the NIH Record

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

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NATIONAL INSTITUTES OF HEALTH

Dr. Eugene A. Confrey Named to New Position In Manpower Bureau

Dr. Eugene A. Confrey has been appointed associate director for Policy Studies, Bureau of Health Manpower Education.

Since 1969 he has been associate director for Program Planning and Evaluation; he will continue to supervise that office until a successor is appointed.

Dr. Confrey will be concerned with policy analysis, including the impact of socioeconomic, scientific, technological and other developments affecting the supply, distribution, and utilization of the Nation's manpower resources.

In 1966, when he was Director, Division of Research Grants, he received the DHEW Superior Service Award.

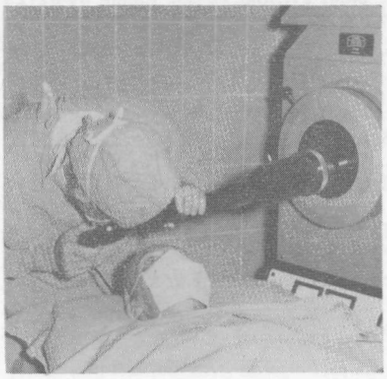
Writes on Variety of Subjects

Dr. Confrey assisted in planning the establishment of the Division of Manpower Intelligence, BHME, when it was formed in 1970.

Dr. Confrey is the editor of a textbook, *Administration of Community Health Services*, and has published articles on medical ethics, science administration, gerontology, and statistics. He has also lectured extensively at American universities.

Dr. Confrey was in on the planning stages of the Division of Manpower Intelligence. When he was with DRG, he received the DHEW Superior Service Award. He is the author of a number of articles, and has lectured at U.S. universities.

Patients Enroll in Study to Evaluate New Methods of Treating Diabetic Retinopathy



Participants in the Cooperative Diabetic Retinopathy Study are being treated with either the argon laser, xenon arc, or a combination of the two. A model (l) receives treatment with the argon laser which generates a fine but intense blue-green beam of light. Another "patient" (r) is treated with white light from the xenon arc photocoagulator.

Patients are now being enrolled in a nationwide cooperative research study to evaluate new methods of treating diabetic retinopathy—a progressive disorder of the blood vessels of the retina stemming from diabetes, and a leading cause of blindness in this country.

Supported by grants from the National Eye Institute, the 10-year study will eventually involve over 1,800 patients at 16 clinical centers across the country.

Eight centers are now participating. An additional seven will begin operation this fall.

The mechanism underlying diabetic retinopathy is unknown, but the condition seems to involve progressive impairment of the retinal circulation.

The chief immediate causes of blindness from this disease are bleeding into the vitreous (the clear jelly-like fluid which fills the posterior three-fourths of the eye), scar tissue formation, and detachment of the retina.

All of these conditions are usually preceded by growth of newly formed blood vessels along the internal surface of the retina. It is from these vessels that hemorrhages into the vitreous occur and it is at the sites of new vessels that scar tissue forms.

Subsequent shrinkage of the scar tissue and of the vitreous, to which the new vessels adhere, is the immediate cause of retinal detachment.

The primary objective of the co-

(See PATIENTS, Page 6)

2 Title Changes Announced In OD Staff Posts Held By Drs. Jacobs, Berliner

Two principal staff positions in the Office of the Director, NIH, have been retitled.

Dr. Leon Jacobs, Assistant Director for Collaborative Research, has been named Associate Director for Collaborative Research.

Dr. Jacobs maintains surveillance of the contracts program by establishing guidelines for contracts regarding the way they are initiated and reviewed.

He said that his office "makes sure that the overall excellence of NIH is extended into the contract program."

The collaborative effort has been upgraded due to the increased role that contracts now play in the overall NIH scientific operation.

In 1969, NIH awarded 43 contracts for $1.9 million. The FY 1973 estimate exceeds $300 million.

In the second change, the post of Associate Director for Direct Research was redesignated Associate Director for Intramural Research.

Dr. Robert W. Berliner, who is NIH Deputy Director for Science, will continue to exercise the duties of this office on an "acting" basis.

Conference on Industrial Chemicals to Evaluate Human Health Factors

A conference on how phthalate esters—substances used in plastics to make them flexible—can affect human health will be sponsored by the National Institute of Environmental Health Sciences, Research Triangle Park, N.C. The meeting will be held in Pinehurst on Sept. 6-7.

Conference participants will discuss the history, chemistry, environmental occurrence, human levels, pharmacology and toxicology, and biochemical actions of phthalate esters.

Other Government agencies, including the Environmental Protection Agency and the Food and Drug Administration, are cooperating with NIEHS in research to determine the possible hazard to man from exposure to phthalate esters.

Phthalates belong to the class of aromatic dicarboxylic esters which

(See CHEMICALS, Page 5)

American Health Schools Awarded Largest Block Of Funds in U.S. History

The Bureau of Health Manpower Education announced that the largest block of Federal funds in the Nation's history has been awarded to American health schools for the education of health professionals.

Grants and contracts of nearly $375 million have been awarded to the Nation's schools of medicine, osteopathy, dentistry optometry, pharmacy, podiatry, veterinary medicine, and nursing.

Funds have been allocated for programs that include new schools of medicine, osteopathy and dentistry, and schools in financial distress.

Grants also have been given to encourage the training of family medicine practitioners, and for training more effective teachers in health professions.

Special project grants and contracts were awarded to improve nurse training and for advanced training of professional nurses.

the NIH Record

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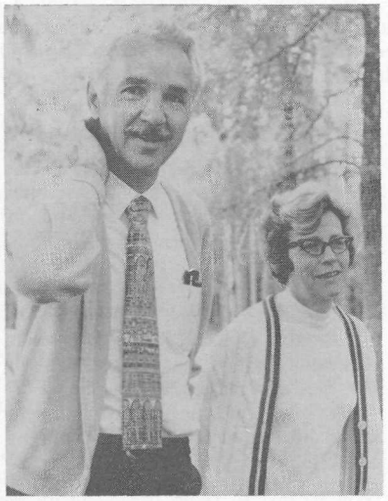
Dorothy Lee and Winston Mani Retire From Gov't; North Carolinians Chalk Up 63 Yrs. Between Them



There's no point in holding retirement parties indoors when they can take place amidst the sylvan groves of Research Triangle Park. Left: Mrs. Lee and her father, Lloyd Yingling, collect the proper utensils for a typical American summer day picnic given to her by colleagues. Right: Mr. and Mrs. Mani enjoy the same setting at his retirement picnic party attended by friends and co-workers.

Two members with a combined total of 63 years in the Federal Government, recently retired from the National Institute of Environmental Health Sciences, Research Triangle Park, N.C.

They are Dorothy Lee, NIEHS personnel management specialist since 1966, and Winston Mani, assistant executive officer.

Mrs. Lee retired on June 30 after serving 33 years in Government. Mr. Mani retired July 7, after 30 years of Federal service.

Prior to joining NIEHS, Mrs. Lee worked in private industry and was administrative officer with the Corps of Engineers, Department of Defense.

During her Federal service she was presented with a DHEW Meritorious Service Award.

Mr. Mani, who joined NIEHS in 1967, had served as personnel officer for the National Institute of Neurological Diseases and Blindness and the National Institute of Child Health and Human Development.

Before coming to NIH, Mr. Mani had been personnel officer for PHS in Anchorage, Alaska, and Billings, Mont. He has also been with the Veterans Administration in Fargo, N.D., and represented Civil Service in Sioux Falls, S.D.

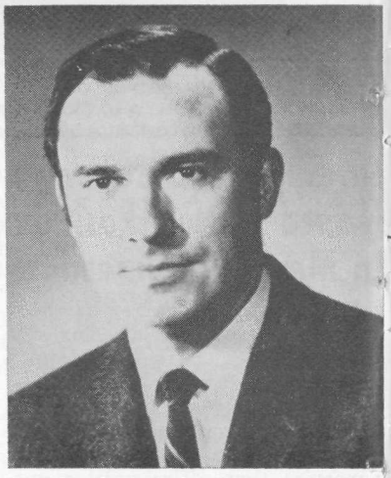
This past June, Mr. Mani received a Special Service Citation from HEW Secretary Richardson for his contributions as a member of a DHEW Personnel Task Force.

Dentist From DDH Pulls a Switch, Takes Top Honors in Public Affairs Grad. School

Dr. Charles O. Cranford, a dentist in the Division of Dental Health, BHME, has taken top scholastic honors in the first class to graduate from the Lyndon B. Johnson School of Public Affairs at the University of Texas in Austin. He received an M.P.A. degree.

Dr. Cranford, who attended the LBJ School under DDH's Career Development Program, undertook the 2-year course because, as he explains, "I wanted to break away from the traditional postgraduate education most health professionals take.

"And I knew we were entering an era in which important health care policy decisions would be made. I wanted to project myself into that."



Dr. Cranford feels that his training will enable him to enter ". . . an era in which important health care policy decisions would be made . . ."

Speaks at Exercises

Dr. Cranford spoke at the exercises of the 11-member graduating class. He said that few professionals are able to overcome the narrow perspective that results from having been trained in a single discipline, and that broadening perspective is, in his view, what the LBJ School is about.

His own experience in the School of Public Affairs included a summer internship with Senator Edward Kennedy's Senate Health Subcommittee.

Dr. Cranford received his D.D.S. degree from the University of Tennessee, and then worked with the Division of Indian Health in Montana, South Dakota, and Arizona.

During 1962-63, he served as a clinical dentist with the U.S. Coast Guard in Alameda, Calif. In 1964 he became a clinical supervisor at the Manpower Development Center, DDH, in Louisville.

In July 1968, Dr. Cranford worked at Division Headquarters, where he coordinated the Dental Auxiliary Utilization programs and later served as acting chief, Manpower Development Branch.

NIH Television, Radio Program Schedule

Radio

DISCUSSION: NIH
WGMS, AM—570—FM Stereo 103.5—Friday, about 9:15 p.m.

August 4
Dr. George Kitzes, NIAMDD
Subject: Digestive Diseases (R)

August 11
Dr. Ralph Frew, NIDR
Subject: National Caries Program (R)

Interview takes place during intermission of *Music Room.*

NIH Library Will Orient Employees on Facilities

The NIH Library will give a series of lectures to orient secretaries, clerical assistants, laboratory technicians, and staff assistants on the use of the Library.

However, NIH employees in other fields may also attend the meetings which will take about one hour.

Topics to be covered include the use of the card catalog, how to locate material and verify references, and how to utilize the photocopy and bibliographic services, including computerized services such as MEDLARS and MEDLINE.

The first meeting will be held on Tuesday, Aug. 8, at 1 p.m. in the Library, Bldg. 10, Room 1L19.

Employees who plan to attend may register on or before Aug. 4 with Constantine J. Gillespie, chief, Reference and Bibliographic Services Section, Ext. 61156.

Dates for the other meetings will be announced later. Institutes or Divisions with specific requirements may arrange for special orientation meetings by calling Mr. Gillespie.

Schrogie Will Address Meeting

Dr. John Schrogie, NICHD, will address a meeting of the first International Medical and Scientific Congress, International Planned Parenthood Federation to be held on Aug. 14-18 in Sydney, Australia.

Amer. Indian Exposition Selects Dr. Blue Spruce As 'Outstanding Indian'

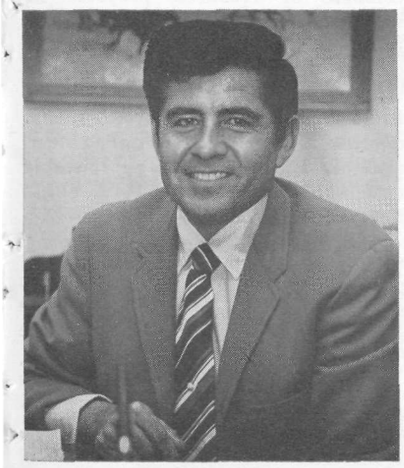
Dr. George Blue Spruce, Jr., who heads a Federal effort to increase the number of minority physicians, dentists and other health professionals, will be honored as the Outstanding Indian of the Year on Aug. 14 at the opening of the American Indian Exposition at Anadarko, Okla.

Dr. Blue Spruce, director of the Office of Health Manpower Opportunity, BHME, was selected for his work in helping minority students enter health careers.

A citation inscribed on buckskin will be presented to him by Bob Goombi, president of the American Indian Exposition.

The weeklong exposition, featuring tribal games, dances, and arts and crafts, has been staged annually in Anadarko, which claims the title, "Indian Capital of the Nation."

Previously, he was a special assistant to the BHME Director in charge of an effort to increase the proportion of American Indians in the health professions.

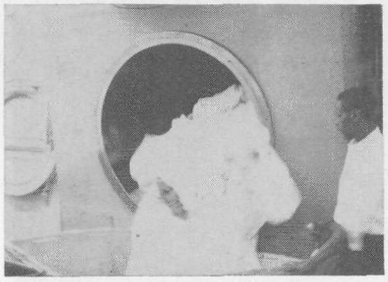


Dr. Blue Spruce has directed BHME's minorities program since it was launched last December.

The Nation's only full-blooded Indian dentist, Dr. Blue Spruce, a Pueblo, received a D.D.S. degree at Creighton University, Omaha, and an M.P.H. degree at the California School of Public Health.

He entered the U.S. Public Health Service in 1958. After serving in various parts of the country, he joined the Division of Dental Health.

LADC Comes Clean With the Brightest, Whitest Wash, What's More, It's Tested



Under the watchful eye of Milton Channel, 400 pounds of dry clothes come flying out of one of the tumble dryers.

It won't come out looking that way—Eleanor Johnson gets a wrinkled lab coat ready for automatic pressing in a machine called "Air Lay."

The Clinical Center's Laundry and Dry Cleaning Section does more than clean clothes—it sews, alters, mends, and makes purchases.

Section chief Alexander Davis explained that "we service almost every employee at NIH with something—a smock, a lab coat, lab towels—something."

Nurses' uniforms, physicians' and technicians' lab coats, operations staff uniforms, and patients' clean daily linen are just some of the items that LADC keeps clean and in working order.

The LADC facilities are in Building 13. Bags of laundry are dropped in 400 pound quantities through chutes on the second floor into each of five washing machines a floor below.

Starch, bleach, LADC's own formula for detergent, sour (a liquid which neutralizes the detergent), and wash oil (fabric softener) are all pumped from the second floor to the machines.

During the washing process, temperatures in the machines reach at least 175 degrees Fahrenheit—the point at which bacteria are killed—and, said Mr. Davis, "You can rest assured that the clothes are clean and sterile."

Following a 45-minute wash cycle, the clothes are transferred to huge dryers. A machine called Vibra-Steam automatically presses nurses' uniforms and other clothing made of synthetic fibers.

Sheets, pillowcases and other flat items are ironed by rollers in a flat press. The folding of towels and bath mats is simplified by an automatic towel folding machine.

Clean laundry is loaded into carts for pickup by the Property Management and Transportation Section and delivery by laundry personnel.

To make sure of the efficacy of LADC's methods, tests are made at least twice a year by an independent firm. For the test, a piece of special cloth is treated like regular wash and sent through the entire cleaning process 20 times.

It is then sent to a firm in Chicago to be analyzed. This determines how clean LADC is getting ordinary wash and also how much wear the cleaning process is putting on the clothes. Walter Jones, plant superintendent, said, "The report is always good."

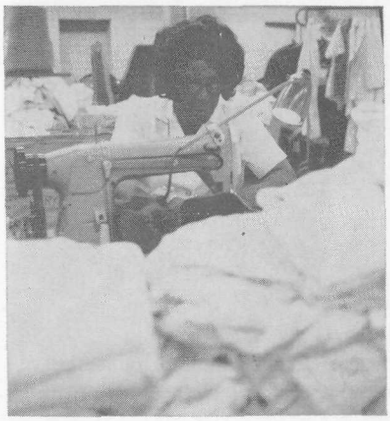
The Dry Cleaning Section takes care of cleaning draperies, guards' uniforms, and patients' personal clothes.

Sews a Fine Seam

LADC's Linen Store has charge of purchasing professional clothing, draperies, and upholstery, and its sewing unit alters and mends uniforms and makes hospital clothing to fit outsized patients.

The unit once sewed together four bathrobes in order to make one large enough to fit an overweight patient.

Because much of the work involves long hours of standing and working in hot areas, LADC's 48 employees have a number of breaks. Also, an employee fund keeps tea, juice, hot coffee, ice, and bowls of candy available to everyone.



Coretta Ford, surrounded by piles of clean clothes awaiting her expert attention, sews a zipper into a jacket.

International Researchers Report on Drug Activity At Conference in West

Ten NIH scientists reported on the development, mechanism of action, and administration of cancer drugs at the Fifth International Congress on Pharmacology, which was held on July 23-28 in San Francisco.

The meeting was sponsored by the Federation of American Societies for Experimental Biology and supported in part by a contract from the National Cancer Institute.

Conference discussions included the chemistry and biological activity of various classes of drugs used to treat human disease, and problems involved in drug abuse.

The NIH scientists, along with other international investigators, spoke at the session on Fundamental Approaches to Cancer Chemotherapy.

Dr. C. Gordon Zubrod, scientific director for Chemotherapy, NCI, and Dr. Gerhard Zbinden, Director of the Institute for Pathologic Anatomy, Univeritat Kantonsspital, Zurich, Switzerland, served as chairmen and also participated in this session.

Dr. Vincent T. Oliverio, associate scientific director for Experimental Therapeutics, NCI, and Dr. Jerome B. Block, associate director of the Clinical Center, assisted in organizing the session, and took part in the discussions.

Other speakers from the NCI Chemotherapy Program were Drs. Daniel S. Zaharko and Richard H. Adamson, Laboratory of Chemical Pharmacology; Michael D. Walker, acting chief, Baltimore Cancer Research Center; Robert C. Gallo, chief, Laboratory of Tumor Cell Biology, and Philip S. Schein and Vincent T. DeVita, acting chief, Medicine Branch.

Dr. Robert L. Dixon, chief, Pathologic Physiology Branch, National Institute of Environmental Health Sciences, also spoke.

Helen R. Gichner Dies; DRG Grants Assistant

Helen Rombro Gichner, 51, grants assistant in the Microbial Chemistry Study Section, RGRB, died of an aneurysm, Sunday, July 9, at Suburban Hospital.

She had been with DRG since 1968.

From 1962 to 1966, she served with NIMH before she joined the Department of Housing and Urban Development.

Mrs. Gichner was a graduate of George Washington University.

She is survived by her husband, William, a daughter, Deborah Jo, and a son, Michael Carl.

New Hours Set for Beauty and Barber Shops in Clinical Center

The beauty and barber shops in the Clinical Center, B-1 level, have announced new opening and closing hours. The beauty shop is open on weekdays — except Tuesday — and Saturday from 7 a.m. to 5 p.m. On Tuesday it is open from 7 a.m. to 7 p.m.

The barber shop is open 7 a.m. to 5 p.m., Monday through Saturday.

A monthly contest is being sponsored by both shops starting Aug. 7. For further information contact the shops.

Some Anesthetics Lower Body's Ability to Fight Infection, Study Shows

The effects of anesthetics on cultured white blood cells has been under study at the Clinical Center. According to a CC investigator collaborating with researchers from the National Cancer Institute's Surgery Branch, certain general anesthetics may lower the body's ability to fight infection.

The study was conducted by Dr. Bruce F. Cullen, CC Anesthesiology Department, and Drs. Paul Chretien and Frederick Sample, NCI.

Results Explained

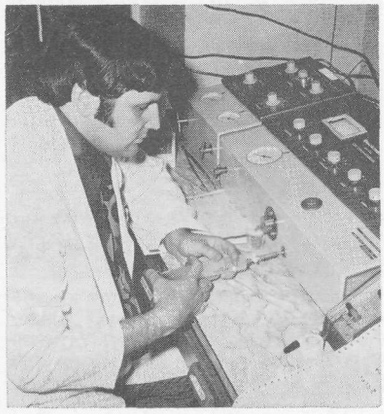
Results indicate that the anesthetic, halothane, commonly used during surgery, inhibits lymphocyte transformation. This transformation is an important step in immunity and occurs when these cells react to foreign substances; for instance, bacteria, in the body.

The investigators cultured human lymphocytes in test tubes with PHA (phytohemagglutinin) a substance that causes lymphocyte transformation and cell division.

Then the cells were incubated in air containing halothane in different concentrations for varying lengths of time.

At the end of the incubation period, the investigators measured cell growth and division by adding a radioactive molecule to the cultures to determine the amount of synthesis of the genetic material, DNA.

Dr. Cullen and his colleagues found that after 57 hours of exposure to air containing 0.5 percent halothane, no inhibition of DNA production resulted—as much labelled DNA was observed in tubes of lymphocytes incubated in air without halothane which were used as normal controls.



Dr. Cullen injects a sample of air containing halothane into a gas chromatograph to determine exact concentration of the anesthetic. The results are automatically printed out.

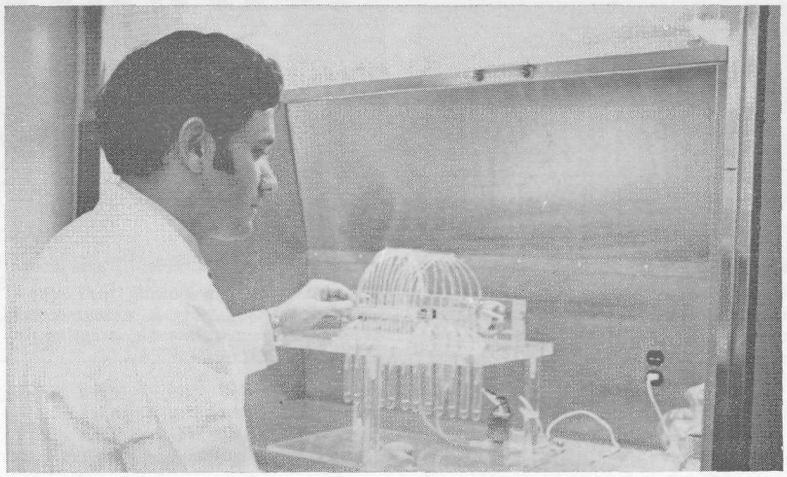
One percent halothane caused 16 percent inhibition and 2 percent halothane caused 43 percent inhibition. When lymphocytes were incubated in 2 percent halothane for from 24 to 120 hours, inhibition was evident within 48 hours and increased with time.

If this same effect takes place in patients under anesthesia, it could contribute to postoperative infections and metastatic spread of cancer during operations. It could also affect organ transplantation immunology, Dr. Cullen said.

He also reported that studies still in progress show that some local anesthetics do not produce side effects on the immune system.

Dr. Cullen plans to continue research on other phases of this study at the University of Washington in Seattle, where he was recently named assistant professor, Department of Anesthesiology.

10-Week-Old Receives Thymus Transplant With Aid of Lucite Diffusion Chamber



Dr. Steele needed special equipment that could separate small quantities of white blood cells from body fluids. He designed this one-of-a-kind micro-assay harvester to collect cell suspensions. The tailor-made apparatus was used when he and associates recently transplanted a thymus into an infant born without the small gland-like organ. Six hours after implantation, the 10-week-old infant demonstrated immune reaction.

A thymus encased in a lucite diffusion chamber has been transplanted —possibly for the first time—into an infant born without the small gland-like organ.

Before surgery, the 10-week-old infant had shown impaired immune function, but immune reactions were noted as early as 6 hours after implantation of the thymus into the abdominal wall.

The procedure was performed by Dr. Russell W. Steele, a research fellow in pediatrics at Georgetown University School of Medicine.

He is working under funds from a training grant administered by the National Institute of Child Health and Human Development.

The lucite diffusion chamber acts like a porous membrane and protects the infant from attack by the donor thymus cells. It enabled the scientists to reconstitute immune competence while running little danger to the host.

This unique thymic transplant demonstrated the feasibility of transplanting a more desirable mature thymus, previously thought to be too devastating to the recipient.

In the Georgetown transplant, however, cells which might attack the host were trapped inside the diffusion chamber.

Even so, it allowed the entry of necessary nutrients, keeping thymic cells alive, and permitted hormonal-like factors produced by the thymus to diffuse out into the circulation to "turn on" the immune system.

"The significance of reconstituting immunity is far reaching, and can be used in a variety of clinical problems, such as infections and problems of malignancy," Dr. Steele said.

The GU case is probably the first to show genetic transmission of thymus defects.

Two members of the same family —the infant and her half-brother who died 5 years previously—had congenital absence of thymus and parathyroid glands (DiGeorge's Syndrome).

Their mother also showed a partially impaired immune system. This points up the importance of examining all family members for early detection and support if there is known thymic deficiency in any one of them.

The infant who received the transplant died of aspiration pneumonia 8 days after the implant. Cultures of multiple tissues obtained at autopsy failed to reveal the presence of infection.

Death was considered unrelated to the implant procedure and most probably was due to a mechanical respiratory problem in a previously-debilitated child.

One good thing about stupidity is that you can be pretty sure its genuine.—*Changing Times.*

Regional Cancer Center In Alabama to Aid MD's; Plans Research Training

The National Cancer Institute announced the award of a grant of approximately $1.4 million this year to the University of Alabama Medical School to support cancer research and training activities at a Regional Cancer Center being developed in Birmingham.

Over a 3-year period NCI, now supporting the Center in part, is expected to award a total of $3 million.

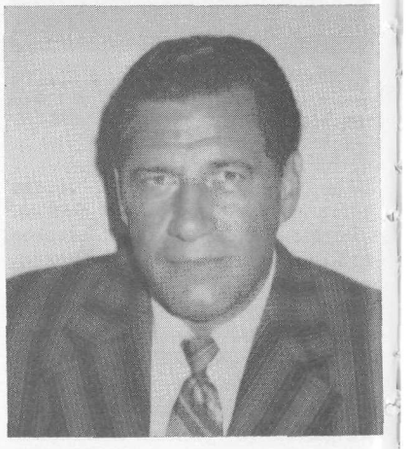
Potential Evaluated

Prior to this award, under a 2-year NCI planning grant, the potential of a clinical cancer research center at the university was evaluated.

In addition to carrying out research and teaching within the medical school complex, scientists at the new cancer center will serve as consultants to physicians in the region on questions concerning the treatment of patients, both by telephone and during visits to cancer clinics throughout the state.

The program for the new center consists of research projects in more than a dozen scientific disciplines—for example, gynecologic cancer studies, research into the viruses associated with childhood tumors, immunology, virology, endocrinology, environmental cancer studies, molecular biology, pathology, radiation therapy, and engineering biophysics.

Dr. John R. Durant, professor of Medicine and Director of the Cancer Research and Training Program of the Medical School, is the principal investigator for the new center grant.



Robert R. Kane, equipment specialist in the Procurement Branch, OAS, retired in June after 30 years of Government service. He joined NIH in 1962 after 20 years with the Department of the Navy. He won a number of awards including an Outstanding Efficiency Rating while with the Navy and a Sustained High Quality Performance Award at NIH. A party was held in his honor prior to his retirement.

CHEMICALS

(Continued from Page 1)

are among the most important of industrial chemicals.

Phthalates are high-boiling liquids which are incorporated into synthetic resins or rubbers and widely used in such materials as food wraps, drinking containers, and blood bags.

Because of their inert nature, these chemicals have been considered to be of little biologic hazard.

It was, therefore, surprising to many toxicologists that plasticizers, such as di(2-ethylhexylphthalate) [DEPH], when in contact with

At the conference, Dr. David P. Rall, NIEHS Director, will meet with scientists from other Federal agencies to discuss coordinating research on chemical substances.

aqueous solutions of proteins, could leach out of the plastic and migrate to human tissues where they could be stored and produce toxic reactions.

Because of this discovery, concern has increased regarding the consequences in man of subacute and chronic ingestion, absorption, and/or inhalation of low levels of a variety of phthalate esters.

There have been an increasing number of reports citing the appearance of phthalate esters in the environment (including the food chain as well as in human tissues).

The U.S. Bureau of Sport, Fish, and Wildlife has announced that phthalate esters have been found in soil, water, sediments, and fish and other aquatic organisms in industrial and heavily populated areas in the United States.

They have been identified in crude oil and in fish meal and cotton seed meal.

Approximately a billion pounds of phthalates are produced annually. Phthalate ester plasticizers are extensively utilized in polyvinyl chloride for food packaging, refrigerator gasketing, luggage, handbags, coated cloth, vinyl floor coverings, waterproof boots and shoes, electrical insulation, and industrial hose and tank liners.

While phthalate esters have a very high non-effect level following oral administration in several animal species, nothing is currently known in regard to the effects of their continued inhalation at low levels, such as from new car interiors and plastic furniture.

The biological significance of phthalate ester residues alone, or in combination with environmental toxicants such as the PCBs (polychlorinated byphenyls) and organochlorine insecticides, also is not known. At the present time, there is not enough evidence to classify phthalate esters as potential hazards to man.

The proceedings from the NIEHS conference will be published in the third experimental issue of the Institute journal, *ENVIRONMENTAL HEALTH PERSPECTIVES.*

Combination of Sealant, Fluoride Gel Utilized In Tooth Decay Study

Dentists and trained auxiliary workers are trying to improve tooth decay prevention in children by combining two promising methods.

In a cooperative study, they will paint a sealant onto the grinding surfaces of molars and will have the same children apply a fluoride gel to their teeth.

The study will be conducted by the National Institute of Dental Research and the Indian Health Service, Health Services and Mental Health Administration.

It is the first time that the sealant and fluoride gel have been tested together. Both of these preventive measures can be applied by trained dental auxiliary workers.

Therefore, if combined treatments prove more effective and economical than one alone, these procedures may permit dentists to diagnose and treat more people effectively.

The study, directed by Dr. L. Ariel Thomson, NIDR, and Drs. John Butts and Donald Boggs, IHS, involves 800 fifth and sixth graders from Ft. Defiance and Chinle, Ariz.

As a first step, all decayed teeth will be restored. Then, in 400 children, a sealant will be painted in decay-free pits and fissures on the chewing surfaces of molars and bicuspids.

The same children will then use a fluoride gel for 10 minutes every day for 10 consecutive school days. At the yearly check-ups, the sealant will be re-applied if it has worn off and will be applied to newly-erupted teeth.

The remaining 400 children will be compared for tooth decay rates, the number of teeth restored, and the cost of treatment.

In addition to this study, the NIDR's National Caries Program is cooperating with other dental clinics to design similar studies using several preventives.

Kidney-Uremia Program Conference Proceedings Published by NIAMDD

The National Institute of Arthritis, Metabolism, and Digestive Diseases has published the Proceedings of the fifth annual meeting of the Institute's Artificial Kidney—Chronic-Uremia Program Contractors' Conference.

The conference, which took place last January, brought together about 200 contractors, consultants to the Program, and Institute staff to discuss over 70 research and development projects receiving support from NIAMDD.

The 295-page Proceedings discusses such conference topics as the evaluation of experimental high-flux artificial kidneys employing membranes with permeability suitable for removal of larger molecular weight solutes.

Conventional kidney machines filter out blood wastes up to a certain molecular weight only.

Theoretically, removal of wastes of higher molecular weight might be desirable.

If important toxic compounds in this molecular weight range are present in chronic kidney disease patients, their removal by improved filtering membranes would indicate what role, if any, such substances play in end stage kidney disease.

And this would also improve further the clinical status of patients receiving treatments with the artificial kidney (hemodialysis).

A relatively recent innovation of the Program, the simple and compact Dow hollow-fiber kidney, is now in mass production.

Studies of this kidney reported in the Proceedings focus on assessing the feasibility of training patients to use the Dow hollow-fiber kidney in the home and how safely it can be re-used several times in an effort to bring down the cost of dialysis.

The Proceedings of the conference are now being distributed to workers in relevant fields.

Copies are available to investigators at NIH and elsewhere through the Artificial Kidney — Chronic-Uremia Program, NIAMDD.

Dr. Rasmussen to Evaluate NIAID Extramural Program In Viral Disease Research

Dr. A. Frederick Rasmussen, Jr., Associate Dean of the University of California, Los Angeles, School of Medicine, is serving for 6 months as a special consultant to the National Institute of Allergy and Infectious Diseases.

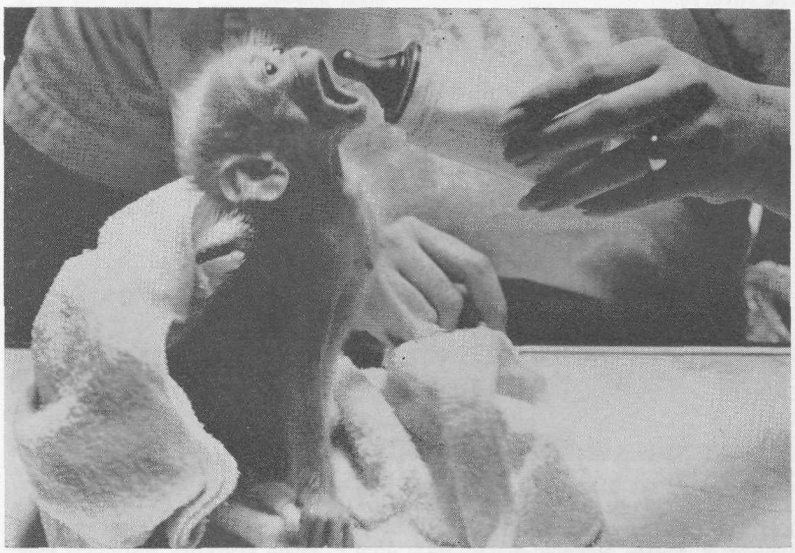
Dr. Rasmussen will evaluate the NIAID extramural program in research on viral diseases of man.

Dr. Rasmussen is reviewing certain promising areas, such as clinical virology, diagnostic virology, and chronic and degenerative diseases, which have recently been established or are being considered by the Institute's extramural program as areas of special emphasis.

He will determine how these areas relate to other NIAID extramural and intramural programs —such as the antiviral substances program—as well as to the virology efforts of the other NIH categorical Institutes.

Completion of his report is expected by early 1973.

From 1968 to 1969 Dr. Rasmussen spent a sabbatical year in the NIAID Rocky Mountain Laboratory in Hamilton, Mont., collaborating with Dr. William Hadlow in research on slow viral diseases.



A baby monkey opens wide for its bottle at the New England Regional Primate Research Center, Southborough, Mass.—one of the seven regional centers supported by the Division of Research Resources. A new booklet, "NIH Primate Research Centers: A Major Scientific Resource," describes the centers in detail, and includes 78 photos of animals, facilities, and researchers in action. A free copy of the 74-page booklet is available from the DRR Information Office.

Saliva Investigations Indicate Hormonal Changes During Normal Pregnancy and Menstrual Cycles

Investigations of saliva as an indicator of body functions show that concentrations of sodium, potassium, and calcium in saliva from the submaxillary glands reflect hormonal changes not only during normal pregnancy, but also during menstrual cycles.

Research was done at Columbia University under the direction of Drs. Stephen Wotman and Irwin D. Mandel with support from the National Institute of Dental Research.

During pregnancy, sodium concentrations are lower than usual in saliva from both submaxillary and parotid salivary glands, although the flow rates of the secretions remain comparable. Usually flow decreases when less sodium is present.

The concentration of calcium in saliva from the submaxillary gland is much lower than usual during pregnancy and rises by about a third immediately after delivery, whereas it remains uniform regardless of pregnancy in parotid saliva.

During pregnancy, there is a higher concentration of potassium in saliva from both glands than there is after delivery.

Further comparisons of these substances in daily collections of both types of saliva were made during the menstrual cycle.

The cycles were divided into four parts: menstrual, preovulatory, mid-cycle (the day when submaxillary calcium was lowest), and premenstrual.

Again, concentration of calcium remains constant in parotid saliva throughout the cycle but fluctuates widely in submaxillary saliva. It drops sharply just after the mid-cycle (around ovulation time).

In submaxillary saliva, sodium concentration is highest during menstruation and lowest at mid-cycle, while potassium levels are the reverse.

In parotid saliva, sodium and potassium levels hold relatively steady throughout the cycle.

Salivary flow rates decrease somewhat at ovulation as is expected when less sodium is present.

The investigators surmise that because estrogen, which affects calcium transport, increases during ovulation, this hormone may account for the low levels of calcium in submaxillary saliva during both ovulation and pregnancy.

They do not know why or how it affects one gland and not the other. The researchers believe that the fluctuations in potassium and sodium are influenced by changes in aldosterone levels as well as in estrogen.

Conference Room B, Westwood Bldg., Closed on Temporary Basis

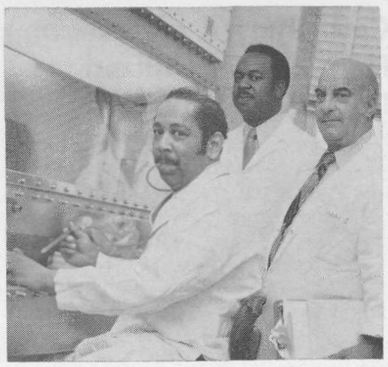
Because of the need for office space, Conference Room B in the Westwood Building, is closed for a temporary period. The quarters will be occupied by OFM until other space can be found.

If possible, present reservations for that conference room will be transferred to space on the reservation.

Rental of outside conference space must be procured, cleared, and justified through the Space Management Section, Ext. 63172.

For rebooking reservations on the campus call Margaret Brown, Ext. 66260.

Graduates of the fifth class of the U.S. Special Police Training Academy stand behind their supervisors. Seated (l to r) are: Ralph A. Stork, chief, Protection and Parking Branch, OAS; Capt. Richard F. Jones, class representative; Gen. William H. Harris, planning officer, OAS; Alan P. Dean, executive secretary, Commission on Human Relations, Montgomery County, guest speaker; James A. Reed, assistant director, PHS Hospital, Baltimore, and William C. Wright, police training officer. Standing (l to r) are: Sgt. Otho Ringgold, PHS Hospital; Pfc. Martin M. Cain; Pfc. Edward Toms, high scholastic award winner; Pfc. John H. Oldfield; Pfc. David K. Merriman; Pfc. Herbert R. Kohler; Pfc. Thomas J. Dempsey; Pfc. James W. Frye; Sgt. Monroe E. Sherman, and Cpl. John E. Carter.



A Special Achievement Group Award was recently made to (l to r): Frank R. Shaw, Granville M. Lewis, and Mark J. Lombardi of the National Institute of Dental Research's Laboratory of Microbiology and Immunology. They were cited for their major contributions to the increased scientific productivity of the Virology Section.

BHME Names Dr. Evans To Black Concerns Post

Dr. Therman Evans, has been named special assistant for Black Concerns in the Office of Health Manpower Opportunity, BHME.

The office was recently established within the Bureau to strengthen the representation of disadvantaged people and minorities in the health professions.

Dr. Evans

After his career in the biological sciences at Howard University where he received a B.S. degree and worked toward an M.S., Dr. Evans entered Howard's School of Medicine, receiving his M.D. in 1971.

He completed his internship at Children's Hospital in Washington, D. C.

Active in community affairs and counseling, Dr. Evans narrated the award-winning film "Code Blue," which aimed to recruit more blacks and other minorities into the health professions.

Dr. Terry Named Chief, Immunology Branch, NCI

Dr. William D. Terry, National Cancer Institute, has been appointed chief of the Immunology Branch, General Laboratories and Clinics. He has been acting chief since the retirement of Dr. John L. Fahey in 1971.

Dr. Terry is coordinator of the Collaborative Research Program in Tumor Immunology. He is responsible for helping develop a national plan for the expansion of research in this area.

He has made significant contributions in the field of immunoglobulin structure, and has published many papers on the subject.

For several years he has participated in the graduate studies program and tutorial seminar program.

PATIENTS

(Continued from Page 1)

operative study is to determine whether photocoagulation helps preserve vision in patients with diabetic retinopathy.

In this therapy an intense beam of light is directed into the eye and focused on a tiny spot in the retina. Light is absorbed by the retina and converted to heat, causing minute burns.

In some cases the light applications are made directly over the patches of new vessels in an attempt to coagulate and occlude them.

In other cases the applications are scattered in a checkerboard pattern over large areas of the retina in the hope there will be an indirect beneficial effect on untreated areas of the retina.

Although photocoagulation has been used extensively in the treatment of diabetic retinopathy in recent years, its true value has not been clearly documented.

Treatment Explained

Furthermore, the several available methods of photocoagulation have not been tested against each other. For this reason patients in the study will be randomly divided into three groups.

One group will be treated with white light from the xenon arc photocoagulator, a second group with the argon laser, which generates a fine but intensely brilliant blue-green beam of light, and a third group with a combination of these two methods.

Initially only one eye of each patient will be treated, while the other is followed as a control. Only if photocoagulation proves beneficial will treatment of the second eye be considered.

Give Complete Exams

Every patient will be given an extensive eye examination and a comprehensive medical examination.

Photographs of the retina will also be taken before treatment to provide objective evidence of the presence of diabetic retinopathy and to classify the stage of the disease.

Follow-up photographs will be taken to assess the effects of treatment. Each patient will be followed for 5 years, during which time he will have several examinations.

A coordinating center for the cooperative study has been established at the University of Maryland in Baltimore.

A separate center for reading and classifying the photographs is operating at the University of Wisconsin in Madison.

D. Horlander Appointed Executive Secretary, NIH Visiting Program

Dorothy P. Horlander, chief of the International Visitors Center, FIC, has also been appointed executive secretary for the NIH Visiting Program.

As executive secretary, she administers the program for the approximately 250 Visiting Scientists, Associates, and Fellows present on the NIH campus at any one time.

Besides formal administrative duties, Mrs. Horlander and her staff assist the visitors with housing, insurance, tax, and other problems related to adjusting to life in this country.

Prior to joining FIC in 1969, she was chief of the Special Events Section in the Clinical Center for 13 years.

Mrs. Horlander came to NIH in 1949, and served in various capacities in the Division of Research Grants, the Office of Research Information, and the Information Office of NINDS.

The Visiting Program offices are now located in the International Visitors Center, Bldg. 16A, and may be reached on Ext. 64335.

Mrs. Horlander helps visiting scientists get oriented with life in the U.S.

Ken Miller Installed as President Of Toastmasters; Succeeds Belin

Ken Miller, Printing and Reproduction Branch, OAS, was installed as president of the NIH Toastmasters Club No. 3421 along with other new officers at a recent club meeting.

Mr. Miller succeeds John Belin who has been elected lieutenant governor for District 36.

Men and women interested in developing their public speaking abilities are invited to attend the meetings every Thursday in Dining Room 2, Clinical Center Cafeteria, at noon.

For further membership information, call Dr. P. Sarma, 654-3400.

Mother, Son Participate in Project Stride; Program Offers Training for Career Status

By Susan Miller
Summer Information Aide

Many people may think their career goals and ambitions are mere dreams because of the lack of money, education, or opportunity. But Ethel Keith, and her son Irvin Keith, found out that there was a way of fulfilling their hopes for having professional careers.

Through Project Stride, NIH is giving career opportunities to Mrs. Keith and her son along with 44 other non-professional employees.

Project Stride provides educational opportunities and on-the-job training for employees in GS 7 or below or in equivalent pay systems. Employees in these classifications cannot advance to professional positions because of a lack of education or experience.

Mrs. Keith, a licensed practical nurse at the out-patient clinic, Clinical Center, has worked there for 16 years, in all departments except Mental Health.

Mrs. Keith received her nursing education at Margaret Murray Washington Vocational School and was attending Federal City College, part of the Upward Mobility Program, when she applied to Project Stride.

The project is giving her a chance to "try and advance" she said. Now, she is working in a grade 5 position; upon completing the program she will have a Bachelor of Science degree in biology.

Mr. Keith, with the Grants Division of the National Institute of Neurological Diseases and Stroke, has worked at NIH for 10 years. He attended Southeastern University part-time from 1965 to 1971.

Status Will Improve

He is a GS-6, but he also will attain professional status once he completes the program.

Mr. Keith, who will concentrate on public information, considers this opportunity a "once in a lifetime deal you can pick up on."

Both mother and son, along with 44 other trainees, were selected from 195 applicants for having the best potential to complete the job. To be eligible, a candidate had to be a permanent, full-time NIH employee with career status—Federal Government employment for at least 3 years.

An interview board headed by Richard Striker, chief of the Career Development Branch, Office of Personnel, and his assistants Stephen Bell and Lou Hernandez, coordinated the program and selections.

Representatives of the NIH Equal Employment Opportunity, the Office of Personnel Management, and American University made up the interview boards.

The trainees will have a 40-hour week, with 50 percent of their time spent in class and 50 percent in on-the-job training. AU will offer classroom training with major areas of study approved by NIH.

Mrs. Keith and her son Irvin have interesting plans for the future. She will work toward a B.S. degree in Biology. Mr. Keith, who describes the project as a "once in a lifetime deal . . .," will concentrate on public information.

According to Mr. Keith, "Project Stride is unique; you put into practice what you are learning in school."

Each person's training assignment is similar to the work that NIH professional employees perform. The program leads to placement in a professional position at NIH but does not commit the project graduate to stay here.

The Office of Personnel Management, along with each Institute and Division, has set up a pool of trainee positions available to Stride students. Duties will increase in responsibility and complexity as the trainee progresses in his studies.

In order to be placed in an occupation after completing Project Stride, the trainee must spend at least one full year, during the 3-year program, in that position.

The trainees began their assignments in mid-July, followed by orientation, academic interviews, and registration at AU.

Along with a training position, each member will carry full academic credits of three or four courses per semester. Students are expected to successfully complete 32 courses. Classes will begin Sept. 11.

On completing the project, the 46 graduates will have degrees in biology, chemistry, general science, social science, management technology, or medical technology.

As summer of '72 began, selected candidates received letters of acceptance from Dr. Robert Q. Marston, NIH Director; Dr. Herbert E. Striner, Dean of College of Continuing Education, AU; Edward Nicholas, assistant director for Operations, OPM; Jane E. Taylor, special assistant to the Director, Office of Upward Mobility, HEW, and Mr. Striker.

Dr. Marston told the first Project Stride class, "Your presence here today marks the beginning of a new career opportunity for you and another opportunity for NIH to better utilize the excellent employees you are."

NIH Visiting Scientists Program Participants

7/12—Dr. Eike P. Nebelin, Germany, Laboratory of Biomedical Sciences. Sponsor: Dr. Erhard Gross, NICHD, Bldg. 10, Rm. 5B11.

7/12—Dr. Marco Trabucchi, Italy, Laboratory of Preclinical Pharmacology. Sponsor: Dr. Erminio Costa, NIMH, Wm. A. White Bldg., St. Elizabeths Hospital.

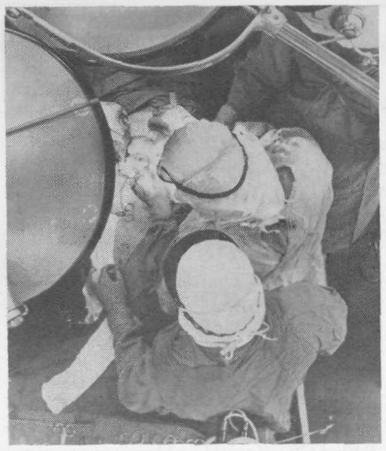
7/16—Dr. Hitoshi Fujisawa, Japan, Laboratory of Biochemical Pharamacology. Sponsor: Dr. Herbert Tabor, NIAMDD, Bldg. 4, Rm. 110.

7/16—Dr. Fairwell Thomas, India, Molecular Diseases Branch. Sponsor: Dr. H. Bryan Brewer, Jr., NHLI, Bldg. 10, Rm. 7D12.

7/17—Dr. Samuel Batzri, Israel, Laboratory of Biochemistry. Sponsor: Dr. Edward D. Korn, NHLI, Bldg. 3, Rm. 318.

8/1—Dr. Robert M. Barr, United Kingdom, Lung Cancer Unit. Sponsor: Dr. Luigi DeLuca, NCI, Bldg. 37, Rm. 3C04.

At a farewell retirement party, Ellis Sheets (l), for 24 years a laboratory technician with NCI, and Mrs. Sheets, listen to all the laudatory remarks about his work. Mr. Sheets worked with Dr. Timothy E. O'Connor on tissue culture studies of the Rauscher leukemia virus in the Viral Oncology Branch. Dr. O'Connor has just finished reading a letter of tribute from Dr. Frank J. Rauscher, Jr., NCI Director.



Pin-pointing the exact location of cardiac arrhythmias (unusually rapid heart beats) which characterize Wolff-Parkinson-White Syndrome, Dr. Andrew Wallace (r) and a laboratory technician monitor impulses transmitted by surface electrodes during actual open chest surgery on a Clinical Research Unit patient at Duke University Medical Center. Arrhythmias are caused by impulses travelling a shortened route between the atrium and the ventricle. By locating and blocking the aberrant channel of the impulses, cardiologists are determining one method of correcting the disorder. WPW has been under study at Duke for 5 years, supported in part by the National Heart and Lung Institute. The CRU is supported by the Division of Research Resources.

3 NIH Components to Expand Research On Acupuncture for Anesthesia, Pain Relief

Dr. Robert Q. Marston, NIH Director, last week announced that NIH will expand its search for knowledge on acupuncture anesthesia and analgesia in the United States.

Dr. Marston said this action is based on ongoing studies of Chinese medicine which began 2½ years ago and on the further recommendations of an ad hoc committee of international experts in the fields of anesthesiology, neurology, neurophysiology, and psychology.

The committee met here July 17-18 under the chairmanship of Dr. John J. Bonica, professor and chairman of the Department of Anesthesiology, University of Washington School of Medicine, Seattle.

Dr. Marston directed three NIH components to assess and identify specific opportunities and needs for research on the use of acupuncture for surgical anesthesia and the relief of chronic pain.

The assessment is to be undertaken by the National Institute of General Medical Sciences, the National Institute of Neurological Diseases and Stroke, and the Fogarty International Center.

It will be accomplished through workshop conferences, to be held at an early date, and by a comprehensive survey of the literature and activities on acupuncture conducted in this country and abroad.

The committee agreed initially—on the basis of clinical experiences described by some of the participants and reports on the observations of others—that acupuncture anesthesia is a significant area of research.

After considering the many suggested uses of acupuncture, the committee recommended that the most valuable first approach in the U.S. are studies on the method's use for surgical anesthesia and for the alleviation of certain chronic pain syndromes.

The ad hoc committee of international experts, headed by Dr. Bonica, agreed that important information on acupuncture would come from the study of patients with well-defined pain syndromes.

Will Test Effects

According to Dr. Bonica, the committee recommended that thorough investigations should be conducted of the effects of acupuncture on various body functions, including the nervous system, circulation, respiration, and metabolism.

They further recommended that the applicability of acupuncture to patients in this country be studied and that its effectiveness be compared with other methods of anesthesia.

In applying acupuncture for relief of chronic pain, the committee concurred that important useful information would come from the study of patients with well-defined pain syndromes, such as neuralgia and other painful states due to nerve injuries and cancer.

They also stressed the great importance of medical exchange between the United States and the People's Republic of China, noting that much can be learned by American physicians and scientists observing at first hand the research and clinical use of acupuncture in that country.

Research and Community Service Awards Begin Attack Against Sickle Cell Disease

The award of grants and contracts totalling $9 million for research and community services directed against sickle cell disease was announced at an HEW press briefing July 20 by Dr. Rudolph E. Jackson, Coordinator of the National Sickle Cell Disease Program and chief of the NHLI's Sickle Cell Disease Branch.

Dr. Jackson was introduced by Dr. Robert Q. Marston, NIH Director, who said " . . . we believe we have begun a balanced attack on sickle cell disease. About half of the total funds will go to research and half toward development of services."

Dr. Jackson pointed out that the awards constitute the Federal Government's first major thrust in the disease, and are in response to President Nixon's February 1971 health message to Congress in which he identified sickle cell anemia as a high-priority disease target and called for increased Federal expenditures in this area during fiscal year 1972.

Dr. Jackson reiterated that the awards, implement the balanced program of research and community services recommended by the HEW Sickle Cell Disease Advisory Committee.

He characterized the National Program as a combined effort between NIH and the Health Services and Mental Health Administration and other Federal, state, and private agencies.

Some Awards Listed

The new awards establish:

- 10 Comprehensive Research and Community Service Centers in nine states and the District of Columbia.

These will be organized around ongoing programs in sickle cell disease—such as the one at Howard University under the direction of Dr. Roland B. Scott—and are designed to bridge the gap between fundamental research, clinical application, and community service.

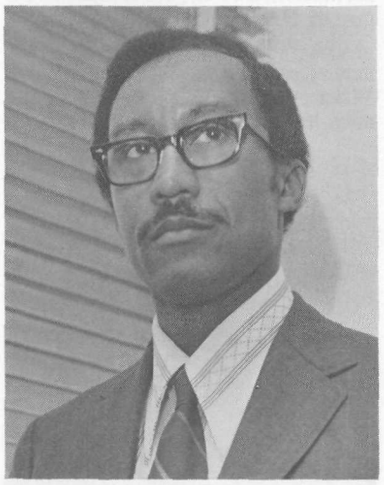
- 19 Screening and Education Clinics in 14 states and D. C.

These will provide screening and definitive diagnosis of sickle cell disease, education of the general population as well as the population at risk and of health personnel, referral of patients to appropriate sources of treatment and follow-up care, and acquisition of detailed data on methodology.

One of these clinics will be operated by the District of Columbia under the direction of Dr. Raymond L. Standard.

Also funded are 34 Collaborative Research and Development contracts for fundamental and applied research into the nature and treatment of this inherited disease that primarily afflicts black people.

At one point during the press briefing, Dr. Jackson responded to a question concerning fears of genocide in connection with the screening and genetic counselling aspects of the program.



Dr. Jackson allayed fears of genocide in connection with the Sickle Cell Disease Program. Any counselling will be for the purpose of informing individuals so that they might make their own decisions, he said.

He stated that any counselling will be for the purpose of informing individuals so that they might make their own decisions about marriage and family planning.

"So, indeed, instead of genocide, I like to consider this program as being 'genosave,'" he said.

Participating in the press briefing were Marjorie Costa, Director of HSMHA's National Center for Family Planning Services; Dr. Dorothy M. Holden, Program Coordinator of the Comprehensive Research and Community Service Center being established at Downstate Medical Center, Brooklyn, N.Y., and Dr. Lionel Rose, Project Director of the Screening and Education Clinic at Provident Hospital, Baltimore.