



EIGHTH DYER LECTURE TO BE GIVEN DEC. 16

Dr. Walsh McDermott, Professor and Head of the Department of Public Health and Preventive Medicine, Cornell University, will speak at the eighth annual R. E. Dyer Lecture on Tuesday, December 16, in the CC Auditorium.

For his topic, Dr. McDermott has chosen "Microbial Persistence and Latency." The lecture begins at 8:15 p.m.

Well known at NIH, Dr. McDermott is a member of the National Advisory Health Council and served as a special consultant to the Council during 1954 and 1955. He was a member of the former Antibiotic and Tuberculosis Study Section and chairman of the Experimental Therapeutics Study Section.

The R. E. Dyer lectureship award was established in 1950 by friends and colleagues of Dr. Rolla E. Dyer, NIH Director from 1942 to 1950, to pay him tribute upon the occasion of his retirement from PHS. The award is made to scientists who have made outstanding contributions in the field of medical science.



Dr. Walsh McDermott

NIH SCHEDULES CHRISTMAS ACTIVITIES

EMPLOYEES, PATIENTS WELCOME HOLIDAYS

Santa Claus arrived at the Clinical Center today for the first of a variety of Christmas activities planned by NIH employees and patients in observance of the holiday season.

The annual NIH-R&W Christmas program for employees will be held December 23 in the CC Auditorium and will include Christmas carols sung by the NIH Chorus. Greetings of the season will be extended by R&W Association President Hazel Rea. Dr. James A. Shannon, NIH Director, will deliver a brief Christmas message.

Incentive awards checks will be presented to more than 25 persons in ceremonies scheduled for the holiday season.

President Eisenhower has declared December 26 an official holiday, giving Government employees a long Christmas weekend.

Within the next few days, brightly decorated Christmas trees, purchased by the R&W Association, will add a festive note to many parts of the reservation.

Special religious services for both patients and employees have been scheduled in the CC Chapel by Catholic and Protestant chaplains on Christmas Eve and Christmas Day.

Patient activities began today with Santa's visit to patients gathered in the CC Auditorium. For the next week, he will tour the wards, visiting children there.

Two musical groups will entertain patients on December 17--a chorus from the Bethesda Presbyterian Church and the Montgomery A Capella Choir. The NIH Chorus will sing Christmas songs to patients on December 21.

(See Christmas, Page 4)



Dr. James A. Hundley

DR. HUNDLEY TO HEAD NEW DISEASE STUDIES

After two years with the United Nations, Dr. James M. Hundley has returned to NIH to organize geographic disease studies being supported by NHI and NIAMD.

A PHS commissioned officer, Dr. Hundley was with NIAMD before leaving on assignment to FAO and UNICEF.

The new program is being organized to study certain naturally occurring diseases on a global basis. The studies will deal primarily with diseases of major public health importance in the United States, such as heart disease, diabetes, and certain metabolic and nutritional states.

Major objectives of the program are to increase knowledge of these diseases in general, and, if possible, to identify possible causal factors.

In addition to heading this program, Dr. Hundley is responsible to the NIH Director for current developments in support of international medical research activities and for providing liaison with other international programs.

Germ-Free Mouse Colony Established

No. 220 in a Series



Germ-free mice in NIAID are housed in large-mouth glass jars. Here, a technician prepares a mouse for inoculation. Only gloves touch the animal.

The development of germ-free animals at NIH, involving only rats and guinea pigs for the past two years, has been extended to the establishment of a germ-free mouse colony. Under the direction of Dr. Walter L. Newton, Chief of the Germ-Free Animal Studies Section of NIAID, white Swiss mice will be bred and raised to serve as a source of supply for NIAID studies.

Germ-free animal colonies were established in this country by the Laboratory of Biology of the University of Notre Dame, known as Lobund. The animals from which the colonies were started were delivered by Caesarean section, hand-fed, and reared in a Reynier germ-free unit. Consisting of a five-foot-long steel cylinder with a Pyrex viewing window at its top, the cylinder has a pair of arm-length rubber gloves sealed into its side. Food, bedding, and other necessary items enter and leave through a sterile lock to prevent contamination.

Last August, Lobund sent NIAID nine adult female mice and the same number of adult males via Railway Express, in a plastic germ-free shipping cage. Upon arrival at NIH, they were transferred to a Reynier germ-free rearing unit on the third floor of Building 8, where NIAID's germ-free activities are located. The Sanitary Engineering Branch of DRS assisted in this transfer.

The mice seemed to thrive, and within three to four weeks, several produced litters of young--the first germ-free mice to be conceived

and delivered at NIH. The majority of the litters, though healthy at birth, did not survive beyond three days, and death was thought to have been caused by maternal neglect.

Lobund, too, had been experiencing similar difficulty prior to the time the mice were shipped, and attributed its troubles to the noise and disturbance of building renovations.

Acting on this knowledge, Dr. Newton and his group have guarded the new colony against disturbances, and an effort is being made to maintain constant environment and diet.

Animals are housed inside the unit in large-mouth glass jars that have water bottles inserted in the screened lids. Sawdust covers the bottom. Diet consists of a pressed cake of sterilized, semi-synthetic food. At regular intervals samples of food, sawdust, and waste material are removed and checked for bacteria and fungi.

When a female is obviously pregnant she is isolated in a separate jar, and gives birth to her young naturally. Four weeks later, after weaning, the litter is separated, with prospective parents of the next generation placed in separate jars.

Recent deliveries have been relatively successful. Of the last eight litters born here, seven of the mothers have cared for their young. Four litters, of which one contains eight animals, have already been weaned and are nine to ten weeks old.

When these present litters mature and produce a second generation it will be assumed that the colony is well established, and germ-free mice will be used in experiments. For this purpose, they will be transferred to an inoculation tank, and there either fed, injected with, or otherwise exposed to the particular organisms under study.

NIAID contemplates research on the behavior of certain parasites, fungi, and viruses in these animals. Its scientists will try to determine whether the course of infection in a germ-free animal is the same as that observed in a conventional animal which has lived with and perhaps been affected by bacteria; whether exposure to a contaminated environment is a factor in the higher resistance of adult versus immature

(See *Mouse Colony*, Page 4)

Publication Preview

The following manuscripts were received by the SRB Editorial Section between August 26 and September 8.

DBS

Eddy, B. E., and Stewart, S. E. Characteristics of the SE polyoma virus, a virus that induces malignant tumors in mice, hamsters, and rats and benign growths in rabbits.

DRS

Snow, D. L. Methods and approaches to investigating the physical environment in operating rooms.

Taylor, F. Noise control in a research hospital.

Barnett, E. V., and Baron, S. An activator of plasminogen produced by cell culture and present in poliomyelitis vaccine.

CC

Savard, R. J. Casework and resistance to vocational rehabilitation.

NCI

Andrews, J. R. Cancer: Radiation therapy. Leighton, J.; Kalla, R. L.; Kline, I.; and Belkin, M. Pathogenesis of tumor invasion. I. Interaction between normal tissues and "transformed" cells in sponge-matrix tissue culture.

Dalton, A. J. Organization in benign and malignant cells.

Schneider, W. C. Mitochondrial metabolism. Shuster, L., and Goldin, A. The effect of nicotinamide on *in vivo* incorporation of formate-C¹⁴.

Heller, J. R. Statement on viruses and cancer.

NHI

Vagelos, P. R.; Earl, J. M.; and Stadman, E. R. Propionic acid metabolism. I. The purification and properties of acrylyl coenzyme A aminase.

Weldon, C. S., and Cooper, T. Aortic flow characteristics in experimental aortic insufficiency.

Ross, J., Jr. Catheterization of the left heart through the interatrial septum: A new technique and its experimental evaluation.

Sanders, R. J.; Cooper, T.; and Morrow, A. G. An evaluation of the nitrous oxide method for the quantification of left-to-right shunts: An experimental comparison of the gasometric technique with directly metered blood flows.

NIAID

Parrott, R. H.; Chanock, R. M.; Vargosko, A.; Luckey, A.; Chi, L.; Cook, M. C.; James, W.; Cumming, C.; O'Reilly, W.; Stohlman, W.; and Eng, G. Hemadsorption viruses in infections of the respiratory tract of children.

Shanes, A. M.; Freygang, W. H.; Grundfest, H.; and Amatniek, E. Anesthetic and calcium action in the voltage-clamped squid giant axon.

Stone, S. H. Acute and protracted anaphylactic shock in guinea pigs after subcutaneous eliciting injection of antigen.

Stone, S. H., and Freund, J. Hemorrhagic and necrotic reactions in guinea pigs during protracted anaphylactic shock.

Casey, M. L., and Smith, B. A family outbreak of Shigellosis.

Brennan, J. M. A Croesus among insects. Burch, T. A.; Rees, C. W.; and Reardon, L. V. Epidemiological studies on human trichomoniasis.

Eklund, C. M.; Kohls, G. M.; Jellison, W. L.; Burgdorfer, W.; Thomas, L.; and Kennedy, R. C. The clinical and ecological aspects of Colorado tick fever.

NIAID

Robbins, J.; Wolff, J.; and Rall, J. E. Iodoproteins in normal and abnormal human thyroid tissue and in normal sheep thyroid.

Ashwell, G., and Hickman, J. A sensitive and stereospecific assay for xylulose.

Jakoby, W. B., and Narrod, S. A. Aldehyde oxidation. IV. An aldehyde buffer for growth studies.

Scott, D. M., and Jakoby, W. B. Soluble γ -aminobutyric-glutamic transaminase from *Pseudomonas fluorescens*.

Ginsburg, A. A deoxyribokinase from *Lactobacillus plantarum*.

Schwarz, K.; Stesney, J. P.; and Foltz, C. M. Relation between selenium traces in L-cystine and protection against dietary liver necrosis.

NIDR

Poulton, D. R. Twelve month changes in Class II malocclusions with and without occipital headgear therapy.

Scott, D. B. The crystalline component of dental enamel.

Scott, D. B.; Nysten, M. U.; and Takuma, S. Electron microscopy of developing and mature calcified tissues.

Baer, P. N., and Lieberman, J. E. Observations on some genetic characteristics of the peridontium in three strains of inbred mice.

NIMH

Rooney, H. L. Some considerations of undeveloped areas of community organization in mental health.

Carr, C. J. The pharmacology of psychochemical compounds.

Clausen, J. A. Can we make the channels clear?

MacLean, P. D. Contrasting functions of limbic and neocortical systems of the brain and their relevance to psychophysiological aspects of medicine.

Wynne, L. C.; Perry, S. E.; and Schwartz, C. Role conflict and social change in a clinical research organization.

Duhl, L. J. Alcoholism and human ecology. McDonald, R. K. Studies on plasma ascorbic acid and ceruloplasmin levels in schizophrenia.

Weil-Malherbe, H. The effect of reserpine on the intracellular distribution of catecholamines in the brain stem of the rabbit.

Geisser, S. A method for testing treatment effects in the presence of learning.

Carlson, V. R. The tendency toward overestimation in size constancy judgments.

Rheingold, H. L. A method for measuring maternal care.

NINDS

Brady, R. O. The enzymatic synthesis of fatty acids by aldol condensation.

Li, C.; Engel, K.; and Klatzo, I. Some properties of cultured chick skeletal muscle with particular reference to fibrillation potential.

Fuortes, M. G. F. Initiation of impulses in visual cells of *Limulus*.

Brady, R. O.; Formica, J. V.; and Koval, G. J. The enzymatic synthesis of sphingosine. II. Further studies on the mechanism of the reaction.

Li, C. Cortical intracellular potentials and their responses to strychnine.

Laskowski, E. J. Observations on the effects of hypothermia on experimental brain lesions.

Agranoff, B. W., and Fox, M. R. S. Antagonism of choline and inositol.

NIH RECORD

Published by
Scientific Reports Branch
Division of Research Services
National Institutes of Health
Room 212, Building 8
Bethesda 14, Maryland
Oliver 6-4000 Ext. 2125

NIH Spotlight



George D. Gardner, Jr.

A bacteria-and-virus-free suite of rooms in Building 5, forbidden to germs, is the retreat of George D. Gardner, medical bacteriologist in the Laboratory of Viral Products, DBS.

"Here," George explains, "we have two main objectives. We run safety tests on polio vaccine from manufacturers' samples, and we prepare and supply tissue culture to be used throughout DBS."

George's office and laboratories have to be free from bacteria and viruses in order that such testing and supplying may be carried on. "Our people keep to themselves in this lab, and we don't get too many visitors from virus laboratories," he says. "Anyone who wants to enter from the outside must ring the bell to be admitted. We control such visits, and in some areas, we do not permit access. You see, we consider this area to be free of virus, and we must be careful to keep it that way."

A personable young man well on his way to success in the fields of bacteriology and virology, George Gardner first became interested in minute organisms while on duty as a medical corpsman in the Navy in World War II. After graduation from the University of Maryland in 1952, he worked as a bacteriological lab assistant in private industry, and later went to Camp Detrick, Md., as a bacteriologist for the Army Chemical Corps.

In three years at NIH, George feels that he has at last found his niche. He has often been recognized from his photograph in the brochure for new employees; you can see him there on page 22, scanning tissue culture cells.

DR. SCIGLIANO ELECTED NEW PRESIDENT OF R&W

Dr. John A. Scigliano, Chief, Pharmaceutical Development Service, Pharmacy Department, CC, was elected 1959 President of the NIH R&W Association at its annual meeting last week in Wilson Hall. Dr. Scigliano, 2d Vice President during 1958, was nominated from the floor. He will succeed Hazel Rea, who has served as President since 1957.

Other officers elected were Helen Anderson, NIDR, 1st Vice President; Dorothy Quinn, NIMH, 2d Vice President; Clare White, DBO, Treasurer; Audrey Hess, OD, Recording Secretary; and Jean Torgerson, DRS, Corresponding Secretary. The new officers will assume their duties on January 1.

The annual R&W membership drive begins today. The Association is attempting to expand its enrollment of NIH employees beyond this year's 58 percent of the total. The Association's popular discount books have been printed for 1959, and will be presented to all new members and to present members who renew their R&W membership for the coming year.

More than 200 persons attended the annual meeting. President Rea awarded sports trophies in softball and golf, and presented awards to the winners in the first NIH employees' art exhibit, which was held last month.

Early in his NIH career--in 1956--George was the recipient of an incentive award. He designed and constructed a container for the better storing, autoclaving, and dispensing of rubber stoppers for tissue culture bottles and tubes. The method soon gained wide acceptance; another department adopted the idea, and George received a supplemental award.

Still another claim to fame is George's status as a real, live, native Washingtonian. Settled comfortably now in Rockville, with his wife, daughter, and three sons, George is an amateur photographer of sorts, utilizing part of his basement as a darkroom. In addition, he square dances in his spare time, an avocation in which Mrs. Gardner joins enthusiastically.

"I have very little desire to travel the world and see faraway places," says George Gardner. "I like living

(See Spotlight, Page 4)

NIH ENDS UGF DRIVE WITH 81% OF QUOTA

The United Givers Fund drive closed at NIH on November 28 with 81 percent of the 1958 quota reached. Ninety-six percent of the NIH staff participated, contributing a total of \$55,969. The average gift was \$9.91.

The overall contribution from PHS totaled \$106,721, or 87 percent of quota.

Final figures from NIH Institutes and Divisions are as follows:

	% of participation	% of quota
OD-NIH	100	100
DBO	100	76
DRS	86	54
DRG	100	104
DGMS	100	146
NCI	86	75
NIAID	96	86
NHI	100	84
NIMH	100	102
NIDR	100	92
NIAMD	100	95
NINDB	91	86
DBS	91	73
CC	98	71
Average	96	81

Gustafson Retires At Rocky Mountain

Charles I. Gustafson, cabinet-maker-joiner at NIAID's Rocky Mountain Laboratory, Hamilton, Mont., will retire at the end of December after 17 years' service.

A native of Sweden, Mr. Gustafson operated a contracting business before joining NIAID. In addition, he has been associated with various contracting firms in the West. He also oversees his own ranch at Corvallis, Mont.

Ben Goofin



DR. WOLF TO GIVE PIANO CONCERT

Dr. Kenneth Wolf, NINDB, will present a piano concert in the CC Auditorium at 8:30 p.m., Wednesday, December 17. All NIH employees and their friends and families are invited to attend this R&W-sponsored recital free of charge.

A research associate in NINDB's Laboratory of Neuroanatomical Sciences, Dr. Wolf has studied music under Arthur Schnabel and Paul Hindemith. He has published two piano concertos, eight sonatas, a string quartet, and a variety of smaller pieces.

Dr. Wolf has appeared twice with the Boston Pops Orchestra, three times with the Cleveland Symphony; and with the Utah Symphony, the Los Angeles Chamber Symphony, and the Cooper Union Chamber Symphony of New York. He made his New York debut at Town Hall in 1950.

Included in the NIH program will be two sonatas by Beethoven, and an original sonata by Dr. Wolf.

NIMH Greenhouse Nears Completion

Construction is more than 75 percent complete on NIMH's research greenhouse, now rising near Buildings T-18 and T-19.

The new building will contain more than 1,500 square feet of space and will house laboratories, offices, and temperature rooms. In charge of activities in the plant will be Dr. Guilio L. Cantoni, Chief of the Laboratory of Cellular Pharmacology, NIMH.

The greenhouse will be used to provide scientists with fresh plant materials for research use. In the laboratories, chemicals will be extracted from plants for use as pharmacologicals.

CHRISTMAS Contd.

On December 22, choral groups from Bethesda will entertain. Also on that date, parties are planned for patients in all the wards. Girl Scout Troop 778, of Bethesda, will do a carolling tour on December 23.

The NIH Grey Ladies are buying special gifts and wrapping them for the patients. In addition, they will serve as escorts for Santa Claus in his visits, and will also escort choral groups through the CC.

CLOSED-CIRCUIT TV USED IN ORIENTATION



Closed-circuit television, used in an orientation for PHS officials, picks up Dr. Wilton M. Fisher, Chief, Training Branch, Division of Personnel, PHS (left), and Stewart R. Humphreys, of the Laboratory of Chemical Pharmacology, NCI (right), as they are telecast on a special program piped from the Second Floor of the CC to the 14th Floor Auditorium.

MOUSE COLONY Contd.

animals to certain viral infections; and whether specific immunologic phenomena observed in conventional animals differ in those not previously exposed to a wide variety of organisms.

KEEP CHRISTMAS MERRY --AVOID FIRES

The Christmas season is a particularly dangerous time for fires, warns Safety Officer J. B. Black, of the Plant Safety Branch, DBO.

NIH employees are cautioned to be careful with Christmas trees in their homes. The Fire Marshal's Office is promoting as its slogan, "Keep Christmas Merry - Avoid Fires."

SPOTLIGHT Contd.

here. I grew up in this area, and I intend to stay right where I am." He looks on his work as highly satisfying and important, and considers two points as milestones in his life: entering the field of bacteriology and coming to NIH.