NINDB NAMES TWO CLINICAL CHIEFS

Dr. William M. Hart has been appointed Chief of the Ophthalmology Clinics, and Dr. Maitland Baldwin, Chief of Neurosurgery for the National Institute of Neurological Diseases and Blindness.

Prior to his appointment, Dr. Hart was Assistant Professor of Ophthalmology at Jefferson Medical College, Philadelphia. Dr. Baldwin was Assistant Professor of Neurosurgery of the Medical Center of the University of Colorado in Denver.

CHANGES AFFECT STUDY SECTIONS AND COUNCILS

Some changes were made recently affecting NIH Advisory Councils and Study Sections. Dr. Sebrell has approved plans to schedule meetings of the Advisory Councils each June and January instead of the current three meetings a year. He has also granted authority to combine certain of the Study Sections.

Pharmacology and Experimental Therapeutics will become one Study Section. Public Health and Environmental Health will become Public Health and Sanitation Study Section. Tropical Medicine, its scope enlarged, will be renamed Medical Zoology. Virus and Rickettsial will be abolished, with its projects and members transferred to Microbiology and Immunology Study Section.

The following is a revised list of the Executive Secretaries and their Study Sections: Dr. Frederick Appel - Pharmacology and Experimental Therapeutics; Dr. Byron Brunstetter - Hematology, Pathology; Dr. Eleanor Darby - Cardiovascular; Dr. J. Marshall Ellis - Surgery; Dr. Irvin Fuhr - Biochemistry; Mr. Irving Gerring - Public Health.

(See Changes, Page 3)

NIH Radiation Safety Experts Test Switchboard

A radioactive telephone switchboard from the old Kelly Clinic in Baltimore was recently brought to the Isotope Lab at NIH for disposition. The Kelly Clinic, which for 45 years has used radium and X-ray extensively for cancer therapy, closed down in January, and the Baltimore City Health Department was asked to survey the premises for health hazards. The Division of Occupational Health of the Public Health Service agreed to collaborate in the study, which subsequently found that all the buildings were contaminated with radioactive materials. Former employees of the Clinic have been examined by PHS physicians, and some were found to have skin injury from external radiation.

After testing at the Isotope Lab, the switchboard will be dismantled and encased in concrete vaults. These vaults will then be shipped to Norfolk, where they will be taken out to sea and jettisoned by the Coast Guard.

The Kelly Clinic opened in 1904, when Dr. Howard R. Kelly became interested in the development of radium as a therapeutic tool for the treatment of cancer. Dr. Kelly obtained his first radium from the Curies, and in 1918 had the world's largest supply of it -- five grams. At one time, the Clinic also had the largest supply of polonium, a rare metal which was used by Lord Rutherford to bombard and split the atom at Cambridge University 20 years ago. The polonium, a byproduct of the radon beads used for cancer therapy, was collected by Dr. Fred West just because he couldn't bear to throw it away, thinking that someday it might be useful for research.
Studies in Blood Clotting
No. 95 in a Series

Research observations that explain the clotting of blood have been reported by Dr. Koloman Laki of the Laboratory of Physical Biology, NIAMD. At the recent meeting of the Federation of American Societies for Experimental Biology, Dr. Laki described experiments that show what changes occur in blood when clots form.

The significance of blood clotting is demonstrated by illnesses in which the process is defective. Increased or decreased clottability due to subtle changes in the clotting process may result in serious health problems. Examples are failure of the blood to clot following injury, as in hemophilia, and clot formation in a blood vessel supplying the heart muscle, as in coronary thrombosis. A better understanding of the clotting process should lead to control over these and related conditions.

The decisive step in blood clotting is the conversion of fibrinogen to fibrin by the action of thrombin. The main problem in this reaction has been to learn what thrombin does to the fibrinogen molecules so that they will gel—that is, build up a three-dimensional network. Dr. Laki's studies led to the discovery that thrombin splits peptides from fibrinogen, and that the altered fibrinogen molecules then polymerize through end-to-end and side-by-side associations, forming large molecules and eventually a network structure.

In addition to offering important clues to blood clotting problems, Dr. Laki's observations appear to throw light on sol-gel changes in general. The clotting of fibrinogen is a model of the sol-gel changes that are basic in the life of every cell. Whenever protoplasm, the fluid cell substance, performs mechanical work, for example, it must have a structure, at least temporarily, and thus sol-gel change must occur. Such a change in muscle cells leads to contraction; in the dividing cell, to the pulling apart of chromosomes; etc. Sol-gel changes are important even to the proper function of brain cells.

To understand how chemical energy stored in high-energy bonds is converted to movement, we must know how the structures necessary for these energy conversions are built up. In addition, sol-gel changes in the protoplasm are probably involved in transferring a certain amount of "information" stored in various parts of the cells.
**HOUSEKEEPING PROBLEMS IN THE CLINICAL CENTER**

One of the biggest spring house-cleaning jobs at NIH is now going on in the Clinical Center. Responsible for the cleanliness of Building 10 are Mrs. Patricia M. Boyer and 68 cleaners who, at the present time, comprise the Clinical Center Housekeeping Section.

Much of their present work involves the preparation for occupancy of certain sections of the Clinical Center as they are turned over to NIH by the contractor, and daily maintenance of all occupied space. Windows must be washed, floors waxed and buffed, and, in most cases, terrazzo tile baseboards sealed. Mrs. Boyer's staff must also move and arrange furniture for the new offices, and keep them clean.

Unusual cleaning skill is required of all cleaning people who work so specialized a building as the Clinical Center. Mrs. Boyer is currently teaching basic cleaning methods to all members of her staff. There are specific ways, for example, to mop, scrub, and wax floors. All cleaners who will work in laboratory, patient, or infectious disease areas will receive additional training from supervisors of these sections.

When the Clinical Center is finished, there will be about 40 acres of floor space to be kept clean. Mrs. Boyer says that a survey, soon to be undertaken, will determine how much a Clinical Center cleaner can do in an eight-hour day. It is important to know, for example, how many windows there are in the Clinical Center and how often they must be washed, how many door knobs must be polished, and how long it takes a man to sweep a certain floor area. Knowledge of such details will enable Mrs. Boyer to schedule her workloads to make cleaning processes more efficient and less disrupting to hospital and laboratory functions.

**CHANGES Cont'd**

Health and Sanitation, Medical Zoology; Dr. Sam Hall - Endocrinology; Dr. Charles Huttrer - Physiology; Dr. Elsa Keiles - Metabolism and Nutrition; Dr. Thomas O'Brien - Neurology, Sensory Diseases; Dr. Edward Offutt, Jr. - Microbiology and Immunology, Dental; and Mr. Francis Schmeil - Morphology and Genetics.

---

**NIH Spotlight**

Alma Bartol of the National Heart Institute is here because of a real interest in medical research. This interest in things medical seems to be shared by many of her friends and relatives.

Born and raised in Shamokin, Pa., Alma is one of three daughters. Her sisters are graduate nurses. One sister is a nurse at George Washington University Hospital and is applying for a nursing job in the Clinical Center.

In February 1951, Alma came to NIH as a chemist in Dr. Robert W. Berliner's Section on Kidney and Electrolyte Metabolism, NHI. In her job Alma performs a variety of duties. Her present work is surveying the renal functions of rats. An understanding of the mechanism by which electrolytes are excreted or retained is fundamental to an understanding of heart failure.

Before coming to NIH, Alma worked for Group Hospitalization's Medical Claims Department. Here she read over subscribers' medical reports to see if the claims should be paid.

Alma attended St. Joseph's College, Emmitsburg, Md., majoring in chemistry. After graduation, she was accepted as a student in Georgetown University Medical School, but she decided to drop her studies after eight months. One of her lab partners at Georgetown Medical School is now her fiancé. He will receive his M.D. in June and will interne at St. Vincent's Hospital in New York City. They plan to be married after he completes his internship. Alma's fiancé will specialize in pediatrics.

---

**LOST AND FOUND**

The following items have been found on the NIH reservation:

- Wallet Two pencils
- Eyeglasses Two scarves
- Umbrella Stethoscope
- Laboratory gown Earring
- Brief case Brooch
- Pipe

If any of these belong to you, come to Rm. 18, Bldg. 1. All articles not claimed by June 25 will be returned to the finder.

---

**R & W NOTES**

The musicians who will participate in the Recreation and Welfare Association's Musicale on Friday evening, May 29, have an impressive background. Ellinor Benedict (cello) graduated in music (cum laude) from Radcliffe College. Margaret Wright (violin) took her degree (magna cum laude) at Smith College. Dr. Charles P. Huttrer of DRG (piano) is a graduate of the University of Vienna School of Music. Paul B. Marsh (clarinet) and Mark Ellsworth (violin) studied under private teachers. Mr. Ellsworth played with the Pittsburgh Symphony for several years, and Miss Benedict was formerly with the National Symphony.

The program will include compositions by Beethoven, Hindemith, Mozart, and Vivaldi.

If you have requested tickets and do not receive them by May 27, call Miss Mary R. Speicher, Ext. 2255.

Alma is an attractive, friendly girl who enjoys swimming, tennis, and dancing. She also likes to sew and makes many of her own clothes. Traveling is another of her interests, and she is looking forward to frequent trips this summer to New Jersey shore resorts.

Alma is still talking about her vacation last year, when she drove to the West Coast with her sister. They visited her married sister in Nevada, and saw all the famous sights on the northern and southern routes.
In many parts of the world, schistosomiasis is a serious public health problem. For some time, scientists in the Laboratory of Tropical Diseases, NMI, have been testing various molluscacides to discover those effective against snails that transmit the pathogenic schistosomes, or blood flukes.

Two years ago, the Laboratory of Tropical Diseases, the Pan American Sanitary Bureau, and the National Health Department of Brazil embarked on a cooperative project designed to evaluate in the field some chemicals that looked promising as a result of NMI laboratory tests.

Chosen as a base of operations was the Instituto Aggeau Magalhaes in Recife, Brazil, an area where schistosomiasis is prevalent. Dr. Charles Dobrovolny of NMI went to Recife to direct the field tests.

About a year after the tests were begun, it was discovered that the habits of Brazilian snails are different from those of other areas. For some reason, the snails are able to live for long periods of time without water. Since this fact greatly influences chemical control of schistosomiasis, the project in Brazil has been extended. Dr. Louis Olivier of NMI has been detailed to Brazil to conduct basic studies of the snails' life processes.

The pictures on this page illustrate some of the current work in Brazil.