

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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NEW EMPLOYEE AWARDS BOARD APPOINTED

Newly appointed members of the NIH Board on Employee Awards held their first meeting February 20. The Board, which reviews all awards made to NIH employees, was appointed by Dr. James A. Shannon to serve for a three-year period.

The chairman of the new Board is Dr. William S. Baum, NCI, and vice-chairman is Dr. Dale R. Lindsay, DRG.

Other new members include Joseph Murtaugh, OD, Dr. Harold Morris, NCI, and Dr. Roscoe O. Brady, NINDB. Philip Simon, CC, and Dr. Evelyn Anderson, NIAMD, will continue to serve on the Board.

The first meeting of the new Awards Board was held jointly with members of the retiring Board and was presided over by former chairman, Scott Adams, DRS. The Board will continue to meet monthly to review awards.

New DBO Research Contracts Section Established

A new Research Contracts Section has recently been established in the Supply Management Branch, DBO.

The new section will have the responsibility of conducting contract negotiations, and negotiating for research contracts on a cost or fixed-price basis.

Dean S. Young has been appointed to head the Research Contracts Section. Mr. Young came to NIH on January 7 from the Bureau of Ships, Department of the Navy. He has had ten years' experience in contract administration and negotiations.

DR. HORECKER GETS ROCKEFELLER AWARD



Dr. Bernard L. Horecker

Dr. Bernard L. Horecker, Chief, Laboratory of Biochemistry and Metabolism, NIAMD, is one of the nine career civilians in the Federal Government selected to receive the Rockefeller Public Service Award in 1957. The award is given as a special commendation for outstanding public service.

Established in 1952 under a grant from John D. Rockefeller III, the awards are administered by Princeton University. Individual awards carry with them funds to a maximum of \$14,000 for varying periods not to exceed nine months. This enables the recipient to study at a college of his choice in this country or abroad, or to spend time in some comparable educational activity.

Dr. Horecker will study bacterial transport mechanisms at the Pasteur Institute, Paris, France, where new techniques for research in this problem have been developed. The project could provide helpful fundamental information toward the solu-

BRITISH SCIENTIST JOINS NIAMD STAFF

Professor Jonas H. Kellgren, an outstanding British rheumatic diseases investigator, assumed the post of Visiting Scientist in NIAMD on March 1. During his three-month stay, Professor Kellgren will participate in some of the clinical and laboratory investigations now in progress in the Clinical Investigations Branch of NIAMD.

Professor Kellgren is a member of the scientific staff of the Medical Research Council of Great Britain. As Clinical Director of the Rheumatism Research Center of the University of Manchester, he has made many significant contributions to current knowledge of the rheumatic diseases.

While at NIH, Professor Kellgren will present a series of lectures on the "Clinical Aspects of Various Types of Arthritis." With the staff of NIAMD, he will take part in clinical rounds on the arthritis wards of the Clinical Center, and will consult on research projects in the rheumatic diseases being conducted by NIAMD.

After completing his work at NIH, Professor Kellgren will tour medical centers in this country under the auspices of the Nuffield Foundation of London. He will study the operation of the USPHS Training Grants

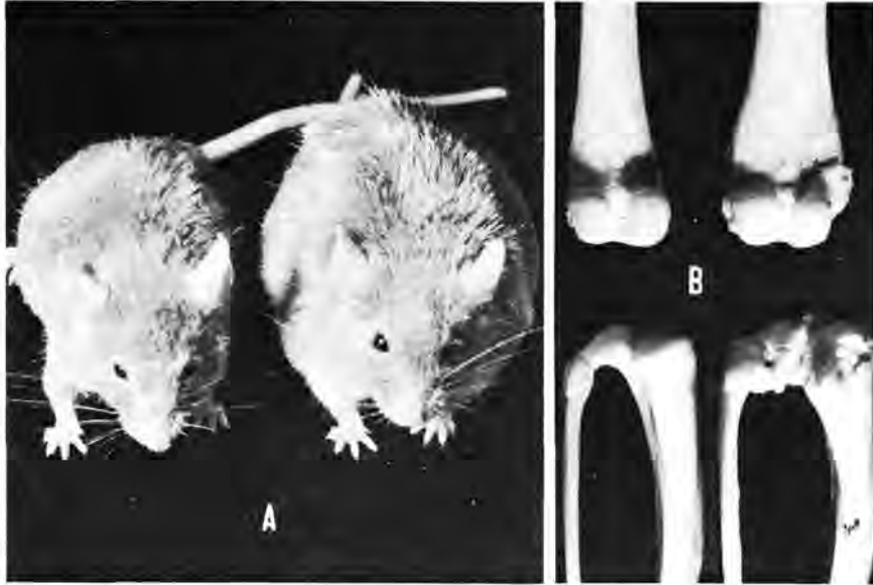
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tion of important clinical problems, particularly those associated with diabetes.

Other awards Dr. Horecker has received are the Paul Lewis Laboratories Award in Enzyme Chemistry, 1952; the Federal Security Superior Accomplishment Award, 1952; the Hillebrand Prize of the American Chemical Society (Washington Section), 1954; and the Washington Academy of Sciences Award in Biological Sciences, 1954.

Use of Mice in Study of Osteoarthritis

No. 181 in a Series



A: Two fully developed male mice from the same strain. Mouse on right has been made obese with a special diet. Both mice will be sacrificed to study possible relationship between obesity and osteoarthritis. B: Healthy knee on left came from normal mouse of nonarthritic strain; knee on right showing erosion came from a naturally obese mouse of arthritic strain.

Osteoarthritis, or degenerative joint disease, affects to some degree virtually every person approaching the middle years and becomes progressively more severe with advancing age. This presents an important public health problem, as the disorder is painful and sometimes disabling and is a serious cause of absenteeism in industry and the Armed Forces.

Osteoarthritis has long been considered a natural pathologic process associated with old age. Now, however, it is being investigated through various approaches.

To gain a better understanding of this disorder, studies are being conducted on mice by Dr. Leon Sokoloff and Dr. Emanuel Silverstein, both of the Laboratory of Pathology and Histochemistry, NIAMD, in collaboration with Dr. Olaf Mickelsen, Laboratory of Nutrition and Endocrinology, NIAMD, and Dr. George E. Jay, Laboratory Aids Branch, DRS.

A significant advance in the study of joint diseases was made 15 years ago, when osteoarthritis was found to occur under certain conditions in small laboratory animals. This discovery resulted in studies concerning the effects of endocrines on skeletal parts other than joints. The disease had never before been seen in these animals, and the evidence indicated that osteoarthritis is in-

fluenced profoundly by a variety of nutritional and hormonal factors.

Dr. Sokoloff, using these studies as a basis for his investigation into the cause of osteoarthritis, began using both nutritionally and genetically controlled mice. He found that the strain of mice that consistently developed severe osteoarthritis also became normally obese while on a standard diet. For this reason and because there had long been a clinical impression that obesity aggravates osteoarthritis in man, Dr. Sokoloff began investigating the relation between the two disorders.

It has been found that some strains of mice that normally resist osteoarthritis do not develop the disease despite induced obesity, while others do.

What part endocrine and genetic changes play in the development of osteoarthritis in obese mice is not yet known, but the apparent relation between obesity and the rate of incidence of the disease is significant. A main problem now is to breed out the disease in those strains that have a natural tendency toward obesity.

Only one other laboratory has studied the systemic influences in the pathogenesis of osteoarthritis in laboratory animals. Present studies may lead to a better understanding, and therefore to better methods of control, of this disease in man.

The following manuscripts were received by SRB Editorial Section between February 7 and February 20.

Baldwin, M. Epilepsy. Chapter VII in Pediatric Neurosurgery.

Boone, B. R., et al. Electrocardiography.

Branham, S. E., et al. Evaluation of the chick as a test animal in the assay of diphtheria.

Burns, J. J., et al. Stimulatory effect of barbital on urinary excretion of L-ascorbic acid and non-conjugated d-glucuronic acid.

Burstone, M. S. Polyvinyl pyrrolidone as a mounting medium for fat stains and azo-dye procedures.

Carlsson, A., et al. Release of serotonin from blood platelets by reserpine *in vitro*.

Cole, K. S. A thermistor thermometer bridge: Linearity and sensitivity for a range of temperature.

Davis, J. O., et al. Functional changes during high output failure produced by daily hemorrhage in dogs with pulmonic stenosis.

Denss, von R., et al. Ueber Derivate des Phenylbutazons. II. Derivate mit einer Hydroxylgruppe in der 4-standigen Seitenkette.

Despopoulos, A., et al. Renal metabolism of 5-hydroxyindolacetic acid.

Downey, P. F., et al. A new sulfur-containing amino acid from yeast.

Evans, R. L., et al. Modification of insulin with O-methylisourea.

Fouts, J. R., et al. Enzymatic reduction of prontosil and other azo dyes.

Fox, M. R. S. Nutrition research at the National Institutes of Health.

Fraser, H. F., et al. Further studies on d-1, 2-Diphenyl-4-dimethylamino-3-methyl-2-propionoxybutane (d-Propoxyphene).

Fraser, H. F., et al. Addiction liability of new analgesics.

Fraser, H. F., et al. Effects of morphine as compared with a mixture of morphine plus Diamino-phenyl-thiazole (daptazole).

Fredrickson, D. S. Lipide transport mechanisms and their interrelationships.

Glenner, G. G., et al. The rhodocyan technique for staining of the anterior pituitary.

Goodman, D. S. The preparation of human serum albumin free of long-chain fatty acids.

Haas, V. H. In apparent lymphocytic choriomeningitis infection in folic acid-deficient mice.

Habel, K., et al. Cytotoxic effects of antisera against tissue culture grown epithelial cells.

Hadlow, W. J. Neuropathology of experimental salmon poisoning of dogs.

Heppel, L. A. Studies on polynucleotides synthesized by polynucleotide phosphorylase. II. Structure of copolymers.

Hertz, R. An appraisal of the concepts of endocrine influence on the etiology, pathogenesis, and control of abnormal and neoplastic growth.

Hill, H. E., et al. Use of differential barpressing rates of rats for screening analgesic drugs. I. Techniques and effects of morphine.

Hunt, G. H. Research in aging.

Jones, F. E., et al. The prevalence of toxoplasmosis in the domestic cat.

Kies, M. W., et al. Encephalitogenic activity of bovine cord protein fractions.

Kilham, L. Transformation of fibroma into myxoma virus in tissue culture.

Lamborg, M. R., et al. Relationship of structure to properties of diphosphopyridine nucleotide and other pyridinium compounds.

Landowne, M. Studies of pulse wave velocity. I. The propagation of induced pressure waves by intact arteries. Method and critique.

Landowne, M. Studies of pulse wave velocity. II. The characteristics of impact wave propagation in the living human muscular artery.

Lillie, R. D. The effect of acetylation and nitrosation on azure eosin staining of formaldehyde fixed tissues.

Longley, J. B., et al. Observations on the renal medullary circulation.

Mercado, T. I., et al. The influence of some steroids on glycogenesis in the liver of rats infected with *Plasmodium berghei*.

Mickelsen, O. Amino acid supplementation of foods.

Schreckler, A. W., et al. The absolute configuration of lignans.

Sela, M., et al. Reductive cleavage of disulfide bridges in ribonuclease.

Shelokov, A., et al. Viremia in Coxsackie B meningitis.

Smith, F., et al. Pipetting machine with rapid preset.

Sokoloff, Leon, et al. Vascular lesions in rheumatoid arthritis.

Steinberg, D., et al. The chemistry of proteins.

Steinfeld, J. L., et al. Distribution and degradation of human serum albumin labelled with ^{131}I by different techniques.

Stewart, H. L. Central repository for pathologic specimens from Africa.

Swerdlow, H., et al. Reaction of the human dental pulp to cavity preparation. I. The effect of water spray at 20,000 r.p.m.

Tallent, W. H., et al. Studies on the occurrence and structure of acetylandromedol (andromedotoxin).

Tower, D. B. Amino acid metabolism in the central nervous system.

Walsh, E. J. The role of the social worker in a cardiovascular program.

Waravdekar, V. S., et al. A method of estimation of 2-deoxyribose.

Weinbach, E. C. Biochemical basis for the toxicity of pentachlorophenol.

Weissbach, H., et al. Studies on the effect of vitamin B₆ on 5-hydroxytryptamine (serotonin) formation.

Wilkins, S. A., et al. Cancer of the gingiva.

Young, M. D., et al. Effect of 25 milligrams of pyrimethamine on the infectivity of *Plasmodium vivax*, St. Elizabeth strain, to *Anopheles quadrimaculatus*.

NIH Spotlight



Daniel E. Gaither

Dan Gaither is the kind of fellow people automatically like. In the 11 years Dan has been at NIH, his earnestness and warm personality have won him many friends.

Dan has been a medical biology technician in the Neurophysiology Laboratory of NIMH since 1950. The lab has grown many times in the past seven years. Dan is proud of the part he has had in its progress and development.

Dan's many responsibilities include care of the animal rooms, assisting in animal surgery, ad-

ministering anesthesia, ordering supplies, and keeping things running smoothly. His enthusiasm and interest in his work and in other NIMH projects have inspired him to learn more and more about the important research developments in NIMH.

Before Dan graduated from Lincoln High School in Rockville, his ambition was to become a mathematician. During World War II, however, he joined the Navy and saw action many times. At sea for 25 months on an aircraft carrier, Dan declares the typhoons encountered were as bad, if not worse, than the war.

Dan has lived in Rockville most of his life and is active in civic activities there. He feels a deep responsibility to do his share in improving the community in which he lives, and participates in the Progressive Citizen's Association and the Civic Unity Committee. He is also a member of the Masons and a trustee of his church.

As often as his busy schedule will permit, Dan likes to read and to listen to progressive jazz rhythms. An enthusiastic athlete, he has played softball with the NIH championship team, and likes to play horseshoes.

There are no questions about Dan's future plans. His interest in his work and community activities contributes to a full and happy life.

ANNUAL DYER LECTURE HELD



Dr. Karl F. Mayer, who presented the Dyer Lecture at NIH February 19, is congratulated by Dr. James A. Shannon, NIH Director. At left is Dr. R. E. Dyer, for whom the lecture was named.

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DBS STUDIES BLOOD BANK ERRORS



Miss Ann Dayton and Mrs. Emilie Sanborn, DBS, pack blood samples in special cartons for distribution to licensed blood banks participating in the DBS study of blood bank errors.

The problem of increasing the safety of blood transfusion is under extensive study by DBS. In cooperation with licensed blood banks throughout the country, surveys are being conducted to determine the extent and cause of blood bank errors.

The Laboratory of Blood and Blood Products, DBS, has initiated a broad program to determine as many sources of blood bank errors as possible, and the frequency of their occurrence. This information will then be correlated and analyzed for use by DBS in controlling the use of blood and blood products, with the expectation that other blood banks will take advantage of the survey results to increase their accuracy.

An essential part of this program is the voluntary cooperation by licensed blood banks that are participating. DBS has devised a uniform recording form that is being used by almost 100 laboratories to report their errors and potential errors over a six-month period. The forms are then returned to DBS for analysis of errors made in recording and interpreting the data. Each laboratory is therefore aware of the areas in which errors have been made.

Blood samples collected by DBS are also distributed to licensed blood banks for testing. Each of 19 donors contributes 70 blood samples to be

used in each study. A blood bank employs its routine technique to group, type, and label the samples. From these results it is possible for DBS to evaluate the testing techniques of each laboratory and individual technician.

A third phase of this study has as its objective the development of laboratory forms that will minimize errors in recording. Laboratory technicians are asked to read photographic transparencies of blood reaction tests and record their results in different ways. This test has clearly shown that methods of reporting data are a significant cause of blood bank errors. From this study it may be possible to develop laboratory forms that will minimize these errors.

All of the information received in these surveys and tests will serve as an objective basis for evaluating procedural methods by DBS in order to control the safety, purity, and potency of blood and blood derivatives. There is a growing awareness that each blood bank error, no matter how slight, is a potential cause of death. The work now being done in this field by DBS is a new approach in the development of safer and more effective methods of blood transfusion in blood banks everywhere.

CONTEST CONTINUES

Remember the fellow we introduced to you in the last issue? The poor guy still doesn't have a name. Don't forget, he's an "employee" here at NIH...and after all, any self-respecting member of the NIH staff should have a name. The contest is still open, and first prize, donated by R & W, is a pair of tickets to the finals of the One-Act Play Tournament, Thursday, March 21, at the Roosevelt High School Auditorium. The NIH Hamsters will participate in the tournament.

Submit your entries to the Editor, NIH RECORD, Building 8, Room 212.

Lois Ann Kahler Dies February 18

On February 18, Lois Ann Kahler, Clerk and Dictating Machine Transcriber, CC Dental Department, died at Suburban Hospital after a long illness and a recent operation. Miss Kahler joined NIH in 1954.

Miss Kahler was the daughter of Dr. Herbert Kahler, a physicist in the Laboratory of Physiology, NCI. She is also survived by her mother, Mrs. Thera E. Kahler, three sisters, and a brother.

NIH FAIR TAXATION COMMITTEE DISSOLVES

In view of recent legislation, the NIH Committee for Fair Taxation of Federal Employees has been dissolved. Unused contributions from NIH employees, which total \$85, will be donated to the Wage Tax Protest Committee of New Jersey, an organization of Federal employees who have a similar problem.

Hamsters Enter Play Tournament

The NIH Hamsters will present Nikolai Gogol's drama "The Gamblers," Thursday, March 14, in the D. C. one-act play tournament. The cast of nine talented NIH employees is directed by Paul Blank. Tickets for the tournament, which will be held in Roosevelt High School Auditorium, are \$.50 for the play-offs and \$1.00 for the finals March 21.

SCIENTIST Contd.

Program in Arthritis to decide whether to advise the Nuffield Foundation to embark on a similar program in Great Britain.