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DR. FREUND JOINS NIAID STAFF AS HEAD OF NEW LAB



Dr. Jules Freund, an internationally known immunologist, was recently appointed Chief of the newly created Laboratory of Immunology, NIAID. Dr. Freund comes to NIH from the Public Health Research Institute of the City of New York, where he was chief of the division of applied immunology.

The new research program that Dr. Freund will direct has been established as one of the major divisions of NIAID. Plans for the new program were formulated in the past year following a decision to integrate NIAID's existing work in immunology into an organized and expanded research effort on allergic diseases.

Dr. Freund has made many original contributions in research. One of the most important is the demonstration of the capacity of certain fatty and waxy substances to enhance the protective effect of vaccines.

Dr. Freund was born in Budapest, Hungary, and received his M.D. degree and Certificate of Public Health

(See Freund, Page 4)

NCI SKIN EXHIBIT WINS GOLD PLAQUE

An NCI exhibit of three-dimensional models showing normal and diseased hair roots won the first prize of a gold plaque at the annual meeting of the American Academy of Dermatology and Syphilology held in Chicago recently.

The title of the exhibit was "The Pilosebaceous Unit in Health and Disease Studied by Reconstructions from Histological Preparations." The exhibit consists of balsa wood models of hair follicles and their associated sebaceous glands reproduced and enlarged from serially cut histological sections of skin.

The exhibit was prepared by Dr. Eugene J. Van Scott, Dermatology Service, General Medicine Branch, NCI. It was acclaimed by members of the Academy's teaching session for its educational value. Newly discovered characteristics of hair follicles and their associated sebaceous glands demonstrated in the exhibit are findings resulting from a cooperative study on skin growth in progress between the Dermatology Service and Dr. Ross C. MacCardle, Laboratory of Pathology, NCI

FIRST 1957 AWARD PRESENTED IN NIDR

The first NIH superior performance award of the new year was presented to Mrs. Ethel S. Stang, Mail and Files Clerk, Office of the Director, NIDR.

Mrs. Stang received an award of \$100 for her unusual efficiency, interest, and ingenuity in the operation of a central filing system for NIDR, as well as for her ability to obtain and organize data. The award was presented by Dr. Francis A. Arnold, Jr., Director, NIDR, at a ceremony in his office on January 3.

(See Picture, Page 3)

DR. KELMAN WINS \$1,000 AAAS PRIZE



Dr. Herbert Kelman, an NIMH research psychologist, was awarded the \$1,000 Socio-Psychological Prize of the American Association for the Advancement of Science. The award was given at the Association's 123d annual meeting in New York City on December 28.

The anonymously donated prize is given annually for an outstanding essay in socio-psychological inquiry which encourages the type of methodology in social investigation that has proved fruitful in the natural sciences.

Dr. Kelman's prize winning essay is entitled "Compliance, Identification and Internalization: A Theoretical and Experimental Approach to the Study of Social Influence." The essay attempts to classify and analyze the changes in attitudes and actions produced in people as a result of social influences.

Dr. Kelman has been with the Section on Personality of the Laboratory

(See Prize, Page 4)

Reappraisal of the Curve of Intelligence

No. 178 in a Series

Publication Preview

The following manuscripts were received by SRB Editorial Section between December 13 and December 27.

Axelrod, J., et al. The enzymatic synthesis of N-glucuronic acid conjugates.

Barchilon, J. On countertransference cures. Biometrics Branch, NIMH. Patients in public hospitals for the prolonged care of the mentally ill, 1955.

Bornschein, H., et al. Comparative electroretinographic studies in congenital night blindness and total color blindness.

Daft, F. S. Certain aspects of the relation between nutrition and liver function.

DeWitt, S. H., et al. A method for preparing wound washings and bloody fluids for cytologic evaluation.

du Buy, H., et al. Respiration and glycolysis in normal and malignant tissues.

Elkind, M. M., et al. Lethal effect of visible light on a mutant strain of haploid yeast. I. General dependencies.

Elkind, M. M., et al. Lethal effect of visible light on a mutant strain of haploid yeast. II. Absorption and action spectra.

Goodkind, M. J., et al. The effect of chronic hemorrhage on urinary aldosterone-like activity and sodium excretion in dogs.

Griffith, M. E., et al. The status of malaria control in Thailand.

Habermann, R. T., et al. The efficacy of some piperazine compounds and stylomycin in drinking water for the removal of oxyurids from mice and rats.

Huebner, R. J., et al. Adenoviruses as etiologic agents in conjunctivitis and keratoconjunctivitis.

Jacobs, L., et al. A hemagglutination test for toxoplasmosis.

Lilly, J. C. Injury and excitation of brain by electrical currents.

Philip, R. N., et al. Experience with vaccines during influenza B outbreaks in 1955.

Potter, M., et al. Studies of a plasma cell neoplasia of the mouse. I. Characterization of neoplasm 70429, including its sensitivity to various antimetabolites with the rapid development of resistance to Azaserine, DON, and N-methyl formamide.

Pradhan, S. N., et al. Independence of drug-induced damage in sarcoma 37 and carotid blood pressure in mice.

Rall, D. P., et al. The role of vasoconstriction in the local Schwartzman reaction.

Rieger, R. L., et al. Modern labeling in the hospital pharmacy.

Scheer, I., et al. C-22 isomeric dihydrosapogenins from kryptogenin.

Schmid, R. Some aspects of bile pigment metabolism.

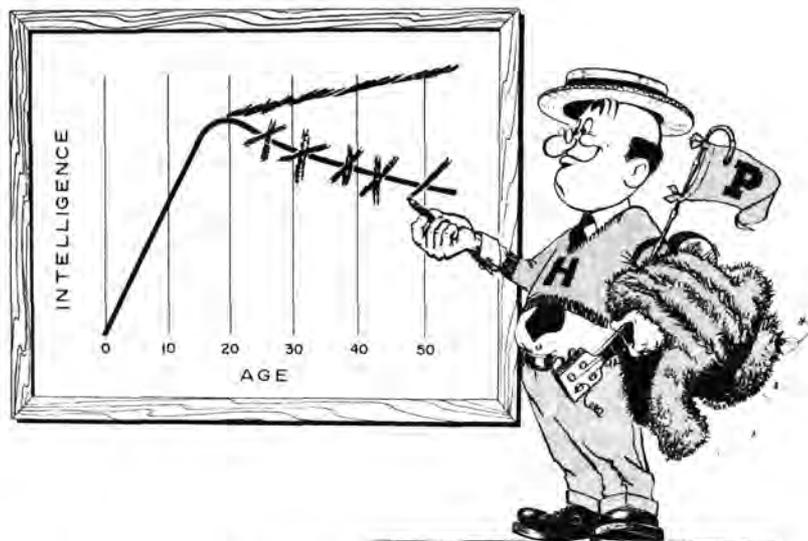
Smith, R. R., et al. Cancer-cell seeding of operative wounds as a cause of failure in the surgical treatment of cancer.

Stewart, H. L., et al. The histopathology of experimental tumors of the liver of rats. A critical review of histopathogenesis.

Terry, L. L., et al. Clinical-pathologic conference.

Tomkins, G. M., et al. Studies on the nature of steroid 11-beta hydroxylation.

Young, M. D., et al. The suppressive and prophylactic effects of Puromycin against intestinal protozoa.



The curve of intelligence takes on a new look.

For the past 30 years, intelligence (I.Q.) tests have indicated that intelligence increases to about 21 years of age and then gradually declines throughout adulthood. This concept, however, was recently challenged by Dr. Nancy Bayley, Chief of the Section on Child Development, NIMH.

In support of her thesis, Dr. Bayley has made a survey of former work on intelligence and has analyzed data from her own studies. The traditional curve of intelligence has been built on cross-sectional testing--that is, on the results of a number of studies in which many persons of different ages were tested. In recent years, however, repeated tests given to the same persons as they grew older have yielded scores that do not follow the cross-sectional pattern.

The new tests indicate that at least some intellectual abilities may continue to increase slowly to 50 years of age or older. These findings are forcing a reappraisal of intellectual abilities and their growth.

Since the concept of intelligence is very general and covers a variety of intellectual functions, it is necessary not only to identify and measure each of these functions, but to appraise the course of general intelligence and the changes in mental organization from birth to death.

Considerable work has been done on a logical approach to building new test batteries. Although few investigators have applied the new methods of approach, a start has been made

to identify, measure, and label the various components of intelligence.

Pertinent data are available on persons retested as they aged, but none of these longitudinal studies covers the entire life span. By splicing together some of these data, however, it should be possible to construct longitudinal age curves of various intellectual factors.

From her own and other studies, Dr. Bayley has been able to construct a 50-year curve of intelligence. While this is a tentative curve based on limited tests and limited samples, a whole new concept of the growth of intelligence is emerging.

Dr. Bayley indicates that there are many factors in the physical and psychological environment that explain the difference between this new "longitudinal" and the old "cross-sectional" curves. For instance, the physical and psychological environment has improved remarkably in the last 20 years. There is better schooling for more persons, more available knowledge with improved communication, and opportunities for broader experience. Because of the changing environmental conditions, persons of different generations should not be used as in the past to construct a curve of intelligence.

If significant improvements continue, and if mental and physical health continue to progress, it may become necessary to evaluate test scores according to norms standardized at appropriate calendar years, rather than for age alone.

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NJH Spotlight



Harold A. Kerr

Few people now at NIH can remember "the old days" when NIH first set up headquarters in Bethesda. Harold Kerr of the Biology Section, NCI, recalls fondly a time when almost everyone on the reservation was acquainted, and when he played baseball on the hill where the Clinical Center now stands. It has been amazing, he says, to watch the changes and progress that have made up the history of NIH.

Harold began his PHS career with the Cell Adaption Unit of NIH in the summer of 1937. He came to Bethesda in 1939 to begin work with NCI, and has been there ever since. Harold is now a research technician with the Tissue Culture Section of the Laboratory of Biology, NCI. His work includes the care of tissue cultures and preparation of complex culture media. He spends much of his time in the sterile rooms where all culture and filtration work is carried on. In order to collect blood for use in culture media, he also spends some time each month at the NIH Farm.

When Harold joined the Navy during World War II, he was sent back to lab school at the Bethesda Naval Medical Center. Just as the armistice was signed he found himself on the way to Hilo, Hawaii, but after three months in the Pacific, Harold was ready to come home. He made a few sightseeing trips and enjoyed visiting Hawaii's famous volcanoes, but he emphasizes that he would rather have done his traveling as a civilian.

Harold is originally from the Hoosier State, Indiana. When he was still in high school, a fire burned his family's home to the

ground, and they set out for Washington in a Model-T truck with all their remaining possessions. The trip was ill-fated, however. Even before they got out of Indiana, the truck had to be traded for a 1924 Maxwell (Jack Benny's model), and it was many days and flat tires later before Harold arrived in Washington. He has been in this vicinity ever since.

After working for a pastry shop and for Western Union, Harold became an attendant at St. Elizabeths Hospital. There he met his future wife, Helen Kay, then a student nurse, and they were married the following New Year's Eve. Working at NIH is a family affair for the Kerrs; Helen is with the Scientific Reports Branch, DRS.

Now living just outside Rockville, the Kerrs are busy keeping up with their three children...two lively twin boys, 12 years old, and Helen Lee, an active senior at Richard Montgomery High School. Their home has many illustrations of Harold's ability as a handy man; he has already remodeled several rooms and built a patio and workshop. For Christmas he received a jigsaw, but says it's too soon yet to start on a project. The Kerr family also includes two large dogs, two cats and almost 50 rabbits.

The Kerrs usually spend their vacations at home, keeping busy with an increasing number of projects or, rarely, just resting.



EMPLOYEE HEALTH NOTES

Back pain is too often regarded as trivial. It may be the first sign of a serious condition.

A painful back may be due to a variety of causes. Frequently over-strenuous exercise or improper lifting of heavy objects results in strained back muscles. In this case the back may be very sore and tender, and there may be inability to straighten up.

Immediate back pain caused by improper lifting is often an indication of a ruptured disk. This injury is usually characterized by repeated episodes of what is commonly known as "lumbago" or "catches," persisting for months or years until attacks are associated with pain shooting down one of the thighs. Permanent damage may result if this condition is not treated promptly.

Remember, back injuries are more easily prevented than cured. When lifting a heavy object, bend at the knees, keeping the back straight. Do not lift heavy objects higher than the waist.

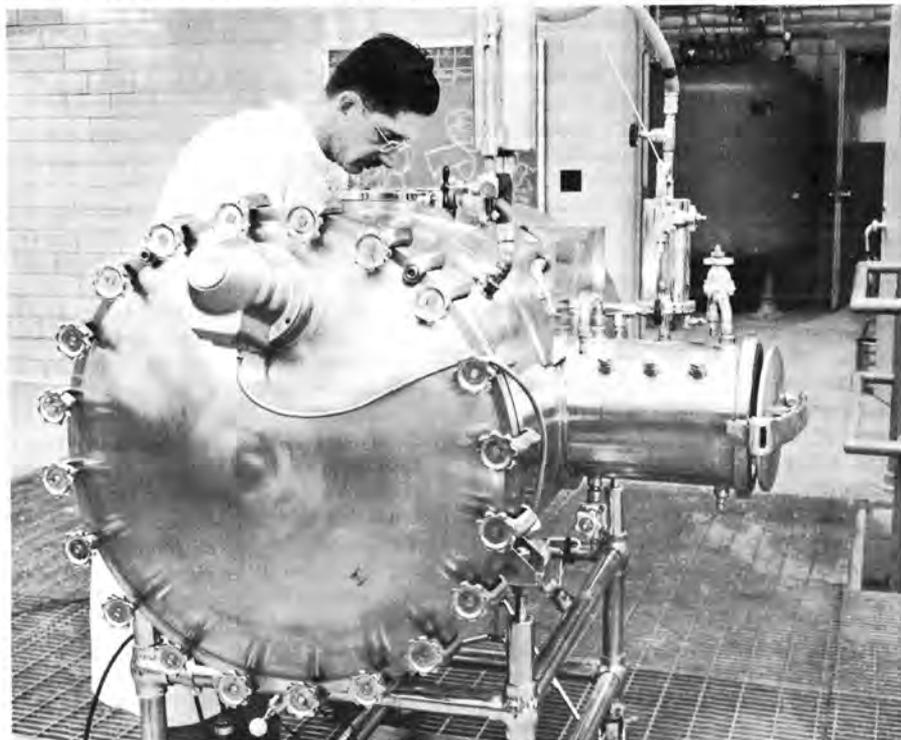
Less common causes of painful back are gallbladder disease, kidney infections, tumors and abscesses of the spinal cord, arthritis of the spine, and female disorders.

SUPERIOR PERFORMANCE AWARD GIVEN



Mrs. Ethel S. Stang is congratulated by Dr. Francis A. Arnold, NIDR Director, and J. E. Fitzgerald, Administrative Officer, NIDR.

GERM-FREE ANIMALS AID NIAID RESEARCH



NIAID scientists are now working with the first germ-free animals produced at NIH. (Above) Paul C. Shade, Laboratory of Tropical Diseases, NIAID, peers through window into a germ-free rearing unit of the type developed at the University of Notre Dame. He is feeding young germ-free guinea pigs, using arm-length rubber gloves that are attached to the unit. This is one of several units operating in the equipment resting and germ-free area, located in the basement of the CC and under the supervision of Donald L. Snow, Chief, Sanitary Engineering Branch, DRS. (Below) Germ-free guinea pigs delivered by Caesarean section a few days previously by Dr. Walter L. Newton, Head, Section on Germ-Free Animal Studies, Laboratory of Tropical Diseases. LTD is conducting an experiment on trichomoniasis, utilizing germ-free guinea pigs, and, with the Sanitary Engineering Branch, is training personnel in the production, maintenance, and experimental use of germ-free animals.



PHONES INSTALLED

Telephones that connect directly with the guard office in Building 1 have been installed at the front entrances of Buildings 2, 3, 4, 5, 6, 7, 8, and 9. These phones will aid personnel to enter these buildings during the normal nonworking hours. When there is no guard on duty in a building, the telephone should be used to request that a guard be dispatched to the building to permit entrance.

Sale of Book To Aid Hungary

A special Life Magazine pictorial report, "Hungary's Fight for Freedom," is on sale at the photo service desk in the CC lobby. The price of the booklet is \$.50 and proceeds will be donated to the International Rescue Committee.

PRIZE Contd.

of Psychology, NIMH, since 1955. He formerly held a fellowship at the Center for Advanced Study in the Behavioral Sciences at Stanford, California. He was a Public Health Service Fellow at Johns Hopkins University and previously held a post-doctoral research training fellowship at the Phipps Psychiatric Clinic of the Johns Hopkins Hospital.

Dr. Kelman received his B.A. degree from Brooklyn College and his M.S. and Ph.D. degrees from Yale University. He is currently planning a study of changes in attitudes and values of student nurses during psychiatric training, and of the relation of these changes to psychiatric milieu therapy.

FREUND Contd.

from the Royal University Medical School, Budapest. Before joining the New York City Department of Health, he conducted studies at the Von Ruck Memorial Laboratory at Asheville, North Carolina, and held teaching and research posts at the University of Pennsylvania and Cornell University Medical College.

For the last several years Dr. Freund has served as a consultant to the Department of the Army and the Public Health Service. He is chairman of the board of the Federation of American Societies for Experimental Biology, and has served as president of the American Association of Immunologists and member of the editorial board of the *Journal of Immunology*.