the NIH Record

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

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NATIONAL INSTITUTES OF HEALTH

Dr. Otto Bessey, NIEHS, Named Assoc. Director, Extramural Programs

Dr. Otto A. Bessey has been named associate director for Extramural Programs, National Institute of Environmental Health Sciences in Research Triangle Park, N.C. Dr. Bessey, who has been with NIEHS since 1967, has been serving as acting associate director.

During his tenure at the Institute he has also been special assistant to the NIEHS Director and head of the Special Projects Branch, Extramural Programs.

Duties Described

Dr. Bessey will divide his time between his offices in Research Triangle Park and in the Westwood Bldg. He will coordinate all NIEHS extramural program planning, formulate major policies governing those activities, and direct scientists and administrators in carrying out the programs.

Dr. Bessey will have liaison and advisory responsibilities to other NIH programs and to agencies outside NIH, principally the Environmental Protection Agency and the Food and Drug Administration.

He will also serve as a full voting member of the NIH Executive Committee for Extramural Activities—the major advisory group to the NIH Director on extramural matters.

Education Noted

Dr. Bessey received his B.A. degree from the University of Montana, and his Ph.D. in biochemistry from the University of Pittsburgh.

He began his career as a research assistant at Columbia University and as a clinical biochemist at Margaret Hague Hospital. From 1934 to 1942 he was at the Harvard Medical School and School of Public Health as an associate in pathology and biochemistry.

He left the university to help develop the Public Health Research Institute of the City of New York. Later, he became director of the Institute and chief of the

(See DR. BESSEY, Page 5)

2 Noted Scientists, Dr. Margaret Mead, Dame Janet Vaughan, Are FIC Scholars

Two eminent women scientists have been appointed Fogarty Scholars-in-Residence.

This is the first time women have been invited to join this prestigious group of scientists from all over the world who continue their studies at NIH, lecture, write, and meet with other researchers on the campus.

One of the newly appointed scholars is Dr. Margaret Mead, world-famed anthropologist; the other is Dame Janet Vaughan, an outstanding British pathologist who was knighted for her work during World War II.

Dr. Mead, who will arrive on Thursday (Aug. 30), has been associated with the American Museum of Natural History in New York for most of her career. Now, she is the museum's Curator Emeritus of Ethnology, and she is also adjunct professor of anthropology at Columbia University.

Dr. Mead, a graduate of Barnard College and Columbia University, has received 18 honorary degrees. Her books on her prolific studies of the peoples of the Southwest Pacific area have made her one of the few anthropologists whose name is almost a "household word."

In May of 1971, the Hall of the Peoples of the Pacific was opened at the Museum of Natural History. The work is an exhibit of 45 years of Dr. Mead's endeavors.

She is a Fellow of the American Academy of Arts and Sciences and the World Academy of Arts and Sciences. She is also a member of other scientific organizations.

Dame Janet Vaughan

Dr. Margaret Mead

Dr. Mead's autobiography—*Blackberry Winter—My Earlier Years*—was published last year. She will remain a Fogarty Scholar through December and will live in Stone House.

Dame Janet Vaughan will arrive on Monday, Sept. 3, and stay until early December. She will also reside in Stone House.

During World War II, Dame Janet served as Director of the Medical Research Council Northwest London Blood Supply Depot.

After the war, she was appointed principal of Somerville College, a women's college at Oxford University. Dame Janet received both her undergraduate and medical degrees from that university.

Dame Janet most recently served as Honorary Director, Medical Research Unit for Research on Bone-Seeking Isotopes, in Oxford.

She has written two books—*The Physiology of Bone*, published in 1970, and *The Effects of Irradiation on the Skeleton*, which was published this year.

She has also written and had published a number of articles on blood diseases, blood transfusion, and the metabolism and biological importance of radioactive nuclides.

Dame Janet is a recipient of honorary degrees and has served on a number of scientific committees and commissions in England.

Intensive Five-Year Plan for Fighting Cancer Announced

Documents on the National Cancer Program Plan and two annual reports of that Program were received by President Nixon on Aug. 17. The reports, submitted by Dr. Frank J. Rauscher, Jr., National Cancer Institute Director, were recommended by Dr. Rauscher and the National Cancer Advisory Board.

The documents detail a 5-year strategic plan for research in fighting cancer. The documents are:

1) *The Report of the Director* describes expanded and intensified biomedical research unparalleled in history. In this report, Dr. Rauscher said, "The two broad thrusts of the National Cancer Program research strategy are a renewed commitment to basic exploratory research, and an intensified emphasis on quickly following up new scientific leads . . ."

In further explaining, Dr. Rauscher stated, "Our ability to put usable knowledge and tools into the hands of practicing physicians

(Continued on Page 5)

Dr. Ray D. Owen Appointed To President's Cancer Panel

Dr. Ray D. Owen, a specialist in genetics, has been appointed by President Nixon to the President's Cancer Panel. Dr. Owen, a professor of biology at the California Institute of Technology, fills the post formerly held by Dr. Robert A. Good, Memorial Sloan-Kettering Institute.

The White House also announced the reappointment of Benno C. Schmidt as chairman of the panel. Mr. Schmidt is a member of J. H. Whitney & Co. in New York.

The third member of the panel is Dr. R. Lee Clark, Houston, Tex.

Dr. Philippe Shubik has been appointed to a vacancy on the National Cancer Advisory Board. Dr. Shubik is Director of the Eppley Institute for Research in Cancer, University of Nebraska.

the NIH Record

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NIH Nursery School Aims To Fill Quota by Sept. 10

The NIH Child Development Center is seeking to fill the nursery school's quota of 50 pupils by Sept. 10. Application forms are available in Bldg. 31, Room 2B-51.

For further information call Virginia Burke, Ext. 61811.

3 More Parts of PHS Grants, Awards Series, FY 1972 Issued by DRG

Parts IV, V, and VI of the seven-part series *Public Health Service Grants and Awards, Fiscal Year 1972 Funds* have been published by the Division of Research Grants.

Parts IV and V, in one volume, contain the health manpower education grants and the grants for loans and scholarships administered by the Bureau of Health Manpower Education. Part V presents grants awarded by FDA.

Summary tables of NIH support by program, state or country, city, and organization are contained in Part VI. In addition, a summary tabulation of NIH grants and awards by the supporting component is presented.

Single copies of the combined Parts IV and V volume (DHEW Publication No. (NIH) 73-193) and the Part VI volume (DHEW Publication No. (NIH) 73-194) are available free from DRG.

Multiple copies of both volumes may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Parts IV and V are $2.10 postpaid or $1.75 at the GPO Bookstore, Part VI is $3.10 postpaid or $2.75 at the bookstore.

Resident in Pulmonary Medicine Named to NHLI Advisory Council

Dr. Barry A. Gray of the University of Rochester has been appointed to the National Heart and Lung Advisory Council, NHLI. His term runs through September 1976.

Appointment Explained

Dr. Gray, a resident in pulmonary medicine, is the first appointee to fulfill the requirement of the National Heart, Blood Vessel, Lung, and Blood Act of 1972, Section 417, which states, "two of the appointed members shall be selected from persons enrolled in residency programs providing training in heart, blood vessel, lung or blood diseases."

Eunice Lewis, a DCRT computer aid, was selected third runner-up in the Miss Black America contest held during the recent District of Columbia pageant. Miss Lewis, who received several prizes including $100, was chosen not only for her pulchritude, but also for her singing ability. The pageant was televised on Channel 7.

Lecture Series on Blood Banking Videotaped; M. McGinniss, CC, Explains Immunohematology

A series of lectures on various aspects of blood banking have been videotaped by the Food and Drug Administration to train their blood bank inspectors.

Five of the lectures were given by FDA employees; the sixth, by Mary McGinniss, a research biologist in the Clinical Center's Blood Bank.

Ms. McGinniss discussed immunohematology. In her lecture she described the cross-match test used to determine patient-donor compatibility.

When foreign antigens from donor blood are introduced into a recipient, she explained, sensitization sometimes occurs.

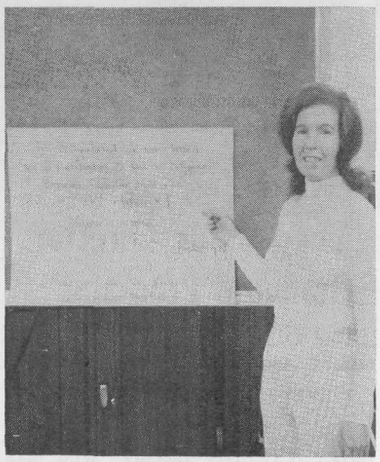
This process is similar to preventive immunization for a disease, but in blood transfusion the end result can be harmful rather than protective.

The cross-match test, the most important part of the procedure, detects a patient's state of sensitization to foreign red blood cells. It is the reaction of the patient's serum to the actual cells to be transfused.

Compatibility testing, including the cross match, utilizes saline, albumin, enzyme, and indirect Coombs techniques.

The antibody screening test is an integral part of compatibility testing and is a process by which the recipient's serum is reacted with several known red cells to seek a positive reaction.

If one is found, the recipient's serum is reacted with many known red cells to identify the antibody causing the reaction.



Ms. McGinniss points out advantages of cross-match testing during the videotaping.

Once an antibody is identified, only donor blood without the antigen is cross matched.

Staffers Take New Role

In July 1972 responsibility for inspecting and licensing all blood banks in the country was transferred from NIH to the Bureau of Biologics.

The CC Blood Bank began a close liaison with the new organization, and CC staffers assumed an advisory role.

Under an informal training program recently established, about 75 people spent 3 hours in the Blood Bank.

During that time, a working tour of the facility was conducted for participants to observe day-to-day blood banking techniques.

New NEI Booklet Gives Statistics on Blindness Based on 16-State Study

Nonwhite women may be as much as three times more vulnerable to blindness from diabetic retinopathy—a progressive disorder of the retinal blood vessels—than either white women or men of any race, the National Eye Institute reports.

This finding is based on statistics gathered from registered blind persons in 16 states and compiled in NEI's new booklet, *Statistics on Blindness in the Model Reporting Area, 1969–1970.*

The pamphlet classifies persons added to each state's registry by age, color, sex, visual acuity, age when blinded, causes of blindness, and other factors.

The study also shows that blindness rates in general are higher among nonwhites than whites in the Model Reporting Area. The greatest difference occurs in glaucoma, which is eight times more prevalent among the nonwhite population.

It is not certain, however, whether these apparent high rates of blindness among nonwhites are due to a more complete registration among this population group, or whether there actually is an increased risk of blindness for nonwhites.

Evidence suggests that while nonwhite reporting may be somewhat more complete, that factor alone is not sufficient to account for the difference in blindness rates.

Another significant finding revealed by the study is that the only sizable male-female difference observed for both whites and nonwhites is the increased risk of blindness due to optic nerve disease for males.

Single copies of the publication are available free from the NEI Office of Information.

Quantities can be purchased from the Superintendent of Documents, U.S. Government Printing Office, for $2.10 postpaid or $1.75 at the GPO Bookstore.

Dr. Wm. Friedewald Heads NHLI Branch

Dr. William T. Friedewald was recently named chief of the National Heart and Lung Institute's Clinical Trials Branch. This branch is part of the NHLI Office of the Associate Director for Clinical Applications and Prevention.

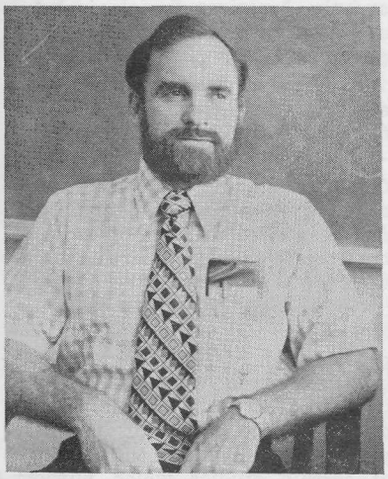
Dr. Friedewald's branch plans and directs Institute-supported clinical research on new drugs and devices used in the prevention or clinical management of cardiovascular disease.

Dr. Friedewald graduated from the University of Notre Dame in 1960. After receiving his M.D. degree from Yale in 1963 he served his internship at the Yale-New Haven Hospital.

Following 2 years with the National Communicable Disease Center, Dr. Friedewald returned to Yale, completing his residency in internal medicine in 1968. He spent a year of postgraduate study in biostatistics at Stanford.

He has been associated with NHLI since 1967 and joined the Institute staff in 1969. He headed the Consulting Section in the NHLI Biometrics Research Branch prior to his appointment as chief of the Clinical Trials Branch.

Major studies presently being conducted by this branch include the Coronary Drug Project, evaluation of therapeutic diets used for hyperlipoproteinemia (a blood-lipid disorder) patients, and evaluation and comparison of regimens for the treatment of sickle cell anemia.



Dr. Friedewald, new chief of NHLI's Clinical Trials Branch, spent 2 years at the National Communicable Disease Center.

NCI Publishes 'Leucemia Infantil'

A Spanish-language booklet on childhood leukemia, *Leucemia Infantil, Folleto para los Padres*, has been published by NCI.

The Children's Health Center, San Diego, provided the translation of an NCI brochure by Gary Goldsmith and Drs. Stanford B. Friedman, Myron R. Karon and Edward S. Henderson.

Free copies of the 13-page booklet are available from the Public Affairs Office, NCI, Bethesda, Md. 20014.

DRR's Dr. Raub Is All for Understanding Computer Systems—So He Designs One

Dr. Michael Oxman (far right), BRB health scientist administrator, conducts a workshop session for PROPHET users. The researchers compared their experiences and delved into new applications. The PROPHET national network now includes 30 users at five medical research institutions.—Photos by Jerry Gordon.

Dr. William F. Raub, a Division of Research Resources investigator, believes that "a computer should be easily used and routinely, just like a telephone."

Dr. Raub, chief of the Biotechnology Resources Branch, DRR, is talking specifically about the system conceived and supported by BRB for scientists engaged in pharmacology-toxicology research. The system is named PROPHET.

And as Dr. Raub explained, "One of the primary goals of this system is to make it useful to the computer-naive scientist on an everyday basis."

Recently, the first meeting of PROPHET users was held at Waltham, Mass., where the computer equipment is housed and operated by First Data Corporation of that city.

Investigators at the meeting agreed that the PROPHET system saved hours—and sometimes days—of tedious work. The system was evolved for researchers to manipulate their own data in order to analyze it and test hypotheses.

The programs placed in the computer are those most needed by pharmacology-toxicology researchers. BRB makes available these particular combinations of programs.

By a series of simple commands—depressing of coded keys on the terminal unit or typing simple computer-understanding phrases—the user can readily interrogate or alter the data that is presented. The computer is also capable of making graphs.

PROPHET collaborators, Bolt Beranek and Newman, Inc., and Dr. Raub evolved a new computer language, and several other innovative features for the system so scientists would have an integrated set of powerful, but easy-to-use computer tools.

Typical PROPHET-aided investigations include correlation of drug metabolite information in various animal species, liver metabolism studies, and insulin clearance in renal insufficiency analysis.

Dr. Raub (r) consults with PROPHET user Dr. Bernard Ransil, Boston City Hospital, Harvard Medical Unit. Dr. Raub, who is also the PROPHET project director, has been working with contractors, advisers, and staff for over 5 years to develop this highly specialized system for studying chemical-biological interrelationships.

Scientists supported by most NIH components use the system. Terminals are located at five medical research institutions. They are:

Northeastern University, chemistry department, Boston; Harvard Medical Unit, Boston City Hospital; University of Pittsburgh School of Medicine, pharmacology department; NIEHS, Research Triangle Park, N.C., and Mount Sinai School of Medicine, department of pharmacology.

BRB eventually plans to make PROPHET available to additional biomedical researchers throughout the Nation.

CC Blood Bank to End Donor Payment System

Beginning Oct. 1 the Clinical Center Blood Bank will discontinue its policy of reimbursing donors for every other blood donation. The blood assurance program, however, will remain in effect.

NIH blood donors who make a voluntary donation at the Clinical Center before Oct. 1 may make one final paid donation within 3 months. No further payments will be made after this time for blood to be used for transfusion to CC patients.

Complies With Policy

NIH blood donors now receive $25 for every other donation. The change, Blood Bank chief Dr. Paul Schmidt explains, is in compliance with HEW Secretary Caspar Weinberger's recent recommendation of a nationwide all-volunteer blood donor policy.

The recommendation was made by a special HEW task force of which Dr. Schmidt was a member. The group was formed to study blood supply problems in this country.

Their proposal was based on evidence that commercial blood carries a higher risk of post-transfusion hepatitis than voluntarily donated blood. The risk is 10 times greater with commercial blood, according to a CC Blood Bank study.

States Reason

"The best way to eliminate the use of commercial blood nationally," Dr. Schmidt points out, "is to discontinue payment for blood anywhere. We felt we had to start at home."

Blood donated at NIH will continue to be recorded so that blood needed by NIH employees and their families at local hospitals, or anywhere in the country, will be replaced or credited as requested.

Bring a Friend

Dr. Schmidt says he is confident that NIH employees who have been regular donors in the past will continue in the future and urges them to bring a friend when they come to donate.

He points to Japan which successfully converted from 2 percent voluntary donations to 95 percent over the period from 1963 to 1970.

Marine Biologists Meet to Help Identify Problems Involved in Invertebrate Studies

In an effort to help identify resource-related problems which exist in the marine invertebrate research area, a panel of 20 prominent marine biologists was recently brought together on the NIH campus by the Animal Resources Branch of the Division of Research Resources.

Problems involved in the collection, culturing, and study of ocean marine organisms as laboratory animal models for biomedical research were investigated and summarized by the panel representing marine invertebrate supply firms, universities, private research institutes, and governmental agencies.

Recognizing the broad scope of the field (no one knows for certain how many marine invertebrates there are), the scientists confined their considerations to three major categories of species used for biomedical research.

They are:

- Mollusks — oysters, clams, squid, abalone, and snails;
- Arthropods — crabs, lobsters, shrimp, and barnacles, and
- Echinoderms — starfish, sea urchins, and sea cucumbers.

The groups of organisms are becoming increasingly valuable to the biomedical community because of the unique advantages they offer scientists.

Many of the organisms have simple anatomical and physiological systems and can be investigated with ease.

Probably the most frustrating aspect encountered by marine biologists concerns the lack of proper diagnostic techniques to detect diseases and assess the health status of certain marine organisms.

XX or XY?

Researchers candidly admit that as yet they have no method to determine whether the animals used in experiments are healthy or in a morbid condition. Scientists also lack a method of determining the sex of certain marine species.

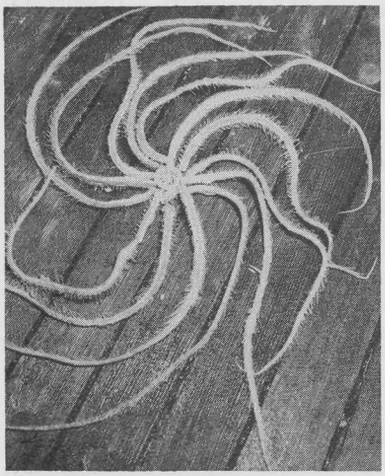
Other problems discussed at the meeting include how to maintain organisms in an artificial environment prior to usage, methods of closer communication between marine interests and the biomedical community, and supply and transportation.

Also discussed were problems of laboratory culture and the need for medical specialists and veterinarians to enter the marine biological field to promote the health status of marine invertebrate animal models.

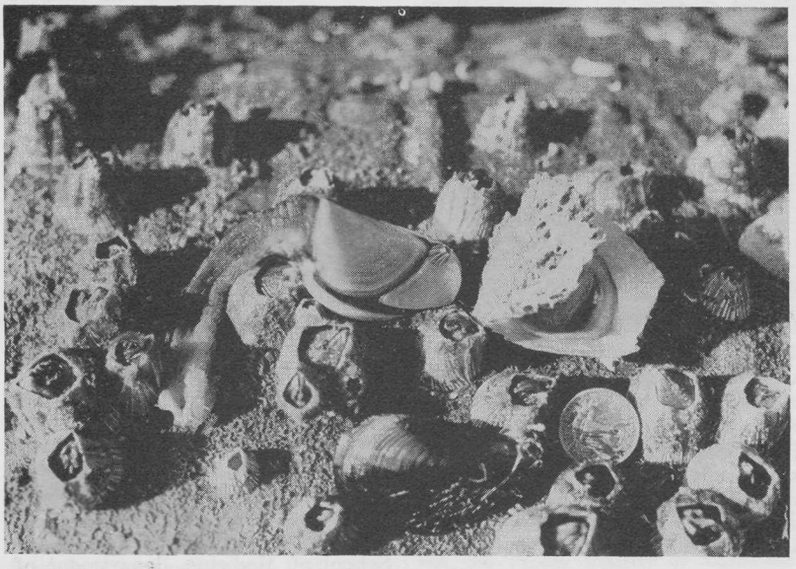
One of the ARB's important areas has been the development of animal models for multi-categorical studies related to human health.

Programs in the past have dealt almost exclusively with the development of vertebrate animal models.

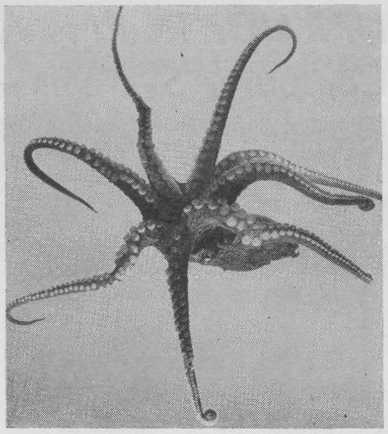
The branch recognizes, however, that many invertebrate animal organisms offer great potential for biomedical research.



A starfish's regenerative powers remain a scientific wonder to aquatic researchers. From only a small part of its central disc or from a piece of its arm only 2/5 of an inch long, a starfish can reproduce itself. When cut in half, each part will grow into two animals in about 3 months.



The barnacle has the largest muscle cells of any known animal, according to marine biologists. The excretion from this animal—causing vise-like adhesion to boat hulls, pilings, and other objects in the water—intrigues dental researchers. They are attempting to unravel the mystery of "barnacle glue" for possible use as a cement for dental fillings.



The octopus has become a classical animal for the study of the nervous system. Only skin and protective membrane cover its brain, making surgical manipulation comparatively simple. As a result, the octopus brain is now the best mapped in the animal kingdom from a morphological standpoint.

Cold Study Reveals Some Vit. C Influence; More Research Needed

Recently 190 NIH employees participated in a cold study in which it was reported that vitamin C had a definite but small influence on the frequency, duration, or severity of colds.

However, Dr. Thomas C. Chalmers, Clinical Center Director and principal investigator for the study, cautioned that this effect may have been due to a breakdown in control procedures.

A significant number of volunteers guessed their medication and may have been biased by this knowledge.

EHS Screens Volunteers

In fact, he said, those who received a placebo but thought they were taking vitamin C had fewer colds than those on vitamin C who thought they were taking the placebo.

The 311 volunteers for the study —conducted by CC investigators in cooperation with NIAID and DCRT scientists—were screened by the Employee Health Service.

The CC researchers caution that additional study and evaluation is necessary to determine conclusively whether or not vitamin C is effective against the common cold.

DRR Reports on Studies Using Marine Invertebrates

Some 263 NIH-supported studies are now using marine invertebrates, reports the Program Analysis Branch of the Division of Research Resources.

Grantees of NINDS, with 85 studies, lead the list of NIH-funded users of these invertebrates.

Other grantees utilizing this species are:

NIGMS	38	NCI	12
NEI	36	NIDR	10
NICHD	28	NIEHS	3
NHLI	26	*DRR	2
NIAMDD	22	NIAID	2

*Exclusive of General Research Support projects.

The report reveals that arthropods tallied highest in NIH investigations with 107, and 82 projects used mollusks.

Echinoderms were used in 43 studies supported by NIH.

Panel Discusses Role Played by Racial Bias In Research Findings

A comprehensive review of research relating to minority groups was conducted yesterday by a special panel convened by the National Institute of Mental Health and the American Sociological Association at the Association's annual meeting in New York City.

A principal issue under discussion was whether racial bias has influenced research findings.

Fifteen outstanding scholars from the leading U.S. ethnic and racial groups reviewed, criticized, and responded to some of the controversial findings pertinent to their own groups.

Dr. Howard Taylor of Syracuse University gave a detailed presentation of psychological testing techniques which have been used to test the I.Q. and personality characteristics of minority groups. He disputed the findings of certain studies which purport to demonstrate an inherent inferiority of blacks.

Findings Discussed

Medical health of black students in white universities was discussed by Dr. Charles V. Willie of Syracuse University. Dr. Willie and Dr. Bertram S. Brown, Director of NIMH, co-edited the book, *Racism and Mental Health*, published by the University of Pittsburgh Press.

Dr. Mary S. Harper, assistant chief of the NIMH Center for Studies of Minority Group Mental Health Programs, chaired the panel.

Melvin S. Day Attends U.S.-U.S.S.R. Information Symposium in Moscow

Melvin S. Day, deputy director of the National Library of Medicine, attended the first U.S.-U.S.S.R. Symposium on Scientific and Technical Information organized under the U.S. - U.S.S.R. Agreement on Cooperation in the Fields of Science and Technology.

Mr. Day

Mr. Day was among eight U.S. information specialists who participated in the recent symposium in Moscow. Following the 2-day meeting, the specialists visited information organizations at Novosibirsk, Yerevan, and Kiev.

Included in the presentations were discussions of the integrated information system for the Soviet Union run by the All-Union Institute for Scientific and Technical Information (VINITI), and a specialized system of scientific and technical information services in instrument making.

Following the symposium, the group visited the VINITI, the All-Union Research Institute of Medical and Medico-Technical Information (VNIMI), and the State Public Library of the U.S.S.R. for Science and Technology (GPNTB-SSSR).

The second half of the symposium, planned for Oct. 1-2, will include visits to NLM and the National Medical Audiovisual Center in Atlanta.

Symposium members will define areas for continued cooperation in the development of scientific and technical information dissemination, which will be reported to the Joint U.S.-U.S.S.R. Commission on Cooperation in Science, scheduled for Moscow in November.

Dr. Vincent E. Price, special assistant to the Director, NIGMS, accepts the PHS Commendation Medal "for a consistently dedicated career in the scientific field of protein biochemistry" from NIGMS Director, Dr. DeWitt Stetten, Jr.

Three NCI staff members were recently awarded the PHS Commendation Medal for superior performance by Dr. Bayard H. Morrison III, assistant director of the Institute. From left are Dr. William A. Priester, Jr., head, Epizoology Section, Epidemiology Branch; Dr. Morrison; Dr. George E. Jay, chief, Program Management Branch, Cancer Control Program, and Dr. James A. Peters, director, Division of Cancer Cause and Prevention.....

NCI ANNOUNCES FIVE-YEAR CANCER PLAN

(Continued from Page 1)

and other health professionals is dependent on both these thrusts."

Dr. Rauscher's report stresses programs, such as cancer centers, which deliver research results to people.

Management sharing with scientific and industrial groups outside Government, and construction of new laboratory and clinical facilities are cited for contributing to the expanded cancer effort.

Cooperation Emphasized

Dr. Rauscher emphasizes the cooperative aspect of the National Cancer Program, citing cancer research by other NIH components, and also cancer research by voluntary groups, private industry and on an international scale.

2) *The Report of the National Cancer Advisory Board* states that all aspects of the National Cancer Program are making progress and calls for continuation of training programs and full funding of the National Cancer Program in 1973 and 1974.

Chairman of the 23-member Board is Dr. Jonathan E. Rhoads, University of Pennsylvania School of Medicine.

3) *The Strategic Plan* defines the goal of the National Program and its seven objectives. It also includes the major policies for conducting the National Cancer Program, and a 5-year projection covering research, cancer control and cancer centers.

This projection outlines the research and cancer control areas to be given high priority for implementing and increasing support.

The Plan resulted from 42 planning sessions between October 1971 and March 1972 involving 250 laboratory and clinical scientists in most biomedical and clinical disciplines. An Operational Plan is expected to be completed late in fiscal year 1974.

The demonstration role of the new NCI Cancer Control Program is described, and the role of cancer centers as focal points of research, development and demonstration of detection, diagnostic and treatment techniques is also illustrated.

4) *The Digest of Scientific Recommendations for the National Cancer Plan* consists of detailed analyses by the 250 scientists who participated in the planning sessions of what must be done to accomplish the seven National Cancer Program objectives. The objectives are:

1. Reduce the effectiveness of external agents for producing cancer;
2. Modify individuals in order to minimize the risk of cancer development;
3. Prevent transformation of normal cells to cells capable of forming cancers;

Focuses on Prevention

4. Prevent progression of precancerous cells to cancers, the development of cancers from precancerous conditions, and spread of cancers from primary sites;
5. Achieve an accurate assessment of (a) the risk of developing cancer in individuals and in population groups and (b) the presence, extent and probable course of existing cancers;
6. Cure cancer patients and control the progress of cancers, and
7. Improve the rehabilitation of cancer patients.

In the midst of your illness you will promise a goat, but when you have recovered, a chicken will seem sufficient.—*African Proverb.*

DR. BESSEY

(Continued from Page 1)

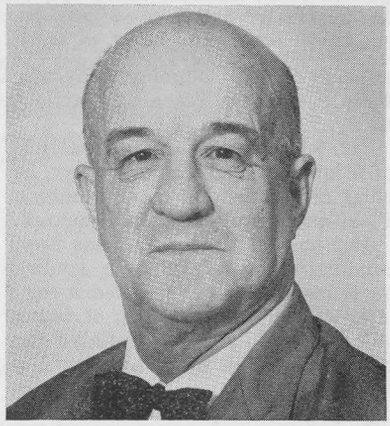
Division of Physiology and Nutrition.

For the next several years, Dr. Bessey held professorships in biochemistry and department chairman posts at the University of Illinois College of Medicine and the University of Texas Medical School.

Dr. Bessey started his Federal service and his association with environmental research in 1956 with the U.S. Army Natick Laboratories where he was associate chief of the Environmental Protection Research Division.

He joined PHS in 1961 as research and training grants administrator for the Division of Occupational Health.

In 1972 Dr. Bessey received the Superior Service Award at the Fourth Annual NIH Honor Awards ceremony.



Dr. Bessey will advise other NIH components and outside agencies such as EPA and FDA on human health problems that may relate to environmental agents.

Research Grants Index Available for Purchase

The 1972 edition of the annual *Research Grant Index* compiled by the Research Documentation Section, Statistics and Analysis Branch, DRG, contains scientific data on some 17,000 grants and contracts supported by HEW.

The two-volume publication, now available, has been published for the past 12 years to aid scientists in identifying others working in like or related fields.

Volume I lists grants and contracts under 6,500 subject headings. Vol. II—in two sections—contains grants and contracts under project number and principal investigators listed alphabetically.

Copies of the Index, DHEW Pub No. (NIH) 72-200, may be purchased for $21.35 per set from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

A few complimentary copies are available in the Research Documentation Section, SAB/DRG, Ext. 67543.

Twin Register of Dr. Schwartz Proves Valuable Resource for Clinical Research

The slit lamp or biomicroscope allows Dr. Schwartz to examine the anterior portion of an identical twin's eye, especially the cornea. Her sister waits for her turn.

"Studies of twins offer interesting and valuable opportunities for genetic and epidemiologic investigations but have found comparatively little use in eye research, particularly in the United States," according to Dr. J. Theodore Schwartz.

Dr. Schwartz, an ophthalmologist in the National Eye Institute's Office of Biometry and Epidemiology, is chief of the Section on Ophthalmic Field and Developmental Research.

For nearly 10 years, he has been conducting ophthalmologic studies on twins and has assembled a register "to identify a group of twins who would be readily available for multiple clinical examinations."

Of the 700 pairs of twins registered, about 47 percent are identical—developed from the splitting of one fertilized egg.

Given Eye Examination

Fraternal twins—resulting from the separate fertilization of two eggs—are no more similar genetically than ordinary siblings but tend to be exposed to a similar cultural and physical environment.

All twins in the register are from the Metropolitan Washington area, and about half have already received a thorough eye examination at the Washington Hospital Center.

In addition to data from these eye examinations, the twin register contains such information as medical history, age, hand dominance, race, and other pertinent details—including whether or not the twins live together.

There are several kinds of twin studies which can be conducted. In the classical twin study, the relative influence of hereditary and environmental factors on a particular trait or disease are investigated.

Dr. Schwartz and his associates recently completed a twin heritability study on the effect of corticosteroids — compounds often used to suppress inflammation—on intraocular pressure.

The study, done in collaboration with the National Heart and Lung Institute, involved 80 pairs of identical and like-sex fraternal twins 15 years of age and older.

The researchers investigated the theory that the rise in intraocular pressure which occurs in some patients after application of topical steroids is an inherited response.

This concept led to a further hypothesis that chronic simple glaucoma, which is associated with elevated intraocular pressure, is an inherited disorder.

However, the group's study showed that inheritance played a minor role in its association with steroid response. Dr. Schwartz explained, "This new finding is at variance with the widely accepted genetic hypothesis and marks the need for further investigation . . ."

In another type of twin study, the therapeutic trial, identical twins having the same disease are given different treatment to compare the relative benefit.

Dr. Schwartz is conducting a trial to determine the effectiveness of a treatment aimed at retarding the progress of myopia (nearsightedness). Twenty-five pairs of young identical twins similarly myopic are participating.

In this investigation one co-twin receives specially prescribed bifocal lenses and special drops in his eyes before going to sleep; as the control, the other twin wears conventional eyeglasses.

Through this use of identical twins, Dr. Schwartz noted, it is possible to arrive at conclusions with fewer patients because treatment is likely to be the primary factor influencing the outcome.

Several other investigations utilizing the twin register have also been undertaken in collaboration with NICHD and NIDR as well as the NHLI.

NIH Visiting Scientists Program Participants

8/1—Dr. Gurmit S. Aulakh, India, Cytogenetic Oncology Section. Sponsor: Dr. Jacqueline Whang-Peng, NCI, Bldg. 10, Rm. 6B10.

8/1—Dr. Hevion Ben-Horin, Israel, Laboratory of Chemical Pharmacology. Sponsor: Dr. Vincent T. Oliverio, NCI-DCT, Bldg. 10, Rm. 6N119.

8/1—Dr. Thirayudh Glinsukon, Thailand, Carcinogen Metabolism and Toxicology Branch. Sponsor: Dr. Elizabeth Weisburger, NCI, Bldg. 37, Rm. 3B21.

8/1—Dr. Umeo Ito, Japan, Laboratory of Neuropathology and Neuroanatomical Sciences. Sponsor: Dr. Igor Klatzo, NINDS, Bldg. 36, Rm. 4B22.

8/1—Dr. Robert E. Oakey, United Kingdom, Pregnancy Research Branch. Sponsor: Dr. John D. Townsley, NICHD, Bldg. 10, Rm. 5B04.

8/3—Dr. Jye Chen, Taiwan, Laboratory of Technical Development. Sponsor: Dr. John L. Stephenson, NHLI, Bldg. 31, Rm. 9A19.

8/5—Dr. Yasuna Hamai, Japan, Laboratory of Vision Research. Sponsor: Dr. Jin H. Kinoshita, NEI, Bldg. 6, Rm. 222A.

8/5—Dr. Rachel Schneerson, Israel, Developmental Immunology Branch. Sponsor: Dr. John Robbins, NICHD, Bldg. 10, Rm. 13N240.

8/9—Dr. Eliahu Heldman, Israel, Laboratory of Biochemistry Genetics. Sponsor: Dr. Marshall Nirenberg, NHLI, Bldg. 36, Rm. 4C22.

Edw. McManus Named NEI Executive Officer

Edward McManus was recently appointed as executive officer of the National Eye Institute. He previously was financial management officer of the National Library of Medicine.

Mr. McManus

In his new position, Mr. McManus will serve as the principal advisor to the Director and other key NEI officials on all phases of administration and management.

He succeeds James G. Hill, who has been awarded a Mid-Career Fellowship at Princeton University's Woodrow Wilson School of Public and International Affairs.

A graduate of the University of Massachusetts at Amherst and a former officer in the U.S. Navy, Mr. McManus participated in the Department of Commerce's Management Training Program as a management analyst.

In 1966 he came to NIH as assistant to the administrative officer of the National Institute of Mental Health's intramural research program, and in 1968 became administrative officer of the Division of Research Resources.

While at DRR, Mr. McManus was selected for HEW's long-term training program at the Center for Public Policy and Administration, University of Wisconsin at Madison, where he earned a master's degree in public policy and administration.

He returned to DRR and served as assistant executive officer until his transfer to NLM in 1971.

R & W Sponsors a Wide Variety of Clubs

If you're interested in finally getting rid of that midriff bulge, discovering other radio hams, or tuning up with fellow music enthusiasts, NIH's Recreation & Welfare Association may have just what you're looking for.

Nearly 30 R & W-sponsored clubs will be in full swing this fall. Contact the club chairmen for further information:

ACTIVITY	*CHAIRMAN*	*BLDG/RM*	*PHONE*
ART CLUB	Walter Clark	Parklawn/1499	153-34535
ARCHERY CLUB	Ted Catchings	Bldg. 38/C-1	64673
BADMINTON	Dr. Boon Chock	Bldg. 3/222	64645
BASKETBALL	Leo Leitner	Bldg. 36/2A-03	64957
10-PIN BOWLING	Rick Wiener	WW/748	67861
DUCK PIN BOWLING	Donald B. Sylvain	Parklawn/946	153-31970
DUPLICATE BRIDGE	Richard Ray		881-1429
BRIDGE LESSONS	Sue Rhodes		530-4878
CAMERA	James Deleo	12A/2013	61111
TOUCH FOOTBALL	Norman Jones	Bldg. 13/2905	66277
GOLF—MEN'S	Joseph Corliss	WW/627	67353
GOLF—LFRA	Oscar Young	Bldg. 10/3D-12	63256
GOLF—WOMEN'S	Dr. Ruth Dunlap	Bldg. 29/308	64289
ICE HOCKEY	Pierre Henkart	Bldg. 10/4B-02	61554
ORCHESTRA	Dr. John Wolff	WW/233	67070
RADIO	William Hook	Bldg. 30/323	61237
RIDING CLUB	Robert Douglas	Bldg. 29A/2B-24	63085
SAILING CLUB	Rick Newell	Bldg. 36/2A-03	64957
NIH SINGERS	Richard Shrager	Bldg. 12A/2003	61135
SKI CLUB	Sybil J. Swann	Bldg. 10/1B-45	64141
SLIMNASTICS	Jane Toal	Bldg. 10/5B-44	62079
SOFTBALL	Leo Leitner	Bldg. 36/2A-03	64957
STAMP CLUB	Dr. Edward Offutt	WW/603A	67277
TABLE TENNIS	Dr. Ray Chen	Bldg. 10/5D-15	62708
TENNIS	Bob Sithens	Bldg. 31/8A-35	64927
TOASMASTERS	Dr. Padman Sarma	Bldg. 37/2D-24	654-3400
OVERSEAS TRAVEL	George Payne	Bldg. 1/238	64438
VOLLEYBALL	Leo Leitner	Bldg. 36/2A-03	64957

7 New Clinical Centers Participate in Studies On Coronary Disease

The National Heart and Lung Institute has awarded contracts for establishing seven new clinical centers to take part in the Multiple Risk Factor Intervention Trial for the prevention of coronary heart disease.

The contracts, awarded under the Institute's Clinical Applications and Prevention Program, increase the number of participating clinical centers to 15 plus a coordinating center.

Up to five additional clinical centers will be funded during this fiscal year. The centers will be selected on a competitive basis.

The aim of the Multiple Risk Factor Intervention Trial is to determine whether and to what extent the incidence of first heart attacks and of death from coronary heart disease can be reduced among a group of men of above-average risk through countermeasures against elevated blood lipids, high blood pressure, and cigarette smoking.

Risk Doubled

The presence of any one of these risk factors nearly doubles the individual's risk from coronary heart disease and such complications as acute heart attacks or sudden cardiac death.

Many people have two or more of these risk factors and may run from 3 to 10 times the CHD risk of those with none.

These factors can be modified, hopefully with some corresponding reduction in the threat that they pose to life or health.

To provide a definitive test for this hypothesis, the Multiple Risk Factor Intervention Trial will recruit approximately 12,000 male volunteers, aged 35-54, whose blood lipid levels, blood pressure levels, smoking habits, or combinations of these factors place them at a higher risk than the general population.

Plan January Recruiting

Recruiting participants for this program is scheduled to begin in January 1974. A total of 6 years will be needed to complete the clinical phase of the trial.

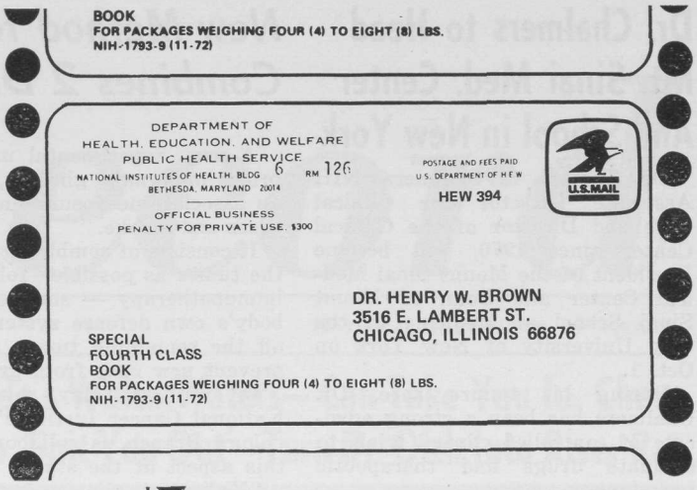
The recipients of the new contracts and their institutions are: Dr. Norman Lasser, New Jersey College of Medicine and Dentistry; Drs. John Wild, John Grover, and Merwyn Greenlick, Kaiser Foundation Research Institute, and Drs. Thomas Dawber and H. Emerson Thomas, Jr., Boston University School of Medicine.

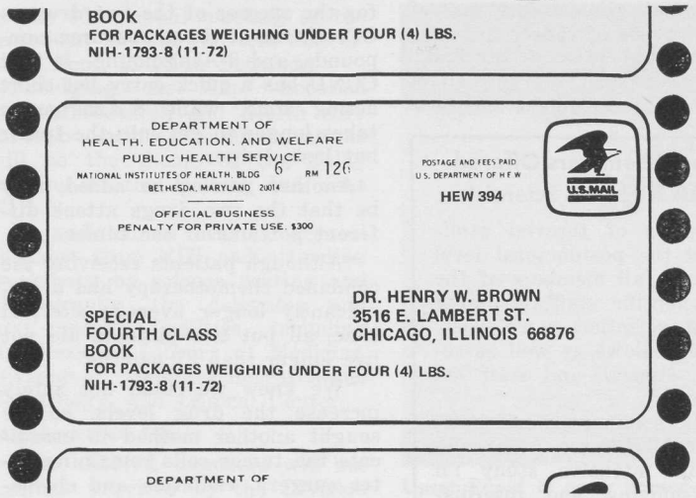
Also, Dr. Harold Schnaper, University of Alabama; Dr. Paul Kezdi, Cox Heart Institute; Dr. Lewis Kuller, U. of Pittsburgh, and Dr. William Holmes, Lakenau Hospital.

MAILING LABELS

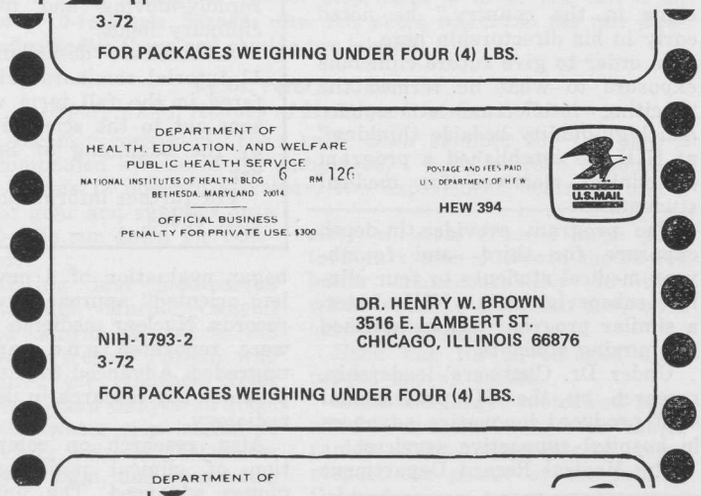
Revised mailing labels may now be purchased from the Self-Service stores. The new indicia labels come in two quantities—pads of 25 (gummed back) and self-adhesive pin-feed rolls of 1,000. The continuous feed rolls allow use of DCRT computers to address the labels through the Wylbur system. The special fourth class label is designed to save B/I/D's postage when mailing out large quantities of printed matter.

SPECIAL FOURTH CLASS BOOK labels for items weighing 4-8 pounds has red lettering on a white background. Postage is 90 cents compared to using $1.50 first class indicia. Stock numbers are 7-2312 (for pads of 25) and 7-2311 (for rolls of 1,000).

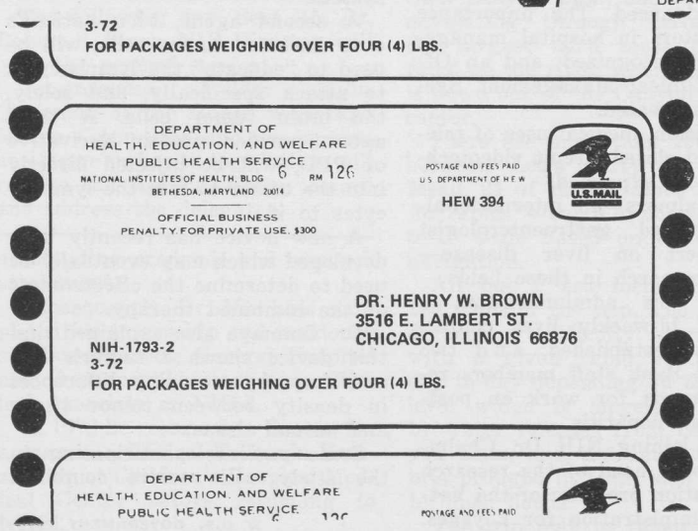




THE SPECIAL FOURTH CLASS BOOK label is a new item for any printed material which contains 24 pages or more and bound, weighing less than 4 pounds. The postage rate is 55 cents—a savings of 45 cents over first class labels. Labels are white with green printing. Stock numbers are 7-2307 (for 25) and 7-2308 (for 1,000).



FOR FIRST CLASS PACKAGES under 4 pounds, postage is $1. The white label with black lettering may be used for mailing any packages under the specified weight. Stock numbers are 7-2305 (for 25) and 7-2306 (for 1,000).



FOR FIRST CLASS PACKAGES weighing over 4 pounds, labels are brown with black lettering and carry $1.50 postage. Stock numbers are 7-2299 (for 25) and 7-2300 (for 1,000).

In view of the changes mentioned above, any B/I/D that mails large quantities of printed matter may exchange the first class labels used in the past for fourth class book labels. Credit will be given for any difference in postage. Indicia labels that have been mistyped, overstocked, etc.—in quantities of $25—may also be turned in to the Mail Room, Bldg. 31, Room B1E-02, for credit.

Dr. Chalmers to Head Mt. Sinai Med. Center And School in New York

Dr. Thomas C. Chalmers, NIH Associate Director for Clinical Care and Director of the Clinical Center since 1970, will become President of the Mount Sinai Medical Center and Dean of Mount Sinai School of Medicine of the City University of New York on Oct. 1.

During his tenure here, Dr. Chalmers has been a strong advocate of controlled clinical trials to evaluate drugs and therapeutic techniques.

Formed New Guidelines

He helped form new guidelines for studies involving patients at NIH and lectured extensively urging use of clinical trials at other institutions.

Under his guidance, intramural clinical research at NIH expanded. A new intensive care room for cancer and other surgery patients was completed and construction begun on an expanded outpatient facility and a 3-story addition for research in reproductive and perinatal biology.

Also, plans were initiated for a new ambulatory care facility.

"The NIH Clinical Center has a staff of the most capable physicians in the country," he noted early in his directorship here.

In order to give future clinicians exposure to what he termed the "exciting intellectual atmosphere and high-quality bedside thinking" at NIH, he established a program of clinical electives for medical students.

The program provides in-depth exposure for third- and fourth-year medical students to four clinical subspecialties at NIH. Later, a similar program was established for nursing students.

Under Dr. Chalmers' leadership, research by the CC professional staff produced innovative advances in hospital supportive services.

The Medical Record Department began evaluation of a new "problem oriented" approach to medical records. Nuclear medicine facilities were renovated and capabilities upgraded. Advanced facilities were provided for research in diagnostic radiology.

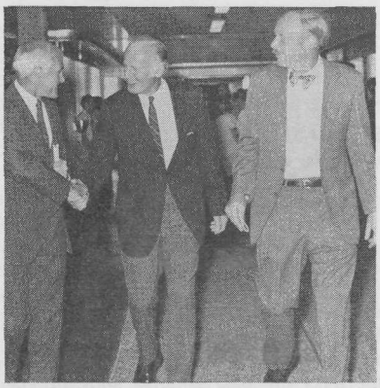
Also, research on computerization of clinical pathology techniques advanced. The importance of computers in hospital management was recognized, and an Office of Clinical Management Systems was created.

In addition, medical uses of television and closed circuit videotechniques were expanded.

Dr. Chalmers—an internationally recognized gastroenterologist and expert on liver disease—spurred research in these fields.

During his administration, a series of bi-weekly liver conferences was established, and two CC Blood Bank staff members received awards for work on post-transfusion hepatitis.

Before joining NIH Dr. Chalmers had been head of the research and education program of the Veterans Administration for 2 years.



Dr. Chalmers (r) introduces Fogarty Scholar Dr. Charles Davidson (c) to HEW Assistant Secretary for Health Dr. Charles C. Edwards during the CC's 20th anniversary program July 6.

New Method for Treating Brain Tumors Combines 2 Distinct Types of Therapy

By Carolyn Holstein

A new experimental method for treating tumors originating in the brain, malignant gliomas, is being initiated by Dr. Ayub K. Ommaya, an associate neurosurgeon in the National Institute of Neurological Diseases and Stroke.

It consists of combining chemotherapy—using drugs to kill as much of the tumor as possible—followed by immunotherapy — summoning the body's own defense system to kill off the remaining tumor cells and prevent new ones from growing.

Dr. William Terry, chief of the National Cancer Institute's Immunology Branch, is collaborating in this aspect of the study.

"Malignant gliomas are one of the worst types of cancer in terms of quality and rate of survival," Dr. Ommaya said. "It can affect speech, vision, movement and feeling before causing death."

Dr. Ommaya and his associates have already found that two specific drugs when used together more than double the life expectancy of the average person with a brain tumor.

He indicated that one reason for the success of the two drugs—CCNU, one of the nitrosourea compounds, and 8-Azaguanine—is that CCNU has a quick entry but short acting time, while 8-Azaguanine takes longer to get into the tumor but lasts longer.

Another reason, he added, may be that the two drugs attack different portions of the tumor.

"Although patients receiving the combined chemotherapy had a significantly longer average survival time, all but two patients did not live longer than 27 months.

"We knew we could not safely increase the drug levels, so we sought another method to erradicate the tumor cells remaining after surgery, radiation and chemotherapy," he said.

Immunotherapy is being used experimentally to treat other types of cancer, but so far has not been successfully used in preventing the growth of brain tumor cells.

Its lack of success hinges on a biological "net"—the blood brain barrier—which prevents information about the presence of brain tumor cells from reaching the body's lymphocytes, its primary defense tools.

To circumvent this problem, Drs. Ommaya and Terry have devised a three-pronged immunotherapeutic regimen. One agent (commonly referred to as BCG) will be used to arouse the body's lymphocyte system.

A second agent, the patient's own deadened tumor cells, will be used to "educate" the lymphocytes to attack specifically, and solely, the brain tumor cells. A third agent, purified protein derivative or PPD, will be injected directly into the tumor to lure the lymphocytes to it.

A new device has recently been developed which may eventually be used to determine the effectiveness of the combined therapy.

Dr. Ommaya also explained that this device shows a tumor's size and shape by recording differences in density between tumor tissue and normal tissue.

Some patients participating in the study will receive combined chemotherapy. Others will receive immunotherapy. A third group will receive both types of therapy.

"If at any time," Dr. Ommaya stressed, "we learn that any group is doing far better than the other two groups, we will immediately alter the program so all patients will receive the most effective treatment."

Tutorial Seminars Offered To All NIH Staff Scientists

A series of tutorial seminars at the postdoctoral level is open to all members of the NIH scientific staff, including visiting scientists and postdoctoral fellows as well as research, clinical, and staff associates.

These seminars were initiated at NIH some years ago to allow intensive study in rapidly-moving and interdisciplinary fields.

A brochure describing the 11 tutorial seminars being offered in the fall term will be sent out to the scientific staff by the beginning of September.

For further information, call Ext. 65408.

Dr. Suzanne S. Hurd Named Pathophysiology Branch Chief, NHLI

Dr. Hurd's research will encompass five major program areas including the metabolism, defense mechanisms, and other functions of the lung.

Dr. Suzanne S. Hurd has been appointed chief of the Pathophysiology Branch, National Heart and Lung Institute. That Branch is in the Division of Lung Diseases.

Dr. Hurd will be responsible for the planning and direction of NHLI-supported research on normal lung function and on the mechanisms whereby various agents trigger alterations that lead to lung disease.

In 1961, Dr. Hurd received her B.S. degree in chemistry from Bates College. Two years later, she earned her M.S. in biochemistry from the University of Washington, Seattle.

After 2 years as a research associate in the department of neurology at Cornell, Dr. Hurd returned to the University of Washington where she received her Ph.D. in biochemistry in 1967.

Joined NIH in 1969

From that year to 1969, she was a National Institute of Arthritis, Metabolism, and Digestive Diseases postdoctoral fellow in biochemistry at the University of California, Berkeley.

Dr. Hurd came to NIH in 1969. She has served as a grants associate in the Division of Research Grants and as a health science administrator with the NICHD Center for Population Research.

She joined the NHLI staff in 1971.

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