

the NIH Record

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

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NATIONAL INSTITUTES OF HEALTH

New Program Expected To Increase Med. School Enrollment by 4,000

DHEW Secretary Robert H. Finch announced a program that is expected to increase enrollment in schools of medicine and osteopathic medicine by 4,000 over the next 4 years.

The Physician Augmentation Program will support 1,000 first-year places beginning with the 1970 fall term. This enrollment will be in addition to any increase the medical schools may have already authorized.

BEMT Administers Program

Through this program, authorized under the Health Manpower Act of 1968 administered by Bureau of Health Professions Education and Manpower Training, 4,000 students are expected to have enrolled in the fourth year of operation.

On July 10, 1969, President Nixon stated, "We face a massive crisis in this area (health care) and unless action is taken both administratively and legislatively to meet that crisis within the next two or three years, we will have a breakdown in our medical care system which could have consequences affecting millions of people throughout the country."

Grants will be awarded on a competitive basis to those schools that

(See ENROLLMENT, Page 7)

Dr. Brooks Named DRG Acting Deputy Director



Before coming to NIH Dr. Brooks served with AID in a number of foreign countries.

Dr. George T. Brooks has been appointed acting deputy director of the Division of Research Grants.

Dr. Brooks has served with the John E. Fogarty International Center as chief of the NIH Latin American Office, Rio de Janeiro, Brazil. He has been with FIC since 1966.

From 1965 to 1966, he served as a biologist with the National Institute of Arthritis and Metabolic Diseases as Director of its Extramural Hematology Program.

Before that he was a scientist-

(See DR. BROOKS, Page 6)

Human Histocompatibility Typing Center Will Facilitate Organ Transplantation

A new Human Histocompatibility Typing Center, established by the National Cancer Institute to facilitate transplantation of organs and matched blood components to cancer patients, recently began its operations.

The center analyzes tissue samples and computer-stores information on tissue types. This makes it possible to locate compatible donors whenever NCI patients require white blood cell or blood platelet transfusions, or bone marrow transplants.

By facilitating the testing of cell fractions, the center will also open the way to preparing special proteins called transplantation antigens which, in the future, may be administered to permit effective transplantation of unmatched tis-

sue and organs.

Under a contract awarded to Microbiological Associates, Inc., a biomedical research firm in Bethesda, Md., the center will conduct cell typing tests similar to blood typing tests.

The tests will identify transplantation antigens in an individual's tissue. It is the presence of foreign transplantation antigens on transplanted tissue that causes the rejection of donor organs and tissues.

(See TYPING CENTER, Page 5)

Japanese and American Scientists Report Joint Research Efforts at Med. Meeting

Nearly 5 years of medical research efforts by Japanese and American scientists are beginning to pay off according to the two chairmen of the United States and Japanese delegations to the U.S.-Japan Cooperative Medical Science Program.

In a joint statement, issued at the conclusion of the meeting earlier this month, American chairman Dr. Colin MacLeod and Japanese chairman Dr. Toshio Kurokawa recounted achievements in research on tuberculosis, leprosy, cholera, viral diseases, parasitic diseases and malnutrition.

Dr. MacLeod is vice-president for Medical Affairs, The Commonwealth Fund, Harkness House, N. Y. Dr. Kurokawa is Director of the Cancer Institute Hospital, Japanese Foundation for Cancer Research, Japan.

NIH, State Dept. Co-sponsors

The meeting, held at the New State Building in Washington, was sponsored by NIH and the State Department.

Dr. Gardner Middlebrook, University of Maryland, and Dr. Shigeichi Sunahara, Tokyo National Chest Hospital, reported on tuberculosis research. The cooperating investigators are attempting to standardize animal models to help clarify t.b. immunological problems.

In leprosy, genetic differences in the ability of patients to metabolize drugs have been recognized, and drug resistant strains of leprosy bacilli have been isolated.

Reporting this research were Dr.

(See JOINT RESEARCH, Page 7)



Dr. Toshio Kurokawa and Dr. Colin MacLeod discuss their countries' joint scientific research projects during a recent conference break.

NLM Hails Milestone, Computer Citations Pass Million Mark

The first week of August 1969 became another historic milestone for NLM and its computer operation as the number of citations entered in the computer passed the 1,000,000 mark.

It took 68 months of operation, from January 1964, to get the first 1,000,000 citations into the NLM computer.

Citations were first input at the rate of 11,000 per month in 1964; they now average 20,000 per month in mid-1969, and further growth is anticipated.

The second million citations may be expected within 50 months, or the latter part of 1973.

NIH Scientists to Address Fed. Grants Conference

Dr. John F. Sherman, NIH Deputy Director, will address the opening meeting of the Institute on Federal Grants for Educational Institutions and Nonprofit Organizations.

The organization's two meetings will take place on Monday and Tuesday, Sept. 29 and 30, at the Statler Hilton Hotel in Washington, D.C.

The National Graduate University, a research center for Government contract administration, will sponsor the meetings.

Grants Administration Discussed

Government officials and representatives from colleges and other non-profit organizations will discuss and answer questions involving administration of grants.

Dr. Frederick L. Stone, Director, National Institute of General Medical Sciences, will talk on the development and use of grants in Government.

Registration blanks and copies of the program may be secured from the National Graduate University, 5400 Grosvenor Lane, Bethesda, Md. 20014. Telephone: 530-0802.

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NIH Volunteers Needed For Tutoring Program

NIH volunteers are needed for a home tutoring program for children and adults in low income Montgomery County communities.

The program nearest to NIH is in Kengar, located between Kensington and Garrett Park—about 7 minutes from NIH.

Volunteers are needed for the nursery through high school program, the adult education program and high school equivalency program, and to help in teaching typing.

Daytime tutoring is also done in the Kensington Elementary School.

Prior tutoring experience is not necessary. For further details call Mrs. Joanne Shea at her home, 942-8410.



Elizabeth C. Hartman, chief, Training Grants and Awards Branch, Extramural Programs, NINDS, was awarded a citation and honorary membership by the Society of University Otolaryngologists for her research and training services in that field. Dr. David De Weese presents the citation.

Scientists Select Films Described in NICHD Pub.

A *Film Guide on Reproduction and Development* has been issued by the National Institute of Child Health and Human Development. It is to be used in teaching and research in colleges, universities, and graduate schools.

The Guide describes 26 films selected by a group of scientists and university educators who served as consultants in this project.

The film guide was developed by the Mental Health Materials Center in New York under a contract with the Institute.

Film Criteria Explained

Criteria for selection of the films were significance, general interest, theoretical importance, stimulation of new ideas, clarity, effectiveness, photographic quality and accuracy.

The films cover such fundamental processes of early development as cell differentiation, gametogenesis, fertilization, implantation and development through organogenesis. They are grouped under six main topics: (1) structure and function of cells, (2) mitosis and meiosis, (3) development of invertebrates, osteichthyes, and amphibia, (4) differentiation and organogenesis, (5) courtship and reproduction, and (6) techniques.

Copies of the *Film Guide on Reproduction and Population* can be purchased for \$1.25 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

Single free copies are available from the Public Information Branch, NICHD, NIH, Bethesda, Md. 20014.



Two parties, one in the afternoon for the day staff and one in the evening for night personnel, were given to Clinical Center nurses recently by the CC Nursing Department's Administrative Council in tribute to the high standards of care nurses gave CC patients during a staff shortage. Nursing Department chief, Louise C. Anderson, said it would be difficult to individually recognize members for their contributions—hence the two parties.

NIH Graduate Program Starts Registration For Fall Semester

Registration for the 1969 Fall semester of the Graduate Program at NIH will begin tomorrow (Thursday) through Thursday, Sept. 11 from 10 a.m. to 4 p.m. daily, and 10 a.m. to 12 noon on Saturday, Sept. 6. Classes will begin on Sept. 15.

Fifty-seven courses in the biomedical sciences will be offered, including the following new courses: Replication and Protein Biosynthesis, Spectroscopy of Proteins and Polypeptides, and Structure and Function of Proteins.

Also, Enzyme Kinetics, Elementary Electrochemistry for Biomedical Scientists, and Ultrastructural Pathology.

Course textbooks may be purchased from 9 a.m. to 4 p.m. in the Foundation Bookstore, Bldg. 31, Rm. 2-B-25. The office of the Graduate Program at NIH is also at that location.

For catalogs and additional information on registration visit the office or call Ext. 66371 from 9 a.m. to 4 p.m.

Film on Tetanus Effects Scheduled Sept. 10, 12

A movie entitled "Fifty-Fifty Chance" will be presented by the Employee Health Service as its September Health Education film.

The 30-minute movie is informative and gives a glimpse of what happens in a case of tetanus, sometimes called "lockjaw."

Because not many cases of tetanus are seen today, there is a feeling of complacency; but the danger is still ever present and the severity of the disease with possible risk of life remains.

The film carries a special message to parents who immunize their children but neglect to protect themselves.

Tetanus immunization is available at all times at any of the Em-

NIH Television, Radio Program Schedule

Television

NIH REPORTS

WRC, Channel 4
Sundays—4:55 p.m.

September 7

Dr. Alfred S. Ketcham,
chief, Surgical Branch,
NCI

Subject: Surgical Treatment
of Cancer (Part 1)

September 14

Dr. Alfred S. Ketcham,
chief, Surgical Branch,
NCI

Subject: Surgical Treatment
of Cancer (Part 2)

Radio

DISCUSSION: NIH

WGMS, AM-570—FM Stereo
103.5—Friday evenings—
About 9:15 p.m.

September 5

Dr. John C. Greene,
deputy director, Division
of Dental Health, BEMT
Subject: Teeth After 40

September 12

Dr. William E. Matory,
Howard University Medi-
cal School, DPM Contract
Subject: Continuing Educa-
tion for Practicing Physi-
cians

Both interviews take place during intermission, Marlboro Festival Concerts.

Employee Health units.

The film is scheduled at the Clinical Center, Jack Masur Auditorium, Wednesday, Sept. 10 at 11:30 a.m. and 12:15 p.m.

Also, it will be shown at the Westwood Bldg., Conference Rm. A, Friday, Sept. 12 at 1:15 and 2 p.m.

Over 190,000 hospital beds have been provided under the Hill-Burton program since 1960.

Series of Nine Lectures On Biochemical Research Is Sponsored by NIAMD

A series of nine lectures on "Currents in Biochemical Research" will be held in the Jack Masur Auditorium at the Clinical Center beginning Sept. 8. The series, sponsored by the NIH Associate Program, will cover a 2-week period.

The lectures will review some particularly active areas of biochemical research.

Sponsors Suggest Reading Text

Conference sponsors suggest that participants may wish to read pertinent chapters in a standard textbook on basic biochemistry before attending the lectures.

The conference schedule follows:

Monday, Sept. 8, 3:30-5 p.m., Dr. Victor Ginsburg and Dr. Elizabeth Neufeld, NIAMD, Complex Carbohydrates; Tuesday, Sept. 9, 3:30-5 p.m., Dr. Michael Yarmolinsky, NIAMD, Bacterial Genetics; Thursday, Sept. 11, 1:30-3 p.m., Dr. Henry Metzger, NIAMD, Immunoglobulins and the Immune Response; Friday, Sept. 12, 3:30-5 p.m. Dr. Earl Stadtman, NHI, Mechanism of Regulating Enzyme Activity.

Schedules Listed

Monday, Sept. 15, 3:30-5 p.m., Dr. Philip Leder, NICHD, Protein Biosynthesis; Tuesday, Sept. 16, 3:30-5 p.m., Dr. Maxine Singer, NIAMD, Nucleic Acids; Wednesday, Sept. 17, 3:30-5 p.m., Dr. Ira Pastan, NIAMD, Cyclic AMP in Bacterial and Animal Cells; Thursday, Sept. 18, 1:30-3 p.m., Dr. Efraim Racker, Cornell University, Function and Structure of the Inner Mitochondrial Membrane, and Friday, Sept. 19, 3:30-5 p.m., Dr. Robert Martin, NIAMD, Control Mechanisms.

Dr. Falkner, NICHD's Racing Buff, Goes To Watkins Glen During the Grand Prix

By Judy Roberts
Information Intern

The midst of the high-speed excitement, deafening noise, and grueling tensions of a Grand Prix race seems an unlikely place for an internationally known pediatrician, but that's where you'll find Dr. Frank T. Falkner each year when the United States Grand Prix is held at Watkins Glen, N. Y.

Dr. Falkner, an associate director of the National Institute of Child Health and Human Development, serves as honorary team manager for the English racing team of Matra-Tyrrell when they are racing at Watkins Glen.

Manages Racing Team

Dr. Falkner said this really is an exciting year to be associated with Matra-Tyrrell because their main driver, Jackie Stewart, is pretty well assured of winning this year's world Grand Prix championship.

As team manager, Dr. Falkner sees that things run as smoothly as possible for the racing team while they are at Watkins Glen.

Keeping Formula I cars—the powerful road racing machines that can attain speeds of 200 miles per hour—in top running condition can be quite a task. "Maintenance for these costly cars is very complex and difficult," he said.

Dr. Falkner did most of his driving on the Continent before he immigrated to the United States from England in 1956.

Drove Smaller Cars

He said he really didn't have the courage nor skill to drive the powerful Formula I, so he confined his driving to the smaller sports cars.

Dr. Falkner usually relied on the generosity of other people to let him drive their cars—he was unable to afford one himself.

He specialized in long-distance races—preferring steady driving to the shorter, extremely fast sprints. Often he would be part of a team—taking 3-hour shifts at the wheel with other drivers.

When asked to relate some of his more exciting experiences behind the wheel, Dr. Falkner, with his eyes atwinkle, said "Oh, every driver has his moments, I suppose," possibly indicating his reluctance to bring back from the past some of his more hair-raising incidents.

Sport Gains Popularity

Road racing, traditionally a European sport, is becoming more and more popular in America. The best known set of road races here is the Can-Am series, he said.

There are three of these races in Canada and eight in the United States. They are scattered from Edmonton, Alberta, to St. Jovite, Quebec, to Watkins Glen, N. Y., to Riverside, Calif.

Although road racing is exciting, Dr. Falkner finds even greater re-



Dr. Falkner's empathy with young patients is apparent. The pediatrician has a number of other hobbies in addition to an avid interest in auto racing.

wards in his medical career. The internationally known pediatrician has been instrumental in initiating a number of studies on growth and development.

Dr. Falkner began his medical career in England. In 1948 he came to the United States as the first exchange resident physician at Children's Hospital in Cincinnati, Ohio. He returned to London to the Hospital for Sick Children—

(See RACING BUFF, Page 6)

Radio Operators at NIH Work 'Round the Clock' During Camille Disaster

During the recent disaster caused by Hurricane Camille, volunteers of the NIH Radio Amateur Club worked around the clock in the Radio Room in Bldg. 10.

From Monday noon (Aug. 18) until 9 a.m. the following day, NIH "ham" operators, with representatives of the Division of Health Service Mobilization by their side, took calls requesting supplies and personnel.

The Division of Health Mobilization is the coordinating office for emergency services in all natural disasters for the DHEW.

Because the amateur operators were able to relay locations and needs of hard-hit areas where other means of communications were inoperative, they enabled PHS officials to respond quickly with needed equipment and personnel.

The NIH ham radio station, K3YGG, operates with the approval and under the control of the Protection and Safety Management Branch. It is part of an overall network for use in civil defense emergencies and natural disasters.

It is hooked up to an emergency power supply if needed.

Among NIHRAC members who volunteered their services were: Leonard Aberback, Dr. Harry Bluestein, Nathan Coffey, Dr. William Hook, Dr. John Lynch, Frank Noble, Dr. Jimmy Scott, Dr. John Thomas, and Dr. Warren Zapol.

Ross Holliday Appointed Director of New OES, OD

Richard L. Seggel, Associate Director for Administration, has announced the appointment of Ross Holliday as Director, Office of Engineering Services, a new organization established in June 1969.

Mr. Holliday will assume responsibility for directing the engineering programs for NIH buildings and facilities.

Came to NIH in '49

Mr. Holliday came to NIH in 1949 as a mechanical engineer with the facilities program.

In 1952 he was named chief of the Mechanical Engineering Section. Four years later when DRS was established, he was appointed chief of the Plant Engineering Branch.

He initiated major improvements which were cited by DHEW in a report to the House Committee on Post Office and Civil Service.

In July 1968 he was appointed Associate Director, DRS.

Mr. Holliday received a B.S. degree in mechanical engineering from George Washington University.

Several BEMT Divisions Undergo Reorganization

The Bureau of Health Professions Education and Manpower Training has recently announced a reorganization within some of its manpower divisions.

The Physician Education Facilities Branch has been moved from the Division of Physician Manpower to the Division of Educational and Research Facilities.

DPM will continue to provide assistance on construction grants for schools of medicine and osteopathy.

Another major change in DPM is the separation of the former Physician Supply and Utilization Branch into two individual branches—Physician Resources and Professional Activities.

PRB provides an information clearinghouse on the supply, distribution and availability of medical and osteopathic schools, students, graduates and physicians.

PAB develops and supports studies on medical and osteopathic manpower in relation to educational and training requirements.



NIAMD's Rocky Mountain Laboratory at Hamilton, Mont. is playing host to three outstanding high school students awarded fellowships by the American Cancer Society. Mrs. Rudolph Gerer, chairman of the Ravalli County Chapter of the Cancer Society (l), and Dr. Herbert Stoerner, RML Director, tour the site with Mary P. Johnson, Corvallis High School; Joseph O. Gehrett, Powell County High School, and Kyle Gerner, Stevensville High School.

Manfred Massa, Engineer at DERF, Lifts Voice to Encourage Barbershop Quartets

Lead-singing engineers are rather rare—but NIH has one. He is Manfred C. Massa, Bureau of Health Professions Education and Manpower Training.

Mr. Massa, on the Architectural and Engineering staff, Division of Educational and Research Facilities, sings with the "Fairfax Jubilaires" barbershop chorus—a local chapter of the international Society for the Preservation and Encouragement of Barbershop Quartet Singing in America, Inc.

Group Is Varied

"These men are brought together from all walks of life by a love of singing," Mr. Massa said, pointing out that the group includes everyone from Navy captains and artists to an American Indian.

"Participation in the chorus really keeps a member busy," states Mr. Massa, and the record bears him out.

Besides regular Monday night rehearsals, in the past 3 months the chorus has performed in Scranton, Norfolk, Hagerstown, and Manassas. In addition, they have appeared before civic and charitable organizations.

To Sing at Watergate

Recently the group sang at Constitution Hall, and is now rehearsing a 3-hour program to be held at Watergate in Washington, D.C.

There is also a serious side to SPEBQSA. "We Sing That They Shall Speak" is the society's motto for its service project—the Institute of Logopedics in Wichita, Kan., which specializes in the clinical treatment and rehabilitation of persons with speech defects.

The 32,000 members contribute a share of their dues to the Institute,



What a well-dressed member of the "Jubil-Aires" wears is displayed by Manfred Massa.

which had received an NIH construction grant in 1963.

Of particular interest to members of the society is the fact that music has provided a major breakthrough in treating some difficult cases at the Institute of Logopedics.

Mr. Massa, legislative chairman of the Washington, D.C. chapter of the National Society of Professional Engineers, has been with BEMT since 1966. He has also served with NASA, and, more recently, was chief engineer for Massa Engineers, Inc.



The Artificial Heart Program, NHI, recently awarded its largest contract to the Illinois Institute of Technology Research Institute for a facility to test artificial heart devices and components. Watching Louis Pollack (l), NIH Research Contracts Branch, and H. Schultheis, IITRI, sign are: Richard Colton, James Wechsler, and James Cash, Research Contracts Branch, and Dr. Lowell Harmon and Jack Turlik, APH.

Conference Proceedings On Lipids, Lipoproteins Published by NIAMD

Proceedings of the 1968 Deuel Conference on Lipids on "The Turnover of Lipids and Lipoproteins" has been published by the National Institute of Arthritis and Metabolic Diseases. It is the second of the three published proceedings (1957, 1967, and 1968) to be funded by NIAMD.

The conference is named for the late Dr. Harry Deuel, Jr., who contributed vastly to the knowledge of lipid chemistry and metabolism.

Its purpose is to bring together researchers working in the field of lipids, yet who represent sufficiently diverse disciplines to provide for an interesting exchange of ideas.

Industry Funds Conference

The conferences have been supported by funds from industry, chiefly pharmaceutical and food manufacturers; scientific members from these firms are invited to participate.

Each meeting centers around a different aspect of lipid metabolism. The 1967 Conference Proceedings, the first to be published by NIAMD, discussed dietary lipids.

The 18 papers in the 1968 Proceedings, cover four areas of lipid and lipoprotein turnover: Morphological and Ultrastructural Aspects; Metabolism of Lipids and Lipoproteins; Triglyceride and Very Low Density Lipoprotein Turnover, and Cholesterol, Cholesterol Ester, Phospholipid and Bile Acid Turnover. Short discussions and references follow each topic.

The 188-page publication is for sale, at \$1.50 per copy, by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The Proceedings of the 1967 Deuel Conference, *The Fate of Dietary Lipids*, may also be had at \$1.25 per copy.

Scott Adams Detailed To Academy of Sciences

Scott Adams, deputy director of the National Library of Medicine, was detailed to the National Academy of Sciences, Office of the Foreign Secretary, on Sept. 1.

Mr. Adams will act as a special assistant on UNISIST, a combined project of the United Nations Educational Scientific and Cultural Organization and the International Council of Scientific Unions.

The project will study the feasibility of a world science information system, and explore both existing science information systems and the development of additional systems which may aid emerging countries.

In 1967 Mr. Adams was named to the UNESCO International Advisory Committee on Libraries, Documentation and Archives.

Dr. Gallo Heads NCI's Cell Control Section

Dr. Robert C. Gallo has been named head of the recently established Cellular Control Mechanism Section of the Human Tumor Cell Biology Branch, Clinical Trials, National Cancer Institute.

By understanding how cells differentiate and grow into appropriate organ systems, Dr. Gallo and his colleagues hope to be able to determine how molecular mechanisms become upset and result in uncontrolled growth, or malignant disease.

These studies are designed to aid in the development of new approaches to cancer chemotherapy.

Dr. Gallo received his B.A. degree at Providence College, and an M.D. at Jefferson Medical College.

He joined NCI's Medicine Branch in 1965 after completing 2 years as an intern and resident in medicine at the University of Chicago.



Dr. Gallo and his NCI colleagues hope to determine how molecular mechanisms become upset and result in uncontrolled growth.

Academic Dentistry Is Theme Of DDH Conference in Colorado

How to train better teachers for schools of dentistry is the theme of a 6-week research training conference institute now being held in Denver and Estes Park, Colo.

The conference, organized by the University of Colorado, is supported by a grant from the Division of Dental Health, Bureau of Health Professions Education and Manpower Training.

The first part of the program concentrated on a review of new developments and advances in dental education.

Subsequent sessions will focus on the intensive training of dental teachers in order to increase their capabilities as teachers and researchers.

TYPING CENTER

(Continued from Page 1)

NCI project directors, Drs. John L. Fahey, Ronald Yankee, and G. Nicholas Rogentine estimate that 50-60 tissue samples from NCI patients, their relatives, and NIH Blood Bank donors will be analyzed each week.

Under the direction of Dr. Robert-John Trapani of Microbiological Associates, the new laboratory will be able, within hours, to type a patient's tissue and locate donors with a compatible type for tissue transplantation.

White blood cell transfusions increase resistance to infection, and platelet transfusions elevate low platelet counts and help stop bleeding in patients with aplastic anemia and acute leukemia.

Bone marrow transplants will be used to replace the marrow of acute leukemia patients who do not respond to conventional therapy, and of other cancer patients with depleted marrow resulting from intensive drug treatment.

Immune rejection of grafted tissue remains a problem to transplantation immunology.

Tissue typing is a valuable method of matching donors and recipients and helps prevent rejection by reducing the immunological differences between the two.

Compatible Donors Rare

However, its application is limited because compatible donors are difficult to find.

Some scientists believe that an ideal way to suppress transplant rejection would be to use soluble transplantation antigens to induce specific tolerance.

Preliminary studies in animals indicate that if foreign transplantation antigens are administered in low doses (similar to allergy immunizations) the body's immune mechanism will become tolerant to them and accept a transplant from a person with those antigens.

Dr. Hurd Participates in Grants Assoc. Program

Dr. Suzanne S. Hurd was recently chosen to participate in the Grants Associates Program. She is the fifth woman scientist to be selected since the Program's inception.

She comes to NIH from the Department of Biochemistry, University of California at Berkeley, where she held a PHS postdoctoral fellowship.

There, she helped develop a cultural enrichment program for ghetto children. She organized courses of study which included remedial reading, Afro-American History, and arts and crafts.

Dr. Hurd's special interest is in phosphorylase phosphatase. She has taken part in the publication of

NIH Camera Club to Sponsor Exhibit of 'Photos by Roy Perry' in CC Lobby



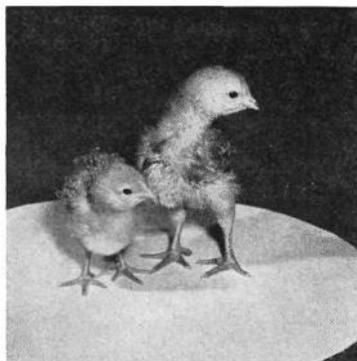
PHS and NIH officials meet First Lady Eleanor Roosevelt at "Top Cottage" during social affair sponsored by the League of Women Voters in the 1940's. From left are Dr. Lewis R. Thompson, Director of the National Institute of Health from 1937 to 1942; Mrs. Roosevelt; Mrs. Luke I. Wilson, whose family donated over 92 acres of land to NIH; and Dr. Rolla E. Dyer, NIH Director from 1942 to 1950.

An exhibit of the work of Roy Perry, retired NIH photographer, will be on display in the Clinical Center lobby Sept. 8 through Sept. 23.

This first one-man show ever held in the CC lobby is being sponsored by the NIH Camera Club, with support from the R&W Association of NIH.

Mr. Perry's photographs include a wide range of subjects which reveal his impressive camera techniques. Many newcomers to NIH as well as old-timers will enjoy his work.

Featured in the exhibit will be nostalgic shots of PHS and NIH activities from 1942 through 1950



Baby chicks from the same brood show remarkable differences in size as a result of folic acid changes in diet. The chicks were used by Dr. Roy Hertz during the 1940's in his research with estrogens.

a number of articles on that subject.

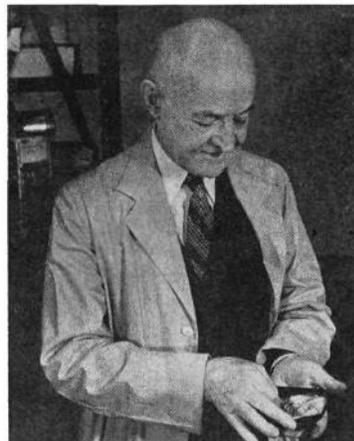
Dr. Hurd graduated from Bates College with a B.S. degree in chemistry. She earned her M.A. and Ph.D. degrees in biochemistry from the University of Washington.

and early views of Rockville and Montgomery County.

Also on display will be work done by Mr. Perry in New York City in the 30's, showing conditions in the slums.

Since his retirement in 1967, Roy Perry has been doing free-lance camera work. Examples of his most recent photo-essays will be exhibited, too.

The 18-year-old Camera Club selected work by Mr. Perry for its first one-man show with the hope that the examples of his achievement will set the pace for future presentations of outstanding photographic material.



The quality of Roy Perry's technique is revealed in an unusual portrait of the late Dr. Edward Francis of the PHS, famed for his research on tularemia.

Study With Rat Retinas Adds New Information On How Eye Matures

In a recent research study using rat retinas National Institute of Neurological Diseases and Stroke grantees have added new information on how the eye matures.

The retinas were studied electromicroscopically and electroretinographically to seek a correlation between development and attainment of function.

Eye Immature at Birth

Since the mammal is born with immaturely developed eyes which attain their growth rapidly, it was possible within just 14 days to observe retinal development from the embryonic stage to complete adult development.

A summary of findings as observed day by day over such 2-week periods provided data useful in many other studies of the eye.

At birth the rat retina was found to be still in a premature state about equivalent to that of the retina of the 4-month-old human embryo. Only the ganglion cells had differentiated to any degree and were distinguishable from other neuroblastic cells by their light staining around nuclei.

The nerve fibers and inner plexiform layers were also recognizable at this stage.

Postnatal Progress Rapid

During the first week of postnatal development, photoreceptor segments were differentiated from the cells at the outermost zone, and the neuroblastic cells were divided into two layers.

The progress of the differentiation of the retinal tissue during the period of 5 to 7 days after birth was extremely rapid.

By the 12th day, well-developed synaptic organs were clearly seen in the inner plexiform layer. The magnitude of the electroretinographic response increased markedly by the hour during the 12th to 14th days.

Around the 14th day, the majority of the outer segments were arranged in a fingerlike rod shape and formed a clear layer of the outer segment.

By the third week, the appearance of the outer segment became that of adult animals.

This research by T. A. Weidman and Toichiro Kuwabara, Harvard University Medical School, was reported in *Investigative Ophthalmology*.

Memo No. 12 Updates Report on Medical Resources

Resources Analysis Memo No. 12, which gives the latest information on support of medical research and education by foundations and nonprofit research institutes, is now

available.

Copies of the Memo may be obtained from the Office of Resources Analysis, ADA-PPE, Ext. 62582, Bldg. 12A, Rm. 4035.

Dr. Leon Mann Honored For Studies on Hypoxia

Dr. Leon I. Mann recently received a U.S. Public Health Service Commendation Medal for his research on acute hypoxia, a condition of sudden oxygen deficiency in the unborn.

The award was presented by Dr. Gerald D. LaVeck, Director of the National Institute of Child Health and Human Development.

Dr. Mann was cited for studies conducted during the past 2 years while in the NICHD Behavioral Biology Branch. During this period, he observed complex bodily changes during fetal hypoxia, and interpreted the changes to predict the onset of brain damage caused by hypoxia.

His work also won recognition earlier this year when the American College of Obstetricians and Gynecologists presented its President's Award to Dr. Mann and two NICHD colleagues, Drs. James W. Pritchard and David Symmes.

Before coming to NIH in 1967, Dr. Mann held an NIH Special Fellowship for one year at Yale University College of Medicine.

In August Dr. Mann became assistant professor in the Department of Obstetrics and Gynecology, Cornell University Medical College.



Dr. Leon I. Mann (right) is congratulated by Dr. LaVeck, NICHD Director, after receiving the PHS Commendation Medal.

DR. BROOKS

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administrator with the National Institute of Child Health and Human Development.

Dr. Brooks came to the NIH in 1962 as a grants associate in the Division of Research Grants. For 11 years, before coming to the NIH, Dr. Brooks worked with the Regional Insect Control Project of the Agency for International Development.

During this period he served in Lebanon, Iran, Pakistan, Nepal and several African countries.

Dr. Brooks was an associate professor of biology and acting head of the Department of Biology at Texas Southern University, Houston, before his tour of duty with

Dr. Giglio, a Grantee of NINDS, Develops Device to Record Eye Measurements

By Pat Gorman
Information Intern

A new device for measuring the growth and development of the eye was recently developed by Dr. Ernest J. Giglio, a grantee of the National Institute of Neurological Diseases and Stroke.

The instrument, developed at the Optometric Center of New York, employs ultrasonic waves to record eye measurements between blinks.

A water-filled tube placed against the eye serves as the medium through which the sound waves are sent. The tube then retracts within the normal blink reflex time—about one-tenth of a second.

Sound Waves Hit Impediments

Sound waves are sent through the contents of the tube and through the eyeball where they hit impediments such as the iris and lens, and finally the retina, the innermost, light-sensitive lining of the eyeball.

As the waves bounce off the retina, their echoes are returned through the tube, displayed electronically, and the resulting patterns are photographed.

Calculation of the speed at which the ultrasonic waves pass through the components of the eye is translated into intraocular distances, or lengths inside the eye.

Dr. Giglio, a member of a four-man team of investigators headed by Dr. William M. Ludlam, is using the device to measure eye growth and changes in a selected group of 800 children ranging from 2 to 20 years old.

Eye measurements of the study group will be taken at 6-month intervals.

Data Analyzed

Data from each observation will be analyzed to determine differences in eye growth rates among individuals in the study group.

Similar measurement recordings will be conducted on families to test the influence of heredity on eye growth and change.

The data will also be used to determine relationships between eye growth and overall body development.

The research program is funded by an NINDS grant. The proposed study is the second phase of the research project.

In the first 5-year phase, investigators developed and analyzed various methods of measuring eye components.

Dr. Giglio's ultrasonic device emerged from this research as one of the key instruments for use in the study.

AID. During World War II he served in the U.S. Army Air Corps.

Dr. Brooks attended the University of Kansas where he majored in entomology. He received his Ph.D. degree after World War II.



Dr. Giglio is using the eye device to measure eye growth and changes in a group of 800 children ranging from ages 2 to 20 years.

RACING BUFF

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otherwise known as "Great Ormond Street."

While there he took a year's leave of absence to set up a child growth-development study at the Hospital des Enfants Malades in Paris, patterned after a study at Great Ormond Street.

This research was designed to follow children through their growing years—and maybe through their whole lives.

Builds Up Pediatrics Dept.

Some of Dr. Falkner's associates in Cincinnati convinced him to return to the United States to help build up a full-time department of pediatrics at the University of Louisville School of Medicine.

His primary task was to create a study on the growth of children. Twins were used in this research, which is still going on.

Dr. Falkner also taught pediatrics, and from 1963 to 1968 he served as professor and chairman of the Department of Pediatrics.

In August 1968 Dr. Falkner became program director of the Perinatal Biology and Infant Mortality Branch of NICHD. Shortly after coming there, he became the associate director for planning and evaluation.

Dr. Falkner said moving to Washington was an experiment in city living for his family. When they lived in London, Paris, and

Research on Inner City's Health Demands May Aid Future Medical Students

What are the health demands of the inner city community and how may medical services best be organized to meet these demands?

These questions may be answered in a study supported by a contract awarded to the Mount Sinai School of Medicine, New York, by the Division of Physician Manpower, BEMT.

The Department of Community Medicine will investigate the demands for health service in an urban population.

Hospital Facilities to Be Used

The Department's findings will be used in teaching future medical students how to provide services through use of hospital facilities and other community resources.

The importance of this study is underscored by the increasing shortage of physicians.

Dr. Frank W. McKee, DPM Director, said that "Urban America represents many unique health problems related to physician utilization.

"Some of these problems involve transportation of the sick, patient awareness of service availability, and personal and family constraints."

Dr. Louise Johnson, assistant professor in the Department of Community Medicine, will direct the project.

Louisville, their home was always on the fringe of the city so his wife and daughter could stable jumping horses.

Dr. Falkner, a professor in the Department of Pediatrics at the Georgetown University School of Medicine, also serves as coordinator of growth studies for the International Children's Center in Paris.

He coordinates similar studies in Belgium, Sweden, Switzerland, French West Africa, and Uganda.

Dr. Falkner's office walls are covered with products from another hobby—photography. As might be guessed, his favorite subjects are children.

Wrote Musical Comedy

He also has an interest in music and writing. He plays the piano, and while in college at Cambridge (England), he wrote musical comedy scores.

He is author of about 80 scientific publications on child health, pediatrics, and human development subjects. He also edited a monograph, *Human Development*, which is used as a standard text.

As exciting as racing can be, Dr. Falkner said, "I don't think I'll ever hang up my stethoscope for a Formula I race car!"

Investigators Find New Rheumatic Disease Signs In Twenty-Five Patients

Grantees of the National Institute of Arthritis and Metabolic Diseases have described a previously unrecognized rheumatic disease syndrome that resembles scleroderma, systemic lupus erythematosus (SLE), and myositis.

It was found in 25 patients.

Marked by extraordinarily high serum concentrations of autoantibody to an extractable nuclear antigen (ENA), the disorder is unusually responsive to corticosteroid drug therapy. The prognosis for affected individuals is favorable.

The mixed connective tissue disease was discovered while screening the sera of SLE patients for antibodies to ENA. Antibody titers of 1:1000 to 1:1,000,000 were found in a group of 25 patients, contrasting sharply with titers of 1:10 to 1:100 characteristic of SLE patients.

Antibody Incidence Evaluated

In addition, ENA antibody incidence was found to be less than one percent in tests of 400 sera from patients with rheumatoid arthritis, scleroderma, polymyositis and polyarteritis.

Clinically, the 21 female and four male patients were found to form a homogeneous group, with a disease pattern that characteristically combined features of SLE, myositis, and scleroderma.

Symptoms included severe arthralgia with frank arthritis; swelling of hands and fingers; Raynaud's phenomenon; skin changes and abnormal esophageal motility

Dr. Nathan Shock, GRC, Presides at International Gerontology Congress

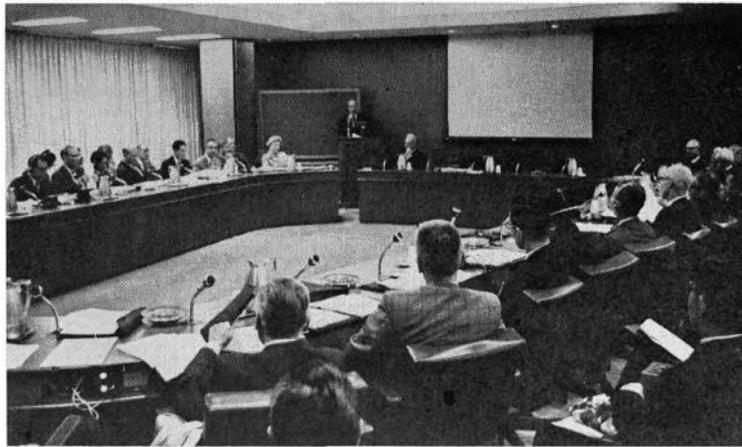
Dr. Nathan W. Shock, Chief of the Gerontology Research Center, National Institute of Child Health and Human Development, began his 3-year term as president by presiding over the 8th International Congress of Gerontology held Aug. 24-29 in Washington, D.C.

A number of other NIH staff members also participated in the 6-day meeting.

In addition to general sessions, symposia, and reading of volunteer papers, small discussion groups, organized around specific problem areas concerned with aging, were featured as part of the Congress.

Most of the scientific sessions included an introductory paper by an invited speaker who outlined the current status of research in the gerontology area.

One day of the Congress was reserved for sightseeing—including a trip to the Gerontology Research Center in Baltimore.



Japanese and American scientists studying virus disease settle down for a session on the presentation of research accomplishments of the past year. The meetings were held in a conference room at the New State Department Building.

typical of scleroderma; muscle pain, tenderness, weakness and enzyme abnormalities of polymyositis, and lymphadenopathy.

None had the renal involvement characteristic of SLE.

The clinical response of 21 patients treated with corticosteroid drugs was distinctly favorable. Improvement was observed in all clinical signs, including sclerodermatous skin changes and esophageal motility disturbances, in contrast to the usual relatively resistant response of scleroderma to steroid drugs.

Most patients have been maintained in remission and have required little or no maintenance therapy. Nine have been in remission more than 3 years.

Enzyme analysis of the 25 patients' sera suggested that the ENA antigen is probably an RNA strand or closely associated with an RNA fragment.

NIAMD grantees Drs. H. Holman and E. Tan of the Scripps Clinic and Research Foundation, and associates, reported their study to the recent annual meeting of the American Federation for Clinical Research.



Leonard Smith (right), Plant Engineering Branch, Office of Engineering Services, ranked first in a class of thirteen men who recently completed the Refrigeration and Air Conditioning Course. Ross Holliday, OES Director, presented diplomas to the class.

ENROLLMENT

(Continued from Page 1)

intend to increase their first-year enrollment, and also have the potential for achieving these increases with their own resources supplemented by funds allocated by the program.

Priority will be accorded applications that include: clinical training that gives patient care experience in out-patient and ambulatory facilities; a program curriculum to encourage students to enter the practice of family medicine, and provisions to improve the distribution of medical and other health services in geographic areas, and among socio-economic groups.

The Association of American Medical Colleges and the American Medical Association have endorsed the expansion of medical schools to permit the enrollment of all qualified students.

JOINT RESEARCH

(Continued from Page 1)

Yoshio Yoshie, Tama National Institute of Leprosy Research, and Dr. Charles C. Shepard, National Communicable Disease Center.

Joint studies in cholera have clarified the nature of cholera antigens and cleared the way for the development of effective vaccines, which will be ready for field trials soon.

Immunity against exotoxin, the cause of dehydrating diarrhea in cholera, may be as important as immunity against the cholera microorganism cell wall components. This research was undertaken by Dr. Charles Carpenter, Jr., Johns Hopkins University, Baltimore, and Dr. Hideo Fukumi, Japan National Institute of Health.

The committee's cholera panel also coordinates its program with the National Institute of Allergy and Infectious Diseases' Cholera Advisory Committee.

Developing Improved Vaccines

The virus investigators have worked on developing improved vaccines for control of Japanese encephalitis. Trials of these vaccines are planned soon.

Guiding research in this field were Dr. Edwin Lennette, California Department of Public Health, and Dr. Yasuichi Nagano, Kitasato Institute, Tokyo.

Laboratory models of the parasitic diseases, schistosomiasis and filariasis, have provided new information on disease mechanisms leading to the development of new drugs.

Chairmen of parasitic research efforts were Dr. Manabu Sasa, University of Tokyo, and Dr. Leon Jacobs, NIH's assistant director for Collaborative Research.

In the field of malnutrition, investigators reported on their attempts to clarify nutritional requirements of different racial groups.

They discovered that dietary deficiency in pregnancy and in in-



Dr. Edwin M. Lerner II, Coordinator for Special Programs, National Institute of Allergy and Infectious Diseases, was recently re-elected chairman of the Editorial Committee of "Federation Proceedings," the official journal of the Federation of American Societies for Experimental Biology. Dr. Lerner has served as a member of this Editorial Committee since 1964.

fancy may lead to impaired mental development, learning, and behavior in the children.

Dr. Robert Q. Marston, Director of NIH, was a delegate to the recent meeting.

Others attending were: Dr. Donald Davis, Dr. Francis Abinanti, Dr. Howard Minners, Dr. Kenneth O. Phifer, George Yee, Lawrence J. Fitzgerald, Jr., Robert Spallone, and Dr. Arthur Shade, NIAID.

Also Dr. G. Donald Whedon and Dr. Karl Mason, National Institute of Arthritis and Metabolic Diseases, and Dr. Philip Corfman, National Institute of Child Health and Human Development.

The committee's next meeting will take place in Japan on Sept. 3-4, 1970.

For Very Good Reasons Young Volunteers Aid CC Nurses and Patients

"I wanted to get some experience working in a hospital. I guess I could've gotten a paying job, but to me this work is more rewarding."



Blood donors at the CC Blood Bank receive refreshments. Serving Dr. John M. Venditti, Drug Evaluation Branch, NCI, are Joan Arlet (l), Ursuline Academy, and Alice Bianco, Charles Woodward High School.

It takes a special kind of "teenager" to give up part of a summer vacation from school to do volunteer work in a hospital. Fortunately, they exist.

Each summer, a group of vivacious, intelligent young people—mostly "teens"—come to the Clinical Center and spend 2 days a week helping wherever they may be needed. They are Junior Red Cross Hospital Volunteers.

Some work with nurses in patients' rooms. Some of the "teens" are assigned to the CC Occupational Therapy Section, while others assist in the CC Blood Bank.

Why do they do it? Some want to become members of the medical profession in the future; others simply wish to spend most of their spare time helping people who may be less fortunate.

Their quotes tell the story.

"By doing volunteer work at the Clinical Center, I hope to find out if I really want to be a nurse as my career."

"I volunteered just to help people and the nurses, too. You get a special satisfaction out of helping people if you're not getting paid for it."

By Thomas Bowers

Photos by Tom Joy



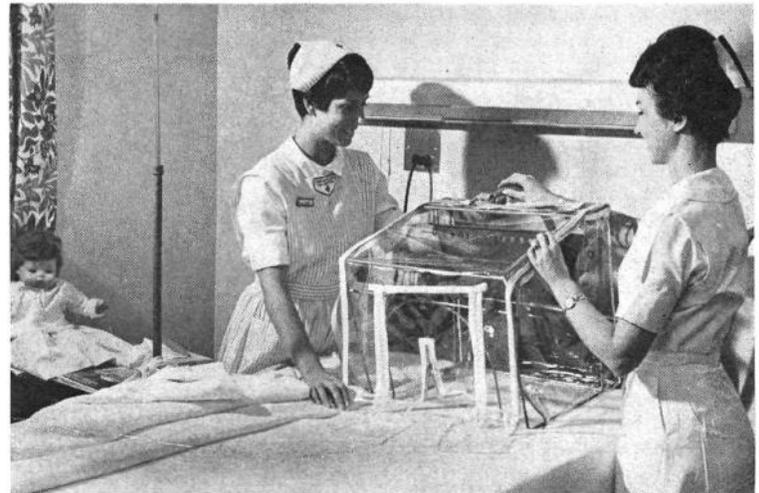
Some of the "teens" find their artistic ability useful in carrying out their volunteer assignments. In the CC Occupational Therapy Section, Debbie Kempl (l) and Jeanne Malstrom, Walt Whitman High School, prepare sample paintings to show child patients.

"I want to learn something about medicine. It's a good opportunity for me to obtain working experience and, hopefully, benefit someone who is sick."

"I like people. I like to feel that I'm doing something for somebody without working just to be paid."



Keeping things in order in the Patients' Library is one of the assignments drawn by Debbie Kempl, Richard Montgomery High School.



Pam Callis, a student at Northwood High School, assists Mary Sue Miles, head nurse, 7-East Nursing Unit, set up an oxygen head-tent for a patient.



In the CC Blood Bank, some of the "teens," under strict supervision, label test tubes containing blood for grouping and typing with Nina De Peralta (center), supervisor of the Blood Processing Laboratory. Robin Davidov (l) is a student at Walt Whitman High School, and Mark Turner attends Bethesda-Chevy Chase High School.



Parties are a form of recreation enjoyed by younger CC patients as a result of the efforts of the Junior Red Cross Hospital Volunteers. (L to r) Pam, Don Morin, Good Council High School, and Debbie Mitchell, Winston Churchill High School, prepare streamers for a children's party.

"I just wanted to do something useful. I felt I might do something helpful for somebody else as a Red Cross Junior Volunteer."