the NIH Record

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

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NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE

Anfinsen to Give The NIH Lecture Tomorrow Night

Dr. Christian B. Anfinsen, noted biochemist and expert on protein structure and metabolism, will deliver the 27th National Institutes of Health Lecture tomorrow (Wednesday) at 8:15 p.m. in the Clinical Center auditorium. His subject is "Some Biological Implications of Protein Structure."

Dr. Anfinsen

Dr. Anfinsen, a member of the National Academy of Science and Chief of the Laboratory of Chemical Biology of the National Institute of Arthritis and Metabolic Diseases, is responsible for much of the generally accepted theory that the secondary structure of proteins is determined by amino acid sequence.

His research has won him wide recognition as an authority on protein structure and metabolism. His

(See NIH LECTURE, Page 5)

Committee Recommends Polio Immunization for Infants and Children

A special advisory committee to the Surgeon General of the Public Health Service has urged renewed drives by local communities during the fall and winter to vaccinate the younger age groups against poliomyelitis.

The report, prepared by a Special Advisory Committee on Oral Poliomyelitis Vaccine, was made public by Surgeon General Luther L. Terry.

Local Decision Urged

The report said that the age groups to be immunized and the vaccine chosen for use should be determined locally. The committee said, however, that in its view the oral vaccination of persons over 18 should "generally be recommended only in those situations in which unusual exposure to poliomyelitis might be anticipated, such as epidemics, entry into military service, and travel to other countries."

The committee recommended strongly the immunization of infants during their first year of life

(See IMMUNIZATION, Page 8)

Road Widening Marks Start of 3-Year Construction and Utilities Program Here

With construction of Building 12A well advanced, the widening of Center Drive north of the Clinical Center starting this week, and expansion of the utilities system to begin soon, the Division of Research Services foresees a period of major construction expected to last about three years.

Since other new buildings are planned and the load on utilities in present buildings is constantly increasing, it has been found necessary to expand and improve the utilities system.

These extensions and revisions, officially known as the Master Utilities Extension (MUE), will begin around the first of the year, weather permitting.

Utilities Listed

The utilities to be installed include chilled water (a doubling of present capacity), domestic water service (includes lawn sprinkling), electricity and street lighting, storm and sanitary sewers, steam, compressed air and gas, and the telephone, central alarm, and pneumatic tube systems.

The Master Utilities Extension will be accomplished in two construction phases. The initial phase, to be started this winter, will meet the needs of Buildings 12A and 29A and the renovation of Building 6.

The main feature of the MUE project to be seen during construc-

(See CONSTRUCTION, Page 5)

Campaign Here, at Half, Attains Half of Quota

The Combined Federal Campaign at NIH reached the halfway point on Friday, October 9, with almost half of the NIH employees participating. The 16 reporting units indicate 53 percent of the $154,573 goal has been pledged.

Although NIH employees have pledged only half of this year's goal, the average gift is higher than last year and more than adequate to reach the goal, provided all employees participate in the campaign.

An important factor in the campaign is the rather extensive use of the payroll deduction plan. It is proving much easier to pledge a large gift and pay in small increments each payday.

The payroll deduction plan in

(See CAMPAIGN, Page 7)

Paula Hochstetler of the Personnel Office, DRG, points to the percent of quota reached at end of third week of the Combined Federal Campaign at NIH, as recorded on an oversize thermometer at Center and West Drives. By October 9 better than 53 percent of quota had been attained. —Photo by Sam Silverman.

$35 Million Grants-in-Aid Allotted for Mental Health Centers' Construction

Construction of community mental health centers will for the first time be partially financed in 1965 by Federal grants-in-aid totaling $35 million.

This is the first appropriation under a $150 million 3-year program of Federal assistance to finance center construction. Grants will range from one-third to two-thirds of the building cost.

The recent signing by President Johnson of the $6.5 billion DHEW appropriation bill makes funds immediately available to begin actual construction of these centers.

They will form the nucleus of the new national mental health program to provide comprehensive treatment of the mentally ill in the patients' home communities.

Grants will be administered and awarded to eligible sponsors of the centers by the National Institute of Mental Health under terms of the Community Mental Health Centers Construction Act of 1963 (P. L. 88-164).

To meet terms of the act, the centers must provide a minimum of the following five essential services to patients: inpatient treatment, outpatient treatment, partial hospitalization, with around-the-clock emergency service available in at least one of these. Centers also must provide consultation and educational services to community agencies.

For Fiscal Year 1965, $53 million of the total NIMH budget of $222.9 million has been specifically appropriated to develop key facets of the national community-based men-

(See CENTERS, Page 6)

Next Sunday Marks Return To Eastern Standard Time

Next Sunday, October 25, will mark the return to Eastern Standard Time in this area, and employees are reminded to set their clocks back one hour prior to retiring Saturday night.

NIH personnel whose duty will be increased one hour due to this change will be credited with one hour's overtime.

Employees working from 12 midnight to 8 a.m., within the limits of the night differential provisions of governing legislation, will be paid for seven hours at the night rate and two hours at the day rate, Personnel Management Branch announced.

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The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policy of the paper and the Department of Health, Education, and Welfare.

NEWS from PERSONNEL

CLASSIFICATION INSPECTION

As recently announced in a memorandum from the Chief of Personnel to all employees, the Civil Service Commission will be conducting an inspection of Classification Act positions at NIH during the second quarter of Fiscal Year 1965. The inspection will begin here in early November. Some additional details, of particular interest to program officials and supervisors, are now available.

CSC is interested in learning the degree to which management and supervisory officials understand their classification responsibilities and the degree of effectiveness in meeting these responsibilities. The CSC inspectors will obtain much of this kind of information through interviews with selected officials, asking such questions as:

Questions Cited

What are the responsibilities of your organization? How are you organized to meet these responsibilities? What are your duties and responsibilities? What delegations have you made to others? What real discretion is permitted of subordinates?

In addition, the inspectors will "site audit" up to 200 positions, to determine whether they are properly classified as to titles, series, and grades. A site audit embraces desk audit with the incumbent and with his supervisor, and a review of the documentation concerning his position.

The CSC has stated that its staff will review representative positions at various grade levels from the following series, and substantially all positions in these series at GS-12 through GS-15 which have been established or upgraded during the 12-month period preceding the inspection:

GS-085, Guard; GS-180, Psychology; GS-201, Personnel Adm.; GS-305, Mail and File; GS-312, Clerk-Steno; GS-318, Secretary; GS-341, Admin. Asst.-Officer; GS-343, Management Analysis; GS-510, Accounting; GS-560, Budget; GS-602, Medical Officer; GS-685, Public Health Specialist; GS-1081, Public Information; GS-1311, Physical Science Technician; GS-1320, Chemistry; and GS-1530, Statistician.

List of Latest Arrivals Of Visiting Scientists

9/2—Dr. Thomas D. Inch, England, Research in the Laboratory of Chemistry, Section on Carbohydrates. Sponsor: Dr. H. G. Fletcher, Jr., NIAMD, Bldg. 4, Rm. 231.

9/2—Dr. Shin-ichi Hayashi, Japan, Research in the Laboratory of Molecular Biology. Sponsor: Dr. Gordon Tomkins, NIAMD, Bldg. 2, Rm. 305.

9/1—Dr. Johng S. Rhim, Korea, Laboratory of Tropical Virology, Arbovirus Section. Sponsor: Dr. Ned H. Wiebenga, NIAID, Bldg. 5, Rm. 5.

9/15—Dr. Eduardo E. Rojas, Chile, Research in the Laboratory of Biophysics. Sponsor: Dr. Robert E. Taylor, NINDB, Bldg. 10, Rm. 2D56.

9/16—Dr. Kahei Takase, Japan, Research in the Laboratory of Chemistry, Section on Metabolites. Sponsor: Dr. Bernhard Witkop, NIAMD, Bldg. 4, Rm. 226.

9/16—Dr. Arne J. Norman, Sweden, Research with Clinical Director, Intramural Research. Sponsor: Dr. Donald S. Fredrickson, NHI, Bldg. 10, Rm. 7N220.

The first issue of the *NIH Record* was published May 20, 1949.

500 NIH Employees Are Transferring To New Wiscon Building in Bethesda

The transfer, now underway, of more than 500 employees of the National Cancer Institute and the National Institute of Neurological Diseases and Blindness to the new Wiscon Building, at Wisconsin Avenue and Commerce Place in Bethesda, is expected to be completed about November 6.

WISCON BUILDING—More than 500 NIH employees will soon occupy this modern 10-story building at the corner of Wisconsin Avenue and Commerce Place in Bethesda.—Photo by Bob Pumphrey.

This will bring together component parts of NCI and NINDB in one building near the NIH reservation.

All Branches of the Cancer Chemotherapy National Service Center, the Office of the Associate Director for Field Studies, and the NCI Journal are moving from the Robin, Nave, Blackwell and Trunnell Buildings. The Collaborative and Field Research Programs of NINDB will move from the Robin Building.

All NIH offices now in the Robin Building will be moved by the end of October.

NIH Uses Entire Building

Five sections of the Office Services Branch, OAM—Space Management, Communications, Transportation, Housekeeping Services, and Administrative Services—are contributing to the move into the Wiscon Building. The entire 10-story air-conditioned building, which also has three basement levels, will be occupied by NIH.

Most of the services and facilities now available on the NIH reservation will be provided for occupants of the Wiscon Building, including shuttle bus service.

The Plant Safety Branch conducted a survey of parking facilities in the business district of Bethesda and has developed a parking guide for the convenience of employees moving to the Wiscon building. Parking lots and street parking areas are indicated on the guide which will be posted on bulletin boards in all rental buildings.

Other Moves Noted

Other related moves include the transfer of the Extramural Programs Branch of NIDR from Building 31A to the Nave Building, and the NIMH Child Research Branch to Building 15K, in space formerly occupied by the Board of Civil Service Examiners which moved to the Trunnell Building.

Because of the many recent moves, employees are requested to check the new NIH telephone directory and the supplemental directory for the Wiscon Building for room and telephone numbers of personnel of the above mentioned offices.

R&W 'Harvest Ball' Set For Shoreham Nov. 13

A "Harvest Ball," sponsored by the Recreation and Welfare Association of NIH, will be held at the Shoreham Hotel in Washington on Friday, November 13, from 9 p.m. to 1 a.m. Dress will be semi-formal and music will be supplied by Harvey and his orchestra.

Admission to the dance is $6.00 per couple. Door prizes will be awarded. Tickets are available from the R&W Office, Rm. 1A18, Bldg. 31, Ext. 63597 or from R&W representatives.

PHS Supports Research On Accident Prevention

The Public Health Service has announced the award of $529,749 in grants for research seeking to reduce accidental deaths and injuries.

Dr. Paul V. Joliet, Chief of the Division of Accident Prevention, said the 11 grants were mostly in the area of traffic injury prevention.

NIH Bethesda Bank Branch To Be Open Election Day

The NIH Branch of the Bank of Bethesda, located in the Clinical Center, reports that it will be open Election Day, Tuesday, November 3, which is also NIH payday. All deposits received that day, however, will not be credited until November 4.

The NIH Branch will be closed Veteran's Day, Wednesday, November 11.

CC Blood Bank Reports

The Clinical Center Blood Bank reports donations for the past three months as follows: July—223; August—126; September—179.

Dr. Aldrich Will Rejoin Univ. Faculty; Shannon Lauds His Service Here

Dr. Robert A. Aldrich, Director of the National Institute of Child Health and Human Development, will return to the University of Washington Medical School, Seattle, on November 1, as Professor of Pediatrics after two years of public service. He has been on leave from the Medical School since appointment as the new Institute's first Director.

Dr. Aldrich

Dr. Donald Harting, Assistant Director, will serve as Acting Director following Dr. Aldrich's departure. Dr. Aldrich will serve as consultant to NICHD.

Praised by Shannon

Dr. James A. Shannon, Director of NIH, indicated that Dr. Aldrich's decision to leave NICHD meant a considerable loss to the Public Health Service. He said:

"We have been extremely fortunate to have had the services of so dedicated, talented, and effective a man as Dr. Aldrich during NICHD's formative years. When one considers the breadth and vitality of the Institute's program today, it is hard to remember that, when Bob Aldrich became Director of the Institute, legislation authorizing its establishment had just been signed.

"Today the Institute is supporting almost 1,000 research and training grants, has a budget of $42,696,000 for the Fiscal Year 1965, and a staff of 111 permanent, full-time employees."

Dr. Aldrich has been a faculty member of the University of Washington School of Medicine since 1956. He served as Chairman of the Department of Pediatrics until going on leave, when he was succeeded by Dr. Ralph J. Wedgewood.

Additional Background

A native of Winnetka, Ill., Dr. Aldrich completed his undergraduate work in 1939 at Amherst College and received his M.D. degree in 1944 from Northwestern University.

Before joining the University of Washington in 1956, he was an associate professor of pediatrics and research associate in biochemistry at the University of Oregon. Previously he had been an instructor in pediatrics at the University of Minnesota Graduate School and consultant in pediatrics at the Mayo Clinic, Rochester, Minn.

He is a Diplomate of the American Board of Pediatrics and a member of the American Medical Association, the Endocrine Society, the American Pediatrics Society, the Society for Pediatric Research, and the American Association for the Advancement of Science. He served in the Medical Corps of the Navy from 1944 to 1946.

President's Commission Urges Nation to Mobilize Against Three 'Killer' Diseases

During a conference coffee break at the White House Executive Offices, Dr. Michael DeBakey of Houston, Chairman (center), discusses plans with commission members, Dr. Philip Handler of Durham, N. C. (left), and Dr. Edward W. Dempsey. Dr. Dempsey, Dean of the School of Medicine, Washington University, St. Louis, was named last week by the President to become Special Assistant to the Secretary for Health and Medical Affairs, DHEW.

"The Nation's resources are not being sufficiently mobilized against heart disease, cancer and stroke, which cause over 70 percent of all deaths, disable hundreds of thousands of Americans, and result in enormous losses to our economy."

This is the opinion of the President's Commission on Heart Disease, Cancer and Stroke, "based on the evidence coming before us from all over the United States," said Dr. Michael DeBakey, Chairman of the Commission, which met September 21-22 in the White House Executive Office Building.

Commission Established

The commission was established by President Johnson early this year "to recommend steps to reduce the incidence of these diseases through new knowledge and more complete utilization of the medical knowledge we already have."

Since its first meeting in April, Dr. DeBakey said, the commission has held some 65 hearings and other meetings; heard the testimony of nearly 200 witnesses from agencies concerned with heart disease, cancer and stroke; and collected, studied, and used hundreds of documents, statements, letters, proposals and other information.

Many more meetings and the collection and analysis of still further information are scheduled before the commission submits its recommendations to the President, as requested.

"But the magnitude of the problem and the needs are already becoming clear," Dr. DeBakey said.

He cited the following as examples of "unnecessary suffering and death."

- Three-fourths of the 2 million who have strokes have warning symptoms that can be detected; and three-fourths of these could be prevented from having a stroke or could be saved through surgery after a stroke. But only a small fraction are coming to medical attention in time.
- Only about one out of every 20 persons with rheumatic fever is receiving prophylactic treatment to prevent rheumatic heart damage; and 18,000 are still dying each year from rheumatic fever and rheumatic heart disease.

Test Not Utilized

- Thousands of women with cervical cancer are failing to receive the diagnosis and early treatment that could save them, although there is a sound, simple diagnostic test.
- Ninety percent of all congenital heart defects could be cured if brought to attention and modern surgery and other therapies were employed; yet many thousands are not being helped.
- Thousands could be saved from initial or successive heart attacks if more people and their doctors cooperated to fight against the "risk factors" that increase the chance of coronary heart disease.

NIH donated land at the corner of Old Georgetown Road and Cedar Lane as a site for the Bethesda firehouse February 15, 1957.

New NIMH Monograph Reviews Schizophrenia, Causes and Treatment

Investigations into the causes and treatment of schizophrenia are summarized in a new mental health monograph published by the Public Health Service.

"Research in Schizophrenia" describes research by scientists in a variety of disciplines at universities and institutions across the country under grant support from the National Institute of Mental Health, and at the Institute by its own scientists.

Schizophrenia, which has plagued mankind since earliest times, is a disorder in which a person loses contact with reality and lives in a world of fantasy. The illness today accounts for half of all patients in mental hospitals.

Monograph Jointly Authored

The monograph was prepared by Julius Segal, Ph.D., Chief of the Program Analysis Section of the NIMH Research Grants Branch, and Seymour Kety, M.D., Chief of the NIMH Laboratory of Clinical Science.

It discusses the wide variety of factors — biological, psychological, social, and cultural — believed to contribute to the development of schizophrenia.

Among the important biological studies described are those concerned with a search for abnormalities in body fluids of schizophrenics, errors in metabolism, or chromosomal abnormalities.

Evidence increasingly indicates, the booklet notes, that schizophrenia results from a combination of several factors. For example, while physiological factors may play a role in predisposing a person to the disease, psychological stress often triggers the onset.

All of these factors are being evaluated in experimental research with humans and animals, and in clinical studies. More and more attention has been focused on the relationship of schizophrenics with their families, since the role of the family as a whole has been shown to have important implications in the schizophrenic process.

Other Research Reported

Other investigations reported in the monograph are concerned with improving diagnosis, treatment, and prevention of schizophrenia.

Single copies of the monograph, PHS Publication No. 1175, are available from the Public Information Section, National Institute of Mental Health, Bethesda, Md. 20014.

Multiple copies may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402, for 20 cents each.

Diabetes, Cystic Fibrosis Conferences Here Seek To Stimulate Research

The National Institute of Arthritis and Metabolic Diseases recently co-sponsored two scientific conferences, on cystic fibrosis and diabetes, in the Clinical Center auditorium and Building 31.

Designed to stimulate research interest in cystic fibrosis, the first of the two conferences dealt with this multi-faceted disorder of children and young adults. The major topics discussed were "The Secretory Activity of the Exocrine Glands" and "The Immuno-Chemical Activity of Glycoproteins."

Disease Is Inherited

Research on cystic fibrosis presents difficult problems because of the variety of organ systems involved. An inherited disease, it affects the exocrine glands of the body, including the mucus- and sweat-producing glands and the salivary glands.

The abnormal composition and action of secretions from these glands create serious complications which chiefly affect the respiratory and intestinal tracts and the ducts of the pancreas.

Among the conference participants were Dr. Guido Fanconi, Professor Emeritus at the University of Zurich, Switzerland, who first described the disorder and termed it cystic fibrosis of the pancreas in 1935.

This conference was co-sponsored by the National Cystic Fibrosis Research Foundation. Dr. Paul A. di Sant'Agnese, Chief of NIAMD's Pediatric Metabolic Branch, was conference chairman.

On October 1 and 2, NIAMD and the Diabetes and Arthritis Branch of the Division of Chronic Diseases, Bureau of State Services, jointly sponsored a conference entitled "Methodological Approaches to Population Studies in Diabetes."

Population studies of diabetes are conducted for the two-fold purpose of gathering information about the disease's distribution and prevalence in various population groups, and of detecting previously unknown diabetics. Population studies for prevalence may also yield information on factors related to the cause of diabetes.

This disorder now ranks eighth in the group of diseases causing death. An estimated 26 million people throughout the world have been diagnosed as diabetic, and an almost equal number are not aware they have the disease.

Problems Explored

The conferees gave primary attention to methodological problems and procedures that are unique to diabetes studies. They also discussed standardization techniques required to assure the effective comparison of data obtained in different field studies.

This conference is expected to result in the formation of specific recommendations for minimum procedural requirements in diabetes population studies.

Cotlove Presents Paper On Automated Analysis

Dr. Ernest Cotlove, Chief of the Clinical Center's Clinical Chemistry Service, Clinical Pathology Department, will present a paper on "A System for Automated Analysis and Data Processing in a Clinical Laboratory" at a meeting of the Washington Chapter of the Instrument Society of America, to be held at 8 p.m. on Monday, November 2, in Conference Room 3A, Building 31. All interested persons are invited.

Dr. Cotlove will explain how the need for increasing numbers of laboratory tests will be met by a system for the automation of laboratory procedures. The system, now being developed, includes automatic equipment for accessioning and identification of specimens, automatic analytical equipment, data acquisition equipment, and digital computer with peripheral equipment.

The National Heart Institute was host recently to visiting Russian cardiologists at the fifth annual Joint Scientific Sessions on Cardiovascular Diseases. Shown here during a discussion are (from left): Dr. William J. Zukel, NHI Associate Director for Collaborative Studies; Dr. E. I. Chazov of Russia; Dr. Ralph E. Knutti, NHI Director; and Professor A. L. Myasnikov of Russia. These meetings are held under terms of the Scientific Exchange Agreement between Russia and the U. S. The agreement calls for cooperation in scientific, technical, educational and cultural fields.—Photo by Sam Silverman.

Swedish Council Offers Postdoctoral Fellowships In Biomedical Sciences

Availability in 1965 of two postdoctoral fellowships for a year's training in biomedical sciences at a Swedish research institution was announced recently by the Public Health Service.

Agreement on the fellowships resulted from a proposal made through the National Institutes of Health by the Medical Research Council of Sweden.

Aware of the fellowships program for foreign scientists in the United States, the Swedish group has offered the training in either a basic or a clinical field related to health. A choice of institutions is given Fellows selected for this program which is handled by the Career Development Review Branch, Division of Research Grants.

Offered Annually

To be eligible, candidates must be U. S. citizens and must have been engaged in research in the United States for at least two of the past four years. The fellowships are offered annually, with the two presently available to begin in the fall of 1965.

The stipends have been set at two levels equivalent to salaries paid Swedish associate professors and assistant professors. A Fellow who qualifies for the associate professor level will receive 30,000 Swedish Crowns (approximately $6,000); one who qualifies for the assistant professor level will receive 25,000 Swedish Crowns.

All awardees also will receive a living expense allowance of 5,000 Crowns and travel costs not exceeding round-trip tourist class air fare between terminal points. Swedish income tax, if assessed, will be paid by the Council.

Fringe benefits offered by the Council include a 4-week vacation, sick leave, and insurance against accidents and acute illness. Although travel costs for dependents and transportation of personal or household effects are not covered, Fellows may seek support for these expenses elsewhere. They may also accept sabbatical salary, royalties, or other income.

More detailed information and application forms may be obtained from the Chief, Career Development Review Branch, Division of Research Grants, National Institutes of Health, Bethesda, Md. 20014.

The next deadline for receipt of applications is January 1, 1965. Final selections will be announced in July, 1965.

Dr. Gay Plans Program For Animal Care Panel

Dr. William I. Gay, Research Specialist in the Animal Resources Branch of the Division of Research Facilities and Resources, was program chairman for the 15th annual meeting of the Animal Care Panel held recently in New York City.

About 1,300 research scientists, veterinarians, physicians, dentists, and commercial suppliers of laboratory animals met to discuss major developments and problems in laboratory animal care.

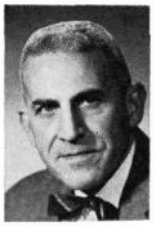
For the first time, the annual meeting included two days of seminars on special topics including the planning, design and construction of laboratory animal facilities; management of primate breeding colonies; problems of importing laboratory primates; and standardizing nomenclature for new strains of lab animals other than mice.

Demonstrated on closed circuit TV were techniques of implanting permanent brain electrodes and methods of laboratory testing in diagnosing animal diseases.

Latest advances in research instrumentation displayed at the 14th Annual Research Equipment Exhibit here, Oct. 5-8, attract large numbers of interested visitors. Housed in Building 22, this year's exhibit featured displays by 76 manufacturers valued at nearly $1 million.—Photo by Bob Pumphrey.

Dr. Jacobs Is NIAID's Acting Director for Intramural Research

The appointment of Dr. Leon Jacobs as Acting Director for Intramural Research of the National Institute of Allergy and Infectious Diseases has been announced by Dr. Dorland J. Davis, Institute Director.



Dr. Jacobs

Before his appointment as Acting Director for Intramural Research, Dr. Jacobs was Chief of the Institute's Laboratory of Parasitic Diseases.

In his new position, Dr. Jacobs will be responsible for the direction of NIAID's nine laboratories, which together constitute one of the largest and most diversified research complexes in the world for the study of allergies and infectious diseases.

Wins Research Award

Dr. Jacobs has been a member of the staff at NIH since 1937 and is well known throughout the world as a parasitologist. For his research on toxoplasmosis, he was awarded the Henry Baldwin Ward medal and prize by the American Society of Parasitologists.

A native of Brooklyn, N.Y., Dr. Jacobs graduated from Brooklyn College in 1935. He received an M.A. degree from George Washington University in 1938 and his Ph.D. degree in parasitology in 1947 from the same institution.

NIH LECTURE

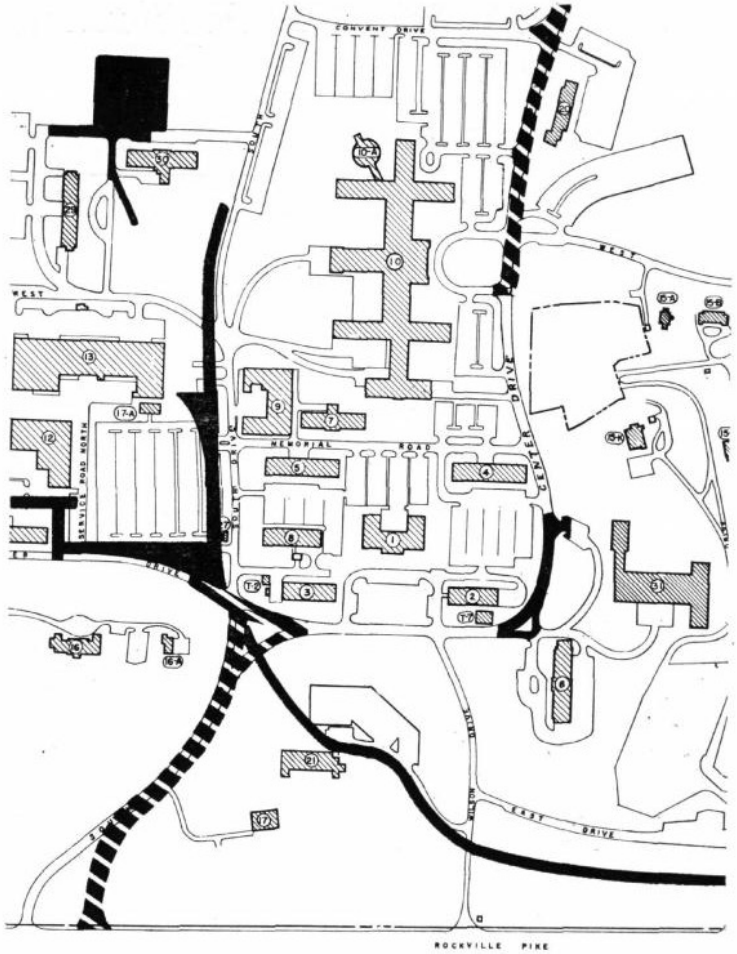
(Continued from Page 1)

recent work has been concentrated on the complex three-dimensional configurations into which the chains of protein molecules coil themselves, in order to give the proteins their specialized structures and enable them to function.

These studies are basic to an understanding of the metabolic diseases, which affect the structure and synthesis of the body's proteins.

Current concepts of protein structure and their implications for biology as it is presently understood will be discussed in Dr. Anfinsen's lecture, with emphasis on the role of protein configuration in the process of evolution.

A native of Monessen, Pa., Dr. Anfinsen studied at Swarthmore College and the University of Pennsylvania before entering graduate study at Harvard Medical School. Since his selection as a Markle Scholar at Harvard Medical School early in his career, Dr. Anfinsen has been variously honored.



This map shows the central area of the NIH reservation, where the Master Utilities Extension and road-widening projects will cause considerable disruption of traffic and loss of parking spaces (see story). The utilities excavations are designated in solid black, the road-widening projects in cross stripes. The black square, upper left, will be a storage area for the utilities contractor. The initial project—widening of Center Drive from the Clinical Center to Old Georgetown Road (off top of map)—is scheduled to begin this week. Others, to be announced, will follow.

CONSTRUCTION

(Continued from Page 1)

tion will be the trenching required for the utilities in the areas indicated on the accompanying map. This will disrupt traffic to some extent, but the contractor will be required to keep one-way traffic open at all times where trenching occurs in streets, roadways, and entrances to parking areas.

Some parking spaces will be lost in the lots and on the roads directly affected by the MUE. The Plant Safety Branch encourages NIH personnel to consider alternate parking spaces in such lots as 29B and 30B and in the new lot between Stone House and the National Library of Medicine.

Personnel in Buildings 31 and 6 are asked to cooperate by using parking lots northeast of these buildings, both as a means of relieving overcrowding in other lots and to remove some traffic from Center Drive.

The remaining portion of the MUE, to be started in the spring of 1965, will include the updating of utilities throughout the reservation, and new utilities for Buildings 36 (Cancer) and 37 (Neurology and Mental Health) and Building 31C (Extension to General Office Building).

Since much of the construction during the next few years, especially the Master Utilities Extension project, will disrupt pedestrian and vehicular traffic and parking, the *NIH Record* will carry details of each project as definite construction schedules are established.

Pruitt Named to Council

Dr. Raymond D. Pruitt, Professor and Chairman of the Department of Internal Medicine, Baylor University College of Medicine, Houston, Tex., recently was appointed to a 4-year term—ending September 30, 1968—on the National Advisory Heart Council.

Dr. Robert Felix Wins Two High Honors for Mental Health Work

Dr. Robert H. Felix, who recently retired as Director of the National Institute of Mental Health, has been awarded the Nation's highest public health honor and the 1964 Parents' Magazine Medal.

Dr. Felix

Dr. Felix, now Dean of St. Louis University's School of Medicine, was one of three physicians to receive the 1964 Bronfman Award at the annual meeting of the American Public Health Association, held October 8 in New York City.

In describing the prize-winning achievements, the Bronfman Prize Committee hailed Dr. Felix as "a prime architect" in creating national programs which have revolutionized mental health research and training as well as the care of the mentally ill in the United States.

3 Winners Out of 100

Three $5,000 awards, established by the APHA in 1961 with a grant from the Samuel Bronfman Foundation, are conferred annually to honor outstanding international accomplishments in developing and applying new knowledge to prevent disease and extend life expectancy.

The three award winners were selected from among nearly 100 health scientists throughout the world, nominated for this year's Bronfman Prizes. The other recipients were Dr. Malcolm H. Merrill, Director, California State Department of Public Health, and Dr. George E. Moore, Director, Roswell Park Memorial Institute, Buffalo, N.Y.

In accepting the award, Dr. Felix said that he did so, in deep appreciation, as a representative of the National Institute of Mental Health.

Felix Praises Others

"I feel that I represent all those dedicated people—both professional and nonprofessional," Dr Felix said, "who have worked so selflessly over the years to improve the lot of the mentally ill.

"Their efforts have just begun to reach fruition within the past few weeks with Congressional appropriation of $35 million for help in building comprehensive community mental health centers."

The Parents' Magazine Medal was awarded to Dr. Felix "for outstanding service to children and youth and U. S. family health."

The cornerstone for Building 1 was laid on June 30, 1938.

Quinn Heads OIR Unit For Policy Development And Coordination

The Office of International Research recently announced the establishment of a Policy Development and Coordination Unit within the Office of the Chief, to be headed by Joseph R. Quinn who has served as Assistant Head of OIR's Program Analysis Section since May 1963.

Mr. Quinn

The new unit, which will report directly to the Assistant Chief of OIR, will conduct staff studies and render advice to the OIR Chief on NIH international policy matters.

Among other functions, the new unit will be responsible for specific policy and procedure problems related to foreign grants.

Prior to joining OIR in 1963, Mr. Quinn was a program management specialist in the National Aeronautics and Space Administration. Previously he was employed by the Atomic Energy Commission for 11 years, including eight years in the field of technical cooperation with other countries. Three of these years were spent as the AEC European representative in Paris.

Mr. Quinn also served on the staff of the Review of International Atomic Policies and Procedures, conducted for the Joint Committee on Atomic Energy; as a United Nations Liaison Officer with the Office for a U.N. Conference on Outer Space, NASA; and with the U.S. Displaced Persons Commission in West Germany.

Mr. Quinn received his B.S. degree in 1949 from the Georgetown University School of Foreign Service and an M.A. degree in European history from the Georgetown University Graduate School in 1954.

CENTERS

(Continued from Page 1)

tal health program.

In addition to the initial appropriation of construction funds for centers, NIMH will grant $12 million in 1965 to hospitals for the mentally ill and for the mentally retarded.

These grants will finance projects within the Hospital Improvement Project Grant Program, begun in 1964 when grants of $6 million were awarded to projects approved in 81 hospitals.

To be eligible for grants, all projects under the HIP program must be designed to improve treatment and care of the mentally ill and mentally retarded in existing hospitals as an adjunct of the community-based treatment program.

Since skills of hospital personnel must be upgraded in providing comprehensive care for patients, NIMH will award $6 million in Inservice Training Grants during 1965.

As in 1964, when $3 million was granted for 149 inservice training projects, the training will be primarily focused on psychiatric aides, attendants and house parents currently employed in hospitals.

The increased budget for 1965 will also provide funds to train instructors for the inservice program, since available instructors are in extremely short supply.

Other funds available to NIMH under the regular mental health appropriation of 1965 include $163.7 million for research, fellowships, training of professionals and State grants, as well as $24.2 million for Institute research and items of direct operations.

Study Suggests Recapture, Reutilization Of NE at Sympathetic Nerve Endings

Studies by the National Heart Institute suggest that much of the norepinephrine (NE) released at sympathetic terminals by nerve impulses is normally recaptured between stimuli by an active transport mechanism and pumped back into the terminal stores for future neurohumoral duties.

The sympathetic nervous system wields its influence over the activities of various organs and tissues through a chemical mediator, norepinephrine.

Released by nerve impulses from the stores maintained at sympathetic terminals, NE diffuses across the synapses to interact with receptors of target organs. It was formerly thought that, having performed this messenger function, the free NE was rapidly destroyed by enzymes.

However, recent NHI studies indicate that much of it is recaptured by an active transport mechanism and pumped back into the terminal stores for future use.

This thrifty use of NE insures that the supplies of the amine synthesized and stored within sympathetic terminals will not become depleted under normal circumstances.

Radioactive NE Injected

In these studies, the scientists injected radioactive NE into the inferior mesenteric artery of cats. Considerable quantities were taken up by the terminals of sympathetic nerves supplying the bowel, thus labeling their NE stores. Thereafter, the scientists removed the colon, together with its major nerves, artery, and vein, for a series of perfusion studies.

The spontaneous release of radioactivity, as measured in perfusate samples from the colonic vein, was relatively low, and up to 75 percent of it represented acid metabolites of NE.

This indicated that most of the NE had diffused passively out of the storage site and had been destroyed by monoamine oxidase. (The NE released onto receptors by nerve impulses is eventually inactivated by another enzyme, catechol-O-methyl transferase, and yields a basic metabolite: normetanephrine.)

Electrical stimulation of colonic sympathetic nerves increased the radioactive efflux up to 2.5 times above the resting level. Most of this increase (60-75 percent) represented the basic metabolite normetanephrine.

Dibenzyline is a drug that blocks the effects of the sympathetic transmiter by masking the receptor sites normally acted upon by NE. Pretreating the animals with this drug or adding it to the perfusion fluid had no effect on the spontaneous release of radioactivity.

Results Described

However, sympathetic nerve stimulation after dibenzyline released up to five times as much radio-activity into the colonic vein perfusate as did stimulation without the drug. Nearly 90 percent of this radioactivity represented free NE.

The scientists interpret their results as follows: Relatively high concentrations of NE are maintained in sympathetic terminals by an active transport mechanism that opposes the passive diffusion of the amine out of the storage site.

Under ordinary circumstances, the same mechanism recaptures a large proportion of the NE released onto receptors by sympathetic nerve impulses. This recapture is believed to occur during the brief interval between nerve stimuli.

When the receptor sites were blocked by dibenzyline, much of the liberated NE escaped from the immediate vicinity of the active transport mechanism and thus could not be reclaimed. Hence, large quantities of NE entered the circulation, eventually to be destroyed by enzymes or else taken up by other tissues.

These findings were reported at the fall meeting of the American Society for Pharmacology and Experimental Therapeutics by Drs. D. J. Boullin, Erminio Costa, and Bernard B. Brodie, Laboratory of Chemical Pharmacology, NHI.

DRFR Names Retholtz, Dvoskin Ass't Chiefs Of Its GRS Branch

Dr. George Retholtz and Bernard V. Dvoskin have been appointed to the positions of Assistant Chief for Scientific Review and Evaluation and Assistant Chief for Operations, respectively, in the General Research Support Branch of the Division of Research Facilities and Resources.

In their new positions they will assist Dr. Herbert Pahl, Branch Chief, in administering the general research support grant program which provides awards for broad support of institutional health science programs.

"This complementary support," the announcement stated, "permits

Dr. Retholtz

Mr. Dvoskin

the institution great flexibility in developing those areas which contribute most effectively to its total research capability, and an unprecedented opportunity to explore new developments in research which show promise of scientific excellence."

Transfers From PHS

Dr. Retholtz transferred to the Division from the Research Grants Branch of the Division of Hospitals and Medical Facilities, PHS, where since 1963 he had served as Research Consultant in Psychology.

He began his civil service career in 1941 with the New York District Engineers Office, Department of Army, where he attained the position of Chief of the Personnel Office Testing Section.

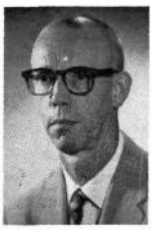
He served in the Army during World War II and then resumed his Government career, holding positions of increasing responsibility in the field of psychology.

Mr. Dvoskin came to the Division from the General Accounting Office where he began his civil service career in 1953 as Supervisory Accountant. His assignment there included service with the Congressional Joint Committee on Atomic Energy.

His prior career in private industry included the position of Office Manager of the Londontown Manufacturing Co. of Baltimore, and Senior Accountant with the firm of Burke, Landsberg and Gerber in Baltimore.

Lester Geiger Appointed To DRFR Branch Post

The Division of Research Facilities and Resources has announced the appointment of Lester H. Geiger as Bio-Medical Systems Administrator in the Special Research Resources Branch.



Mr. Geiger

In this newly established position, Mr. Geiger will assist Dr. Howard Jenerick, Branch Chief, in administering that portion of the program which provides support for 31 computer centers and involves an annual budget of approximately $6 million.

The Branch currently administers a total of 38 special research resource facilities which includes the computer centers, one biomedical engineering center, a biopolymer and enzyme center, a tissue culture center, and other similarly specialized large-scale research resources.

Mr. Geiger came to DRFR from the Department of Army, Army Research Office where, since 1961, he was Technological Forecasting Specialist in the Research Planning Division and the Advanced Technology Group.

CAMPAIGN

(Continued from Page 1)

part accounts for the higher average gift of $17.33 at this point in the campaign.

Dr. Eugene A. Confrey, NIH Chairman, said "It is clear that some of our personnel are being more than generous in fulfilling their obligations to the community. All we need," he emphasized, "is that each employee give an honest share."

The percent of participation and percent of quota attained by each of the 16 reporting units at the halfway mark in the combined campaign follows:

	Employee Participation	Percent of Goal
NIGMS	100.0	119.7
DRFR	100.0	110.4
DRG	99.0	120.0
NICHD	75.6	91.6
DRS	52.5	73.1
OAM	50.0	70.3
OD	88.9	70.0
NIDR	66.4	67.6
DBS	65.3	60.3
NIMH	33.3	51.6
NIAMD	41.6	49.2
NIAID	35.6	42.2
NCI	42.0	39.9
NINDB	26.4	34.7
NHI	33.6	32.4
CC	34.6	24.1
Total	47.1	53.3

Electronic Devices Developed To Aid Malfunctioning Organs

Investigators at Maimonides Hospital in Brooklyn, N.Y., are conducting a comprehensive, multi-discipline research program in search of ways to make paralyzed or diseased muscles of the human body, including the heart, obey electronic commands.

Under a National Heart Institute grant, these scientists are studying methods of employing electronic devices to supplement ailing human hearts, bladders that won't empty properly, arms or legs whose movements are uncoordinated, and other malfunctioning physiologic systems.

In the continuing campaign against heart disease the operating room serves as the surgeon's battleground. Here a team of heart surgeons at Maimonides Hospital performs an open-heart surgical procedure.

The work is being done by a team of medical scientists and engineers led by Dr. Adrian Kantrowitz at the Edward Neimeth Institute for Medical Research of Maimonides Hospital.

Dr. Kantrowitz is Director of the Department of Surgery and Surgical Research at Maimonides Hospital and Professor of Surgery at the State University of New York, Downstate Medical Center.

Reclamation Promised

Dr. Ralph E. Knutti, NHI Director, called this "a highly important approach to the solution of such difficulties and one that holds promise of reclaiming thousands of persons, many of them in the prime of life."

Under the terms of the grant, Maimonides will receive $150,736 to aid the program for the first year, with a suggested level of support over the next four years averaging $137,700.

A major task for the group has been the design of an auxiliary or assistant heart to take over part of the work of an ailing or scarred heart.

The device consists of a plastic object which looks like a flattened rubber ball with a double wall, the inner portion capable of pulsing as air is introduced into the outer portion.

The inner chamber is connected by synthetic tubes between two sections of the aorta. As the auxiliary heart fills with blood from the living heart, the outer portion is forcibly filled with air, pushing the blood on into the descending aorta for distribution throughout the body.

A battery, a small air pump, and electronic controls are worn outside the body. The electronic controls operate the pump to keep the device synchronized with the living heart.

In animal experiments the assistant heart has functioned for as long as 32 days and taken over as much as 50 percent of the work of the still beating animal heart.

Device Uses Diaphragm

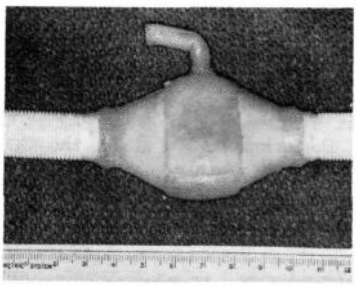
The Maimonides group is also working on a prosthetic device which would use a patient's own muscle tissue, the chest diaphragm or natural breathing apparatus, for pumping.

It is possible to get along with only half a diaphragm, hence the other half is available to do the squeezing.

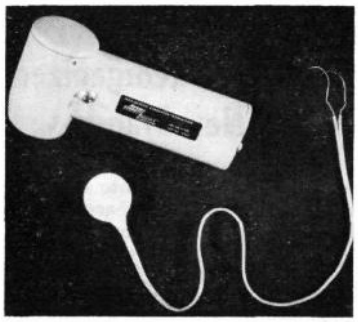
Of great benefit to some 200,000 paraplegics in the U.S. alone, are experiments which show promise of providing a method of emptying the urinary bladder of those paralyzed in the lower part of the body, by electrical stimulation of the muscle which controls this function.

Experimental studies of heart transplants in dogs already have met with some postoperative success. Early transplants survived as long as four or five days, and more recently two dogs lived for more than 19 days. One was reported to be still living after 73 days.

For patients with heart block—



This implantable auxiliary or "booster" heart is designed to rest an ailing heart and take over part of its work. Electronic controls keep it synchronized with the living heart. The controls and a small air pump are worn outside the body.



Radio-operated bladder stimulator the size of a wrist watch (lower, in picture) is implanted in a pocket beneath the skin on the left side of paraplegics. The two stainless steel electrodes are inserted in the detrusor muscle of the bladder. The transmitter (above, in picture), carried outside the body, activates the implanted receiver, causing bladder contraction and urine expulsion.

a condition in which the muscular interconnection between the upper and lower chambers of the heart is interrupted to such an extent that the auricle and ventricle beat independently of one another—there is new hope for relief through continued studies by Maimonides scientists working with engineers of General Electric Company on an artificial "pacemaker" for the heart.

A workable model has been devised and placed in more than 600 patients with only 15 failures owing to mechanical trouble.

Implanted Under Skin

The pacemaker is driven by long-life batteries and the whole power pack and pacing circuit is small enough to be implanted under the skin. Heart Institute advisers assert there is need for more basic work in this field.

Another major Maimonides effort in the application of electronics engineering to physiologic problems is an attempt to direct electric current to legs that are paralyzed and cause the muscles to operate in something close to normal fashion. Here, too, some success has been achieved, principally through animal experimentation.

College Dean Appointed

Dr. Robert B. Howard, Dean of the College of Medical Sciences, University of Minnesota, has been appointed a member of the National Advisory Council on Health Research Facilities for a term ending June 30, 1968.

Zipkin Heads Conference

Dr. Isadore Zipkin, Assistant Chief of the Laboratory of Biochemistry, National Institute of Dental Research, has been appointed Chairman of the Gordon Conference, "Chemistry, Physiology and Structure of the Bones and Teeth," to be held in Meriden, N.H., in July 1965.

Extramural Programs Of NIAMD Reorganized With 4 New Branches

The Extramural Programs area of the National Institute of Arthritis and Metabolic Diseases is now reorganized with designated functions assigned to four newly-named branches — Scientific Programs, Grants Management, Analysis and Evaluation, and Operations — it was announced recently by Dr. G. Donald Whedon, Director, and Dr. Edward P. Offutt, Deputy Chief for Extramural Programs.

The reorganization was designed, the announcement said, for a more effective and coordinated approach to the Institute's mission and to strengthen NIAMD's ability to serve the various programs within its areas of responsibility.

Under the new system, a program director qualified by special training administers both research support and training and fellowship support within one circumscribed area, such as arthritis or diabetes.

System Effective

This system also permits a more effective running analysis of NIAMD program activities to facilitate prompt recognition of research and manpower needs and of changes in the state of the art.

In the Scientific Programs Branch, professionally qualified program directors plan, conduct and coordinate the support programs in the categorical or scientific areas of Institute responsibility. Disease categories or biomedical areas within NIAMD's province of responsibility and the program directors are:

Arthritis and Orthopedics, Dr. William H. Batchelor; Dermatology, Dr. Rose M. Petrucelli; Diabetes and related areas, Dr. Edward P. Offutt (Acting); Endocrinology, Dr. Roman Kulwich; Gastroenterology, Dr. Richard B. Stephenson; Hematology, Dr. Stephen B. Fredd; Metabolism, Dr. James R. Weisiger; Nutrition, Dr. John F. Herndon; Urology and Renal Diseases, Dr. Robert R. Waller.

Lacey Heads Branch

The Grants Management Branch, headed by Clair E. Lacey, is responsible for the fiscal and administrative policy review of grant applications. It also interprets and applies grants management policy.

Extramural program data, needed for planning and policy formulation, is compiled by the Analysis and Evaluation Branch, also headed by Dr. Offutt. This Branch also provides extramural data for NIAMD's Office for Program Analysis and Scientific Communication.

Under Linden F. Neff, Administrative Officer for Extramural Programs, the Operations Branch provides budget, personnel and other administrative management services.

These five recent graduates of the X-Ray Technology School of the Clinical Center's Diagnostic X-Ray Department represent the second graduating class of the 2-year combined academic and on-the-job training program. They look forward to obtaining national certification from the American Registry of X-Ray Technicians. From left: Robert Jackson, Frances Parker, Nancy Collins, Sandra Moore and William Muehlmann.—Photo by Bob Pumphrey.

Hamsters Scamper to Concoct Witch's Brew For November Showing

Reterrem, Salibat, Crateres, Hisaster! With these magic words and the help of an enchanted cat named Pyewacket, Gillian Holroyd, a beautiful witch, is able to trap the man of her dreams in the comedy "Bell, Book and Candle," the R&W Hamsters' fall production.

Gillian is no witch of old Salem but an ultra modern with a luxurious apartment on New York's East Side. And the man she bewitches, Shep Henderson, a suave, successful Manhattan publisher, lives in the apartment upstairs. What happens when Shep discovers he is literally under Gillian's spell makes for lively comedy.

Gillian will be played by Jean Litzen, an NIMH psychiatric nurse at the Clinical Center. This will be her first role in a Hamster show.

Julian Morris, Office of Research Information, OD, who appeared here in "Flower Drum Song," will play the role of Shep.

Another veteran of "Flower Drum Song" and several other Hamster productions is Dottie Mathis who will portray Aunt Queenie. Two other newcomers are Tony Condit as Nicky, and John Giman, Radiopharmaceutical Service, CC, as Redlitch.

Performances — all in the CC auditorium — are scheduled for 8 p.m. on Thursday, Friday and Saturday, November 12, 13, and 14, and on Sunday afternoon, November 15, at 2:30 p.m. A special performance will be given Wednesday evening, November 11, for CC patients.

IMMUNIZATION

(Continued from Page 1)

and the routine immunization of all children on entering school.

Dr. Terry, in releasing the report, said that the Public Health Service was accepting the committee's recommendations. He pointed out that the shift in emphasis away from adults toward younger age groups was forecast in a committee report of December, 1962. The advisory committee at that time emphasized the importance of concentrating on the immunization of younger age groups and noted a "very small risk" incident to the use of the oral vaccines in persons 30 years of age and over.

Sequence Is Altered

The current committee report also recommends alteration in the sequence of administering monovalent vaccines. The newly recommended order is Types II, I, and III.

Dr. Albert Sabin, developer of the oral vaccine and a member of the committee, filed a report dissenting from the committee's recommendations and calling for the continued immunization of all age groups.

The Service is making available the full text of both reports to State Health Officers, professional organizations, and other interested agencies, Dr. Terry said.

In urging a renewed effort to vaccinate those still susceptible, most of whom are poorly immunized children in economically depressed population groups, the committee cited the spectacular decline of polio during recent years.

The decline has been from an annual rate of 14.6 cases per 100,000 during 1950-54 to a rate of 1.8 for 1957-61. This represents a decrease of 88 percent.

Scientists Find Anomaly Persists After CML Is Controlled by Drugs

National Institutes of Health scientists have demonstrated that the anomaly, known as the Philadelphia chromosome, is present in three types of blood cells even when chronic myelogenous leukemia (CML) is brought under control by drugs.

Effective drug treatment as evidenced by partial or complete remissions does not diminish in the bone marrow of chronic myelogenous leukemia patients the proportion of cells carrying the abnormal chromosome characteristic of this disease.

This anomaly is present not only in the leukemic white cells of CML patients but also in some of their nucleated erythroid (red) cells and megakaryocytes, the forerunners of platelets.

24 Patients Studied

These are two of a series of clinical, hematologic, biochemical, and cytogenetic observations made by National Cancer Institute and National Institute of Arthritis and Metabolic Diseases scientists during 32 drug trials in 24 patients with CML.

Complete remissions occurred in 15 patients and partial remissions in 11 receiving "conventional" therapy — busulfan, 6-mercaptopurine, and diacetylmethylcolchicine.

In all these patients the Philadelphia chromosome was present in quantity in bone marrow cells and continued to be present in prolonged remissions up to six months.

The investigators suggest that since the precursors of red, white, and platelet cells are involved, the neoplastic change must take place in an earlier precursor cell common to all three types and that a proliferative advantage is imparted to subsequent CML cells.

Advantage Demonstrated

This advantage was demonstrated by the finding that, unlike normal cells, Philadelphia chromosome positive cells transfused from the blood of a CML donor to a child with acute lymphatic leukemia survived and actually multiplied for as long as 40 days.

Such transfusions have been found effective in combating antibiotic-resistant infections in the majority of children with acute lympathic leukemia.

A report of these studies was published in the Annals of the New York Academy of Sciences by Drs. Emil Frei, III, J. Whang, and P. P. Carbone of the Medicine Branch, NCI, and Dr. J. H. Tjio of the Laboratory of Experimental Pathology, National Institute of Arthritis and Metabolic Diseases.