ORDERS FOR EXPANSION OF NIH SIGNED

NINDB AND NIAMD
NOW ESTABLISHED

Federal Security Administrator Oscar R. Ewing and Surgeon General Leonard A. Scheele, on November 22, issued General Circulatrs establishing two new Institutes at NIH, in accordance with the Omnibus Medical Research Act--Public Law 692, 81st Congress.

The additions are a National Institute of Neurological Diseases and Blindness and a National Institute of Arthritis and Metabolic Diseases. The latter Institute acquires and expands the functions of the Experimental Biology and Medicine Institute, which is officially abolished.

As indicated in the chart, NINDB (1) will share laboratory research facilities, personnel, and a Director of Laboratory Research with the National Institute of Mental Health. In addition, the new Institute will award funds to non-Federal research institutions and scientists, based on recommendations of the newly created National Advisory Neurological Diseases and Blindness Council.

NIAMD (2)--besides absorbing the personnel, funds, and functions of EBMI--will undertake additional research projects in arthitits and other metabolic diseases, maintain liaison with interested groups, and conduct a grant and fellowship program with the aid of another new advisory group, the National Advisory Arthritis and Metabolic Diseases Council.

By authority of the new law, the title of MI has been changed to National Microbiological Institute (3), and the title of RGF has been

(See NIH Expansion, Page 3)
Biochemistry of Teeth & Saliva

For the past four years, Dr. Isadore Zipkin and his assistants, Miss Betsy Hinman and Ray McGowan, in the Research Branch of NIDR, have been concerned with the biochemistry of teeth and saliva as related to dental caries and erosion.

The studies have shown that enamel decalcification—dental erosion—produced in rats by feeding lactic acid or citrate is inhibited by fluoride. In previous studies by Dr. H. T. Dean, NIDR Director, fluoride in drinking water was shown to reduce dental caries in a human population, but whether it can also reduce erosion is unknown.

Since citrate (at a neutral pH) produces dental erosion in rats, as shown by Dr. F. J. McClure of NIDR, and since erosion is common in adult humans, the citrate content of human saliva was investigated. The amounts of citrate and of erosion, however, appear to be unrelated.

The citrate content of teeth was also studied. This was suggested by the fact that citrate dissolves calcium-phosphate compounds, of which the inorganic structure of the tooth is composed. Analyses of human dentin and enamel, however, showed no differences between the citrate content of sound and carious teeth. In the course of these studies, the teeth of the monkey, dog, fox, puma, hamster, white rat, cotton rat, deer mouse, and several prehistoric species were analyzed for citrate and found to vary widely in this constituent.

Other 'nonacid' chemicals found capable of producing dental erosion were various polyphosphates. Since these were administered to rats continuously, in drinking water, no inference can be drawn as to the effect of intermittent application of some commercial tooth pastes containing polyphosphate compounds.

In addition to studies on salivary citrate, the sodium, potassium, and amino acid contents of saliva are being investigated. Studies of the sodium and potassium content of saliva are of interest because the growth of many micro-organisms depends upon the sodium-potassium balance of the culture medium, and because the oral flora has been implicated in dental caries. An attempt is being made to correlate salivary sodium-potassium balance with dental caries in children. In studies of the amino acid content, 17 amino acids and an amino sugar have been tentatively identified in saliva.

Other research is being conducted to study the effect of various fluorides upon dental caries. There is evidence that some fluorides are not sufficiently absorbed to inhibit caries in the rat. Further studies indicate that the capacity to absorb and retain fluoride is a function of age—the older the rat, the lower this capacity.

Delegates to the Third Inter-American Congress on Brucellosis, numbering about 50, visited NIH laboratories November 8 and were addressed in Wilson Hall by Dr. Victor H. Haas, NIH Director.

Dr. Haas reviewed accomplishments of NIH during the past year, and Dr. Karl Habel discussed studies of the Laboratory of Infectious Diseases.

The delegates then visited the Brucellosis Laboratory, and later, in Wilson Hall, viewed the color movie "Rocky Mountain Spotted Fever Vaccine," showing the PHS Laboratory at Hamilton, Mont.

The NIH program for control of biologic products was described by Dr. Roderick Murray. This was followed by a tour of the Laboratory of Tropical Diseases.

Retired NIH scientist Alice C. Evans, famous for the discovery that 'undulant fever,' now known as brucellosis, results from an organism closely related to that of Bang's disease in cattle, is President of the Inter-American Committee on Brucellosis, one of the organizations sponsoring the Congress. Other sponsors were the National Research Council and the World Health Organization.
Endocrinology Abstracts

Now available in limited quantity is a 232-page compilation of abstracts covering research on pituitary and adrenal glands and extracts, 1928-1949. Provided by the Squibb Institute for Medical Research, the abstracts were compiled and issued by NHI for use by scientists. To obtain a copy, call Ext. 338 or write to the National Heart Institute, Bethesda 14, Md.

Council Meeting

The National Advisory Mental Health Council will meet December 11-12 at 10 a.m., Room 1057, T-6.

Trips and Talks

NHI Director C. J. Van Slyke, on November 12, addressed the Gerontological Society, Inc., of which he is president. The occasion was the third annual meeting of the Society, St. Louis, Mo.

Dr. George L. Fite, Laboratory of Pathology and Pharmacology, NIAMD, attended a meeting of the New York Academy of Sciences, New York City, November 9-11. He served as chairman of a conference on leprosy and spoke on the pathology of the disease.

New Heart Pamphlet

A 20-page pamphlet, "Heart Disease--A Story of Progress," has been prepared by NHI for general distribution. For information, call Ext. 338.

Author

Samuel M. Polley, Animal Section, OD, is author of a chapter on the Syrian hamster in a new book, The Care and Breeding of Laboratory Animals (John Wiley and Sons, Inc., New York, 1950). The book is based upon the broad experience of 15 experts, each selected to write about a particular animal species.

Apparatus Exhibit

A demonstration of the latest laboratory apparatus from the E. F. Sargent Co., Chicago, has been arranged by the Purchase and Supply Branch, OD. The exhibit will be in Wilson Hall, November 30, from 10:30 a.m. to 4 p.m.

ISRAELITE STUDIES NIH ACHIEVEMENTS

NIH EXPANSION Cont'd

changed to Division of Research Grants (4). The first of these changes was made with a view to consistency; the second, to brevity. No changes of function are implied.

The law and the circulars, however, give all Institutes at NIH the authority to make grants for medical research, teaching, and construction of research facilities, and to award fellowships and traineeships.

Membership of the national advisory councils, under the new law, has been modified to include leaders in education and public affairs. Each council now contains 12 appointed members and three members ex officio, and at least 6 of the 12 are leading scientists. The ex officio members include the Surgeon General of PHS and representatives of the Department of Defense and the Veterans Administration. To date, the councils have recommended grants totaling close to $50 million.

Except in the composition of the advisory councils, no change is made in NCI, NHI, or NIDR.

NEW DRUG MAY SERVE AS MORPHINE SUBSTITUTE

Use of a new synthetic drug for treatment of morphine addicts--acetylmethadol--was described by Drs. Havelock Eraser and Harris Isbell of NIMH, at a meeting of the American Society of Pharmacology and Experimental Therapeutics in Boston, November 14. The drug was tested on addicts at the PHS Hospital, Lexington, Ky.

Acetylmethadol appears to be better than other drugs used to aid morphine withdrawal because its effects last longer. Only one dose need be given daily, in lieu of 3 or 4 doses of morphine. The drug may also have value as an analgesic in first aid, as it acts quickly when taken by mouth--six times as rapidly as when injected. Most analgesics must be injected to produce the maximum effect.

Drs. Fraser and Isbell point out that further clinical data should be obtained before the new drug is used for treatment of addicts or relief of pain. Moreover, the drug is habit-forming, so its use would have to be carefully regulated.
BORROW NOW! ONLY 27 DAYS TILL XMAS

The NIH Federal Credit Union is prepared to finance your Christmas shopping. Or perhaps you need cash to pay school tuition, taxes, insurance; to avoid cashing bonds in an emergency; to buy household goods or a car; to pay doctor, dentist, or hospital bills. If so, feel free to visit Laurence M. Johnson, Captain of the Guard at NIH and Treasurer of the Credit Union, Room 125, Building 1. The office is open Tuesday through Friday, from 1 to 4 p.m.

What is the Credit Union? An organization chartered under regulations of the Bureau of Federal Credit Unions of FSA. Its purpose is to enable NIH personnel to save or borrow conveniently.

Membership in the Credit Union is open to all NIH employees. To borrow, however, you must be a member and must either have permanent Civil Service status or a commission in PHS. The membership fee is 25 cents, and each member is expected to buy at least one share, which is $5.00. There are no dues. Membership in the Union may be obtained promptly, and you may borrow regardless of how short a time you have belonged.

As to the shares, the maximum number that may be held by one member is 200--$1,000's worth. Any number up to 200 may be bought at one time. In 1949, depositors received dividends of 4.5 percent.

The interest rate if you borrow up to $300 is one percent per month on the unpaid balance; on larger loans, one-half of one percent. Security, such as a cosigner, is required on loans in excess of $400, and may be required on any loan at the discretion of the credit committee.

If you wish to repay sooner than arranged for, you may do so and save interest. And you may withdraw your savings on any business day, with the approval of the credit committee, of course, if you are obligated to the Credit Union.

Your savings, when not used for loans, are invested in accordance with Federal regulations, largely in U. S. Bonds. And as a member, you have a voice in the management--each member, one vote. Join the Credit Union now!

NIH Spotlight

Nicholas L. Williams

The diet kitchen of the Biochemistry and Nutrition Laboratory, National Institute of Arthritis and Metabolic Diseases (EBMI), plays an essential part in the scientific studies, since these are largely concerned with effects of special foods upon laboratory animals.

In charge of the kitchen is Nicholas L. Williams, who has worked in nutrition laboratories of NIH for the past 26 years. Peering into a large double boiler containing material for Dr. Sebrell's study of the effects of nutrition on blood formation, Nick Williams pointed out that the kitchen prepares a wide variety of diets. Among them: low-protein diets for Dr. Daft's study of anemia in rats; rice diets for Dr. Pecora's work in hypertension; copper-deficient diets for Dr. Hendley's research on gray hair.

And accurate records must be kept. Nick has a long shelf of books describing more than 8,000 diets he has prepared for the laboratory.

Nick was born in Wythe County, Va., in 1893. Before coming to NIH in 1924, he studied bacteriology and chemistry at the Army Medical School. The Army sent him to Fort Riley, Kans., to gain laboratory experience.

Speaking of his early days in NIH, Nick recalled his excitement when Dr. Joseph Goldberger, for whom he worked, discovered that pellagra is a dietary deficiency disease. Nick is justly proud of his records containing the entire diet history of the pellagra studies.

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FILM DESIGNED TO HELP US FACE AGE

Mrs. Potter, a woman of 62, climbs a long stairway, symbolic of the continuing challenges of life. Critical incidents from the past run through her mind. Relieved by Mrs. Potter, these incidents bring new understanding of herself, helping her to cross the threshold into her later years.

This is the gist of "The Steps of Age," a movie made by Film Documents, Inc., for the Mental Health Film Board, of which Dr. J. M. Bobbitt, NIMH, is a member. NIMH also provided consultation services. The film was written and directed by Ben Maddow, who wrote the script for "Intruder in the Dust" and "The Asphalt Jungle." Dr. M. R. Kaufman, psychiatric consultant on the film, was consultant on "The Snake Pit," as well as the recent NIMH production "Preface to a Life."

"The Steps of Age" is designed, first, to help older people attain better understanding of their experiences and problems and, secondly, to give younger people insight into their relations with the aged. Younger members of the audience may also benefit when they face the challenge of later life.

The film will be shown at NIH in the near future, when 16-mm. copies are released for general distribution.

USE OR LOSE LEAVE EARNED DURING 1950

The 1951 Appropriation Act, Public Law 759, directly affects the leave of every NIH employee. It provides that all annual leave earned during the calendar year 1950 shall be lost if not used by June 30, 1951.

Any leave carried over from 1949, however, will not be lost on the June deadline. You were allowed to carry forward a maximum of 60 days.

To avoid loss of leave, be sure that your balance on December 31, 1950, does not exceed 60 days, and that your balance on June 30, 1951, does not exceed the amount carried forward from 1949 plus the earnings for one-half of 1951--13 days.

Or better yet, wait until your time clerk tells you how much leave you must use or lose.