



Employee Awards Winners Receive Checks



Mrs. Zella N. Boteler, Credit Union manager, accepts Credit Union shares in the form of cash awards checks. Winners of the awards are, from left: Arthur Washington, Thomas K. Wintersteen, Kathleen Harlow, Jeanne H. Walton, and Arthur Kirkpatrick.

NOBEL PRIZE AWARDED THREE NIH GRANTEES

The 1958 Nobel prize in medicine and physiology was awarded last month to three scientists who are NIH grantees. They were honored for their significant work in the basic field of genetics and genetic control of metabolism.

Dr. Joshua Lederberg, University of Wisconsin, who received one-half of the \$41,420 prize, has been associated with the NIH extramural program for ten years. He is a member of the DRG Genetics Study Section, and is currently an NCI grantee.

Dr. Edward L. Tatum, Rockefeller Institute for Medical Research, and Dr. George W. Beadle, California Institute of Technology, share equally the other half of the prize. Dr. Tatum is a member of the DGMS Genetic Research Training Committee and has received grant support since 1951. Dr. Beadle is an NHI grantee working in experimental biology, and was the first scientist to deliver a Dyer Lecture here.

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FIVE NIH EMPLOYEES RECEIVE CASH AWARDS

Cash awards were presented at recent Institute ceremonies to five NIH employees for their outstanding suggestions and sustained superior performance.

Jeanne H. Walton, NHI, received \$75 for her suggested modification of research grant renewal applications and progress report forms. The new tear-out forms and procedure will effect savings in money and man-hours.

Kathleen Harlow, also of NHI, was awarded \$200 on the recommendation of 14 supervisors who recognized her superior performance, outstanding cooperation, and devotion to her job. Miss Harlow has worked with the Heart Institute since its inception in 1948.

For his analysis and consolidation of research grant forms, Arthur Kirkpatrick, DRG, was awarded \$125. The new system reduces work pressure and error factors, and

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MED SCHOOLS VISITED IN RESEARCH STUDY

An NIH staff group is meeting with representatives of approximately 20 medical schools to gain their views on how the research recommendations of the recently published Bayne-Jones report might best be implemented.

The report, titled "The Advancement of Medical Research and Education through the Department of Health, Education, and Welfare," has attracted nationwide attention and comment since its publication last June. It was prepared at the request of Marion B. Folsom, then DHEW Secretary, by a group of ten prominent leaders in medical research and education drawn from university and industrial life. The consultants were headed by Dr. Stanhope Bayne-Jones, former Dean of the Yale University School of Medicine.

Among other elements, the report of the consultants to the Secretary contained a number of recommendations directed to the stability of

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UGF TOTAL REACHES 78 0/10 ; CAMPAIGN TO CONTINUE

United Givers Fund contributions from NIH totaled \$53,017 at the end of the fifth week of the campaign. Since this represents only 78 percent of the quota, the campaign will be continued here until the goal of \$68,889 has been reached or exceeded.

Dr. Ernest M. Allen, campaign chairman, expressed confidence that those who have not as yet made their contributions to the 142 area health and welfare agencies will do so within the week.

Employee participation at NIH reached 88 percent, or 5,146 contributors out of a possible 5,871.

The 300 volunteer UGF representatives at NIH will continue to work for the full quota of contributions.

Mosquitoes Are Tool In Virus-Cancer Studies

No. 218 in a Series



Dr. Herbert Dalmat, NIAID, examines infected mosquitoes used to transmit tumor-producing viruses.

A relatively new technique that makes use of mosquitoes to transmit tumor-producing viruses to animals is attracting wide attention in the field of virus-cancer research.

The first extensive use of this technique has been reported by Dr. Herbert T. Dalmat, assisted by James C. Cunningham, both of the Laboratory of Tropical Diseases, NIAID. Related pathology studies were conducted by Dr. Mearl F. Stanton, Laboratory of Pathology, NCI.

Viruses are known to cause tumors in plants and animals. The theory that viruses also cause some types of human cancers is now gaining wide attention. "If this is the case," Dr. Dalmat said, "increased knowledge of virus infection and transmission, and of virus multiplication in the animal host, will be of great value in human cancer studies."

In an effort to reconstruct what may be a natural cycle of infection, the viruses of papillomatosis and fibromatosis, tumor-forming diseases common among cottontail rabbits, have been experimentally transmitted by mosquitoes and other arthropods to domestic and cottontail rabbits.

In early experiments with papillomatosis, which affects the outer skin layers of rabbits and frequently becomes malignant, mosquitoes and assassin bugs were fed on tumors to extract virus. The vectors were then

transferred, immediately or at intervals, to noninfected rabbits. Tumors developed in the recipient domestic and cottontail rabbits at periods varying from 9 to 71 days. Virus from growths protruding from the base of the main tumors and from other satellite growth was also successfully transmitted.

More extensive experiments were conducted by Dr. Dalmat with rabbit fibromatosis, a disease first described by Dr. Richard E. Shope, which causes benign tumors that occasionally become malignant.

Although techniques of virus transmission were generally similar to those used with papillomatosis, it was found that reduviid bugs and bedbugs, as well as several species of mosquitoes, could transmit the fibroma virus to another rabbit when feeding was interrupted or refeeding was delayed for long periods.

To determine whether the virus multiplies in the vector, mosquitoes were dissected and suspensions of parts analyzed at intervals after the infective feeding. Although results were somewhat inconsistent, it was found that the strength of the virus varies, declining after mosquitoes feed, then gradually rising.

For the first time, fibroma virus was successfully introduced into an animal other than the rabbit. Experiments demonstrated that virus remains infective and unaltered for as long as a month in the brain of a living mouse, without affecting the mouse.

The infectivity of the fibromas, or tumors, varies in cottontail and domestic rabbits, Dr. Dalmat reported, and depends on the "stage" of the tumor, rather than the species or age of the host. He found unidentified cytoplasmic inclusion bodies in the epithelium above mature tumors that are infective, as well as an increase of inclusions in the body of the tumor itself. This stage of tumor development is rarely reached in domestic rabbits unless the animal is irradiated or a carcinogen injected prior to infection.

In continuation studies, Dr. Dalmat plans to employ fluorescent techniques to determine the location of virus in infected rabbits and mosquitoes, to add one more link to the puzzling chain of insect-virus relationships.

Publication Preview

The following manuscripts were received by the SRB Editorial Section between August 7 and August 13.

DRS

Johnston, G. I., and Vurek, G. G. A line operated power supply for movable anode transducer tube.

NCI

Bryan, W. R. Biometrics and quantitative biological experimentation in the virus and cancer fields.

Fitzgerald, D. B.; Hartwell, J. L.; and Leiter, J. Tumor-damaging materials from plant sources. I. Water-soluble substance from a variety of *Narcissus*.

Freireich, E. J.; Schmidt, P. J.; Schneiderman, M. A.; and Frei, E. III. A comparative study of the effect of fresh and preserved whole blood transfusion on bleeding in patients with acute leukemia.

Herts, R., and Tullner, W. W. Progestational activity of certain steroid-17-spirolactones.

Stewart, H. L.; Snell, K. C.; and Hare, W. V. Histopathogenesis of carcinoma induced in the glandular stomach of C57BL mice by the intramural injection of 20-methylcholanthrene.

Uphoff, D. E. Alteration of the homograft reaction by A-methopterin in lethally irradiated mice treated with homologous marrow.

NHI

Ashwell, G.; Kanfer, J.; and Burns, J. J. Studies of the mechanism of L-xylulose formation by kidney enzymes.

Barrows, C. H. Jr., and Chow, B. F. Dietary proteins and synthesis of tissue proteins.

Barrows, C. H., Jr.; Yienst, M. J.; and Shock, N. W. Senescence and the metabolism of various tissues of rats.

Brodie, B. B.; Prackop, D. J.; and Shore, P. A. An interpretation of the action of psychotropic drugs.

Burns, J. J.; Kanfer, J.; and Ashwell, G. Formation of L-xylulose from L-gulonic acid in rat kidney.

Cooperstein, I. L., and Brockman, S. K. The electrical potential difference generated by the large intestine: Its relation to electrolyte and water transfer.

Goodwin, S.; Smith, A. F.; and Horing, E. C. Alkaloids of *Ochrosia elliptica* Labill.

Gregeman, R. I. Adaptive enzyme responses in the senescent rat: Tryptophan peroxidase and tyrosine transaminase.

Kanfer, J.; Burns, J. J.; and Ashwell, G. L-Ascorbic acid synthesis in a soluble enzyme system from rat liver microsomes.

Maling, H. M., and Highman, B. High altitude tolerance of normal dogs and dogs with myocardial infarcts.

Prackop, D. J.; Shore, P. A.; and Brodie, B. B. An anticonvulsant effect of monoamine oxidase inhibitors.

Stadtman, T. C. The participation of a quinone in the enzymic reduction of glycine by *Clostridium sticklandii*.

NIAID

Burgdorfer, W. Colorado tick fever. The behavior of CTF virus in the porcupine (*Erethizon dorsatum epizanthum*).

Eagle, H.; Piez, K. A.; Fleischman, R.; and Oyama, V. I. Protein turnover in mammalian cell cultures.

Lockart, R. Z., Jr., and Eagle, H. The nutritional requirements for the growth of single human cells.

Lunde, M. N., and Jacobs, L. Characteristics of the *Toxoplasma* hemagglutination test antigen.

Newton, W. L.; Weinstein, P. P.; and Jones, M. F. A comparison of the development of some rat and mouse helminths in germfree and conventional guinea pigs.

NIAMD

Lerner, E. M. II, and Sokoloff, L. The pathogenesis of bone and joint infection produced in rats by *Streptobacillus moniliformis*.

Tomkins, G. M. Studies on the mechanism of steroid hydroxylation.

Williams, R. R.; Stewart, L. C.; and Jenkins, J. C. Purification and isolation of the rheumatoid factor.

Wolff, J.; Robbins, J.; and Rall, J. E. Iodide trapping without organification in a transplantable rat thyroid tumor.

NIDR

Folk, J. E.; Gladner, J. A.; and Laki, K. The thrombin induced formation of co-fibrin. II. Preliminary amino acid sequence studies on peptides A and B.

NIMH

Bayley, N. The life span as a frame of reference in psychological research.

Biometrics Branch, NIMH. Progress in reporting mental hospital statistics.

Birren, J. E. Aging and behavior of the individual.

Boggs, S. T. Primary groups and alienation: A proposed study of attempts to handle occupational problems.

Bowen, M. A family concept of schizophrenia.

Dastur, D. K. The pathology of schizophrenia. A historical survey.

Diefenbach, A. L. Meeting the mental health needs of individuals in the community in relation to people in their homes.

Freygang, W. H., Jr., and Frank, K. Extracellular potentials from single spinal motoneurons.

Kaufman, S. Biochemical studies on phenylketonuria.

Kay, H., and Birren, J. E. Swimming speed of the albino rat: II. Fatigue, practice and drug effects on ages and sex differences.

Kohn, M. L. Social class and the exercise of parental authority.

Landahl, H. D., and Birren, J. E. Effects of age on the discrimination of lifted weights.

Lefcowitz, M. J., and Turk, H. Tension between collective bodies: A case study of nurse-patient relations.

Lilly, J. C., and Shurley, J. T. Experiments in solitude in maximum achievable physical isolation with water suspension of intact, healthy persons.

Marshall, W. H. Spreading cortical depression of Leao.

Posternak, J. M.; Fleming, T. C.; and Everts, E. V. Effects of interruption of the visual pathway on the cortical response to stimulation of lateral geniculate radiations.

NINDB

Enomoto, T. F., and Marsan, C. A. Epileptic activation of single cortical neurons and their relationship with EEG discharges.

Klatzo, I.; Gajdusek, D. C.; and Zigas, V. Pathology of Kuru.

Long, R. G. The control of sensory mechanisms by subcortical structures.

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NIH Spotlight



Eloise A. Schneider

Turn left from the CC lobby and walk down the hall to the room with the pale yellow walls and the window-sill full of African violets. The vivacious blond lady who graces the office and raises the violets is Eloise Schneider, secretary to Dr. Masur, the CC Director.

She's been secretary, in fact, to all the CC directors since the Center opened. "All three have been pleasant to work for," she says, "and the job has grown during the five years I've been in this office. Dr. Masur's a dynamo. He's much in demand, and so many people come to see him -- well, in the past few weeks he's had visitors from Thailand, Australia, Ceylon, England, and Brazil. Just keeping the appointments straight takes some ingenuity. I make his travel arrangements, and of course there's dictation and answering letters -- the things a secretary always does."

Eloise is a dynamo herself. An accomplished secretary, she learned shorthand in high school and journalism in college. The depression put a stop to her plans for a writing career, and she accepted a no-pay job as a doctor's assistant in her hometown of Ottumwa, Iowa. The doctor gave her instruction in his specialties--eye, ear, nose and throat, and soon raised her pay to \$13 a week.

On a vacation trip to Washington, D. C., she found the town so agreeable that she decided to stay, and joined a firm of opticians as an ophthalmological technician. There, as secretary and editor, she was able to use her medical knowledge

DR. HOLDEN APPOINTED ASSISTANT CHIEF, LAB

Dr. Preston Holden has been appointed Assistant Chief, Laboratory Aids Branch, DRS. He will assist Dr. Willard H. Eyestone, Chief of the Branch, in all areas of the Branch work.

A PHS commissioned officer since 1950, Dr. Holden was a laboratory chief in the field laboratories of the Communicable Disease Center at Greeley, Colo., for the past six years. He received a D.V.M. degree at Ohio State University, and a D.P.H. at the University of Pittsburgh. Much of his recent work has been concerned with the epidemiology of the arthropod-borne encephalitides.

Dr. Holden assumed his new duties on November 3.

and terminology. She learned the specialized technique of photographing the eye, and set up a library of slides and negatives of the photos for use by eye physicians.

It was in 1948 that she came to NIH as a secretary in the Cancer Control Branch of NCI, where she worked with the controls and records of the grants program. In 1953 she moved to the Director's office in the CC.

"NIH was so much smaller back in 1948," says Eloise. "But I enjoy the people just as much now as I did then. There are just more of them now."

Many of them are her neighbors, too. Eloise and her husband live in Locust Hills, across the road from the reservation, close enough to permit her to go home at lunch time to care for her miniature Schnauzer. "Bengi," pride of the household, wins many blue ribbons in area dog shows. Unworthy of showing just yet, Eloise feels, are her oil paintings, but her dressmaking ability proves itself when she wears her creations to work.

She's been a vestry member of her church, and for seven years trained a choir of small angels -- the seven-year-old variety -- bringing them several times to the Clinical Center to sing at Thanksgiving and Easter services.

Roses and tomatoes flourish in the Schneiders' garden as abundantly as the African violets in the window of her office.

GUYS AND DOLLS



Tempo increases in the Hamster rehearsals for "Guys and Dolls" as November 20, first night of the production, nears. Guys rehearse the gambling scene. From left: James Noone as Brannigan, the cop; Murray Eden, Benny Southstreet; Billy Mann, Sky Masterson; Don Watson, Big Jule; and Peter Dragon, Rusty Charlie. Dolls Carol Brault (left) and Roberta Horowitz talk things over in their roles of Miss Sarah and Adelaide.



Employees' Art Display In CC Lobby Exhibit

An R&W-sponsored art exhibit will be on display in the east wing of the CC lobby November 14-29. Paintings, sculptures, and graphic arts entries submitted by NIH employees and their immediate families were judged and selected prior to the exhibit opening. Awards were made in each of the three categories.

Judges of the entries were James McLaughlin, Curator of the Phillips Gallery; Rev. Alexis Robertson, Instructor of Art, Catholic University; and Joseph Summerford, Chairman of the Art Department, American University. More than 100 works were submitted.

MEETINGS TO DISCUSS SCIENCE, INFORMATION

The first in a series of eight monthly meetings on science and public understanding, sponsored by the Office of Research Information, was held October 30 in Wilson Hall. Mr. James Hague, Assistant Director of the American Hospital Association, spoke on hospitals, their public information responsibilities, and their relationships with the press.

The meeting was attended by NIH scientists, physicians, and administrative and information personnel, as well as by visitors from area hospitals and other government agencies.

The series was designed to aid the development of better communication between scientists and the public, and particularly to strengthen NIH's information activities.

EMPLOYEE AWARDS Contd.

represents an estimated saving to the Government of almost \$5,000.

A check for \$75 was presented to T. K. Wintersteen, DBO, for his investigation of a contract with a company supplying tissue culture. The contract was rewritten to eliminate a usage charge for culture tubes.

A superior performance award of \$110 was presented to Arthur Washington, elevator operator in Bg. 5, for his unfailing courtesy and thoughtfulness, and for his contributions of service beyond ordinary assignments.

DR. WILLARD WRIGHT HONORED BY FRIENDS

Dr. Willard H. Wright, who retired last June from the Laboratory of Tropical Diseases, NIAID, was honored at a party November 1 given by his former staff in LTD.

Held at the Woman's Club of Bethesda, the party included Dr. Wright's friends and colleagues from other government and outside organizations. They presented him with a slide projector.

Dr. Wright was appointed a consultant to NIAID for one year following his retirement.

Oscar Millard Dies

Oscar L. Millard, Sr., animal caretaker in the Laboratory of Infectious Diseases, NIAID, died of a cerebral thrombosis on October 28, following a brief illness.

A native of Washington, Mr. Millard lived at 1144 Sumner Rd., SE. He is survived by his widow, Beatrice; his mother, Rosa; six sons, a daughter, a sister, two brothers, and two stepchildren.

NOBEL PRIZE Contd.

The work of the three scientists is closely allied. By producing mutant strains of red bread mold with nutritional defects, Beadle and Tatum have provided a means of studying the genetic control of metabolic processes. Lederberg has conducted similar studies with bacteria.

Winners Announced In Golf Tournament

Winners in the R&W-sponsored golf tournament were announced recently, following the last playoff in the four flights. All games were played on the Glenbrook golf course.

Robert H. Blackwell, NCI, was winner in Flight A, with seven victories and one defeat. Winners in the other three classes were as follows: Flight B, Dr. Kenneth K. Takemoto, NIAID, 6-0; Flight C, Donald B. Riggs, DBS, 7-0; and Flight D, Gladys P. Gulick, NCI, 6-1.

Prizes will be awarded to the Flight winners at the R&W annual meeting.

RESEARCH STUDY Contd.

research institutions, the stability and attractiveness of research careers, and the anticipated rate of growth in medical research in this country, together with some views on the appropriate role of the Federal Government in helping to meet these needs. It is questions of this kind that the NIH staff is exploring with the medical schools during a series of visits and discussions.

The informal study is being directed by Dr. Kenneth M. Endicott, newly appointed NIH Associate Director for Training. Assisting him are Drs. Knutti of NIAMD, Yeager of NHI, Bobbitt of NIMH, Meader of NCI, and Lindsay of DRG, as well as a small group of administrative analysts and the staff of the Office of Research Planning.