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BERTHA ADKINS NAMED UNDER-SECRETARY, HEW

Bertha S. Adkins has been nominated by President Eisenhower to the post of Under Secretary of Health, Education, and Welfare, DHEW. When her nomination is confirmed by the Senate, she will be the first woman to hold so high a policy-making post since the resignation of Oveta Culp Hobby as DHEW Secretary in 1955.

A college administrator by profession, Miss Adkins was dean of women at Western Maryland College and dean of residence at Bradford Junior College. She is a native of Salisbury, Md., and a graduate of Wellesley College. Miss Adkins resigned as assistant chairman of the Republican National Committee to accept the nomination.

The former Under Secretary of DHEW, Dr. John A. Perkins, resigned March 1 to return to his post as president of the University of Delaware.

DENTAL EDUCATORS MEET HERE FOR FIRST TIME

The largest group of dental educators ever assembled at NIH met here last month to discuss means of encouraging teaching and research training in dentistry and related fields.

Directors of graduate training programs from 16 colleges and universities were brought together for the first time for the two-day conference.

The educators discussed methods of encouraging promising students to pursue careers in teaching and in laboratory and clinical research. Among proposals they considered was the need for initiating research-oriented curriculums to supplement clinical dental training.

Members of the NIDR staff and representatives of the National Advisory Dental Research Council also attended the meeting.

COLLEGE STUDENTS ARE SUMMER "REGULARS"

For the fourth consecutive summer, Judith Wegman (left), a senior at Swarthmore College, assists in the Laboratory of Cellular Physiology and Metabolism, NHI. Here, she and Dr. William Dryer examine bacterial virus mutants. Meris Chang (right), shown working in the Editorial Section, DRS, is spending her second summer as a secretary at NIH. She is studying physical therapy at the University of Wisconsin.

NIH BUDGET FOR 1959 INCREASED 39 PERCENT

The NIH budget for fiscal year 1959 approved by President Eisenhower on August 2 exceeds last year's appropriation by $83.2 million, an increase of 39 percent. The total appropriation for the current year, exclusive of funds for construction, is $294,383,000, of which 30 percent will be used for extramural programs.

The President's budget this year recommended that $211,183;000 be appropriated to NIH. This figure was increased by 3.9 percent in the House of Representatives and by 51.8 percent in the Senate. The final appropriation, a 38.1 percent increase, was determined by conferees before the bill was sent to the President.

Funds available to NIH Institutes and percentages of increase are as follows: NCI, $75,268,000 (35 percent increase); NHI, $45,613,000 (31 percent increase); NIAID, $24,071,000 (38 percent increase); NIAMD, $31,215,000 (52 percent increase); NIDR, $7,420,000 (18 percent increase); NIMH, $52,419,000 (39 percent increase); and NINDB, $29,403,000 (42 percent increase).

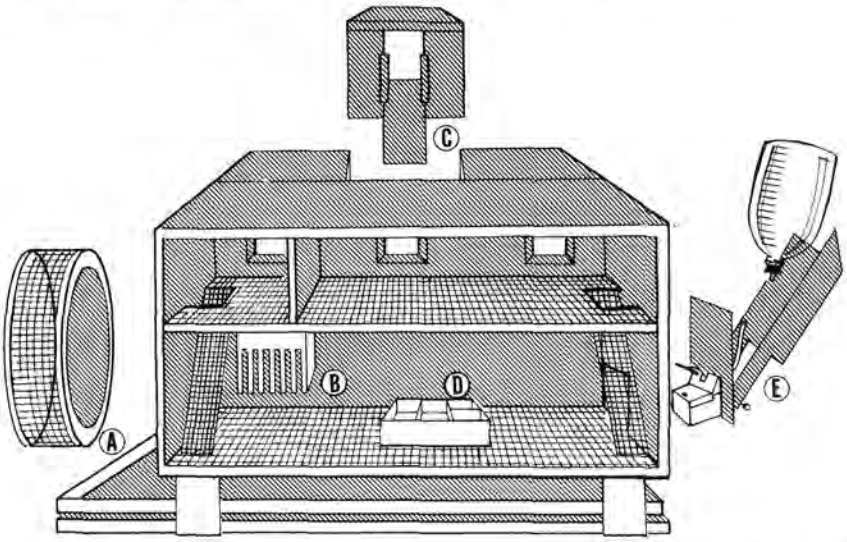
General research and services at NIH were appropriated $28,974,000, more than double the amount provided in last year's budget.

The major portion of the NIH appropriation will be allocated as follows: research projects grants, $141,454,000; training grants, $49,902,000; NIH research, $45,839,000; professional and technical assistance, $9,247,000; chemotherapy contracts, $18,142,000; and fellowships, $10,408,000.

In addition to the Institutes' regular appropriations, $43.3 million was provided for grants to construct research facilities, and for the new dental and office buildings on the NIH reservation.

Wild Rats Bred for Ecologic Studies

No. 211 in a Series



Cage designed for wild Norway rats has (A) activity wheel, (B) food hopper, (C) nest box, (D) nesting material box, and (E) lever-operated water dispenser.

A genetically "wild type" of Norway rat which is exceptionally free of diseases common to rats is being bred for future experiments in animal ecology by Dr. John B. Calhoun, of the NIMH Research Branch.

Difficult to handle, expensive per animal to produce, the new laboratory strain is designated as "Parsons Island Wild" because it comes from rats captured on Parsons Island, Md. A half century ago, Parsons Island was a peninsula projecting from the mainland into Chesapeake Bay. It is reasonable to assume that the strain has been long isolated and that it has become quite homozygous, meaning that it will evidence very little genetic variability.

Dr. Calhoun has previously used stock from Parsons Island in an exhaustive 3-year study of the social behavior of rats under controlled conditions. He will use the Parsons Island Wild strain in studying environmental effects on animal behavior and physiology. Surplus stock can be made available to other scientists.

In all probability, the wild Norway rat differs genetically from the domesticated Norway rat. Quite possibly, it differs enzymatically too. The difference in physiology between wild and domesticated Norway rats is typified by their response to drugs. For example, a much greater dosage of most poisons is required to kill the wild Norway rat than to kill the domesticated rat. Also, a much higher dosage of a barbiturate such as sodium hexobarbital is required to induce the same length of sleep in the wild rat as in the domesticated rat.

Now a year and a half old, Dr. Calhoun's expanding colony of Norway rats occupies specially designed "life space" cages on the second floor of a converted barn. Each cage houses a male, two females, and their young. The male is kept in the cage continuously to maintain harmony.

The life space cage represents an environment that meets the basic needs characteristic of the rat in its wild state. Breeding the wild rat in any less complex environment is extremely difficult.

An activity wheel provides an opportunity for exercise. Nesting material on the floor satisfies the need of the lactating female to build elaborate nests. Dark nest boxes on adjacent platforms enable the rats to withdraw from disturbing influences and to rear their young in seclusion. The availability of separated areas permits the defense of their home sites, a phenomenon particularly characteristic of female rats with nursing young.

The rats obtain drinking water by pressing a lever. Each press delivers a drop of water. The pressing action is an "operant behavior" utilized in studies now in progress.

(See Ecologic Study, Page 3)

Publication Preview

The following manuscripts were received by the SRB Editorial Section between May 20 and May 29.

DBS

Branham, S. E. Antigens associated with the toxin of the gravis type of Corynebacterium diphtheriae. I. Preparation and properties.

Branham, S. E. Antigens associated with the toxin of the gravis type of Corynebacterium diphtheriae. II. Separation and characterization.

DRS

Gay, W. I. A method for surgical lengthening of the femur of the dog.

NCI

Burstone, M. S. II. Histochemical demonstration of acid phosphatases with naphthol As-phosphates.

Deringer, M. K. Mammary tumors and hepatomas in agent-free C3HeB mice.

DeWitt, S.; Rabson, A. S.; Legallais, F. Y.; Del Vecchio, P. R.; and Malmgren, R. A. Sex chromatin in human tissue culture cell lines.

Elkind, M. M., and Sutton, H. Sites of action of lethal irradiation. Overlap in sites for X-ray, ultraviolet, photoreactivation, and ultraviolet protection and reactivation in dividing yeast cells.

Goldin, A.; Humphreys, S. R.; Venditti, J. M.; and Mantel, N. Factors influencing anti-tumor synergism: Relation to screening methodology.

Sanford, K. Clonal studies on normal cells and on their neoplastic transformation in vitro.

Shimkin, M. B., and Polissar, M. J. Growth of pulmonary tumors in mice of strains A and C3H.

Sievers, M. L., and Calabresi, P. Gastric pepsin secretion and ABO blood groups in polycythemia vera.

Stewart, H. L. Experimentally induced cancer of the stomach.

Stewart, H. L. Report of the delegate from the International Union against cancer to the World Health Assembly.

Vogler, W. R., and Powell, R. W. A clinical evaluation of thermography and heptyl aldehyde in breast cancer detection.

NHI

Avigan, J., and Anfinsen, C. B. Further observations on the structure and properties of serum lipoproteins.

Brodie, B. B. Interaction of psychotropic drugs with physiological and biochemical mechanisms in brain.

Gillette, J. R. Side chain oxidation of alkyl substituted ring compounds. I. Enzymatic oxidation of p-nitrotoluene.

Hunt, G. H. Highlights of research in aging.

Hunt, G. H. The importance of the medical record in the treatment of prolonged illness.

Mills, I. H.; Casper, A.; and Bartter, F. C. On the role of the vagus in the control of aldosterone secretion.

Pechet, M. M.; Bowers, B.; and Bartter, F. C. Metabolic studies with a new series of 1,4-diene steroids. I. Effects in Addisonian subjects of prednisone, prednisolone, and the 1,2-dehydro analogues of corticosterone, DOC, 17-hydroxy-11-desoxycorticosterone, and 9α-fluorohydrocortisone.

Pechet, M. M.; Bowers, B.; and Bartter, F. C. Metabolic studies with a new series of 1,4-diene steroids. II. Effects in normal subjects of prednisone, prednisolone, and 1,2-dehydro-9α-fluorohydrocortisone.

White, F. H., Jr., and Anfinsen, C. B. On the order of disulfide bond reduction in ribonuclease.

NIAID

Brennan, J. M., and Loomis, R. B. A review of the reptile chiggers, genus Fonsecia (Acarina, Trombiculidae), with descriptions of two new American species.

Eagle, H. Animal cells and microbiology.

Eagle, H. Amino acid metabolism in human cell cultures.

Philip, C. B. Five new species of Tabanidae (Diptera) from Mexico and Brazil.

Philip, C. B., and Mackerras, I. M. On some eastern Asiatic chrysopinae (Diptera: Tabanidae).

Phillips, B. P., and Wolfe, P. A. The use of germfree guinea pigs in studies of the microbial interrelationships in amoebiasis.

Phillips, B. P.; Wolfe, P. A.; and Gordon, H. A. Studies on rearing the guinea pig germfree.

Weinstein, P. P., and Jones, M. F. Development in vitro of some parasitic nematodes of vertebrates.

NIAMD

Diehl, H. W., and Fletcher, H. G., Jr. A simplified preparation of 2-deoxy-D-ribose.

Koch, G., and Dreyer, W. J. Characterization of an enzyme of the T2 bacterial virus as a lysozyme.

McGuire, J., and Tomkins, G. The effect of thyroxin administration on the rate and steric course of enzymatic reduction of steroids.

Schwarz, K.; Mertz, W.; and Simon, E. J. In vitro effect of tocopherol metabolites on respiratory decline in dietary necrotic liver degeneration.

Sollner, K. The physical chemistry of ion exchange membranes.

Zorbach, W. W., and Payne, T. A., Jr. 2-deoxy sugars. I. 3,4-di-O-p-nitrobenzoyl-1-chloro (and 1-bromo)-1,2,6-trideoxy-D-ribo-hexose. Two crystalline 2-deoxy acylglycosyl halides.

Zorbach, W. W. Concerning the synthesis of methyl (11-deoxycorticosteron-21-yl 2,3,4-tri-O-acetyl-β-D-glucosid) uronate.

NIMH

Bowen, M. Family relationships in schizophrenia.

Bradley, D. F., and Wolf, M. K. Neurochemistry of polynucleotides.

Coggeshall, R. E., and MacLean, P. D. Hippocampal lesions following administration of 3-acetylpyridine.

Felix, R. H. What psychiatry can offer industry.

Ryckoff, I. M.; Day, J.; and Wynne, L. C. The maintenance of stereotyped roles in the families of schizophrenics.

Wynne, L. C., and Dittmann, A. C. The applicability of linguistic techniques to the study of interview material.

NINDB

Kaufman, H. E.; Remington, J. S.; and Jacobs, L. Toxoplasmosis: The nature of virulence.

Masland, R. L. What the M. D. candidate should learn about mental retardation.

Resnik, R. A., and Kenton, E. B. The effect of acid pH on alpha crystallin.

Spyropoulos, C. S. Miniature responses under "voltage-clamp."

Tasaki, I., and Bak, A. F. Voltage clamp behavior of iron-nitric acid system as compared with that of nerve membrane.

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NIH Spotlight

Frances M. Daly

"NIH was delightful then -- just like a small town, where you know everybody." Frances Daly's eyes had that reminiscent look, and then she added, "But it's just as nice now, in a new kind of way." And she's the lady who should know -- she was the only nurse on the staff of the NIH Employee Health Service when it was started in 1939; and now, almost 20 years later, she's Director of Nurses, with a staff of six, in the same branch.

Back in 1939, when Mrs. Daly was Nurse Frances Miller, her domain consisted of an office, a treatment room, and a bed-rest room on the third floor of Bldg. 1. Those were the days when there were only six buildings on the NIH reservation, and the 500 or so employees were known to the one nurse, who coped with everything from burned fingers to the painter who fell from the top of the pillars in Bldg. 1.

Things changed, as they usually do. In 1943, the PHS loaned Frances Miller to the District of Columbia VD program at Gallinger Hospital. Then she returned to college and earned her B.S. in Nursing Education. Five years later, when she returned to NIH, the reservation was growing to city size, and there were three Employee Health nurses to bind wounds and wield the hypodermic syringe.

The following year, when Miss Miller became Mrs. Daly, she left the PHS in favor of motherhood, and in due time increased her family by twin girls.

Motherhood -- particularly where small twins were involved -- occupied Mrs. Daly quite effectively, so when NIH asked her to return, she agreed to help out for only 90 days.

It was 1953, and the Employee Health Service had just moved to the Clinical Center, where the staff was giving pre-employment physicals to the hordes of people newly arrived to fill up the laboratories and offices of the big building.

The 90 days passed, and then 90 more. Mrs. Daly was as busy in the Health Service as she had been with the twins, who in the meantime were adjusting happily to nursery school. So she stayed on. She recalls those days as the hardest she experienced at NIH. Not only was the staff being broken-in to its new CC quarters by an avalanche of physicals, but old employees had to be re-oriented to the new Health Service procedures resulting from NIH's rapid growth.

Frances Daly's home life is as full as her professional one. She counsels her Brownie troop as effectively as she does the employees who come to her with family or job problems. She is active in the Graduate Nurses' Association and in her church group, and she shares laughter with her staff of nurses over amusing things that happen. Life functions smoothly in these "just as nice" days.

R & W NOTES

The Tennis Club invites NIH employees and patients to use the courts at the Glenbrook Country Club, adjoining the NIH reservation on the south. Tennis memberships are $5 a year, and the season lasts into October.

An R & W-sponsored picnic for NIH summer employees was held on Wednesday, August 6, at the Glenbrook Club House. Dinner was provided, and entertainment included games and dancing.

The new chairman of R & W social activities is Gertrude Quinn, Laboratory of Chemical Pharmacology, NHI. She replaces Rosemary Roberts, chief of the Translating Unit, DRS.

ECOLOGIC STUDY Contd.

Cages are washed only after the adults are removed at the end of their breeding span, often well over a year. Water bottles are seldom washed and are purposely interchanged to simulate natural conditions. Even so, the rats remain in excellent condition except for the wounds some receive in fighting.

TWO EMPLOYEES' SERVICE TOTALS 73 YEARS AT PHS

Two NIH employees, whose combined service to PHS totals 73 years, retired on July 30. They are Thomas Probey, Chief of the Section on Pyrogens in the Laboratory of Control Activities, DBS, and Earl W. Malone, research technician in the Pathology and Serology Section of NIAID's Rocky Mountain Laboratory in Hamilton, Mont.

Mr. Probey, who joined NIH's predecessor--the PHS Hygienic Laboratory--in 1919, has been engaged in the testing of biologic products for most of his long career. Formerly Head of the Arsenicals Control Unit, NMI, he was responsible for the potency, safety, and efficacy of arsenicals used in the treatment of syphilis. With the advent of penicillin, he began testing blood and blood products for safety and purity.

A native Washingtonian, Mr. Probey plans to move to Fort Lauderdale, Fla., to pursue his favorite hobbies, fishing and boating.

Mr. Malone, a native of Hamilton, Mont., has been with the Rocky Mountain Laboratory for 34 years. During most of this time he supervised the rearing and feeding of infected ticks and was concerned with the manufacture of Rocky Mountain spotted fever tick vaccine.

A veteran of World War I, Mr. Malone is a graduate of Montana State University with a degree in pharmacy.

Mr. McCusker Named Chief of DRS Branch

Frank J. McCusker assumed the post of Chief of the Research Facilities Planning Branch, DRS, early this month. He replaces Elroy K. Day, now Assistant Chief of the Health Research Facilities Branch, DRG.

In his new post, Mr. McCusker will be responsible for the planning and design of all new construction and major alteration projects at NIH. He was formerly an executive engineer with Fred S. Dubin Associates, a consulting engineering firm, and has had 12 years of engineering and supervisory experience with the Department of State, Air Force, and U. S. Army.

Loan Protection Available To Credit Union Members

Loan protection insurance is now available without charge to members of the NIH Credit Union, as a result of the Union's recent affiliation with the Maryland Credit Union League, Inc.

The new insurance pays the loans of Credit Union members who die or are disabled. Subject to restrictions on the borrower's age and the size of the loan, this relieves the family or loan co-maker of repayment responsibility.

The Maryland Credit Union is a member of the Credit Union National Association, made up of 22,500 credit organizations in the U. S. and Canada.

CHEMOTHERAPY CENTER SCREENS THOUSANDS OF SUSPECT CHEMICALS

A total of 57,000 compounds that may affect the growth of cancer has been accepted for screening to date by the NCI Cancer Chemotherapy National Service Center. Samuel M. Takahashi (above), a biologist in the Center, checks some of the chemicals submitted by universities, research organizations, and pharmaceutical houses in all parts of the country. Of the 54,000 compounds screened by the Center in the past two and a half years, about 400 have shown promise against mouse tumors in primary screening. The few chemicals that pass a secondary screening will undergo strict pharmacological tests before they are accepted for clinical trial.

Nicholas Williams Dies

Nicholas L. Williams, medical biology technician in the Laboratory of Nutrition and Endocrinology, NIAMD, and a long-time PHS employee, died July 19 following a heart attack.

Mr. Williams, who was 65, had been a laboratory technician in PHS for 36 years. His career was spent working on laboratory animal nutrition. Since 1950, he supervised the Diet Preparation Group that received an award last year for developing a method for preparing a sterile diet for germ-free animal studies.

He was a native of Wythe County, Virginia, and had lived in Arlington since 1924.

Mr. Williams is survived by his wife, Josephine; a daughter, Mrs. Audrey W. Myers, both of Arlington, Va.; and a son, Wesley L. Williams, of Wheaton, Md.

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