the NIH Record

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

July 17, 1962
Volume XIV, No. 14

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH

NIH Psychiatrist Takes New Post In Peace Corps

Dr. Joseph T. English, Assistant Psychiatrist in the Professional Services Branch, National Institute of Mental Health, has been detailed to the Peace Corps for two years as its first full-time psychiatrist.

Dr. English

In his new assignment which began early this month, Dr. English will help coordinate the activities of more than 100 psychiatrists from major medical schools and institutions who are serving as Peace Corps consultants. Their function is to help select suitable candidates for overseas service and to train volunteers to cope with the emotional problems of overseas adjustment.

Dr. English joined the NIMH staff in July 1961 as a Clinical Associate in the Laboratory of Clinical Science. For the past year he has been one of a team of investigators in familial studies of schizophrenia and delinquency. He will continue to serve as consultant on

(See PSYCHIATRIST, Page 3)

NIH Summer Employees Attend Seminar Series

President Kennedy greeted 6,000 college students at Constitution Hall June 20 in the first of a series of seminars designed to attract career employees to the Government. Ten busloads of summer employees from NIH were among the group.

In the second program of the series, on June 26, Justice William Douglas discussed the judicial branch of the Government.

The series is continuing, with Vice President Johnson scheduled to give the final talk to the group on August 28.

Surgeon General Terry Addresses New 'COs'

Dr. Luther L. Terry, Surgeon General of the Public Health Service, participated in the orientation program at the Clinical Center July 10 for the new commissioned officers who reported for duty at NIH this month.

About 123 of these young physicians, selected from a long list of well qualified applicants, will spend approximately two years in training here as Clinical Fellows, Clinical Associates, or Research Associates.

Expressing a very special interest in the research training program at NIH, Dr. Terry recalled his early association with it and

(See DR. TERRY, Page 6)

Harvard, Tulane Get $2.5 Million Each For Primate Centers

The Public Health Service has announced grants to Harvard and Tulane Universities for the construction and operation of primate research centers. Construction of the centers, will begin early in 1963.

"Primate research centers provide an optimal environment where scientists can actively pursue research to advance all possible areas of knowledge relating to the biological characteristics of the primate," said Surgeon General Luther L. Terry. "These centers will yield findings to help combat both physical and mental disorders in man."

Centers Described

The grant to Harvard, for $2,500,000, will make possible the initial operation and construction of a center to be known as the New England Regional Primate Research Center. Tulane's grant, also for $2,500,000, will be for the initial operation and construction of the Delta Regional Primate Research Center.

The New England Regional Primate Research Center at Harvard involves an integrated complex of buildings to be constructed on property in Marlborough and Southborough, Mass. Harvard Medical

(See PRIMATE, Page 6)

McDonald Named To OD; Kennedy In Special Post

Dr. Roger K. McDonald, Chief of the Section on Medicine, Laboratory of Clinical Science, National Institute of Mental Health, has been named Assistant to Dr. G. Burroughs Mider, NIH Director of Laboratories and Clinics. The appointment was effective July 2.

Dr. McDonald succeeds Dr. Thomas J. Kennedy, Jr., who will remain in the Office of the Director as Special Assistant for Computation and Data Processing.

Dr. McDonald

Dr. Kennedy

A Medical Director in the PHS Commissioned Corps, Dr. McDonald joined the NIMH staff in 1954. From 1951 until 1954 he served as a Resident in Internal Medicine at the USPHS Hospital in Baltimore, and from 1948 until 1951 he was with the Baltimore Branch of the National Heart Institute.

Serves in Air Force

A native of Minnesota, he received his M.D. degree from the University of Minnesota in 1945 and following internship at the University of Utah Hospitals, entered the Air Force.

While on active duty he served as Chief of the Department of Research Medicine at the Air Force School of Aviation Medicine at Randolph Field, Texas.

Before entering the Commissioned Corps in 1948 he was a teaching Fellow in Pathology at the University of Minnesota.

He is a Diplomate of the American Board of Internal Medicine, a

(See APPOINTMENTS, Page 8)

Metabolic Error in Histidinemia Is Identified Here

Scientists of the National Institute of Arthritis and Metabolic diseases have identified the metabolic defect in an inborn error of metabolism, known as histidinemia, which was detected less than a year ago. The NIAMD investigators employed a little-used skin biopsy method to determine that the enzyme histidase is missing in the disorder.

The disease was first reported by H. Ghadimi and associates at the Hospital for Sick Children, Toronto, Ontario, in August 1961 when an assumed case of phenylketonuria (PKU), a similar metabolic disease, brought to light two female siblings who had consistently high histidine blood levels and excreted large amounts of histidine in their urine.

Later, Dr. Victor H. Auerbach and associates, NIAMD-grantees at Temple University Medical School and St. Christopher's Hospital for Children, Philadelphia, reported a third case and suggested that the metabolic defect in histidinemia was the lack of the enzyme, histidase.

The NIAMD investigators, Drs. Bert N. La Du, R. Rodney Howell, George A. Jacoby, J. E. Seegmiller, and Vincent G. Zannoni, in studying the fourth and fifth cases of this disease determined, in biochemical tests, that histidase is missing.

Lack of the enzyme prevents conversion of histidine to urocanic acid which halts the formation of formiminoglutamic acid (FIGLU), important for the synthesis of purines and pyrimidines found in such substances as RNA and DNA.

Biochemically very similar to PKU, histidinemia gives a false positive test for PKU. In both

(See METABOLIC, Page 5)

the NIH Record

Published bi-weekly at Bethesda, Md., by the Public Information Section, Office of Research Information, for the information of employees of the National Institutes of Health, principal research center of the Public Health Service, U. S. Department of Health, Education, and Welfare.

Editor ..... E. K. Stabler

Staff Correspondents

Betty Slattery, NCI; Tony Anastasi, NHI; Kathryn Mains, NIAID; Mary Henley, NIAMD; Marie Norris, NIDR; Lillie Bailey, NIMH; Pat MacPherson, NINDB; Elsie Fahrenthold, CC; Faye Heil, DBS; Helene Doying, DGMS; Dick Turlington, DRG; Jean Torgerson, DRS.

NEWS from PERSONNEL

REVISED GRIEVANCE PROCEDURES

The Department's procedures for the review of grievances and adverse actions has been revised in accordance with the new standards established by the Civil Service Commission as required by Executive Orders 10987 and 10988. The effective date for the revised DHEW procedures was July 1.

Secretary Ribicoff, in his memorandum of May 18 to operating agency heads said:

"Complaints and grievances by employees should be dealt with promptly. They should be handled in a fast, objective, and wherever possible, an informal way. Formal grievance hearings with tri-partite boards, counsels, testimony, transcripts and recommendations are exceedingly time-consuming, costly, and frequently leave lingering scars of battle. This method, though sometimes unavoidable, should only be used as a last resort. Every effort should be made by both supervisors and employees to deal with problems which arise on the basis of facing problems promptly, objectively and courageously, with the common purpose of effectively carrying out the objectives of the organization."

May Request Review

The formal review of a grievance or proposed adverse action consists of either an administrative review or a hearing at the NIH level. This may be requested by an employee who is not satisfied with results of informal consideration of his grievance or who receives an advance notice of proposed adverse action.

The employee may request reconsideration of a decision made at the NIH level as a result of formal administrative review or hearing. This would be an appeal to the Secretary, DHEW, or to the Civil Service Commission.

Summary of the Grievance Procedure and Adverse Action Hearing and Review is being distributed to all employees, and copies have been posted on all bulletin boards. If employees have questions concerning these procedures, they should contact their Personnel Operations Officer.

Recent Executive Order Grants Employee Unions New Bargaining Rights

Federal employee unions and organizations are granted new rights to bargain with the management of their respective agencies, according to a recent Executive Order which became effective July 1.

The order, entitled Employee-Management Cooperation in the Federal Service, states for the first time a Government-wide policy of approving union activity among Government employees. It provides a legal basis for employee organizations and unions to participate in improving personnel policies and working conditions not specifically fixed by Congress.

Allows Bargaining

The new Federal policy allows collective bargaining between employee unions and agency management and directs all Federal officials to maintain an attitude of strict neutrality toward their employees' decisions to join, or refrain from joining, an employee organization.

It directs agencies to consider employee organizations for recognition in one of three categories: Informal, Formal, or Exclusive recognition. Each category affords organizations certain rights to consult and negotiate with agency management on matters affecting the employees they represent.

However, the order in no way precludes an employee from bringing matters of personal concern to the attention of appropriate officials, nor does it permit employee unions to strike.

The Executive Order (10988) is based on the report of a Presidential Task Force. The task force prepared its report after holding public hearings in cities throughout the country and after consulting the heads of Federal departments and agencies.

The impact of E.O. 10988 on NIH and the Public Health Service was the subject of an orientation seminar last Friday in the Clinical Center auditorium. Richard Seggel, Executive Officer, NIH, was moderator.

Questions Answered

Principal speakers who discussed the importance of the order and its influence on NIH and PHS management were James C. O'Brien, Director of Personnel, DHEW, and Dr. Murray A. Diamond, Chief, Office of Personnel, PHS. A panel of NIH, PHS, and DHEW staff officials discussed specific implementation problems and answered questions on Department Instruction E2-4 which established the framework within which NIH policy will be determined.

Significant developments in NIH management-employee organization cooperation will be carried in the News-from-Personnel column of the *Record* as they occur.

Interested employees may obtain a copy of Department Instruction E2-4 from the Employee Relations and Services Section, Personnel Management Branch, Bldg. 1, Rm. 21.

Dr. John Urquhart Wins Annual Upjohn Award

Dr. John Urquhart, of the Laboratory of Kidney and Electrolyte Metabolism, Section on Experimental Cardiovascular Diseases, National Heart Institute, has been named a winner of the annual Upjohn Award of the Endocrine Society.

Dr. Urquhart

The $1,250 award, for the best paper on endocrinology during the past year, will be shared with three other investigators who worked on the paper with Dr. Urquhart at Harvard.

Dr. Urquhart, who joined NHI in July 1961, was formerly Assistant Resident in Surgery at the Massachusetts General Hospital.

He received a B.A. degree from Rice Institute in 1955, and an M.D. degree, with honors, from Harvard Medical School in 1959.

Among his other honors are the Harvard Medical School Alumni Award and the Borden Prize for Undergraduate Research, Harvard Medical School, both in 1959.

Dr. Zukel Is Appointed NHI Associate Director Collaborative Studies

Dr. William J. Zukel has been appointed Associate Director for Collaborative Studies of the National Heart Institute, Dr. Ralph E. Knutti, Heart Institute Director, announced last week.

Dr. Zukel

In his new post, Dr. Zukel will be responsible for administering NHI programs concerned with collaborative field studies, biometrics, and epidemiology.

Dr. Zukel, who joined the Public Health Service in 1949, has been Assistant Director, NHI, and a staff member in the Office of the Surgeon General. He has also been Chief of the Operational Research Section of the Heart Disease Control Program, Bureau of State Services, PHS.

Joins Heart Study

Dr. Zukel has had assignments with the Heart Demonstration Program at Newton, Mass., and with the New York State Health Department in connection with their long-term epidemiological study of hypertension and coronary disease at the Albany Cardiovascular Health Center.

He recently spent a year studying epidemiology at the London School of Hygiene and Tropical Medicine in London, England.

A native of Northampton, Mass., Dr. Zukel received his M.D. degree from Hahnemann Medical College in Philadelphia and his B.S. degree from the Massachusetts State College.

Concert by Marine Band Scheduled for July 19

The second in this season's series of outdoor band concerts for CC patients will be given here on Thursday, July 19, at 7:30 p.m., by the U. S. Marine Corps Band with Captain Dale Harpham conducting.

NIH employees, their families and friends are cordially invited. The concerts are held on the first floor terrace of the Clinical Center, east of the auditorium. In case of rain, the concert will be held in the CC auditorium.

PSYCHIATRIST

(Continued from Page 1)

these studies until they are completed at the end of the year. Dr. William Pollin and Dr. James R. Stabenau of the NIMH Laboratory of Clinical Science are the principal investigators on this project.

A native of Villanova, Pa., Dr. English had his first contact with the Peace Corps during his psychiatric residency training at the Institute of the Pennsylvania Hospital in Philadelphia, from 1959 to 1961. There he and two colleagues established a student mental health center at St. Joseph's College with the unique plan of eventually extending the service to other small colleges in the area which could not individually offer mental health services to their students.

Launches Project

At that time he and his associates launched a research project comparing a group of students at St. Joseph's College in Philadelphia with a group of Peace Corps volunteers in Arizona. The project was part of a larger study designed to determine the relationship between the development of social values and sound mental health.

Results of the project, which later included a group of 25 African college students studying in the United States, will be available in January 1963.

Dr. English's duties with the Peace Corps will include recruitment of new psychiatrists for training projects and to the Peace Corps, development of new methods for mental health training of volunters, and the making of site visits and final clinical decisions about Peace Corps trainees.

Trains Physicians

He will assist in the training of Public Health Service physicians assigned overseas to maintain the physical and mental health of Peace Corps volunteers. In his new full-time capacity, he will also continue to work with Dr. Leonard J. Duhl of the Professional Services Branch, NIMH, one of the original psychiatric consultants to the Peace Corps.

Dr. English is a former NIH Research Fellow and the winner of the Jefferson College Gold Medal for Psychiatry.

Mercury batteries wired in series, if inadvertently short-circuited or disposed of by fire, may explode with violence. Wrap ends with cellophane tape and discard into the receptacle for non-burnable waste.—Plant Safety Branch.

PHS Doctors Assigned to Peace Corps Get Tropical Medicine Briefing at NIH

Sixteen PHS Medical Officers who will be overseeing the health of members of the Peace Corps visited NIH July 9-11 for three full days of lectures and laboratory demonstrations on problems in tropical medicine.

Each of the Peace Corps Physicians who attended the meeting has accepted a 2-year assignment to one of the following countries: Somaliland, Cameroon, Nigeria, Ecuador, India, Togo, Ivory Coast, Liberia, North Borneo/Sarawak, the Philippines, Peru, Nepal, Iran, Ceylon, Ethiopia, and Sierra Leone.

Covers Special Problems

At the request of the Peace Corps Medical Program Division, Dr. Walter L. Newton, Special Assistant to the Associate Director and Chief of NIAID's Laboratory of Germfree Animal Research, with Dr. Donald E. Kayhoe of the CCNSC, planned the program to give coverage of special medical problems likely to be encountered by Peace Corps volunteers.

The physicians were welcomed to NIH by Dr. Dorland J. Davis, NIAID Associate Director for Intramural Research. Dr. G. Robert Coatney, Chief of the Laboratory of Parasite Chemotherapy, NIAID, lectured on malaria, and Dr. Kayhoe lectured on other protozoal diseases of the tropics, nematode and cestode parasites, and cestode diseases.

Laboratory demonstrations on these subjects were conducted by D. K. Lawless of the NIAID Laboratory of Clinical Investigation. The final lecture of the opening day was given by Dr. Ned H. Wiebenga, NIAID Laboratory of Tropical Virology, who talked on tropical viral diseases.

On the second day Dr. Elmer G. Berry of the NIAID Laboratory of Parasitic Diseases discussed schistosomiasis, and Dr. Kayhoe and Mr. Lawless covered trematode diseases by lecture and demonstration. The afternoon sessions included a 2-hour lecture on bacillary diseases of the tropics by Dr. Norman B. McCullough, Chief of the NIAID Laboratory of Bacterial Diseases, and an hour in which Dr. Karl Habel, Chief of the Laboratory of Biology of Viruses, NIAID, discussed rabies. The remainder of the afternoon was devoted to laboratory visits.

Tropical Diseases Discussed

On the third day Dr. W. E. Clendenning of the NCI Dermatology Branch discussed tropical dermatology; Dr. J. E. Doull of the Leonard Wood Memorial Foundation discussed leprosy, and Dr. Chester W. Emmons of the NIAID Laboratory of Infectious Diseases lectured on systemic fungal diseases.

Tropical sanitation and immunization were discussed by Dr. C. D. Spangler and Dr. J. G. Telfer, respectively, of the PHS Division of Foreign Quarantine. The seminar closed with an hour's critique, questions and discussion.

Eight of the 16 PHS Medical Officers who visited NIH July 9-11 for special instruction preparatory to assignments with the Peace Corps, attend a lecture by Dr. Donald E. Kayhoe, Head of the Surgical Section, CCNSC (right). From left they are: Drs. Gordon Tripp, St. Paul, Minn.; Robert Campbell, Philadelphia, Pa.; John Starr, Annville, Pa.; Lyle Conrad, Jamestown, N. Dak.; M. Walter Johnson, Seattle, Wash.; Hans Neville, Portland, Ore.; Donald Goldstone, Baltimore, Md.; and Joseph Connally, Dallas, Texas.—Photo by Bob Pumphrey.

Dr. Blythe Is Appointed CC Dental Dept. Chief

Dr. James O. Blythe, Jr., Chief Dental Officer of the PHS Hospital in Norfolk, Va., has been appointed Chief of the Dental Department of the Clinical Center. Dr. Blythe succeeds Dr. Ralph S. Lloyd who became Chief Dental Officer of the Public Health Service last December.

Dr. Blythe

A Dental Director in the Commissioned Corps, Dr. Blythe has been associated with the Public Health Service since 1938. He is a native of Evansville, Ind., and a graduate of Indiana University School of Dentistry.

Serves in PHS Hospitals

Dr. Blythe served his dental internship at the PHS Hospital in Chelsea, Mass., and his professional career has included assignments to Service hospitals in Baltimore; Fort Stanton, N. Mex.; Seattle, Wash.; and Norfolk, where he served as Dental Director from 1955 until receiving his present appointment.

Dr. Blythe is a member of the American Dental Association and the Omicron Kappa Upsilon Honorary Fraternity.

NIH Visitors Increasing; CC Asks Cooperation

Seasons come and go, but the stream of official visitors to NIH just keeps on rollin' along. In contrast to the vacation-time lull experienced in many areas, the Special Events Section of the Clinical Center Information Office reports an increase in the number of visitors scheduled during the past several weeks.

Although the Special Events Section, in its capacity of NIH hostess, is always happy when people are interested in visiting here, priority must be given to official groups and professional visitors who request individual appointments with members of the scientific staff.

For this reason Dorothy Horlander, Chief of the Special Events Section, suggests that employees plan to conduct personal tours for their out-of-town relatives and friends who are interested in visiting here. She points out that arrangements can usually be made for all visitors to see the NIH film at regular scheduled showings (10 a.m. and 2 p.m.) in the CC auditorium.

Son of NIAMD Chemist Wins Batting Honors

Lee May, 18-year-old son of Dr. Everette L. May, Chief of the Section on Medicinal Chemistry, Laboratory of Chemistry, NIAMD, won the Montgomery County baseball bitting title with a .380 average for 17 high school games.

Lee May

Lee received a handsome plaque for his efforts as firstbaseman and clean-up batter for Bethesda-Chevy Chase High School. He led his team in runs scored and handled over 100 chances at firstbase with only one error. It was his third year on the varsity squad.

Lee's best tutor has been his father who was a star secondbaseman in his undergraduate days at Bridgewater (Va.) College and has been active as a coach and manager in the Montgomery County Boys' Baseball Association for the past five years.

Dr. May, best known at NIH for his important contributions in the field of analgesics, is probably better known in Montgomery County for coaching several midget and junior baseball squads to league championships. He presently manages the Bethesda Civitan team in the Baseball Association's Junior League.

81 Institutions to Share New Facilities Grants

Surgeon General Luther L. Terry last Friday announced the award of $29,173,722 to 81 institutions in 35 States for construction of health research facilities.

These are the first funds to be awarded from Fiscal Year 1963 appropriations for the program.

Because of the continuing need for construction to keep pace with expanding research in the life sciences, the health research facilities program has been extended twice since its inception in 1956.

The program, administered by the Division of Research Grants, awards matching funds to nonprofit hospitals, medical and dental schools, schools of public health, and other institutions to build and equip research facilities.

Recommendations for grants are made by the National Advisory Council on Health Research Facilities and are awarded following approval by the Surgeon General.

Including these most recent grants, 976 awards totaling $209,143,648 have been made to eligible institutions since inception of the program.

Leprosy Bacilli, Cultivated in Mouse Foot Pads, Prove Useful for Anti-Leprosy Drug Tests

By Dorothy Jeanne Davis

A preliminary study of the effect of anti-leprosy drugs on the multiplication of leprosy bacilli obtained from human patients and grown in mouse foot pads, indicates that this method may prove useful in testing the therapeutic activity of these drugs.

The study was among several reported by Dr. Charles C. Shepard, Chief of the Special Projects Unit, Virus and Rickettsia Section, Communicable Disease Center, Atlanta, Ga., at a recent NIAMD seminar.

Describing experimental approaches to the study of leprosy (Hansen's disease), Dr. Shepard said that until recently investigators have been unable to cultivate human leprosy bacilli in an artificial medium or by tissue culture. Only in the past few years, following the discovery that leprosy bacilli from human patients could be grown in mouse foot pads, has it been possible to work experimentally with these bacilli outside of the human patient.

Finding of Interest

Successful use of mice for this purpose depends on the right species, a small enough dose, and the right temperature. Studies have indicated that the optimum environmental temperature for experiments in 20° F. At this temperature, the mouse foot pads register about 21 to 25° F. This finding is particularly interesting, Dr. Shepard said, in view of the fact that most leprosy occurs in the tropics where skin and environmental temperatures are usually much higher.

In his study, the bacilli were inoculated into the right hind foot pad of 100 mice, each mouse receiving an inoculum of 5.0×10^3 bacilli. The mice were then divided into five groups, with one group serving as controls. Each of the other groups received one of four anti-leprosy drugs mixed with their food. The drugs used in this study were: 4,4'-diaminodiphenyl sulfone (DDS), isoniazid (INH), para-aminosalicyclic acid (PAS), and cycloserine (CS).

Bacilli Suppressed

A mouse from each group was sacrificed at monthly intervals, and histologic sections made from the decalcified foot. In the control group, the time from inoculation until the development of a significant lesion in the sections was six months. In mice receiving DDS, INH, and PAS, the development of the bacilli was completely suppressed. CS appeared to slow growth of the bacilli for a few months, but they were later harvested in somewhat reduced numbers.

(This study has been reported by Dr. Shepard and Dr. Y. T. Chang, Laboratory of Biochemical Pharmacology, NIAMD, in the *Proceedings of the Society for Experimental Biology and Medicine*.)

Eighty percent of all cases of leprosy occur in equatorial Africa, south, and southeast Asia. The remaining 20 percent is scattered throughout the world, particularly in the tropical countries.

Occurs in U.S.

In the continental United States, there are a few areas where the disease is endemic: south Florida, southern Louisiana, southeastern Texas, New York City, and California. Most of the cases in New York City and on the West Coast are probably imported from other parts of the world, Dr. Shepard said, but cases can, and have, occurred almost anywhere in the United States.

Leprosy usually can be traced to contact with someone who has the disease. However, in the United States this is often very difficult, acording to Dr. Shepard, because few people in this country know what the disease looks like.

If leprosy is suspected, he added, specimens should be sent to a laboratory skilled in diagnosis of the disease such as the Public Health Service leprosarium in Carville, Louisiana, since most pathologists and even most dermatologists are unable to identify it.

Two Types Known

Leprosy is a chronic infectious disease which affects the skin, mucous membranes, and the peripheral nervous system. There are two clinical types: lepromatous leprosy, and tuberculoid leprosy. Ocasionally, both types may be found in the same patient.

The skin lesions of leprosy vary considerably. In lepromatous leprosy there are usually nodules without clearly defined borders, and there is diffuse infiltration between the nodules.

In tuberculoid leprosy, the skin lesions are typically fewer and the edges are more definite. Early in the course of the disease there may be only a few hypopigmented macules. Exposed, cooler skin tends to be more severely involved than the warmer flexion creases, Dr. Shepard said.

The earliest neurological changes are in "light touch", he added, but later changes are more profound, with loss of nerve function and sensation in the affected area, atrophy of muscle and sometimes spontaneous amputation. Cases which have progressed to this stage tend to accumulate in leprosariums, simply because there is no other place for them to go, Dr. Shepard said.

PHS Awards Additional Contracts to Develop Anti-Cold Vaccines

The Public Health Service has announced the award of two new contracts for the development of prototype vaccines against respiratory infections popularly called the "common cold."

The contracts, in the amounts of $83,100 and $22,282 respectively, are for the initial year of work.

They were awarded by the National Institute of Allergy and Infectious Diseases to Abbott Laboratories, North Chicago, Ill.; and Wyeth Laboratories, Radnor, Pa., Division of American Home Products Corporation.

Among the research objectives of the contracts will be new methods of immunization.

Concurrently, two other contracts, for clinical evaluation of prototype vaccines have been awarded to the University of Colorado Medical Center, Denver, Colo., in the amount of $24,193, and the Research Foundation, Children's Hospital of the District of Columbia, $35,000.

Prepared from Viruses

Some of the vaccines to be evaluated will be prepared from parainfluenza viruses, respiratory syncytial virus, adenovirus, Eaton agent and other respiratory disease agents.

Five contracts have now been awarded under the Vaccine Development Program. The first, with Chas. Pfizer & Co., Inc., was announced in April.

The program was created by the PHS to make use of growing knowledge about the viruses that cause "colds". It is now possible to implicate known viruses in about 60 percent of the serious respiratory illnesses of hospitalized children, and it is these viruses which will receive immediate attention.

Although hopeful about the Vaccine Development Program, Dr. Justin M. Andrews, NIAID Director, and other scientists have cautioned that it will be a number of years before effective vaccines can be available to physicians. Respiratory diseases, it has been emphasized, are not caused by one or even a few viruses. At least 20 viruses have been identified as causative agents.

Parasite Strain Resists Certain Malaria Drugs, NIAID Study Shows

Dr. Martin D. Young of the Laboratory of Parasite Chemotherapy, National Institute of Allergy and Infectious Diseases, reports that weekly doses of chloroquine and amodiaquine are not effective in suppressing the Columbia, South American strain of the malaria parasite *Plasmodium falciparum*. In an area where malaria parasites have demonstrated resistance to these drugs, it appears that normal suppressive dosage will no longer protect against malaria.

Further study of chloroquine and amodiaquine, which last year were found ineffective as a cure for this malaria parasite, has produced evidence that these drugs are also ineffective in suppressing the malaria infection.

Serve as Controls

In these studies, eight patients who had formerly had malaria were given either 300 mg. of chloroquine or 400 mg. of amodiaquine weekly (dosages which ordinarily suppress malaria when taken regularly), with one out of each group of four serving as controls.

Parasites and fevers developed similarly in patients taking the drugs, as well as in the controls who received no drug. Continuance of the weekly dosages appeared to have little effect upon subsequent course of the malaria infections.

Other drugs such as paludrine and pyrimethamine were effective against this malaria, indicating no cross-resistance for the particular strain tested. Atabrine was effective in some cases, although relapses did occur.

Since chloroquine and amodiaquine are widely used as suppressive agents in areas where malaria occurs, Dr. Young emphasizes the importance of recognizing the problem of resistance in strains of *P. falciparum*.

Dr. Young's findings were reported in the Transactions of the Royal Society of Tropical Medicine and Hygiene.

Extension of Power Plant Completed, Will Cool Building 31, Provide Reserve

Word comes from the Division of Research Services that the large extension of the NIH Power Plant Building, under construction for the past year and a half, is now virtually complete, and that the new building will probably be turned over to NIH for operation before the end of this month.

Arouses Interest

Located near the south end of the reservation, on the north side of Service Road South, midway between Center Drive and Service Road West, the large red-brick building with the green-louvered superstructure has been the subject of considerable interest and inquiry since the start of construction in December 1960.

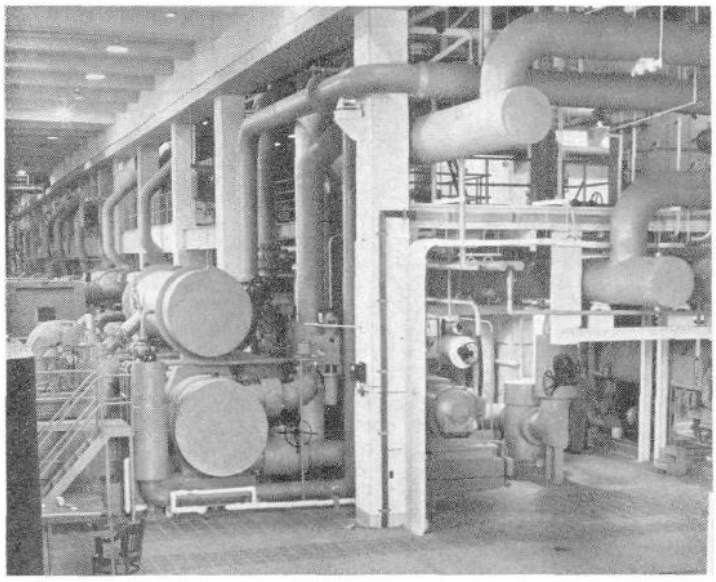
Officially designated as Building 11-C, it is an extension of the central power plant (Building 11) and was designed to house additional refrigeration units needed to provide air conditioning for Building 31, with its 11- and 5-story wings, as well as reserve capacity for other buildings on the reservation.

The new building is 98 feet long by 93 feet wide, and the top of the superstructure, enclosing a redwood cooling tower, is 75 feet above ground. The main structure is built of reinforced concrete with red brick facing, but the east wall is of semi-permanent construction — concrete block with brick facing — to permit removal for an additional extension to house refrigeration units for buildings now in the design stage.

Raises Cooling Capacity

The new 4-unit refrigeration system in Building 11-C will add 3,000 tons to the existing 7,000 tons of cooling capacity provided by refrigeration units in Building 11.

The architect-engineer for the project was H. D. Nottingham and Associates, Inc., of Arlington, Va., and the general contractor was W. G. Cornell Company of Washington, Inc. The contracts were administered by the Public Buildings Service. The bidding price for the project was $1,125,000.



This interior view shows part of the new steam-powered refrigeration system in Building 11-C. The 4-unit system consists of the steam turbine compressor (left foreground) and three absorption units that chill the water, one of which is in the right foreground. In the left background are the seven electrically driven compressors located in the older building. —Photo by Sam Silverman.

Dr. Gerrie Appointed Planning Officer With Child Health Center

Norman F. Gerrie, D.D.S., Chief of the Disease Control Branch, Division of Dental Public Health and Resources, PHS, has been appointed Program Planning Officer and Chief Dental Consultant of the Center for Research in Child Health, Division of General Medical Sciences.

Dr. Gerrie, who has served with the Public Health Service since 1943, is helping to plan future programs to encourage and stimulate research and research training in the basic biological, behavioral and clinical sciences related to the problems of human development.

Studies in Michigan

A graduate of Northwestern University Dental School, Dr. Gerrie also holds the degree of Master of Public Health from the University of Michigan. He is a Diplomate of the American Board of Dental Public Health, and in 1961 was appointed to a 5-year term as a member of the examining board in that specialty.

In the Public Health Service Dr. Gerrie has served as a dental consultant for various regions of the country: as Chief of the Developmental Studies Branch, Division of Dental Public Health; Assistant to the Chief Dental Officer; Chief of the Division of Dental Public Health; and Chief of Program Planning and Analysis in the Division of Dental Public Health and Resources. For the past year he has been Chief of the Disease Control Branch in that Division.

Native of Canada

Prior to his Public Health Service career, Dr. Gerrie was in private practice in Chicago, Ill., and Ogden, Utah, and served for six years with the state health departments of Utah and Montana. He is a native of Fergus, Ontario, Canada.

Dr. Gerrie's professional associations include the American Dental Association, the American Association of Public Health Dentists, and the American College of Dentists. He is Chairman of the Dental Health Section of the American Public Health Association.

METABOLIC

(Continued from Page 1)

conditions an enzymatic block in the major metabolic pathway of an amino acid (histidine or phenylalanine) results in a shift to another pathway and an increase in the formation of the corresponding keto acid. Both keto acids are excreted in the urine where they can be detected by the formation of a color complex on addition of ferric chloride.

PKU is usually accompanied by mental retardation, while all five cases of histidinemia have been free of mental retardation. Four of the five, however, have speech defects. In the two cases studied by Dr. La Du and associates, which included the only male, the speech defect was associated with a shortened auditory memory. The NIAMD investigators suggest that perhaps this may be an instance where a metabolic disease is associated with a speech defect.

Since none of the histidinemic patients is over eight years old, it is presently impossible to predict the natural course or clinical spectrum of the disease on further development. Therefore a collaborative project has been started by the NIAMD scientists with Drs. Carl J. Witkop, Jr., and Kenneth S. Brown of the Section on Genetics, National Institute of Dental Research, to screen speech clinics at the University of Maryland and in the Montgomery County, (Md.) school system in search of additional undetected histidinemics.

Dr. La Du and associates reported their work in Biochemical and Biophysical Research Communications.

Dr. Bernard B. Brodie Named Regional Editor Of Internationl Journal

Dr. Bernard B. Brodie, Chief of the Laboratory of Chemical Pharmacology, National Heart Institute, has been appointed Regional Editor for the United States, of a new international journal, Life Sciences, devoted to prompt publication of brief, preliminary communications in the various biological sciences.

Other regional editors are Dr. A. C. Allison, London, England; Prof. F. Lynen, Munich, Germany; Academician A. I. Oparin, Moscow, U.S.S.R.; and Prof. Y. Zotterman of Sweden.

Among the honorary consulting editors who aid the regional editors in reviewing papers for originality and scientific merit are Dr. Julius Axelrod, Chief of the Section on Pharmacology, Laboratory of Clinical Science, National Institute of Mental Health; Dr. Erminio Costa, Deputy to Dr. Brodie; and Dr. DeWitt Stetten, Jr., Associate Director in Charge of Research, National Institute of Arthritis and Metabolic Diseases.

A monthly journal, Life Sciences was first published in January of this year by the Pergamon Press in England. It is designed to provide a vehicle to cross the boundaries betwen the various disciplines.

To facilitate prompt publication, the journal publishes manuscripts by direct photographic reproduction. It invites short, original communications on various aspects of biological interest, including articles on plant and animal physiology, pharmacology, biochemistry, and endocrinology.

PRIMATE

(Continued from Page 1)

School, through the office of its Dean, Dr. George P. Berry, will provide academic and administrative support for the center. Research to be conducted at the Harvard Center will deal with a wide range of biological and psychological problems.

The Delta Regional Primate Research Center of Tulane will be located in new facilities to be constructed near Covington, La. Academic and administrative support for the center will be provided by Tulane University, through the office of its President, Dr. Herbert E. Longnecker. Research emphasis at the center will be on cardiovascular diseases, infectious diseases, and the behavioral sciences.

These grants were made upon recommendation of the National Advisory Heart Council to the Public Health Service.

Work of Pioneer Scientist Is Displayed in Library Exhibit

Reference Librarian Jean B. Moody inspects the new display case in the Periodical Reading Room in the Clinical Center, which is currently featuring an exhibit on the life and works of the late Dr. Theobald Smith, pioneer microbiologist.—Photo by Jerry Hecht.

A historical collection of memorabilia delineating the impressive scientific achievements of a pioneer microbiologist, Dr. Theobald Smith, is on view in the Library Reading Room, 5th floor, Clinical Center.

The exhibit introduces the Library's new exhibit cases as potential display space for bibliographic materials and other collections of scientific interest.

The present display was donated by Dr. Malcolm S. Ferguson, Acting Chief, Library Branch, Division of Research Services, and Dr. Frederick B. Bang, of Johns Hopkins University School of Hygiene and Public Health, who are collaborating on a biography of Dr. Smith.

Dr. Ferguson (Rm. 5N118, Ext. 2447) hopes others interested in sharing their collections with the NIH public will get in touch with his office so that future exhibits may be planned and scheduled for the display cases.

Contributions Important

The current exhibit contains vivid testimony that Dr. Theobald Smith, the first to head the Department of Animal Pathology of the Rockefeller Institute for Medical Research after its creation at Princeton, N. J., in 1916, was one of the world's great scientists, who made many direct contributions to the knowledge and prevention of disease. His last great work, Parasitism and Disease, published in 1934, the year of his death, is on display.

Of local interest is a picture of the first home of the George Washington University Medical School when it was known as the Medical Department of the Columbian University. At that institution, in 1886, Dr. Smith established the first bacteriology department in a medical school in the United States.

A great teacher and research investigator who brought renown to the Harvard Medical School, where he taught comparative pathology for 20 years, Dr. Smith remained a student throughout his lifetime.

Activities Varied

He pursued the study of such specific diseases as bovine tuberculosis, hog cholera, and brucellosis while publishing actively in parasitology, immunology, bacteriology, pathology, and demonstrating the relationship between sanitation and insect-borne diseases.

He and his colleagues significantly advanced the cause of public health by confirming experimentally for the first time the role of a vector in the transmission of disease and by revealing the part played by the immune carrier.

On exhibit is "Investigations into the Nature, Causation, and Prevention of Texas or Southern Cattle Fever," which identifies the cattle tick as the vector of the protozoan parasite causing Texas cattle fever, a disease formerly of great concern to stock raisers in this country.

This experimental work was published in 1893 as Bulletin No. 1 of the U. S. Department of Agriculture Bureau of Animal Industry, when Dr. Smith was director of the pathological laboratory and while he was teaching bacteriology at Columbian University.

Along with other selected publications, including a diary kept while an undergraduate at Cornell University, theses prepared at Cornell and the Albany Medical School, and a scrapbook opened to newspaper clippings announcing Dr. Smith's appointment to the Rockefeller Institute, the exhibit contains a facsimile copy of a letter written to Dr. Edward Krumbhaar of the University of Pennsylvania.

DR. TERRY

(Continued from Page 1)

his responsibilities as a preceptor for some of the first Clinical Fellows and Clinical Associates of the National Heart Institute when he was on the staff here.

In his welcoming remarks Dr. Terry outlined the scope of all PHS programs, manned by more than 32,000 employees all over the world, and stressed the importance of three areas of obvious expansion potential: international health activities, the field of environmental health, and community health services.

Explains Programs

Dr. Kurlander told the group what it means to be a commissioned officer in the Public Health Service, and Dr. Zigler explained the medical care program provided for commissioned officers and their dependents.

"Patterns of Research" was the subject of Dr. Mider's presentation, and Dr. Shy discussed "Problems of Clinical Investigations at NIH" and presented some slides to illustrate his remarks.

"Functions and Services of Clinical Center Staff" were explained by Dr. Robert M. Farrier, CC Assistant Director, and various CC department heads.

Other Speakers Named

Other PHS officials who addressed the group included Dr. Arnold B. Kurlander, Assistant Surgeon General for Operations; Dr. Isaac M. Zigler, Medical Officer in Charge of the PHS Outpatient Clinic; Dr. G. Burroughs Mider, Director of Laboratories and Clinics, NIH; Dr. G. Milton Shy, Associate Director in Charge of Research, NINDB; and Dr. Murray C. Brown, Chief of Clinical and Professional Education, NIH, who served as moderator.

Following an informal coffee break, the Clinical Associates met with Dr. R. W. Berliner, Director of Intramural Research, NHI, and Chairman of the Scientific Advisory Committee, NIH, to discuss plans of the research associate program for this year.

32 Dentists Join PHS For Year's Internship

Thirty-two recently graduated dentists began one-year internship training at the U. S. Public Health Service hospitals on July 1, the Public Health Service recently announced.

Appointed to the PHS Commissioned Corps, the interns have been assigned to its hospitals in Baltimore, Boston, Chicago, Ft. Worth, New Orleans, New York (Staten Island), Norfolk, San Francisco, and Seattle.

Eighteen dental schools in the United States are represented among the interns who were selected from 130 qualified applicants.

Interns who complete the year successfully may be considered for further assignment in the Public Health Service which offers manifold career opportunities in clinical denistry, public health, research, and administration.

A Message From Social Security

This is the second in a series of articles prepared by the Silver Spring, Md., office of the Social Security Administration for publication in Government and industrial newspapers.

Three years after her husband deserted her, Mary received a telegram from the police department of a Southern city. It told her that her husband was dead.

Mary was then 63. She had heard about widow's benefits and wondered if she might qualify. She discussed this possibility with her neighbor.

Advice Erroneous

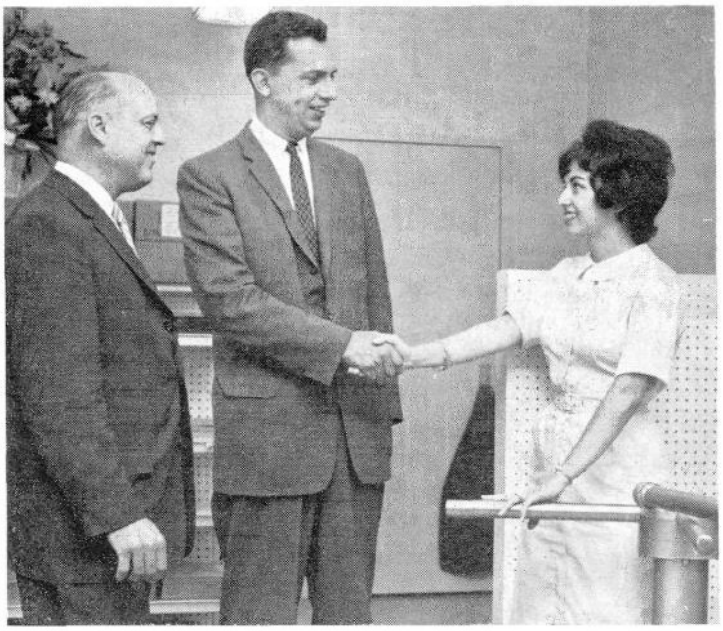
"You can't get anything from Social Security," the neighbor scoffed. "They won't pay you unless you and your husband were living together at the time he died, or unless he was supporting you."

So Mary didn't go to Social Security. She scraped along, with the small wages from her job, until desperation drove her to us in April of this year. She was ill and could work no longer.

Mary is now receiving a benefit — a widow's benefit of $72 a month. The neighbor's advice was expensive. It cost Mary a total of $864, the sum of benefits lost because she applied two years late.

Mary's problems could have been less, had she consulted her Social Security Office instead of her neighbor. Your nearest Social Security Office is located at 8113 Fenton St., Silver Spring.

SELF-SERVICE STORE IS POPULAR



Frances Heinly of the Biometrics Branch, NIMH (right), the first customer of the Supply Management Branch's self-service store in Bldg. 31 gets official greeting from Richard L. Seggel, NIH Executive Officer (center), and James B. Davis, SMB Chief. The new store is a subsidiary unit of the Property and Supply Section headed by Thomas V. White, and its Supply Unit under the direction of Lewis D. Brown. Otis Ducker is Head of the Central Storeroom, which stocks the store. Ben Cohen of the P&S Section, handles publicity; and Jacob S. Carter of the Supply Unit devised the accounting system.

Mrs. Heinly loads her shopping cart with supplies. During the first week the store sold $650 worth of merchandise to 92 customers. Among the 450 prospective customers who visited the store, many were turned away because they did not have the necessary charge-plates obtainable from their Administrative Officers.—Photos by Bob Pumphrey.

Methotrexate Therapy For Psoriatic Arthritis Reported Encouraging

Mild to marked improvement in psoriatic arthritis after intermittent therapy with the anti-folic agent, methotrexate, has been reported by scientists of the National Institute of Arthritis and Metabolic Diseases and the National Cancer Institute.

Use of the drug was accompanied by generally mild but reversible side effects. By cautious parenteral therapy with the anti-folic agent, NIAMD and NCI scientists obtained these encouraging results in 15 of 18 patients with either psoriatic arthritis or coexistent psoriasis and rheumatoid arthritis. Seventeen of these patients had had previous corticosteroid therapy with unsatisfactory control.

Drs. William M. O'Brien, Roger L. Black, and Joseph J. Bunim of NIAMD; and Eugene J. Van Scott, and Arthur Z. Eisen of NCI, reported the results of the study of 23 patients divided into three groups, at the recent Annual Scientific Session of the American Rheumatism Association in Chicago. The efficacy of the drug in treatment of the psoriatic arthritic group and the coexistent psoriasis and rheumatoid arthritis group, contrasted sharply with the lack of improvement in patients with rheumatoid arthritis alone.

Administered Parenterally

Methotrexate was administered to all patients parenterally in a test dose of 25 mg., followed by progressively larger doses of 1-3 mg./kg. body weight at intervals of 7 to 14 days. A double-blind study involving placebos was conducted on 14 to 16 psoriatic arthritis patients to screen out responses which might have hindered objective measurement of drug action.

"It is our impression," the investigators reported, "that the low incidence of toxic reactions and their mildness . . . resulted from the cautious administration of low doses of the drug (considerably less than is used in cancer chemotherapy). The duration of the study is too short, however, to assess adequately the long-term effects of intermittently administered methotrexate on bone marrow or to determine what percentage of patients may develop drug resistance."

Although the well known long-term toxic effects of prolonged oral anti-folic therapy on bone marrow, intestinal tract, and possibly liver dictates cautious use of methotrexate, the NIAMD-NCI scientists believe their results warrant further investigation.

Dr. Luttermoser Named OIR Section Head

Dr. George W. Luttermoser, Medical Parasitologist in the Laboratory of Parasite Chemotherapy, National Institute of Allergy and Infectious Diseases, has been named Assistant Head for Fellowships and Visiting Program, Foreign Grants and Awards Section, Office of International Research.

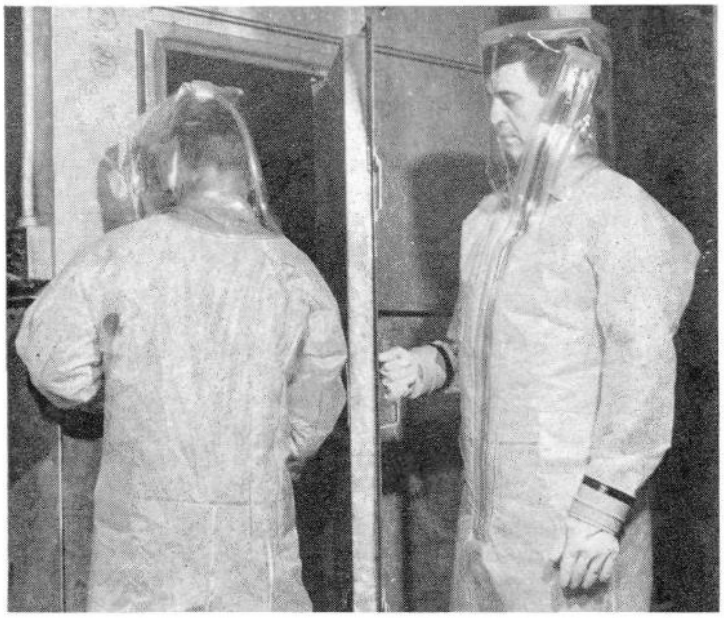
In his new position Dr. Luttermoser will assist Dr. Samuel Herman, Head of the FGA Section, in the administration of the International Postdoctoral Fellowship Program and the Program of Research Grants to former International Fellows.

In the NIH Visiting Program he will serve in a liaison capacity between OIR and the NIH Director of Laboratories and Clinics, and the scientific directors and sponsors in the various Institutes and Divisions.

A native of Detroit, Mich., Dr. Luttermoser came to NIH in 1947 as a staff member of the Laboratory of Tropical Diseases, one of the forerunners of NIAID.

He received a B.A. degree from Wayne University in 1933 and a D.Sc. degree from Johns Hopkins University School of Hygiene and Public Health in 1937.

DRS TESTS PROTECTIVE COVERALLS



Elvin Marshall and John Henderson of Plant Engineering Branch, DRS, are not preparing for space flight. They are metal workers, testing the efficacy of nylon and plastic coveralls for protection from possible pathogenic exposure while engaged in air exhaust duct work. The light-weight, one-piece suits are pre-sterilized with gas, supplied with air under pressure, and prior to removal are sprayed with a residual germicide. In use at Ft. Detrick, Md., the suits were obtained by Plant Safety Branch, OAM, for trial by PEB.—Photo by Sam Silverman.

June Grants Total 773 And Fellowships 352

The Public Health Service today announced the award of 773 research grants and 352 fellowships, including Research Career Awards, totaling $28,328,563 during the month of June.

Of the total, $11,876,605 was allocated to support 483 new research grants, fellowships, and research career awards. The remaining $16,451,958 was for the continuation of 470 previously approved research grants totaling $14,948,955 and 172 fellowships totaling $1,503,003.

Grant applications are reviewed by two groups of consultants—a study section and a national advisory council—composed primarily of non-governmental, nationally recognized leaders in the health field. All awards are made on a competitive basis.

Grants to 147 Institutions

The new research grants were made to 147 institutions in 36 States, the District of Columbia, and 17 foreign countries.

The new fellowships and Research Career Awards were awarded to 173 U. S. scientists and seven scientists from other countries for study in 99 institutions in 33 States, the District of Columbia, and five foreign countries.

Through the International Fellowship Program the seven fellowships provided postdoctoral research training to investigators from East Pakistan, France, Iran, and Yugoslavia.

The awards were made by two of the Service's operating bureaus, the National Institutes of Health and the Bureau of State Services, with NIH's Division of Research Grants serving as coordinator.

Studies Give Answer to How Colchicine Soothes Gout Pains

By Bob Walters

For hundreds of years physicians have been soothing the painful attacks of gout with colchicine without knowing how this drug works. Recently scientists of the National Institute of Arthritis and Metabolic Diseases reported an answer to the centuries-old mystery of the drug's mechanism of action.

Dr. Jarvis E. Seegmiller of the NIAMD Arthritis and Rheumatism Branch, and his associates, Drs. R. Rodney Howell and Stephen E. Malawista, have found that colchicine, extracted from a crocus-like plant, interferes with an action of white blood cells in acute gouty arthritis. By this interference, the drug is able to stop a cycle of events that leads to the painful inflammation of the joints during attacks of gout.

Follows Experiments

The successful demonstration of colchicine's mechanism followed a series of experiments beginning over a year ago when the investigators first studied the role of sodium urate in gout. An excessive accumulation of this chemical, due to an inherited defect in body chemistry, is a major characteristic of gout. Prior to these studies, the link between urate accumulation and the painful, recurring attacks had not been known.

In reexamining the role of urate in gout, the NIAMD investigators found that microscopic crystals of urate, when injected into volunteer gout patients as well as non-gouty subjects, trigger painful joint inflammation similar to an attack of gout. Solutions of sodium urate without crystals have no such effect.

Inflammation is a normal protective mechanism of the body in which white blood cells play an integral part. The white cells engulf and destroy invading bacteria and foreign particles in a process called phagocytosis.

When they examined the inflamed joints they found that the white cells move in to phagocytize the urate crystals, thus contributing to the painful inflammation. This part of the study clarified the relation between urate and gouty pain but left the role of colchicine unexplained.

Colchicine, introduced into the United States by Benjamin Franklin, has been a specific remedy for gout since the 6th century. It is highly effective in soothing gouty pains, once described as due to a fire-spitting, foot-eating devil.

Colchicine, however, has no effect on urate accumulation and does not relieve pain in other diseases.

By inspecting joint fluid taken from patients at various times after colchicine treatment, the NIAMD scientists observed that the drug reduces the amount of urate crystals phagocytized. Microscopic examination also showed a close relationship between the amount of pain and the number of crystals phagocytized.

Breaks Cycle

Thus, colchicine, by diminishing the metabolic activity of the white cells, acts in breaking a pain-producing cycle of urate crystal formation and inflammatory response.

Dr. Seegmiller suggests that the pain-producing cycle is maintained by an increase of lactic acid —a normal byproduct of white cell metabolism—during phagocytosis. He postulates that this increase helps form more crystals, which are then phagocytized, leading to greater inflammation and continuation of the pain-producing cycle until it is relieved by colchicine.

These findings were reported at the American Rheumatism Association's annual meeting in Chicago in June.

APPOINTMENTS

(Continued from Page 1)

member of the American Physiological Society, and the Society for Experimental Biology and Medicine.

Dr. Kennedy has been with NIH since 1950 when he joined the Section on Kidney and Electrolyte Metabolism, NHI.

He has been a member of Dr. Mider's staff since July 1960, and earlier this year he assumed the dual capacity of his present position.

Dr. Kennedy is a graduate of Catholic University and received his M.D. degree in 1943 from Johns Hopkins University Medical School. He is a member of the American Federation for Clinical Research, the New York Academy of Science, and the American Physiological Society.