DR. D. W. PATRICK STARTS CC DUTY

Dr. Donald W. Patrick, formerly Medical Officer in Charge of the Baltimore PHS Hospital, will assume his new post of Clinical Center Director June 23. He will succeed Dr. John A. Trautman, who left NIH to become Medical Officer in Charge of the Fort Worth, Texas, PHS Hospital.

A native of Denver, Colorado, Dr. Patrick received his M.D. from the University of Colorado in 1930. After interning at New Orleans Hospital, he was commissioned in the Public Health Service in 1931. For several years he served in PHS stations in New Orleans and Seattle, Washington.

In 1935, Dr. Patrick joined the NIH staff at 25th and E Streets, and worked with Dr. R. E. Dyer, former NIH Director, on studies of typhus and spotted fever. The following year his NIH assignment took him to the Leprosy Investigations Station at the Kalihi Hospital in Honolulu. He returned to this country in 1940 and served as Executive Officer at the

DR. DAVID SHAKOW NAMED NIMH LAB CHIEF

The appointment of Dr. David Shakow as Chief of the NIMH Laboratory of Clinical, Developmental and Experimental Psychology was announced June 1 by Dr. Leonard A. Scheele, PHS Surgeon General. Dr. Shakow has been Chief Psychologist of the Illinois Neuropsychiatric Institute and Professor of Psychology at both the University of Illinois and the University of Chicago since 1946.

Dr. Shakow is widely known for his pioneer work in bringing the techniques of clinical and experimental psychology to bear on schizophrenia. Much of this work was done during his 25-year tour of duty in Worcester, Massachusetts, where he served as acting director of the Child Guidance Clinic and director of the State Hospital's psychological research program.

For many years Dr. Shakow has served as a consultant to NIMH, and is at present an expert consultant in

KUHN MEMORIAL CUP IS PRESENTED TO NIH

The National Institutes of Health was the recipient June 7 of the Oliver Owen Kuhn Memorial Cup in recognition of its outstanding community service to the Bethesda area. The cup, donated by The Evening Star, is awarded annually by the Bethesda Chamber of Commerce. It is named for a former managing editor of The Star, who died in July 1937.

The presentation was made at a dinner meeting of the chamber in Thompson's Restaurant, Bethesda. Dr. James A. Shannon, Associate Director, accepted the award on behalf of NIH.

Howard P. Bailey, assistant to the managing editor of The Star, presented the cup. Mr. Bailey told the chamber, "A more suitable recipient for the trophy could hardly have been selected." He also pointed out the interesting fact that the first recipient of the cup was the late Mr. Luke I. Wilson, who with his wife presented to the Public Health Service part of the land on which NIH is located.
Studies by scientists in NCI's Laboratory of Biochemistry have revealed clues regarding the body's utilization and disposal of cancer-producing substances. Conducted with animals, the studies are applied to an investigation of the mechanism by which these carcinogenic agents produce cancer.

The list of carcinogens is fairly well known and contains a number of coal-tar derivatives, some kinds of dyes, various aromatic chemicals, the arsenicals, and some other metals and their by-products. It is important, however, to know not only what those substances are, but also what factors in their composition may be responsible for the observed carcinogenic action.

The use of radioactive isotopes of various chemical elements as tracers has enabled scientists to follow a substance in test animals, primarily rats, through its course in the digestive, absorptive, circulatory, and excretory processes of the body, by means of the revealing radiation emitted by the labelled substance.

The work of Drs. Elizabeth and John Weisburger and Harold Morris has centered chiefly on the powerful carcinogen 2-acetylaminofluorene, bearing a carbon atom labelled in the ring. By combining the use of isotopic techniques with paper and column chromatography, the metabolism of the chemical can be studied in the animal. After a rat is fed the ring-labelled carcinogen, an analysis is made of various organs and the blood, feces, and urine, to determine the distribution and quantity of the radioactivity.

During metabolism the carcinogen is converted into several other compounds. The NCI scientists have detected at least 12 transformation products, or metabolites, as they are called. Some of the metabolites have been identified, and others are as yet unknown.

Another important finding is that some of the metabolites combined with the tissue of the rat, a process that may be involved in the carcinogenesis. From such findings may come the clue as to how cancer is produced in the body.

Additional studies have been conducted with the carcinogen 2-methyl-C14-aminofluorene, which has a radioactive carbon element in the side chain. The investigators found that 72 hours after a single dose of the chemical had been fed to rats, more than 50 percent of the radioactivity was found in the exhaled breath, indicating metabolic destruction of the compound. When the cancer-producing agent was fed to animals deficient in riboflavin, only 30 percent was excreted in the breath and the metabolism of the carcinogen showed pronounced changes. The implication is that when the cancer-producing chemical undergoes less complete destruction in a riboflavin-deficient body, the destroyed remainder may produce cancer faster than it would in animals on a complete diet.
**NIH Spotlight**

**Ora Marshino**

When NCI bids farewell in July to Miss Ora Marshino, a longstanding relationship will be severed. She was the second civil service employee appointed to NCI's administrative staff after its creation in 1937. She joined the staff as administrative assistant in February 1938.

Miss Marshino's job was truly a pioneering one, since NCI was the prototype for all the institutes of the National Institutes of Health. When Congress provided for the appointment of an advisory council to carry out the NCI Act, there were no precedents to follow. Miss Marshino worked closely with the noted pathologist, Dr. Ludvig Hektoen, who was the first Executive Director of the Cancer Council, and Dr. R. R. Spencer, then the executive assistant of the Institute. She assisted in the administration of the council's activities.

The NCI Act authorized the establishment of research fellowships, a traineeship program in the diagnosis and treatment of cancer, grants-in-aid for research and radium loans to hospitals. Miss Marshino helped to set up all the administrative procedures implementing these new programs.

The volume of inquiries from research organizations, universities, and the general public about the operation of NCI led Miss Marshino into the writing field. She prepared a comprehensive article on the administration of the National Cancer Institute Act for publication in the Journal of NCI. Later, she wrote an article on breast cancer that was published originally in Hygeia and subsequently reprinted by NCI as its first "site" pamphlet. She gradually switched from administrative work to the preparation of reports and, in 1947, was transferred to the Cancer Reports Section. There she has worked on a number of reports like the one she is currently revising, "Cancer Services and Facilities."

Though born in Sullivan, Indiana, Miss Marshino calls Owensboro, Kentucky, her home. She spent most of her childhood in Kentucky and came to Washington to work and to continue her education. She attended George Washington University at night, obtaining her A.B. and A.M. in political science, and finally her Doctor of Laws. Before coming to NIH, she worked in the Labor Department.

The NIH Recreation and Welfare Association owes her a great debt of gratitude for her help in many of its activities. She has been a member of its executive council each year, and is currently its business counselor. She drafted its articles of incorporation, served as chairman of the committee that drew up the first guidelines for the welfare loan fund, and drafted the present by-laws.

When she leaves NIH, Miss Marshino is taking "two Sabbatical years." She first plans to visit Kentucky and to complete her study of the French language. She wants to do a great deal of reading on European customs and history, preparatory to her departure for the continent next spring.

Miss Marshino will work again after her two leisure years are over. She may remain in Washington and do writing, or she may open a law office in Kentucky.

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**NIH BIDS FAREWELL TO DR. JAMES V. LOWRY**

Dr. James V. Lowry, Chief of the NIMH Community Services Branch, will leave NIH July 1 to become Medical Officer in Charge of the PHS Hospital at Lexington, Kentucky. Dr. Lowry was Clinical Director of that 1400-bed hospital from 1943 to 1947.

Dr. Lowry received his M.D. degree from the University of Wisconsin in 1937. He began his career with PHS in 1937, when he interned at the PHS Hospital in New Orleans, La. His other tours of duty included two assignments at the PHS Hospitals in New Orleans, La., and one at NIH from 1940 to 1943. He received his training in psychiatry at the Colorado Psychopathic Hospital in Denver, and at the Washington Psychoanalytic Institute. He has been at NIMH since 1947.

**DR. PATRICK Cont’d**

Staten Island PHS Hospital for four years.

From 1944 to 1946, Dr. Patrick was Medical Officer in Charge of the PHS Hospital in Evansville, Indiana. After a year at the University of Chicago School of Hospital Administration, he became Medical Officer in Charge of the Detroit PHS Hospital. He has been M.O.C. at the Baltimore Hospital since 1949.

**DR. SHAKOW Cont’d**

psychology to the Surgeon General of the Army, a member of the National Advisory Committee on Clinical Psychology of the Veterans' Administration, and a consultant in clinical psychology to the Group for the Advancement of Psychiatry.
DR. BERLINER NAMED
NHI RESEARCH DIRECTOR

Dr. Leonard A. Scheele, PHS Surgeon General, recently announced the appointment of Dr. Robert W. Berliner as Associate Director in Charge of Research of the National Heart Institute. Dr. Berliner will occupy the position formerly held by Dr. James A. Shannon, now Associate Director of NIH.

In his new position, Dr. Berliner will be in charge of research concerned with the structure and function of the heart and circulatory system and the cause and nature of cardiovascular disease.

Formerly Chief of the NHI Laboratory of Kidney and Electrolyte Metabolism, Dr. Berliner has been at NIH since 1950. Before coming to NIH, he was assistant professor of medicine at Columbia University, and research associate with the New York City Department of Hospitals.

Born in New York City, Dr. Berliner received his B.S. from Yale University and his M.D. from Columbia University.

NEW U.S.P. REFERENCE SERVICE IS AVAILABLE

Cooperative efforts of the U. S. Pharmacopoeial Convention, Inc. and the NIH Endocrinology Study Section have recently made a set of 24 U.S.P. Steroid Reference Substances available to scientists throughout the country.

The new service is designed to meet the increasing demand for steroid compounds for use as reference standards in connection with the rapidly developing paper chromatographic techniques. Some of these complex compounds, many of which are rare and available from few sources, have been found to be important therapeutic agents. In addition, the identification of steroid excretion products is essential in the diagnosis of some forms of cancer, as well as metabolic diseases.

The need for easily available steroid preparations was first brought to the attention of the U.S.P. by the Endocrinology Study Section in 1952. As a result, a U.S.P. Advisory Board on Steroid Reference Substances, headed by Dr. Sam R. Hall of DRG, was established in April 1953. The first set of substances is now available for distribution.

NORMAL VOLUNTEERS TAKE PART IN RESEARCH

Young men and women enrolled in the public service program of the "peace churches" are now serving as volunteer "normals" for Clinical Center studies of heart disease and metabolic disorders. A total of 17 volunteers, members of the Church of the Brethren or the Mennonites, have participated in the studies since February.

Selective Service accepts such service by boys classified as conscientious religious objectors as "public service time," equivalent to military draft time. The churches have organized a National Board of Religious Objectors to help find suitable projects for these people, and the local draft board is responsible for placing them.

Among the studies in which the volunteers are participating is a study of the factors that influence the metabolism of lipids and lipoproteins, with particular reference to the effects of heparin. These patients are fed both fatty and standard diets, and receive hypodermic and intravenous administrations of heparin. Periodic blood samples are taken to determine the effect of the procedures on lipids and lipoproteins.

Another group of volunteers are engaging in a study of obesity and heart disease relations. In order to investigate the excretion of water by normal subjects under various conditions of stress and body position, these volunteers drink large volumes of water and perform specified exercise tests. Measure is taken of the total and comparative volume and concentration of solids in urine samples obtained from the patients.

A third group of "normals" are participating in a study to determine the effect of certain food supplements in improving the value of rice as a therapeutic diet. Subjects eat supplemented and non-supplemented Kempner rice-fruit diets as well as standard diets. Blood and waste samples are taken at regular intervals to study the effects.

The volunteers receive no wages for their services, but receive a "maintenance fee" from the Church. Under contracts with NIH, the Church also takes care of all the details of interview and travel arrangements, at a cost to NIH of $3.85 per person per day. Selection of the volunteers is made entirely on a medical basis.

Except for dietary restrictions and some curtailment of physical activity, no risk or serious inconvenience is associated with the volunteers' participation in the studies. The Occupational Therapy Section has helped solve their greatest problem--boredom--by providing for them a variety of activities.