identified benzoquinonemineic acid (BQA), the oxidized form of homogentisic acid, as a probable intermediate in the brown-black discoloration of connective tissue in alcaptonuria.

In addition, they have postulated a scheme to explain the full sequence of events leading to ochronosis in alcaptonuric individuals. These studies may lead to development of a much-needed model system to study the pathological changes in the arthritis of alcaptonuria.

**Inherited Disease**

Alcaptonuria is an inherited metabolic disease caused by the lack of a specific enzyme, homogentisic acid oxidase, necessary to convert homogentisic acid to maleylacetoacetic acid.

This enzyme is missing at birth, but it is not until many years later that ochronosis, the brown-black pigmentation of the cartilage, tendons, and other connective tissues appears. It takes even longer before the patient develops degenerative arthritis of the spine and the large peripheral joints, a characteristic of this disorder.

Although these arthritic changes appear in the pigmented areas, no chemical relationship between the apparently interrelated conditions has yet been established.

**Deviso Measuring Method**

The NIAMD scientists developed a specific enzymatic method for measuring homogentisic acid (HGA) and used this technique to study the distribution of HGA and its metabolic derivative, BQA, in vivo and in vitro.

Both HGA and BQA, when given intraperitoneally to guinea pigs, were distributed mainly into skin and cartilage. In vitro experiments, however, showed that BQA reacts chemically with skin and cartilage, resulting in a change in its molecular structure to form products similar to those formed during the development of ochronotic pigmentation of the connective tissues in alcaptonuria.

In contrast to BQA, HGA is loosely bound to skin and cartilage and no chemical change takes place.

Further studies are now underway with purified collagen (connective tissue) preparations to determine the binding site of BQA within the tissues.

The studies were reported in Arthritis and Rheumatism.

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**Immunological Aspects of Polysaccharides Subject of Second Freund Seminar**

Dr. Michael Heidberger, Professor of Microbiology at Rutgers University and acknowledged dean of American Immunologists, gave the Second Jules Freund Memorial Seminar, October 17, in the 14th Floor auditorium of the Clinical Center.

His subject was "Chemical Constitution and Immunological Specificity of Polysaccharides."

Complex polysaccharides are widely distributed in nature, Dr. Heidberger said, and are of increasing interest to the clinician and the immunologist.

In investigations which have continued for more than a decade, Dr. Heidberger has developed ingenious techniques and reagents with which he has been able to determine the fine structure of many of the capsular polysaccharides of the pneumococci, which confer on these pathogenic bacteria their individual immunological specificities.

**Makeup Complex**

He has obtained increasing evidence that certain aspects of their complex makeup are shared with a seemingly endless array of naturally occurring polysaccharides in bacteria, yeasts, seeds, and various foodstuffs.

The immunological cross reactions between these complex sugars of diverse origin and pneumococcal antisera were shown to be due to their possessing individual component sugars or chemical groupings in common with the pneumococcal polysaccharides. Dr. Heidberger and his coworkers have amassed an extensive collection of antigens and immune sera, and with his knowledge of their serologic cross reactivities, have been able to "fingerprint" naturally occurring polysaccharides and identify the structural details of these biologically important materials.

The Seminar, a special feature of the weekly series of Immunology Seminars cosponsored by several of the Institutes, was organized last year by the Laboratory of Immunology, National Institute of Allergy and Infectious Diseases. It is presented annually in tribute to the late Dr. Jules Freund who was the first Chief of the Laboratory from 1927 until his death in 1960.
Snow Urgently Needed to Save Trees Weakened by Long Summer Drought

Snow—a word that brings shudders to NIH motorists—is being uttered almost prayerfully these days by the men whose job it is to clear the reservation roads and parking lots after winter storms.

Snow is urgently needed, says Milford D. Myers, Chief of the Grounds Maintenance and Landscaping Section, Plant Engineering Branch, DRS, to keep alive the reservation’s trees which have been weakened by last summer’s protracted drought.

The drought-produced situation is so serious that on November 1 Mr. Myers’ staff dropped all its other work to devote full time to “deep watering” many of the nearly 7,000 trees on the NIH grounds.

This consists of watering the roots of the trees from two feet below the surface upwards to the surface, a reverse of the usual procedure. It is accomplished, Mr. Myers said, by sinking “root needles”—long, pointed, perforated pipes—into the ground at the base of the trees and forcing water through them at the root system.

A chemical agent is added to the water to break its surface tension, thus enabling greater penetration.

Snow—too late, Mr. Myers estimates that the severe shortage of rainfall this year has resulted in an 80-million-gallon water deficiency for the 250 arable acres on the reservation.

Older Trees Vulnerable

The trees most affected by the drought, he said, are the older and larger trees which have not yet recovered from the drought of several summers ago. In a drought-weakened condition these trees are more susceptible to disease and insects and have required considerable attention to keep them alive.

Curiously enough, young trees are less affected by drought than older ones. “They are like kids,” Mr. Myers said. “They don’t take as long to recover from an illness as we old people do.”

So despite the many hours of overtime Mr. Myers and his staff put in with each snowstorm, he considers snow a necessity now. “Even the subsoil is dry,” he said.

Dr. Endicott, NCI, Is Reelected to ACS Directors Board

Dr. Kenneth M. Endicott, Director of the National Cancer Institute, has been reelected to the Board of Directors of the American Cancer Society. The election took place October 24 at the National Society’s annual meeting in New York City.

In 1938, and his M.D. degree from Johns Hopkins University Medical School in 1942.

Before coming to the Heart Institute, he was Associate Professor of Physiology at the Harvard School of Public Health. He has held his present position since 1964.

Harold W. Curran, DRG Executive Officer, presents Sustained Superior Performance Awards to (left to right): Ethel R. Weinstein of the Career Development Branch and Wilma L. Verrato of the Statistical Analysis Branch at an informal ceremony on October 1.

Dr. Cameron Named as Head of St. Elizabeths

DHEW Secretary Anthony J. Celebrezze recently announced the appointment of Dr. Dale C. Cameron, Assistant Superintendent of St. Elizabeths Hospital, as Superintendent of the Hospital.

Dr. Cameron succeeds Dr. Winfred Overholser who retired October 4 after holding the post for 25 years.

A member of the PHS Commissioned Corps, Dr. Cameron was appointed Assistant Chief of the Mental Hygiene Division, forerunner of the National Institute of Mental Health, in 1945.

He resigned his commission in 1954 to become Medical Director of the Minnesota Department of Public Welfare. He was reappointed to the PHS in 1960 and resigned to work with Dr. Overholser at St. Elizabeths. In his new position he holds the rank of Assistant Surgeon General.

MARU Study Implicates Wild Lizard as Host For Encephalitis Virus

Scientists of the National Institute of Allergy and Infectious Diseases’ Middle America Research Unit in the Panama Canal Zone have discovered the presence of equine encephalitis in the antibody in wild lizards, thus implicating this animal as a reservoir for the disease.

Between October 1958 and April 1960, the MARU scientists collected wild lizards from several Panamanian ranches where an EEE outbreak had occurred among horses in July 1958.

When sera of 246 lizards were tested, substances inhibiting hemagglutination by EEE virus were found in about 14 percent, suggesting previous EEE infection.

Results of the investigation are reported in the American Journal of Hygiene by Dr. Alexis Schelokov, Chief of the Division of Tropical Virology; and Drs. John E. Craighead and Pauline H. Peralta.

Studies on EEE virus have failed to explain how it is maintained and disseminated in nature. It now appears likely that small vertebrate animals serve as reservoirs since there is little evidence to suggest that the virus survives for indefinite periods in the arthropod vector.

Although birds and rodents may play a role in the natural history of the virus, only the lizard has provided laboratory evidence for a significant role to date. The investigators caution that conclusive proof of the lizard’s role must await the recovery of the virus from naturally infected animals.

H. o t her 1962 awards are Dr. Francis Crick, Stockholm, Sweden; and Dr. lowin g day th;;y will present lec­

tion's $25,000 Award of Merit, pre­

the most challenging biologica l

tr ib ution to the so lu tion of one of

problems: the manner in which

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upon the germ cells of parents and

co ·ntributions to carcliac phys io l­

requirement of the hea1-t. His

portance of Starling's Law of the

firmation of the validity and im­

tem and under certain circum­

stances may be of great impor-

tance in regulating the work of the

ventricles.

By demonstrating the impor-

tance of the central nervous sys-

tem in controlling the performa-

of the heart, Dr. Sarnoff has estab-

lished physiological principles that

have allowed physicians to better

understand the action of the heart

in normal and diseased states.

His work has embraced many

other subjects, including the mecha-

isms and treatment of acute lung

congestion, experimental car-

diac surgical techniques, and the

mechanism of action of normal

heart valve closure.

Dr. Sarnoff received his A.B.

degree from Princeton University

(Continued from Page 1)
Tranquilizers Converted
Into Antidepressants
By Demethylation

Scientists from the National
Heart Institute report that removal
of a single methyl (CH₃) group
from trifluromazine and certain
other chlorpromazine-like com-

pounds converts these tranquiliz-

ing agents into powerful antide-

pressants.

Dr. Marcel H. Bickel, Fridolin
Sulser, and Bernard B. Brodie,

of the NIH Laboratory of Chemi-

cal Pharmacology, presented their

findings at the Fall Pharmacology

Meeting held in Nashville.

The idea for the chemical modi-

fication of trifluromazine and its

near relatives arose from earlier

studies on the antidepressant drug

Imipramine (Tofranil, Geigy).

Metabolite Is Stimulant

The studies had shown that des-

methyylimipramine, the metabolite

resulting from the demethylation

of Imipramine, was responsible for

the antidepressant effects attribu-

ted to Imipramine. The parent
drug proved to be a sedative that

actually interfered with the action

of its metabolite.

Noting the structural similarities
between Imipramine and cer-

tain chlorpromazine-like tranquil-

izers, the scientists reasoned that

the demethylation of these com-
pounds might bring about a simi-

lar Jekyll-and-Hyde transformation

in their actions. This proved to
be the case.

Several of these modified com-
pounds were able to block the syn-

drome of central nervous system
depression induced in animals by

sedative doses of reserpine. In the

past, the effectiveness of antide-

pressants against this syndrome in

animals has proved to be a reliable

index of their effectiveness against

"naturally occurring" endogenous

depression in man.

Since desmethyylimipramine has

already proved its worth in clin-

cal trials, it appears likely that

these new compounds may also find

clinical application against certain

mental disorders.

Heavy Workload Divides
Fellowship Review Panel

The Anatomy and Physiology
Fellowship Review Panel of the

Division of Research Grants has

been divided into two panels—the

Anatomy and Pathology Panel, and

the Physiology Panel. The division

was made necessary by an increas-

ing workload.

Dr. Harry J. Clausen, Executive

Secretary of the former Anatomy

and Physiology Fellowship Review

Panel, will serve in that capacity

for both panels until an executive

should be read carefully before at-

tempts to dispatch the carriers.

To assist employees in operation

of the pneumatic tube system, Mr.

Cushing offered these suggestions:

1. Include the addressee's name,

building, room, and tube station

number on material dispatched.

2. Insert material in carrier and

fasten carrier securely. Then dial

the carrier rings for receiving sta-

tion. (Carriers are identified on

the carriers by dialing two alpha-

betical rings and one numerical

ring.)

3. Insert carrier in station, feel-

ted first. Send additional carriers

at intervals of not less than 30

seconds.

4. Do not remove material by

striking or pounding carriers.

5. Return excess carriers either
to the Mail Room, Bldg. 13

(AS-O), or the Mail Room, Bldg.

10 (HU-O).

Employees who have difficulty in

using this system or require addi-
tional carriers, may call Ext. 5651,

Bldg. 31, or Ext. 2050, Bldg. 10.

Brown Univ. Biology Lab
Named for NIH Advisor;
Dr. MacCardle Honored

A new two-million-dollar biology

laboratory, named in honor of

Peihside, West Virginia, a member

of the Brown University faculty

for more than 40 years and an ad-

visor at various times to several

National Institutes of Health pro-

gram, was dedicated recently on

the University's campus in Provi-

dence. Dr. Wilson is currently a

member of the National Advi-

sory Cancer Council.

Three of Dr. Wilson's former
students, including Dr. Ross C.

MacCardle of the National Cance-

r Institute's Laboratory of Pathol-

ogy, received honorary Doctor of

Science degrees at a convocation

held the day the new building was
dedicated. Dr. MacCardle has been

a member of the NCI staff since
1946 and was Scientific Editor of
the Journal of the National Can-

cer Institute from 1947 to 1983.

Dedicated to NIH Advisor

In addition to serving on the

Cancer Council, Dr. Wilson has

helped develop other NIH activi-
ties as one of the original members

of the National Advisory Council

on Health Research Facilities, as a

member and first Chairman of the

Physiology Panel.

Mr. Cushing said, is the
3-ring dial carrier type de-
signed to send messages to selected
stations automatically. Unlike the
system in other buildings, there is
no central clearing room required in
Building 31 to dispatch the car-
riers to their destinations.

To make the Building 31 system
compatible with existing stations
in Buildings 1, 10, 13, 28, and 30,

it was necessary to change all sta-
tion identifications.

A directory of individual sta-

tions, both old and new, and in-

structions in the method of oper-

ation have been posted at each sta-
tion. These instructions, he said,

secretary is appointed for the new
Physiology Panel.

The two new groups will each

handle about half of the nearly 500
applications formerly reviewed
each year by the single panel.

The action brings to 11 the num-
ber of fellowship review panels

comprising DRG's Central Qualifi-
cations Board. The panels aver-

gage five to seven members, and re-
semble study sections in make-up.

List of Latest Arrivals
Of Visiting Scientists

10/12—Dr. Eigo Takabatake,

Japan, Drug Metabolism, Sponsor,

Dr. Brodie, NIH, Bldg. 10, RM.

7N17.

10/22—Dr. Fumio Sakiyama,

Japan, Protein Chemistry,

Sponsor, Dr. Witkop, NlAMD,

Bldg. 4, RM. 228.

10/25—Dr. Jakob Schreiber,

Switzerland, Modification of Pro-
teins and Enzyme Studies, Spon-

sor, Dr. Witkop, NlAMD, Bldg. 4,

RM. 228.
Mental Retardation Report Submitted to White House

A comprehensive, long-range national program to combat mental retardation was recommended to President Kennedy in a report submitted October 16 by the Panel on Mental Retardation, appointed by him in February.

The report, stressing the need to "think and plan boldly," included more than 100 recommendations for a "broad spectrum" attack to prevent, treat, and alleviate mental retardation.

The Panel said an estimated 5.4 million American children and adults—about 3 percent of the total population—are classified as mentally retarded. About 400,000 of these are so retarded that they require constant care or supervision, and more than half of that number receive care in residential facilities, the report stated.

The remaining millions are mildly retarded and include the subnormal individuals who often become school dropouts and unemployed. An estimated 126,000 children born each year will be mentally retarded at some time in their lives, according to the report.

Activities Cited

The 27 members of the Panel were appointed by the President in October of last year. Activities included task force research into segments of the overall problem of retardation, travel for study in this country and abroad, and a series of seven regional meetings, in the East, South, and West, to hear reports on problems, accomplishments, and suggested recommendations.

The report's recommendations focused upon three primary areas: research, preventive services, and planned development of strengthened community-centered service providing a continuum of care.

Among the recommendations were:

1. Increased basic and applied research, including eventual establishment of 10 research centers and a National Research Institute of Learning.

2. Measures to increase the supply of medical and other specialists through college scholarships, aid for medical schools and students, post-doctoral fellowships, teacher-investigators, and aid for research specialist training.

3. Measures to create a new pattern in the institutional care of the retarded, utilizing small, accessible residential treatment centers in communities.

4. Preventive health measures.

5. Increased financial assistance for training teachers of special education, and college instructors for such teachers.

6. Federal project grants to expand, enrich, and improve quality of special education for the retarded.

7. Special expansion grants to increase vocational rehabilitation services for the retarded, along with grants for construction of workshops.

8. A new legal concept of the retarded to protect individuals' civil rights and to give guidance in policy and corrections.

9. Creation of a Domestic Peace Corps nationally to help stimulate voluntary organizations to greater efforts and to encourage volunteers to help man community services.

10. The report also pointed out that state, local, and private agencies must continue to carry the principal responsibility and must also increase their efforts to combat mental retardation.

Dr. Leonard Mayo, on leave as Honorary President of the National Mental Health Association, presided over the Panel meetings.

Helen B. Smith Retires; Served Gov 27 Years

Helen B. Smith, a clerk-typist in the Career Development Review Branch, Division of Research Grants, retired October 26 after 27 years of Government service.

The 27-year-old Federal service career began in 1935 when Miss Smith was hired as a stenographer-typist in the Accounting Division. In 1941, she was transferred to the Grants Division where she served as a typescript clerk.

In 1954, Miss Smith transferred to the Drug Abuse Branch, where she has served since then as a typescript clerk.

Miss Smith has served as a member of the Women's Federal Service Association of Washington, D.C., and as a member of the Federal Women's Auxiliary of the National Capital Area.

Mental Retardation

The constitution of the Society specifies that "a member who has made extraordinary scientific contributions to mental retardation and who makes active contributions to the field of mental retardation is eligible for election as an honorary member. The number of honorary members shall not exceed three at any one time."

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The constitution of the Society specifies that "a member who has made extraordinary scientific contributions to mental retardation and who makes active contributions to the field of mental retardation is eligible for election as an honorary member. The number of honorary members shall not exceed three at any one time."

NIAID Tests Show Volunteers Free of Malaria One Year After Single Injection of New Drug

A new antimalarial drug, C1501, is a single injection drug. It is being tested for its effectiveness in preventing malaria despite the fact that they have been bitten by heavily infected mosquitoes at monthly intervals.

Controls who did not receive the drug when bitten by the same mosquitoes continued to have malaria. Results of clinical trials of the long-lasting antimalarial drug which thus far has been protective nearly 10 times longer than conventional suppressives, were reported by 15 panel members, including the American Society of Tropical Medicine and Hygiene, meeting in Atlanta, Ga., by Dr. G. Robert Coatney. The drug, C1501, is a single injection drug which is given to prisoner volunteers in a single dose. It is being tested for its effectiveness in preventing malaria despite the fact that they have been bitten by heavily infected mosquitoes at monthly intervals.

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Two NIMH Publications
Review Program Growth

The National Institute of Mental Health has issued two new publications containing descriptive statistical data on its research grant program.

The companion volumes—A Summary of the Research Grant Program, 1948-1961, and A Source Book of Descriptive Data, Fiscal Year 1961—reflect the growth and diversity of the NIMH program from its establishment until the end of FY 1961.

During that time NIMH supported $2,597 research projects ranging in duration from one to 13 years, representing 5,330 annual grants and a total of $106,717,850 in awards.

Increases Greatly

At the start of the program in 1948, the largest NIMH award was in the amount of $26,500 while in 1961 it was $345,000. The total number of grants awarded in FY 1948 showed an increase of 250% or 5 times the number awarded in FY 1948 with a dollar value increase of over 80 times. The mean annual award increased from $9,822 in 1948 to $23,711 in 1961.

Scientists participating in the NIMH research program in 13 years covered by the reports, represented over 50 professional disciplines in more than 55 fields. In addition to studies in the medical, biological, psychological, and social sciences, a large segment of the program was devoted to basic research in the behavioral sciences— including a variety of studies of biological, psychological, social and cultural correlates of behavior.

Copies of the publications, prepared by the Program Analysis Section of the Research Grants and Fellowship Branch, may be obtained without charge from the NIMH Publications and Reports Section, Bldg. 31, Rm 2A50, Ext. 4796.

RADIATION

(Continued from Page 1)

duce the background radiation to a minimum, Dr. Andrews said, since modern steel may contain some radioactivity.

The rooms are equipped with their own specially filtered air-conditioning system. An intercom system permits conversation with the operator outside and can be used to pipe recorded music or recorded programs into the rooms.

Two special gamma ray spectrometers, which record data from each of the whole-body counters, are located outside the armor-plated rooms and can be added on paper tape for future analysis.

The machine connected to the isotope-identifying counter is also capable of projecting a curve that shows what isotopes are present and their relative amounts.

A third data-recording instrument, called a “spectrum stripper” — which records the radiation curve for any particular individual, and then automatically subtracts this from any subsequent readings on that individual—is expected to arrive at NIH sometime soon, Dr. Andrews said. This instrument should make analysis of the readings easier and more accurate.

To check the gamma ray counters for accuracy, Dr. Andrews and his coworkers, Dorothy Peterson and Ray Murphy, use “Christine,” a transparent manikin with all kinds of internal compartments.

By putting a known quantity of isotope in one of these compartments and comparing this with the reading on the whole-body counter, any error can be detected.

The two body counters, the data-recording machines, and the armor plate rooms were constructed for NIH by the Dixie Manufacturing Co., Inc., of Baltimore, Md., at a total cost of $240,000.

NIAID Exhibit Honoring PHS
Displayed at APHA Meeting

An anniversary exhibit, marking the 76th year of research in the Public Health Service, was displayed for the first time outside NIH at the recent meeting of the American Public Health Association in Miami Beach.

Prepared by the National Institute of Allergy and Infectious Diseases as a tribute to PHS research, the exhibit's four panels picture research highlights during the same period. PHS began its research activities in a one-room laboratory on Staten Island.

NIMH Scientists Attend
Mental Health Congress

Dr. Robert H. Felix, Director of the National Institute of Mental Health, and NIMH staff members participated in the American Medical Association's National Congress on Mental Illness and Health in Chicago last month.

The 3-day congress, called by the AMA to launch a new and comprehensive mental health program developed by its Council on Mental Health, was held in cooperation with the American Psychiatric Association and with the support of the National Association for Mental Health.

Dr. Felix Presides

Dr. Felix presided over a session on "Integrated Community Services for the Mentally Ill." NIMH also was represented by Dr. Joseph M. Bobbitt, Associate Director for Program Development, and other staff.

The new AMA program draws heavily on Action for Mental Health, the Report of the Joint Commission on Mental Illness and Health. The program was developed in cooperation with mental health committees of State Medical Societies.

Attended by 2,000 physicians from state and local medical societies and other mental health workers, the meeting was devoted to planning specific activities to carry out the AMA program.

Recommendations were formulated calling for increased action in areas of mental health services, manpower, research, communications, and physician education at national, state, and local levels.

AMA President, Dr. George Fisler, pledged the full support and resources of the AMA in the campaign against mental illness.

Marked Increase Noted
In Taste Sensitivity
Of Addisonian Patients

When compared with normal subjects, patients with adrenal cortical insufficiency exhibit a 40- to 100-fold increase in taste sensitivity to substances that are salty, sour, bitter, or sweet.

This was reported by Dr. Irwin H. Hacken, of the Laboratory of Clinical Science, National Institute of Mental Health, and Drs. John R. Gill and Frederic C. Bartter, of the Clinical Endocrinology Branch, National Heart Institute, at the recent Endocrine Society Meeting.

The taste detection thresholds of normal subjects and of patients with Addison's disease were measured. Each subject chose a test solution from among three fluid samples, two of which were distilled water.

Presented at Random

The test solutions contained urea (bitter), hydrochloric acid (sour), sucrose (sweet), or various sodium or potassium salts. Different concentrations of each test solution were used. They were presented to the subjects in a random order.

The Addisonian patients could consistently detect the test solutions in concentrations ranging from 40 to 100 times lower than those that could be consistently detected by the normal subjects.

Oddly enough, the taste sensitivity of the patients could be returned to the normal range by administering steroids that affect carbohydrate metabolism. Sodium-retaining steroids had no effect.

How variations in carbohydrate-active steroids might mediate these striking variations in taste sensitivity is still a mystery.

Russian Paper on Aging
Available from CAR

A Russian paper on aging at the molecular level, translated by the Translating Section of the Library Branch, DRS, has been issued in pamphlet form by the DGMS Center for Aging Research.

The paper, originally published in the Russian Review of Biology, was presented at the Fifth International Congress on Gerontology in San Francisco by Zh. A. Medvedev, Department of Biochemistry, Primorsky Agricultural Academy, Moscow.

Single copies of the pamphlet, Aging at the Molecular Level, may be obtained without charge from the Center for Aging Research, Trunnell Building, Bethesda 14, Md. The telephone extension is 4121.
The second Lasker award, the Basic Medical Research Award, was won by Dr. C. H. Li, Professor of Biochemistry and Experimental Endocrinology, and Director of the Hormone Research Laboratory at the University of California in Berkeley, for his isolation and identification of six of the hormones of the anterior pituitary gland.

Announcement of the Lasker Awards, each carrying an honorarium of $10,000, was made in New York City by Mrs. Albert D. Lasker, President of the Albert and Mary Lasker Foundation.

The Lasker Clinical Research Award honors "significant contributions to clinical investigation, and the application of basic research findings to eliminate the major medical causes of death and disability...with a view toward the prolongation of the prime of life."

Working with British investigators in Malaya, Dr. Smadel's research, during the period from 1948 to 1952, showed that certain infectious diseases could be treated successfully with the antibiotic chloramphenicol.

Dramatizes Use

He was the first to demonstrate its use for treating typhoid fever and as a cure for the rickettsial diseases, including scrub typhus, and as a cure for the rickettsial diseases, including scrub typhus, and as a cure for the rickettsial diseases, including scrub typhus, and as a cure for the rickettsial diseases, including scrub typhus.

Prior to Dr. Smadel's discovery in 1948 of the use of chloramphenicol for treating typhoid fever, about 12 percent of all those contracting the disease died of it. Today, through the use of chloramphenicol, such fatalities have been reduced to about 2 or 3 percent.

Dr. Smadel's work has greatly contributed to the control of cholera and plague. Currently, he is contributing to research on cholera through his activities as Chairman of the NIH Cholera Advisory Committee and of the Technical Committee of the Cholera Research Laboratory in Dacca, East Pakistan.

In citing Dr. Smadel, the Lasker Award jury, composed of 16 eminent American scientists, emphasized his dedication, without thought of personal hazard, and his inspiring leadership in stimulating others to scientific achievement.

His contributions to solution of the problems of scrub typhus, epidemic typhus fever, cholera, and typhoid were voted by the jury as especially timely and important to the health of the Southeast Asia area, particularly in view of the many American military and civilian personnel now serving in the Far East.

Both Dr. Smadel and Dr. Li will receive their honoraria, citations and gold statuettes of the Winged Victory of Samothrace, representing victory over death and disease, at a luncheon on November 14 at the Sheraton-East Hotel in New York City, before an invited audience of about 250 officials, scientists, press, and representatives of social, medical and welfare agencies.

That evening the Lasker Foundation will further honor Dr. Smadel and Dr. Li at a dinner, to be held at the New York Academy of Medicine, at which more than 100 medical leaders will be present.

Will Present Papers

At 8:30 the same evening, Drs. Smadel and Li will present scientific papers on the major and important aspects of their work, marking the first time that Albert Lasker Award winners have presented such papers at the Academy of Medicine. Dr. Smadel will discuss "Intraocular Infections." Dr. Li will speak on "Perspectives in the Endocrinology of the Anterior Pituitary Hormone." The medical profession and public are invited to attend.

Dr. Smadel, who became Chief of the Laboratory of Virology and Ricketsiology on July 1, 1960, has had a long career in research in infectious diseases and their control. His work has covered virtually the entire field of bacteriology and immunology with special emphasis on ricketsial diseases, viral diseases, including psittacosis, vaccinia, lymphocytic choriomeningitis, smallpox, influenza, encephalitis, poliomyelitis, and epidemic hemorrhagic fever. He has also made important contributions to such diseases as plague and leptospirosis.

He received his B. A. degree from the University of Pennsylvania in 1928, and his M. D. degree in 1931 from Washington University, St. Louis. Before coming to NIH in 1956 as Associate Director for Intramural Research, Dr. Smadel was Director of the Division of Communicable Diseases at the Walter Reed Army Institute of Research. Prior to that Dr. Smadel did research work for four years in the Army during World War II, and for eight years at the Rockefeller Institute for Medical Research.

Dr. Li has been engaged since the late 1950s in an extensive program of biological and chemical investigation of the hormones of the anterior and intermediate lobes of the pituitary gland. His isolation and identification of six hormones of the anterior pituitary gland, including MSH of the intermediate lobe, is considered a major contribution to the understanding of the endocrine functions.

The other five hormones isolated and identified by Dr. Li are growth hormone, ACTH, and three gonadotropins (FSH, ICSH, and Prolactin).

In the past year, Dr. Li also has succeeded in synthesizing a 19-unit polypeptide possessing both adrenocorticotropic and melanotropic activities in high potency, as well as lipolytic and erythropoietic functions comparable to those of naturally occurring ACTH.

Ranger Hal of the WTOP-TV show for children (right), introduces a young friend, Warren T. (Teddy) Greenleaf, IV, age 2, of Richmond, Va., to Mike the Clown and Oswald the Rabbit during visit to the Clinical Center October 20, to entertain CC children patients. The Ranger Hal cartoon show, sponsored by the Department of Agriculture's Forest Service, appears weekday mornings on television. On Saturdays, the program is devoted to "The Birthday Party," with participation of Washington area children who have birthdays during the month.—Photo by Sam Silverman.