



NCI SCIENTISTS ATTEND 7th CANCER CONGRESS

Nineteen NCI investigators presented scientific papers at the Seventh International Cancer Congress in London, England, last week.

An NCI-sponsored film, designed to acquaint women with the need for cytologic tests for uterine cancer, was shown for the first time at the Congress.

Among NIH papers presented were Dr. Harold Dorn's report of the relationship between smoking and cancer (see p. 2) and William Haenszel's findings on cigarette smoking as a cause of lung cancer in women.

Other important findings were reported by Dr. Sarah E. Stewart, who told of a filtrable agent causing tumors in heterogenous animal strains, and Dr. Abraham Goldin, who described a compound that is highly effective in increasing the survival time of mice with advanced leukemia.

Dr. J. R. Heller, NCI Director, presented a paper entitled "The American View of Cancer Control."

Twenty-six NCI scientists officially attended the Congress. Grants approved by the NCI Cancer Advisory Council enabled other investigators throughout the country to attend the meeting.

Dr. Bunim Named President Of Rheumatism Association

Dr. Joseph J. Bunim, Chief of Clinical Investigations and of the Arthritis and Rheumatism Branch, NIAMD, was elected president of the American Rheumatism Association at its recent meeting in San Francisco. He served as first vice president and president-elect of the Association for the past year.

Dr. Bunim has been at NIH since 1952 when he was appointed the first

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Construction of the new Division of Biologics Standards building was begun last month. It is estimated that the modern five-story structure will be ready for occupancy by August 1959. The building will be located on Service Road West, south of the CC.

TOPOGRAPHIC SURVEY TO BE COMPLETED SOON

An aerial topographic survey of NIH's 306 acres is now under way and will be completed this summer. This is the first overall survey of the Bethesda reservation since the Clinical Center was built, according to Elroy K. Day, Chief of the Research Facilities Planning Branch, DRS.

Aerial photographs, taken last month, will be used to control plotting. Relative elevations will be determined by ground surveys. This data will be shown on the finished topographic map.

Most horizontal distances are being plotted from a triangulation station atop the CC. This exact reference point was established by the U. S. Coast and Geodetic Survey when the CC was completed in 1953.

The new map will be scaled one inch to 100 feet, according to Mr. Day. It will be of particular value in planning NIH expansion.

DR. WILLARD WRIGHT RETIRES FROM SERVICE

Dr. Willard H. Wright, internationally recognized leader in the field of tropical diseases, retired June 30 after 22 years at NIH.

A PHS commissioned officer, Dr. Wright has served as Chief of the Laboratory of Tropical Diseases, NIAID, for 11 years. He entered Government service in 1919 at the Department of Agriculture.

Dr. Wright's research work has been primarily concerned with parasitic infections such as trichinosis, amebiasis, and schistosomiasis. As a result of his investigation of the transmission of trichinosis from swine to humans, federal regulations were established to control the feeding of swine.

Active for many years in the field of international health, Dr. Wright recently headed a PHS cooperative program that was instrumental in

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NEI Tobacco-Cancer Study Reported

No. 209 in a Series



Dr. Harold F. Dorn

At the International Cancer Congress in London last week, Dr. Harold F. Dorn, Chief, Biometrics Branch, DRS, reported the findings of the NCI epidemiological study on the relationship between smoking and death from cancer. Also reported were data on deaths from cardiovascular and respiratory disorders and certain other diseases among smokers and nonsmokers.

Dr. Dorn summarized the mortality experience of nearly 200,000 policyholders of government life insurance from July 1954 to December 1956. The policies were held by World War I veterans and others who had served in the armed forces between 1917 and 1940. Eighty-four percent of the veterans at the beginning of the study were 50 to 70 years old. All but 0.5 percent were men.

Information on the use of tobacco was obtained by questionnaire. The veterans were classified according to their smoking history and according to whether they were heavy or light smokers, exsmokers, or nonsmokers. Persons who within their lifetime had regularly smoked cigars, cigarettes, or a pipe were considered regular smokers. They were further classified by their current use of tobacco and the form smoked.

(According to Census Bureau estimates made in 1955, 25 million American men smoke cigarettes regularly, and the majority smoke 10 to 20 a day. Two-and-a-half million men smoke one or more cigars daily. Three-and-a-half million smoke a pipe regularly.)

In the two-and-one-half-year period between July 1954 and December 1956, more than 7,000 of the veterans died. On receipt of a claim for payment of a policy, the Veterans Administration immediately notified Dr. Dorn.

The cause of death was then verified with the physician who signed the death certificate or with the hospital where the death occurred. Almost half of the diagnoses had been established by exploratory surgery, endoscopy, and various laboratory tests. One-fifth of the diagnoses were based on physical examinations and clinical histories. Autopsies were performed for one-third of the deaths. The study was based on 7,382 deaths.

Here are selected findings from Dr. Dorn's report. (Additional data will be reported at the Chicago meeting of the American Statistical Association, December 27-30.)

- The death rate from all causes for persons who had smoked tobacco at some time was 32 percent greater than the rate for persons who had never smoked.

- The death rate from all causes for cigarette smokers was 58 percent greater than for nonsmokers; for pipe smokers it was 10 percent greater; for cigar smokers, seven percent.

- Persons who smoked two packs of cigarettes or more daily had a death rate nearly twice that for nonsmokers.

- The death rate for the heaviest cigar and pipe smokers--persons who smoked at least nine cigars or 20 pipefuls a day--was about the same as the rate for persons who smoked from 10 to 20 cigarettes a day.

- The lung cancer rate was about 10 times greater for regular smokers of cigarettes only than for nonsmokers.

- Regular smokers of cigars or pipes had an increased mortality rate from cancer of the lung and from all forms of cancer, but the increase was much less than that for cigarette smokers.

- Death rate from coronary heart disease was 63 percent greater for cigarette-only smokers than for nonsmokers.

- Regular cigarette smokers also had greater death rates from

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Publication Preview

The following manuscripts were received by the SRB Editorial Section between April 26 and May 7.

DRG

Stone, A., and Thurman, E. B. *Armigeres (Armigeres) baisasi*, a new mosquito from the Philippine Islands (Diptera: Culicidae).

CC

Staff, CC. *Cryptococcosis*: Clinical staff conference at the National Institutes of Health - April 25, 1957.

NCI

Andervont, H. G. Disappearance of the mammary tumor agent from RIII mice.

Fox, F.; Davidson, J.; and Thomas, L. B. Maturation of sympathicoblastoma into ganglioglioma: Report of two patients with 20 year and 46 year survivals.

Haenszel, W. A review of the variation in incidence and mortality from stomach cancer, with particular reference to the United States.

Fredrickson, D. S. Current attitudes about atherosclerosis.

Hunt, G. H. Implications of aging as predicted by population changes.

Karmen, A., and Bowman, R. L. A radio frequency glow detector for gas chromatography.

Magladery, J. W.; Teasdall, R. D.; and Norris, A. H. Effect of aging on plantar flexor and superficial abdominal reflexes in man - a clinical and electromyographic study.

NHI

McColleston, D. L. Fat transport mechanism. Shore, P. A.; Gillespie, L., Jr.; Spector, S.; and Prockop, D. Increase in blood serotonin levels induced by iproniazid in man and rabbits.

Szulmajster, J. Bacterial degradation of creatinine. II. Creatinine desiminase.

Wright, B. E., and Anderson, M. L. Enzymatic changes accompanying differentiation in the slime mold.

NIAID

Gerloff, R. K.; Larson, C. L.; and Glesne, L. R. B. Natural occurrence of poliomyelitis antibody in a community of western Montana.

Hairston, N. G.; Watson, J. M.; and Olivier, L. An evaluation of techniques used in evaluating snail populations.

Jellison, W. L.; Stoenner, H. G.; and Berg, G. M. Waterborne leptospirosis among Indians on the Standing Rock Indian Reservation, North Dakota and South Dakota, during the summer of 1956.

Rowe, W. P. Adenovirus and salivary gland virus infections in children.

Bartlett, R. G., Jr.; Brubach, H. F.; Trimble, R. C.; and Specht, H. A broadly applicable method for airway resistance measurement in man.

Kominz, D. R.; Carroll, W. R.; Smith, E. N.; and Mitchell, E. R. A subunit of myosin.

Laki, K.; Gladner, J. A.; Folk, J. E.; and Kominz, D. R. The mode of action of thrombin.

Lewallen, C. G.; Berman, M.; and Rall, J. E. A mathematical approach to the kinetics of iodoalbumin metabolism.

Lewallen, C. G.; Rall, J. E., and Berman, M. The effects of thyroid hormone on the metabolism of iodoalbumin.

Nes, W. R.; Steele, J. A.; and Mosestigg, E. The anthrasteroid rearrangement. V. The preparation of an analog of progesterone.

Nes, W. R.; Steele, J. A.; and Mosestigg, E. The anthrasteroid rearrangement. VI. The preparation of an analog of the androgens and estrogens.

Nirenberg, M. W. An enzymatic defect in ascites tumor cells.

NIAMD

Scott, E. M.; Griffith, I. V.; Hoskins, D. D.; and Whaley, R. D. Serum cholesterol levels and blood pressure of Alaskan Eskimo men.

Stohman, F., Jr. Observations on the physiology of erythropoietin and its role in the regulation of red cell production.

Tabor, H.; Rosenthal, S. M.; and Tabor, C. W. The biosynthesis of spermidine and spermine from putrescine and methionine.

Arnold, F. A., Jr. The present status of dental research in the study of fluorides.

Fullmer, H. M., and Lillie, R. D. The oxalalan fiber: A previously undescribed connective tissue fiber.

Keyes, P. L., and White, C. L. Dental caries in the molar teeth of rats. III. A bio-assay of sodium fluoride and sodium lauryl sarcosinate as caries inhibitory agents.

Lloyd, R. S., and Baer, P. N. A permanent fixed amalgam splint.

NIDR

Nylen, M. U., and Scott, D. B. An electron microscopic study of the early stages of dentinogenesis.

NIMH

Axelrod, J., and Szara, S. Enzymatic conversion of metanephrine to epinephrine.

Bayley, N. The values and limitations of infant testing.

Bowen, M.; Dysinger, R. H.; and Basamania, B. The role of the father in families with a schizophrenic patient.

Essig, C. F., and Fraser, H. F. EEG changes in man during use and withdrawal of barbiturates in moderate dosage.

Felix, R. H. Aspirations and achievements in mental health research.

Felix, R. H. States act to improve their mental health programs.

MacLean, P. D. The limbic system with respect to self-preservation and the preservation of the species.

Shakow, D. "Normalization" trends in chronic schizophrenic patients: Some implications for schizophrenia theory.

NINDS

Kurland, L. T. Parkinsonism - epidemiology.

Masland, R. L. Research survey summarized.

Masland, R. L. What the M.D. candidate should learn about mental retardation.

Norris, F., Jr. Isotonic relaxation of skeletal muscle, with special reference to extreme contraction.

Seliger, H. H., and Agranoff, B. W. Solid scintillation counting of H³ and C¹⁴ in paper chromatograms.

Siedler, H. D.; Nicholl, W.; and Kurland, L. T. The prevalence and incidence of multiple sclerosis in Missoula County, Montana.

Spyropoulos, C. S., and Ezzy, M. E. Nerve fiber activity in heavy water.

Spyropoulos, C. S.; Tasaki, I.; and Brady, R. O. The effects of oxidizing agents upon the electrophysiological properties of the nerve fibers.

Tasaki, I., and Chang, J. J. Electric response of glia cells in cat brain.

Taylor, R. E. Effect of procaine on squid nerve.

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NIH SCIENTIST ELECTED TO NATIONAL ACADEMY

Dr. Dietrich H. F. A. Bodenstein, entomologist in the Gerontology Branch, NHI, was elected to membership in the National Academy of Sciences at its annual meeting in April.

Membership in the Academy is accorded on the basis of quality of scientific achievement, and is regarded as one of the highest honors a scientist can receive. Dr. Bodenstein is the sixth NIH scientist to be so honored.

Dr. Bodenstein, who joined the NIH staff in January 1958, has identified the hormone that controls insect development from the larval to the adult stage. At present, he is studying the interaction between activating and responding forces that determine morphogenetic patterns in the postembryonic life of insects.

Other NIH members of the National Academy of Sciences are Dr. Joseph E. Smadel, Associate Director; Dr. Charles Armstrong, NIAID; Dr. Kenneth S. Cole, NINDB; Dr. Ralph W. G. Wyckoff, NIAMD; and the late Dr. Lyndon F. Small, NIAMD.

NIH Wardens Complete Course In First Aid

Thirty-six NIH Civil Defense wardens will receive certificates this week for completing the standard Red Cross course in first aid. The course is the first of a series sponsored by Plant Safety Branch, DBO. Fire Chief James R. Welch and Lt. Fred D. Reynolds of the Guard Section teach the course. Both men are qualified Red Cross instructors.

James B. Black, Chief Building Warden, hopes to have all of NIH's 300 volunteer wardens qualified by the end of the series. At present, 50 wardens are undergoing training that will be completed in August.

BUNIM Contd.

Clinical Director of NIAMD. He was previously on the faculty of New York University.

Well-known in the field of rheumatic diseases, Dr. Bunim is also Associate Professor of Medicine at Johns Hopkins University. He is founder and editor of the Bulletin on Rheumatic Diseases and has published widely. From 1949 to 1954, Dr. Bunim was a consultant to the Surgeon General of the U. S. Army.

NEWS BRIEFS

Dr. William H. Stewart, formerly Associate Director, NCI, has been appointed Chief of the Service's Division of Public Health Methods. A specialist in public health administration, Dr. Stewart has been assigned during the past year to the immediate office of the Surgeon General. He replaces George St. J. Perrott, who retired last month.

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The first meeting of the Surgeon General's Accident Prevention Advisory Committee was held last month. It was decided that PHS would initiate basic and long-range research on the human factors causing accidents, and would promote State and local participation in practical programs of prevention.

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Maurice LeBosquet, a PHS commissioned officer since 1936, was recently assigned to the International Cooperation Administration as Chief Sanitary Engineer of the Technical Cooperation Mission to India. For the past three years he has been associated with the Water Supply and Water Pollution Control Program for interagency activities.

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Dr. Vane M. Hoge, Assistant Surgeon General and Chief of the Division of Hospital and Medical Facilities, BMS, retired on June 30, after 30 years of service. He will assume the executive directorship of the Hospital Planning Council for Metropolitan Chicago.

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Apollonia O. Adams, Chief of the Division of Nursing Resources, BMS, has accepted an invitation to lead a workshop on Nursing Surveys in Brazil this month.

Doctors' Orchestra Meets

The Doctors' Orchestra will meet on alternate Thursdays this summer, beginning July 10. The group, open to all doctors and members of their families, meets at 8 p.m. in the Perpetual Building, Bethesda.

NCI STUDY Contd.

other diseases of the cardiovascular-renal system and from such respiratory diseases as bronchitis, pleurisy, and emphysema, and from cirrhosis of the liver and ulcers of the stomach and duodenum.

DR. THELMA DUNN REPORTS ON RUSSIAN TOUR



Dr. Dunn (extreme right) and members of her party visit the monkey colony at the Sukhumi Medical Biological Station in Abkhazi, U.S.S.R. Russian interpreters and members of the Biological Station's professional staff also show interest in the baboons.

Dr. Thelma B. Dunn, of NCI, who recently returned from a tour of Soviet medical facilities, was particularly impressed by the courtesy and friendly curiosity of her Russian hosts.

Dr. Dunn and five other American medical women were guests of the U.S.S.R. on the one-month trip, which reciprocated the visit of six Russian women doctors to the U. S. last spring.

While in Russia, the Americans toured medical schools, laboratories, and treatment centers in Moscow, Leningrad, Kiev, Sochi, Tbilisi, and Tashkent. They were accompanied by three interpreters and a photographer from the magazine, "Soviet Woman." Sometimes traveling by jet airliner, they were greeted with bouquets of flowers at each stop and were welcomed by the local Minister of Health, often a woman.

In addition to health facilities, the Americans visited museums, cultural centers, and theaters. On several occasions, they were guests in private homes. Dr. Dunn recalls a pleasant evening at the home of the virologist, Dr. Antonina K. Shubladze, one of the six women who toured American medical institutions early this year.

A high point of the tour was a visit to the monkey colony at Sukhumi, where records have been kept on some of the animals for as long as 30 years. The fact that scientists at the colony have produced cancer in monkeys was of special interest

to Dr. Dunn, who is Head of the Cancer Induction and Pathogenesis Section of NCI's Laboratory of Pathology.

Another interesting visit was to a collective farm near Kiev, where the primary health care of the farm's 3,000 people was explained to the Americans. While in Kiev they were also shown 900-year-old monastery caves, now maintained for cultural interest. Guided by monks who live in the present-day monastery, the women were impressed by the quiet dignity and the traditional long hair and beards of these men.

The Russian food was good if sometimes strange, Dr. Dunn recalls. More than one breakfast included yogurt, cucumbers, sour cream, and caviar. On another occasion the Americans were amused when they were served strawberries and champagne three times in one day by their generous hosts.

Dr. Dunn, who has three children, was delighted with Russian youngsters who greeted them with English phrases learned in school. English is also taught in Soviet medical schools, according to Dr. Dunn, but reading rather than speaking ability is emphasized.

Dr. Dunn enjoyed her unusual assignment, and believes that the Russians were as pleased with the exchange as the American women were.

"After all," Dr. Dunn says, "we are all working for a common goal—improvement of the public health."

DR. SHOCK VISITS JAPAN ON AGING RESEARCH TEAM

Dr. Nathan W. Shock, Chief of the NHI Gerontology Branch, recently returned from Japan where he was a member of a research team sponsored by the Atomic Bomb Casualty Commission. The four-man team investigated possibilities of developing longitudinal studies on aging in the populations of Hiroshima and Nagasaki.

Two weeks spent in Hiroshima afforded the scientists a rare opportunity to study the effects of radiation on aging. They were also able to observe cultural and racial differences in patterns of aging.

While in Japan, Dr. Shock presented papers at meetings of the Gerontological Society of Western Japan in Osaka and the Japanese Gerontological Society in Tokyo.

WRIGHT Contd.

sharply reducing the incidence of schistosomiasis in the Middle East. During his long research career, he has served as a consultant to WHO, the Army, and the State Department in the international health field. He was awarded the Legion of Merit for his services to the U. S. Army in investigating schistosomiasis in the Far East.

Dr. Wright will leave for Europe this month in the capacity of a consultant to NIAID. There, he will present papers at the Seventh International Congress for Microbiology, in Stockholm, and the Congresses on Tropical Medicine and Malaria, in Lisbon. He will also visit tropical disease laboratories in England, Scotland, Italy, Spain, and France.



Dr. Willard H. Wright