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 Poterson.

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 sensitive 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 battleships 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 fallout that gets into the bodies of infants and small children, how much remains, and how long it remains.

(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 Biologies 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.
GM and L Tops UGF Quota For Third Straight Year

They've done it again! For the third consecutive year the members of the Grounds Maintenance and Landscaping Section of Plant Engineering Branch, DRS, have exceeded their dollar quota for the UGF Campaign.

This year they totaled 149 percent of quota, and each of their four keymen—Tom Cook, Ernest Smith, Paul Smith, and Hoover Rowell—have attained more than 110 percent of their unit quotas.

PEB to Distribute New 'Service Bulletin'

The Service Bulletin, a new publication of the Plant Engineering Branch, DRS, 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 Administrative Office, PEB, Ext. 3288.

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 Boisfeuillet 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," Linde Perry, DGMs (left), and Janet Perry, DRS, 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. La Du and their associates in the Arthritis and Rheumatism Branch, National Institute of Arthritis and Metabolic Diseases, have identified benzquinoneacetic 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 pathophysiological 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 malonylacetocetic 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.

Devising 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 vivo 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 on it.

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.

Immunological Aspects of Polysaccharides Subject of Second Freund Seminar

Dr. Michael Heidelberger, 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. Heidelberger said, and are of increasing interest to the clinician and the immunologist.

In investigations which have continued for more than a decade, Dr. Heidelberger has developed ingenious techniques and reagents with which he has been able to determine the fine structure of many of the carboxymethyl 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 foods.

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. Heidelberger 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 1937 until his death in 1960.

Schools' Effect on Child Learning
To Be Reported

Dr. Joseph M. Bobbitt, Associate Director of the National Institute of Mental Health, will be the introductory speaker when a report on a study of the effects of modern and traditional schools on children's learning is presented to the public.

The report, presenting the findings of a 6-year NIMH-supported research study, will be made Monday, November 19, at 8:15 p.m. in the Clinical Center auditorium.

4th Graders Studied

Psychologists, educators and a social anthropologist on the staff of the Bank Street College of Education in New York City have studied the impact of school experience on a sampling of fourth-grade children in a large city.

The study centered around four different types of schools with educational philosophies ranging from relatively "modern" to relatively "traditional." All the children participating in the study came from similar socio-economic backgrounds.

The report will be presented by Dr. Barbara Biber, Director of Research, and Drs. Patricia Minuchin, Edna Shapiro and Herbert Zimiles of the Bank Street College of Education.

Ideal as Subjects

Fourth-grade students were used in this study, according to Dr. Biber, because these nine and 10-year olds have grown out of the pre-school stage but are not yet affected by the very particular problems of adolescence. Furthermore, the fourth-grade children have already had several years of school experience.

The children were tested individually and in groups. Classroom activities and teaching methods were observed and all parents interviewed.

The meeting in the Clinical Center is sponsored by the Washington Associates of Bank Street College of Education and is open to the public.
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, DRG, to keep alive the reservation’s trees which have been weakened by last summer’s prolonged 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. 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 must be 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 this year,” he said.

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

By demonstrating the importance of the central nervous system in controlling the performance of the heart, Dr. Sarnoff has established 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 mechanisms and treatment of acute lung congestion, experimental cardiac surgical techniques, and the mechanism of action of normal heart valve closure.

Dr. Sarnoff received his A.B. degree from Princeton University 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 1954.

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 H: 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 Sholokov, Chief of NIH’s Laboratory 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 authors caution that conclusive proof of the lizard’s role must await the recovery of the virus from naturally infected animals.

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, a 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 recommissioned in the PHS in 1960 and assigned to work with Dr. Overholser at St. Elizabeths. In his new position he holds the rank of Assistant Surgeon General.
Tranquilizers Converted Into Antidepressants By Demethylation

Scientists from the National Heart Institute report that removal of a single methyl (-CH3) group from trifluopromazine and certain other chlorpromazine-like compounds converts these tranquilizing agents into powerful antidepressants.

Mrs. M. B. Bickel, Fridolin Sulser, and Bernard B. Brodie, of the NIH Laboratory of Chemical Pharmacology, presented their findings at the Fall Pharmacology Meeting held in Nashville.

The idea for the chemical modification of trifluopromazine and its near relatives arose from earlier studies on the antidepressant drug Imipramine (Tofranil, Geigy).

Metabolite Is Stimulant

The studies had shown that desmethylimipramine, the metabolite resulting from the demethylation of Imipramine, was responsible for the antidepressant effects attributed 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 certain chlorpromazine-like tranquilizers, the scientists reasoned that the demethylation of these compounds might bring about a similar Jekyll-and-Hyde transformation in their actions. This proved to be the case.

Several of these modified compounds were able to block the syndrome of central nervous system depression induced in animals by sedative doses of reserpine. In the past, the effectiveness of antidepressants against this syndrome in animals has proved to be a reliable index of their effectiveness against "naturally occurring" endogenous depression in man.

Since demethylimipramine has already proved its worth in clinical 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 increasing 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

MRS. TERRY HOSTESS ON TOUR OF NIH

Mrs. Anthony J. Celebrezze, wife of the Secretary of DHEW (right), visits NIH for the first time, October 24, as the guest of Mrs. Luther L. Terry, wife of the PHS Surgeon General (left), with Mrs. Stephen M. Young, wife of the Senator from Ohio and a former NIH staff member. Others in the visiting group, not shown, were Mrs. Walter W. Holler, whose husband is Chairman of the President's Council of Economic Advisors; Mrs. David E. Price, wife of the Deputy Surgeon General of PHS; Mrs. Eugene J. McCarthey, wife of the Senator from Minnesota; and Mrs. Edmund S. Muskie, wife of the Senator from Maine. The visitors witnessed a screening of the NIH film and were escorted by Mrs. Terry on a tour of the Clinical Center and a visit to Building 8 to learn about NIAID's Laboratory of Germfree Animal Research. They were briefed on current clinical studies, inspected some of the CC's facilities for children's patients, and visited a metabolic kitchen during luncheon preparations. Mrs. Terry and her guests also toured the National Library of Medicine.—Photo by Sam Silverman.
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 a year ago.

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 they require constant care or supervision, and more than half of that number receive care in residential facilities, the report stated.

The remaining 5 million are mildly retarded and include the subnormal individuals who often become school dropouts and unemployed. An estimated 125,000 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 educational 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. Comprehensive 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 courts.

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.

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 Executive Director of the Association for the Aid of Crippled Children, New York City, served as chairman of the Panel. Dr. Seymour S. Kety of the NIMH was a member, and Dr. Bertram S. Brown of the NIMH was a member, and Dr. Bertram S. Brown of the NIMH was a member, and Dr. Bertram S. Brown of the NIMH was a member.

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 educational 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. Comprehensive 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 courts.

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.

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 Executive Director of the Association for the Aid of Crippled Children, New York City, served as chairman of the Panel. Dr. Seymour S. Kety of the NIMH was a Panel member, and Dr. Bertram S. Brown of the NIMH was a member.
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 5,530 annual grants and a total of $106,717,550 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 FY 1961 it was $345,000. The total number of grants awarded in FY 1961 showed an increase of over 30 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 $25,711 in 1961.

Scientists participating in the NIMH research program in the 13 years covered by the reports, represented over 30 professional disciplines in more than 35 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. 4795.

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 radio 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. The data is printed 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 years since 1887, when 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.”

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 Fisher, 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 R. Henkin, of the Laboratory of Clinical Science, National Institute of Mental Health, and Drs. John R. Gill and Frederic C. Barter, 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 was asked to choose 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. Eleven 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 Agrochemistry and Biochemistry, Primorskiy Agricultural Academy, Moscow.

Single copies of the pamphlet, Aging Organism 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 basic investigation, and the application of basic research findings to eliminate the major medical causes of death and disability, which result in 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 infection diseases could be treated successfully with the antibiotic chloramphenicol.

Demonstrates Use

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

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.