

NIH



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PUBLIC HEALTH SERVICE NATIONAL INSTITUTES OF HEALTH

NEW OFFICE BUILDING TO BE STARTED SOON



Architect's drawing of the new office building.

A contract will be awarded in September for a two-wing general office building to be located immediately to the northwest of Building T-6. The expected completion date is September 1961.

The \$9,925,000 facility will provide headquarters for most of the Institute Directors and immediate staffs and for the extramural processing and review functions of NIH. In addition to conference rooms, there will be office space for approximately 1,900 employees. Plans were drawn by the architectural firm of Keyes, Lethbridge, and Condon, and Richard Collins and Associates.

Designed in the shape of an H, the building will consist of a south wing with a ground floor and 11 stories, and a north wing with a basement and six stories. Penthouses on the top of each wing will house elevator and mechanical equipment. The connecting section

(See Office Building, Page 4)

DR. SCANTLEBURY ON FOREIGN GRANTS TRIP

Dr. Ronald E. Scantlebury, Chief of the Foreign Grants and Awards Program, DRG, left for Belgrade, Yugoslavia, on August 21. He will meet with Yugoslavian scientists at the University of Belgrade to discuss the establishment of a research fellowship nominating committee in that country.

Dr. John R. Paul, Chief of Preventive Medicine at Yale University, and a consultant to the program, is accompanying Dr. Scantlebury. They will also meet with the chairmen of established nominating committees in Austria, Finland, the Netherlands, Norway, and Italy.

Thirty countries are participating in the foreign grants program. Applicants who are awarded fellowships will receive a year of training at the U. S. research institution of their choice.

PRESIDENT APPROVES NIH APPROPRIATIONS

The NIH appropriations for fiscal year 1960 were approved by President Eisenhower on August 14. Of the \$430 million total, \$400 million is provided for operating activities and \$30 million for construction of health research facilities.

Over three-quarters of the \$400 million amount will be used for research grants and training awards, and the remainder for direct operations.

The NIH appropriations last year totaled \$324.4 million, including \$294.4 million for operating activities and \$30 million for health research facilities construction.

Institute funds for both direct operations and grants were appropriated this year in the following amounts: Arthritis, \$46,862,000; Allergy, \$34,054,000; Neurology, \$41,487,000; Cancer, \$91,257,000; Mental, \$68,090,000; Heart, \$62,237,000; and Dental, \$10,019,000.

The general research and services appropriation, which provides for both the Division of General Medical Sciences and the Division of Biologics Standards, amounted to \$45,994,000. Of this total, DGMS will get \$43,189,000 and DBS \$2,805,000.

The grants portion of the NIH total is \$304,430,000, distributed as follows: research projects, \$202,948,000; research fellowships, \$14,570,000; training, \$75,037,000; State control programs, \$10,375,000; and field demonstrations and studies, \$1,500,000.

Funds for direct operations, totaling \$95,570,000, are allocated as follows: research, \$49,885,000; biologics standards, \$2,805,000; review and approval, \$7,076,000; training, \$335,000; professional and technical assistance, \$10,786,000; cancer

(See Appropriation, Page 3)

Strontium Fixation In Bone Studied

No. 231 in a Series



Dr. R. L. Likins, NIDR, is administering a solution of radioactive strontium and calcium to a rat. To determine the relative loss of strontium by excretion, urine is collected in a "home-made" metabolism cage, at right, designed by Dr. Likins.

The mechanism responsible for bone fixation of radioactive strontium is receiving attention from investigators in the Laboratory of Biochemistry, NIDR. Using radioisotopes of strontium and calcium, scientists have traced the deposition of these ions in experimental animals and in synthetic bone mineral.

Investigators agree that both animal and vegetable matter are able to distinguish and discriminate against strontium. In animals, the discrimination against absorbed strontium is usually ascribed to the kidneys. However, evidence that this discrimination is also regulated by bone has been presented by Drs. R. C. Likins, NIDR, and A. S. Posner, ADA Research Associate, National Bureau of Standards.

In tracer studies, equal amounts of labelled calcium and strontium were administered intraperitoneally to rats. When bone samples were analyzed immediately after injection, the retention of calcium and strontium was approximately the same. Within the first 24 hours, however, the skeletal loss of strontium was almost twice that of calcium. During this same period, the excretion of strontium in the urine was about four times the

calcium excretion. After 10 days of daily injections, samples of bone and dentin were found to contain about 30 percent more radiocalcium than radiostrontium.

Despite the preferential excretion of strontium in the urine, examination of blood plasma showed that the ratio of the two isotopes was about equal for as much as 12 hours after administration. According to Dr. Likins, this may be due to the relatively greater loss of bone strontium which serves to "compensate" for the kidneys activity in removing this element.

A similar discrimination was found in an *in vitro* study, conducted with the aid of H. C. McCann, NIDR. A number of synthetic calcium hydroxyapatites (a substance similar to bone mineral) were prepared from solutions containing labelled calcium and strontium.

Analysis of these preparations, and exchange experiments with non-radioactive calcium and strontium, showed the preference of the apatite crystal for calcium. As the crystals approached perfection, this discrimination increased. It is possible that a like perfection of newly-formed bone crystals is responsible for the preferential release of skeletally deposited strontium.

Publication Preview

The following manuscripts were received by the SRB Editorial Section between April 7 and April 21.

DBS

Schmidt, P. J.; Morrison, E.; and Shohl, J. The antigenicity of the Rh₀ variant (D^u) in transfusion practice (a preliminary report).

DGMS

Stone, F. L. Research training and the National Institutes of Health.

CC

Driscoll, E. J.; Ship, I. I.; Baron, S.; Stanley, H. R., Jr.; and Utz, J. P. Chronic aphthous stomatitis, herpes labialis and related conditions: Combined clinical staff meeting of the National Institutes of Health.

NCI

Huff, C. G.; Weathersby, A. B.; Pipkin, A. C.; and Algire, G. H. The growth of exoerythrocytic stages of avian malaria within diffusion chambers in different hosts.

Humphreys, S. R., and Goldin, A. Investigation of tumor variants recovered from mice with systemic leukemia (L-1210) following extensive therapy with 3'-bromo-5'-chloroamethopterin and 3'-bromo-5'-chloroamethopterin.

Kelly, M. G.; Rall, D. P.; Trivers, G. E.; O'Gara, R., and Zubrod, C. G. Actions of S, 2-aminoethylisothiuronium Br. HBr (AET). Toxicity and protective effect against nitrogen mustard toxicity.

Laszlo, J.; Burk, D.; and Wight, K. Inhibition and enhancement effects of hypochlorite on ascites tumor cell metabolism and growth and on host resistance.

Leiter, J.; Wodinsky, I.; and Bourke, A. R. Screening data from the Cancer Chemotherapy National Service Center Screening Laboratories.

Suzuki, K.; Weisburger, E. K.; and Weisburger, J. E. The nitration of 1- and 3-fluorofluorene.

NHI

Braunwald, E.; Pfaff, W. W.; Long, R. T. L.; and Morrow, A. G. A simplified indicator dilution technic for the localization of left-to-right circulatory shunts: An experimental and clinical study of intravenous injection with right heart sampling.

Hawyard, H. R., and Stadtman, T. C. Studies on the anaerobic degradation of choline. I. The fermentation of choline by an anaerobic cytochrome-producing vibrio.

Karmen, A., and Bowman, R. L. A radio frequency discharge detector for gas chromatography.

Maling, H. M.; Cohn, V. H., Jr.; and Highman, B. The effects of coronary occlusion in dogs treated with reserpine and in dogs treated with phenoxybenzamine.

Noble, F. W. A hydraulic pressure generator for testing the dynamic characteristics of blood pressure manometers.

Ross, J., Jr. Factors influencing the formation of bubbles in blood.

Shafir, E.; Sussman, K. E.; and Steinberg, D. Lipid mobilization by epinephrine. I. The nature of epinephrine-induced lipidemia in dogs.

Sjoerdsma, A. Serotonin.

NIAID

Brennan, J. M. Eight new species and other records of Guatemalan chiggers (Acarina: Trombiculidae).

Hornibrook, J. W.; Habel, K.; and Levy, H. B. Tissue culture cell growth inhibitors from mammalian tissues.

Kaufman, H. E.; Remington, J.; Melton, M. L.; and Jacobs, L. Relative resistance of slow-growing strains of *Toxoplasma gondii* to pyrimethamine (Daraprim).

Merchant, R. K., and Utz, J. P. Familial sarcoidosis. Report of two cases.

von Brand, T. Influence of temperature on life processes.

NIAMD

Albers, W., and Jakoby, W. Transaminations and the isotopic labeling of glutamate in brain.

Anderson, E. P.; Maxwell, E. S.; and Burton, R. M. Enzymatic syntheses of C¹⁴-labeled uridine diphosphoglucose, galactose-1-phosphate, and uridine diphosphogalactose.

Field, J. B., and Rigby, B. Circulating insulin antagonists in diabetes mellitus: Untreated diabetics, diabetics during infections and acromegalics with diabetes.

Jakoby, W. B., and Yamada, E. W. Direct enzymatic conversion of malonic semialdehyde to acetyl-coenzyme A.

La Du, B. N. Alcaptonuria.

Laki, K., and Standaert, J. The minimal molecular weight of actin estimated with the use of carboxypeptidase-A.

Liddle, L.; Seegmiller, J. E.; and Laster, L. The enzymatic spectrophotometric method for determination of uric acid.

Lipsett, M. N., and Corwin, L. M. Studies on stability of rat liver mitochondria. I. Role of oxidative phosphorylation in swelling.

Mandelkern, L.; Posner, A. S.; Diorio, A. F.; and Laki, K. Mechanism of contraction in the muscle fiber - ATP system.

Senoh, S.; Creveling, C. R.; Udenfriend, S.; and Witkop, B. Chemical, enzymatic and metabolic studies on the mechanism of oxidation of dopamine.

Senoh, S., and Witkop, B. Non-enzymatic conversion of dopamine to norepinephrine and trihydroxyphenethylamines.

NIDR

Burstone, M. S. Hydrolytic enzymes associated with osteogenesis and dentinogenesis.

NIMH

Gladwin, T. Methodologies applicable to the study of learning deficits.

Kaufman, S. Studies on the mechanism of the enzymatic conversion of phenylalanine to tyrosine.

Kaufman, S., and Levenberg, B. Further studies on the phenylalanine-hydroxylation cofactor.

Kety, S. S. The history of concepts regarding the cerebral circulation.

Lassen, N. A.; Feinberg, I.; and Lane, M. Bilateral studies of cerebral oxygen uptake in young and aged normal subjects and in patients with organic dementia.

Robinson, B. W. Generalized factorials. Rosenthal, D.; Lawlor, W. G.; Zahn, T. P.; and Shakow, D. The relationship of some aspects of mental set to degree of schizophrenic disorganization.

NINDB

Masland, R. L. "Knowledge of the Disease Begins with the Study of the Diseased."

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DR. MERRITT IS HEAD OF NEW NIDR SECTION

A Medical Investigations Section, under the direction of Dr. A. D. Merritt, was recently established by NIDR.

The new section will cover the broad medical aspects of dental investigations with particular emphasis on clinical research. This includes medical care of inpatients and outpatients, medical and laboratory research, and the care of patients during field studies of the NIDR genetic program.

APPROPRIATION Contd.

chemotherapy contracts, \$22,142,000; dental resources, \$772,000; and administration, \$1,769,000.

In signing the appropriations act, the President directed that the following criteria be observed in the review of any new research project or training program:

"That it is of such high priority and great promise that its deferment would be likely to delay progress in medical discovery;

"That it will not result in the harmful diversion of manpower and other resources needed for teaching and medical care services; and

"That it will not bring about the substitution of Federal for non-Federal sources of support for medical research and training."

The total PHS appropriation for fiscal year 1960 is \$838,661,800.

NEWS BRIEFS

Dr. Jacob L. Gewirtz will begin a leave of absence from the Child Development Section of the Laboratory of Psychology, NIMH, on October 1. He will serve as Visiting Professor of Psychology at the Hebrew University in Jerusalem and will study the impact of early environmental conditions on the social and personality development of children.

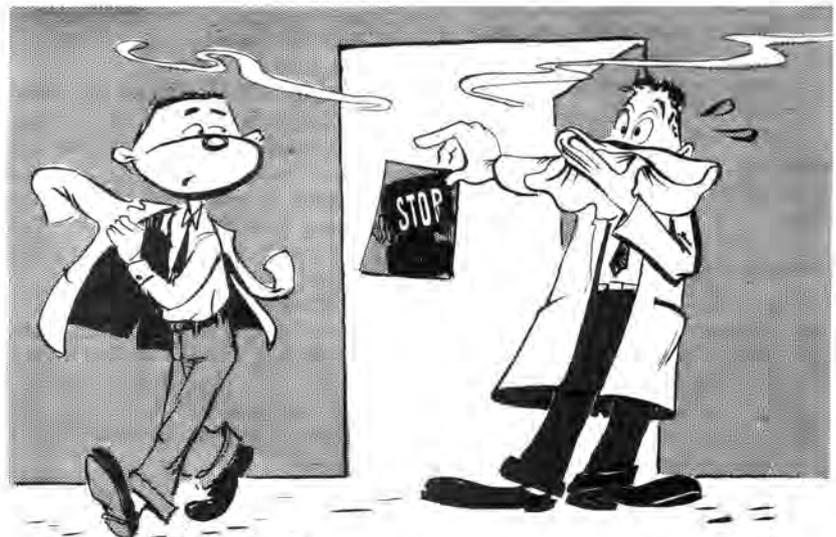
Dr. James E. Birren, Chief, Section on Aging, NIMH Laboratory of Psychology, has been invited to serve as a member of the Federal Aviation Agency Advisory Committee.

Dr. Horace DeLien, Chief of the Division of International Health, PHS, has been appointed by the President to serve for three years as U. S. member of the seven-man Executive Committee of the Governing Council of the Pan American Health Organization.

Mary S. Frazier Retires

Mary S. Frazier, of the Buildings Management Branch, OAM, retired August 31. She had been employed at NIH since 1944 as a member of the Building Services and Cleaning Unit.

In appreciation of her services, Mrs. Frazier was presented with a scroll containing more than 200 of her NIH friends' and acquaintances' signatures.



Ben Goofin, post that warning!

DR. REDL LEAVES TO ACCEPT NEW POSITION

Dr. Fritz Redl resigned as Chief of the Child Research Branch, NIMH, and left NIH on August 28. He has been appointed Distinguished Professor of Behavioral Sciences at Wayne State University, Detroit.

Dr. Redl joined the NIMH staff in 1953 as a visiting scientist. In 1955 he was assigned to develop a research program on the complex factors involved in the early emotional development and occurrence of behavior disorders in children. From this assignment grew "Half-way House," the residential treatment center on the NIH grounds where a small group of hyper-aggressive boys was treated for two years.

Dr. Redl will serve as consultant to the several members of the project's staff who are compiling data and writing reports on the work. Following his first semester at Wayne University, he will spend a year at the Center for Advanced Study in Behavioral Sciences at Stanford University.

DR. BERLIN NAMED NCI BRANCH CHIEF

Dr. Nathaniel I. Berlin, head of the Metabolism Service of the General Medicine Branch, NCI, since 1956, was appointed Chief of that Branch on August 7.

Before he came to NIH in 1956, Dr. Berlin was a lecturer and associate research medical physicist at the Donner Laboratory of the University of California, and a member of the medical staff of the Highland-Alameda County Hospital. He was an NCI post-doctorate research fellow from 1948 to 1950, and a special research fellow of NHI, 1953-54.

Dr. Berlin is also serving as a consultant for the Radioisotope Laboratory, U. S. Naval Hospital, Bethesda.

Shorthand Course Offered

A new shorthand refresher course will be offered for a four-month period starting September 22. The half-hour classes will be conducted three times a week.

Dictation will be given at four speed levels above the minimum requirement of 60 words a minute. Applicants must have the permission of their supervisors, and may apply to the Employee Relations Section, extension 707.

ODD OCCURRENCE IN BUILDING ONE



In this picture posed exclusively for the NIH RECORD by volunteer, unprofessional models, a mysterious stranger (name of Phil Joram) passes a valuable document to Guard Corporal Henry Blankenship. Labeled "Life at NIH--Confidential," the document contains low-down on NIH higher-ups, middle-men, and assorted underlings, which will be revealed in the forthcoming Hamster production of the same name.

OFFICE BUILDING CONTD.

will contain a combined executive dining room and conference room on the ground floor, and on the first floor a U-shaped cafeteria.

Each wing will contain a bank of elevators, and in the north wing an escalator will speed traffic from the basement lobby to the first floor. The building will be air conditioned.

There will be approaches to the building from Center Drive, Wisconsin Avenue, and Cedar Lane, and new parking lots will be constructed to the north and northeast of the building.

Business will continue as usual in Building T-6 until the new structure is completed, and T-6 parking facilities will not be interfered with. When transfer of offices and equipment has been effected, T-6 will be demolished to make room for additional parking space.

Top Cottage, now located near a corner of the new building plot, will continue to be available for NIH use until a year after construction is started. At that time the construction contractor will remove the building.

The Research Facilities Planning Branch, DRS, will represent NIH as liaison with the Public Building Services of the General Services Administration.

CASH AWARDS GIVEN TO FOUR NIH EMPLOYEES

Four NIH employees received cash incentive awards totalling \$410 during the past month.

Research technician Howard J. Wolfe of the Animal Behavior Section, NIMH Psychology Laboratory, received \$185 for his "many invaluable contributions" in the development and maintenance of specialized apparatus used in the primate laboratory.

Passenger traffic clerk Edsel L. McCoy of NHI won \$100 for his "continuously proficient performance" in making travel arrangements for officials, visiting scientists, and others.

Robert J. Casey, property and supply clerk in the Supply Management Branch of OAM, was given \$75 for effecting an estimated annual saving of nearly \$3,000 on commercially supplied lab equipment.

A \$50 safety suggestion award was made to illustrator Helen G. Orem of SRB's Medical Arts Section, who designed a guard to shield the fingers from knife blades used in cutting matte and cardboard. Mrs. Orem has since left NIH to join her husband in Philadelphia where he has taken a new position.