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Senate Committee Restores Cut in NIH '64 Budget

BULLETIN

The Senate last Wednesday passed the \$5,114 million DHEW appropriation bill for Fiscal Year 1964 as reported by its Appropriations Committee, including \$989.6 million for NIH.

The Senate Appropriations Committee, in reporting legislation providing funds for NIH for Fiscal Year 1964, restored the \$18 million reduction made by the House and approved the Administration's \$989.6 million budget request.

Funds for NIH are included in the Public Health Service portion of the DHEW appropriation bill which the Senate Committee reported with certain changes, on August 1. Senate consideration of the measure was scheduled to begin last Tuesday (August 6).

Exceeds 1963 Figure

The Senate Committee-approved total exceeds the amount appropriated for NIH in Fiscal Year 1963 by \$39 million.

The Committee's action in restoring the House cut set the stage for a possible conference with the House to reconcile differences between the two versions, if the Senate accepts its Committee's recommendation. (See NIH BUDGET, Page 6)

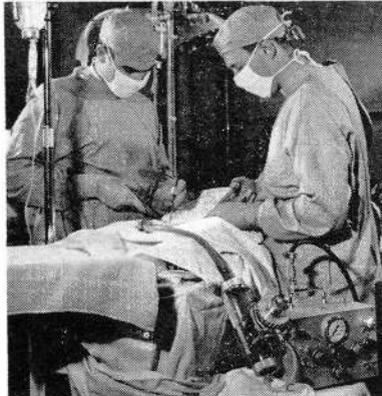
Federal Pay Hearings Open In House Committee Today

Hearings on the Administration's supplemental Federal pay raise plan and other Federal pay legislation were scheduled to begin today (August 13) before the House Post Office and Civil Service Committee.

The supplemental pay plan carries out Administration proposals for Federal pay comparability with private industry and would provide percentage pay raises on a graduated scale for classified employees beginning with Grade 3.

New Movie Depicts Current Heart Research in 9 Areas

"Heart Research News," the second in a series of newsreel films designed to bring more medical news to the scientific community and the public, will be released this month. The film was produced by the Heart Information Center of the National Heart Institute.



In a new technique called counterpulsation, this special pump is used to boost the heart and circulation following heart attack, thus helping prevent permanent or fatal heart damage.—Photo by Jerry Hecht.

Photographed in Boston, New York, Cleveland, Milwaukee, Baltimore, and at NIH, the 15-minute, black-and-white, sound film presents nine examples of research conducted or supported by the Heart Institute.

Grantee Work Featured

Seven segments feature grantee work and two deal with intramural research. Each is based on a published research paper.

Last year's newsreel, "Highlights of Heart Research," was shown mostly at professional meetings as part of the NHI Program Exhibit. At these meetings it was seen by about 45,000 people.

"Heart Research News" depicts research on a new drug for high (See NHI FILM, Page 4)

Dr. Brodie Wins Sollmann Award In Pharmacology

Dr. Bernard B. Brodie, Chief of the National Heart Institute's Laboratory of Chemical Pharmacology, is being presented the coveted Torald Sollmann Award in Pharmacology today at 5 p.m. (PDT) in San Francisco. Presentation ceremonies will be held in the Millbury Union Building of the University of California Medical Center.



Dr. Brodie

The Sollmann Award was established in 1961 by Wyeth Laboratories of Philadelphia, commemorating the pioneering work of Dr. Torald Sollmann in pharmacological investigation and education.

Citation Quoted

The citation reads in part, "for significant contemporary contributions to the advancement and extension of knowledge in the field of pharmacology." It includes a check for \$2,500 and an inscribed medal.

Candidates from all over the world are considered for this award, which is given at intervals (See DR. BRODIE, Page 6)

Dr. Shannon Speaker at New Hampshire Meeting

Dr. James A. Shannon, NIH Director, attended the Gordon Conference on Toxicology and Safety Evaluations, at Meriden, N. H., August 1. He addressed the Conference on "Drug Toxicity—Problems and Prospects."

Other speakers from NIH were Dr. Carl R. Brewer, National Institute of General Medical Sciences, and Drs. Roy Hertz, David P. Rall, and Charles G. Zubrod, all of the National Cancer Institute.

The Gordon Research Conferences, sponsored by the American Association for the Advancement of Science, were started in 1933 to stimulate research in universities, foundations, and industry,



Photographer Jim Cole, Medical Arts and Photography Branch, DRS, shoots a close-up of heart surgery for the newsreel "Heart Research News," second of a series of film reports on cardiovascular research projects conducted or supported by the National Heart Institute. Produced by NHI's Heart Information Center, the sound film will be released this month.—Photo by John Blamphin.

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The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policy of the paper and the Department of Health, Education, and Welfare.

NEWS from PERSONNEL

SICK LEAVE IS GOOD 'INSURANCE'

The average Federal employee could not afford to buy sickness and accident insurance that will pay his full salary (say, at age 50) for a year and a half during illness or disability.

But that is what your sick leave can offer if you conserve it for use in a real emergency. The legitimate use of sick leave—earned at the rate of 13 days a year for all employees—is wise and is encouraged. If you are fortunate, however, and can save sick leave and permit it to accumulate, your benefits mount as follows:

13 days sick leave accumulated for:

10 years—130 days or 1,040 hours
15 years—195 days or 1,560 hours
20 years—260 days or 2,080 hours
25 years—325 days or 2,600 hours
30 years—390 days or 3,120 hours

Value Cited

As you get older, extended illness is more likely to strike. Used conservatively, your sick leave "insurance" will give you benefits you otherwise would not have.

We are not all blessed with good health. But those of us who are should remember—sickness often strikes suddenly and without warning. Recovery from lengthy illness is difficult enough without having the additional worry of providing for your own expenses, or if married for those of your family. Your sick leave "insurance" will soften the financial blow and relieve you of worry that might otherwise impede your recovery.

One day, perhaps when you least expect, your sick leave "insurance" may prove invaluable. It will pay off in dollars—and sense.

NIH Graduate Program Catalogs Ready; Wide Variety of Fall Courses Offered

Catalogs announcing the schedule of evening courses to be offered by the Graduate Program of NIH beginning in September have been issued by the sponsoring organization, The Foundation for Advanced Education in the Sciences, Inc. The catalogs are available without charge from the Graduate Program Registrar, Building 31, Rm. B1B42. The phone number is 49-66371.

The classes will begin September 16. Registration will be held September 6-7 and 9-14 in the lobby of the Clinical Center. Hours of registration are 10 a. m. to 4 p. m. The classes are open to the public.

Many Courses Offered

The courses are in a wide variety of fields, from cultural anthropology to the nervous mechanisms relating to behavior, from chromatography to a non-credit class in Basic Scientific and Medical Russian which provides an introduction to written Russian with special emphasis on biological and medical areas.

Many of the courses are for credit. The Graduate Program at NIH does not offer degree programs, but anyone desiring credit towards either an undergraduate or graduate degree should consult in advance the dean of the institution from which he desires a degree to receive approval of the courses taken.

U.S. Army Band to Give Outdoor Concert Here

The fifth in this season's series of outdoor band concerts for Clinical Center patients will be given here on Thursday, August 22, at 7:30 p. m., by the U. S. Army Band.

The concerts are held on the first floor patio of the Clinical Center, east of the auditorium. In case of rain, the auditorium is used. NIH employees, their families and friends are invited to attend.

Genetics Study Published As Volume 2 in Series

"Methodology in Mammalian Genetics," the second in a series of three volumes, was published recently under the sponsorship of the Genetics Study Section of the Division of Research Grants, the National Institute of General Medical Sciences, and the Roscoe B. Jackson Memorial Laboratory.

The first in the series, "Methodology in Human Genetics," was published last year. The final volume, "Methodology in Basic Genetics," will be available shortly.

All three texts are edited by Dr. Walter J. Burdette, former Chairman of the Genetics Study Section. They are based on symposia organized by the Study Section and conducted over the past several years at the University of Utah, the Roscoe B. Jackson Memorial Laboratory, and the University of Texas.

Dr. S. F. Yolles Appointed NIMH Deputy Director

Dr. Robert H. Felix, Director of the National Institute of Mental Health, has announced the appointment of Dr. Stanley F. Yolles as Deputy Director of the Institute.



Dr. Yolles

Dr. Yolles for the past three years has been NIMH Associate Director for Extramural Programs.

NIMH is the first of the NIH institutes to appoint a Deputy Director. Dr. Felix said the position was established to assist him as Director in keeping pace with the Institute's growing responsibilities and its ever-increasing workload.

"The nature of the expanded workload and the new programs that are currently evolving and planned under the National Mental Health Program are such," Dr. Felix said, "that the post requires a psychiatrist well versed not only in community mental health but in all other phases of the mental health program. Dr. Yolles meets that requirement."

Treatment Time Shortened

Dr. Yolles has been active in the expanding area of community mental health where the aim is to provide diagnosis, treatment, rehabilitation, and prevention of mental illness as close to the patient's home as possible.

This type of care has been shown to shorten considerably treatment time for a large number of mentally ill persons.

A native of New York City, Dr. Yolles received his Bachelor's degree from Brooklyn College and his Master's degree from Harvard University. He is a medical graduate of the New York University College of Medicine.

In addition he holds a Master of Public Health degree from Johns Hopkins University. He completed his psychiatric residency at the Public Health Service Hospital in Lexington, Ky.

Directs Study Center

In 1950 he received a commission in the Public Health Service and served initially on the staff of the Lexington hospital. He later held the post of Director of the NIMH Mental Health Study Center, a community laboratory in Prince Georges County, Md.

He was appointed Associate Director at NIMH in July 1960. In that position he has been instru-

(See DR. YOLLES, Page 8)

NIDR Grant Supports Speech Pattern Study Of Cleft-Palate Patients

Speech patterns in people who have cleft palates will be studied as a key to evaluating various treatment procedures at the State University of Iowa under a grant from the National Institute of Dental Research.

In announcing award of the grant, Dr. Luther L. Terry, Surgeon General of the Public Health Service, said, "If research goals are met in the projected study, techniques and standards will be established for determining the potential satisfactory correction of this birth defect."

The multidisciplinary program of research will be under the supervision of Dr. D. C. Spriestersbach, Professor of Speech Pathology at the State University of Iowa College of Medicine, Iowa City.

Basic Research Supported

The grant, providing \$116,000 for the first year of the proposed 3-year project, will support inter-departmental basic research on deformities of the mouth, as well as clinical research in oral function, dental management, speech problems, and corrective surgery.

Once in every 800 births, cleft palate occurs. A child born with the abnormality must eat and breathe differently from normal children because he lacks a solid surface between his tongue and nasal passages.

Management of cleft palate is a long and costly procedure involving a number of medical specialties. The program of care typically includes surgery for closure of the cleft of the palate and, if cleft of the lip is present also, surgical procedures on the lip and nose.

Data Correlated

The surgical program will be under the leadership of Dr. William C. Huffman, Professor of Otolaryngology and Maxillofacial Surgery. The data on surgical procedures will be correlated with other facets of the project, particularly the patients' speech skills.

Usually involved in the dental management of individuals with clefts are procedures to bring the teeth into alignment and construction of a plate to provide for missing teeth or palatal tissues.

This part of the study will be under the supervision of William H. Olin, D. D. S., Associate Professor of Orthodontics, and James W. Schweiger, D. D. S., Assistant Professor of Prosthetics.

Speech and language assessments of individuals with clefts will be supervised by Hughlett L.

Curved Bottle-Feeder Now Used Here For Babies Born With Cleft Palate



The use of the special curved bottle-feeder, which overcomes feeding difficulty in babies with cleft palates, is demonstrated by a Clinical Center nurse. At left, she instructs a young patient's mother in proper handling of the device. At right, the baby is fed. Its prone position allows normal motion patterns of the tongue and mandible, permitting more effective suckle feeding.—Photos by Thomas Joy.

A special curved bottle-feeder for babies with cleft palate is being used by pediatricians of the National Institute of Dental Research. It is designed to overcome the difficulty of these infants in taking food because they lack a solid surface between nose and mouth.

The curved bottle-feeder for infants with suckle-feeding impairments was demonstrated by nurses of the Clinical Center Nursing Department in a special program held recently in the 14th floor auditorium.

Designers Named

The bottle, made of glass and fitted with a special nipple, was designed by Dr. Yasuaki Takagi and Dr. James F. Bosma at the University of Utah in 1960.

Dr. Bosma now heads the Oral Pharyngeal Development Section in the Dental Institute's Oral Medicine and Surgery Branch. Dr. Takagi is a Visiting Scientist working with Dr. Bosma.

The L-shaped bottle is used with the infant lying on his abdomen. The tongue and lower jaw fall for-

Morris, Ph. D., Research Assistant Professor of Speech Pathology.

Anatomical and physiological studies of palates will be conducted by Kenneth L. Moll, Ph. D., Research Assistant Professor of Speech Pathology, and by the principal investigator, Dr. Spriestersbach.

To study the anatomy and physiology of normal speech and oral function, the investigators require special equipment and techniques.

One example is cineradiography, the process of X-ray motion picture photography of soft tissues of the body. With techniques like this, comparison may be made between normal and surgically corrected functions of individuals with cleft palate.

ward, thus preventing airway obstruction and lessening chances of food aspiration. The prone position allows normal patterns of motion of the tongue and mandible, and thus permits more effective suckle-feeding.

The bottle is used not only for infants with cleft palate but also for babies with other abnormalities associated with difficulties in suckle-feeding.

Patient 5 Days Old

Feeding problems of the cleft palate infant are usually limited to early infancy. After the first few months of life, the motor functions of head and neck posture and of suckle performance generally improve. Dr. Takagi reports that his youngest prone feeding patient was five days old.

For each cleft palate patient under study, 24 bottles are made in the Instrument Engineering and Development Branch, Division of Research Services. They are then sent to Central Sterile Supply Service where they are fitted with the special nipples.

Nurses Demonstrate Use

A demonstration of the use of the bottle in a typical case was presented by the staff of the Cancer Nursing Service at their annual Nursing Care Conference recently.

Normal and impaired swallowing mechanism, retrusion of the tongue, throat closure in crying, and hypoplasia of the mandible were demonstrated in slides, cinefluorography and sound recording, by June McCalla, Head Nurse of Unit 2-East, and members of her

Hugh Connolly Named Assistant Chief of DRS, Succeeds William Page

Hugh H. Connolly, a sanitary engineer with the Public Health Service since 1954, has joined the staff of the Division of Research Services as Assistant Chief. He succeeds William B. Page, who recently transferred to the Division of Research Facilities and Resources.



Mr. Connolly

Before coming to NIH, Mr. Connolly was assigned to the Billings, Mont., area office of the Division of Indian Health, where he was in charge of environmental sanitation activities, including design and construction for the Indian sanitation facilities program.

From 1955 to 1959 he was with the Albuquerque, N. Mex., area office of DIH and had responsibility for promoting better sanitation in Indian communities in the area.

Has Teaching Background

Mr. Connolly was an Instructor and Assistant Professor of Civil Engineering at the University of Illinois from 1950 to 1955 and taught courses in water supply and sewerage. In 1949 he was Assistant Professor of Civil Engineering at the University of Arizona.

During World War II he served as an officer in the U. S. Air Force from 1943 to 1946 and saw action in Italy as a B-24 bomber pilot.

Mr. Connolly is a member of the Water Pollution Control Federation, the American Water Works Association, the American Sanitary Engineering Intersociety Board, and the National Society of Professional Engineers.

A native of Illinois, he received his B.S. in Sanitary Engineering from the University of Illinois in 1948 and his M.S. in Sanitary Engineering from the University of Illinois in 1949. He is licensed as a professional engineer in the State of Illinois.

nursing staff.

Advances in research are improving the rehabilitation of cleft palate children. The National Institute of Dental Research not only carries on investigations in oral and pharyngeal development of such children but supports some 30 cleft palate projects in dental schools and other research institutions.

These programs include basic research on oral anomalies, as well as clinical studies in oral function, speech problems, cineradiography, and other aspects of cleft palate.

NHI FILM

(Continued from Page 1)

blood pressure, an electric shock treatment for abnormal heart rhythm, diet and heart disease, aging, the heart's conduction system, computer monitoring of fetal heart beats, microsurgery, counterpulsation, and the artificial heart.

Photographic and art services were provided by Dr. Malcom Ferguson, Chief of the Medical Arts and Photography Branch, Division of Research Services. The film was photographed by Jim Cole, Jerry Hecht, and Jack Romine under the supervision of Roy Perry, Chief of the Photography Section.

Artwork was by Howard Bartner, Ron Winterrowd and Marie Andros, of the Medical Arts Section.

Others who contributed significantly to the production were Louis Cook, Tony Anastasi and Sandy Kamisar, of the Heart Information Center, and Daniel G. Rice of the Office of Research Information.

Rogers Is Narrator

The film is narrated by Charles M. Rogers, Press Officer of the Department of Health, Education, and Welfare. It was edited by Sylvia Cummins-Betts of Glen Echo, Md. John M. Blamphin of the Heart Information Center served as production supervisor.

"Heart Research News" will be available on free loan from the Medical Audiovisual Branch of the Communicable Disease Center, Atlanta 22, Ga., or from the Heart Information Center, Building 31, Rm. 5A33, Bethesda 14, Md.

The Center has produced two publications to accompany the film. One, a flyer, briefly describes the newsreel series. The other, entitled "From the Film . . . Heart Research News," presents a summary of each newsreel segment, with accompanying photographs.

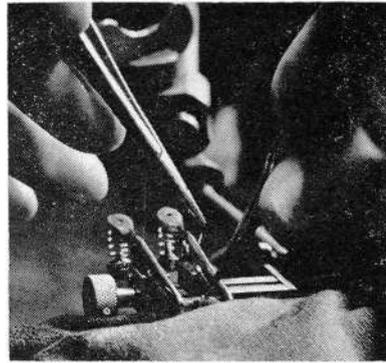
List of Latest Arrivals Of Visiting Scientists

7/17—Dr. Mitsuo Yokoyama, Japan, Immunochemistry of Body Cells and Fluids. Sponsor, Dr. Paul J. Schmidt, NCI, Bldg. 10, Rm. 4D39.

7/19—Dr. L. K. Ramachandran, India, Differential Reactivity of Amino Acids and Functional Groups. Sponsor, Dr. Bernhard Witkop, NIAMD, Bldg. 4, Rm. 228.

7/31—Dr. Hiroshi Taniuchi, Japan, Studies on a Nuclease from *Micrococcus Pyogenes*. Sponsor, Dr. Christian B. Anfinsen, NIAMD, Bldg. 10, Rm. 9N321.

8/1—Dr. Guy Blaudin de Thé, France, Electronic Microscopy of Oncogenic Viruses. Sponsor, Dr. Albert J. Dalton, NCI, Bldg. 6, Rm. SB14A.



A new microsurgery technique employs (1) these special clamps to stabilize blood vessels, and (2) the surgical instruments with miniaturized tips to remove fat deposits or blood clots from minute vessels previously considered inoperable.—Photo by Roy Perry.

Dental Study Clarifies Calcification of Aorta

Scientists at the National Institute of Dental Research have found preferential mineralization of elastin fibers in an *in vitro* study of rat aorta calcification.

While it is generally known that the calcium content of various blood vessel walls increases with age and that hydroxyapatite is a major component of aortic plaques, the events involved in the deposition of calcium salts are not thoroughly understood.

Studies by NIDR scientists, Drs. G. R. Martin and E. Schiffmann of the Laboratory of Biochemistry and Drs. H. A. Bladen, Jr., and M. U. Nylen of the Laboratory of Histology and Pathology, indicate that aortic calcification is initiated on elastin fibers and then spreads to collagen.

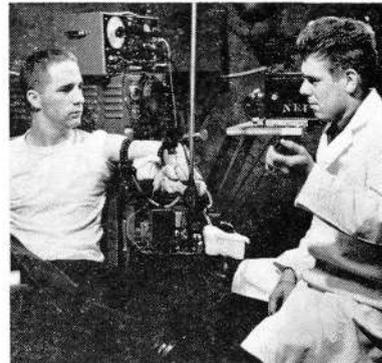
Serum Affects Mineralization

Mineralization begins after various factors in serum which prevent mineral deposition are destroyed.

The investigators incubated samples of the ascending arch of rat aorta in serum from mature male rats. It was demonstrated by limited area electron diffraction and electron microscopy that the calcium and phosphate had been deposited in amorphous elastin fibers as hydroxyapatite crystals. Only late in the process did mineral appear in collagen bundles.

Selective elimination of aortic constituents with specific enzymes demonstrated that elastin was essential for the initiation of the process. Previous theories have proposed that more crystalline proteins, such as collagen, were the template for calcification.

During the period preceding mineralization two changes were detected in the serum. Inhibitors of mineralization were destroyed by



Studies of the aging process carried on by the Heart Institute include a series of physiological tests such as the one depicted here, given to male volunteers ranging in age from 20 to 100 years. Michael Canning, of the National Institute of General Medical Sciences (left), poses as a volunteer.—Photo by John Blamphin.

Dr. J. E. Boyd Appointed Executive Secretary of New Training Committee

Dr. Clinton C. Powell, Director of the National Institute of General Medical Sciences, has announced the appointment of Dr. John E. Boyd as Executive Secretary of the Clinical Research Training Committee, a new consultant group recently established to serve the Research Training Grants Branch.

In his new position, Dr. Boyd will be responsible for reviewing and administering training programs at the post-doctoral level in diagnostic radiology, surgery and anesthesiology.

Commissioned Recently

Dr. Boyd was commissioned an Assistant Surgeon in the Public Health Service last month. He completed a one-year medical internship at the Strong Memorial Hospital, University of Rochester Medical Center, in June.

A native of Providence, R.I., Dr. Boyd graduated summa cum laude with an A.B. degree in Biology from Providence College in 1958. He received an M.D. degree in 1962 from the Albany Medical College of Union University, Albany, N.Y.

He spent the first two summers during medical school in course work at Yale University, stressing the sociological and psychological approaches to alcoholism, and with the Department of Medical Research, Providence College, in research on the metabolism of cholesterol in the chick embryo.

phosphatases and calcium was released from serum protein. It is believed that calcium binding and phosphatase sensitive compounds inhibit mineralization *in vivo*.

These findings were reported in the *Journal of Cell Biology*.

NIDR Research Reveals 'Bonine' Drug Produces Birth Defects in Rats

A National Institute of Dental Research investigator reports that administration of relatively large doses of the antihistamine, meclizine hydrochloride ("Bonine"), to pregnant rats will induce congenital malformations in the offspring. The drug commonly is used for relieving motion sickness.

The drug produced visible gross malformations including cleft palate with glossopalatine function, macrognathia, microstomia, and micromelia. Clearing and staining of the specimens demonstrated malformed lower jaw and inhibition of calcification of the vertebral bodies.

Designed as part of a project to obtain a tool for the induction of cleft palate or other oral-facial malformations, the study limited treatments to the first 16 days of gestation. The critical period of gestation for administration was from the 12th to the 15th day. When 50 mg. was administered each day for four days during the critical period, malformations were induced in 100 percent of the animals.

Effects Noted

As the dosage was lowered the percentage of malformations decreased. The threshold for producing cleft palate and other visible malformations was 10 mg., administered daily from the 10th to the 15th day of gestation. The threshold dose for producing minimal hidden skeletal anomalies was five mg., administered daily from days eight to 15. The results of these relatively low dosages of meclizine hydrochloride over prolonged periods of time demonstrated the cumulative effects of the drug.

This research finding is reported by Dr. C. T. G. King, NIDR Laboratory of Biochemistry, in *Science*.

Dr. William D'Antonio Has NIMH Assignment

Dr. William V. D'Antonio, Associate Professor of Sociology at the University of Notre Dame, has joined the staff of the Mental Health Study Center, National Institute of Mental Health, for a special 2-month appointment in the Community Projects Section.

Dr. D'Antonio is collaborating with Dr. Howard J. Ehrlich, of the Community Projects Section, on studies of the characteristics of voluntary associations and community decision-making.

Drs. Ehrlich and D'Antonio previously co-authored *Power and Democracy in America*, which was published by the University of Notre Dame Press in 1961.

Dr. Carleton Gajdusek Wins Johnson Award

Dr. D. Carleton Gajdusek of the National Institute of Neurological Diseases and Blindness will receive the E. Mead Johnson Award from the American Academy of Pediatrics at the Academy's annual meetings in Chicago, October 5-10.



Dr. Gajdusek

Dr. Gajdusek, who directs the NINDB Study of Child Growth and Development and Disease Patterns in Primitive Cultures, will receive the award in recognition of his studies on children in primitive societies, his investigations on virus diseases throughout the world, and his studies on neurological diseases in New Guinea.

In primitive highland populations of West New Guinea he has been currently investigating congenital defects of the central nervous system associated with hyperendemic goitrous cretinism, and in the Southern Coastal Plain of West New Guinea he has studied a remarkably high incidence of motor neuron disease.

Primitive Cultures Studied

The focus of attention of his laboratory is on neuromuscular development, thought, and behavior of children in primitive societies, using primitive cultures as the field laboratories for such inquiry.

Early in his studies of primitive groups in New Guinea, Dr. Gajdusek, together with Dr. Vincent Zigas of the Public Health Department of New Guinea, discovered and described a new chronic progressive degenerative disease of the central nervous system called "kuru."

Striking pathological and epidemiological similarities between kuru in man and scrapie in sheep have led Dr. Gajdusek to launch intensive studies, with collaborators here and abroad, into slow, latent, and temperate virus infections of the central nervous system of man.

Dr. Gajdusek's virological investigations have included studies on herpes simplex, measles, and influenza viruses, rabies, arbor virus infections in South America and Australasia, and the hemorrhagic fevers of Asia.

He has worked on autoimmune mechanisms causing a variety of hypersensitivity diseases and is the developer of the autoimmune complement fixation test (AICF).

Dr. Gajdusek received his M.D. at Harvard Medical School, with later training at California Institute of Technology, Columbia-Presbyterian Medical Center, Cincinnati Children's Hospital, and Boston Children's Hospital.

Pretty Ph.D. From Finland Specializes In Gas Chromatography Steroid Analysis

By Tony Anastasi

Most pretty young women are not too concerned with gas chromatography, which, when you think about it, is understandable.

Gas chromatography is difficult enough to comprehend, much less to work with, unless you're an organic chemist with a Ph.D. Soili Laiho is.

Dr. Laiho, 27, blond, blue-eyed and tanned, is a National Heart Institute Fellow from Vehmaa, a small farm village in Finland.

The gas chromatograph was developed in England in 1952 and has proved to be a major advance in lipid analysis. The technique makes it possible to separate, identify, and determine the quantity of each component of a lipid mixture, using samples of less than one-millionth of a gram.

Used in Steroid Analysis

NHI has contributed significantly to the application of gas chromatography to the analysis of steroids, which previously were almost impossible to separate by this technique. Dr. Laiho is working under the supervision of Dr. Henry Fales of NHI's Laboratory of Metabolism on a variety of problems related to this technique.

Dr. Laiho was graduated cum laude from the University of Turku, in Finland, where she also worked for two years as a junior scientist.

At the University she worked for Dr. Eero Haahti who was an NHI Fellow in 1960. He suggested that she apply for a fellowship and



Dr. Soili Laiho happily at work in her laboratory.—Photo by Jerry Hecht.

suggested to Dr. Fales that Dr. Laiho would be a good candidate. She expects to return to Finland to teach the chemical techniques in which she is becoming increasingly competent.

"I'm enjoying my visit here very much and learning a great deal," says Dr. Laiho. She also finds time in her leisure hours to enjoy sailing, swimming and music, but admits, "I miss Swedish meat balls, open-face sandwiches and the Sauna bath."

Patent Policies Findings Issued in New Report

Findings of a comprehensive survey of patent policies and practices at institutions of higher learning in the United States are contained in a recently published report entitled University Research and Patent Policies, Practices and Procedures.

Conducted and published by the National Academy of Sciences-National Research Council, the survey was partially supported by the National Institute of General Medical Sciences, the Office of Naval Research, and the Departments of the Army and the Air Force.

The 291-page report reflects the current situation in the area of patent policies, practices, and pro-

cedures as interpreted in light of the significant changes in the past decade. It is a sequel to a 1952 report by the same title, which was also conducted and published by the National Academy of Sciences.

Individual descriptive statements of the policies and practices at 349 institutions of higher learning, where a formalized research and patent policy exists, are contained in the report.

Research Impact Analyzed

The study also presents an analysis of the impact of sponsored research, and particularly Government-sponsored research, on the educational programs in institutions of higher learning, as well as information which would be useful to Government agencies and other research sponsors in negotiating research contracts and grants with these institutions.

Objectives of the study were: 1) to collect information on institution patent policies with regard to their procedures, administrative machinery, and experience in handling both sponsored and unsponsored research, new discoveries, inventions and patents resulting

Dr. Scudder of NIGMS Sees Veterinary Schools As Source of Manpower

Veterinary schools could be a major source of manpower for research in the health-related sciences, Dr. Harvey I. Scudder, Chief of the Research Training Branch, National Institute of General Medical Sciences, told the Council on Research of the American Veterinary Medical Association at its centennial meeting July 30 in New York City.

Dr. Scudder pointed out the urgency of training more research manpower, the great potential available in veterinary schools, and the particular aspects of medical and biological research in which training in veterinary science is most desirable.

He emphasized the great need for people trained in the pathology of laboratory animals and in the toxicology of pesticides and other agricultural chemicals.

To fill these needs, veterinary students should be encouraged early in their schooling to consider a research career, Dr. Scudder said. He noted, however, that in order to train veterinary students to do research, professors with a strong background in the basic sciences are a fundamental prerequisite.

Basic Sciences Vital

He believes veterinarians should consider taking post-doctoral training in university departments where the basic sciences are explored in greater depth than is usually possible in the specialized schools.

These men, he said, could then take the initiative in creating training programs within the veterinary schools and guide their students in career preparation.

"Although veterinary medicine has long been associated mainly with agriculture," Dr. Scudder said, "it is now broadening its interests and becoming a full partner in biological and medical research. The modern trend toward interdisciplinary blending which characterizes medicine needs to be taken fully into account in the training of research veterinarians of the future."

Dr. Scudder told the AVMA members that the NIGMS training program currently supports projects totaling approximately \$873,909 in 14 veterinary schools throughout the country.

from such research; 2) to analyze the data collected; and 3) to prepare an interpretative report on the findings.

Single copies of the report are available from Miss Katharine A. Parent, Room 426B, Westwood Building, Ext. 67735.

DR. BRODIE

(Continued from Page 1)

of two to three years. The previous winner was Dr. Otto Krayer, of Harvard Medical School, who received the award in 1961.

Dr. Brodie was scheduled to deliver an address at the awards banquet.

Dr. Brodie helped to build the foundation for the field of chemical pharmacology during World War II with his contributions to the systematic approach to urgent problems in the area of chemotherapy of malaria. This work is generally considered to contain classical examples of new approaches to drug therapy.

Realizing that the general concepts evolved in the malaria program were applicable to the broader field of therapy, Dr. Brodie developed a program after the war which played a major role in the emergence of the wholly new field known today as chemical pharmacology.

Work Here Cited

Dr. Brodie has occupied his present position since 1950. During this period he has directed a broad program of research aimed at clarifying the relationship between drug structure and drug function, and the nature of the interaction of drugs with nerve, hormonal, and metabolic processes of the body.

More specific areas of study have included the mechanisms of drug absorption, the manner in which drugs penetrate biological membranes, the distribution of drugs in various body tissues, active drug metabolites, and the mechanisms by which the body inactivates drugs.

In other important studies, drugs have been used as probes to investigate the functions of the autonomic nervous system, which regulates bodily mechanisms not consciously controlled; the manner in which the central nervous system integrates these autonomic functions into harmonious patterns of behavior, and the biochemical bases of adaptation.

265 Papers Published

Dr. Brodie is the author of more than 265 scientific papers. His work has contributed substantially to the evolution of improved techniques for screening and evaluating new drugs, to a more rational approach to drug therapy, and to the development of new or improved therapeutic agents.

Its impact has been felt, not only in the field of pharmacology but also in such diverse fields as clinical medicine, psychiatry, physiology, and biochemistry.

His achievements will again be recognized when he receives an honorary Ph.D. degree from the

MRS. DORN RECEIVES HUSBAND'S CITATION



Mrs. Harold F. Dorn, widow of the former Chief of the National Heart Institute's Biometrics Research Branch, receives a Special Citation from Anthony J. Celebrezze, Secretary of Health, Education, and Welfare (right), awarded posthumously to her husband July 22 at a ceremony in the Secretary's Office attended by Dr. Luther L. Terry, Surgeon General of the Public Health Service. The citation reads in part, "... for notable contributions to the fight against disease on a world-wide front through the creation, development, and use of increasingly effective biometric and epidemiological techniques." Long a leader in the war against cancer, Dr. Dorn died May 9 of this year. In 1961 he received a Superior Service Award citing him as "the Federal Government's outstanding leader in the field of biometrics theory and practice." Mrs. Dorn, who has worked at NIH since 1956, is now with the Division of General Medical Sciences.—Photo by S. Stanton Singer.

Rockville Teen Theatre Gives Arsenic and Old Lace Aug. 16

The Rockville Teen Theatre will present the play, "Arsenic and Old Lace," Friday, August 16, at 8 p.m. in the Rockville Civic Center Auditorium.

Sponsored by the Rockville Recreation Department, the production is directed by June Allen, graduate of the famed Royal Academy of London.

One of the leading parts, that of "Aunt Abby," is portrayed by Lisa Fox, daughter of Mrs. Gertrude Fox of the Library Branch, DRS.

Sorbonne next November.

Dr. Brodie was born in 1909 in Liverpool, England. He received his B.S. from McGill University, Montreal, Canada, in 1931 and his Ph.D. in chemistry from New York University in 1935.

Among other awards he has received is the Distinguished Service Award, presented in 1958 by the Department of Health, Education, and Welfare. He is a member of many professional societies, including the American Society of Biological Chemists, the American Society of Pharmacology and Experimental Therapeutics, the American Chemical Society, the Washington Academy of Science, and the New York Academy of Sciences.

NINDB Releases Booklet On Spinal Birth Defects

A new pamphlet, "Spinal Birth Defects (Spina Bifida)," has just been released by the Information Office of the National Institute of Neurological Diseases and Blindness. It is the latest in the "Hope Through Research Series," devoted to helping the layman understand some of the basic facts surrounding specific neurological disorders.

"Spinal Birth Defects" discusses the possible causes and treatment of this frequently crippling disease which affects about 12,000 children a year, and describes some of the present research being conducted on it.

Pamphlet Illustrated

The pamphlet is illustrated to explain spina bifida, meningocele and meningomyelocele. It stresses the hope available for the child through a well planned program of management and pharmaceutical and surgical care.

Single copies are available free of charge from the NINDB Information Office. Bulk copies of "Spinal Birth Defects (Spina Bifida)—Hope Through Research," Public Health Service Publication Number 1023 (Health Information Series 103), are \$6.50 per hundred from the Government Printing Office, Washington 25, D.C.

USIA Article Describes NIH Efforts Toward Cracking Genetic Code

An article describing the role of NIH scientists towards the cracking of the genetic code has been published in *America Illustrated*, overseas magazine of the United States Information Agency. It was written by Victor Wartofsky, Acting Information Officer of the National Institute of Arthritis and Metabolic Diseases, at the request of USIA.

The article appears in the Russian and Polish editions for August, marking the second anniversary of the announcement of one of the biggest breaks in decoding the chemical code of inheritance.

It was in August 1961 that Dr. Marshall W. Nirenberg, then with NIAMD, reported at an international biochemists' meeting in Moscow that he and his associate, NIAMD visiting scientist Dr. J. Heinrich Matthaei, had succeeded in determining the nucleic acid code which gives instructions for creation, from a pool of basic raw materials, of a simple protein composed of multiples of one amino acid.

Many NIH scientists and investigators supported by NIH grants have made outstanding contributions towards unraveling the genetic code. Because of its widespread importance, almost every Institute has or supports separate but related studies of nucleic acids.

NIH BUDGET

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mentations. The House either can accept the Senate changes or stand by its version and request a conference.

As requested by the Administration and approved by the Senate Committee, the \$989.6 million for NIH provides \$930.5 million in operating appropriations (which the House had reduced to \$912.5 million), \$50 million for Health Research Facilities construction grants, and \$9.1 million for direct construction at NIH.

Funds for construction grants and direct construction at NIH were approved by the Senate Committee in the amount requested by the Administration and passed by the House.

The Senate Committee approved \$1,628 million for the entire Public Health Service—an increase of \$30.3 million over budget requests and \$82.1 million more than approved by the House.

Altogether, the Committee recommended \$5,114 million for the Department of Health, Education, and Welfare. The total is \$187 million less than budget requests but \$78.9 million more than the House-approved amount.

Cameron Named to Head NIH Animal Hospital

Dr. Thomas P. Cameron recently joined the staff of the Laboratory Aids Branch, Division of Research Services, as Chief of the Animal Hospital Section. He succeeds Dr. William I. Gay, now with the Division of Research Facilities and Resources.

In his new position Dr. Cameron will direct activities of both the Animal Hospital at NIH and the Animal Center at Poolesville, Md.



Dr. Cameron

A Commissioned Officer in the Public Health Service, Dr. Cameron has been engaged in private practice since his graduation from Cornell University College of Veterinary Medicine in 1954. He received his B.S. degree from Rutgers University in 1950.

A native of North Bergen, N. J., Dr. Cameron served during World War II as a rifleman with Patton's famous 3rd Army.

Retired NIAID Scientist Donates Books to RML

Dr. William L. Jellison, who retired from the staff of the National Institute of Allergy and Infectious Diseases' Rocky Mountain Laboratory last year, has donated to RML over 100 bound volumes consisting of scientific papers from his personal library and including papers he acquired from Dr. R. R. Parker and other noted scientists who made medical history through their research at RML.

Dr. Jellison, an internationally recognized parasitologist, had assembled nearly 1,000 laboratory papers over a period of years, including many that are unavailable through publishers.

Dr. Philip Accepts Gift

In acknowledging the gift, Dr. Cornelius B. Philip, Director of RML, said, "It is with real appreciation that the Rocky Mountain Laboratory accepts this generous donation from Dr. Jellison."

The binding value of the volumes approaches \$500, not counting dealer's evaluation of the sets.

Some incomplete series of periodicals have been expanded in critical areas. For example, the bound 14-volume set of tularemia reprints could not be duplicated from private sources anywhere at the present time, since those of Dr. Parker and others are included.

A list of the acquisitions is available from the NIAID Information Office.

Institute Branch Chief Finds Relaxation In Creating Puppet People for Children

By Mike Canning

"You form a man's head, add a few exaggerated features, apply makeup and costumes and you have a very effective showpiece." In this disarmingly simple manner, Maurice Odoroff sums up his approach to his hobby of making puppets and marionettes.

At NIH Mr. Odoroff is Chief of the Program Analysis Branch of the National Institute of General Medical Sciences. When he goes home to his workshop, his interest shifts from policy to puppets, from management to marionettes, from facts and figures to fun and fantasy.

Mr. Odoroff first became interested in puppets almost 15 years ago when he served as "chairman of the entertainment committee" for his two youngsters. He recalls that "in a weak moment I was talked into making my own puppets instead of buying the commercially prepared ones."

"Among the first marionettes I made was a witch," Mr. Odoroff related. "I didn't want to frighten the children, so by design it turned out to be a happy witch."

Puppets Are Easier

To date he has handmade more than 20 puppets and eight marionettes.

"Making a puppet is easier than a marionette," he said in describing both processes. "Cover a used light bulb up to the socket with clay and mold it into basic facial features. Over this add two or three coats of papier-mache. After it dries break off the socket and remove the glass. Then paint on a face, add makeup and clothes."

"To make the costume, cut material in a circular pattern and put a hole in the middle so it can be attached to the neck of the puppet. The circular pattern presents a flowing effect and eliminates the necessity for any detailed tailoring of the costume."

The marionette is made entirely of wood. The head is carved out of balsa wood blocks and glued to a one-by-four inch pine stick.

The trunk and limbs are made of



The marionette's creator shows how he makes the little princess do a "high step."—Photo by Mike Canning.

white pine, with the legs connected to the trunk by eyelet and hook arrangements. Leather strips at knee joints and ankles permit movement. By attaching the head with an eyelet-hook arrangement it can be interchanged, thereby increasing the number of characters that can be portrayed from one body, with different heads and costumes.

"You can put on almost any show," Mr. Odoroff said, "if you have a princess, a prince, a witch and an animal character." He mentioned "The Frog Prince" and "The Princess and the Pea" as two examples.

Ideal Group Activity

"Making puppets and putting on shows is a good activity for the group effort," he said.

Last winter, working with eight Sunday School children who built all 12 puppets themselves, he produced and directed a puppet play based on a Biblical story, in which the children were the voices of the puppets, and manipulated them.

Although Mr. Odoroff gets personal satisfaction from creating these "miniature people," he admits his greatest pleasure is from "seeing the looks of appreciation on the faces of the children in the audience."

Study Section Renamed; Dr. Bourke Appointed Executive Secretary

In line with broadened review responsibilities, the Cancer Chemotherapy Study Section of the Research Grants Review Branch, Division of Research Grants, has been renamed the Chemotherapy Study Section.

Applications in the field of cancer chemotherapy will remain the panel's principal concern, but other fields of chemotherapy will now come within its purview, and the membership may be enlarged.

The Section also has a new Executive Secretary, Dr. Anne R. Bourke, whose appointment to this post was effective yesterday, August 12.

Serves With NCI

Dr. Bourke has for the past seven years been a pharmacologist with the Cancer Chemotherapy National Service Center of the National Cancer Institute.

She served as a pharmacologist with the Federal Drug Administration from 1951 to 1956.

A native of Galveston, Tex., she is an alumna of the University of Maryland and George Washington University, and received her doctorate in pharmacology from George Washington University.

Dr. Bourke has co-authored a number of scientific papers, the most recent of which deal with cancer chemotherapy.

She is a member of the American Society for Microbiology, Sigma Xi, and the Society of Experimental Biology and Medicine.

6 Smallpox Cases in Poland; Quarantine Stations Alerted

Foreign quarantine stations throughout the United States, which guard the Nation against the introduction of disease from abroad, have been alerted to be especially vigilant in clearing persons arriving from Poland, where the city of Wroclaw has been struck by an outbreak of smallpox, the Public Health Service announced recently.

In addition, Surgeon General Luther L. Terry has cautioned that any Americans who have recently returned from Poland should see their physicians at once if they should suddenly become ill. The symptoms to look for are fever, aching, malaise, or a rash.

Polish health authorities have reported six cases of smallpox in the southwest Polish city. So far there has been one death. The origin of the outbreak has not yet been identified.

Ronald Coleman Plays Lead In Capra's 'Lost Horizon'

The famous movie classic, "Lost Horizon," starring Ronald Coleman, Jane Wyatt, and Thomas Mitchell, will be the next in the series of summer films sponsored by the NIH Recreation and Welfare Association.

This Frank Capra production is based on James Hilton's best-seller novel. It will be shown in the CC auditorium on Saturday and Sunday evenings, August 17 and 18, at 8 p.m. NIH employees, CC patients, and their friends are invited. Admission is free.



In the picture at left, little Miss Jenifer Pynn, a Clinical Center patient with artistic inclinations, is about to paint either the turtle (left) or the plaster Indian head clasped in her right hand. The two Junior Gray Service volunteers, Sharon Bateman (left) and Sue Thomas, are urging the latter choice. But Jenifer's



expression indicates she has a mind of her own. In the picture at right she obediently starts to paint the plaster head but eyes the turtle who opens up to see what gives. He should have known better. He got painted too.—Photos by Ed Hubbard.

NHI Angina Study Finds 'MAO' Inhibitors Reduce Cardiac Work and Pain

National Heart Institute studies of patients suffering from angina pectoris show that monoamine oxidase inhibiting drugs decrease cardiac work, apparently by reducing sympathetic activity.

An increase of circulatory demands requires increased cardiac work, and the heart itself requires more blood. In angina pectoris, however, the coronary arteries, narrowed and stiffened by disease, cannot meet this need. As a result, the blood-starved heart musculature signals its distress with the pain of an anginal attack.

Certain MAO inhibitors, which also are used clinically against hypertension and psychic depression, lessen or abolish the anginal pain, but their mechanism of action has not been known.

Exercise Tolerance Noted

In the NHI studies, the patients performed standard exercises following treatment with selected MAO inhibitors and placebo medication. In each case, the exercises were terminated with the onset of anginal pain, thus affording an index of the tolerance to exercise. Cardiovascular responses to exercise following drug and placebo medication also were determined for later comparison.

During treatment with MAO inhibitors, patients had increased exercise tolerances correlating with observed lowered levels of blood pressure, pulse rate, and heart output. These responses were interpreted as indicating decreased cardiac work.

Further observations suggested

Junior Gray Service Volunteers Keep Young Clinical Center Patients Happy

"Those young patients out on the playground—they really look up to the teen-age volunteers! You should see the expression on the children's faces when they get attention from the teen-agers!"

This comment by a Clinical Center physician may explain one of the reasons why there are more than 75 Junior Gray Service Volunteers on duty this summer, as compared to only 25 last year. The new group came on recently, after a brief orientation by the American National Red Cross, sponsor of the adult Gray Service.

About 50 of the new youth group work through the Clinical Center Patient Activities Section, where they help in handicrafts, sports, and other recreational pursuits of patients. Most of the other volunteers are assigned to the Children's Occupational Therapy Service.

The teen-agers contribute one or two days a week on a regular schedule and sometimes give additional time to a special occasion for the patients.

that the MAO inhibitors acted to reduce sympathetic nervous system activity in these patients. Increased sympathetic activity increases heart rate and output and raises blood pressure.

Pressor responses, elicited by performing simple arithmetic calculations or by immersing one's hand in icewater, were decreased following treatment with an MAO inhibitor.

The NHI scientists concluded that MAO inhibitors relieve anginal pain by decreasing cardiac work, and that these beneficial effects are mediated by the drugs' action on the sympathetic nervous system.

These studies, by Drs. David Horwitz and Albert Sjoerdsma of the NHI's Laboratory of Experi-

Space Management Reports Additional Building Moves

Additional moves of NIH offices and personnel scheduled for completion by tomorrow, August 14, have been announced by the Space Management Section.

The moves, to or within Building 31 and to the Blackwell and Trunnell Buildings in Bethesda, involve segments of the National Cancer Institute, the National Institute of Arthritis and Metabolic Diseases, the National Heart Institute, and the National Institute of Allergy and Infectious Diseases.

DR. YOLLES

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mental in formulation of the concepts leading to the National Mental Health Program described by President Kennedy in a special message to the Congress earlier this year.

Dr. Yolles, a Diplomate in Psychiatry of the American Board of Psychiatry and Neurology, holds the rank of Medical Director (equivalent to Army colonel) in the Commissioned Corps of the Public Health Service.

mental Therapeutics, were reported at the New York Academy of Sciences' MAO Symposium in New York City.

PHS Dental Chief Cites Growth in Prepaid Plans; Over 1 Million Covered

More than one million persons in this country are now covered by some type of prepaid dental care plan, according to Assistant Surgeon General Donald J. Galagan, Chief of the Division of Dental Public Health and Resources, Public Health Service.

Commenting on the recent growth in dental prepayment, Dr. Galagan said, "There has been an increase both in the number of persons covered and in the number of plans.

"For example, in 1960 some 550,000 had coverage under dental prepayment plans compared with more than 1,145,000 today. Over the same period the number of plans has more than doubled from 128 to 296."

Prepayment Plans Vary

He explained that dental prepayment arrangements may offer comprehensive benefits or be limited to the more basic types of routine dental service.

"In recent years, however, there has been a marked tendency for plans to provide a wider range of benefits than did some of the earlier ones," Dr. Galagan said.

"Although the number of persons covered by dental prepayment programs does not approach the more than 140 million Americans who have some form of hospital or medical insurance, the recent growth is encouraging," Dr. Galagan pointed out.

Civilization is just a slow process of learning to be kind.—Charles Lucas in Reader's Digest.