Reorganization in NIAMD Creates New Sections

Clinical and laboratory studies of disorders such as diabetes and research on gastroenterology received fresh stimulus recently through organizational changes in clinical investigations branches at the National Institute of Arthritis and Metabolic Diseases. Changes have also been announced in the Institute's Laboratory of Biochemical Pharmacology.

2 Branches Involved

Changes in clinical investigations, effective July 1, involve the establishment of new sections in the Metabolic Diseases Branch and the Clinical Endocrinology Branch of NIAMD.

Dr. G. Donald Whedon, Director of the Institute, also announced the appointment of NIAMD's Clinical Director, Dr. Robert S. Gordon Jr., as Chief of the Metabolic Diseases Branch. He succeeds Dr. Whedon who had headed this branch since its inception in 1952.

Under Dr. Gordon, the Metabolic Branch. He succeeds Dr. Whedon who had headed this branch since its inception in 1952.

NCI Seeks to Freeze-Preserve, Supply Blood Elements for Treating Leukemia

Methods for freeze-preserving and supplying human blood elements needed for treating leukemia will be developed under a research contract with the Massachusetts General Hospital in Boston.

The contract has been awarded by the Public Health Service for an initial one-year period in the amount of $70,750.

Hemorrhage Controlled

Transfusions of blood platelets effectively control hemorrhage, a frequent cause of death in leukemia. Transfusions of certain white cells help to enhance the patient's resistance to infection. However, no adequate method of preserving these blood elements has been devised to date.

Dr. Charles E. Huggins, Director of the Cryobiology Laboratory at Massachusetts General Hospital and a pioneer in the development of techniques for preserving red blood cells by freezing, was named principal investigator on the newly awarded contract.

When preservation methods have been perfected, Massachusetts General Hospital will supply frozen platelets and white cells to hospitals cooperating in the National Cancer Institute's nation-wide leukemia therapy program.

Available for Study

In addition, frozen blood elements from normal donors and acute leukemia patients will be made available for virus studies by scientists cooperating in the Institute's virus-leukemia program.

Serving as NCI's project officer in the contract is Dr. Robert E. Stevenson, Chief of the Virology Research Resources Branch.

Work Underway on Three Parking Lots To Ease Congestion During Construction

Three additional parking areas are under construction and occupancy of new buildings at NIH during the coming months will accommodate a total of 236 cars.

The third lot, located between Building 30 and Service Road West, will be developed to accommodate 260 cars.

Areas Listed

The other areas are: the cause and prevention of human leukemia, treatment of human leukemia, and animal leukemias and their possible relationships to man.

The Pitman-Moore Division of the Dow Chemical Co. at Indianapolis, Ind., will design, construct, and test full-scale models of new containment facilities needed for studies at the Institute's proposed virus laboratory and animal facility here at NIH.

Information and design criteria for biohazards control and containment developed under this contract will become available to investigator.

Dr. Commoner to Appear on WETA Show Next Monday

The evil effects of modern scientific discoveries will be discussed by Dr. Barry Commoner, noted biologist, in a Dave Garroway interview, "Science and Social Responsibility," to be telecast on WETA (Channel 26), next Monday at 6:30 p.m.

The program, one of WETA's popular Exploring the Universe series, will probe the effects of atomic fallout, air pollution and insecticide poisoning. It will be repeated Wednesday, Aug. 4, at 10:30 p.m.
Kathleen M. Doherty Named in First Edition Of Book on Outstanding Young Women

Kathleen M. Doherty, a research dietitian in the Clinical Center’s Nutrition Department, will be included in the first (1966) edition of Outstanding Young Women of America, an annual biographical compilation of women between 21 and 36 years of age who have made outstanding contributions in their field.

Leaders of women’s organizations throughout the country have suggested names for inclusion in the book. Kathleen was selected by her college, the University of Missouri, in Who’s Who Among Students in American Universities and Colleges, 1961-62. Her college also awarded her a Schaffer Award in recognition of outstanding contributions in her field.

Kathleen M. Doherty earned her degree in 1961 as well as the cum laude degree in 1962. She is a graduate of Marywood College, Scranton, Pa., where she received a B.S. degree in 1961 as well as the Schafer Award, a departmental award in Home Economics.

In Who’s Who

In her senior year she was listed in Who’s Who Among Students in American Universities and Colleges, 1961-62. She served her internship at St. Mary’s Hospital, a Mayo Clinic affiliate, in Rochester, Minn.

Miss Doherty, a member of the American Dietetic Association, served as Co-chairman of Career Guidance and Publicity of the District of Columbia Dietetic Association in 1964-65, and is presently Hospitality Chairman of that organization.

She also participates in a service of the association known as “Dial-A-Dietitian” and is a volunteer worker for Cerebral Palsy of Washington, D. C.

Two New Publications Issued by NIH Library

The NIH Library of the Division of Research Services has issued two new publications.

The first, a revised edition of the “NIH Library Guide,” describes the various services of the library and how they may be obtained.

It also includes a floor plan of the library, as well as a description of the various guides to the literature, borrowing policies, and hours of operation.

The second publication, entitled “Periodicals Currently Received in the NIH Library 1965,” is a listing by title with a subject index of some 2,500 periodicals received by the library.

Either publication may be obtained at the NIH Library, Division of Research Services, on the fifth floor of the Clinical Center, or by calling Ext. 62447.

To cut costs, watch your waste line. Suggest better and more economical ways to do the job.
Dr. Robert Philip Named RML Assistant Director

The appointment of Dr. Robert N. Philip as Assistant Director of the Rocky Mountain Laboratory in Hamilton, Mont., a field station of the National Institute of Allergy and Infectious Diseases, was announced recently by Dr. Dorland J. Davis, Institute Director.

In his new position Dr. Philip will assist Dr. Herbert G. Stoenner, RML Director, in planning, directing, and evaluating the 44-year-old research unit's program.

Born in York, Neb., Dr. Philip attended Harvard University and the University of California, where he received his M.D. in 1948. In 1963 he was granted a master's degree in public health by the Harvard School of Public Health.

Joins Corps in 1949

A member of the PHS Commissioned Corps since 1949, Dr. Philip has served as an epidemiologist in the Laboratory of Infectious Diseases, NIAID; at the PHS Arctic Health Research Center in Anchorage, Alaska; and at the Rocky Mountain Laboratory since 1960.

He is a member of the American Medical Association, the American Public Health Association, and the American Association for the Advancement of Science.

Dr. Philip

Plaque Marks Plot 23, Source of Aureomycin

A plaque on the south gatepost of Sanborn Field at the University of Missouri's College of Agriculture marks a historic site—plot 23, the source of streptomycin and aureomycin. The plaque was sent to Dr. B. W. Duggar for use in his research on antibiotics at Lederle Laboratories.

Botany Head

Dr. Duggar was Professor of Botany at the University of Missouri in the early 1900s and later head of the Botany Department at the University of Wisconsin. After his retirement he became associated with Lederle Laboratories in New York.

The remnant of the soil sample which supplied the organism from which aureomycin was developed was later placed in the Smithsonian Institution in Washington, D.C.

RML, Approaching Half-Century Mark, Is World Center for Study of Zoonoses

The Rocky Mountain Laboratory of today is a complex of modern buildings located in the Bitterroot Valley section of Montana.

During the course of nearly half a century, the Rocky Mountain Laboratory, a field station of the National Institute of Allergy and Infectious Diseases, has earned a reputation as a world center for the study and control of zoonoses—animal diseases transmitted to man.

Beginning in the early 1900s and later in the Rocky Mountain Laboratory, aureomycin was developed with Lederle Laboratories in New York.

In his retirement he became associated with the American Museum of Natural History since 1960.

The laboratory attracts many international visitors, from a second grade class on a field trip to some of the world's most accomplished microbiologists seeking firsthand knowledge of special methods for research on medical entomology, immunology, and cell fractions.

One such visitor is Dr. Werner Brehmer, Chief of the Tuberculosis Research Laboratory of the Robert Koch Institute in West Berlin.

Founded in 1891 by Robert Koch, the Institute is the West German counterpart of NIAID. It is the keystone of German research on human infectious disease and vaccination.

Navy Band Plays Aug. 3 At 4th Outdoor Concert

The fourth in this season's series of outdoor band concerts for Clinical Center patients will be presented next Tuesday, August 3, at 7:30 p.m. by the United States Navy Band, on the patio adjoining the Clinical Center auditorium. In the event of rain, the concert will be held in the auditorium.

NHL employees, their families and friends are invited to attend. However, patients will have priority in seating.

PHS Recommendations For Flu Immunization And Control Announced

Surgeon General Luther L. Terry of the Public Health Service recently announced the recommendations for influenza immunization and control in the 1965-66 season developed by the Advisory Committee on Immunization Practices.

After thorough review of all available data, the advisory committee noted that the influenza experience in the U.S. during 1964-65 was relatively limited. The last major epidemic of Type A influenza occurred in 1962-63 in most of the country and in 1963-64 on the West Coast.

Therefore, in view of the 2- to 3-year periodicity of the disease, the committee anticipates that somewhat increased amounts of influenza may be expected in the coming season. Areas which experienced fairly heavy outbreaks last winter may expect to be less affected in the coming year.

Recommendations Repeated

The advisory committee reiterated previous general recommendations for vaccination of persons in groups which experience high mortality from epidemic influenza. These include:

- Persons who suffer from chronic debilitating diseases, including diseases of the heart and circulatory systems, the lungs and the metabolic system.
- Persons in older age groups—a recommendation based on three successive recent epidemics in which there has been a moderate increase in mortality among persons over 65, although similar increases have not been noted in epidemics since that time.
- Pregnant women, for whom increased mortality was demonstrated during the 1957-58 epidemic, although similar increases have not been noted in epidemics since that time.
- Patients residing in nursing homes, chronic disease hospitals, and other environments in which crowded living arrangements may lead to more rapid spread of the disease.

Sept.-Dec. Vaccination

The committee urged that vaccination begin in September and be completed by mid-December for maximum effectiveness during the winter season.

Individuals who have not received influenza vaccination since July 1963, when the last major wave was seen in vaccine composition, should receive two doses with an interval of approximately two months between them. It was noted, however, that even a single dose gives significant protection.

Dont't tell the world what you can do—show it.
NIH Staff Scientists Give 18 Papers
At Toronto Dental Research Meeting

The 43rd general meeting of the International Association for Dental Research, held July 22-25 in Toronto, Canada, featured 461 scientific papers representing the collaborative efforts of 793 authors.

The work of about 50 percent of supported by the National Institute of Dental Research.

The following summaries represent a few of the 18 papers presented by NIH staff scientists.

Dr. Harold R. Stanley, Samuel Kakehashi, and Robert J. Fitzgerald reported evidence that microorganisms may be the crucial factor in preventing the healing of dental pulp.

Pulpal Exposure Discussed
Dr. Stanley explained that dental pulp can become exposed as a result of a tooth fracture or in the course of extensive cavity preparations. He said there is a strong possibility that the exposure will not heal and that the tooth will have to be extracted or have the root contents removed by root canal treatment.

"In the past, pulpall exposures usually led to tissue necrosis unless the patients were young enough and met a number of other criteria favorable to healing," Dr. Stanley said.

"The fact that our laboratory findings appear to show that microorganisms may be the crucial variable in the repair process gives us greater understanding of this healing process which we hope, ultimately, to be able to apply to the clinical experience."

In another paper, Dr. Stanley reported that establishment of the principal pathways for the curative attack. By showing that decay begins in the root sheath and is followed by a recrystallization step, this research throws new light on the mechanisms of carious and may be influential in redefining traditional concepts of the carious process.

Antibodies Found
Dr. Richard T. Evans, reported that, for the first time, antibodies which kill bacteria living in the mouth have been found in human serum. He explained that these findings suggest the body may have a "built-in" defense mechanism against certain bacteria associated with oral disease. Dr. Stephen E. Mergenhagen collaborated on the study.

Dr. Evans explained that antibody build-up often plays a role in limiting disease. In clinical studies patients with periodontal disease generally exhibited much higher antibody levels than those patients with clinically normal oral tissues.

(See TORONTO MEETING, Page 5)

New Booklet Tabulates
Graduate Enrollment,
Ph.D. Data for NIH Use

A new booklet—Basic Reference Tables on Graduate Enrollment and Ph.D. Output in Selected Fields at 100 Leading Institutions, 1959-60 to 1963-64—is now available. This 112-page collection of tables is pertinent for NIH because the data focuses on science fields which provide the present and future supply of medical and health-related researchers.

Its format is designed for convenience on graduate enrollment for those responsible for reviewing such applications—the NIH advisory committees and others concerned with developing policies and programs for recruiting and training medical researchers and instructors.

5-Yr. Trends Outlined
The spiral booklet contains six major tables outlining the five-year trends accompanying the 30 percent increase in graduate enrollment. Information is tabulated by year, field of study, sex, state, institution, years of work completed, and full or part-time status.

The information was compiled through continuous collaboration between NIH and the Office of Education. Copies of the booklet may be obtained from Resources Analysis Branch, OPP-OD, Ext. 64321.

PARKING
(Continued from Page 1)

Bretheren Service Group
Eligible for Award for Volunteer Work Here

Dr. C. K. Himmelsbach, Associate Director of the Clinical Center, recently announced that the Brethren Service Commission was named a Citationist in the Lane Bryant Annual Awards competition in recognition of outstanding community service in 1964.

The Church of the Brethren has been the mainstay of the Normal Volunteer Program at NIH and was nominated for the award by PHS Surgeon General Luther L. Terry, Dr. James A. Shannon, NIH Director, and Dr. Jack Masur, Director of the Clinical Center.

Eligible for $1,000

The Citation means that the Brethren Service Commission is among those being considered for one of two $1,000 awards given annually to encourage volunteer work designed to benefit the American community.

One thousand young men and women from Brethren churches and colleges have substantially enhanced medical knowledge through their service as healthy research patients at the Clinical Center since 1954.

In 1964 alone, 170 of these young people volunteered to spend about three months each as Normal Volunteers. The awards are given to NIH scientists to gain greater insight on health and normal states.

Hundreds Nominated

The Lane Bryant Annual Awards Committee receives many hundreds of nominations each year from all over the country. These are reviewed by the Graduate School of Social Work at New York University, where, they are subjected to specific criteria of exclusion to determine which are most deserving of final consideration.

In December 1965 final selection for the awards will be made by a panel of five judges: Andrew Goodman, President of Bergdorf Goodman; Robert F. Kennedy, U. S. Senator; Henry Cabot Lodge, Ambassador to Viet Nam; Thurgood Marshall, U. S. Circuit Judge; and Rosemary Park, President, Barnard College.

Mr. Morse points out that one of the major problems at present is regulation of parking, since those engaged in construction work must also use NIH parking facilities. To assure maximum benefit to employees and maintain safety standards, Mr. Morse requests that all employees comply with the NIH policy requiring display of NIH parking decals.

The committee on parking has been assigned the responsibility of providing constant study and review of parking and road system needs. Mr. Morse said, in order to resolve future traffic problems and parking needs as they arise.
Dr. Karon to Research RNA Synthesis in Paris Before Texas Transfer

Dr. Myron R. Karon of the Medicine Branch, National Cancer Institute, will leave NIH August 3 to report for a year's Special PHS Fellowship at the Institut de Biologie et Physico-Chimique, Paris, where he will join Prof. Francois Gros in research on RNA synthesis.

In August 1966 Dr. Karon will return to this country and become Associate Professor of Pediatrics and Chief of the Section of Applied Molecular Biology at the Univer-

Workshop Held Here on Structures of Proteins

Experts renowned in protein chemistry and related fields attended a 2-day Workshop on Conformational Problems in Proteins recently in the NIH Clinical Center.

Meeting in informal sessions, they conferred on complexities of protein structure.

The conference was designed to stimulate new concepts and approaches to the problem of determining three-dimensional structures of proteins from their amino acid sequences by the ultimate use of computer methods.

Anfinsen Initiates Conference

Anticipation of the need to assess upcoming conformational problems in proteins led Dr. Christian B. Anfinsen, Chief of NIH's Laboratory of Chemical Biology and an authority on protein structure and metabolism, to initiate this conference.

Dr. Anfinsen was assisted by Dr. William E. Harrington, Professor of Biology at the Johns Hopkins University, and Dr. Harold A. Scheraga, Professor of Chemistry at Cornell University.

NIH Contributes to 'The Vision of Man' Exhibit on Display at the World's Fair

The Federal Science and Engineering Exhibit, illustrating the productive partnership of science and government, is now on display in the Federal Pavilion at the New York World's Fair. It will be there until the fair closes in October.

The 5,000-square-foot exhibit, The Vision of Man, traces the Government's support of science from the Federally funded Lewis and Clark Expedition of 1803 to today's multi-billion-dollar annual appropriation for research and development programs.

Five principal areas of research are depicted—Man and the Basics, Man the Living Being, Man and His Earth, Man and the Universe, and Man and the Group.

NIH's Heart Institute contributed to the section on Man the Living Being, which spotlights man's efforts to protect and prolong life.

DNA Model Is Focus

The focus of attention, at the entrance to the exhibit, is an animated DNA (deoxyribonucleic acid) molecule, used to explain scientists' efforts to decipher the coded language of heredity locked in the DNA molecule.

A heart pacer and heart pump, provided by the manufacturers through arrangements by NIH, are used in the portion depicting man's efforts to augment and replace failing or defective organs.

The main objective of the exhibit is to stimulate interest in the study of science and engineering to assure that the Nation's ever-increasing demands for top talent in these fields will be met in years ahead.

Exhibit Goes West

Following the World's Fair showing, the exhibit will go to the Los Angeles Museum of Science and Technology next spring when it will be returned to the Smithsonian Institution's Museum of History and Technology in Washington, D.C. It was opened there by President Johnson in April.

The exhibit was cooperatively developed by the Civil Service Commission, National Science Foundation, Atomic Energy Commission, National Aeronautics and Space Administration, the Departments of Army, Navy, Air Force, Interior, Agriculture, Commerce, Health, Education, and Welfare; and the Smithsonian Institution.

Manpower Utilization

A major responsibility for effective manpower utilization in the Federal service rests on managers and supervisors to plan and control the work for which they are responsible, to actively encourage individual improvement and to create an environment that brings out the best in their employees.
Two inherited hemorrhagic disorders, hemophilia A and von Willebrand's disease, are characterized by a sex-linked recessive trait nearly always affecting only males, whereas von Willebrand's disease is a dominant trait affecting both sexes. The fact that hemophilia A is a sex-linked recessive trait nearly always affecting only males, whereas von Willebrand's disease is a dominant trait affecting both sexes indicates that the synthesis of factor VIII is controlled by genes on two different chromosomes.

If the genetic defect is on the X chromosome, the result is hemophilia A; if it is on the autosomal chromosome, the result is von Willebrand's disease.

Transfusions of blood from hemophilic patients can stimulate factor VIII synthesis in patients with von Willebrand's disease, but not vice versa.

This observation has lent credence to the hypothesis that the sex chromosome normally carries genetic information for making the template RNA required for factor VIII synthesis, whereas the autosomal chromosome carries that needed for producing some plasma factor that regulates the rate of synthesis.

**Factor Presumed Present**

Presumably this regulatory factor is present in the plasma of hemophilic patients. While it does these patients no good in the absence of the template RNA required for factor VIII synthesis, it cannot correct the basic defect in von Willebrand's disease.

However, this attractive hypothesis will probably have to be discarded as a result of recent findings by Drs. Emily M. Barrow, C. C. Heindel, H. R. Roberts, and John B. Graham, of the University of North Carolina, Chapel Hill.

Their studies involve a family with two different types of von Willebrand's disease. The homozygous parents were mild bleeders; their homozygous children severe bleeders.

The investigators conjectured that, if the regulatory hypothesis is valid, both heterozygotes and homozygotes should respond with similar levels of factor VIII synthesis after transfusions of hemolysis of biochemical processes with particular emphasis on control mechanisms in animal cells in culture, and in intact animals.

Dr. Ginsburg's section will investigate certain aspects of the biosynthesis and function of cell surfaces, with specific emphasis on the reactions forming cell-surface sugars and the possible role of these sugars in cell interactions.

Since joining NIAMD in 1956, Dr. Ginsburg has made significant research contributions in many areas of carbohydrate metabolism in plants, bacteria, and mammalian tissues. His section will conduct research on the regulation of these processes of hormonal transport and hormone synthesis.

**Other Sections Listed**

Dr. Ronald Laster heads a continuing program of clinical and laboratory investigation of problems related to integrational structure and function.

Two newly established sections also strengthen the research programs of the Clinical Endocrinology Branch. Dr. Jacob Robbins is Chief of this branch, and Dr. James Wolff fills the new position of Associate Chief.

In a Section on Biochemistry of the Thyroid, headed by Dr. Robbins, studies concern the mechanism of action of thyroid hormone, the processes of hormonal transport and hormone synthesis.

Special problems in diabetes research also received recognition in a newly formed Section on Diabetes and Intermontane Metabolism. Dr. Stanton Segal conducts a research program on the disease processes of diabetes, galactosemia and other metabolic inherited disorders.

**Research Noted**

Investigations of the mechanism of action and metabolism of insulin and related hormones are also under study in this NIAMD section.

The Institute also announced the appointment in late June of two new section chiefs in its Laboratory of Biochemical Pharmacology. They are Dr. Robert T. Shimke, who has been designated Chief of the newly renamed Section on Biochemical Pharmacology, and Dr. Victor Ginsburg, named Chief of a new Section on Biochemistry.

Dr. Shimke has been with NIH since 1963 and has won recognition for his research on mechanisms of metabolic control in mammalian tissues. His section will conduct research on the regulation of these processes of hormonal transport and hormone synthesis.

Dr. Ginsburg has made significant research contributions in many areas of carbohydrate metabolism in plants, bacteria, and mammalian tissues.

**Findings Refute 'Regulatory' Hypothesis Of Antihemophilic Factor Production**

The list of causes of acute respiratory disease continues to grow.

Dr. Russell makes implicating a second Mycoplasma organism in respiratory disease was reported in the June 28 issue of the Journal of the American Medical Association by several members of NIAID and NIH.

The agent, Mycoplasma hominis type 1, had been isolated from hospital patients with naturally occurring pneumonia.

In order to define the role of M. hominis type 1 in human disease, volunteer studies were carried out by Drs. M. A. Mufson, W. M. Ludwig, T. R. Cate, D. Taylor-Robinson, and R. M. Chanock, of NIAID; and Dr. R. H. Pecora, of the Communicable Disease Center, Atlanta, Ga.

**50 Inoculated**

Fifty volunteers were inoculated with M. hominis type 1 by the nasopharyngeal route. Of this number, 48 developed antibodies to the organism. Twenty-five men developed exudative or nonexudative pharyngitis.

About half of the group with pharyngeal involvement also developed cervical adenopathy (swollen glands); one-fourth, sore throat.

Eight different Mycoplasmas have been recovered from humans.

Since they are present in both healthy and sick people, their association with disease is still incompletely understood.

Prior to these studies, only one strain, M. pneumoniae, which causes primary atypical pneumonia in adults, had been shown to cause disease in man.

Studies are now underway to determine the role of M. hominis type 1 in naturally occurring respiratory disease.
New Clues Reported to Understanding Of Depression, a Type of Mental Illness

New clues to the understanding of depression, a common type of mental illness, reveal a close tie between some biochemical aspects of the patient and his symptoms. They also point to a pattern of unhappy events that is most likely to trigger severe depressive periods.

These findings were reported by Dr. William E. Bunney Jr., a National Institute of Mental Health psychiatrist.

Next to schizophrenia, depression accounts for the largest number of mentally ill persons in the U.S. Its victims make up the majority of the 25,000 Americans who commit suicide each year, Dr. Bunney said.

In a 3-year study of patients whose depressions ranged from mild to psychotic, Dr. Bunney found that they usually had normal thinking despite feelings of depression, but periodically sank into agonizing spells of derangement. These episodes built up over an average of 18 days and came to a head on what Dr. Bunney calls “the crisis onset day.”

Watching for these crises, the researchers carefully kept a record of the patients’ daily behavior. Urine was collected around the clock and analyzed for the levels of a product of adrenal hormones (17-hydroxy-cortico-steroids) known to be connected with depression and anxiety.

Eighth Cancer Pamphlet Shows Survival Rate Up

Although cancer of the colon and rectum remains the second leading type of malignant disease in the United States, recent studies show that the percentage of patients living at least five years after diagnosis is rising.

This information is included in a pamphlet on “Cancer of the Colon and Rectum” issued last week by the Public Health Service. It is the eighth in a series of 10 pamphlets on cancer of different body sites prepared for the general public by the National Cancer Institute.

Survival Rate Improved

The improved survival rate may result partly from an increase in the percentage of patients treated by surgery, according to the pamphlet. Studies in surgical techniques and nursing care have made surgery possible for patients who formerly were considered too old, or whose disease was considered too advanced.

The symptoms, diagnosis, and treatment of cancer of the colon and rectum are also discussed, as well as related conditions and current research. The pamphlet recommends that rectal examinations with an instrument called a sigmoidoscope be included in the annual physical check-up of everyone over 40, to help detect tumors early.

Previous pamphlets in the series have dealt with cancer of the breast, uterus, skin, bone, lung, stomach, and larynx.

Single copies of “Cancer of the Colon and Rectum” (PHS Publication No. 1304) are available without charge from the Public Health Service, Washington, D.C. 20201. It may be bought in quantity from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, at five cents a copy or $2.75 per 100 copies.

Barnter and Winterrowd To Head New Sections In DRS Reorganization

The Medical Arts Section of the Medical Arts and Photography Branch, Division of Research Services, has been reorganized into two sections—the Medical Illustration Section and the General Illustration Section.

The Medical Illustration Section, headed by Howard C. Bartner, will provide the art work in support of biomedical studies at NIH and for the distribution of research findings to scientists.

This work will include surgical, pathological, ophthalmological, biological, and dental illustrations; charts and graphs; mechanical illustrations; models; and anatomical models.

Ronald B. Winterrowd will be in charge of the General Illustration Section. It will provide illustrations, animation, posters, slide and publication copy, and design of publications and exhibits for disseminating information to the public.

Backgrounds Cited

Mr. Bartner first came to NIH in 1959. He received a B.F.A. and a B.S. degree from Temple University and is a graduate of the Department of Art as Applied to Medicine at the Johns Hopkins School of Medicine, where he is now a part-time instructor in ophthalmological illustration.

Mr. Winterrowd joined the NIH staff in 1960 and is a graduate of the University of Kansas. From 1955 to 1960 he was an officer in the Air Force where he served as a weapons controller.

Earlier this year, the one photographic section of the branch was also reorganized into the Photog rogaphy Section and the Motion Picture Section, headed by Vernon E. Taylor and Roy Perry respectively.
Mechanisms of Antigens In Graft Rejection Discussed by Dr. Amos

Some of the immunological mechanisms involved in graft rejection were discussed by Dr. Dennis Bernard Amos, Professor of Immunology at Duke University Medical School, in a recent lecture here.

This was the sixth in a series of lectures sponsored by the National Institute of General Medical Sciences and the Division of Research Facilities and Resources to help scientist administrators keep abreast of current trends in the biochemical sciences and genetics.

Dr. Amos stated that for many years scientists doing research in organ transplantation have realized that they were dealing with a genetic problem.

**ABO Research Is Extensive**

He pointed out, however, that while research into the ABO blood group antigens has been fairly extensive and rewarding, very little is known about the antigens (known as histocompatibility antigens) which play a major role in graft rejection.

Thus, although it is a relatively simple matter to select an appropriate donor and recipient for a blood transfusion, essential information is lacking as to how to match a compatible donor and recipient for a kidney transplant.

Dr. Amos indicated that many of the histocompatibility antigens appear to be located on or near the surface of the white blood cells, or leucocytes.

He referred to studies of sera from pregnant women who had begun to develop antibodies against the fetus in which distinct groupings of leucocyte antigens have been recognized. The role of red cell antigens in graft rejection is less definite.

**Defense Mechanisms Suppressed**

Due to lack of greater understanding of histocompatibility antigens, present transplantation techniques, he said, depend upon completely suppressing the natural defense mechanisms of the host with drugs or X-rays. While the transplant may "take," the host is left defenseless against bacterial or viral infection.

Dr. Amos suggested that in the future we may be able to use injections of antigen from a donor to create a state of tolerance in the potential recipient so that he will no longer produce antibodies against this specific antigen.

This method would theoretically leave the host's natural defense mechanisms intact. Scientists have already produced varying states of antibiotic tolerance in rabbits, but in humans this is a much more difficult problem.

In man it is all too easy, Dr. Amos said, to produce an antibody reaction to a leucocyte antigen.

What is needed is to find out which antibodies function in graft rejection.

**METHODS**

(Continued from Page 1)

Three Sections Added In OIR Reorganization

The Office of International Research, OD, has been reorganized to include a Nutrition Section, Management Operations Section and Program Development Section.

The Nutrition Section is composed of the former ICNND Secretariat, under the direction of Dr. Arnold E. Schaefcr. The Interdepartmental Committee on Nutrition for National Development has been terminated and the functions of the Secretariat transferred to the Nutrition Section of OIR.

George E. Presson heads the Management Operations Section, and Joseph R. Quinn, the Program Development Section.

The name of the Special Foreign Currency and Program Service Section has been changed to Special International Programs Section, with Dr. Milo D. Leavitt Jr. as head.

Other sections—Foreign Grants and Awards, Program Analysis, and Overseas Offices—remain the same.

**No Correlation**

Surprisingly, there was virtually no correlation between the apparent degree of incompatibility and the survival time of the skin grafts, emphasizing that some antibodies are more important than others.

Skin grafts are very good sensitizing agents and there is only a remote chance of a "take" with a skin graft between random individuals. Kidney transplants give much better results.

Dr. Melnick Appointed

Dr. Joseph L. Melnick, Professor and Chairman of the Department of Virology and Epidemiology at the Baylor University College of Medicine, Houston, Tex., has been appointed to the National Advisory Cancer Council for a 4-year term.

This, Dr. Amos suggested, has partly to do with the nature of the antigen and partly with the fact that the kidney drains through the blood vessels, while the skin is in direct contact with both blood and lymph.

PHS Surgeon General Luther L. Terry (left) and Dr. C. K. Himmelsbach, Associate Director of the Clinical Center, visit the CC's new exhibit now on display in the lobby, prior to participating in the July 15 annual orientation program for new Commissioned Officers.—Photo by Jerry Hocht.