Dr. Shannon Wins NAS Award for Public Service

Dr. James A. Shannon, Director of NIH, last night (April 24) received the Public Welfare Medal of the National Academy of Sciences for “eminence in the application of science to the public welfare.”

The Public Welfare Medal, considered the most distinguished of the Academy’s awards was presented to Dr. Shannon by Dr. Detlev W. Bronk, President of the Academy, at the annual dinner meeting of members and guests at the Statler-Hilton Hotel in Washington.

The medal is unique among the Academy’s awards because it is presented in recognition of outstanding public service in the use of science, rather than for achievements within a particular discipline.

In making this award the Academy (See DR. SHANNON, Page 5)

Top PHS Honor Conferred Upon Drs. Daft, Bell

Dr. Floyd S. Daft, Director of the National Institute of Arthritis and Metabolic Diseases, and Dr. Joseph A. Bell, Chief of the Epidemiology Section, National Institute of Allergy and Infectious Diseases, have received the Distinguished Service Medal, top honor of the PHS Commissioned Corps.

The awards were presented by DHEW Secretary Abraham Ribicoff at the 11th Annual DHEW Honor Awards Ceremony April 11 in the HEW Departmental Auditorium.

Dr. Daft, who will retire on May 1 (See PHS HONOR, Page 6)

Dr. Stone to Head New NIH Division; Dr. Powell Appointed DGMS Chief

Surgeon General Luther L. Terry of the Public Health Service has announced the establishment of a new Division of Research Facilities and Resources at the National Institutes of Health, effective July 15.

Dr. Frederick L. Stone, currently Acting Chief of the Division of General Medical Sciences, will head the new Division.

Dr. Clinton C. Powell, presently Assistant Director of the National Institute of Allergy and Infectious Diseases, will become Chief of the Division of General Medical Sciences. He succeeds Dr. G. Halsey Hunt who retired April I.

The new Division, Dr. Terry said, will centralize the administration of some of the major NIH activities and programs which provide broad support to the Nation’s biomedical research institutions.

It will be responsible for the following programs and activities: The Health Research Facilities Construction program, the program of support for Primate Centers, the General Clinical Research Centers program, the Special Resource Centers program, and the General Research Support Grant program.

Programs Support Research

Dr. Powell will head programs for the support of fundamental research and research training. The Center for Research and the Center for Research in Child Health—focal points for research in these areas—are other components of DGMS.

Born in Biloxi, Miss., in 1915, Dr. Stone received the Ph.D. degree at the University of Rochester in 1948. He was commissioned in the U. S. Public Health Service at that time and served at NIH until 1954, first as Chief of the Research Fellowships Branch in the Divi.

(See NEW DIVISION, Page 8)

Dr. Melvin Calvin, Nobel Prize Winner, Lectures on Photosynthesis Tonight

Dr. Melvin Calvin of the University of California, the Nobel Prize winner in chemistry for 1961, will deliver the 19th National Institutes of Health Lecture tonight (April 25) at 8:15 p.m. in the Clinical Center auditorium.

Dr. Calvin’s topic will be “Photosynthesis.” He will discuss the advances made in understanding the mechanisms by which green plants—combining the energy of the sun with water and carbon dioxide—produce all the food and other energy-providing substances of the earth.

In this area of investigation lies one of the greatest challenges confronting modern science: How is energy changed from one form to another?

Pursuing this challenge has led Dr. Calvin to the belief that the evolution of chemicals, up to and including living cells, occurred in a predictable and inevitable pattern, and that man’s coming adventure into space is but a necessary aspect of this same evolutionary process.

“The usefulness of such speculations as these,” Dr. Calvin has said, “ranges from the impact that they have upon our concept of man’s place in life and life’s place on earth to the very practical generation of ways and means of controlling and diverting living proc.

(See DR. CALVIN, Page 3)
Fucose Abnormally High In Sweat Mucoproteins Of Patients With CF

Scientists from the National Institute of Arthritis and Metabolic Diseases have found a high concentration of fucose in sweat mucoproteins from patients with cystic fibrosis. The study, which also represents the finding of mucoproteins in sweat of normal and CF patients may aid in genetic studies of cystic fibrosis.

Disorder Is Inherited

Cystic fibrosis (CF) is an inherited disorder affecting the exocrine body glands, which include the sweat, tear, and salivary glands as well as those associated with the pancreas, small intestine and lungs. Previous studies had shown that mucoproteins taken from fluid in the small intestine of CF patients contain an abnormally high amount of fucose.

The present preliminary studies of mucoproteins from CF sweat were made in hopes of revealing the nature of a common denominator for the many apparently unrelated manifestations of the disease in various body organs.

Sweat Is Frozen

Sweat from 10 normal controls and eight cystic fibrosis patients was collected during heat stimulation and immediately frozen in dry ice to prevent the degradation of heat-sensitive material before precipitation. The resulting material showed the presence of carbohydrate-protein complex containing galactose, N-acetylgalactosamine and sialic acid in equal molecular amounts in both groups of patients.

However, while only negligible traces of fucose were found in normal sweat, significant quantities of the sugar substance were present in CF sweat, thus suggesting some defect in mucoprotein metabolism in the disease.

The work by Drs. J. Charles Pallavicini, Othmar R. Gabriel, and Paul A. di Sant'Agnese of NIAMD's Pediatric Metabolism Branch appears in the 1962 abstracts of the Federation of American Societies for Experimental Biology.

DR. SHANNON

(Continued from Page 1)

emy indicates its high regard for the medalists—many of them not research scientists—by conferring upon the recipient certain privileges of membership, including the right to present papers at Academy meetings.

Although it was established in 1915, the medal has been awarded only 27 times previously. Last year the recipient was Dr. Alan T. Waterman, Director of the National Science Foundation. Other winners have included G. W. Goethals, W. C. Gorgan, Herbert Hoover, John D. Rockefeller, Jr., Lt. Gen. James H. Doolittle, Karl Taylor Compton, and Vannevar Bush.

The awards ceremony was a part of the 98th Annual Meeting of the Academy held at the Academy building, 2101 Constitution Ave., N.W.

You and Your Mail

To provide information essential to the efficient operation of the NIH Mail and Messenger services, the Communications Section, OSB, is publishing in the Record a series of guidelines for the use of NIH personnel.

Today's topic is "Inter-Office Mail."

Communication by mail is an age-old custom. Whether the correspondence is a few valuable lines for a valuable document, the manner in which it is prepared for mailing is important.

Here at NIH, inter-office messenger envelopes of various sizes are available and should be used at all times in the transmission of correspondence between NIH offices and to DHEW and FHS offices.

To assure correct and prompt delivery, the envelopes should clearly show the name and the building and room numbers of the addressee.

For the transmission of telegrams, these inter-office envelopes should not be used. Telegrams may be phoned to the Mail Room in Building 31, Ext. 5651, or hand-carried there from the office of the sender.

Written confirmation of the telegram, typed on the Telegraphic Message form (Form 14), may be hand-carried to the Mail Room or sent in the next regular mail pickup, but should not be enclosed in any envelope.
the improvement of agricultural
ultimately dependent, achieves the
esses, such as would be involved in
which all life on earth today is
foodstuffs for both plants and
the light energy absorbed by the
chlorophyll of green plants; second,
First, sunshine is absorbed by the
dioxide is absorbed by the plant
sugar, with the aid of the “active”
chlorophyll splits the water mole-
ponent parts, namely, some form of
“active” oxygen is released
radiation Laboratory of the
photosynthesis by feeding plants
within its geodesic dome at
N.W., the Man-Against-Cancer ex-
hibit, sponsored by the National
stitute and the American Cancer
visitors at the rate of nearly 10,000
It will remain open in its present
location through next Sunday dur-
and will then be shipped to Seattle
for display at the World’s Fair from
May through October.
The 9,000-sq.-ft. exhibit, dramat-
portraying the Nation’s fight against
cancer, is a feature of Cancer Pro-
memorating the 25th anniversary of
The lower portion of the
model, representing the membrane
that surrounds the cell, is cut
away to reveal the interior. The
clear, spaghetti-like material in
the top portion represents the
strands of protein called acto-
plasm. The model was loaned by
the Upjohn Co.

Dr. Herbert Kahler, former Head
of the Physical Biology Section,
Laboratory of Physiology, NCI,
died March 29 in the Clinical
Center. A recognized authority in
cancer research, he retired in Oc-
tober 1960, after 32 years in the
Public Health Service.
A pioneer in the applica-
tion of physical principles and tech-
niques to biological systems, Dr.
Kahler joined the
Laboratory, forerunner of NIH, in
1928. He became Head of the
Physical Biology Section in 1931.
Dr. Kahler considered his most
important work to have been in-
creasing the accuracy and dur-
ability of the glass electrode, used
in measuring the acidity of tissues
and solutions. He was outstanding
in the use of electron micro-
scope to study the polyploidy
and Shope papilloma viruses. He also
reported on electron microscope
studies of sodium desoxyribonucle-
ate and the tobacco mosaic virus.
He received a B.S. degree from the
University of Washington in
1918, and a Ph. D. in mathematical
physics from Cornell University
in 1922. After spending a year
(1923) on the faculty of Yale Uni-
versity, he continued his graduate
study at the University of Berlin
and the California Institute of
Technology.

The author of 57 publications in
cancer research, Dr. Kahler was also
a member of numerous pro-
fessional societies.
Dr. Kahler is survived by his wife,
Phera, of 10604 Wheatley Street,
Kensington, Md., a son, three
daugughters, and eight grandchildren.
Dr. Daft said, “The increasing numbers and types of investigations initiated here throughout these years have resulted in the very best integration of clinical and basic research that can be found anywhere in the world.”

Recalling that a number of NIAMD laboratories trace back through the Experimental Biology and Medicine Institute to the old Hygienic Laboratory, Dr. Daft said, “Perhaps one of the most important developments during the early years of the new NIAMD was the emphasis on the concept of ‘metabolic disease’ and the present acceptance in the scientific and clinical world of the metabolic nature of many important diseases known to man.”

**Authority on Nutrition**

An authority on nutrition, Dr. Daft’s work in directing and conducting nutrition studies has contributed to the understanding of dietary deficiencies causing anemia and cirrhosis of the liver. He was a pioneer in the study of an unidentified substance later shown to be folic acid. This essential B complex vitamin is widely used today in treatment of blood disorders. He also played a major role in research on pantothenic acid, another essential B vitamin.

**Studies Bacteria Role**

Dr. Daft’s most recent work has concerned the relationship of bacteria to nutrition through studies with germfree animals. He was instrumental in setting up a germfree research laboratory at NIAMD to examine the role of intestinal bacteria in supplying essential nutrients to their hosts. It was here that he and his associates developed new techniques in germfree research. He also initiated many studies which have indicated that some bacteria are helpful to animal nutrition and, presumably, to human nutrition as well.

**Visits Sweden, USSR**

His outstanding role in nutrition research was recognized last year when he was the only American among a group of internationally known nutritionists invited to participate in a Swedish symposium on intestinal bacteria and nutrition. He was also a recent visitor to the Soviet Union as part of a five-man American team surveying Russian progress in medical research.

Dr. Daft’s role as scientist-administrator in furthering research progress was praised last year at ceremonies marking NIAMD’s first decade of operation.

At a program capping these ceremonies, he was presented a silver plaque by the American Rheumatism Association and the Arthritis and Rheumatism Foundation in recognition of his “constant devotion to, and effective support of, a national program of research, training and education in arthritis and connective tissue diseases.”

**Joins PHS in ’37**

Dr. Daft was appointed to the PHS in 1937 and spent three years as Chief of the Laboratory of Biochemistry and Nutrition at the old Hygienic Laboratory, where he participated in the important nutrition research which began with Dr. Joseph Goldberger’s classic studies on pellagra.

These studies were later expanded by Dr. Goldberger’s associate, Dr. William Sebrell, into the general field of nutrition, including research on the B vitamin complex. Dr. Daft soon became associated with Dr. Sebrell in these studies.

Under Dr. Daft, Yale’s nutrition research at NIAMD reflects the direct continuity of research started by Dr. Goldberger and extended by his protege, Dr. Sebrell.

**Cites NIAMD Growth**

In 1940 Dr. Daft was named Assistant Director of the Experimental Biology and Medicine Institute. This Institute formed the nucleus of NIAMD when the latter was established in 1950.

Commenting on the growth of NIAMD from its origins in EBMI, Dr. Daft said, “At the start, there were natural misgivings in some quarters that such remarkable growth might be attended by a lowering of standards of research. Instead, and in spite of increasingly complex problems faced by today’s investigators, NIAMD today with NIH has maintained and strengthened its high quality of research in keeping with the traditions of the PHS.”

Before joining the PHS, Dr. Daft engaged in teaching and research at Yale, Harvard, the University of Rochester School of Medicine, and the Carlsberg Laboratories in Copenhagen, Denmark.

He has been a member of the PHS Commissioned Officer Corps since 1945, is associated with numerous scientific and professional organizations, and is currently Chairman of the Board of the Executive Committee of the Federation of American Societies for Experimental Biology. In this capacity he presided at the recent meetings at Atlantic City and chaired the Federation evening symposium.

Recently Dr. Daft also served as President of the American Institute of Nutrition, one of the member societies of the Federation. In addition, he has also been Assistant Editor of Nutrition Reviews and Associate Editor of the Journal of Nutrition.

Born in Griswold, Iowa, Dr. Daft received his Ph.D. at Yale University in 1926 and holds an honorary degree of Doctor of Science from Simpson College in Indiana, Iowa, from which he graduated in 1921.

Dr. Daft’s post-retirement plans include a continuation of his research studies and academic commitments on the East Coast, where he and Mrs. Daft will presently remain.

**Dorothy Allison Resigns After 13 Years at NIH**

Dorothy F. Allison, Secretary to Joseph S. Murtaugh, Chief of the Office of Program Planning, OD, resigned March 30 after 13 years with NIH.

Mrs. Allison came to NIH in February 1949 from the Bureau of State Services. Prior to becoming Mr. Murtaugh’s secretary in November 1960, she was secretary to John E. Fletcher, then Chief of the Office of Research Information.

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**Daft Opens Congress Of Gastroenterology**

Welcoming remarks by Dr. Floyd S. Daft, Director of the National Institute of Arthritis and Metabolic Diseases, officially opened the Eighth Pan American Congress of Gastroenterology Monday in New York.

Addressing delegates meeting at the Roosevelt Hotel, Dr. Daft spoke briefly on NIAMD’s role in gastroenterology and the importance which the Government attaches to research and training in this field of medicine.

Federal support for training and research in gastroenterology today welcomes “anything which will further our knowledge in this area,” he said. “This is in marked contrast to the situation about 10 years ago, when only a handful of gastroenterology research projects were supported through the National Institutes of Health.

**Contrasts Eras**

“At that time,” he continued, “there was no gastroenterologic training program to afford young scientists and clinicians postgraduate training which would either prepare them for the practice of this specialty or for research and teaching in this important field.”

In closing, Dr. Daft expressed the hope that “this interchange of scientific thought originating from a variety of sources” will serve to enrich our common knowledge to the ultimate benefit of mankind as a whole.”

The Congress is being held under the auspices of the Association Interamericana de Gastroenterologia and the American Gastroenterological Association.

**Genetics Methodology Volume Published**

Methodology in Human Genetics, the first of three volumes based on a series of symposia sponsored by the Genetics Study Section, Division of Research Grants, and supported by a Division of General Medical Science grant, has just been published.

Edited by Walter J. Burdette, a member of the National Advisory Cancer Council, and former Chairman of the Genetics Study Section, the 400-page text is made up of chapters contributed by leading geneticists and is divided into five sections: Analysis of Human Heredity, Genetics of Disease, Mutations, Cyogenetics, and biochemical advances in research techniques, special procedures, genetic stocks, equipment sources, and many other topics are discussed.

The two companion volumes, to be published later this year, will deal with methodology in mammalian and basic genetics.
Clinical Society Elects Driscoll, Presents Awards

Dr. Edward J. Driscoll, Chief of the Clinical Investigations Branch, National Institute of Dental Research, was elected President of the U.S. Public Health Service Clinical Society at its 16th Annual Meeting here April 4-7. Dr. Driscoll, who has served as the Society's Vice President for the past year, succeeds Dr. John Walsh, Chief of Research Activities, USPHS Hospital, New Orleans, La.

The meeting was attended by more than 350 Society members and guests. Awards totaling $400 were presented by Surgeon General Luther L. Terry, at the final session to the authors of six of the 129 papers read at the meeting.

**Preseents Best Paper**

The John D. Lane, Jr., Annual Research Award of $150 for the best paper presented at the meeting was won by Dr. Norman Tarr, Chief of Surgery, USPHS Hospital, Baltimore, at the recent meeting of the PHS Clinical Society.—Photos by Sam Silberman.

Recipient of first and second prizes, respectively, for medical-surgical papers presented at the meeting, are Dr. John T. West, National Cancer Institute (left) and Dr. Edgar L. Surprenant of Buffalo, N.Y.

Staten Island, N.Y., coauthors of the best pharmacy paper, won $50. Representative John E. Fogarty of Rhode Island was guest speaker at the Society's annual banquet at the Naval Weapons Plant on Thursday evening, April 5.

Dr. Driscoll and Dr. Clifton K. Himmelsbach, Clinical Center Associate Director, were cochairmen of the 4-day meeting.

**NIH-SS Bus Service Ended by Low Revenue**

Insufficient financial returns on their investment have forced officials of the D.C. Transit Company to discontinue rush-hour bus service between NIH and Silver Spring.

The service went into effect December 18 on a 90-day trial basis which was extended 30 days through April 20. During that time a daily average of 42 passengers utilized the service.

In order to meet operating expenses, it was necessary for the bus to carry 65 passengers per day, each paying the full round-trip fare, according to William E. Bell, Assistant Vice President of the transit company.

Since it was evident after four months that this minimum daily figure would not be met, the company regrettably made the decision to end the service, Mr. Bell said.

**Art Exhibit Entries Accepted Tomorrow**

Entries for the Fourth Annual NIH Art Show will be accepted tomorrow (April 26) from 4:30-5:30 p.m. on the stage of the Clinical Center auditorium. The competition is open to employees of NIH and their immediate families.

Entries are limited to three per artist in each of the three categories—oil, sculpture, and the graphic arts. An entry fee of $1 is required with each work submitted.

The show, sponsored by the Recreation and Welfare Association of NIH, will open in both bays of the Clinical Center lobby on May 5 and will be on exhibit through June 10.

Works selected for showing and prize awards will be chosen by a distinguished panel of judges: Dr. Grose Evans, Curator of the Index of American Design, National Gallery of Art; Jack Perlmutter, Washington artist and recent Fulbright fellow in Japan; and Frieda Sohn, sculptress, of the Baltimore Museum of Art and Goucher College. Cash awards will amount to about $259.

Entries, forms and information may still be obtained by calling the R&W Executive Secretary, Ext. 3597.

**Transfusion Reactions Seen Unrelated To Leukoagglutinin Presence in Blood**

By Dorothy Jeanne Davis

Patients who have substances that cause white blood cells to clump together in their blood prior to transfusions are no more likely to develop transfusion reactions than patients who lack these substances, according to a report presented here at the 16th Annual Meeting of the U.S. Public Health Service Clinical Society.

Previous studies showed that both the presence of these substances (leukoagglutinins) and transfusion reactions were more common in patients who had multiple transfusions. That these substances do sometimes cause clinical reactions has also been demonstrated.

**Relationship Assumed**

Because of these observations, it has been inferred that a causal relationship exists between the presence of these substances in individual patients and the occurrence of transfusion reactions in the patients.

The findings of a study conducted by investigators of the Division of Biologies Standards indicates that this assumption is not necessarily correct.

Over a 4-month period, 185 patients were tested for leukoagglutinins before transfusion. Four percent of these patients had clinical reactions such as chills and fever as a result of the transfusions. The incidence of reactions was no greater in patients with leukoagglutinins, even though the reactions were due to contamination with bacteria or bacterial pyrogens.

**Blood Bank Supervision Transferred to CC**

Administration of the Clinical Center Blood Bank, for the past six years the responsibility of the Division of Biologies Standards, has been placed under the direct supervision of the Clinical Center. The transfer became effective April 1.

This action places the Blood Bank, with its large transfusion program, under the administrative direction of the Office of the Director of the Clinical Center, which provides other supportive services for patient care. It also relieves the DBS from the operation of a service function which is not directly associated with its program.

**Urges Caution**

Dr. Schmidt said that caution should be used in referring to transfusion reactions as "pyrogenic," or in ascribing them to the presence of leukoagglutinins. In this study such was not the case. If the cause of such reactions is automatically assumed to be related to leukocytes that destroy blood, little effort may be made to study the incompatibility of serum proteins, platelets, and other possible causes of febrile, nonhemolytic transfusion reactions.

A complete report of this study has recently been published in Transfusion.
### ABILITY WINS

A cash award for superior scientific and managerial ability was presented recently to William T. Lane (right), a Research Technician in the Laboratory of Infectious Diseases, NIAID, by Dr. Dorland J. Davis, NIAID's Associate Director for Intramural Research. Mr. Lane was cited for the thousands of dollars he has saved the U.S. Government and for his outstanding contribution to the medical research objectives of the NIH.—Photo by Jerry Hecht.

### NIAMD Scientists Pinpoint the Cause Of Serious Blood Disease in Infants

Scientists at the National Institute of Arthritis and Metabolic Diseases have pinpointed the cause of a serious blood disease which occurs in newborn infants. A common form of bleeding disorder in infants, called thrombocytopenic purpura, is now known to result from blood cell differences between mother and offspring, the cells in which the difference occurs are blood platelets which, along with red and white blood cells, form the non-liquid elements of blood. Platelets, spherical bodies about one-third the diameter of red blood cells, are needed to prevent the leakage of blood through vascular walls.

**Traced to Antibodies**

Dr. N. R. Shulman and his associates at NIAMD's Metabolic Disease Branch, reported that most cases of infant purpura—shown by bleeding and a lack of platelets—are due to antibodies formed in the expectant mother against the different platelet type in the unborn child.

The infant's type of platelet is inherited from the father, and because it is foreign to the mother, it provokes the formation of antibodies. The mother's antibodies are transmitted to the infant through the placenta, and cause the infant to bleed by destroying his platelets.

Thus, the course of this disease, Dr. Shulman said, is comparable to that arising from the well-known Rh factor, an antigen substance in red blood cells. In this case, a dangerous anemia occurs in an Rh-positive unborn infant when his Rh-negative mother forms antibodies against his red blood cells.

Dr. Shulman further reported that matching of platelets can cause ill effects not only in newborn infants, but also occasionally in children and adults who receive transfusions. It was found that platelet antigens are mismatched when blood transfusions are given and may provoke antibodies which destroy platelets in subsequent transfusions, just as mismatched red blood cells are destroyed. Destruction of platelets by these antibodies may be the cause of some hitherto unexplained transfusion reactions.

**The Problem of Antibodies against Platelets**

The problem of antibodies against platelets is similar to the problem of antibodies against the various red blood cell groups, of which the A, B, O, and Rh groups are the best known. The ABO groups were first recognized at the turn of the century when the original puzzle of why some transfusions "take" and some do not was cleared up by Dr. Karl Landsteiner, an America Nobel Prize winner.

**Red Cells Differ**

He found that human red cells were not all alike and that if bloods of donor and patient are different, they will cause agglutination, or clumping of the red cells when mixed. Chemicals which account for the difference are located on the surface of the red blood cells. These chemicals act as antigens which will provoke the production of antibodies against the foreign antigens. These antibodies will then combine with their antigens on the surface of the red cells and cause agglutination of the cells, which is visible on microscopical examination.

**Develop New Technique**

The NIAMD scientists overcame this handicap by developing a sensitive technique for determining the antibodies which depend on complement fixation rather than agglutination, the latter being unsatisfactory for platelet-antibody detection. Complement fixation is a complex process which involves measurement of the substance in blood called complement which attaches to combinations of antigen and antibody and reflects the degree of antigen-antibody reaction. Dr. Shulman said his group's finding of platelet incompatibility is a further example of the subtle biochemical differences between human beings, which often are inherited. The study is reported in The Journal of Clinical Investigations.
THE NIH RECORD
April 25, 1962

Simple, Speedy Method Converts DIT To Thyroxine by Use of Snake Venom

Studies by scientists at the National Institute of Arthritis and Metabolic Diseases have shown that rattlesnake venom is capable of converting in the test tube the thyroid hormone, thyroxine.

Venom contains the enzyme L-amino acid oxidase which oxidizes DIT in the test tube to a compound which is no longer an amino acid but a keto acid (keto acids are agents which can serve as intermediates in a variety of metabolic processes). As soon as this keto acid, 4-hydroxy-3,5-diiodophenylpyruvic acid (DIHPPA) is formed, it combines with DIT that had not yet been acted on by the enzyme, resulting in the formation of thyroxine.

May Provide Information

Aside from its practical importance, the snake venom process may throw light on the obscure mechanism by which DIT is converted to thyroxine in the thyroid gland. Rattlesnake venom contains the enzyme L-amino acid oxidase which oxidizes DIT in the test tube to a compound which is no longer an amino acid but a keto acid (keto acids are agents which can serve as intermediates in a variety of metabolic processes). As soon as this keto acid, 4-hydroxy-3,5-diiodophenylpyruvic acid (DIHPPA) is formed, it combines with DIT that had not yet been attacked by the enzyme, resulting in the formation of thyroxine.

Possibility Suggested

This suggests that perhaps DIHPPA is an intermediate in the biosynthesis of thyroxine. DIHPPA could be formed in the gland in several ways other than through the action of L-amino acid oxidase. The possibility of formation of DIHPPA in the thyroid is now under investigation. The new process for making radioactive thyroxine is reported by NIAMD scientists Dr. H. J. Cahnmann and Tetsuo Shiba in the 1962 abstracts of the Federation of American Societies for Experimental Biology.

NIH Scientists Evaluate Hill-Burton Program

Accomplishments of the Hill-Burton program in terms of the Nation's general public health and patient-care facilities are evaluated in a recent report by Dr. Alan E. Trelour, Special Assistant to the Director, NINDB, and Donald H. Chih, Statistics and Analysis Branch, DRG.

The extensive report describes the results of a PHS-supported study conducted by the authors, then associated with the Hospital Research and Education Trust, entitled “Patient Care Facilities: Construction Needs and Hill-Burton Accomplishments,” the report is the 10th in a series of American Hospital Association monographs and is available from the Association.

EXHIBIT

(Continued from Page 2)

Vice President, cut a ribbon stretched across the entrance to the geodesic dome. Senator Warren G. Magnuson and former Senator Homer T. Bone were honored for their leadership in enactment of the legislation creating the National Cancer Institute. And the General Federation of Women's Clubs was commended for its role in the Cancer Society’s 1937 drive.

At a National Press Club luncheon preceding the ceremonies, Dr. Kenneth M. Endicott, NCI Director, chaired a panel discussion of the cancer problem and cancer research in which three scientists participated. They were Drs. I. S. Ravdin of the University of Pennsylvania, Chester Southam of Memorial Sloan-Kettering Cancer Center, Harry Rubin of the University of California, and E. Cuyler Hammond of the American Cancer Society.

The exhibit depicts the present status and directions of research in epidemiology, chemotherapy, virology, and immunology; describes the nature and scope of the cancer problem; traces progress in detecting and treating cancer; and offers guidelines on what individuals can do for their own protection against cancer.

John DuBay Appointed DRS Executive Officer

John Gordon DuBay, a former budget examiner in the Social Security Administration and for the past two years a management analyst officer in the Public Health Service, was named Executive Officer for the Division of Research Services, April 23.

He succeeds James A. King, who in December became one of the Division’s two Assistant Chiefs, with specific program responsibilities.

Before coming to NIH, Mr. DuBay was a member of the General Methods Staff of the Office of the Surgeon General and conducted management studies of PHS systems with a view to effecting improvements.

Among the projects were a comprehensive review of the automation of personnel statistics and a procedure for the patenting of employees’ inventions.

Previously Mr. DuBay was successively supervisory budget examiner and auditor with the Bureau of Old-Age Survivor’s Insurance, in Baltimore. He received the B.S. degree in Business Administration from Johns Hopkins University in 1955.

2 DRS Programs Move To New Locations

Two programs of the Division of Research Services have moved to new locations on the reservation, and a third move is tentatively scheduled for early in May.

The Environmental Services Branch has moved into new offices in Building 12, and the area it has vacated on the 11th floor of the Clinical Center is now occupied by the Translating Section of the Library Branch. As a result of the move, changes in translating procedures make it necessary to schedule appointments for oral translations.

The Medical Arts and Photography Branch will have its headquarters office on the 5th floor of the Clinical Center, in the space formerly assigned to the Translating Section. The occupancy date is tentatively set for May 1.

Mr. DuBay

Dr. Kenneth M. Endicott, NCI Director, speaks at the National Press Club Luncheon preceding the exhibit opening.

Pictured at the National Press Club luncheon arc, left to right: Rutherford L. Ellis, Chairman of the Board of Directors of the American Cancer Society; Dr. Chester Southam, Memorial Sloan-Kettering Cancer Center; Dr. E. Cuyler Hammond, American Cancer Society; Dr. I. S. Ravdin, University of Pennsylvania; George Cullen, President of the National Press Club; and Dr. Kenneth M. Endicott, NCI Director.

To Thyroxine by Use of Snake Venom

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EXHIBIT

(Continued from Page 2)

Vice President, cut a ribbon stretched across the entrance to the geodesic dome. Senator Warren G. Magnuson and former Senator Homer T. Bone were honored for their leadership in enactment of the legislation creating the National Cancer Institute. And the General Federation of Women's Clubs was commended for its role in the Cancer Society’s 1937 drive.

At a National Press Club luncheon preceding the ceremonies, Dr. Kenneth M. Endicott, NCI Director, chaired a panel discussion of the cancer problem and cancer research in which three scientists participated. They were Drs. I. S. Ravdin of the University of Pennsylvania, Chester Southam of Memorial Sloan-Kettering Cancer Center, Harry Rubin of the University of California, and E. Cuyler Hammond of the American Cancer Society.

The exhibit depicts the present status and directions of research in epidemiology, chemotherapy, virology, and immunology; describes the nature and scope of the cancer problem; traces progress in detecting and treating cancer; and offers guidelines on what individuals can do for their own protection against cancer.

John DuBay Appointed DRS Executive Officer

John Gordon DuBay, a former budget examiner in the Social Security Administration and for the past two years a management analyst officer in the Public Health Service, was named Executive Officer for the Division of Research Services, April 23.

He succeeds James A. King, who in December became one of the Division’s two Assistant Chiefs, with specific program responsibilities.

Before coming to NIH, Mr. DuBay was a member of the General Methods Staff of the Office of the Surgeon General and conducted management studies of PHS systems with a view to effecting improvements.

Among the projects were a comprehensive review of the automation of personnel statistics and a procedure for the patenting of employees’ inventions.

Previously Mr. DuBay was successively supervisory budget examiner and auditor with the Bureau of Old-Age Survivor’s Insurance, in Baltimore. He received the B.S. degree in Business Administration from Johns Hopkins University in 1955.

2 DRS Programs Move To New Locations

Two programs of the Division of Research Services have moved to new locations on the reservation, and a third move is tentatively scheduled for early in May.

The Environmental Services Branch has moved into new offices in Building 12, and the area it has vacated on the 11th floor of the Clinical Center is now occupied by the Translating Section of the Library Branch. As a result of the move, changes in translating procedures make it necessary to schedule appointments for oral translations.

The Medical Arts and Photography Branch will have its headquarters office on the 5th floor of the Clinical Center, in the space formerly assigned to the Translating Section. The occupancy date is tentatively set for May 1.

Mr. DuBay

Dr. Kenneth M. Endicott, NCI Director, speaks at the National Press Club Luncheon preceding the exhibit opening.

Pictured at the National Press Club luncheon arc, left to right: Rutherford L. Ellis, Chairman of the Board of Directors of the American Cancer Society; Dr. Chester Southam, Memorial Sloan-Kettering Cancer Center; Dr. E. Cuyler Hammond, American Cancer Society; Dr. I. S. Ravdin, University of Pennsylvania; George Cullen, President of the National Press Club; and Dr. Kenneth M. Endicott, NCI Director.
High School Students Benefit Indirectly From NIH Grants

A letter received recently by Dr. Willis R. Boss, Chief of the Training Branch, National Cancer Institute, points to significant indirect benefits of the NIH Extramural Grants Program.

Dr. M. Michael Sigel, Research Director of the Variety Children’s Research Foundation, Miami, Fla., in writing to Dr. Boss referred to the value of an NIH-supported cancer training grant in relation to the Foundation’s activities embracing research training for secondary school students.

Cites Advantages

These students, he said, benefited from the availability of equipment purchased with grant funds, and from contacts with postdoctoral trainees and members of the Foundation’s scientific staff.

In the recent finals of the Westinghouse Science Talent Search, a competition open to high school science students throughout the country, two of the eight highest awards were won by students sponsored by the Foundation, Dr. Sigel said.

“We are very pleased,” he added, “to pass this information on to you as further evidence that your training program, which is designed to create a pool of mature scientists for research in cancer and viruses, has made this additional significant contribution.”

Joint Conference Held On Insecticide Research

A working conference of PHS and Department of Agriculture representatives and consultants was held recently to coordinate research on a group of experimental insecticides known as chemosterilants.

“Chemosterilants” is a term used to describe certain alkylation agents and antimetabolite compounds whose use results in incomplete development of the eggs of treated insects. PHS interest stems from the need to assess any health hazards arising from use of such materials.

Two DRG Study Sections, Genetics and Toxicology, seek to broaden knowledge of all biological effects of the compounds.

Chaired by Dr. James E. Kitzmiller of the Toxicology Study Section, the conference was devoted to four general topics: 1) Review of Research Grants until 1951, and then as Chief of the Extramural Programs in the National Institute of Neurological Diseases and Blindness from 1951 to 1954.

From 1954 to 1955, Dr. Stone was Assistant Vice Chancellor for professional services in the Schools of the Health Professions at the University of Pittsburgh, and from 1955 to 1956 was Director, Medical and Scientific Department, National Multiple Sclerosis Society, New York City.

Dr. Stone returned to NIH in 1956. He served as Assistant to the Associate Director, NIH, from 1956 to 1957; as Assistant Chief, DRG, from 1957 to 1958; and as Assistant Chief, DGMS, and Chief of its Research Training Branch since 1958. He served in the U.S. Marine Corps from 1942 to 1948.

Dr. Powell’s work in the Public Health Service has been in the areas of general program development and grants management, both in DRG and in NIAID. From 1958 to 1960, he was in DRG, first as an Executive Secretary and later as Assistant Chief of the Research Grants Review Branch, and as Deputy Chief of the Division. He has been Assistant Director of NIAID since 1961.

A native of Hartford, Conn., Dr. Powell received the B.S. degree from the Massachusetts Institute of Technology in 1940, and the M.D. degree from Boston University in 1944. He served his internship at the U.S. Marine Hospital, Boston, from 1944 to 1945, and was a medical officer in the U.S. Navy from 1945 to 1946. He was commissioned in the U.S. Public Health Service in 1946.

He was a resident in radiology at the USPHS Hospital, Baltimore, from 1951 to 1952. From 1952 to 1954, he was a fellow in radiology at the University of Pennsylvania Hospital. He returned to NIH in 1954 as staff physician in the Clinical Center’s Radiation Therapy Branch, and in 1955 served in NCI’s Research Grants and Fellowship Branch. From 1956 to 1958, Dr. Powell was Chief of the Radiological Health Medical Program in the Division of Special Health Services, PHS.

Single Poliovirus Gives Rabbits Neutralizing Capacity for 4 Types

A Division of Biologics Standards study has demonstrated that rabbits acquire a neutralizing capacity for poliovirus types 1, 2, or 3, and ECHO 12 virus following inoculation with a single poliovirus type.

The neutralizing capacity for heterotypic and homologous viruses was shown to have properties of antibody, in that it was produced by antigenic stimulus, was demonstrated in heat-inactivated sera, and was not dependent upon the cellular component of the antigen.

This research, reported in a recent issue of the Journal of Immunology, was made by Drs. Eugene V. Barnett and Samuel M. Bar to the DBS Laboratory of Viral Immunology.

High Levels Produced

All rabbits, 72 hours after primary inoculation with either type 1, 2, or 3 poliovirus, demonstrated high antibody levels for the homotypic virus, measurable in the conventional metabolic inhibition test.

Using more sensitive techniques capable of detecting the heterotypic polioviruses in approximately 50 percent of the inoculated rabbits. The heterotypic response was usually detectable somewhat later than the homotypic response.

Further evidence for the antigenic relationship of the three poliovirus types was demonstrated when rabbits previously immunized against homotypic poliovirus were found to have an enhanced response to the poliovirus type 1 and 3 components of trivalent vaccine as compared with the control, unsensitized rabbits.

Relationships Suggested

Antibody relationships among the enteroviruses (including polioviruses) have been vigorously studied and there is evidence of some protection against paralytic poliomyelitis on the basis of shared antigen by the other poliovirus types.

The investigators suggest that it may be of interest to know whether similar cross-protection against polioviruses occurs in man following natural infection with other enteroviruses.