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EMPLOYEES RECEIVE \$6,095 AT ANNUAL AWARDS CEREMONY



Surgeon General Leroy E. Burney chats with supervisors of award recipients at a preceremony meeting. Left to right are NIH Associate Director Joseph E. Smadel, Dr. Burney, and Drs. Maitland Baldwin, G. Milton Shy, and Roscoe O. Brady.

Dr. Burney Honors 62 Award Winners

Sixty-two NIH employees were presented with cash awards totaling \$6,095 by Dr. Leroy E. Burney, Surgeon General, PHS, at the annual awards ceremony, held in the CC Auditorium on January 8.

The program included addresses by NIH Director James A. Shannon and Joseph S. Murtaugh, Chairman of the NIH Board on Employee Awards. The awards total was one of the largest in the history of NIH.

An award of \$1,070 was shared by nine employees of the DRS Media Section, who are responsible for supplying scientists with hundreds of different kinds of culture media. In addition to modifying and improving standard media, they have met numerous unusual demands for complex variations.

Fifteen employees in the Program Services Section, NIMH, were honored for developing new methods and procedures to meet the needs of an expanded research grants program, for which they are responsible. They shared awards totaling \$1,890.

Also cited for superior work on the extensive NIH grants program were a group of 11 employees in the Health Research Facilities Branch, DRG. They received \$1,300 for successfully administering a new grants program for building and equipping non-Government facilities for health research.

Superior and careful work on the expanded polio vaccine testing program netted 13 people in the Laboratory of Viral Products, DBS, a total of \$685. Four employees in the NIAMD Section on Experimental Liver Diseases, who aided

NIH Graduate School Begins February 17

Spring semester registration for NIH evening classes will be held February 10-14, from 11:30 a.m. to 4:30 p.m., in Bg. 10, Rm. 2B-48. Classes will begin on Monday, February 17, and continue through the week of June 2. The graduate school program here is co-sponsored by the Department of Agriculture and NIH and is open to Government employees and the public.

A total of 18 courses selected to meet the specialized needs of NIH employees will be offered. Tuition is \$12 per credit hour, payable in two installments.

Offered for the first time this spring is a course in the history of medicine and medical research, to meet on Thursday evenings at 7 p.m. Morris Leikind, medical

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SPECIAL TV LINK ESTABLISHED HERE

Closed circuit television transmitted by microwaves is enabling NIH scientists to view highlights from courses sponsored by the Walter Reed Army Institute of Research. Classes on communicable diseases, neuropsychiatry, endocrinology, and other medical and scientific subjects are being televised "live," especially for NIH.

Special color programs originating from Walter Reed Army Medical Center are received regularly on NIH's three color-television sets.

This is the first step in a proposed two-way television tie between Walter Reed, the National Naval Medical Center, and NIH. Other area medical centers will arrange to receive programs.

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Radiation And Drugs Affect Hair Growth

No. 199 in a Series



A. Root of normal, growing hair. B. Hair six days after exposure to radiation showing wasting of root. C. Root showing drug effect. Note constriction (arrow) in hair shaft.

How the growth of body tissue is controlled by normal physiological processes still defies scientific understanding. One possible approach to the problem is by the study of the growth and metabolism of hair roots, which are readily accessible tissue.

The hair root is one of the fastest growing tissues in the body. It is estimated that the growing part of the hair root doubles, or perhaps triples, its own mass every twenty-four hours for two to seven years—a rate of growth probably exceeding that of any cancer. At the end of this time, the hair root abruptly stops growing and is destroyed. Later an entirely new root develops and the cycle is repeated.

Investigations into these phenomena, conducted by the Dermatology Service of the General Medicine Branch, NCI, under the direction of Dr. Eugene Van Scott, have led to significant findings, including the effects of radiation and drugs on the growth of hair.

Radiation, the investigators have found, produces changes in the roots of scalp hair when the scalp has been included in the exposure. The

changes can be detected by microscopic examination of extracted hair.

Changes indicating a direct effect of radiation are detected as early as four days following irradiation. A wasting of the hair root begins at that time and becomes progressively severe. The number of growing hair roots affected is proportionate to the amount of radiation received by the hair roots and to the time interval following radiation. The last observation may be useful in instances of accidental exposure, and suggests the possibility that radiation exposure can be measured quantitatively in man.

In the case of drugs, the effects on the growing hair are somewhat different. The investigators have found that certain drugs used in cancer chemotherapy only partially injure the hair root, but leave a withered zone as a permanent scar in the hair shaft. When the administration of drugs is stopped, the hair root promptly recovers and resumes producing a normal hair.

The type of hair loss in each of these instances can be easily distinguished. Following radiation, the hair falls out from the roots; but following use of the drugs, hair breaks off at the scars that weaken the shaft.

Further investigations are being carried out in a search for natural factors controlling the growth and metabolism of the hair root. Such studies on this tissue may give clues toward understanding normal, as well as abnormal, growth of other tissues.

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Publication Preview

The following manuscripts were received by the SRB Editorial Section between November 1 and November 14.

CC

Brecher, G. Role of clinical laboratory in Civil Defense.

DBS

Pittman, M. Variations in the potency of pertussis vaccine: Relation to human protection.
Workman, W. G. Requirements for licensing new biological products.

DRG

Thurman, E. B. Robert Evans Snodgrass, Insect Anatomist and Morphologist.

NCI

Andrews, H. L. Physical aspects of radiation exposure standards.

Auerbach, R., and Grobstein, C. Inductive interaction of embryonic tissues after dissociation and reaggregation.

de del Campo, M. S. B. Nuclear artifacts present in vaginal and cervical smears.

Dunn, J. E.; Walton, M.; and Lundin, F. Preliminary findings of the Memphis-Shelby County, Tennessee, uterine cancer field study and their interpretation.

Gamble, D. The Cancer Chemotherapy National Service Center.

Grobstein, C. Differentiation of vertebrate cells.

Hueper, W. C., and Cahnmann, H. J. Carcinogenic bioassay of benzo[a]pyrene free fractions of American shale oils.

Kaiser, R. F., and Gilliam, A. G. Some epidemiological aspects of cancer of the uterine cervix.

Landau, B. R.; Ship, A. G.; and Levine, H. J. The action of insulin on the distribution of glucose analogs in eviscerated-nephrectomized dogs.

Mendelsohn, R. S., and Watkin, D. M. Serum vitamin B₁₂ concentrations determined by *L. leichmannii* assay in patients with malignant disease.

Smith, W. W. Protective effect of a colchicine derivative in mice exposed to x-radiation.

Ship, A. G.; Eck, R. V.; and Smith, R. R. Local chemotherapy of experimentally tumor-seeded wounds.

Zubrod, C. G. The leukemias.

NHI

Bartter, F. C. Marfan's syndrome (arachnodactyly).

Bragdon, J. H. Current trends in atherosclerosis research.

Braunwald, E., and Sarnoff, S. J. The physiologic consequences of mitral and aortic valvular regurgitation.

Brodie, B. B. Serotonin and norepinephrine metabolism.

Duncan, L. E., Jr.; Cornfield, J.; and Buck, K. The circulation of iodinated albumin through aortic and other connective tissues of the rabbit.

Fredrickson, D. S.; McCollister, D. L.; and Ono, K. The metabolism of chylomicra. II. The hydrolysis and oxidation of palmitic acid-¹⁴C labeled chylomicron triglyceride.

Gillette, J. R.; Dingell, J. V.; and Brodie, B. B. The dealkylation of N-alkylamines by model systems.

Sjoerdsma, A. Carcinoid syndrome (carcinoidosis).

NIAID

Bell, J. A.; Ward, T. G.; Kapikian, A. Z.; Shelokov, A.; Reichelderfer, T. E.; and Huebner, R. J. Artificially induced Asian influenza in vaccinated and unvaccinated volunteers.

Eagle, H.; Freeman, A. E.; and Levy, M. The amino acid requirements of monkey kidney cells in first culture passage.

Eklund, C. M.; Bell, E. J.; and Gerloff, R. E. Poliomyelitis in Idaho in 1955 following the use of two lots of vaccine containing live virus.

German, J. L. Studies in the pathogenesis of lupus erythematosus: Experimental production of hematoxyphil bodies in the kidney.

Huebner, R. J. Considerations of natural "latency" exhibited by certain "inclusion-body" viruses.

Levy, H. B., and Haas, V. H. Alteration of the course of lymphocytic choriomeningitis in mice by certain antimetabolites.

Pappenheimer, A. M., Jr., and Freund, J. Induction of delayed hypersensitivity to protein antigens.

Paterson, P. Y. Organ-specific tissue damage induced by mammalian tissue-adjunct emulsions.

Shelokov, A. Soviet Medical Research: Some recent advances and future plans.

NIAMD

Ness, R. K., and Fletcher, H. G., Jr. The anomeric 2,3,5-tri-O-benzoyl-D-arabinosyl bromides and other D-arabinofuranose derivatives.

Segal, S., and Foley, J. The metabolism of D-ribose in man.

Zorbach, W. W. Methyl (11-deoxycorticosteron-21-yl 2, 3, 4-tri-O-acetyl-B-D-glucosid) uronate. A new method for the glycosidation of steroids.

NIMH

Allen, G. Patterns of discovery in mental deficiency.

Bayley, N. Placing children for adoption.

Blough, D. S. New test for tranquilizers.

Felix, R. H. Legal and administrative implications (of rehabilitation).

Isbell, H.; Logan, C. R.; and Miner, E. J. Studies on the diethylamide of lysergic acid (LSD-25). III. Attempts to attenuate the LSD-reaction in man by pretreatment with neurohumoral blocking agents.

Kety, S. S. The physiology of the cerebral circulation in man.

Perlin, S.; Pollin, W.; and Butler, R. N. The experimental subject: I. The psychiatric evaluation and selection of a volunteer population.

Perry, H. S., and Perry, S. E. The school-house disasters.

Schoolman, A.; Evarts, E. V.; and Marshall, W. A study of primary cortical responses evoked by stimulation of lateral geniculate radiations in unanesthetized cats.

Staff, Biometrics Branch, NIMH. Patients in mental institutions 1955. Part I. Public institutions for mental defectives and epileptics.

Staff, Biometrics Branch, NIMH. Patients in mental institutions 1955. Part IV. Private institutions for mental defectives and epileptics.

NINDB

Abraham, K., and Ajmone Marsan, C. Patterns of cortical discharges and their relation to routine scalp electroencephalography.

Agranoff, B. W. Low level tritium counting techniques.

Dekaban, A.; O'Rourke, J.; and Cornman, T. Abnormalities in offspring related to maternal rubella during pregnancy.

Li, C. The effect of cooling on neuromuscular transmission in the rat.

Moore, J. W. Measurement and control of nerve membrane potentials.

Tasaki, I. Physiological properties of the myelin sheath and of the node of Ranvier.

NJH Spotlight



Marie Johnson

When Marie Johnson, NHI chemist, finished high school in Staunton, Va., she was sure of one thing--she hated science! Several years later, she was graduated cum laude from Dunbarton College in Washington, D. C., with a degree in chemistry.

Marie attributes this change of heart to her "science professors who were genuinely interested in the subjects they taught and in their students."

"Once my curiosity was aroused," Marie explains smilingly, "I kept taking more and more science courses and wound up as a chemistry major!"

Marie's interest and success in chemistry led her to a job in NHI's Laboratory of Chemistry of Natural Products, where she is now working on projects concerning plant alkaloids.

Her contagious enthusiasm is not confined to chemistry, however. A born "ham" actor, Marie has been a member of the Hamsters from the day she walked into NIH. Interested in all phases of stagecraft, Marie has competently handled staging, properties, and makeup for NIH dramatic events. As Hamster treasurer, she always manages to balance the books.

Like many NIH'ers, one of Marie's ambitions is to travel. She developed an early love of scenery from the beautiful woods and hills of her native State of Virginia, and she is anxious to compare these with natural beauties in the Western United States.

Several vacations ago, she acquired a tan on the sandy beaches of Bermuda, and "saw all the sights

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Govt. Employees To Follow New Registration Procedure In Case Of Enemy Attack

New procedures for Federal employee registration after an enemy attack have been initiated by the Civil Service Commission.

Under the new system, employees who are prevented from coming to work because of an enemy attack should complete a Federal Employee registration card at the nearest post office. The postmaster will send the card to the CSC office that maintains the registration files for this area.

The employee will then be notified where and when he should report back to work. The card will also enable the Government to keep the employee on the roster of active personnel and to forward his pay.

Until notified to return to work, employees are requested to help meet the emergency situation by volunteering their services to civil defense authorities.

Emergency registration cards (standard form 45 or 45a) issued to employees under a previous plan will not be used and should be destroyed.

Income Tax Assistance

A limited amount of assistance in preparing Federal, State, and District income tax forms will be available to NIH employees after February 10. Detailed information will be published in the next issue of the NIH RECORD.

GRADUATE SCHOOL Contd.

historian at the Armed Forces Institute of Pathology, will be the instructor.

For further information, contact the NIH Clinical and Professional Education Branch, ext. 2427. Graduate school catalogs are available in the Personnel Branch, Bg. 1, Rm. 21.

NOTICE

A course in Basic Scientific and Medical Russian, not listed in the Graduate School course schedule, will be given at NIH by Nina Smith on Wednesday evenings from 7:30 to 9:30 p.m.

TWO NAMED "GUARD-OF-THE-YEAR" FOR '57



Guard Lts. Frederick D. Reynolds (2d from left) and Richard F. Jones (2d from rt.) were recently presented with "Guard-of-the-Year" certificates by DBO Chief R. H. Henschel (center). Looking on are George P. Morse (left), Chief, Plant Safety Branch, and Guard Captain J. L. Craumer.

CREDIT UNION ASSETS TOTAL \$1 MILLION

Assets of NIH's Federal Credit Union now total over \$1 million, a 25 percent increase over last year, according to reports presented at the annual meeting January 15. Credit Union officers also reported that 3,274 employee loans totaling \$1,324,768.59 were approved in 1957.

The following Credit Union officers and committee members were elected at the meeting.

Board of Directors: Dr. Kenneth W. Chapman, CC; Dr. Max Halperin, DBS (re-elected); Walter H. Magruder, NCI (re-elected); and Ruby Peters, DBO.

Supervisory Committee: Willis D. Wine, DBO.

Credit Committee: Josephine I. O'Conner, CC; Lloyd J. Bankard, DRS; and Thomas H. Keys, CC.

The membership also approved a dividend rate of four percent. Dr. Isadore Zipkin, NIDR, won the door prize of a \$50 Government Bond.

SPOTLIGHT Contd.

most tourists do in Bermuda." She also spent two weeks driving through Canada, and had a wonderful time, "even though we ran out of money," she says.

Most of Marie's traveling now is confined to dashing to and from her many activities in her recently acquired "pride and joy" -- a baby blue Chevrolet convertible.

AWARDS Contd.

in purifying and identifying a new dietary agent, received an award of \$250.

A group of eight clerical workers in the NIAID Extramural Programs Branch were recognized for their outstanding work in administering a new training grants program in spite of the illness and transfer of senior staff members. They received \$485.

Individual performance awards were presented to Shirley A. Lewis, research assistant in the Surgical Neurology Branch, NINDB, and Arthur D. Catlin, DBO Space Analyst.



Surgeon General Leroy E. Burney (second from right) presents awards to members of the NIAID Extramural Programs Branch, as Joseph S. Murtaugh (right), Chairman of the NIH Board on Employee Awards, looks on. Award recipients are (left to right) Rosa A. Springman, Mary E. Schroeder, Doris S. O'Keefe, Dora T. Gottlieb, Cordelia T. Gallic, Helen W. Denson, Mildred D. Bynum, and Louise N. Barnes.

NIH Instrument Section Holds Training Program

The Instrument Section, DRS, is sponsoring an on-the-job training program to acquaint its personnel with recent technological advances in the field of engineering and to review fundamental scientific principles.

Twenty-one employees recently completed a ten-week lecture course on the fundamentals of semiconductor electronics. Biweekly sessions included discussions on the behavior of transistors, the design of transistorized devices, and other semiconductor devices such as photoelectric cells and sun cells. The course was taught by Gerald Vurek, electrical engineer in the Instrument Section's Engineering Unit.

Participants included V. T. Al-masy, W. J. Dorsey, W. D. Hamilton, S. M. Meyers, K. H. Noyes, R. E. Murphy, and G. I. Johnston, all of LAB; and B. E. Burr, N. F. Coffey, Dr. J. Davidson, C. R. Mencken, L. Waters, W. C. White, and D. O. Winfrey, of NCI.

Others were J. S. Palmer, Dr. E. R. Simon, and R. H. Thompson, NIAMD; W. H. Washington and E. R. Whitcomb, NINDB; and H. V. Trantham and W. C. Whitehouse, NHI.

The training program was planned by Laurence R. Crisp, Chief, Instrument Section. Courses are open to all NIH employees interested in attending. A review of elementary physics, taught by George I. Johnston, will begin in February and will be announced in the NIH RECORD and the weekly Calendar of Events.