

# N.I.H.



# record

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE July 16, 1956 - Vol. VIII, No. 13

PUBLIC HEALTH SERVICE NATIONAL INSTITUTES OF HEALTH

## DR. L. A. SCHEELE LEAVES PHS SERVICE

After 23 years in the Public Health Service, Surgeon General Leonard A. Scheele has resigned to become president of Warner-Chilcott Laboratories. The resignation takes effect August 2. Dr. Scheele has served as Surgeon General for the past eight years.

In a recent statement, HEW Secretary Folsom said that Dr. Scheele's "imagination, skill, and resourcefulness" have played "a particularly significant role in the development of many new and expanded programs which have notably advanced the health of the American people."

The Secretary also commented on the expansion in the field of health and pointed out that four new research Institutes had been added during the Surgeon General's tenure. These Institutes are NHI, NIDR, NIAMD, and NINDB. He also commented on the expanded mission of NIAID, which now includes the field of allergy, and on the extraordinary broadening of research grants which has taken place under Dr. Scheele's leadership.

The Surgeon General was commissioned in the Regular Corps of the U. S. Public Health Service in 1934, and after assignments to foreign quarantine service and the Maryland State Department of Health, received advanced training in cancer at the Memorial Hospital for Cancer and Allied Diseases, New York City.

In 1939 he was detailed to the National Cancer Institute for development of cancer control activities. He later served in the Army for four years, then returned to NCI as its Assistant Director, and in 1947 became Director.

He was graduated from the University of Michigan and later received his B.S., M.D., and Sc.D.

(See Scheele, Page 4)



Dr. Leonard A. Scheele

## GRADUATE SCHOOL CATALOGS AVAILABLE IN EARLY AUGUST

The Graduate School catalogs for 1956-57 will be available about August 1, and a special announcement of the NIH program will be issued August 15. Copies may be obtained in Room 1-N-246, CC, Ext. 2427.

During the coming year the program will include about 30 courses in biological sciences, physical sciences, statistics, languages, administration, and public speaking. Courses are open to all Government employees as well as non-Government persons.

Classes will begin the week of October 1, with registration during the week of September 24-28 from 11:30 to 4:30. Registration may be completed either at the Clinical Center or at the Department of Agriculture.

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## CC SURGERY FACILITIES TO BE EXPANDED

A total of \$1,630,000 has been authorized by Congress for the design, construction, and equipment of new surgical facilities and for the remodeling of present surgical facilities at the Clinical Center.

The new operating room suite is to be constructed on the south side of Building 10 in a position comparable to the cafeteria, but on the opposite side of the auditorium.

Plans for the new wing will be developed as soon as possible. NIH staff members will be working on the plans with representatives of Public Buildings Services.

## TEACHERS TOUR NIH AS PART OF SEMINAR

As part of an experiment in teacher education, sponsored by the National Education Association, more than 60 teachers visited NIH on July 5.

Coming from 23 States, the teachers took part in a five-week seminar called "The United States Government in Action," and saw at firsthand the workings of the various Government agencies.

Their tour of NIH included a visit to laboratories, the viewing of a motion picture covering various NIH activities, and an address by Dr. Israel Light, NCI. Dr. Light outlined studies now under way at NIH and explained how the taxpayer's dollar is being used to ensure better health for the Nation.

# Chlorpromazine Treatment In Experimental Shock

No. 166 in a Series



Tourniquet is applied to hind leg of mouse in studies on experimental shock.

About a year ago studies on the use of chlorpromazine in the treatment of experimental traumatic shock were begun in NIAMD. The results so far are encouraging, for all tests indicate that the drug may be therapeutic if administered prior to injury. This suggests important implications for surgery.

Drs. Sanford M. Rosenthal and Herbert Tabor, NIAMD, had previously conducted studies in standardization of injury so that the criterion of survival following shock could be used for evaluation of treatment. They chose mice for these studies and perfected three methods of standardized injury. These were tourniquet injury, burn injury, and hemorrhage. All three methods are reproducible and result in 100-percent mortality if the animals are untreated.

Dr. R. Carl Millican, also of NIAMD, began the studies on chlorpromazine, using tourniquet injury in mice. The animals are anesthetized and rubber band tourniquets are applied to the hind legs for a period of two hours. Since the tourniquet restricts the blood supply, leading to tissue damage, shock results shortly after removal of the tourniquet.

Administration of chlorpromazine up to 12 hours before injury resulted in higher survival rates for treated mice than for the control group. These results are in agreement with the findings of other workers in the field of traumatic shock.

The investigators were concerned with the mechanism of action of the

drug, for prior to this discovery the only effective treatment for tourniquet-shocked mice was fluid replacement. When the drug was administered prior to injury, body temperature dropped significantly and swelling at the site of injury decreased. This was demonstrated by a method, also developed at NIAMD, for measuring fluid distribution. In addition, chlorpromazine augmented the effects of intravenous fluids. These reactions together seem to account for the positive effects on survival.

Up to now, chlorpromazine has been used largely as a tranquilizing drug for the treatment of mentally disturbed patients. In some instances, however, it has been used clinically in the treatment of shock. The experimental findings of Drs. Rosenthal and Millican suggest that chlorpromazine may be effective when given to human subjects prior to surgical operations.

Other members of the team assisting in the research on experimental shock are Mrs. Catherine Rhodes, John Rust, and Robert Scaggs.

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## N. I. H. RECORD

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## Publication Preview

The following manuscripts were received by SRB Editorial Section between June 21 and July 9.

Anfinsen, C. B., et al. On the structural basis of ribonuclease activity.

Bailey, P. Needs in neurology.

Bell, J. A., et al. Progress report on efficacy of trivalent adenoviruses (APC) vaccine in Naval recruits.

Birren, J. E. Problems in the design of multidisciplinary research.

Burns, J. J., et al. The synthesis of L-ascorbic acid in the rat from d-glucuronolactone and L-gulonolactone.

Cohen, L. A., et al. Some reactions of 3-substituted hydantoins.

Candliffe, P. G., et al. Chromatography of thyroid stimulating hormone on carboxymethylcellulose.

Enders, J. F., et al. Proposal of the term "adenoviruses" as the group name for the new respiratory tract viruses (AD-RI-APC-ARD agents).

Felix, R. H. New knowledge of the child in health and disease.

Fredrickson, D. S., et al. The *in vitro* production of 25- and 26-hydroxycholesterol and their *in vivo* metabolism.

Futterman, S., et al. The "inactivation" of folic acid by liver.

Haskins, W. T., et al. Nitrogenous excretory products of *trichinella spiralis* larvae.

Haskins, W. T., et al. The amine constituents from the excretory products of *Ascaris lumbricoides* and *trichinella spiralis* larvae.

Haskins, W. T., et al. Amino acids excreted by *trichinella spiralis* larvae.

Hilbish, T. F. Selective intracardiac angiocardiology.

Hundley, J. M., et al. Algae as sources of lysine and threonine in supplementing wheat and bread diets.

Kayden, H. J., et al. Procaine amide.

Keyes, P. H. The conflicts in teaching and learning.

Korn, E. D., et al. The degradation of heparin by bacterial enzymes. II. Acetone powder extracts.

Laki, K., et al. Heat changes during the clotting of fibrinogen.

Lilienfield, L. S., et al. The hematocrit of the lesser circulation in man.

Maxwell, C. R., et al. The mechanism for the action of  $FE^{++}$  and  $H_2O_2$  on glycine.

Maxwell, Elizabeth S., et al. Studies on purified galacto-waldenase.

Mishkin, M. Effects of small anterior frontal lesions on delayed alternation in monkeys.

Moran, Neil C., et al. The pharmacological properties of chlorpromazine sulfoxide, a major metabolite of chlorpromazine.

Nanninga, L. B. Formation constants and heat stability of calcium and magnesium complexes of adenosine tri-, di- and monophosphate.

Owen, Cora R., et al. Factors involved in the transmission of *Pasteurella tularensis* from inoculated animals to healthy cage mates.

Parrott, R. H. The clinical importance of group A coxsackie viruses.

Payzo, A. N., et al. The degradation of heparin by bacterial enzymes. I. Adaption and lyophilized cells.

Philip, C. B. New record of tabanidae (diptera) in the Antilles.

Pimie, Anne. Nursing in neuromedical research.

Pittman, M. Bacteriology. Pertussis and pertussis vaccine control.

Pittman, M. Part 2. Classification of the small gram-negative hemophilic bacteria isolated from the genito-urinary tract.

Rabinowitz, J. C., et al. The enzymatic synthesis of N<sup>10</sup>-formyltetrahydrofolic acid and its role in ATP formation during formiminoglycine degradation.

Rogosa, M., et al. The relation of streptococci, lactobacilli, and the general oral and fecal flora to the progression of dental caries in the hamster.

Schaefer, E. S., et al. Patterns of attitudes toward child-rearing.

Scher, J. M. The communication zone: some observations concerning its order, direction, propria, and limits in a two-person system and the effects of a third person.

Scher, J. M. The transitional juncture: an allometric context for mobilization in schizophrenia.

Schrecker, A. W. Bulb tube assembly for vacuum-distillation.

Scott, D. B. Studies of the crystal structure of enamel by electron microscopy and electron diffraction.

Severinghaus, J. W. The telecor.

Shack, J. On some optical criteria for the differentiation of native and denatured deoxyribonucleate.

Shore, P. A., et al. The gastric secretion of drugs A pH partition hypothesis.

Siperstein, M. D., et al. Biosynthesis of cardiotonic sterols from cholesterol in the toad, *bufo marinus*.

Stetten, D., Jr. The current status of purine biosynthesis - an interim report.

Stetten, DeWitt, Jr. The relationship of hormone dosage to physiological response.

Stoloff, I., et al. Age and the ratio  $T_m$  PAH/ $T_m$  diadrost in man with a note on the self depression of  $T_m$  diadrost.

Takagi, Y., et al. Purification and properties of a bacterial riboside hydrolase.

Udenfriend, S., et al. Biochemistry and metabolism of serotonin as it relates to the nervous system.

Weinbach, E. C., et al. Age and oxidative phosphorylation in rat liver and brain.

Wilcox, J., et al. Nurses participate in studies of anti-hypertensive drugs.

Witkop, B., et al. The configuration of 5-hydroxytryptophan from dates.

Wright, W. H., et al. Field trials of various molluscicides (chiefly sodium phetachlorophenate) for the control of aquatic intermediate hosts of human bilharzia.

Wyckoff, R. W. G. La structure des cristaux macromoleculaires au microscope electronique.

## NJH Spotlight



Ethel S. Stang

One of the best-loved people in NIDR is Mrs. Ethel S. Stang, who takes real pride in being a full-fledged native of Montgomery County.

Ethel's job, which she handles so capably, is taking care of the Central Files for NIDR. Although often considered a routine job, she has taken such a deep and sincere interest in her work that all the members of the Institute, from the Director on, praise her highly and say that she makes the days seem brighter for those with whom she works.

Born in Montgomery County, Ethel has spent most of her life in the Gaithersburg area. Her husband, Paul, is also a local man, and when Ethel was asked where she met him, she paused and said, "Why, I've known him all my life."

Shortly after her marriage, Ethel worked as a receptionist in a physician's office, which may have influenced her early career. Her family doctor noticed that Ethel had a way with people and encouraged her to take up practical nursing. Following her training in that field, she spent nine years in the nursing profession before joining the Public Health Service eleven years ago.

Her first assignment was in T-6, where she worked in mail and files. She later transferred to the downtown office, and three years ago joined NIH in her present capacity.

Ethel has an unusual hobby which she says "just happened." She has a large collection of more than 200 miniature pitchers. It seems a friend gave her one years ago, and, little by little, her friends added



## R & W NOTES

Fishing equipment is available free of charge to all R & W members. Since the demand has been so great, it is best to make requests early in the week. For further information, contact Ray Jones, Ext. 3219.

The first inspection of the NIH gardens was made on June 23, and the final inspection will be on August 11. Awards for the best gardens will be made on the basis of the two inspections.

The golf tournament is well under way at the Glenbrook Country Club. More than \$200 in prizes is being offered. These prizes are in the form of merchandise certificates and golf supplies. Prizes are awarded on gross scores before handicap is applied and on net scores after handicap is applied. The tournament began July 23 and will run through August 5. Entrance fee is 75 cents.

New employees are invited to join R & W at the special half-year rate of 50 cents.

others as they returned from trips. Her collection is so unusual that it was entered in a hobby show and was exhibited in the HEW building.

A busy person outside working hours, too, Ethel is the president of the Neelsville Presbyterian Church Women's Association and is Departmental Sunday School Superintendent. She often attends local conventions of the Association as a delegate.

Ethel says she has traveled very little, but did go to New Orleans to visit her son who was stationed there while in the Army. She says it was an experience she will never forget. She was completely fascinated by the French Quarter and says it "was almost like visiting another country."

Ethel comes from a large family, having seven sisters and one brother. Her father, also a native of Montgomery County, is Charles Small, well known in the Gaithersburg area.

## DR. HOGEBOOM, NCI, DIES SUDDENLY

Dr. George H. Hogeboom, Head of the Cellular Biology Section, Laboratory of Biology, NCI, died on July 5, following minor surgery. He had worked in the Laboratory of Biology since he joined the Public Health Service and NCI in 1948. He is survived by his wife and four children, who reside at 4112 Dresden Street, Kensington.

Dr. Hogeboom had been appointed Visiting Professor to the University of Brussels, in Belgium, where he was to have worked with Dr. Albert Cloud. He was also scheduled to lecture in Copenhagen, Denmark.

After graduating from the Washington University, St. Louis, Missouri, Dr. Hogeboom attended Johns Hopkins School of Medicine and was graduated from that institution in 1939. From 1941 to 1948 he was associated with the Rockefeller Institute in New York City.

Memorial services were held in Washington, D. C., on July 9.

## SCHEELE Cont'd

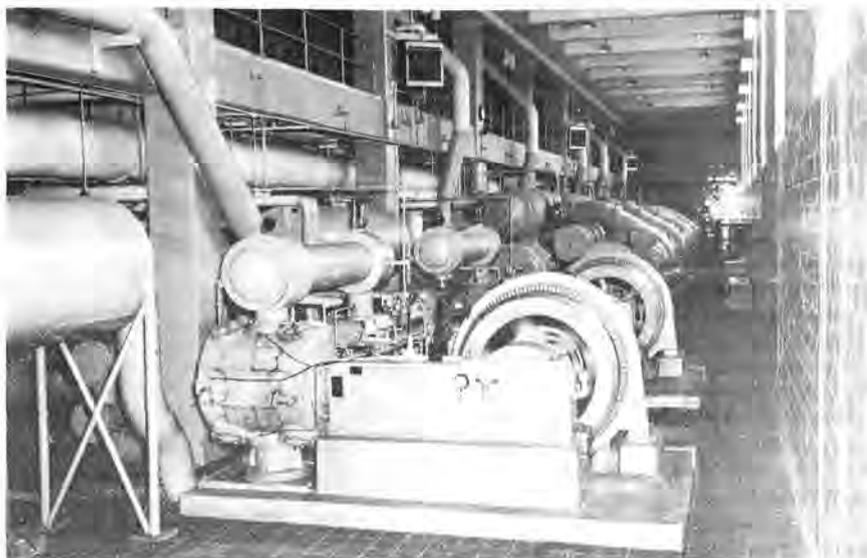
degrees from Wayne University, Detroit. He also received an Sc.D. from the University of Michigan; an LL.D. from Jefferson Medical College, Philadelphia, and from Georgetown University, Washington, D. C.; and an Sc.D. from Columbia University, New York City.

## SCHOOL Cont'd

Among the new courses to be offered in the coming year are General and Medical Mycology, Biophysical Instrumentation, Biochemistry of Non-Steroid Hormones, Physiology of Bacteria, Advanced Organic Chemistry, Microbial Biochemistry, Elementary Glassblowing, and Radioisotopes and Their Applications in the Medical Sciences.

All classes are held at NIH after work hours. Tuition is \$12 per credit hour, which may be paid in two installments. Courses are offered on four levels - non-credit, undergraduate, advanced undergraduate and graduate. Students may, in most cases, transfer their credits to a degree-conferring institution by special arrangement.

## SERVICE IS OUR MOTTO



Refrigeration plant in Building 11. It has condensing units and air compressors which supply cooling water for air conditioning and laboratory compressed air.

With "Service" as their motto, members of the Mechanical Engineering Section of the Plant Engineering Branch work 24 hours a day to keep the air-conditioning and other mechanical facilities functioning.

It's a tremendous task that these 150 maintenance people accomplish the year around. For example, on a typical summer day the Central Refrigeration Plant alone provides enough chilled water to cool up to 1,750 six-room houses. On a typical winter day the Central Heating Plant generates enough heat to warm as many as 3,500 private dwellings.

The central facilities provide the initial heating and cooling media of steam and chilled water to the many intricate air-conditioning systems that supply 12 buildings. Independent systems account for the supply of cooled air in seven other buildings and supplement the facilities in buildings supplied by the central plant.

Operation and maintenance of the extensive mechanical facilities which bring these services to all of NIH - to the laboratories, the animal rooms, the offices - are just part of the many functions of the section.

Headed by R. R. Holliday, the section consists of the Design Unit, Engineering and Maintenance Shop Unit, Clinical Center Unit, Laboratory and Miscellaneous Buildings Unit, and the Heating, Refrigeration and Incinerator Plant Unit.

The Heating, Refrigeration and Incinerator Plant Unit operates and maintains the central plant, supplying steam, and the refrigeration medium provides laboratory compressed air and incineration.

The Engineering Maintenance Shop Unit repairs and overhauls the many mechanical facilities, which include repairs to centrifuges, refrigerators, and other laboratory equipment. This unit also handles the installation of new mechanical laboratory equipment.

The Clinical Center Unit operates and provides the maintenance for the mechanical facilities in Building 10. The Laboratory and Miscellaneous Buildings Unit provides the same service for all buildings except the Clinical Center and the Central Power Plant.

The Design Unit prepares plans and specifications for new mechanical facilities and alterations to existing facilities.

For day-to-day operational problems, involving adjustments or service in Building 10, call L. E. Northcutt, Ext. 862. For this same service in other buildings, call G. L. Sandifer, Ext. 3266, or your building engineer listed in the NIH telephone directory.

For mechanical repairs, call D. E. Anderson, Ext. 2391. The services of the Design Unit are available through administrative officers who will forward the requests to C. W. May, Plant Engineering Branch.